

Noninterchangeability of parts tends strongly to negative infringement. — *Pittsburg v. Pittsburg*, 109 Fed. 644; 48 C. C. A. 580.

Miller v. Mfg. Co. 151 U. S. 186.

Interchangeability is referred to in *Miller v. Eagle*, 151 U. S. 186 and other cases cited in the argument on behalf of the appellee, as an "important test in determining the question of infringement," and it is contended that interchangeability of parts and functions thus conceded does not meet the requirements for such test, upon the assumption that the interchange involves substantial reorganization of one and the other structure. This contention is without force, under our conclusion that these deviations are plain equivalents within the scope of the patent, and do not depart substantially from the invention. — *Columbia v. Kokomo*, 143 Fed. 116; 74 C. C. A. 310.

§ 529. Tests — Means and Result.

To constitute an infringement, the thing used by the defendant must be such as to substantially embody the patentee's mode of operation, and thereby to attain the same kind of result as was reached by his invention. It is not necessary that the defendant should employ the plaintiff's invention to as good an advantage as he employed it or that the result should be the same in degree: but it must be the same in kind. — *Sewall v. Jones*, 91 U. S. 171; 23 L. Ed. 275.

Winans v. Denmead, 15 How. 330.

We are not unaware of the principle that the mere fact that two machines produce the same effect does not establish that one is an infringement of the other. If it were so, it would operate as an admission that an inventor is entitled to patent his function. To be an infringement "the alleged infringer must have done something more than reached the same result. He must have reached it by substantially the same or similar means or the rule that the function of a machine cannot be patented, is of no practical value." — *Bundy v. Detroit*, 94 Fed. 524; 36 C. C. A. 375.

Westinghouse v. Boyden, 170 U. S. 569; *Machine Co. v. Murphy*, 97 U. S. 120; *Elizabeth v. Pavement Co.* 97 U. S. 126; *Hoyt v. Horne*, 145 U. S. 302.

The machines of complainant and defendants "lack the identity of means and identity of operation which must be combined with identity of result to constitute infringement." — *U. S. Envelope v. Sherman*, 122 Fed. 465; 58 C. C. A. 624.

Kokomo v. Kitselman, 189 U. S. 8.

§ 530. Tests — Utility and Use.

It is not necessary that the defendant's cars should employ the plaintiff's invention to as good an advantage as he employed it, or that the result should be precisely the same in degree. — *Winans v. Denmead*, 15 How. 330; 14 L. Ed. 717.

The diversity of inherent quality of two devices or manufactures may be considered in determining identity or diversity of invention. — *Dobson v. Cubley*, 149 U. S. 117; 37 L. Ed. 671; 13 S. Ct. 796.

§ 531. Tests — Miscellaneous.

If the defendants do not fix or fasten their device to the machine in the manner stated in the specification, either at all or substantially in the same manner as the patentee, or fix or fasten it only in a manner known and used

before the plaintiff's supposed invention, the defendants are not guilty of any violation or infringement of plaintiff's patent. — *Carver v. Hyde*, 16 Pet. 513; 10 L. Ed. 1051.

In the case of an American reissue upon an original also patented abroad, if it were assumed that manufacture were begun under the precise terms of the foreign patents and infringement were found, that would be conclusive that the reissue was for the same invention covered by the foreign patents which were founded upon the original American patent. — *Commercial v. Fairbank*, 135 U. S. 176; 34 L. Ed. 88; 10 S. Ct. 972.

The fact that the defendant himself subsequently made application for the patent, which upon the plaintiff's interference, was awarded to the latter, indicates quite clearly that the defendant did not consider it as accomplishing the purpose sought by his subsequent application. — *DuBois v. Kirk*, 158 U. S. 58; 39 L. Ed. 895; 15 S. Ct. 729.

If Rose had taken a patent for his umbrella and case combined, a different question would be presented. He did not do this, however, but took a separate patent for the case, because he desired and intended to obtain a monopoly in cases, not simply for the peculiar umbrella manufactured under his previous patent, but for all others to which it could be applied. The effort now made to read the patents together and to treat them substantially as one, covering the umbrella and case combined, is, of course, unjustifiable. The patent for the case must stand alone, as issued, and so considered it clearly does not cover any case from which either of its essential elements is omitted. — *Rose v. Hirsh*, 77 Fed. 469; 23 C. C. A. 246.

When experimental tests are necessary to distinguish one device from another, it is manifestly an impracticable, not to say dangerous, proposition that the making or using of either under a given patent may be declared to be an infringement of a different patent upon the other, would seem to apply with equal or greater force here. — *Western Elec. v. Standard Co.* 84 Fed. 654; 28 C. C. A. 512.

Following *Thomson-Houston v. Western*, 70 Fed. 69.

Comparison of infringing device with prior devices alleged to anticipate. — *Dowagiac v. Minnesota*, 118 Fed. 136; 55 C. C. A. 86.

A copy of the thing described in a patent, either without variation, or with such variations as are consistent with its being in substance the same thing, is for all the purposes of the patent law the same device as that described in the patent. — *Lourie v. Lenhart*, 130 Fed. 122; 64 C. C. A. 456.

Burr v. Duryee, 1 Wall. 531.

§ 532. Miscellaneous Infringement Rules.

The rights of property and exclusive use granted to a patentee does not extend to a foreign vessel lawfully entering one of our ports; and that the use of such improvement, in the construction, fitting out or equipment of such vessel while she is coming into or going out of a port of the United States, is not an infringement of the rights of an American patentee, provided it was placed upon her in a foreign port, and authorized by the laws of the country to which she belongs. — *Brown v. Duchesne*, 60 U. S. 183; 15 L. Ed. 595.

When infringement is admitted, the language is satisfied by assuming the smallest number consistent with the use of the word in plural. — *Jones v. Morehead*, 58 U. S. 155; 17 L. Ed. 662.

If, on the other hand, the Cawood machine was novel, as we think it was, if it was not anticipated by the Springfield, the conclusion is inevitable that neither the Michigan Southern nor the Bayonet vice is an infringement. — *R. R. v. Turrill*, 94 U. S. 695; 24 L. Ed. 238.

The use of a well (driven well) so constructed is, therefore, a continuing infringement, as every time water is drawn from it the patented process is necessarily used. — *Beedle v. Bennett*, 122 U. S. 71; 30 L. Ed. 1074; 7 S. Ct. 1090.

An inventor has no property right in his discovery which is exclusive except under his patent; and therefore the provisions of sec. 4899 U. S. R. S. is not unconstitutional as depriving the inventor of his property without compensation. — *Dable v. Flint*, 137 U. S. 41; 34 L. Ed. 618; 11 S. Ct. 8.

Gayler v. Wilder, 51 U. S. 477; *Brown v. Duchesne*, 60 U. S. 183; *Marsh v. Nichols*, 128 U. S. 605.

Purchasers from an assignee in bankruptcy cannot maintain a suit in equity against third persons claiming adverse interests, if at the time of the purchase from the assignee his right of action was, under the Bankruptcy Act, barred by the lapse of time. — *Sessions v. Romadka*, 145 U. S. 29; 36 L. Ed. 609; 12 S. Ct. 799.

Gifford v. Helms, 98 U. S. 248; *Wisner v. Brown*, 122 U. S. 214.

When the essential operation of the two devices is so different there is no equity in charging infringement upon the defendant by an apparently accidental adoption of an immaterial feature of the plaintiff's patent. — *B. & S. Fastener v. Kractzer*, 150 U. S. 111; 37 L. Ed. 1019; 14 S. Ct. 48.

Where complainant declares on a certain claim or claims, the court will not consider the possible infringement of other claims. — *Gordon v. Warder*, 150 U. S. 47; 37 L. Ed. 992; 14 S. Ct. 32.

When a patent has been surrendered and reissued, and such reissue is held void, the patentee cannot sue upon the original. — *Eby v. King*, 158 U. S. 366; 39 L. Ed. 1018; 15 S. Ct. 972.

Moffitt v. Garr, 66 U. S. 273; *Reedy v. Scott*, 90 U. S. 352; *Peck v. Collins*, 103 U. S. 660; *McMurray v. Mallory*, 111 U. S. 97; *Gage v. Herring*, 107 U. S. 640.

If a patentee could, under any circumstances, sue to recover for the use of a patent before it was granted (as to which it was held in *Gayler v. Wilder*, 10 How. 477; *Brown v. Duchesne*, 19 How. 183; *Marsh v. Nichols*, 128 U. S. 612; *Sargent v. Seagrave*, 2 Curt. 553; and *Rein v. Clayton*, 37 Fed. 354 — that an inventor has no exclusive right before a patent has been issued) it certainly could not apply to a case where the patentee was not the inventor of the thing patented; where the device has been in public use for more than two years, and where the government had protested against any patent being issued for it. — *Kirk v. U. S.* 163 U. S. 49; 41 L. Ed. 66; 16 S. Ct. 911.

It is insisted that the court had no right to consider an earlier patent of the inventor of the patent in suit as anticipating the one in suit; and reference is made to *Cantrell v. Wallick*, 117 U. S. 689 for the proposition that:

“The defendant cannot excuse or defend himself against the charge of

infringement of the letters patent in suit, by saying that he infringed an earlier patent rather than the patent claimed in this case."

The proposition is neither to be found nor has it support in the case cited, and the contrary is well settled. — *Barnes v. Walworth*, 60 Fed. 605; 9 C. C. A. 154.

In the machine of the patent, the platen is operated by the check in the hand of the workman; in the defendants' machine it is operated by the clock-work previously wound up. This substantial difference seems to run through the whole and to take the defendants' machine out of the scope of all of these claims. — *Bunday v. Columbian*, 64 Fed. 851; 12 C. C. A. 442.

If, then, a patentee has the exclusive right to the use of his invention or discovery, during the term of his patent, it would seem to follow that any use by another, unauthorized by the patentee, would be an infringement of his monopoly. If, therefore, he can find a purchaser for a machine subject only to certain specified uses, any violation of the privileges granted would be an infringement, for which the remedies granted patentees would be appropriate. — *Heaton v. Eureka*, 77 Fed. 288; 25 C. C. A. 267.

Rubber Co. v. Goodyear, 9 Wall. 788; *Burr v. Duryee*, Fed. Cas. 2190; *Mfg. Co. v. Owsly*, 27 Fed. 100; *Steam Cutter v. Sheldon*, 5 Fish. 477; *Rob. Pat. secs. 812-815, 1250*.

A final decree holding a machine not to be infringement is conclusive with reference to the identical machine in the hands of a purchaser. — *Norton v. San Jose*, 79 Fed. 793; 25 C. C. A. 194.

Johnson v. Wharton, 152 U. S. 252; *Last Chance v. Tyler*, 157 U. S. 683; *Railroad v. National*, 102 U. S. 14; *Stout v. Lye*, 103 U. S. 66.

The adjustment was made after an interlocutory decree for an injunction, and for an accounting, on a bill in equity which related to the unauthorized use of a patented device in a single machine by the respondents below, who were not manufacturers, and who had indicated no disposition to make any use of the device except in that machine. It included a license covering the machine, and a release of all damages, profits and costs in the suit. Consequently, all controversy between the parties had ceased; and, if the adjustment had been properly pleaded, it is clear that the court below would have had no occasion to consider the case further, and a final decree against the respondents below, whether for an injunction or otherwise, would have been erroneous. In this respect the case would have been essentially different from those in which it had been held that infringers cannot deprive a patentee of the just fruits of his litigation, including an injunction, by ceasing to infringe of their own motion alone. — *Marden v. Campbell*, 79 Fed. 653; 25 C. C. A. 142.

See, *Gamewell v. Municipal*, 77 Fed. 490.

The fact that the owner of a patent has offered to sell licenses does not give anyone the right to make trial tests of his invention. — *Clerk v. Tannage*, 84 Fed. 643; 28 C. C. A. 501.

The fact that the defendants are satisfied to use the machine only in those operations wherein resides its chief practical value, and are content to refrain from employing it in what must be regarded as operations of an unusual or subordinate character, does not avail as a defence. — *Heap v. Green*, 91 Fed. 792; 34 C. C. A. 86.

For a remarkable holding as to what is and what is not irreparable injury to complainant or defendant, see *Pacific v. Alaska*, 100 Fed. 462; 40 C. C. A. 494.

How easy it was for Hall, who commenced work under him as an apprentice, and for years was engaged in the same shop upon Painters' devices, to absorb the inventive idea, and to produce the same results by some equivalent method. — *Crown v. Aluminum*, 108 Fed. 845; 48 C. C. A. 72.

Machine Co. v. Lancaster, 129 U. S. 263; *Sessions v. Romadka*, 145 U. S. 29; *McCormick v. Aultman*, 69 Fed. 371.

The contract provided that the amount to be paid complainant should be determined by a court of competent jurisdiction. The action was for infringement. The court was asked to instruct the jury that there was no evidence showing infringement. *Held*: There is no escape from the conclusion that this instruction should have been given. What was done by the defendants was done under the agreement and with the full consent of the plaintiffs. — *Kilburn v. Holmes*, 121 Fed. 750; 58 C. C. A. 116.

That the fact that the charged infringement took place during the preceding six years need not be specially pleaded, either at law or in equity; and that the burden of proof is on the defendant, see *Peters v. Hanger*, 134 Fed. 586; 67 C. C. A. 386.

INJUNCTION.

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§ 533. Statutory Provision.

The several courts vested with jurisdiction of cases arising under the patent laws shall have power to grant injunctions according to the course and principles of courts of equity, to prevent the violation of any right

secured by patent, on such terms as the court may deem reasonable; * * *
— R. S. 4921.

§ 534. General Statement.

One approaching for the first time the multitude of holdings upon the subject of preliminary injunctions is inclined to conclude the law is chaotic. Such, however, is not the case. If it is borne in mind that it is at this point that the court comes into the thick of the fight, where, more often perhaps than anywhere else, greed and overreaching is all too common; if it is borne in mind that the record on which a motion for a preliminary injunction is made and the record in opposition thereto, usually consist, not of sober proofs, but *ex parte* statements made when the blood of the combatants is over-heated; if it is borne in mind that each case presents its own peculiar problems — if these considerations are before one, it will be seen that the courts have, as a rule, pursued a very even course and kept the parties from each other's throats with much composure. The author would be presuming indeed to attempt, at this point, to state a general rule or to sum up the law on the subject. It is not the place for fixed rules; it is the place for the exercise of judicial discretion, unhampered by any hard-and-fast rules; and it is only by the exercise of that discretion, so unhampered, that industrial competition involving patents is kept from descending to guerrilla warfare.

§ 535. Appeals — Comity.

It has been decided in this court, and in the courts of appeals of the Second and Seventh circuits, that an adjudication of another circuit court than that whose action is being considered, finding the validity of the patent and infringement, is a sufficient ground, not only in the circuit court for an order granting a preliminary injunction, but also in the appellate court for affirming such an order. — *Duplex v. Campbell*, 69 Fed. 250; 16 C. C. A. 220.

Blount v. Societe, 53 Fed. 98; *American v. National*, 51 Fed. 229; *Electric v. Edison*, 61 Fed. 834.

Another court of co-ordinate jurisdiction was engaged in the same investigation and examination, and had issued its temporary injunction. Under these circumstances it seemed to the learned judge below that the status quo should be maintained. Decree affirmed. — *U. S. Gramophone v. Seaman*, 113 Fed. 745; 51 C. C. A. 419.

§ 536. Appeals — Contempt, General.

That after mandate of the appellate court instituting an injunction has been filed in the court below, jurisdiction to punish contempt thereafter arising rests with the circuit court, see — *Dowagiac v. Minnesota*, 124 Fed. 735; 61 C. C. A. 57.

Neither is the result to turn upon any question of conflicting fact, for it is not the province of a reviewing tribunal to weigh the facts upon a writ of error. — *Bullock v. Westinghouse*, 129 Fed. 105; 63 C. C. A. 607.

A contempt proceeding is classified as a misdemeanor and not as a felony. In *re Acker*, 66 Fed. 291. Misdemeanors are reviewable by this court upon writ of error by virtue of the broad appellate powers conferred by the act of Mar. 3, 1891, c. 517, 26 Stat. 826, establishing Circuit Courts of Appeal, and defining and regulating the appellate powers of United States courts. If, therefore, the imposition of the fine complained of "was a judgment in a criminal case," as it is defined to be in *New Orleans v. Steamship*, 20 Wall. 387, it was a judgment in a misdemeanor case; for contempts are universally

classified as misdemeanors, and not felonies. In *re Acker*, 66 Fed. 291. If a judgment in a misdemeanor case, it is reviewable upon writ of error to this court. This conclusion was reached in the Second Circuit in *Gould v. Sessions*, 67 Fed. 163. But in *Nassau v. Sprague*, 95 Fed. 415, and *Christensen v. Westinghouse*, 129 Fed. 96, writs of error were dismissed upon the authority of *In re Debs*, 158 U. S. 564. — *Bullock v. Westinghouse*, 129 Fed. 105; 63 C. C. A. 607.

§ 537. Appeals — Contempt — Rule of Debs Case.

An appeal does not lie from an order of contempt for violation of injunction, because if it be treated as interlocutory it can come here only on appeal from final decree; and if it be treated as an independent proceeding, it is in effect a judgment in a criminal case, and is reviewable only on a writ of error. — *Sessions v. Gould*, 63 Fed. 1001; 11 C. C. A. 550.

Hayes v. Fischer, 102 U. S. 121; *Worden v. Searles*, 121 U. S. 14; *New Orleans v. New York*, 20 Wall. 387; *Ex parte Kearney*, 7 Wheat. 39; *Saltmarsh v. Tut-hill*, 12 How. 387; *Kearney v. Denn*, 15 Wall. 51; *Knapp v. R. R.* 20 Wall. 117; *Kerr v. Clappitt*, 95 U. S. 188.

An order in contempt for violation of injunction is reviewable on a writ of error, and not by appeal. — *Gould v. Sessions*, 67 Fed. 163; 14 C. C. A. 366.

New Orleans v. Steamship, 20 Wall. 387; *Worden v. Searles*, 121 U. S. 14.

An order imposing punishment for violation of a preliminary injunction, is not appealable until after final decree, see — *Nassau v. Sprague*, 95 Fed. 415; 37 C. C. A. 146.

Debs Case, 158 U. S. 564.

Although the contempt consist in the violation of an injunction granted by a court of equity, the proceeding for its punishment "is a new and distinct proceeding, and is quite independent of the equities of the case on which the decree is founded," and "an appeal is not an appropriate remedy for obtaining a review." — *Bullock v. Westinghouse*, 129 Fed. 105; 63 C. C. A. 607.

City of Frankfort v. Deposit, 127 Fed. 812; *New Orleans v. Steamship*, 20 Wall. 387; *In re Chetwood*, 165 U. S. 443.

Upon the authority of the *Debs Case*, we are constrained to hold that the order cannot be reviewed, except upon an appeal from the final decree in the cause. — *Christensen v. Westinghouse*, 129 Fed. 96; 63 C. C. A. 598.

Following *In re Debs*, 158 U. S. 564.

Gould v. Sessions, 67 Fed. 163; *Nassau v. Sprague*, 95 Fed. 415; *Cary v. Acme*, 108 Fed. 873; *Ex parte Kearney*, 7 Wheat. 38; *New Orleans v. Steamship*, 20 Wall. 387; *Butler v. Fayerweather*, 91 Fed. 458; *Worden v. Searles*, 121 U. S. 14.

In deciding that the defendant had violated the injunction, the court necessarily passed upon the question whether the defendant had sold the valves, and whether the valves were an infringement of the complainant's patent. Upon writ of error the court cannot review the questions of fact; its review is confined to the questions of law only. This is the rule when contempt proceedings are under review. — *Christensen v. Westinghouse*, 135 Fed. 774; 68 C. C. A. 476.

In re Debs, 158 U. S. 564; *Besette v. Conkey*, 194 U. S. 334.

§ 538. Appeals — Contempt — Reverse of Rule in Debs Case.

These authorities show that when an order imposing a fine for violation of an injunction is substantially one to reimburse the party injured by the disobedience, although called on in contempt proceeding, is to be regarded as merely an interlocutory order, and to be revised only on appeal from the final decree.

In the present case, however, the fine payable to the United States was clearly punitive and in vindication of the authority of the court, and, we think, as such, it dominates the proceeding, and fixes its character. Considered in that aspect, the writ of error was justified and the Circuit Court of Appeals should have taken jurisdiction. — *In re Christensen*, 194 U. S. 458; 48 L. Ed. 1072; 24 S. Ct. 729.

Besette v. Conkey, 194 U. S. 324; *New Orleans v. N. Y.* 20 Wall. 387; *Hayes v. Fisher*, 102 U. S. 121; *Ex parte Debs*, 159 U. S. 251; *O'Neal v. U. S.* 190 U. S. 36; *Worden v. Searles*, 121 U. S. 14.

The court below considered the law and the facts, and determined judicially whether or not the defendants should be punished for contempt. It decided that the defendants were not guilty. The question whether or not this decision was right is reviewable on appeal. — *Minnesota v. Dowagiac*, 126 Fed. 746; 61 C. C. A. 352.

Enoch Morgans v. Gibson, 122 Fed. 420.

The claim that a defendant in such circumstances must await the final result of the cause in which the injunction was granted before he can have the judgment inflicting fine or imprisonment reviewed upon the theory that the judgment is not final is absolutely unsupportable. If it be an independent and distinct proceeding from the residue of the case, it will be no more final after that case has reached a final decree than when the fine was imposed. To say that he may pay his fine or endure his imprisonment and review the legality of the matter at some indefinite time in the future is to deny, in effect, the right of review at all. — *Bullock v. Westinghouse*, 129 Fed. 105; 63 C. C. A. 607.

§ 539. Appeals — Decision on Merits.

Whether upon such an appeal the court will hear and determine the case on its merits is not here decided. — *Davis v. Edison*, 60 Fed. 276; 8 C. C. A. 615. Distinguished in *Thomson v. Kelsey*, 75 Fed. 1005.

Blount v. Societe, 53 Fed. 98; *American v. National*, 51 Fed. 229; *Consolidated v. Accumulator*, 55 Fed. 485; *Hart v. Buckner*, 54 Fed. 925; *Workmen's Council v. New Orleans*, 57 Fed. 85; *Daniell Ch. Pr.* 1462 (4 ed.); *High Inj.* sec. 1696; *Curtis v. Wheel Co.* 58 Fed. 784.

It follows, therefore, that if the court finds it essential to pass upon the merits of the case in order to determine the propriety of the injunction, and in no way reserves to the lower court a right to review or re-examine the grounds upon which it had originally proceeded, the decision of this court becomes the law of the case. — *Bissell v. Goshen*, 72 Fed. 545; 19 C. C. A. 25.

Overruling, *Watch Co. v. Robbins*, 52 Fed. 337.

Daniell Ch. 2, 1492; *Newark v. Newark*, 23 N. J. Eq. 515; *M. & W. Code*, Tenn. 3874; *Mathis v. Meek*, 1 Heisk. 534; *Graham v. Merrill*, 5 Cold. 631; *Shinkle v. Covington*, 83 Ky. 420; *Maxwell v. Schwartz*, 57 N. W. 141; *Schlender v. Corey*, 30 Minn. 501; *Ryerson v. Eldred*, 18 Mich. 12; *Perrin v. Lepper*, 72 Mich. 541; *Richmond v. Atwood*, 52 Fed. 10; *Marden v. Mfg. Co.* 67 Fed. 809; *Construction v. Young*, 59 Fed. 721; *Mfg. Co. v. Griswold*, 67 Fed. 1017; *Electric v. Edison*, 59 Fed. 501; *American v. National*, 51 Fed. 229; *Curtis v. Wheel*, 58 Fed. 784; *Union v. Johnson*, 61 Fed. 940; *Consolidated v. Accumulator*, 55 Fed. 485;

Green v. Mills, 69 Fed. 852; *Jones v. Munger*, 50 Fed. 785; *Electric v. Edison*, 61 Fed. 834; *Andrews v. Pipe*, 61 Fed. 782; *Piedmont v. Pacific*, 58 Fed. 226.

Every application to a circuit court for an injunction or temporary restraining order should be considered on its merits, and the ruling or opinion of another court upon any question involved should be given only its just and reasonable weight according to the circumstances. The statute gives the right of appeal; the Supreme Court has determined that the review, so far as may be, shall extend to the merits; and it is not consistent to say that the decision of an inferior court must be pronounced on one basis and reviewed on another. — *Stover v. Mast*, 89 Fed. 333; 32 C. C. A. 231.

Shortly after its organization, this court had occasion to enunciate the proposition that where there was an appeal from an order granting a preliminary injunction, the court below having followed an adjudication at circuit sustaining the patent after contest upon pleading and proof, such adjudication is to have the same weight which it should have before the circuit court. "Appeals from orders," we said "are not to be confounded with appeals from final decrees, and the rule which we have thus stated will not prevent our review of the adjudication itself, whenever it and the record upon which it was made shall be presented upon appeal. The tendency of any different rule would be to produce confusion, and convert the review of the interlocutory order into a review of the final adjudication upon which it was founded." — *Consolidated v. Hays*, 100 Fed. 984; 41 C. C. A. 142.

American v. National, 51 Fed. 229.

That the appellate court may, in a proper case, consider the validity of the patent in suit upon an appeal from a preliminary injunction order, see *Stearns-Roger v. Brown*, 114 Fed. 939; 52 C. C. A. 559.

§ 540. Appeals — Dismissing Bill.

If an injunction is granted by an interlocutory order and the order is taken on appeal to the circuit court of appeals, and that court is of the opinion that the patent is, on its face, absolutely void, it would be a waste of time and an unnecessary continuance of litigation to simply enter an order setting aside the injunction and remanding the case for further proceedings. The direct and obvious way is to order a dismissal of the case, and thus end the litigation. — *Ex Parte National*, 201 U. S. 156; 26 S. Ct. 404.

That the court may consider the entire subject matter of a litigation and make final disposition on an appeal from an injunction order, see *Rubens v. Wheatfield*, 93 Fed. 677; 35 C. C. A. 537.

The case is one in which it is apparent that the complainant cannot ultimately prevail, and following the practice sanctioned by *Mast v. Stover*, 177 U. S. 485, the bill should be dismissed. — *Brill v. Peckham*, 108 Fed. 267; 47 C. C. A. 315.

§ 541. Appeals — Prior Adjudication.

The appellate court is to examine the interlocutory decision of the circuit court in the light of the affidavits, and of the history of the patent, and the adjudications thereon, which were presented to that court. The adjudication upon which the motion for preliminary injunction was based, not being the subject of the appeal, it is to have the same weight which it should have before the circuit court. — *American v. National*, 51 Fed. 229; 2 C. C. A. 165.

While the circuit court, upon a motion for an injunction, might deem itself constrained, contrary to its own judgment, to adopt the rulings of another circuit court, upon questions of law made at a final hearing, this court is at liberty to re-examine such rulings, dispose of the questions of law conformably to its own convictions and accord to the former adjudications such weight as in its own judgment it was entitled to upon the motion. In the absence of some controlling reason for disregarding it, the former adjudication should have the same weight in this court which it has as the foundation for a preliminary injunction before the circuit court. — *American v. National*, 51 Fed. 229; 2 C. C. A. 165.

Purifier Co. v. Christian, 3 Ban. & A. 42.

The vital question in this case is presented with approximate accuracy upon the face of the patent, and does not depend upon controverted questions of fact. This court has, therefore, been at liberty, in accordance with its statement of the weight to be given to a prior adjudication upon an appealed order for a preliminary injunction (*American v. National*, 51 Fed. 229) to re-examine the former adjudication, and dispose of the question in accordance with its own convictions. — *Curtis v. Overman W. Co.* 58 Fed. 784; 7 C. C. A. 493.

In *Davis v. Edison*, 60 Fed. 276, this court suggested that, on an appeal of this class, it properly would not cut down the appellant to the mere question whether the court below had acted within the limits of its discretion. Nevertheless, this court, in the determination of the question of the allowance of a temporary injunction in favor of a patentee, is governed by the same general rules as the circuit court, and must, with necessary limitations, put itself in the place of that court. This observation applies to the extent of requiring us to give their proper effect to prior adjudications establishing the validity of the patent in suit, or determining its construction. The force of such adjudications in connection with applications for temporary injunctions in patent causes has been uniformly stated in substantially the same terms, but nowhere better than by the circuit court of appeals for the seventh circuit in *Electric v. Edison*, 61 Fed. 834. "It may be difficult to formulate a rule that will comprehend all the conditions which could be presented, but we think it safe to say that in general, when the validity of a patent has been sustained by prior adjudication upon final hearing, and after bona fide and strenuous contest, the matter of its validity upon motion for preliminary injunction is no longer at issue, all defense, except that of infringement, being reserved to the final hearing, subject however, to the single exception that, where a new defense is interposed, the evidence to support it must be so cogent and persuasive as to impress the court with the conviction that, if it had been presented and considered in the former case, it would probably have availed to a contrary conclusion." — *Bresnahan v. Tripp*, 72 Fed. 920; 19 C. C. A. 237.

The adjudication upon which the motion for preliminary injunction was based, not being the subject of appeal, is to have the same weight which it should have before the circuit court, in the absence of some controlling reason for disregarding it. — *Consolidated v. Littauer*, 84 Fed. 164; 28 C. C. A. 133.

American v. National, 51 Fed. 229.

Upon an appeal from an order granting an injunction, the Circuit Court of Appeals is at liberty to re-examine the decision of another circuit court, which ruling, the court granting the injunction felt constrained to follow, and

dispose of the questions of law, conformably to its own convictions. — *Thomson-Houston v. Western*, 158 Fed. 813 (2d case); 86 C. C. A. 73.

§ 542. Appeals — Refusal to Grant.

It is to be noted that the act relative to appeals has been twice amended, and that since the last amendment (Act June 6, 1900, 31 Stat. 660) no appeal lies from an order refusing or dissolving an injunction. Many decisions, rendered while the law distinctly allowed appeals from orders refusing or dissolving injunctions, are now without force or effect.

It will be noted that after this second amendment (Chap. 803, Act June 6, 1900) the section remained with no provision authorizing an appeal from an order refusing or dissolving an injunction. — *Westinghouse v. Christensen*, 104 Fed. 622; 44 C. C. A. 92.

This was an appeal by the complainant from so much of an interlocutory decree in the court below, entered after hearing on bill, answer, and proofs, as refused an injunction asked for by it. The circuit courts of appeals in two circuits have decided that this act abrogated the provisions of law giving us jurisdiction in appeals of this character. — *National v. Automatic*, 105 Fed. 670; 44 C. C. A. 664.

Wire Co. v. Boyce, 104 Fed. 172; *Westinghouse v. Christensen*, 104 Fed. 622.

That an appeal from an order refusing a preliminary injunction, does not lie in view of the act of 1900, see *Western v. Williams-Abbott*, 108 Fed. 952; 48 C. C. A. 159.

Wire Co. v. Boyce, 104 Fed. 172; *Westinghouse v. Christensen*, 104 Fed. 622.

That an appeal from an order denying a motion for a preliminary injunction does not lie, see *American v. Vaught*, 108 Fed. 571; 47 C. C. A. 496.

Wire Co. v. Boyce, 104 Fed. 172; *Westinghouse v. Christensen*, 104 Fed. 622.

Under Act Cong. June 6, 1900 (31 Stat. 660) this court no longer can entertain an appeal from an interlocutory decree refusing to dissolve an injunction. — *Berliner v. Seaman*, 113 Fed. 750; 51 C. C. A. 440.

Westinghouse v. Christensen, 104 Fed. 622; *Wire Co. v. Boyce*, 104 Fed. 173; *National v. Automatic*, 105 Fed. 670; *Heinze v. Mining Co.* 107 Fed. 165; *Rowan v. Ide*, 107 Fed. 161.

That a party defendant not brought within the terms of a preliminary injunction has no right of appeal, see *Stearns-Roger v. Brown*, 114 Fed. 939; 52 C. C. A. 559.

§ 543. Appeals — Sound Discretion.

By no action of the court below could it enable this court finally to determine all the questions between the parties to the action, because it is not within the proper province of this court to do so on an appeal from an order granting a preliminary injunction. We are to consider the correctness of the order from the same standpoint as that occupied by the court granting it, and if we find, after a consideration of the grounds presented to that court for its action, that its legal discretion to grant or withhold the order was not improvidently exercised, we should not disturb its action. — *Duplex v. Campbell*, 69 Fed. 250; 16 C. C. A. 220.

Blount v. Societe, 53 Fed. 98.

That on such appeal the question to be considered is whether the injunction was improvidently granted, see *U. S. Gramophone v. Seaman*, 113 Fed. 745; 51 C. C. A. 419.

Welsbach v. Cosmopolitan, 104 Fed. 84; *Ritter v. Ulman*, 78 Fed. 222.

It is enough to say that appellants failed to show that the provisional order was improvidently entered; and, inasmuch as the case will probably be before us again on its final hearing, no further reasons for our judgment need be given. — *Bartholomew v. Union*, 113 Fed. 289; 51 C. C. A. 250.

The law has placed upon these courts the duty to exercise this discretion. It has imposed upon them the responsibility of its exercise wisely, and has left them much latitude for action within the rules which should guide them; and if there has been no violation of those rules, an appellate court ought not to interfere with the results of the exercise of their discretion. — *Stearns-Roger v. Brown*, 114 Fed. 939; 52 C. C. A. 559.

The case is now in the hands of the learned judge below, who heard it upon its merits, and who states in his opinion granting the preliminary injunction that his purpose is to look into the subject anew, and form an individual judgment of his own. We are entitled to the benefit of his views upon the serious question whether or not the defendants' machines infringe the patent in suit, and upon the merits of the case generally under the plenary proofs. We therefore will confine ourselves to the single question whether or not the court erred in granting the preliminary injunction. — *American v. Cimiotti*, 118 Fed. 838; 55 C. C. A. 513.

We can see no abuse of discretion in the action of the court below. — *Rahley v. Columbia*, 122 Fed. 623; 58 C. C. A. 639.

Southern Pacific v. Earl, 82 Fed. 690.

The record of the case shows that the Circuit Court proceeded in the case with much deliberation and great care. While a preliminary injunction is to be cautiously used by a court of equity, it should not be withheld where, in the exercise of a sound judgment, it is necessary to prevent injustice. — *Continuous v. Schmertz*, 153 Fed. 577; 82 C. C. A. 587.

§ 544. Appeals — What Considered on.

We know of no reason why to save a protracted litigation, the court may not order the bill to be dismissed. Ordinarily, if the case involve a question of fact, we think the parties are entitled to be put to their evidence. — *Mast v. Stover*, 177 U. S. 485; 44 L. Ed. 856; 20 S. Ct. 708.

Gardt v. Brown, 113 Ill. 475; *Green v. Mills*, 69 Fed. 852; *Knoxville v. Africa*, 77 Fed. 501.

It will be noticed that the appeal is allowed from an interlocutory order or decree granting or continuing an injunction, that it must be taken within 30 days, that it is given precedence in the appellate court, that the other proceedings in the lower court are not to be stayed, and that the lower court may require an additional bond. Obviously that which is contemplated is a review of the interlocutory order, and of that only. It was not intended that the cause as a whole should be transferred to the appellate court prior to the final decree. The case, except for the hearing on the appeal from the interlocutory order, is to proceed in the lower court as though no such appeal had been taken, unless otherwise specially ordered. — *Ex Parte National*, 201 U. S. 156; 26 S. Ct. 404.

We have held at the present term that on an appeal under the seventh section of the Act of March, 1891, from an interlocutory order granting an injunction, this court, even with the consent of the parties, could not properly pronounce any final judgment or decree on the merits of the controversy in respect to the validity of the patent involved, and its infringement, inasmuch as these questions remained in the lower court for final adjudication, in the exercise of its original jurisdiction. But while this court, on appeals like the present, may not properly pass upon the merits of the controversies involved in the litigation, it may incidentally consider the questions relating to the validity and infringement of the patent, as well as all other facts bearing upon the propriety of sustaining or dissolving the injunction awarded. — *Blount v. Societe*, 53 Fed. 98; 3 C. C. A. 455.

Watch Co. v. Robbins, 52 Fed. 337.

It is only when the determination of the question whether the injunction was erroneous so requires us to look into the whole case on its merits that we shall feel disposed to follow the course pursued in *Richmond v. Atwood*, 52 Fed. 10. — *Gamewell v. Municipal*, 61 Fed. 208; 9 C. C. A. 450.

There would seem to be some divergence of opinion in the circuit courts of appeals upon the question of the extent to which this court should go in review of an exercise of discretion in the court below in granting a preliminary injunction. *Jones v. Munger*, 50 Fed. 785; *Watch Co. v. Robbins*, 52 Fed. 337; *Blount v. Societe*, 53 Fed. 98; *Consolidated v. Accumulator*, 55 Fed. 485; *American v. National*, 51 Fed. 229; *Davis v. Edison*, 60 Fed. 276. — *Electric v. Edison*, 61 Fed. 834; 10 C. C. A. 106.

Where a preliminary injunction is granted upon a prima facie showing and without the determination of the merits, this court will ordinarily, on an appeal, consider only the question as to whether, on the prima facie case made, there has been an abuse of discretion. Such preliminary injunctions are ordinarily intended only to operate pendente lite, or until a hearing on the writs can be had. They are granted upon a mere summary showing upon affidavits. Their issuance is not a matter of right, and rests in the sound discretion of the judge. — *Bissell v. Goshen*, 72 Fed. 545; 19 C. C. A. 25.

Blount v. Societe, 53 Fed. 98; *Duplex v. Campbell*, 69 Fed. 250; *Thompson v. Nelson*, 71 Fed. 339.

It is well settled that on appeals like this, this court will ordinarily look into the case merely to see whether the discretion of the court below in issuing or withholding the order of preliminary injunction has been abused; and that only in exceptional cases, in which a controlling question of law may be as fully and fairly considered as upon a final hearing, and the court has no doubt upon it, will it finally dispose of the injunction and the case on a hearing like this. — *Thomson-Houston v. Ohio*, 80 Fed. 712; 26 C. C. A. 107.

Duplex v. Campbell, 69 Fed. 250; *Mayor v. Africa*, 77 Fed. 501.

The preliminary question arises whether upon this appeal the court should undertake to examine, and in a sense review, collaterally the consideration of a Connecticut cause or should confine itself to the enquiry whether, from the standpoint of the court below, the order was properly granted. In *American v. National*, 51 Fed. 229, we have laid down the rule that while the circuit court might deem itself constrained to adopt the rulings of another circuit, this court is at liberty to reëxamine the entire question; and we adhere to the views which were then expressed. — *Thomson-Houston v. Hoosick*, 82 Fed. 461; 27 C. C. A. 419.

The decision of the judge who made the order will not be reversed unless it appears, after a consideration of all the evidence upon which this action is based, that his legal discretion was improvidently exercised. — *Southern v. Earl*, 82 Fed. 690; 27 C. C. A. 185.

Duplex v. Campbell, 69 Fed. 253; *Bissell v. Goshen*, 72 Fed. 570; *Blount v. Societe*, 53 Fed. 98.

The function of the court of appeals, in hearings like this, is such that it may properly affirm an order refusing a preliminary injunction in one case and an order granting it in another on substantially the same evidence, because it is easy to conceive a case presented upon a preliminary hearing such an evenly balanced controversy, that the court above would affirm the action of the court below, whether one way or the other, when that action involves the exercise not of exact judicial judgment but merely judicial discretion. — *Societe v. Allen*, 90 Fed. 815; 33 C. C. A. 282.

The law is well settled that upon such an appeal the decision of the judge who made the order will not be reversed unless it appears, after a consideration of all of the evidence upon which the action was based, that his legal discretion to grant or withhold the order was improvidently exercised. — *Pacific v. Alaska*, 100 Fed. 462; 40 C. C. A. 494.

Blount v. Societe, 53 Fed. 98; *Jensen v. Norton*, 64 Fed. 662; *Southern v. Earl*, 82 Fed. 690; *Thompson v. Nelson*, 71 Fed. 339; *Duplex v. Campbell*, 69 Fed. 252.

Note: It is evident that under the amendment to the court of appeals act, an appellate court would not consider the question of improvidence in refusing an injunction as above stated.

In determining whether in a given case, the circuit court errs in refusing an injunction pending the litigation, it is to be remembered that such an injunction in no case is a matter of strict right. The application for it is addressed to the sound discretion of the Court. It may be granted or refused unconditionally or upon terms; and upon appeal ordinarily the question is simply whether the court acted improvidently. Only when clearly erroneous will the order be reversed. — *Welsbach v. Cosmopolitan*, 104 Fed. 83; 43 C. C. A. 418.

Ritter v. Ulman, 78 Fed. 222.

We have repeatedly held that an order granting an injunction will not be reversed on appeal unless it clearly appears that the Court below has fallen into a misapprehension respecting the facts or law of the case in a matter vital to the issue. — *Leow v. German American*, 107 Fed. 949; 47 C. C. A. 94.

Duplex v. Campbell, 69 Fed. 250; *Thompson v. Nelson* 71 Fed. 339; *Proctor v. Globe*, 92 Fed. 357.

Counsel invoke the conceded rule that, where it is not clear that the defendant is guilty of infringement, and the question is grave and difficult, a temporary injunction should not be granted on ex parte affidavits. *Sprague v. Nassau*, 95 Fed. 821; *Hatch v. Electric*, 100 Fed. 975. But while this rule prevails in all its force in the trial court, it is met in the appellate court by another of great cogency, — by the rule that where the court below has considered a question, and made a finding on conflicting evidence, its conclusion is presumptively correct, and it ought not to be disturbed unless an obvious error has intervened in the application of the law, or some serious mistake has been made in the consideration of the facts. — *Stearns-Roger v. Brown*, 114 Fed. 939; 52 C. C. A. 559.

Kinlock v. Western, 113 Fed. 659; *National v. Interchangeable*, 106 Fed. 693; *Mann v. Bank*, 86 Fed. 51; *Tilghman v. Proctor*, 125 U. S. 136; *Kimberly v. Arms*, 129 U. S. 512; *Furrer v. Ferris*, 145 U. S. 132; *Warren v. Burt*, 58 Fed. 101; *Plow v. Carson*, 72 Fed. 387; *Trust Co. v. McClure*, 78 Fed. 209; *Exploration v. Adams*, 104 Fed. 404.

In view of the fact that the question of infringement cannot be authoritatively determined upon this appeal, and also because testimony taken under examination and cross-examination is much more satisfactory and far more reliable than the ex parte affidavits which this record contains, and because the affidavits might lead to one conclusion and the testimony to another, this court declines to enter upon a consideration and determination of the question of infringement upon this appeal. — *Stearns-Roger v. Brown*, 114 Fed. 939; 52 C. C. A. 559.

The correctness of the order must be considered under the facts and circumstances of the case as presented below, and "from the same standpoint as that occupied by the court granting it," and, if its legal discretion "was not improvidently exercised, we should not disturb its action." — *Austin v. American*, 121 Fed. 76; 57 C. C. A. 330.

Duplex v. Campbell, 69 Fed. 250; *Stearns-Roger v. Brown*, 114 Fed. 939.

The order will be reversed only when clearly erroneous. The fact of infringement must be clearly established beyond reasonable doubt. — *Austin v. American*, 121 Fed. 76; 57 C. C. A. 330.

Welsbach v. Cosmopolitan, 104 Fed. 83; *Standard v. Crane*, 56 Fed. 718; *Menasha v. Dodge*, 85 Fed. 971; *McDowell v. Kurtz*, 77 Fed. 206; *Blakey v. National*, 95 Fed. 136.

The only question for review on this appeal is whether the discretion of the trial court was improvidently exercised. — *Austin v. American*, 121 Fed. 76; 57 C. C. A. 330.

Welsbach v. Cosmopolitan, 104 Fed. 83; *U. S. Gramophone v. Seaman*, 114 Fed. 745; *Stearns-Roger v. Brown*, 114 Fed. 939.

The motion for rehearing having been argued upon new proofs, and having been denied, two new orders were entered, the one continuing the injunction, the other suspending its operation pending appeal. In these circumstances, a new state of facts having been presented and the rights of the parties having been determined anew thereunder, the practical effect was the same as though the court had originally vacated the order instead of suspending it. — *Armat v. Edison*, 125 Fed. 939; 60 C. C. A. 380.

We do not feel disposed to modify such order, nor to discuss the issues presented here on ex parte affidavits in an opinion which might constrain the judge to whom at final hearing the same issues may be differently presented. — *United v. Silver*, 128 Fed. 925; 63 C. C. A. 110.

That the record on appeal on motion for a preliminary injunction should contain all of the affidavits and papers used in the hearing below, see *Staples v. Lord*, 148 Fed. 15; 78 C. C. A. 106.

There are many questions arising on a motion for a preliminary injunction which cannot be satisfactorily determined until the proofs are taken, and this court has consistently refused to decide doubtful questions depending upon disputed facts upon appeals from such orders. — *Thomson-Houston v. Western*, 158 Fed. 813; 86 C. C. A. 73.

§ 545. Appeals — Miscellaneous Rulings.

Where a plaintiff has an adjudication that he is entitled to an injunction, he has rights which cannot be abridged or stayed by language which is not more clear and unambiguous than that contained in sec. 7 of the Act of Mar. 3, 1891, Chap. 517, and the applicant therefore has not an absolute right to a supersedeas of the injunction. — *Re Haberman*, 147 U. S. 525; 37 L. Ed. 266; 13 S. Ct. 527.

We think the term "interlocutory order or decree," was used in its broadest sense, and that the purpose of Congress was to confer the right of appeal from any decree or order granting an injunction at any stage of the proceeding, whether technically preliminary, interlocutory or final. — *Richmond v. Atwood*, 52 Fed. 10; 2 C. C. A. 596.

Jones v. Munger, 50 Fed. 785.

It seems to us evident that it was intended to remove the restriction and extend the right to all that class of interlocutory orders or decrees which interfere with the possession of property, or operate in restraint of a party's business. — *Richmond v. Atwood*, 52 Fed. 10; 2 C. C. A. 596.

The appeal given by the seventh section of the act of Mar. 3, 1891, is a privilege or option and in no way affects or diminishes the right to appeal from the final decree. — *Marden v. Campbell*, 67 Fed. 809; 15 C. C. A. 26.

As, ordinarily, questions arising under the statutes relating to patents for inventions can best be determined on a final hearing, we ought not to encourage delays in the regular progress of a bill in equity pending proceedings of the character we are now considering. — *Bresnahan v. Tripp*. 72 Fed. 920; 19 C. C. A. 237.

If an appeal is allowed from an interlocutory order or decree granting an injunction, the injunction will continue in force pending the appeal, unless stayed by order of the court granting the appeal. The granting of a supersedeas rests in the judicial discretion of the court, and its discretion to grant or refuse a supersedeas will not be controlled by mandamus. — *Bissell v. Goshen*, 72 Fed. 545; 19 C. C. A. 25.

In re Haberman, 147 U. S. 525; *Overruling Societe v. Blount*, 51 Fed. 610.

We do not think, in the present status of this suit, no final decree having yet been announced, that we are called upon to determine the effect of this affirmance should the case be again appealed after the account of profits and damages has been stated and confirmed. The mandate will simply recite that the court finds no error in the decree awarding an injunction. — *Goshen v. Bissell*, 72 Fed. 67; 19 C. C. A. 13.

Watch Co. v. Robbins, 64 Fed. 384.

Although the injunction order appealed from is not a preliminary injunction intended to operate only until a hearing upon the merits, it is nevertheless an "interlocutory decree," inasmuch as the decree was not final in an appealable sense. This appeal was taken within 30 days. The cause is therefore one which is entitled to take "precedence" upon the calendar of this court. — *Star v. General*, 129 Fed. 102; 63 C. C. A. 604.

These three appeals arose out of the bill in equity. The circuit court issued an interlocutory injunction, and number 738 is an appeal therefrom. In the meantime the circuit court had entered judgment for complainant on final

hearing. In view of our conclusions as to the final decree, this appeal is now a moot case, and should be disposed of with a judgment declaring that the interlocutory order has been superseded. — *Howard v. Gibbs*, 157 Fed. 676; 85 C. C. A. 348.

§ 546. Bond.

Where the complainant is not manufacturing under the patents sued on, and its injury is confined to its naked rights with no consequential injury to its business and where an injunction against defendant would break up its business and throw several hundred men out of employment, its loss would be out of proportion to complainant's loss from infringement, the defendant should be permitted to give adequate bond. — *Duplex v. Campbell*, 69 Fed. 250; 16 C. C. A. 220.

It would seem that where the question of infringement is doubtful, the court may require a bond in lieu of a restraining order. — *Seiler v. Fuller*, 102 Fed. 344; 42 C. C. A. 386.

That the Court may order the giving of a bond as an alternative measure, see *Loew v. German-American*, 107 Fed. 949; 47 C. C. A. 94.

It seems that the preliminary injunction was improvidently granted by the circuit court, the defendants below being able to respond in damages, there being no threatened irreparable injury, no estoppel, no sufficient acquiescence, and no unfair competition in trade. Defendants should have been required to give bond for an accounting, and the temporary injunction refused. — *American v. Phoenix*, 113 Fed. 629; 51 C. C. A. 339.

Note: Why, under the most radical construction of any known rule, a bond should be required in this case is past finding out.

The condition for security imposed upon the complainants and the privilege accorded to the defendants to dissolve the injunction by giving counter security show a cautious exercise by the court of its legal discretion. — *American v. Cimiotti*, 118 Fed. 838; 55 C. C. A. 513.

That when the question on appeal shows grave doubt of novelty, the court may order a bond in lieu of injunction, see *Co-operating v. Hallock*, 128 Fed. 596; 64 C. C. A. 104.

That inequitable conduct on the part of a defendant will deprive him of the privilege to ask that a bond be required instead of an injunction, see *Elite v. Dececo*, 150 Fed. 581; 80 C. C. A. 567.

§ 547. Corporations and Corporation Officers.

Some of the defendants further contend that, even if the defendant corporation should be enjoined in this case, no injunction should issue against the other defendants, its officers. Entirely apart from the question of the liability of an officer in a corporation, for damages caused by infringement permitted by him, on behalf of the corporation, there can be no doubt that in a case like this the officers of the corporation may be enjoined from further infringement. — *Hart v. Anchor*, 92 Fed. 657; 34 C. C. A. 606.

That a public corporation, having due notice of the prospective infringement, and having taken a bond for its protection, may be enjoined *pendente lite*, see, *Pelzer v. Binghamton*, 95 Fed. 823; 37 C. C. A. 288.

§ 548. Discontinuance or Non-Use.

The fact that defendants have gone out of business or are not infringing within the circuit is no reason why an injunction should not be made permanent. — *Braddock v. Macbeth*, 64 Fed. 118; 12 C. C. A. 70.

Appellees claim that, pending suit, they have ceased to make the transmitter complained of; but they do not exhibit what further changes they have made, they give no assurances for the future, and throughout this litigation they have denied appellant's rights. There is no reason why an injunction should not issue. — *Stromberg-Carlson v. American*, 127 Fed. 704; 62 C. C. A. 460.

The pleas do not state a complete bar to the suit. Conceding all their averments to be true, the court may retain the case in order to do exact equity between the parties. If the case were at final hearing upon the precise facts now developed, the court might, it is true, feel warranted in suspending the injunction, but it would not be compelled to do so. The probability is that it would follow the practice, so frequently adopted, where the defendant admits past infringement and is shown to be in a position where he can at any time resume, namely, issue the injunction. The argument in such circumstances is very simple. If the defendant be honest in his protestations, an injunction will do him no harm; if he be dishonest, the court should place a strong hand upon him in limine. — *General v. New England*, 128 Fed. 738; 63 C. C. A. 448.

Chemical v. Vice, 14 Blatchf. 179; *Wollensak v. Reiher*, 28 Fed. 427; *Celluloid v. Arlington*, 34 Fed. 324; *Sawyer v. Turner*, 55 Fed. 979; *Electric v. Henzel*, 48 Fed. 375.

It is immaterial that pending the litigation there has been no further infringement. Whether there has been or not is only a matter for consideration if an accounting for damages shall be ordered. They have never put upon the record their purpose not to duplicate the device which they did make, nor contradicted the evidence that they intended to make and sell such devices. The assertion of a right to make devices complained of as an infringement, in the absence of a very express denial of a purpose to exercise the right claimed, justifies the presumption that further infringement is to be apprehended if that device shall prove to be an infringement. *Cayuta v. Kennedy*, 127 Fed. 355; *Westinghouse v. Press*, 127 Fed. 822; *Potter v. Crowell*, Fed. Cas. 11,323. The case is distinguishable from that of *Globe-Wernicke v. Brown*, 121 Fed. 97 in the fact that an intention to continue to make and sell devices complained of was avowed before suit was brought, and is not disavowed upon the record. — *Johnson v. Foos*, 141 Fed. 73; 72 C. C. A. 105.

It was suggested at the oral argument that an unused patent is not entitled to the protection given by the extraordinary remedy of an injunction. This contention was not made in defendant's brief. While this question has not been directly passed upon, so far as we are informed, in any considered decision of the Supreme Court, yet the weight of authority is in favor of complainant. — *Continental v. Eastern*, 150 Fed. 741; 80 C. C. A. 407.

Fuller v. Berger, 120 Fed. 274; *Bement v. National*, 186 U. S. 70; *Heaton v. Eureka*, 77 Fed. 288; *Crown v. Aluminum*, 108 Fed. 845; *Broodnax v. Central*, 4 Fed. 214; *Consolidated v. Coombs*, 39 Fed. 803; *Campbell v. Manhattan*, 49 Fed. 930.

Note: Decision affirmed, *Continental v. Eastern*, 210 U. S. 405. See § 574.

Does the allegation in the answer that defendant does not intend to infringe any more prevent the granting of injunctive relief? When after some infringement and after conduct disclosing danger of a continued or renewed infringement a patentee finds it necessary to incur the expense of bringing a bill to protect his rights, he is entitled to all the remedies which the law affords him, and among them is final adjudication of his rights and a permanent and effective injunction against further infringement, and he should not be driven from the court to which he has rightfully resorted with a mere promise by the offender of better conduct in the future. — *Deere v. Dowagiac*, 153 Fed. 177; 82 C. C. A. 351.

When the validity of complainant's patent is denied, the right to infringe asserted, the possession of a large quantity of infringing machines admitted, and no satisfactory evidence adduced of cessation to infringe for any considerable time before the beginning of the suit, is the danger as threatening as to warrant injunctive relief? Considering the likelihood that an infringement once practised will be repeated as long as the wrong doer believes he is right (as from the pleadings in this case the defendant appears to believe) we think the patentee is entitled to a more effective remedy than a mere promise of this kind. — *Deere v. Dowagiac*, 153 Fed. 177; 82 C. C. A. 351.

Celluloid v. Arlington, 34 Fed. 324; *White v. Walbridge*, 46 Fed. 979; *Matthews v. National*, 71 Fed. 518; *N. Y. v. Chemical*, 93 Fed. 827.

§ 549. Discretion of Court.

They are granted upon a mere summary showing upon affidavits. Their issuance is not a matter of right, and rests in the sound discretion of the judge. — *Bissell v. Goshen*, 72 Fed. 545; 19 C. C. A. 25.

Shinkle v. Louisville, 62 Fed. 690; *Blount v. Societe*, 53 Fed. 98; *Dest. Fed. Prac.* 233; 1 High Inj. 7; 2 High Inj. 938, 939, 1026.

The granting of a provisional injunction rests in the sound discretion of the trial court, and it is not necessary that the court should, before granting it, be satisfied from the evidence before it that the plaintiff will certainly prevail upon the final hearing of the cause. — *Southern v. Earl*, 82 Fed. 690; 27 C. C. A. 185.

Georgia v. Brailsford, 2 Dall. 402; *Blount v. Societe*, 53 Fed. 98.

§ 550. Expiration of Patent.

Pending the appeal and before argument of the cause in this court, the letters patent in suit expired, and with that expiration the interlocutory injunction appealed from terminated. There is, therefore, nothing remaining for a judgment of this court to act upon. In this condition of the case, the court will no further consider whether the injunction was or was not properly granted, but will dismiss the appeal. — *Gamewell v. Municipal*, 61 Fed. 208; 9 C. C. A. 450.

An appeal from an interlocutory order granting an injunction should be dismissed where, during the pendency of the appeal the patent expired and the injunction ceased to be operative. — *Lockwood v. Wicks*, 75 Fed. 118; 21 C. C. A. 257.

Following, *Gamewell v. Municipal*, 61 Fed. 208.

Little v. Burrows, 134 U. S. 547; *Mfg. Co. v. Wright*, 141 U. S. 696; *Mills v. Green*, 159 U. S. 651; *Gold v. Brown*, 74 Fed. 120.

That the expiration of a patent after preliminary injunction was granted and pending appeal from such order, dismisses the appeal, see *National v. Robertson*, 104 Fed. 552; 44 C. C. A. 29.

Gamewell v. Municipal, 61 Fed. 208.

The patent had only 4 months and 5 days to run. The circuit court decided in favor of the complainant, and, we think rightly. The bill prayed that a "provisional or preliminary injunction be issued," and upon the facts charged such relief might have been granted within the life of the patent. — *Chinnoek v. Paterson*, 112 Fed. 531; 50 C. C. A. 384.

Ross v. City, 63 Fed. 466; *Lake Shore v. National*, 110 U. S. 229; *Clark v. Wooster*, 119 U. S. 322; *Beedle v. Bennett*, 122 U. S. 71.

The court below awarded a perpetual injunction, but, the complainant having waived any right it might have had to an account, no accounting was ordered. The patent expired after argument on appeal. Thus the injunction became inoperative, and nothing was left for a judgment of this court to act upon. — *Chapin v. Friedberger*, 158 Fed. 409; 85 C. C. A. 519.

Hatch v. Reardon, 204 U. S. 160; *Mills v. Green*, 159 U. S. 651; *Gamewell v. Municipal*, 61 Fed. 208; *Lockwood v. Wicks*, 75 Fed. 118; *American v. Vail*, Fed. Cas. 308.

This patent expires June 23 (opinion Apr. 8). While, probably the complainant cannot materially suffer by the continuance of the use of the device for the few months remaining until the expiration of the patent, for us to compel the respondent corporation to reorganize its looms in any essential particulars, or even to stop them for the minimum period of time in which such reorganization could be effected, might impose a penalty in excess of the probable value of the invention covered by the claim in suit. What we have already said is sufficient to show that the invention carries only a minimum of what is patentable. In this connection we refer to the practical rules applied by the circuit court in *Westinghouse v. Burton*, 70 Fed. 619, *affd.* 77 Fed. 301. We also refer to the authorities relied on in the opinion of the circuit court in that litigation. It is true that case related only to a preliminary injunction, as well as did the cases cited. Nevertheless the underlying substantial rule applies here as well as there. Injustice is not to be accomplished by equity either on an interlocutory proceeding or a final one. The complainant may, perhaps, be fully compensated if it is made sure that it will receive whatever damages it may have sustained, if any, or a reasonable royalty, or the equivalent thereof, representing the value of the patented improvement. Therefore it may be that the circuit court should make an alternative provision, so that the respondent corporation might at its option be relieved from an injunction if it compensates the complainant for profits, damages, and royalty, or the equivalent thereof, so far as the complainant may be justly entitled to all or any of them, or if it satisfies the court that it will so compensate the complainant by giving security therefor or otherwise. — *Draper v. American*, 161 Fed. 728; 88 C. C. A. 588.

§ 551. General Rules for Granting.

In *Standard v. Crane*, 56 Fed. 718, this court declared the doctrine which must prevail in this circuit respecting the allowance of preliminary injunctions in patent cases. We there said that to authorize a court, in advance of a decree upon the merits, to allow an injunction, not only must the infringement be without reasonable doubt, but the rights of the patentee must be clear; and, failing prior adjudication in favor of the validity of the patent, there must be shown such continued public acquiescence in the exclusive

right asserted as raises a presumption of validity not arising from the letters patent alone; and that, if the controversy between the parties be substantial, and not colorable merely, courts of equity are not disposed to adjudicate upon the rights of parties otherwise than according to the approved usages of chancery. — *Williams v. Breitling*, 77 Fed. 285; 23 C. C. A. 171.

Ertel v. Stahl, 65 Fed. 519.

The principle upon which all injunctions are granted in patent causes, preliminary and final, is that an action at law does not give a complete remedy to the complainant whose property is invaded. The infringement of a patent is a constantly recurring grievance, which cannot be adequately prevented but by an injunction. "It is quite plain that, if no other remedy could be given in cases of patents and copyrights than an action at law for damages, the inventor or author might be ruined by the necessity of perpetual litigation without ever being able to have a final establishment of his rights." Story, Eq. Jur. sec. 931. A decree for damages and profits in an equity cause would fall short of adequate redress to the patentee. He is entitled to an injunction as well as to an accounting of damages and profits. Indeed, the accounting is but incidental to the relief by injunction and it is the right to this relief which alone gives a court of equity jurisdiction. "A recovery does not vest the infringer with the right to continue the use, as the consequence of it may be an injunction restraining the defendant from the further use of it." *Suffolk Co. v. Hayden*, 3 Wall. 315. In *Penna. v. Libby*, L. R. 3 Eq. 308, a suit upon a patent against a defendant who was merely a user, the vice chancellor, in awarding an injunction and an account, said: "I cannot in the decree do less than give the plaintiff his full right, and I cannot bargain for him what he may choose or may not choose to do." — *Arlington v. Booth*, 78 Fed. 878; 24 C. C. A. 378.

The respondent, while under the injunction, is ordinarily a constant loser, and never regains his losses unless the complainant has given a bond. Therefore in this class of cases the courts usually hold that unless the patent is supported by public acquiescence or prior adjudication, or some other peculiar condition, the complainant's rights must be free from doubt, to entitle him to a preliminary injunction. — *Wilson v. Consolidated*, 88 Fed. 286; 31 C. C. A. 533.

Rob. Pat. sec. 1173; *North v. Kershaw*, Fed. Cas. 10,311; *Standard v. Crane*, 56 Fed. 718; *Williams v. Mfg. Co.* 77 Fed. 285.

A continuing trespass is always good ground for the issue of an injunction in the absence of countervailing considerations, because a multiplicity of suits for damages is never an adequate remedy for the loss which constantly repeated trespasses entail. — *Stearns-Roger v. Brown*, 114 Fed. 939; 52 C. C. A. 559.

Mfg. Co. v. Booth, 78 Fed. 878.

§ 552. General Rules for Refusing.

It is a cardinal principle of equity jurisprudence that a preliminary injunction shall not issue in a doubtful case. Unless the court be convinced with reasonable certainty that the complainant must succeed at final hearing the writ should be denied. — *Hall v. General*, 153 Fed. 907; 82 C. C. A. 653.

Union v. Philadelphia, 75 Fed. 1004.

For full list of cases covering this question, see dissenting opinion of Aldrich, J. in *Continental v. Eastern*, 150 Fed. 741; 80 C. C. A. 407.

Note: See *Continental v. Eastern*, 210 U. S. 405, § 574.

There was no showing that the patents had ever been admitted to be valid by the defendant, or held valid by any court of competent jurisdiction, or that their validity had been generally acquiesced in by the public. Without a showing of one or the other of these facts, no preliminary injunction ought to be granted in a patent case. — *St. Louis v. Sanitary*, 161 Fed. 725; 88 C. C. A. 585.

§ 553. Government.

But no injunction can be issued against officers of a state to restrain or control the use of property already in the possession of the state, or money in its treasury when the suit is commenced, or to compel the state to perform its obligations, or where the state has otherwise such an interest in the object of the suit as to be a necessary party. — *Belknap v. Schild*, 161 U. S. 10; 16 L. Ed. 599; 16 S. Ct. 443.

Louisiana v. Jurlmel, 107 U. S. 711; *Elliott v. Wiltz*, 107 U. S. 720; *Cunningham v. Railroad*, 109 U. S. 446; *Hagood v. Southern*, 117 U. S. 52; *In re Ayers*, 123 U. S. 443; *North Carolina v. Temple*, 134 U. S. 22; *McGahey v. Va.* 135 U. S. 662.

In a suit to which the state is neither formally nor really a party, its officers, though acting by its order and for its benefit, may be restrained by injunction, when the remedy at law is inadequate, from doing positive acts for which they are personally and individually liable, taking or injuring the plaintiff's property contrary to a plain official duty requiring no exercise of discretion and in violation of the Constitution or laws of the United States.

But no injunction can be issued against officers of a state, to restrain or control the use of property already in the possession of the state. — *Belknap v. Schild*, 161 U. S. 10; 16 L. Ed. 599; 16 S. Ct. 443.

Harlan and Field dissenting.

Osborn v. Bank, 22 U. S. 738; *Louisiana v. McComb*, 92 U. S. 531; *Allen v. Baltimore*, 114 U. S. 311; *Pennoyer v. McConnaughy*, 140 U. S. 1; *Elliott v. Wiltz*, 107 U. S. 711; *Cunningham v. Mason*, 109 U. S. 446; *Hagood v. Southern*, 117 U. S. 52; *Re Ayers*, 123 U. S. 443; *N. C. v. Temple*, 134 U. S. 22; *McGahey v. Va.* 135 U. S. 662.

Unless expressly permitted by act of Congress, no injunction can be granted against the United States. — *Belknap v. Schild*, 161 U. S. 10; 16 L. Ed. 599; 16 S. Ct. 443.

U. S. v. McLemore, 45 U. S. 286; *Hill v. U. S.* 50 U. S. 386; *Case v. Terrell*, 78 U. S. 199.

The courts should not use their writs of injunction so as to retard and embarrass the government in the prosecution of work, the product of which is absolutely essential to the public welfare and the national defense. — *Dashiell v. Grosvenor*, 66 Fed. 334; 13 C. C. A. 593.

§ 554. Grounds for Granting — Acquiescence.

It is well settled that, for the purpose of laying the foundation for a preliminary injunction, it may be shown that the patentee, or those succeeding to his rights, have made, used, and sold the patented article or device for years, during which no other person or persons have assumed to make or sell the same. When all persons, other than the owner of the patent, have for several years refrained from making, using or selling the patented article for the reason that it is patented, when it would be for their interest to adopt it, such acquiescence raises a fair presumption of its validity, sufficient to warrant the issuance of a preliminary injunction to restrain its infringement. So, too, if the patentee has long licensed the use of his invention, which no

one has, for periods varying from two to eight years, assumed to use or sell without such license, there is such acquiescence as lays the foundation for a preliminary injunction. — *Blount v. Societe*, 53 Fed. 98; 3 C. C. A. 455.

Sargent v. Seagrave, 2 Curt. 557; *Dougherty v. West*, 2 Fish. P. C. 559; *Machine Co. v. Williams*, 2 Fish. P. C. 138.

While acquiescence, even of a qualified or doubtful nature, may give aid to a patent on a final hearing, yet when relied on to support a temporary injunction, it must be clear in its character and extent. — *Wilson v. Consolidated*, 88 Fed. 286; 31 C. C. A. 533.

Three years before the patent issued, Adam took a license to make heaters according to Folger's specifications. He built the heaters in accordance with the specifications furnished by Folger. His use of the patent imprint ("Victor") and his present contention that, after the withdrawal of the license, he altered the construction so as to avoid the claims, are strong concessions of the patent's validity. So far as Adam is concerned, his actions evidence a sufficient acquiescence. — *Adam v. Folger*, 120 Fed. 260; 56 C. C. A. 540.

Blount v. Societe, 53 Fed. 98; *White v. Surdam*, 41 Fed. 790; *Steam Gauge v. Ham*, 28 Fed. 618; *Burr v. Kimbark*, 28 Fed. 574.

Defendant took a license before the patent issued to make the invention and to use the trademark "Victor." He changed the construction, but continued to sell the device under the trademark. *Held*: Without deciding how far, if at all, the use and sale of the Victor heater before the patent was issued should be taken as evidence of acquiescence in the validity of the patent (see *Sargent v. Seagrave*, 2 Curt. 553; *Wilson v. Store Service*, 88 Fed. 286; *McDowell v. Kurtz*, 77 Fed. 206; *Corser v. Overall Co.* 59 Fed. 781; *White v. Hunter*, 47 Fed. 819) we are of opinion on this branch of the case that the temporary injunction was not improvidently issued. The purpose of showing adjudication against others or acquiescence by the public is not to foreclose the question of validity, but to aid the presumption which the patent raises to a point where the court is satisfied that the probabilities of a final decree in the complainant's favor are so strong that the defendant should be excluded at once from practising the alleged invention. — *Adam v. Folger*, 120 Fed. 260; 56 C. C. A. 540.

§ 555. Grounds for Granting — Conduct of Defendant.

The defendant was formerly largely interested under the patent, as promoter, licensee and officer of the licensed company. His prior relations to the patent presented a strong equity in favor of the complainants, if it did not estop him from denying its validity under the authorities. — *Blount v. Societe*, 53 Fed. 99; 53 C. C. A. 98.

Faulks v. Kemp, 3 Fed. 898; *Onderdonk v. Fanning*, 4 Fed. 148; *Purifier Co. v. Guikler*, 9 Fed. 155; *Telegraph Co. v. Himmer*, 19 Fed. 322; *Parker v. McKee*, 24 Fed. 808; *Alabastine Co. v. Payne*, 27 Fed. 559; *Steam Gauge Co. v. Ham*, 28 Fed. 618; *Burr v. Kimbark*, 28 Fed. 574.

The appellant discloses no particular equities which ought to induce the withholding the injunction. It has been the deliberate user of a large number of valves, and has preferred to run the risk of an injunction rather than to displace its present equipment. — *Westinghouse v. Great Northern*, 88 Fed. 258; 31 C. C. A. 525.

We are not prepared to say that, even in the absence of any direct evidence at all, as to the infringement, a court might not, on a motion for a preliminary injunction, infer infringement from the disingenuousness of

defendant's witnesses and their reluctance to disclose all the facts. The ordinary rule is that one who has knowledge peculiarly within his own control, and refuses to divulge it, cannot complain if the court puts the most unfavorable construction upon his silence, and infers that a disclosure would have shown the facts to be as claimed by the opposite party. — *Societe v. Allen*, 90 Fed. 815; 33 C. C. A. 282.

§ 556. Grounds for Granting — Damages Insufficient Remedy.

The rules which control applications for preliminary injunctions in patent causes are so well settled and familiar that it would seem to be quite useless to recapitulate them, much less to cite from text writers or judicial utterances in exposition of them. We are aware of none which disentitle a complainant to the remedy of a preliminary injunction against the infringement of his patent by a defendant who is a user of the infringing article when the facts are such that he would be entitled to it if the defendant were a manufacturer or a seller. — *Arlington v. Booth*, 78 Fed. 878; 24 C. C. A. 378.

It does not lie with the infringer to say that the owner of the patent will be fully compensated by a money recovery, and ought to be satisfied thereby. It is for the latter to say whether he prefers an injunction, or a money recovery, or both; and, at his option, he is at liberty, at final hearing, to waive an account, and insist upon his injunction. — *Arlington v. Booth*, 78 Fed. 878; 24 C. C. A. 378.

The places of business of complainant and defendant were in California and Alaska, the alleged infringement being in Alaska. *Held*: It would obviously be a matter of great difficulty for the complainant, under the most favorable circumstances, to show the damage sustained by it by the unlawful use of the infringing machine, especially where, the record shows, no royalty had been established by the complainant, and where the complainant had always refused to sell any machine made under it or to permit the use thereof by any person. — *Pacific v. Alaska*, 100 Fed. 462; 40 C. C. A. 494.

Note: Exactly how this rule could apply to this case is something of a curiosity. If there were no license fee and no previous sales, it is very difficult to see how evidence of damages or profits could possibly be proved elsewhere than at the home of the complainant where the suit is brought.

§ 557. Grounds for Granting — Infringement.

The case presented to us is one in which the complainant had a valid title to a valid patent, which the defendants to the suit have confessedly infringed. Under such circumstances, the showing must be a very strong one that would justify an appellate court in reversing an order granting a temporary injunction. — *Pacific v. Alaska*, 100 Fed. 462; 40 C. C. A. 494.

To authorize a writ, the right must be clear, and the fact of infringement reasonably certain. — *Seiler v. Fuller*, 102 Fed. 344; 42 C. C. A. 386.

Standard v. Crane, 56 Fed. 718; *Mast v. Stover*, 177 U. S. 485.

It will not do to say that no harm could result from the restraining order because the injunction merely went to the use of the infringing machines, and that the defendants could not be harmed if their machines did not infringe. Courts do not issue their writs of injunction because no harm can result from them. They issue them to preserve rights which are shown to have been invaded. It would not be just to put upon the defendants the hazard of being in contempt of court for disobedience to its orders, if they honestly claimed their machine did not infringe, when it might thereafter be deter-

mined that it did infringe, and when the courts had not considered or determined the question of infringement. — *Seiler v. Fuller*, 102 Fed. 344; 42 C. C. A. 386.

§ 558. Grounds for Granting — Laches Excusable.

It is no defense to a suit for an injunction and an accounting on account of the continuing trespasses of an infringer that the latter has been trespassing on the rights of the patentee with impunity for years. — *Ide v. Trorlicht*, 115 Fed. 137; 53 C. C. A. 341.

Menendez v. Holt, 128 U. S. 514; *McLean v. Fleming*, 96 U. S. 245; *Price v. Steel Co.* 46 Fed. 107; *New York v. Buffalo*, 18 Fed. 638; *Gilmore v. Anderson*, 38 Fed. 846; *Brush v. Electric*, 45 Fed. 241; *Taylor v. Spindle Co.* 75 Fed. 301; *Bragg v. Hartford*, 56 Fed. 292.

Note: This may be good law in the Eighth Circuit, but it requires serious qualification in other circuits.

§ 559. Grounds for Granting — Nature of Act.

It is not essential that there shall have been any actual infringement, in order to entitle a complainant to an injunction. The selling and offering for sale with the intent and purpose to bring about an infringement are enough to entitle complainant to an injunction to prevent the threatened injury. — *Rupp v. Elliott*, 131 Fed. 730; 65 C. C. A. 544.

Thomson-Houston v. Kelsey, 75 Fed. 1005; *Thomson-Houston v. Ohio*, 80 Fed. 712; *Wallace v. Holmes*, 29 Fed. Cas. 79.

§ 560. Grounds for Granting — Prima Facie Right.

There is the general "prima facie" presumption of the novelty and utility of the invention and that the patentee is the first and true inventor, which arises from the letters patent granted by the government. — *Blount v. Societe*, 53 Fed. 98; 3 C. C. A. 455.

Railroad v. Stimpson, 14 Pet. 448; *Seymour v. Osborne*, 11 Wall. 516; *Smith v. Dental Co.* 93 U. S. 486; *Lehnbenter v. Holthaus*, 105 U. S. 94.

§ 561. Grounds for Granting — Prior Adjudication.

An interlocutory decree granting an injunction in another case is a good foundation on which to base an application for a preliminary injunction in any other court. — *Blount v. Societe*, 53 Fed. 98; 3 C. C. A. 455.

Potter v. Fuller, 2 Fish. P. C. 251.

The patent had been sustained in a prior suit, and in a prior suit against the corporation of which this defendant was the actual successor, an injunction had been granted. Although a new defense (the expiration of a foreign patent) had been interposed on leave and the case reopened, it was still in the discretion of the trial court whether such new defense should be ground for discontinuing the injunction until the case could be heard on the merits. — *Consolidated v. Accumulator*, 55 Fed. 485; 5 C. C. A. 202.

Of course such prior adjudication does not conclude the question of right, even as to the defenses passed upon, except as between the parties and privies. Such a judgment is not within the principle of *res adjudicata*. — *Electric v. Edison*. 61 Fed. 834; 10 C. C. A. 106.

When the patent has been strenuously contested, and its validity determined by a competent tribunal, we think a strong presumption arises in favor

of the patent, which imposes upon the contestant the burden of attack. — *Electric v. Edison*, 61 Fed. 834; 10 C. C. A. 106.

When the validity of a patent has been sustained by prior adjudication, and especially after a long, arduous and expensive litigation, the only question open upon motion for a preliminary injunction in a subsequent suit against another defendant, is the question of infringement, the consideration of other defenses being postponed until final hearing; the only exception to the rule being where new evidence is of such a conclusive character that, if it had been introduced in the former case, it probably would have led to a different conclusion. And in such case the burden is upon the defendant to establish this, and every reasonable doubt must be resolved against him. — *Electric v. Edison*, 61 Fed. 834; 10 C. C. A. 106.

Edison v. Beacon, 54 Fed. 678; *Edison v. Columbia*, 56 Fed. 496.

Where the validity of a patent has been sustained by prior adjudication, and especially after a long, arduous and expensive litigation, the patentee may rightfully rest upon his patented right confirmed to him by the solemn adjudication of a competent judicial tribunal. He who attacks that right must overcome the legal presumption of right in the patentee. The strength of that presumption is variant, depending upon the circumstances surrounding the adjudication relied upon to support it. It is stronger when rested upon a final hearing than upon a motion for a preliminary injunction. Its potential force is intensified by an affirmance by an appellate tribunal of the adjudication in favor of the patent. The extent of the burden of overcoming the presumption is, therefore, measured by the degree of effective force imputed to the presumption. Where anticipation of invention has been asserted and determined to be unfounded, the presumption would be much stronger against cumulative evidence to prove anticipation by the one whose claim had been repudiated, than where anticipation is asserted in behalf of some other supposed inventor, whose claim was not in contention in the case adjudicated; and yet, in the latter instance, in addition to the presumption attaching to the patent itself, there would arise a further presumption more or less strong, and depending upon the circumstances, that, as the issue was the validity of the patent because of anticipation, bona fide contestants, earnestly striving to undermine the patent, would have asserted the defense, if known to them, and deemed substantial. It may be difficult to formulate a rule that will comprehend all the conditions which could be presented, but, we think it safe to say that in general, when the validity of a patent has been sustained by prior adjudication upon final hearing, and after bona fide and strenuous contest, the matter of its validity upon motion for preliminary injunction is no longer at issue, all defense, except that of infringement, being reserved to the final hearing; subject, however, to the single exception that, where a new defense is interposed, the evidence to support it must be so cogent and persuasive as to impress the court with the conviction that, if it had been presented and considered in the former case, it would probably have availed to a contrary conclusion. In the consideration of such new defense of anticipation, regard should be had to the rule that such a defense is an affirmative one; that the burden of proof is upon him who asserts it; and that the grant of letters patent is prima facie evidence that the patentee is the first inventor of the device described therein, and of its novelty. — *Electric v. Edison*, 61 Fed. 834; 10 C. C. A. 106.

Coffin v. Ogden, 18 Wall 120; *Smith v. Vulcanite Co.* 93 U. S. 486; *Lehnbeuter v. Holthaus*, 105 U. S. 94; *Cantrell v. Wallick*, 117 U. S. 689; *Barbed Wire Patent*, 143 U. S. 275.

The decision of another circuit is entitled to the same consideration in this court as it had in the court below. — *Duplex v. Campbell*, 69 Fed. 250; 16 C. C. A. 220.

American v. National, 51 Fed. 229.

Whether this court will apply the rule in favor of the decisions of the various circuit courts, or will limit it to adjudications of the appellate courts, as was apparently done by the third circuit in *National v. American*, 53 Fed. 367, *quaere*. — *Bresnahan v. Tripp*, 72 Fed. 920; 19 C. C. A. 237.

The second patent was sustained as valid after a full hearing on the merits, before so good and experienced patent judge as Judge Townsend. This certainly justified the court below in assuming the validity of the patent on a motion for a preliminary injunction. — *Thomson-Houston v. Ohio*, 80 Fed. 712; 26 C. C. A. 107.

Thomson-Houston v. Winchester, 71 Fed. 192.

We think the prior adjudication should be regarded as a finality until sufficient reason for departing from it shall have been made to plainly appear, and that the appellee should not, upon a motion to dissolve a preliminary injunction, be deprived of the advantage it holds as the owner of a patent adjudged by a court of appeals to be valid, upon anything less than thoroughly convincing proofs. — *Adams v. Tannage*, 81 Fed. 178; 26 C. C. A. 326.

The former adjudication was entitled to great weight upon the application for the preliminary injunction, and justified although it did not necessarily control, the decision. — *Thomson-Houston v. Hoosick*, 82 Fed. 461; 27 C. C. A. 419.

In the case of *Russell v. Place*, 94 U. S. 606, it was held that a judgment establishing the validity of the patent containing two claims, but not disclosing whether the judgment was based upon one or both of such claims, would not, in the absence of extensive evidence indicating the precise ground of the judgment, constitute an estoppel in a subsequent action between the same parties, in which the validity of the same patent was involved. In that case the question related to a certainty required in the records in order for a judgment to be given the effect of an estoppel; but in our opinion it is necessary that the same certainty should be made to appear in relation to the issues actually adjudicated, where a prior judgment is offered as the basis for the issuance of a preliminary injunction, in cases of this character. — *Southern v. Earl*, 82 Fed. 690; 27 C. C. A. 185.

Coburn v. Clark, 15 Fed. 807; *Sewing Machine v. Williams*, Fed. Cas. 5847.

The owner of a patent who has been fully sustained should not be deprived of his injunctive right except upon thoroughly convincing additional proof. — *Ford Co. v. Tannage Pat.* 84 Fed. 644; 28 C. C. A. 503.

Coming to the rules applicable under these circumstances, it cannot be denied that a preliminary injunction may properly issue in a patent suit where the validity of the patent is clear, although it has not been sustained by a prior adjudication or public acquiescence. Of course, there must in every instance be an equitable necessity for relief by injunction. — *Wilson v. Consolidated*, 88 Fed. 286; 31 C. C. A. 533.

Davis v. Edison, 60 Fed. 276.

The rule as to prior litigation is that it requires "a bona fide and strenuous contest," resulting in favor of the patent. — *Wilson v. Consolidated*, 88 Fed. 286; 31 C. C. A. 533.

Electric v. Edison, 61 Fed. 834; *Bresnahan v. Leveler Co.* 72 Fed. 920.

With reference to a prior judgment or general acquiescence, it is clear, on principle, that there must be the same freedom from doubt in behalf of a party applying for a temporary injunction, as if the question was one of validity alone. A court would be no more justified in granting such an injunction on a doubtful case of prior adjudication than it would be on a doubtful case of validity. Neither can a doubtful case of a prior judgment be assisted by a doubtful case of acquiescence, and vice versa. It is plain, on principle, that the complainant's right must be clear, either as to the validity of the patent or on the question of a prior judgment, or on the question of acquiescence. — *Wilson v. Consolidated*, 88 Fed. 286; 31 C. C. A. 533.

Ordinarily a prior determination on final hearing, after a bona fide and strenuous contest, is sufficient to justify an injunction, even against a new defendant. — *Hatch v. Electric*, 100 Fed. 975; 41 C. C. A. 133.

Beach v. Hobbs, 92 Fed. 146; *Wilson v. Store Service Co.* 88 Fed. 286.

The prior adjudication has been secured by complainant on testimony which has been sifted by cross-examination, and it would seem that he should be entitled to cross-examination of defendant's experts before being deprived of the advantage of his previous decree. Especially so in view of the ease with which ex parte affidavits of experts exploiting any theory desired may apparently be obtained. — *Consolidated v. Hays*, 100 Fed. 984; 41 C. C. A. 142.

Curtis v. Wheel Co. 58 Fed. 784.

Prior hearings had occurred, resulting in an injunction against an alleged infringement by the defendant pending final hearing. The instant case appeared, therefore, as a second attempt to use a device which might evade the patent, while adopting an equivalent means. The presumptions which run with the patent are thus well fortified by circumstances to entitle the owner to injunctive relief. — *Austin v. American*, 121 Fed. 76; 57 C. C. A. 330.

Electric v. Edison, 61 Fed. 834.

That where a patent has been adjudicated and sustained by a circuit court of appeals, the only question to be considered as a defense is non-infringement, see *Cohn v. Stephenson*, 142 Fed. 467; 73 C. C. A. 583.

Philadelphia v. Edison, 65 Fed. 551; *Tannage v. Adams*, 77 Fed. 191; *Adams v. Tannage*, 81 Fed. 178.

Facts: No answer was made to the motion except the question of priority. Both parties had been in interference and an appeal to the Circuit Court of Appeals, D. C. had been decided in complainant's favor. *Held*: That an injunction pendente lite may issue if patentable invention appears on the face of the patent, and the presumptions arising from the grant have been reinforced by the decision of a competent court upholding the invention, upon issues duly raised and fairly litigated. The opinion filed below rightly recognizes the interference proceedings and decision therein by the Circuit Court of Appeals, D. C. as within the meaning of the doctrine above stated. — *Scott v. Laas*, 150 Fed. 764; 80 C. C. A. 500.

The patent was before this court in a prior suit and held valid. Upon such a state of facts, the propriety of issuing preliminary injunction is well settled in this circuit; and it is equally well settled that appeal from such preliminary injunction brings up only the propriety of the action of the circuit court. The whole cause is not to be re-opened. That is a matter for consideration when the new cause comes to a final hearing. — *Consolidated v. Diamond*, 157 Fed. 677; 85 C. C. A. 349.

American v. National, 51 Fed. 229; *Consolidated v. Littauer*, 84 Fed. 165.

In the present case the right to a preliminary injunction according to the course and principles of equity was made clearly to appear by the bill. There had been a conclusive and final adjudication of complainant's title to the patent and of its validity by the Supreme Court of the United States after a lengthy and spirited contest on the merits of the case (*Carnegie v. Cambria*, 185 U. S. 403), and there was a clear and unequivocal charge of infringement. In such cases a preliminary injunction, on the motion of complainants, and in the absence of new evidence of a controlling character, is granted quite as a matter of course. We may therefore confidently conclude that the case made by the bill well warranted the grant of a preliminary injunction, and that one probably would have been granted, had a motion to that effect been made. (And notwithstanding the fact that the patent would expire inside of three months). — *Carnegie v. Colorado*, 165 Fed. 195; C. C. A.

Electric v. Edison, 61 Fed. 834; *New York v. Jackson*, 91 Fed. 422.

§ 562. Grounds for Granting — Sufficiency — General.

The patent having been issued fifteen months before the bill was filed, and having nearly sixteen years to run, and the bill alleging that the public have generally acquiesced in the validity of the patent, and that the invention has been put in practice by the plaintiff, and has been of great utility, it was not necessary to show a recovery at law to warrant jurisdiction in equity for an injunction and account. — *McCoy v. Nelson*, 121 U. S. 484; 30 L. Ed. 1017; 7 S. Ct. 1000.

Root v. Railway, 105 U. S. 189.

Plaintiff is none the less entitled to his injunction by the fact that defendant is able to accomplish the same result by another and different method. — *DuBois v. Kirk*, 158 U. S. 58; 39 L. Ed. 895; 15 S. Ct. 729.

The object and purpose of a preliminary injunction is to preserve the existing state of things until the rights of the parties can be fairly and fully investigated and determined upon strictly legal proofs, and according to the course and principles of courts of equity. The prerequisites to the allowance and issuance of such an injunction are that the party applying for the same must generally present a clear title, or one free from reasonable doubt, and set forth acts done or threatened by the defendant, which will seriously or irreparably injure his rights under such title, unless restrained. The legal discretion of the judge or court in acting upon applications for provisional injunction is largely controlled by the consideration that the injury to the moving party, arising from a refusal of the writ, is certain and great, while the damage to the party complained of, by the issuance of the injunction, is slight or inconsiderable. — *Blount v. Societe*, 53 Fed. 98; 3 C. C. A. 455.

Great Western v. Birmingham, 2 Phil. Ch. 602; *Glassott v. Lang*, 3 Mylne & C. 455; *Shrewsbury v. Railroad*, 1 Sim. (N. S.) 410; *Georgia v. Braiseford*, 2 Dall. 402.

To warrant a writ of preliminary injunction, not only must the infringement be without reasonable doubt, but the rights of the patentee must be clear.

Failing prior adjudication in favor of the validity of the patent, there must be shown such continued public acquiescence in the exclusive right asserted as raises a presumption of validity, a presumption not arising from the letters patent unless accompanied by public acquiescence. The object of the provisional remedy is preventive, largely; and it will not be granted if it is more likely to produce, than to prevent, possible mischief. — *Standard Elevator Co. v. Crane*, 56 Fed. 718; 6 C. C. A. 100.

In the Missouri case the court held that “complainants must show a clear right in support of a preliminary writ, and a defense which puts a case in doubt is sufficient to defeat the application.” This is the rule which governs all applications where the patent has not undergone prior judicial investigation and been sustained; but in cases similar to the one before us, the general rule is that where the validity of the patent has been sustained by prior adjudication, and especially after a long, arduous and expensive litigation, the only question open, on motion for a preliminary injunction, in a subsequent suit, against another defendant, is the question of infringement, the consideration of the other defenses being postponed until final hearing. The only exception to this general rule seems to be where the new evidence is of such a conclusive character that if it had been introduced in the former case, it would probably have led to a different conclusion. The burden is on the defendant to establish this, and every reasonable doubt must be resolved against him. — *Philadelphia v. Edison*, 65 Fed. 551; 13 C. C. A. 40.

Edison v. Beacon, 54 Fed. 678; *Barbed Wire Patent*, 143 U. S. 275.

The second stated objection to the interlocutory decree is “that the patent has never been sustained by a court, nor sufficiently acquiesced in by the public.” To this it is enough to say that, until the defendants began to infringe, the plaintiff had no occasion to apply to the courts to protect his patent, and that, if public acquiescence need be shown to entitle the owner of a valid patent to a preliminary injunction against clear infringement, such acquiescence satisfactorily appears here in the facts stated in the opinion of the court below. It is shown, indeed, that a large number of the plaintiff’s rings were not marked “Patented;” but a sufficiently large number of them were so marked to give general notice that the ring was patented. There was ample proof of public acquiescence. — *McDowell v. Kurtz*, 77 Fed. 206; 23 C. C. A. 119.

Whenever it is manifest to the court that, upon the case made, an injunction will be granted at final hearing to the complainant, one should be awarded to him preliminarily, in the absence of facts presenting special equitable considerations to induce the court, in the exercise of judicial discretion, to withhold it. Under such circumstances there is no reason why the complainant should not have his remedy immediately. Why should a court of equity permit a wrong, indisputable and wanton, to go unredressed longer than necessary? The object of a preliminary injunction is to preserve property rights pending the final determination of the suit. — *Allington v. Booth*, 78 Fed. 878; 24 C. C. A. 378.

It is now objected that a preliminary injunction ought not to be allowed while a demurrer is pending. Ordinarily, this is true, but there are exceptions to the rule. In a case where, on examining the bill and the demurrer, the court is not satisfied that the demurrer will, on the argument of it, be sustained, and where, on the proofs submitted, allegations of fraud pleaded in the bill are clearly proven, the court has, within reasonable bounds, a discretionary power to preserve the existing status of affairs by a preliminary injunction to prevent the carrying out of the fraud until the demurrer is

argued and disposed of. Any other rule would open a wide door to the grossest injustice. *Prima facie*, the complainant's patents, in the case in hand, are valid, and since the demurrer admits, for the purposes of the argument of it, the fraud pleaded in the bill, we should not disturb the order for an injunction *pendente lite* unless we are satisfied that there is reasonable doubt as to the sufficiency of the bill in other respects than in the "formal defects" found by the court below, or unless, on an independent examination of the facts, we are satisfied no fraud has been shown. — *Chester v. Tindel-Morris*, 165 Fed. 899; C. C. A.

The only specific objections to the bill are that it fails to allege (1) that the subject-matter of the patent was not abandoned, (2) that its subject-matter was not patented in any foreign country more than two years prior to the application, and (3) that its subject-matter was not patented in any foreign country more than seven months (in the case of one of the patents) or more than twelve months (in the case of the other two) before the application in this country was filed. These were the "formal defects" which were cured by amendments, and we think that, in view of the fraud which seems on the present *ex parte* proofs to be established, those defects were properly regarded as not sufficient to defeat the application for a preliminary injunction. — *Chester v. Tindel-Morris*, 165 Fed. 899; C. C. A.

That where the bill shows distinct, palpable fraud on the part of the defendant and the showing is not successfully controverted by the proofs, even if the patent has not been adjudicated, an injunction should issue, see *Chester v. Tindel-Morris*, 165 Fed. 899; C. C. A.

§ 563. Grounds for Refusing — Acquiescence not Established.

The extent of the sale of a patented invention might characterize the degree of public acquiescence. The mere manufacture and placing upon the market for sale does not indicate acquiescence by the public. — *Ertel v. Stahl*, 65 Fed. 519; 13 C. C. A. 31.

That while a prior litigation which has been determined has force and effect on a motion for a preliminary injunction, it would appear that the recital in a bill of numerous pending suits is without effect as establishing acquiescence, see *Wilson v. Consolidated*, 88 Fed. 286; 31 C. C. A. 533.

Three other patents, covering details of construction, are held by the complainant, — a circumstance which may have a bearing on the alleged acquiescence by the public, the taking out of licenses, etc., since it may be that some one or more of the other patents was the inducing cause to acceptance of license. — *Aquarama v. Old Mill*, 115 Fed. 806; 53 C. C. A. 376.

We apprehend that the Circuit Court fell into error in relying upon acquiescence of the public in the validity of the patent in suit as the ground on which to grant an injunction. In as much as the complainant owned and used the Wright patent, it would seem that acquiescence may have been in deference to it rather than the patent in suit. The Wright patent had stronger claims for recognition than the other, and we think it very unsafe to rely upon public acquiescence shown by this record. It should be added that public acquiescence, though sometimes, in doubtful cases, a matter of consideration, is not available to maintain a patent palpably void. — *American v. Wyeth*, 139 Fed. 389; 71 C. C. A. 485.

The Union Co. and the Hall Co. were rivals in business, the former advocating and installing the so-called normal safety system and the latter

the normal danger system. Every consideration, not only of honesty in competition but of self interest also, would induce the Union Co. to expedite its own system, which it thoroughly understood and in the efficiency of which it had implicit confidence. To assert that its course, which was the natural one for honorable men to adopt, was due solely to the Wilson (Hall Co.'s) patents, is, we think, carrying the doctrine of acquiescence beyond the limits set by former adjudications. — *Hall v. General*, 153 Fed. 907; 82 C. C. A. 653.

The railroads are the complainant's only customers and for many years the Hall Co.'s only competitor was the Union Co. In a technical sense, therefore, there was no public acquiescence. It is not the case of a patented device going into long continued general use in circumstances which compel the conviction that infringements would have occurred were it not for a settled conviction on the part of those who might profit by infringing that the patent is valid. — *Hall v. General*, 153 Fed. 907; 82 C. C. A. 653.

§ 564. Grounds for Refusing — Conflicting Proofs.

Assuming, for the purpose of a preliminary injunction, that the patent is valid, as the court rightfully did (*Elec. Mfg. Co. v. Edison*, 61 Fed. 834) it still remained that, to warrant a preliminary injunction, the fact of infringement should be made out beyond reasonable doubt (*Standard Elev. Co. v. Crane*, 56 Fed. 718). There is here so much of doubt with respect to the proper construction of the claims of the patent and of their infringement that it is needful to have an investigation into the prior art to determine the exact limitation of the claims, and to have "the search-light of an intelligent cross-examination" to determine conclusively the fact of infringement. — *Menasha v. Dodge*, 85 Fed. 971; 29 C. C. A. 508.

While the remedy is a valuable one, it is also a dangerous one; and when applied improvidently may work irreparable mischief. It should never be applied when the complainant's case is doubtful, — except indeed where the object is merely to preserve the status quo, — as when alleged rights are menaced. — *Whippany v. United*, 87 Fed. 215; 30 C. C. A. 615.

Brush v. Electric, 64 Fed. 775; *Machine Co. v. Adams*, Fed. Cas. 752; *Standard v. Crane*, 56 Fed. 718.

No description of evidence is so unreliable as *ex parte* affidavits, and disputed questions can never be safely decided upon it. — *Whippany v. United*, 87 Fed. 215; 30 C. C. A. 615.

That where the *ex parte* proofs are at absolute variance; that where a license which would estop the defendant is averred by complainant and flatly contradicted by the defendant; that where such license is produced, but is unsigned by any of the parties; and where every allegation is met with absolute contradiction, the court should refuse a preliminary injunction, see *Aquarama v. Old Mill*, 115 Fed. 806; 53 C. C. A. 376.

The preliminary proofs relating thereto are very conflicting. The defendant is a mere user. No irreparable injury, or, indeed, any special injury, to the complainant from the defendant's use is alleged or shown. Under the circumstances, then, we think the court should have forbore to act until full proofs were before it. — *Jefferson v. Westinghouse*, 134 Fed. 392; 67 C. C. A. 189.

This is a question of too much difficulty to be decided upon the *ex parte* opinions of experts. The depositions deal with an abstruse and recondite

subject, and present conflicting theories, which cannot safely be accepted without the searching elucidation which a cross-examination of the experts may afford. The experts are in flat contradiction upon the question of infringement, and, in view of the large importance of the controversy, the rights of the parties should be reserved for decision until final hearing. — *Westinghouse v. Montgomery*, 139 Fed. 868; 71 C. C. A. 582.

The circuit judge in granting the injunction inserted the following: "nothing in this injunctive order shall prevent, or is intended to prevent or enjoin, the defendant from handling, using or selling rubber tires and rims covered by the Grant patent, manufactured by the Goodyear Tire & Rubber Company, having a right to manufacture, use, and sell such tires under a judicial decree in a litigation in the federal courts in the district of Indiana, heretofore pending between the complainants and such parties, wherein it has been judicially determined that said Grant patent is invalid and void."

Held: It would seem that the rights of all can be best preserved by affirming the order, at the same time directing the circuit court (upon the filing of a new bond or the extension of an old one) to suspend the operation of the injunction until final disposition of the cause. The record at final hearing will be so comprehensive as to present every question, and when it reaches this court upon appeal a review of them can be secured by the Supreme Court either by a certification or certiorari. — *Consolidated v. Diamond*, 157 Fed. 677; 85 C. C. A. 349.

Note: The decision of the Supreme Court upon the certification of this case to it, should be watched for a further determination and modification of the rule laid down in *Kessler v. Eldred*.

§ 565. Grounds for Refusing — Damages Adequate Relief.

It would be most unwise to imperil, and presumably wholly to ruin, the large capital and interests involved in the business of the appellants, by arresting the enterprise in advance of a final decree, when the damages which the appellee may sustain can be compensated in money. — *Standard Elevator Co. v. Crane*, 56 Fed. 718; 6 C. C. A. 100.

It is by no means the duty of a court of equity to cause an infringer, who is a user, to suffer a pecuniary calamity, which ruins him, and is far out of proportion to the benefit which the owner of the patent would otherwise be entitled to receive. — *Edison v. Mt. Morris*, 58 Fed. 572; 7 C. C. A. 375.

§ 566. Grounds for Refusing — Infringement not Clear.

The injunction in this case ought not to have been granted, unless, on the facts proven, the respondent had clearly taken the complainant's device. The rule is thus applied to cover the issue of infringement as well as that of the validity of the patent. — *Hatch v. Electric*, 100 Fed. 975; 41 C. C. A. 133.

Blakey v. Mfg. Co. 95 Fed. 136; *Walk. Pat. sec. 676*; *Rob. Pat. sec. 1173*.

It is quite manifest that there is presented a substantial question as to infringement, which can be settled only upon construction of the patents, and that requires a presentation of the state of the art and a history of the invention in the Patent Office. The case would seem to be one in which preliminary injunction should not be granted without proof of prior adjudication. — *Reed v. Smith*, 107 Fed. 719; 46 C. C. A. 601.

§ 567. Grounds for Refusing — Insufficiency — General.

In *Standard v. Crane*, 56 Fed. 718, we declared the principles which should govern in granting injunctions in patent cases *pendente lite*. We are

satisfied that this case falls within the principles therein asserted. We do not deem it proper here and now to say more than this: that the fact of infringement is not clear from doubt. The issuance of the patent for the device of the appellant raises a certain presumption that it does not infringe the prior patent of the appellee. That presumption has not, for the purpose of an injunction before decree, been overcome to such extent that we can say the fact of infringement is not doubtful. There has been no adjudication sustaining the validity of the patent in suit. The public acquiescence asserted we regard of doubtful character; as referred to the particular device alleged to be here infringed, neither clearly stated nor well sustained by proof. If, however, the fact were otherwise respecting the question of public acquiescence, and the validity of the patent may be said to be conclusively established, we shall regard the question of infringement to rest in such doubt that, within the principles governing the granting of preliminary injunctions, we think the restraining order here ought not to have issued. The pecuniary ability of the appellant to respond in damages, if they shall ultimately be adjudged infringers, is not impugned. — *Ertel v. Stahl*, 65 Fed. 517; 13 C. C. A. 29.

There is a prayer for an injunction presented in the bill before us. It is important, however, to determine whether there are sufficient facts presented in the bill to warrant the court in granting this prayer. There are no allegations showing that the patent rights of appellants have been long recognized by the public; no allegations showing that its validity had ever been determined in an action at law. There are no allegations showing grounds for a discovery. In fact, it does not appear but that every important question presented in the bill could be tried as well at law as in equity. In the case of *Gutta Percha v. Goodyear*, 3 Saw. 542, Judge Sawyer thus presents this matter, in considering the bill in that case: "There is no allegation that the matter has ever been litigated before and decided in favor of complainant, and no allegation in the bill that the right of complainant has been submitted to or recognized by the public. The bill, as an injunction bill, is defective in this particular." In the case of *Hockholzer v. Eager*, 2 Saw. 361, the court, while acknowledging that it is not always necessary that the bill for an injunction should show that there had been a trial at law, testing the rights of the patentee, and the validity of his patent, said: "Something more than a grant of letters patent must be shown, — something which, in the absence of a trial at law, may take its place in establishing the validity of the patent." We think the view taken in these cases is in accordance with the general view entertained in courts of equity in regard to bills in equity, in patent causes, asking for an injunction. — *Walk. Pat.* 660; *Story Eq. Jur.* 934. — *Germain v. Wilgus*, 67 Fed. 597; 14 C. C. A. 561.

Note: Doubtful holding.

The motion for an injunction was heard within eight days after the filing of the bill, before any answer could properly be required, and before answer filed. The validity of the patent, as well as the attack upon it, rests wholly upon *ex parte* testimony, which, we observed in *Standard v. Crane*, 56 Fed. 718, to be not wholly reliable. We are not satisfied that the attack upon the patent is pretentious merely, or that it is offered or tendered in bad faith. It may fail to be sustained, but it is not manifestly without foundation, and so ineffective to secure the appellee an opportunity to present his defense according to the usual procedure in like cases. This patent has never passed judicial scrutiny. It was but recently issued, some four months prior to the hearing upon the motion for injunction. If public acquiescence could be inferred, under any circumstances, within that brief period, it certainly does not exist in this case, for there are at least three different infringements

complained of, and acquiescence is shown by one party only. — *Williams v. Breitling*, 77 Fed. 285; 23 C. C. A. 171.

Ertel v. Stahl, 65 Fed. 519.

The implication here that a temporary injunction may be the sole object of a bill is not true. Such relief is granted only as incidental and auxiliary to the final relief prayed, which, of course, may be only an injunction. The appellee therefore, has no right to rest upon the preliminary order and the decree pro confesso. — *Antisdell v. Chicago*, 89 Fed. 308; 32 C. C. A. 216.

A preliminary injunction should never be awarded where the right is doubtful, or the wrong uncertain, and that the infringement here charged has not been established. — *Blakey v. National*, 95 Fed. 136; 37 C. C. A. 27.

American v. Elizabeth, 4 Fish. Pat. Cas. 189; *Consolidated v. Accumulator*, 55 Fed. 485; *Van Camp v. Cruikshanks*, 90 Fed. 814; *Williams v. McNeely*, 56 Fed. 265.

The patent sued upon is a very recent one, and there is no such proof of long continued acquiescence by the public as would raise a prima facie case in the patentee's favor. Under such circumstances, it is the practice in this court to refuse preliminary injunction when there has been no adjudication sustaining the patents, if there appears to be any fair question as to the invention, anticipation, construction, or infringement. — *Reed v. Smith*, 107 Fed. 719; 46 C. C. A. 601.

Dickerson v. Machine, 35 Fed. 143.

The patents have never been litigated, and there is no proof of public acquiescence. The affidavits and exhibits raise such a serious question as to infringement that, under the rule already stated, we think the application for a preliminary injunction should have been refused. — *Newhall v. McCabe*, 125 Fed. 919; 60 C. C. A. 629.

The bill was filed within one year after the issuance of the patents in suit, they have never been litigated, and there is no proof of public acquiescence. Injunction refused. — *Newhall v. McCabe*, 125 Fed. 919; 60 C. C. A. 629.

First. The five patents in suit relate to a difficult, complex and abstruse subject. Because of its complicated character, the court should have the benefit of the opinions of those skilled in the art tested and clarified by cross-examination.

Second. The patents have never been adjudicated or judicially construed.

Third. The defendants assert that the patents are invalid for lack of novelty and invention and that the claims of three of the patents are not infringed.

Fourth. We think the complainants have failed to prove a case of acquiescence. There has been no long continued public acquiescence.

Fifth. We are not convinced that the complainants will suffer irreparable damage. That the defendants are amply responsible is conceded.

Sixth. We think the record presents too many elements of doubt to warrant the issuing of a preliminary injunction. — *Hall v. General*, 153 Fed. 907; 82 C. C. A. 653.

The patent is a very recent one — issued only a few weeks before the motion is made. It had never been adjudicated. The decision in interference was not the equivalent of adjudication as to patentability and infringement; and sufficient time has not elapsed to present proof of general

acquiescence. Validity and infringement are vigorously disputed, and we think both questions should be left for determination at final hearing. — *Hildreth v. Norton*, 159 Fed. 428; 86 C. C. A. 408.

Hall v. General, 153 Fed. 907; *Newhall v. McCabe*, 125 Fed. 919.

§ 568. Grounds for Refusing — Laches.

When there was a delay of seventeen years nearly and no explanation was made, such laches would disentitle complainant to a preliminary injunction. — *Keyes v. Eureka*, 158 U. S. 150; 39 L. Ed. 929; 15 S. Ct. 772.

McLaughlin v. Peoples, 21 Fed. 574; *American v. Chicago*, 41 Fed. 522; *Keyes v. Pueblo*, 31 Fed. 560; *Root v. Railway*, 105 U. S. 189; *Clark v. Wooster*, 119 U. S. 322; *Lane v. Locke*, 150 U. S. 193.

It has never been held that mere laches, unaccompanied by circumstances which amount to an equitable estoppel, shut out a party from all relief in a court of equity. Knowledge of and long continued acquiescence by a complainant in an infringement may, in special cases, be fatal on a motion for preliminary injunction, but will not, on a final hearing, prevent the court from granting such relief as may be just and equitable. This is the general rule which is recognized in the authorities. — *Taylor v. Sawyer*, 75 Fed. 301; 22 C. C. A. 203.

Kittle v. Hall, 29 Fed. 508; *McLean v. Fleming*, 96 U. S. 245; *Menendez v. Holt*, 128 U. S. 514; *Price v. Steel*, 46 Fed. 107; *N. Y. v. Buffalo*, 18 Fed. 638; *Gilmore v. Anderson*, 38 Fed. 846; *Brush v. Electric*, 45 Fed. 241.

One who, with full knowledge of a patentee's claim of infringement, and against his protest, continues to trespass, cannot, on the ground of the estoppel or laches of the patentee, successfully defend a suit for infringement brought, or a motion for a preliminary injunction made within a reasonable time. Repeated wilful trespasses establish no right to their continuance. And mere delay by a patentee to bring his suit or to apply for his preliminary injunction for any reasonable length of time after an infringer is informed of his trespass, unaccompanied with such acts of the patentee and such facts and circumstances as amount to an equitable estoppel, will not deprive him either on the ground of laches or estoppel, of his right to a temporary injunction or to a recovery. Moreover, delay in prosecuting other infringers during the time while the validity of the patent is in litigation does not constitute laches. — *Stearns-Roger v. Brown*, 114 Fed. 939; 52 C. C. A. 559.

American v. Southern, 34 Fed. 795; *Edison v. Sawyer*, 53 Fed. 592; *Green v. Barney*, 19 Fed. 420; *Norton v. Can Co.* 57 Fed. 929.

Defendant did not put its tool on the market until in the spring or summer of 1899. Within a month or so thereafter complainants began litigation with infringers, and has continued to litigate ever since. They were under no obligation to sue everyone at the same time. — *Timolat v. Franklin*, 122 Fed. 69; 58 C. C. A. 405.

American v. National, 90 Fed. 824; *Edison v. Mt. Morris*, 57 Fed. 644.

§ 569. Grounds for Refusing — License.

The defendant set up as its main plea, a license. While there was some question as to whether certain modifications and conditions of the license contract might, on final adjudication, be held not to excuse the acts complained of, the court held that the fact of such license, creating a serious doubt as to the right of complainant to recover, should bar the granting of a preliminary injunction. — *American v. Talking Machine*, 98 Fed. 729; 39 C. C. A. 245.

That an injunction will not lie against a vendee who obtains a license upon notice of infringement; but that such licensing does not excuse the vendor, see *Johnson v. Foos*, 141 Fed. 73; 72 C. C. A. 105.

§ 570. Grounds for Refusing — Prior Adjudication Insufficient.

In the absence of prior adjudication or public acquiescence, a preliminary injunction should not be granted unless the rights of the patentee be clear and the infringement without reasonable doubt. — *Electric v. Edison*, 61 Fed. 834; 10 C. C. A. 106.

Standard v. Crane, 56 Fed. 718.

That where an injunction has been granted following the decision of the circuit court in another circuit, and thereafter the circuit court of appeals has reversed the decision followed, even if the reversal was not on the merits, it is sufficient to warrant the vacating of the injunction, see *Prieth v. Campbell*, 80 Fed. 539; 35 C. C. A. 624.

Note: This seems to me an extreme rule, if it is to be taken as a general rule; because it is perfectly evident that a case might be reversed on grounds wholly unconnected with the question of merit and thus deprive the inventor of an adjudication of great value.

Upon an application for preliminary injunction, it would be a most exceptional case which would warrant the court in expanding the claim beyond the limits fixed in an exhaustive opinion at final hearing. — *Dodge v. Fulton*, 92 Fed. 995; 35 C. C. A. 140.

That even where a claim has been previously adjudicated, if its construction with reference to the infringement complained of is in doubt, the injunction should be refused, see *Sprague v. Nassau*, 95 Fed. 821; 37 C. C. A. 286.

That where a prior adjudication is set up as grounds for preliminary injunction and there are facts involved in the issue other than those determined by the prior adjudication, such facts must be clearly shown, see *Hatch v. Electric*, 100 Fed. 975; 41 C. C. A. 133.

Complainant relies upon a decision of the Patent Office in an interference proceeding, in which eight different applicants were involved, of whom only Shaw and Asher took testimony. That decision, however, only settled the question of priority as between Shaw and Asher, and is not such an adjudication as the practice calls for, where there is substantial question as to construction and infringement. — *Reed v. Smith*, 107 Fed. 719; 46 C. C. A. 601.

Dickerson v. Machine Co. 35 Fed. 143; *Ironclad v. Vollrath*, 52 Fed. 142; *Rogers v. Mergenthaler*, 58 Fed. 693.

§ 571. Grounds for Refusing — Title in Doubt.

It is sufficient to say, therefore, without passing on any of these questions, that the uncertainty as to said agreements, and the contradictory character of the affidavits, leave the question of license in such serious doubt that we think no injunction should issue except after an opportunity has been given to resolve said doubt upon final hearing. — *Armat v. Edison*, 125 Fed. 939; 60 C. C. A. 380.

It is a fundamental principle that injunctions ought not to issue unless the right alleged to be invaded or threatened is clear. — *St. Louis v. Sanitary*, 161 Fed. 725; 86 C. C. A. 585.

Truly v. Wanzer, 5 How. 141.

§ 572. Grounds for Refusing — Validity Contested.

The validity of the patent is strongly assailed; its infringement is vigorously denied. We think it clearly within the ruling of *Standard v. Crane*, 56 Fed. 718 and *Ertel v. Stahl* (herewith decided), 65 Fed. 517. — *Ertel v. Stahl*, 65 Fed. 519; 13 C. C. A. 31.

Where the validity of the patent and the infringement are denied, and defendant sets up valid defenses, there should be strong proof of acquiescence to warrant the issuing of an injunction. — *American v. Phoenix*, 113 Fed. 629; 51 C. C. A. 339.

Smith v. Britannia, 92 Fed. 1003; *Fastener v. Fastener*, 94 Fed. 523.

§ 573. Modification.

Many users of electric plants had put in their plants prior to the adjudication of the Edison patent, and when it was confidently believed it was invalid. On proper presentation of their case and their willingness to purchase the Edison lamps the court would modify the injunction as to them, to enable them to continue in business. — *Edison Electric v. Sawyer-Man*, 53 Fed. 592; 3 C. C. A. 605.

Note: It seems to me this holding is most questionable. The remedy for the hardship lay farther back. So long as the damage clearly was not irreparable, the relief under a reasonable bond would have been not only proper but a better tempering of the case to equity than the manufacture of a quasi excuse on the ground that these innocent persons did not respect the prima facie of the patent which the law gives it. Almost as well might the court say, "the patent means nothing until we have passed upon it; and if we have to uphold it, we will temper our judgment to him who has relied upon our theory."

The defendants, in desiring to obtain an unlimited future capacity of ownership of the patented lamps, for the purpose of extending their competitive power, are asking too much. We perceive no controlling equity which cause us to compel the Illuminating Company, which owns an equitable title to the lamp patent, to sell lamps to a competitor for the purpose of enabling it to utilize the unused portion of its plant, and extend its business into unoccupied territory, and thus permit it to deprive the owner of all the material benefit of the patent during the comparatively brief residue of its life. — *Edison v. Mt. Morris*, 58 Fed. 572; 7 C. C. A. 375.

The affirmance in this court of a preliminary order or an interlocutory decree granting an injunction does not operate to deprive the circuit court of the power, inherent in it, temporarily to suspend such injunction, upon sufficient cause shown, after proper notice, whenever the ends of justice call for the exercise of such power. — *Edison v. U. S.* 59 Fed. 501; 8 C. C. A. 200.

It is thus manifest that the defendant is enjoined from making the tubes for any purpose whatever, and that the repair of a single tube is within the prohibition of the injunction. In this respect we think the decree is too broad and sweeping. The theory of the rule invoked by the complainant is that the patentee of a combination cannot be deprived of his gains and profits by the conversion of an old and defunct machine under the guise

of repairs. If a new machine be needed the patentee is entitled to furnish it, but on the other hand, the purchaser of a patented machine is entitled to make necessary repairs and to replace worn out parts, not separately patented, so long as the identity of the licensed machine is not destroyed. If this be lawful for the owner, it is equally so for the mechanic who is employed to do the work; the latter cannot be held as an infringer for making repairs which the former has an undoubted right to make. — *Morrin v. White*, 143 Fed. 519; 74 C. C. A. 466.

That an injunction is properly limited according to the specific terms of *Kessler v. Eldred*, 206 U. S. 285; but that it must not be extended to defeat the rights of patentees, see *Consolidated v. Diamond*, 162 Fed. 892; 89 C. C. A. 582.

§ 574. Non-User.

The facts were that complainant owned and held the patent in suit, but did not use it, apparently because, from manufacturing reasons it was desirable to use other apparatus already in use. It was contended by defendant that such nonuser, under the broad and general provision of the constitution, prevented the complainant from invoking equitable relief, and that whatever relief it had was by action at law. *Held*: but granting all this, it is certainly disputable that the nonuse was unreasonable, or that the rights of the public were involved. There was no question of a diminished supply or of increase of prices and can it be said, as a matter of law, that a nonuse was unreasonable which had for its motive the saving of the expense that would have been involved by changing the equipment of a factory from one set of machines to another? And even if the old machines could have been altered, the expense would have been considerable. As to the suggestion that competitors were excluded from the use of the new patent, we answer that such exclusion may be said to have been of the very essence of the right conferred by the patent, as it is the privilege of any owner of property to use or not use it, without question of motive. We have seen that it has been the judgment of Congress from the beginning that the sciences and useful arts could be best advanced by giving an exclusive right to an inventor. It is manifest, as is said in *Walker on Patents*, sec. 106, that Congress has not "overlooked the subject of nonuser of patented inventions." And another fact may be mentioned. In some foreign countries the right granted to an inventor is affected by nonuse. This policy, we must assume, Congress has not been ignorant of nor of its effects. It has, nevertheless, selected another policy; it has continued that policy through many years. We may assume that experience has demonstrated its wisdom and beneficial effect upon the arts and sciences. From the character of the right of the patentee we may judge of his remedies. It hardly needs to be pointed out that the right can only retain its attribute of exclusiveness by a prevention of its violation. Anything but prevention takes away the privilege which the law confers upon the patentee.

In a number of the circuit courts of appeals, it has been decided that, as a consequence of the exclusive right of the patentee, he is entitled to an injunction against an infringer, even though he does not use the patented device. *Edison v. Mt. Morris*, 58 Fed. 572; *Heaton v. Eureka*, 77 Fed. 294; *Crown v. Aluminum*, 108 Fed. 845; *Fuller v. Berger*, 120 Fed. 274; *Lamson v. Hillman*, 123 Fed. 416; *Victor v. The Fair*, 123 Fed. 425; *U. S. v. Griffin*, 126 Fed. 364; *Rupp v. Elliott*, 131 Fed. 730; *Railway v. Monroe*, 147 Fed. 241; *Jewell v. Jackson*, 140 Fed. 340; *U. S. v. Bradley*, 149 Fed. 222; *Rubber v. Milwaukee*, 154 Fed. 358; *Indiana v. Case*, 154 Fed. 365.

Cases holding that, as incident to the right, he is entitled to an injunction, though he has not used the invention, are *Carr v. Rice*, Fed. Cas. 2440;

Wintermute v. Redington, Fed. Cas. 17,896; *Ransom v. N. Y.* Fed. Cas. 11,573; *Pitts v. Wemple*, Fed. Cas. 20, 194; *Whitney v. Emmet*, Fed. Cas. 17,585; *Broadnax v. Central*, 4 Fed. 214; *Re Broasnahan*, 18 Fed. 62; *Consolidated v. Coombs*, 39 Fed. 803; *Wirt v. Hicks*, 46 Fed. 71; *Campbell v. Manhattan*, 49 Fed. 930; *Edison v. Mt. Morris*, 57 Fed. 462; *Masseth v. Johnston*, 59 Fed. 613; *Bonsack v. Smith*, 70 Fed. 383; *Columbia v. Freeman*, 71 Fed. 302; *Wyckoff v. Wagner*, 88 Fed. 515; *White v. Peerless*, 111 Fed. 190; *Brodrick v. Mayhew*, 131 Fed. 92; *National v. Daab*, 136 Fed. 891; *Hoe v. Miehle*, 141 Fed. 115; *Hartman v. Park*, 145 Fed. 358.

Counsel for petitioner cites counter cases, which he contends are more direct authority: *Isaacs v. Cooper*, Fed. Cas. 7,096; *Ogle v. Ege*, Fed. Cas. 10,462; *Motte v. Bennett*, Fed. Cas. 9,884; *Sullivan v. Redfield*, Fed. Cas. 13,597; *Magic v. Douglas*, Fed. Cas. 8,948; *Hoe v. Knapp*, 27 Fed. 212; *Germain v. Wilgus*, 67 Fed. 600; *Campbell v. Duplex*, 86 Fed. 531; 1 Rob. Pat. sec. 43; Curt. Pat. sec. 320, 1st ed., sec. 406, 3 ed. — *Continental v. Eastern*, 210 U. S. 405; 51 L. Ed. 992; 28 S. Ct. 748.

As the patentees have never made any use of their alleged invention, nor attempted to do so, nor permitted its use by others, nor given any explanation of the non-user, or any reason for it; I doubt whether the case submitted is not one of a mere legal right, and whether the complainant should not be left to its remedy at common law, if entitled to any relief at all. — Mem. of Putnam, C. J. in *N. Y. v. Hollingsworth*, 56 Fed. 224; 5 C. C. A. 490.

See Sup. Ct. decision *supra*.

§ 575. Patent Office Decisions.

An interference proceeding cannot be invoked against strangers on the question of a preliminary injunction. Judge Lacombe, who carefully reviewed the decisions in this regard, came to the just conclusion that the only adjudication which can support such an injunction is a judicial one. — *Wilson v. Consolidated*, 88 Fed. 286; 31 C. C. A. 533.

Walk. Pat. sec. 674; *Dickerson v. Machine Co.* 35 Fed. 143.

The decision in interference was not the equivalent of an adjudication as to patentability and infringement. — *Hildreth v. Norton*, 159 Fed. 428; 86 C. C. A. 408.

§ 576. Powers and Scope.

Federal courts vested with jurisdiction in such cases have power, in their discretion, to grant injunctions to prevent the violation of any right secured by a patent, as in other cases of equity cognizance. — *Parks v. Booth*, 102 U. S. 96; 26 L. Ed. 54.

Jurisdiction and power to grant, history and general statement. — *Root v. Railway*, 105 U. S. 189; 26 L. Ed. 975.

The complainant was thus compelled not only to go into another jurisdiction to try points at issue below, but also to go into the jurisdiction of a law court in which he could not avail himself of his equities. Under these circumstances the court below enjoined him. It is a familiar principle that when a court of equity has taken jurisdiction of a controversy and has all the parties before it, it proceeds to give full relief, and it can enjoin any proceedings in any other court touching the matters in controversy before it. — *Berliner v. Seaman*, 113 Fed. 750; 51 C. C. A. 440.

The injunction forbids "the making, using, or selling of any apparatus embodying the inventions recited or specified" in the claims of the patents.

The monopoly of a patent extends to the making or selling, as well as the using, of the patented device within the United States. — *Bullock v. Westinghouse*, 129 Fed. 105; 63 C. C. A. 607.

Adams v. Burks, 17 Wall. 453; *Heaton v. Eureka*, 77 Fed. 288; *Dorsey v. Bradley*, 12 Blatchf. 202.

§ 577. Violation of — Contempt.

Process of contempt is a severe remedy and should not be resorted to where there is fair ground of doubt as to the wrongfulness of the defendant's conduct. — *California v. Molitor*, 113 U. S. 609; 28 L. Ed. 1106; 5 S. Ct. 618.

The power of the court to direct the payment of a part or all of the fine to the complainant in an application for contempt, as a compensation for his time and outlay in prosecuting the application, has been also recognized in the circuit courts especially in this circuit; and in practice is a power which ought to be exercised when the expenses and trouble to which the complainant has been subjected justify its exercise. — *Cary v. Acme*, 108 Fed. 873; 48 C. C. A. 118.

In re Muller, 7 Blatchf. 23; *Macauley v. Machine*, 9 Fed. 698; *in re Tift*, 11 Fed. 463; *in re North Bloomfield*, 27 Fed. 795; *Wells Fargo v. Oregon*, 19 Fed. 20.

The articles sold in supposed violation of the temporary injunction had been made before the injunction was granted, and pending the injunction were shipped to Canada and there sold. There had been, therefore, no violation of the injunction, because there had been no making or selling or using of the patented device after the allowance of the injunction, within the limits of the United States. But it is elementary that neither the making, selling, nor using of one element of a combination is infringement. — *Bullock v. Westinghouse*, 129 Fed. 105; 63 C. C. A. 607.

Prouty v. Ruggles, 16 Pet. 336; *Corn Planter Patent*, 23 Wall. 181; *Rowell v. Lindsay*, 113 U. S. 97.

The wilful violation of an injunction by a party to the cause is a contempt of court constituting a specific criminal offense. *Crosby case*, 3 Wilson, 188; *Ex parte Kearney*, 7 Wheat. 38; *New Orleans v. Steamship*, 20 Wall. 387; *Hayes v. Fischer*, 102 U. S. 121. It is immaterial to consider the distinction sometimes noticed between criminal and civil contempts, inasmuch as both kinds involve the vindication of the authority of the court, whether the remedy incidentally inure to the benefit of a party or not. *Cyc. Law & P.* 6 et seq. The proceeding to punish for a contempt is in the nature of a criminal proceeding, whether the result be partially remediable or not, and the same rules prevail which govern in the trial of indictments, the defendant being entitled to any reasonable doubt. *Accumulator v. Consolidated*, 53 Fed. 793; *In re Acker*, 66 Fed. 291; *Howell v. State*, 10 Lea, 544; 4 Enc. Pl. & Pr. 768 et seq.; *U. S. v. Jose*, 63 Fed. 951. — *Bullock v. Westinghouse*, 129 Fed. 105; 63 C. C. A. 607.

Proceedings of contempt are of two classes: Those prosecuted to preserve the power and vindicate the dignity of the courts by punishing the contemnor, and those prosecuted to compel observance and redress the violation of orders or decrees made in behalf of a party to an action pending before the court. The former are punitive and essentially criminal in their nature, and the government, the courts, and the people are interested in their prosecution. The latter are civil, remedial, and coercive in their nature, and the parties chiefly interested in their conduct and prosecution are the individuals whose private rights and remedies they are necessary to redress.

The intentional violation of an injunction by a party to the cause is an act in defiance of the authority of the court and in derogation of the rights of the adverse party, and a prosecution for contempt in such case may partake of both punitive and remedial character. — *Christensen v. Westinghouse*, 135 Fed. 774; 68 C. C. A. 476.

§ 578. Violation of — Miscellaneous Rules.

The fines were, in fact, measured by the damages the plaintiff had sustained and the expenses he had incurred. They were incidents of his claims in the suit. His right to them was, if it existed at all, founded on his right to the injunction, and that was founded on the validity of the patent. — *Worden v. Searles*, 121 U. S. 14; 30 L. Ed. 853; 7 S. Ct. 814.

Distinguishing: *Ex parte Kerney*, 20 U. S. 39; *New Orleans v. Steamship*, 87 U. S. 387.

The sale was made in Canada of articles then in Canada to a Canadian manufacturer to be used in the ordinary course of business, and, so far as known, no one of the articles was thereafter used in the United States. Inasmuch as the articles were made before the injunction, the manufacturer was not in contempt of the court's order; and as no preliminary arrangements for the sale were made in the United States the sale did not come within the prohibition. — *Gould v. Sessions*, 67 Fed. 163; 14 C. C. A. 366.

The defendant, after knowledge that the injunction had been issued, did not cease the publication of its former advertisement, which exhibited the "split fastener," or the circulation of postal cards having the picture of the same device. It says that before the injunction was issued it had previously made a contract with several periodicals for a year's advertising, that the advertisement as prepared included a picture of the split fastener, and therefore, that the printed publication was not the act of the defendants; but it did not change or take steps to alter the advertisement, and it continued to circulate the old postal cards. An additional defense is that the injunction prohibited selling the fastener, but did not prohibit offering it for sale. These advertisements and postal cards showed a careless disregard of the spirit of the order. If they had stood alone, the acts would very likely not have been visited with punishment, but coupled with the sales of the new fasteners, they indicated an intent which was not consistent with innocence. — *Cary v. Acme*, 108 Fed. 873; 48 C. C. A. 118.

Not is the power of the court over its own process, as between the parties, necessarily controlled by the rule of noninterference with press publications as to disputed rights and claims of different parties as to the scope of its decisions. It is probably true that, in a case of honest disagreement or misunderstanding as to the true import of a decision, or in an extreme case of abuse or misuse of process for the purpose of impairing or destroying rights sought to be established by the court through its decision, the court may proceed summarily in reference thereto. Such power, however, would be exercised with reluctance, and ordinarily only in an extreme case. — *Hobbs v. Gooding*, 113 Fed. 615; 51 C. C. A. 335.

In this case the defendant had been guilty of a previous violation of the injunction order, but escaped on a lame excuse. The second violation was two-fold, and the only reply defendant made was to raise technical objection to notice &c. The circuit court fined the defendant in all \$5,000, one-half to the government and one-half to the complainant. On appeal, the court held: If the fines in the present case had been imposed solely in favor of

the government, the question whether they were reasonable or excessive in amount would be so largely one of discretion for the court below that we should not feel justified in disturbing them. We think that when the fine is imposed by way of indemnity to the aggrieved party, it should not exceed his actual loss incurred by the violation of the injunction, including the expenses of the proceedings necessitated in presenting the offense to the judgment of the court. We are also of opinion that when the fine is not limited to the taxable costs it should not exceed in amount the loss and expenses established by the evidence before the court. It follows that, although so much of the orders as directs the payment of half of the fine to the clerk for the use of the United States should be affirmed, that part which directs the payment of half to the complainant should be reversed, with instructions to the court below to take evidence and order payment to the complainant of such sum only as may be found to be a sufficient indemnity. — *Christensen v. Westinghouse*, 135 Fed. 774; 68 C. C. A. 476.

The service of a copy of an injunction upon the solicitors for the defendant in an equity suit ordinarily affords sufficient notice to the defendant, and should be deemed equivalent to actual notice to the defendant of the contents. It is the duty of the solicitor promptly to inform his client of the contents of the document, and the presumption is that he has done so. If it should appear that he has not done so, the court would doubtless acquit the defendant of any intentional misconduct in a proceeding to punish him for violating the order. In this case there was the additional presumption that a letter properly addressed and mailed reached its destination at the proper time and was duly received by the person to whom it was addressed. This is a presumption of fact resting on the consideration that the post office is a public agent charged with the duty of transmitting letters, and that what ordinarily results from the transmission of a letter through the post office probably resulted in the given case; it is deduced from the known course of business, and the presumption that the officers of the postal system have discharged their duty. — *Christensen v. Westinghouse*, 135 Fed. 774; 68 C. C. A. 476.

Rosenthal v. Walker, 111 U. S. 135; *Kimberly v. Arms*, 129 U. S. 512; *Henderson v. Carbondale*, 140 U. S. 26; *Schutz v. Jordan*, 141 U. S. 213.

That a person not actually in the employ of or acting as agent of a defendant, and having no official notice of the injunction, but actually possessing such knowledge and acting in collusion with defendant, may be punished for contempt, see *Hamilton v. Diamond*, 137 Fed. 417; 69 C. C. A. 532.

§ 579. Miscellaneous Injunction Decisions.

The right of a complainant to an injunction, on cause shown, is not abridged by the fact that he has entered into a combination with others to create a monopoly under his patents. — *Edison Electric v. Sawyer-Man*. 53 Fed. 592; 3 C. C. A. 605.

The fact that a contracting company had undertaken to build certain devices for a licensee under the patent, and had also offered to furnish similar devices, as part of another contract with another company, not a licensee under the patent, does not constitute a threat of infringement sufficient to justify a preliminary injunction. — *Johnson v. Union*, 55 Fed. 487; 5 C. C. A. 204.

We are clearly of the opinion that the court below, in refusing to modify its order, and exempt from the writ of injunction the articles made by the

company which as defendant in another suit upon this patent had given bond to these complainants, and which had sold these articles to this defendant, acted in accordance with the established practice, and in the observance of that rule of comity which has always prevailed in the courts of the United States in like cases. — *Philadelphia v. Edison*, 65 Fed. 551; 13 C. C. A. 40.

Sessions v. Gould, 46 Fed. 855; *Electrical v. Julien*, 47 Fed. 892; *Cary v. Spring*, 27 Fed. 299; *Coburn v. Clark*, 15 Fed. 804; *Siebert v. Michigan*, 34 Fed. 33; *Ladd v. Cameron*, 25 Fed. 37.

It was earnestly urged to our consideration that unusual conditions existed here, which should be persuasive to the allowance of the injunction in this cause. The argument was with respect to the bicycle. Every part of its construction is fugitive and changeable from year to year, and with respect to the lamp in question, while its usefulness at the present was strongly asserted, it was, nevertheless, urged that it was likely during the present year to be superseded by an electric lamp which would render the appellants' lamp useless. If the argument be well founded in fact, it would be a strong attack upon this lamp as a useful invention, within the meaning of the patent law; and, if it be true that the lamp in question is likely to be specially superseded, — since there is here no attack upon the financial ability of the alleged infringer to respond in damages, while, on the contrary, it has been shown affirmatively that it is abundantly responsible, — there would seem to be no necessity for the injunction, since the inventor, if his lamp is to have such brief existence, could be fully compensated, and would be aided by the active exertions of the infringer in placing the lamp on the market during the short term of its life. It is true the inventor claims that, by reason of the appearance of this infringing lamp, he reduced the price of his own lamp, to maintain it upon the market, and to undersell the infringing lamp. That, however, was a voluntary, and possible ill-advised, act on his part, since, if his patent should be sustained, he could recover damages measured by the market price of the lamp as he had established it, and not by the price which an infringer may receive for it. — *Williams v. Breitling*, 77 Fed. 285; 23 C. C. A. 171.

A settlement before final decree does not entitle the complainant to an injunction. The bill should be dismissed. — *Marden v. Campbell*, 79 Fed. 653; 25 C. C. A. 142.

See, *Gamewell v. Municipal*, 77 Fed. 490.

The act of August 13, 1888, does not apply to suits for the infringement of patents, or other actions of which the circuit court has exclusive jurisdiction. — *Southern v. Earl*, 82 Fed. 693; 27 C. C. A. 185.

In re Hohorst, 150 U. S. 659; *In re Keasbey*, 160 U. S. 231.

We refer to them (the record and proceedings in the court below) only because we do not wish to leave any presumption that we impliedly approve that parties should proceed with a voluminous hearing on a mere motion for an ad interim injunction at a time when a final hearing may be accomplished almost as speedily. — *Wilson v. Consolidated*, 88 Fed. 286; 31 C. C. A. 533.

The bill with the prayer for preliminary injunction was filed and defendant required to show cause why an injunction should not issue on the return day. On the return day defendant answered and filed affidavits. Complainant did not move for injunction but afterwards moved the court for a show cause order returnable in one week. *Held*: Manifestly being unprepared at that time to proceed, and clearly it was not entitled at that time, as the pleadings

and proofs stood, to an injunction. Application was also made to the court at that time for an injunction or restraining order pending the hearing of the new motion. Motion denied. — *Seiler v. Fuller*, 102 Fed. 344; 42 C. C. A. 386.

Complainant held a license under the patent not exclusive, but an exclusive license to the trade name applied to the patented article. He brought action to restrain defendant from using such trade name, not being in position to restrain defendant under the patent since he held a license right thereunder. It was held that, notwithstanding complainant held such exclusive license to the trade name of the article, since said trade name had become the common designation of the patented article, he could not exclude the defendant from the use of the same. — *Johnson v. Seaman*, 108 Fed. 951; 48 C. C. A. 158.

Our attention is directed to the great loss the appellant will sustain, and to the public inconvenience which, it is claimed, will be experienced, if the injunction is allowed to go into effect. Injunction allowed. — *Lanyon v. Brown*, 115 Fed. 150; 53 C. C. A. 354.

Curry, as patentee, is estopped to deny the validity of the claims; and as a mere employee, that he "may be enjoined whenever this is necessary to protect the holder of the patent against future infringements, is universally conceded." — *Regent v. Penn*, 121 Fed. 80; 57 C. C. A. 334.

Rob. Pat. sec. 912.

Defendant sells perforated music rolls, adapted for complainant's instruments, and also several other varieties, not covered by complainant's patent. The injunction restrains defendant from directly or indirectly vending to others to be used music rolls adapted and intended to be used in mechanical and musical instruments purchased from the complainant herein under patent license to be used only with music rolls made and sold by said complainant. — *Æolian Co. v. Juelg Co.* 155 Fed. 119; 86 C. C. A. 205.

INTERFERENCES.

The Statute § 580
 General Statement § 581
 Actions to Compel Issue of Patent § 582
 Appeals § 583 (see § 109)
 Conclusiveness § 584
 Miscellaneous § 585
 See — Actions § 25; Adjudication

§ 30; Appeals § 114; Commissioner of Patents § 258; Estoppel § 383; Injunction § 575; Interfering Patents § 586; Patent Office § 783; Priority § 810; Protests § 848; Public Use Proceedings § 859; Reduction to Practice § 860; Res Judicata § 895

§ 580. The Statute.

Sections 482 and 4909 relate to appeals in interferences, and sec. 4905 provides the method of taking proofs. The only provision necessary to quote is the following:

Whenever an application is made for a patent which, in the opinion of the Commissioner, would interfere with any pending application, or with any unexpired patent, he shall give notice thereof to the applicants, or applicant and patentee, as the case may be, and shall direct the primary examiner to proceed to determine the question of priority of invention. 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. — R. S. 4904.

§ 581. General Statement.

The law, practice, and procedure in interferences is a distinct and separate branch of the patent law. The Court of Appeals, D. C. is the court of last resort in interference matters; but since a Patent Office adjudication is not final except between the parties or parties in privity, interference adjudications amount to little more than side lights which may or may not illumine the subject. No branch of the patent law is more beset with technicalities, more objectionable on account of the power it gives to a powerful litigant to exhaust a weak one, or more in need of reform to meet the changed conditions of industrial life than that of interferences.

§ 582. Actions to Compel Issue of Patent.

Where action is brought to compel issue of patent under R. S. sec. 1915, the court will not only determine prior rights but will also adjudicate the patentability of the invention. — *Hill v. Wooster*, 132 U. S. 693; 33 L. Ed. 502; 10 S. Ct. 228.

In an action under sec. 4915 U. S. R. S. by a defeated party in an interference, when the question decided in the patent office is one between contesting parties as to priority of invention, the decision there made must be accepted as controlling upon that question of fact in any subsequent suit between the same parties, unless the contrary is established by testimony which in character and amount carries thorough conviction. — *Standard v. Peters*, 77 Fed. 630; 23 C. C. A. 367.

Morgan v. Daniels, 153 U. S. 124.

§ 583. Appeals.

That an appeal from a decision of a primary examiner upon a motion to dissolve an interference in which it was held that the party had the right to make a claim is not allowable, and that the patent office rule so providing is not in contravention of the statutes, see *Lowry v. Allen*, 203 U. S. 476; 51 L. Ed. 281; 27 S. Ct. 141.

§ 584. Conclusiveness.

Decision of Patent Office on priority is controlling in a subsequent suit between same parties, in the absence of other thoroughly convincing testimony. — *Morgan v. Daniels*, 153 U. S. 120; 38 L. Ed. 657; 14 S. Ct. 772.

It is contended that it was too late for the complainant to raise the question, in the court below, whether the invention of one of the parties was put in issue in the interference and that he is thereby estopped. We do not concur in this view. The interference issue is drawn up by the patent office examiners, and the interference is declared, before either party has access to the specifications of the other, and the claims made with respect to the issue are submitted before the specifications are disclosed. Subsequently, perhaps, the question might be raised, but we do not think that a failure to raise it in the patent office, prevents its being brought to the attention of the court in a proceeding like this by independent bill. — *Christie v. Seybold*, 55 Fed. 69; 5 C. C. A. 33.

Hill v. Wooster, 132 U. S. 693.

Complainant withdrew from the contest and permitted — indeed assisted — contestant to make out his case, and took a license under contestant's patent. We regard it an admission of contestant's priority. — *Shoemaker v. Mellow*, 61 Fed. 945; 10 C. C. A. 181.

No alleged interference, on the merits of which the patent office finally passed, and to which the Messrs. Cowles were parties, was declared until after the issuing of the process patent in suit, and cannot of itself control the scope, construction or validity of the claims in question. 2 Rob. Pat. 588. These interference proceedings can at most only serve to disclose the understanding of the patent office and of the parties to such interference at the time as to the validity and scope of these claims. They are not conclusive in any sense upon the rights of the appellant. — *Elec. v. Carborundum*, 102 Fed. 618; 42 C. C. A. 537.

This action was brought to cancel an agreement of license from defendant to complainant on the ground that the claims had been put in interference and judgment rendered against them and in favor of the other interferent. Demurrer was interposed on the ground that the suit was unseasonably brought; that the adjudication by the examiner of interferences was not final. *Held*: That the judgment was not final. — *Westinghouse v. Hein*, 159 Fed. 936; 87 C. C. A. 142.

§ 585. Miscellaneous.

If the inventions were practically one and the same the patent office was in error in dividing the invention, and as it adjudged that plaintiff was the prior inventor, he was the one entitled to the patent. — *DuBois v. Kirk* 158 U. S. 58; 39 L. Ed. 895; 15 S. Ct. 729.

It will hardly be contended, if Lobel had appeared upon the adjourned day, that his cross-examination could not have proceeded legally. If on that day, he had announced his refusal to be cross-examined, there would have been ample time to procure an order compelling his attendance before the time for taking the testimony had expired. It was not, however, until counsel on the other side had consented to four adjournments that they were informed that Lobel declined to be cross-examined further. It was then too late to proceed within the assigned time, as but two days remained. Thus, if Lobel's contention be sustained, he has, by persistently securing adjournments for his own convenience, deprived Cossey of a substantial right, the exercise of which he postponed for the accommodation of and at the request of Lobel. Contempt order affirmed. — *Lobel v. Cossey*, 157 Fed. 664; 85 C. C. A. 142.

The times for taking testimony had been fixed and the junior party had delayed until near the close of his time limit and then called a witness, examined him, and asked for adjournments which carried the time past the time limit and into the period allotted to the senior party. The witness refused to appear for cross-examination on the ground of expiration of time for taking his testimony. On motion to punish him for contempt for refusal to obey a subpoena issued by the circuit court, *held*: We are of the opinion that Cossey had an undoubted right to cross-examine Lobel which right became vested during the continuance of the time fixed by the Commissioner of patents, and that the circuit court had jurisdiction to enforce the right notwithstanding the fact that the time had expired when the authority of the court was invoked. — *Lobel v. Cossey*, 157 Fed. 664; 85 C. C. A. 142.

INTERFERING PATENTS.

Statutory Provision § 586

Rulings § 587

See — Priority § 808; Protests § 848;

Public Use Proceedings § 859; Reduction to Practice § 860

§ 586. Statutory Provision.

Whenever there are interfering patents, any person interested in any one of them, or in the working of the invention claimed under either of them, may have relief against the interfering patentee, and all parties interested under him, by suit in equity against the owners of the interfering patent; and the court, on notice to adverse parties, and other due proceedings had according to the course of equity, may adjudge and declare either of the patents void in whole or in part, or inoperative, or invalid in any particular part of the United States, according to the interest of the parties in the patent or the invention patented. But no such judgment or adjudication shall affect the right of any person except the parties to the suit and those deriving title under them subsequent to the rendition of such judgment. — R. S. 4918.

§ 587. Rulings.

On an issue made directly between two patents under section 4913, R. S., or otherwise, the complainant below would be required to prove earlier invention in his behalf beyond reasonable doubt. (The complainant's patent having been filed later.) — *Brooks v. Sacks*, 81 Fed. 403; 26 C. C. A. 456.

Morgan v. Daniels, 153 U. S. 120.

It is said that section 4918 was intended to subserve the single purpose of enabling parties to obtain an adjudication of priority of invention covered by interfering patents, with the consequent authority to declare the patent of the later inventor void. Consequently, it is urged, the court has no authority to enquire whether the supposed invention which is the subject of the controversy is patentable or not. It appears from the opinion of the learned judge who decided the case in the court below, found in the record, that this construction of the statute was there accepted, upon the authority of certain cases cited in the opinion, without any original consideration of the question by him; but we are unable to agree that the court is so rigidly tied down as such a construction of the statute would imply. On the contrary, we think the court is bound to determine whether, upon identifying the subject matter of the interfering patents, the invention therein stated is patentable. If it is not, and the court should go on and pronounce a decree of nullity against one of the patents, it would do so at the instance of one who has no right to protect, and consequently no standing on which to assail his adversary. The parties would not stand on equal ground in such a litigation, and the power of the court would be perverted to the determination of an unprofitable inquest as to who was the first discoverer of a nullity. The outcome would be that, while one pretender would be dislodged, the other would occupy the field unscathed. We think that if, upon inspection of the patents, or in the course of the investigation it must make in order to determine the nature of the alleged invention, the court should see that the patents are void for lack of patentable subject-matter, it ought not to proceed to an inquiry as to who first discovered the thing which the court finds to be null, and decree thereon, but should dismiss the bill. Manifestly, it is necessary that the court should know what the invention is which supports the patents, not generally, what the patents are about, but what is the particular discovery for which each of the patents was granted. — *Palmer v. Lozier*, 90 Fed. 732; 33 C. C. A. 255.

Foster v. Lindsay, 3 Dill. 126, Fed. Cas. No. 4976; *Pentlurge v. Pentlurge*, 19 Fed. 817; *Lockwood v. Cleveland*, 20 Fed. 164; *Sawyer v. Massey*, 24 Fed. 144; *American v. Ligowski*, 31 Fed. 466; *Electric v. Brush*, 44 Fed. 602.

That the general rule as to demurrers in patent causes applies to actions brought under sec. 4918 R. S., see *Simplex v. Wands*, 115 Fed. 517; 53 C. C. A. 171.

That the Patent Office records and file wrappers may be considered in determining the question of interference between two patents, see *Simplex v. Wands*, 115 Fed. 517; 53 C. C. A. 171.

Sutter v. Robinson, 119 U. S. 530; *Sargent v. Lock Co.* 114 U. S. 63; *Brill v. Car. Co.* 90 Fed. 666.

The court is not limited to the language of the claims and specifications, but may take into consideration certain extraneous facts. For example, it may have recourse to the testimony of experts to ascertain the meaning of technical words or phrases, or to ascertain the difference between or the identity of the devices, or to obtain a better understanding of a drawing or model or the character and operation of the devices; and generally, a court may avail itself of the testimony of experts to acquire a knowledge of all the facts pertaining to an art to which a given patent belongs, and a full understanding of the progress that had been made therein at the time the patent was issued. The adjudged cases afford many illustrations of the fact that proof of the state of the art has an important bearing upon equivalency and construction of claims. — *Simplex v. Wands*, 115 Fed. 517; 53 C. C. A. 171.

Winans v. Railroad, 21 How. 88; *McCormick v. Talcott*, 20 How. 402; *Machine Co. v. Lancaster*, 129 U. S. 263; *Miller v. Mfg. Co.* 151 U. S. 186; *National v. Interchangeable*, 106 Fed. 693; *Railway v. Godehard*, 59 Fed. 776; *McClain v. Ortmyer*, 141 U. S. 419; *Walk. Pat. sec.* 184.

On a bill filed under sec. 4918 R. S., the first question to be determined is whether the patents involved are interfering patents, since the right to relief is grounded on the fact of interference; that patents do not interfere, within the meaning of the patent law, unless the claims of the respective patents, or some of them, cover the same mechanical device or combination; that it is the claim of the patent, and the claim only, when properly construed, which determines the thing patented; and that it may happen that the structure described in one patent will infringe the claims of another patent, although the patents are not interfering patents, within the meaning of the statute. — *Simplex v. Wands*, 115 Fed. 517; 53 C. C. A. 171.

Gold v. U. S. Fed. Cas. 5,508; *Mfg. Co. v. Craig*, 49 Fed. 370.

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§ 588. Statutory Provisions.

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, obtained a patent therefor. — R. S. 4886.

On the 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. — R. S. 4893.

These two sections stand as created by the act of July 8, 1870, with the exception of the two clauses in sec. 4886 printed in italics, which were added by the act of Mar. 3, 1897, and which went into effect Jan. 1, 1898.

§ 589. General Statement.

This title covers the great, main, central subject of the law of patents. Under it are treated many subjects, such as novelty, patentability and mechanical skill, which are commonly made the subject of separate discussion. Some discussion of the several classes of patentable inventions will be found under the titles *Art, Machine, Manufacture, Composition of Matter, Improvement, Process, Product*; and the subject of patentable designs is separately treated under the title *Designs*.

Attempted definitions of invention, novelty, patentability, will be found under the following sections; but they are of little value. There are, however, two practical, useful statements of the Supreme Court, one made very early in the history of the law, and the other in connection with the most elaborate opinion ever written by that court — an opinion which occupies an entire volume. These statements are:

The end to be accomplished is not the subject of a patent. The invention consists in the new and useful means of obtaining it. — *Carver v. Hyde*, 16 Pet. 513; 10 L. Ed. 105.

When the question is, whether a thing can be done or not, it is always easy to find persons ready to show how not to do it. If one succeeds, that is enough, no matter how many others may fail. — *Telephone Cases*, 126 U. S. 1; 31 L. Ed. 863; 8 S. Ct. 778.

As has been so well stated by one of our best writers, it is neither the means to an end nor the end itself which constitutes invention, but the idea of means; and to this may be added, to bring the statement within the Telephone Case rule, that patentable invention — invention that is both novel and useful under the statute — must consist of an idea of means expressed in terms of matter novel in itself and capable of producing a useful result. The means may be old and the result new, in which case the idea of means resides in the new adaptation. The combination may be new and the result old, in which case the idea of means resides in the new combination.

These are simple rules, but they are effective. The question of invention can never be bounded by fixed rules. The courts will always differ and dis-

sent, as in the Telephone Cases; and often a question will arise, as in the Westinghouse Case (*Westinghouse v. Boyden*, 170 U. S. 537) where the court required three arguments of the case before it could be decided, which will seem to baffle the greatest minds, and the decision of which will meet with the same dissent with the bar as it did with the bench. The difficulty in determining patentable invention, if such there be, arises, on the one hand, when we attempt to dignify an act as such which seems hopelessly intermixed with a multitude of minor improvements, and on the other, when we encounter a basic or generic discovery the bounds of which we know not how to set.

§ 590. Abandonment.

The knowledge of the improvement was as completely lost as if it had never been discovered. The public could derive no benefit from it, until it was discovered by another inventor. And if the patentee made his discovery by his own efforts, without any knowledge of the old device, he invented an improvement that was then new, and at the time unknown. — *Gayler v. Wilder*, 10 How. 477; 13 L. Ed. 504.

Unsuccessful and abandoned experiments do not affect the validity of a subsequent patent. — *Deering v. Winona*, 155 U. S. 286; 39 L. Ed. 153; 15 S. Ct. 118.

Brown v. Guild, 90 U. S. 181; *Coffin v. Ogden*, 85 U. S. 120.

There is a degree of credit due to one who explores out of the way or hidden places, and brings to the light and to the uses of civilization, as "abandoned experiments" the discoveries of others, whose genius was itself a disqualification for the achievement of practical success; but it is certainly no part of the patent law to foster attempts to appropriate and monopolize things of common-place character and of familiar use, on the ground that, although frequently employed even in patented devices, they have not been claimed as inventions, and their uses and benefits exploited. The obvious need not be explained. — *Fuller-Warren v. Michigan*, 86 Fed. 463; 30 C. C. A. 193.

Note: For full list of cases on this subject see *Abandonment*.

§ 591. Adaptation — Arrangement or Grouping.

Mere order and arrangement of spacings in a blank book for a specified use cannot, upon the most liberal construction of the patent laws, be held to involve any invention. — *Munson v. Mayor*, 124 U. S. 601; 31 L. Ed. 586; 8 S. Ct. 622.

The different arrangement of these groupings as they appear in the patent sued on is not invention, but is a mere matter of mechanical judgement, "the natural outgrowth of the development of mechanical skill as distinguished from invention." — *Florsheim v. Schilling*, 137 U. S. 64; 34 L. Ed. 574; 11 S. Ct. 20.

Burt v. Evory, 133 U. S. 349, and authorities there cited; *Brown v. Piper*, 91 U. S. 37.

In view of the state of the art, it required no invention to make a single die to cut dough on a flat surface into any particular desired shape. — *Butler v. Steckel*, 137 U. S. 21; 34 L. Ed. 582; 11 S. Ct. 25.

Smith v. Nichols, 88 U. S. 112; *Dunbar v. Meyers*, 94 U. S. 187; *Pomace v. Ferguson*, 119 U. S. 335; *Peters v. Active*, 130 U. S. 626; *Watson v. Cincinnati*, 132 U. S. 161.

That putting a part in a secure place and out of the way may involve invention, see *Standard v. Computing*, 126 Fed. 639; 61 C. C. A. 541.

Star v. General, 111 Fed. 398.

Patentability cannot be decreed to every little shift that a woman may make in the arrangement of her garments, or the location of the means through which such arrangements are effected. — *Kleinart v. Stein*, 133 Fed. 228; 66 C. C. A. 282.

Mere adjustability of parts does not constitute invention. — *Smyth v. Sheridan*, 149 Fed. 208; 79 C. C. A. 166.

Peters v. Hanson, 129 U. S. 541; *Doig v. Morgan*, 122 Fed. 460; *Sipp v. Atwood*, 142 Fed. 149.

That mere positioning, color arrangement of common devices, like catalog cards and card markers, or similar arrangement resulting in mere convenience with no new function, is not patentable, see *Gunn v. Bridgeport*, 152 Fed. 434; 81 C. C. A. 576.

Hollister v. Benedict, 113 U. S. 72; *Aron v. Manhattan*, 132 U. S. 84.

Where adjustability is desired, such means as a series of holes in the supporting rod of a carrier, any one of which may be engaged by a bolt on the main machine would at once suggest itself to a skilled mechanic. Such means have been used in the agricultural implement art long prior to the date of the patent. In our judgment, "he produced no new result, or any improved method of producing the old result." — *Rose v. Dowden*, 157 Fed. 681; 85 C. C. A. 449.

Voigtman v. Weis, 148 Fed. 848; *Smith v. Nichols*, 21 Wall. 112.

That a mere location or arrangement of parts, except in cases where such location or arrangement produces a distinctively novel result, is not patentable, see *Cutler-Hammer v. Automatic*, 159 Fed. 447; 86 C. C. A. 477.

But the structure on which invention is predicated here is unquestionably new, there being a readjustment of materials by which new and highly useful results are brought about. — *Edison v. Novelty*, 167 Fed. 977; C. C. A.

Rainear v. Western, 159 Fed. 431.

§ 592. Adaptation — Strengthening or Increasing Weight.

The patented device was a door knob made of a metallic shank fitting dovetail into a porcelain or clay knob. The elements were all old, and the improvement was claimed upon the new material from which the knob was made. *Held*: It may afford evidence of judgement and skill in the selection and adaptation of the materials in the manufacture, but nothing more. — *Hotchkiss v. Greenwood*, 11 How. 248; 13 L. Ed. 683.

A mere enlargement of a machine to adapt it to heavier use, or the mere strengthening of parts for such use is not invention. — *Woodbury v. Keith*, 101 U. S. 479; 25 L. Ed. 939.

An improved shawl strap having a rigid cross-bar to give rigidity to the package, in view of the art did not involve invention. — *Crouch v. Roemer*, 103 U. S. 797; 26 L. Ed. 426.

It is not invention to merely improve a device so that it is stronger or more durable. — *Peters v. Hanson*, 129 U. S. 541; 32 L. Ed. 743; 9 S. Ct. 393.

A mere reinforcement of a garment by the addition of a piece of cloth is not a patentable invention. — *Patent v. Glover*, 141 U. S. 560; 35 L. Ed. 858; 12 S. Ct. 79.

Hollister v. Benedict, 113 U. S. 58; *Thompson v. Boisselier*, 114 U. S. 11; *Howe v. National*, 134 U. S. 388; *McClain v. Ortmayer*, 141 U. S. 419.

Did increasing the weight of the hand wheel in this class of machines, in order to correct the tendency of smaller wheels to reverse, involve patentable novelty? We do not think so. The use of hand wheels for straight levers was old, and, whether the wheels were light or heavy, they alike performed the service of rotary levers. — *American v. Pennock*, 164 U. S. 26; 41 L. Ed. 337; 17 S. Ct. 1.

Merely adapting shape and casting in one piece is not invention. — *Bothe v. Paddock*, 50 Fed. 536; 1 C. C. A. 575.

A change due merely to the increased strength of parts does not constitute invention. — *Vulcan v. Smith*, 62 Fed. 444; 10 C. C. A. 493.

The strengthening of the spring, and the increase of rigidity with which it was attached to the rockers and base, may have involved invention, but it so nearly resembles a mere increase in the physical strength of an already suggested means of performing a known function that it is certainly not a pioneer or primary invention, or one the scope of which the courts would be inclined to enlarge beyond what is exactly shown in the patent. It is not a patent in the construction of which any liberal doctrine of equivalents will be applied. — *Thomas v. Rucker Spring Co.* 77 Fed. 420; 23 C. C. A. 211.

Mere strengthening of a structure does not constitute invention. — *Thomasson v. Bumpass*, 78 Fed. 491; 24 C. C. A. 180.

Superiority due mainly to increased weight and strength are not elements of invention. — *Frazer v. Gates*, 85 Fed. 441; 29 C. C. A. 261.

All that is claimed by the patentee as new is the projecting end bars, and the extension laterally outward beyond the side-rails of the woven wire fabric for the purpose described. We are not inclined to think that this device involved invention, within the meaning of the patent law, or that it would not have easily occurred to an ordinary skillful mechanic. — *Newark v. Ryan*, 102 Fed. 693; 42 C. C. A. 594.

§ 593. Adaptation — Miscellaneous Cases.

The subdivision and packing of articles of commerce in small parcels for convenience of handling and retail sale and the packing of these small parcels into boxes or sacks or tying them together in bundles for convenience of storage and transportation, is as common and well known as any fact connected with trade, and is not patentable. — *King v. Gallun*, 109 U. S. 99; 27 L. Ed. 870; 3 S. Ct. 202.

Hotchkiss v. Greenwood, 11 How. 248; *Phillips v. Page*, 24 How. 167; *Brown v. Piper*, 91 U. S. 43; *Terhune v. Phillips*, 99 U. S. 592; *Atlantic v. Brady*, 107 U. S. 192; *Slawson v. R. R.* 107 U. S. 649; *Smith v. Goodyear*, 93 U. S. 486.

We do not think the alleged invention (that of employing rotary cutters of a certain character for truing the edge of a shoe sole) is a combination of previous devices rearranged with connections and adaptations so adjusted as to produce a novel and valuable use under the cases cited. — *Busell v. Stevens*, 137 U. S. 423; 34 L. Ed. 719; 11 S. Ct. 150.

LeRoy v. Tatham, 55 U. S. 156; *Bean v. Smallwood*, 2 Story, 408.

It is not invention to convert a heavy and unwieldy device into a light, quick acting, easily applied fastening. — *Hay v. Heath*, 71 Fed. 411; 18 C. C. A. 157.

It would seem that angular relations or constructions distinguishable only mathematically are not patentable. — *Frazer v. Gates*, 85 Fed. 441; 29 C. C. A. 261.

Caverly v. Deere, 66 Fed. 305.

It would be obviously absurd to attribute patentability to changes in the relative location of chambers, unless a distinctly new and useful result was produced. — *Bates v. Excelsior*, 89 Fed. 498; 32 C. C. A. 267.

Selection among known means, though increasing the degree of efficiency, did not rise to the dignity of independent invention. — *Wisconsin v. American*, 125 Fed. 761; 60 C. C. A. 529.

Mast v. Stover, 177 U. S. 485; *Lumber Co. v. Perkins*, 80 Fed. 528; *Kelly v. Clow*, 89 Fed. 297.

That a cigar band, narrower at one end than at the other, is not novel in the patent sense, see *Regensburg v. Portuondo*, 142 Fed. 160; 73 C. C. A. 378.

§ 594. Aggregation — Co-Action Wanting.

The second claim of the reissue, like the single claim of the original patent for the use in succession, or, in the patentee's phrase, "the series" of the two pairs of old dies, the one pair to shape the arms of the bolt, and the other to give those arms the requisite curve, does not show any patentable invention. The two pairs of dies were not combined in one machine, and did not co-operate to one result. Each pair was used by itself and might be used so at any distance of time or place from the other; and if the two were used at the same place and in immediate succession of time, the result of the action of each was separate and distinct and was in no way influenced by the action of the other. This was no combination that would sustain a patent. — *Beecher v. Atwater*, 114 U. S. 523; 29 L. Ed. 232; 5 S. Ct. 1007.

Hailes v. Van Wormer, 20 Wall. 353; *Pickering v. McCullough*, 104 U. S. 310; *Stephenson v. R. R.* 114 U. S. 149.

Unless the combination accomplishes some new result, the mere multiplicity of elements does not make it patentable, so long as each element performs some old and well known function. — *Richards v. Chase*, 158 U. S. 299; 39 L. Ed. 991; 15 S. Ct. 831.

It is the immediate mechanical result of the device or combination which is pertinent. In the patent in suit, only when in use can the combination be complete (according to complainant's expert) and every use involves a reconstruction and dissolution of the combination. If there has ever been granted a patent for such a combination of mechanical elements, designed to expend their force among themselves, and to effect or affect nothing

beyond, it has not come to our knowledge; but whether, if granted, it could be upheld, need not now be considered. — *Hay v. Heath*, 71 Fed. 411; 18 C. C. A. 157.

§ 595. Aggregation — Distinguished from Combination.

This argument (mere aggregation) would be sound if the combination claimed was an obvious one for attaining the advantages proposed, one which would occur to any mechanic skilled in the art. But it is plain from the evidence, and from the very fact that it was not sooner adopted and used, that it did not for years occur in this light to even the most skilled persons. It may have been under their very eyes, they may almost be said to have stumbled over it; but they certainly failed to see it, to estimate its value and to bring it into notice. Who was the first to see it, to understand its value, to give it shape and form, to bring it into notice and urge the adoption is a question to which we shall shortly give our attention. At this point we are constrained to say that we cannot yield our assent to the argument, that the combination of the different parts or elements for attaining the object in view was so obvious as to merit no title to invention. Now that it has succeeded, it may seem very plain to anyone, that he could have done it as well. This is often the case with inventions of the greatest merit. It may be laid down as a general rule, though perhaps not an invariable one, that if a new combination and arrangement of known elements produce a new and beneficial result, never attained before, it is evidence of invention. It was certainly a new and useful result to make a loom produce 50 yards a day, when it never before produced more than 40; and we think that the combination of elements by which this was effected, even if those elements were separately known before, was invention sufficient to form the basis of a patent. — *Loom Co. v. Higgins*, 105 U. S. 580; 26 L. Ed. 1177.

There is no co-operative action of these distinct claims which produces a unitary result. Each one acts separately and independently of the other. It has been repeatedly held that a mere aggregation of old elements in a new relation is not the subject of a patent. — *Mott v. Standard*, 53 Fed. 819; 4 C. C. A. 28.

Reckendorfer v. Faber, 92 U. S. 347; *Pickering v. McCullough*, 104 U. S. 310; *Hendy v. Iron Works*, 127 U. S. 370; *Hailes v. Van Wormer*, 20 Wall. 353; *Union v. Keith*, 139 U. S. 539; *Royer v. Roth*, 132 U. S. 210.

Is this invention a mere aggregation or is it a patentable combination? What is the distinction between mere aggregation and a patentable combination? A combination of well-known separate elements, each of which when combined operates separately, and in its old way, and in which no new result is produced which cannot be assigned to the independent action of one or the other, of the separate elements, is an aggregation of parts, merely, and is not patentable. But if to adapt the several elements to each other in order to effect their co-operation in one organization, demands the use of means without the range of ordinary mechanical skill, then the invention of such means to effect the mutual arrangement of parts would be patentable. The parts need not act simultaneously, if they act unitedly to produce a common result. It is sufficient if all the devices co-operate with respect to the work to be done, and in furtherance thereof, although each device may perform its own particular function only. — *Standard v. Southern*, 54 Fed. 521; 4 C. C. A. 491.

Hailes v. Van Wormer, 20 Wall. 353; *Reckendorfer v. Faber*, 92 U. S. 357; *Pickering v. McCullough*, 104 U. S. 318.

It is a commonly accepted rule of the law of patents that the inventive idea is not ordinarily present in the conception of a combination which

merely brings together two or more functions, to be availed of independently of each other. The mechanism which accomplishes such a result and no more is ordinarily spoken of as a mere aggregation. — *Osgood v. Metropolitan*, 75 Fed. 670; 21 C. C. A. 491.

Hailes v. Van Wormer, 20 Wall. 353; *Reckendorfer v. Faber*, 92 U. S. 347; *Brinkerhoff v. Aloe*, 146 U. S. 515; *Palmer v. Corning*, 156 U. S. 342; *Richards v. Elevator*, 158 U. S. 299.

§ 596. Aggregation — Not Invention.

The law requires more than a change of form, or juxtaposition of facts, or of the external arrangement of things, or of the order in which they are used, to give patentability. — *Reckendorfer v. Faber*, 92 U. S. 347; 23 L. Ed. 719.

Hailes v. Van Wormer, 20 Wall. 353.

All the elements of the combination are old, and each operates only in the old way. Beyond the separate and well known results produced by them severally, no one of them contributes to the combined result any new feature; no one of them adds to the combination anything more than its separate independent effect; no one of them gives any additional efficiency to the others, or changes in any way the mode or result of its action. In a patentable combination of old elements, all the constituents must so enter into it, as that each qualifies every other; to draw an illustration from another branch of the law, they must be joint tenants of the domain of the invention, seized each of every part, *per my et per tout*, and not mere tenants in common, with separate interests and estates. It must form either a new machine of a distinct character and function, or produce a result due to the joint and co-operating action of all the elements, and which is not the mere adding together of separate contributions. Otherwise, it is only a mechanical juxtaposition, and not a vital union. — *Pickering v. McCullough*, 104 U. S. 310; 26 L. Ed. 749.

Hailes v. Van Wormer, 87 U. S. 368; *Reckendorfer v. Faber*, 92 U. S. 357.

In view of these facts, which are either matters of common knowledge or well established by the evidence, the only field of invention left for the patent to cover was the application by the old and familiar arrangement of shafts and cog-wheels, of the power of an auxiliary engine to a capstan instead of a windlass. A capstan differs from a windlass in this respect only that its barrel or shaft is vertical, while that of the windlass is usually horizontal. It is plain, therefore, that no such ingenuity as merited the issue of a patent was required for this improvement, but only the ordinary judgement and skill of a trained mechanic. — *Morris v. McMillin*, 112 U. S. 244; 28 L. Ed. 702; 5 S. Ct. 218.

Atlantic v. Brady, 107 U. S. 192; *Penna. v. Locomotive*, 110 U. S. 490; *Hailes v. Van Wormer*, 20 Wall. 353; *Phillips v. Detroit*, 111 U. S. 604; *Hotchkiss v. Greenwood*, 11 How. 248; *Phillips v. Paige*, 24 How. 164; *Smith v. Nichols*, 21 Wall. 112; *Dunbar v. Meyers*, 94 U. S. 187; *Heald v. Rice*, 104 U. S. 737.

There is no specific quality of the result which cannot be definitely assigned to the independent action of a single element. There is, therefore, no patentable novelty in the aggregation of the several elements, considered in itself. — *Thatcher v. Burtis*, 121 U. S. 286; 30 L. Ed. 942; 7 S. Ct. 1034.

Hailes v. Van Wormer, 87 U. S. 353; *Heald v. Rice*, 104 U. S. 737; *Penna. v. Locomotive*, 110 U. S. 490; *Morris v. McMillin*, 112 U. S. 244; *Hollister v. Benedict*, 113 U. S. 59; *Thompson v. Boisselier*, 114 U. S. 1; *Beecher v. Atwater*, 114 U. S. 523; *Gardner v. Herz*, 118 U. S. 180.

The aggregation of old elements, some found in one patent and some in another, but all performing like functions in well-known inventions having the same object with no substantial difference but that of configuration is not invention. — *Busell v. Stevens*, 137 U. S. 423; 34 L. Ed. 719; 11 S. Ct. 150.

Florsheim v. Schilling, 137 U. S. 64.

A mere aggregation of old elements in a new relation is not the subject of a patent. — *Union v. Keith*, 139 U. S. 530; 35 L. Ed. 261; 11 S. Ct. 621.

Reckendorfer v. Faber, 92 U. S. 347; *Pickering v. McCullough*, 104 U. S. 310; *Stephenson v. Brooklyn*, 114 U. S. 149; *Hendy v. Golden*, 127 U. S. 370; *Hailes v. Van Wormer*, 87 U. S. 353.

Mere aggregation of old elements is not invention. — *Adams v. Bellaire*, 141 U. S. 539; 35 L. Ed. 849; 12 S. Ct. 66.

Hailes v. Van Wormer, 87 U. S. 353; *Pickering v. McCullough*, 104 U. S. 310.

A mere aggregation of functions or a mere difference in degree, a carrying forward of an old idea, a result, perhaps somewhat more perfect than had theretofore been attained, but not rising to the dignity of invention, has been repeatedly held to be invalid. — *Wright v. Yuengling*, 155 U. S. 47; 39 L. Ed. 64; 15 S. Ct. 1.

Stimpson v. Woodman, 77 U. S. 117; *Smith v. Nichols*, 88 U. S. 112; *Guidet v. Brooklyn*, 105 U. S. 550; *Hall v. Macneale*, 167 U. S. 90.

Mere aggregation of old devices, performing no new function, is not invention. — *Wilson v. Ansonia*, 54 Fed. 495; 4 C. C. A. 484.

Dunbar v. Meyers, 94 U. S. 187; *Holland v. Shipley*, 127 U. S. 398; *Schlict v. Sherwood*, 36 Fed. 591.

In this case there is no joint operation or effect in the construction of a railway car and the oil tank combined which is in any manner due from the simultaneous or successive action of the two combined. It is a mere aggregation of old elements, producing no new results by the combination. — *Standard v. Southern*, 54 Fed. 521; 4 C. C. A. 491.

The invalidity of the claim rests upon the fact that the separate sets of devices are an aggregation which do not combine with each other, and each of which works out an independent and separate result, which is not due to any co-operating action. — *Bagley v. Empire*, 58 Fed. 212; 7 C. C. A. 191.

Pickering v. McCullough, 104 U. S. 310.

A mere aggregation of old elements performing no new function, and accomplishing no new results, presents no patentable novelty. — *Muller v. Lodge*, 77 Fed. 621; 23 C. C. A. 357.

Hailes v. Van Wormer, 20 Wall. 353; *Lock v. Mosler*, 127 U. S. 354; *Knapp v. Morss*, 150 U. S. 221.

That the adaptation of known mechanical devices to attain a desired end in engineering, although the end attained may be highly useful, in the absence of a novel function, is mere aggregation or engineering skill, see *Dodge v. New York*, 150 Fed. 738; 80 C. C. A. 404.

Dunbar v. Eastern, 81 Fed. 201; *New Departure v. Bevin*, 73 Fed. 469.

Can a monopoly be properly granted for coupling without modification a motor that will run any kind of a machine, to a machine that will run with any kind of a motor? The answer to the question thus stated is found

in *Blake v. San Francisco*, 113 U. S. 682; *Royer v. Roth*, 132 U. S. 201. The result was a distinct step in advance. But it was the inevitable result of attaching to each other the unchanged appliances. — *National v. Powers*, 160 Fed. 460; 87 C. C. A. 444.

§ 597. Aggregation — Old Elements, Old Result.

The combination of old elements to produce an old result, where the combination was a mere adaptation of well known mechanical means for producing similar results is not valid. — *Stimpson v. Woodman*, 77 U. S. 117; 19 L. Ed. 866.

Where a combination of old devices produces a new result, such combination is doubtless patentable; but when the combination is not only of old elements, but of old results, and no new function is evolved from such combination, it falls within the rulings of this court. (Cited below.) — *Office v. Fenton*, 174 U. S. 492; 43 L. Ed. 1052; 19 S. Ct. 641.

Hailes v. Van Wormer, 20 Wall. 353; *Reckendorfer v. Faber*, 92 U. S. 347; *Phillips v. Detroit*, 111 U. S. 604; *Brinkerhoff v. Aloe*, 146 U. S. 515; *Palmer v. Corning*, 156 U. S. 242; *Richards v. Elevator Co.* 158 U. S. 299.

All the elements of this combination were old, and the absence from it of a single essential element was fatal to the claim of infringement. — *Buffington's v. Eustis*, 65 Fed. 804; 13 C. C. A. 143.

Hailes v. Van Wormer, 20 Wall. 353; *Bragg v. Fitch*, 121 U. S. 478.

To combine old parts in such manner as to produce a new result by their harmonious co-operation may be patentable; but it is equally true that where the combination is not only of old parts, but of old results, without the addition of any new and distinct function, the combination is not patentable. — *Goodyear v. Rubber*, 116 Fed. 363; 53 C. C. A. 583.

Hailes v. Van Wormer, 20 Wall. 353; *Pickering v. McCullough*, 104 U. S. 310; *Florsheim v. Schilling*, 137 U. S. 64; *Knapp v. Morss*, 150 U. S. 221; *Office v. Fenton*, 174 U. S. 492; *Stearns v. Russell*, 85 Fed. 218; *Overweight v. Vogt*, 102 Fed. 957; *Brinkerhoff v. Aloe*, 146 U. S. 515; *Reckendorfer v. Faber*, 92 U. S. 347; *Muller v. Lodge*, 77 Fed. 621.

§ 598. Beneficial Uses and Scope of.

The inventor of a machine is entitled to the benefit of all the uses to which it can be put, no matter whether he has conceived the idea of the use or not. — *Roberts v. Ryer*, 91 U. S. 150; 23 L. Ed. 267.

It is, of course, true that a mistaken description, or even misconception, of the operation of a device which is itself fitly described and claimed, does not vitiate a patent. — *Temple v. Goss*, 58 Fed. 196; 7 C. C. A. 174.

Western v. Sperry, 58 Fed. 186.

When the language of both application and grant is so positively and directly declaratory of what was asked and granted as we find in this case, we consider that it would be going beyond a safe rule to extend the operation and protection of the patent further. If appellant has originally made application for an "improvement in a locking device for safes, jails, and other similar structures," which he now insists upon claiming that his invention covers, the public would have had notice of his claim, but the language conveyed no such idea. If we should declare that a peculiarity in a locking device for a jail cage was an improvement in a burglar-proof safe, we should be construing a patent in a manner different from the plain import

of its terms, and thereby doing an injustice to the public. — *Gerard v Diebold*, 61 Fed. 209; 9 C. C. A. 451.

White v. Dunbar, 119 U. S. 47; *Keystone v. Phoenix*, 95 U. S. 274; *Vance v. Campbell*, 1 Black, 427; *Burns v. Meyer*, 100 U. S. 671; *Railroad v. Mellon*, 104 U. S. 112; *McClain v. Ortmyer*, 141 U. S. 419.

Note: This rule, in derogation of the older rule that the inventor is entitled to all the uses to which his invention may be put, is one which must be applied with care.

The rule is clear that ordinarily a patentee who is first to make an invention is entitled to his claim for all the uses and all the advantages which belong to it, so far as the new application does not itself involve further invention. — *Reece v. Globe*, 61 Fed. 958; 10 C. C. A. 194.

Roberts v. Ryer, 91 U. S. 150; *Stow v. Chicago*, 104 U. S. 547; *Miller v. Mfg. Co.* 151 U. S. 186; *Electric v. LaRue*, 139 U. S. 601.

It is contended that the patentee did not contemplate or foresee what is now claimed. Be this as it may, admitting it to be true that he did not realize the full extent of his discovery, still he would be entitled to all the necessary and legitimate results attained by his invention, including even such as were unexpected. — *Thomson-Houston v. National*, 65 Fed. 427; 12 C. C. A. 671.

Wells v. Jacques, 5 O. G. 364; *Eames v. Andrews*, 122 U. S. 40; *Brown v. D. C.* 130 U. S. 87; *Stow v. Chicago*, 104 U. S. 457; *Gandy v. Belting Co.* 143 U. S. 587.

If the idea was not present to his mind, but is an afterthought perceived from subsequent experience or scientific inspection or analysis, it is obvious that there was no invention in this by accident, as it were, supplying the means of a function not contemplated. — *Wells v. Curtis*, 66 Fed. 318; 13 C. C. A. 494.

That an inventor is entitled to all the uses to which his invention may be put, see, *Dueber v. Robbins*, 75 Fed. 17; 21 C. C. A. 198.

An inventor is entitled to all the uses of which his invention is capable, whether he then knew of all such uses or not. It is not necessary that he shall state all the beneficial results, effects, uses, or advantages of the mechanism which he has devised. — *Muller v. Lodge*, 77 Fed. 621; 23 C. C. A. 357.

Goshen v. Bissell, 72 Fed. 67.

A man may, under certain circumstances, be protected in building stronger than he knows. And in this sense it is broad enough to cover the idea that, if the momentum element which was described, or at least illustrated by the drawings, becomes, in practical operation, a more potent and efficient element than was understood, still the patent should not be rendered invalid for that reason. — *Parsons v. Seelye*, 100 Fed. 455; 40 C. C. A. 486.

Wright v. Clinton, 67 Fed. 790.

A patentee is entitled to all of the advantages of his invention. — *Dowagiac v. Superior*, 115 Fed. 886; 53 C. C. A. 36.

Goshen v. Bissell, 72 Fed. 67; *Stearns v. Russell*, 85 Fed. 218; *Palmer v. Lozier*, 90 Fed. 732; *National v. Interchangeable*, 106 Fed. 693.

Whether the inventor knew or not the full measure of the beneficial functions of his structure, he is entitled to all the uses of his invention. — *Good-year v. Rubber*, 116 Fed. 363; 53 C. C. A. 583.

Goshen v. Bissell, 72 Fed. 67; *Dowagiac v. Superior*, 115 Fed. 886; *Wells v. Curtis*, 66 Fed. 318.

If the patent gave reason to suppose that the inventor may probably have contemplated that his device was capable of other uses, and made adequate provision therefor, his invention should be regarded as covering them, whether he mentioned them or not, or whether he contemplated any other use or not. — *Canda v. Michigan*, 124 Fed. 486; 61 C. C. A. 194.

Goshen v. Bissell, 72 Fed. 67; *Stillwell-Bierce v. Eufaula*, 117 Fed. 410.

Possibly he valued no other two-phased alternating current motors, or he conceived that there were no others, so that naturally the practical application which he had in mind was limited accordingly. Nevertheless he is entitled to the advantage of the well-settled rule by virtue of which an inventor who has patented his invention is entitled to all the uses to which it may be applied of the class to which he himself practically applied it. — *Westinghouse v. Stanley*, 133 Fed. 167; 68 C. C. A. 523.

The object that the inventor seemed to have chiefly in mind was to avoid the useless converting of energy into heat by the constant and rapid changing of poles of the transformer apparatus then in use. As things have turned out, this has not proven the chief actual advantage. Now though these advantages be different from the one chiefly in the patentee's mind, the invention will not on that account fail, if there be in the concept an actual advantage, and the structure embodying it evinces patentable invention; for a patentee is entitled, not only to what he specifically sees, but to what has been brought about by his invention, even though not at the time actually seen. — *Kuhlman v. General*, 147 Fed. 709; 78 C. C. A. 97.

It is true that a patentee is entitled to all the beneficial uses of his real invention whether stated or not. But the fact that this patentee, while enumerating in his specifications some 12 advantages resulting from the improved construction, has not even hinted at or suggested any resulting capacity for vertical removal of the plunger, is very persuasive that this element, instead of being "the aim and purpose of the invention" of the patentee, is rather the discovery of his expert. — *Bates v. Force*, 149 Fed. 220; 79 C. C. A. 178.

These patents are for a structure, and the patentees are clearly entitled to the benefit of all the advantages which that structure possesses over prior structures intended to accomplish a similar purpose. This is not a case of preferred structure, but only of the use to which the structure shown in the drawings and covered by the claims may be put. It would, indeed, be an unjust and novel doctrine to hold that a patentee is to be deprived of the benefits which may characterize the use for which the patented structure was mainly designed. — *Warren v. Blake*, 153 Fed. 263; C. C. A.

But the failure of a patentee to realize all the benefits and possibilities of his invention is not fatal. The after-discovery of unsuspected usefulness in a disclosed apparatus, far from detracting from its value, may serve to enhance it. — *Westmoreland v. Hogan*, 167 Fed. 327; C. C. A.

§ 599. Carrying Forward.

A mere carrying forward or new or more extended application of the original thought, a change only in form, proportions or degree, doing substantially

the same thing in the same way by substantially the same means with better results is not invention. — *Roberts v. Ryer*, 91 U. S. 150; 23 L. Ed. 267.

Smith v. Nichols, 21 Wall. 112.

Distinguishing, *Roberts v. Harnden*, 2 Cliff. 500.

A mere carrying forward of the original idea, or the substitution of other elements, producing better results, is not invention. — *Dunbar v. Meyers*, 94 U. S. 187; 24 L. Ed. 34.

Smith v. Nichols, 21 Wall. 115.

A mere carrying forward, or new or more extended application of the original thought, a change only in form, proportions, or degree, the substitution of equivalents doing substantially the same thing in the same way, by substantially the same means with better results, is not invention. — *Gibbon v. Loewer*, 79 Fed. 325; 24 C. C. A. 612.

Smith v. Nichols, 21 Wall. 112; *Trimmer v. Stevens*, 137 U. S. 432; *Ansonia v. Electrical*, 144 U. S. 11.

Lynch carried forward the old idea by a mechanical change in one of the elements which produced better results. Such a change is not patentable. — *Galvin v. City*, 115 Fed. 511; 53 C. C. A. 165.

Guidet v. Brooklyn, 105 U. S. 550; *Rob. Pat. sec. 238*; *Reckendorfer v. Faber*, 92 U. S. 347.

The mere carrying forward a new or more extended application of the original thought, is not such invention as will sustain a patent. *Smith v. Nichols*, 21 Wall. 112; *Soehner Favorite*, 84 Fed. 182; *American v. Wyeth*, 139 Fed. 389; *Schreiber v. Grimm*, 72 Fed. 671; *Dunbar v. Meyers*, 94 U. S. 187; *Goodyear v. Rubber*, 116 Fed. 363; *Burnham v. Union*, 110 Fed. 765; *Overweight v. Vogt*, 102 Fed. 957; *Campbell v. Duplex*, 101 Fed. 282.

There is a recognized exception to this rule, or rather counterpart of it, when in the new combination a new mode of operation is effected which produces an original result. *Dowagiac v. Superior*, 115 Fed. 886. — *Bullock v. General*, 149 Fed. 409; 79 C. C. A. 229.

§ 600. Change of Form — Same Function.

An invention consisting of a change of form without change of principle is not invention. — *Evans v. Eaton*, 7 Wheat. 356; 5 L. Ed. 472.

A change of form of a machine without a change of mode of operation, is not patentable. A change of mechanical structure is not patentable unless it produces a new and entirely different result. — *Mast v. Rude*, 53 Fed. 120; 3 C. C. A. 477.

Winans v. Denmead, 15 How. 330; *Sargent v. Larned*, 2 Curt. 340; *Mabic v. Haskell*, 2 Cliff. 510; *Aiken v. Dolan*, 3 Fish. P. C. 204.

Under ordinary circumstances, the removal of surplus material or needless parts of a physical structure, without changing the relation, connection, or operation of the essential elements, cannot be invention. — *Ferguson v. Roos*, 71 Fed. 416; 18 C. C. A. 162.

To change the degree of a thing, or of one of its features, is not patentable invention. *Guidet v. Brooklyn*, 105 U. S. 550; *Walk. Pat. (3d Ed.) sec. 31*. And so of any change in the "form of embodiment," of mere degree or quality of action, without changing the function of any element, or adding a new

element, although it may greatly improve the old combination. 1 Rob. Pat. sec. 237. — *Baldwin v. Kresl*, 76 Fed. 823; 22 C. C. A. 593.

It was not invention to put one (a tire) on a smaller wheel. The question of size is mostly one of degree. — *Hickory v. Frazier*, 100 Fed. 99; 40 C. C. A. 296.

Watson v. Railway, 132 U. S. 161; *French v. Carter*, 137 U. S. 239; *Road Machine v. Pennock*, 164 U. S. 26; *International v. Gaylord*, 140 U. S. 55; *Adams v. Stamping Co.* 141 U. S. 539.

Mere variations in the forms of means, not affecting the manner in which the functions are performed, are not material. — *Eames v. Worcester*, 123 Fed. 67; 60 C. C. A. 37.

Bundy v. Detroit, 94 Fed. 524.

That a mere change in curvature or contour, involving no new function, is not patentable, see *Bradley v. Eccles*, 126 Fed. 945; 61 C. C. A. 669.

If the mere narrowing of the ends of the belt be patentable, as to which we do not express an opinion, the defendant's device is not within the patent, for its ends are not in any real or functional sense narrowed at all. — *Mills v. Russell*, 144 Fed. 700; 75 C. C. A. 516.

§ 601. Change of Form — Mere Change.

A patent cannot be granted for a mere change of form. — *Winans v. Denmead*, 15 How. 330; 14 L. Ed. 717.

A mere change of size or form, as the change of thread or mesh in netting, is not invention. — *Dalton v. Jennings*, 93 U. S. 271; 23 L. Ed. 925.

Our conclusion is that the absolute length and size of the valve opening was a matter of judgement, in view of the state of the art shown, and that there was no invention in making its length and size greater or less in a reed board of a given width, or when the reed board was made wider or narrower or had more or less sets of reeds in it, either full or partial. — *Esty v. Burdett*, 109 U. S. 633; 27 L. Ed. 1058; 3 S. Ct. 531.

The complainant was the first to employ the combination claimed; but the change was only a change of form, and not patentable. — *Mosler v. Mosler*, 127 U. S. 354; 32 L. Ed. 182; 8 S. Ct. 1148.

Hailes v. Van Wormer, 87 U. S. 353; *Reckendorfer v. Faber*, 92 U. S. 347; *Pickering v. McCullough*, 104 U. S. 310.

Change of form is not invention. — *Belding v. Challenge*, 152 U. S. 100; 38 L. Ed. 370; 14 S. Ct. 492.

Roberts v. Ryer, 91 U. S. 150.

A mere change in form, as in the vamp of a rubber overshoe, so as to produce a gore-shaped extension above the foxing line, could not require anything beyond the range of ordinary skill of the calling. — *Williams v. Goodyear*, 54 Fed. 498; 4 C. C. A. 485.

Burt v. Ivory, 133 U. S. 349.

Mere increase of depth, without the discharge of any novel and additional function, is not invention. — *Benjamin v. Chambers*, 59 Fed. 151; 8 C. C. A. 61.

A mere change in curvature without specifically defining the degree thereof is not patentable. — *Davis v. Parkman*, 71 Fed. 691; 18 C. C. A. 398.

The substitution of a curvilinear for a straight line is not invention. — *Long v. Pope*, 75 Fed. 835; 21 C. C. A. 533.

Winans v. Denmead, 15 How. 330.

Mere change of form, portability or lightness are not invention. — *Olmsted v. Andrews Co.* 77 Fed. 835; 23 C. C. A. 488.

McCleary v. Baker, 63 Fed. 841.

A change of form although producing better results is not patentable. — *Birmingham v. Gates*, 78 Fed. 350; 24 C. C. A. 132.

Smith v. Nichols, 21 Wall. 119.

It is a mere change of form and size and that is not invention. — *Warren v. Rosenblatt*, 80 Fed. 540; 25 C. C. A. 625.

Smith v. Nichols, 21 Wall. 112.

He did nothing but adapt the old extinguisher to a lighter constructed after the old designs; and this does not, in our opinion, in view of the well trodden previous art, amount to invention. — *Kessler v. Inks*, 108 Fed. 412; 47 C. C. A. 442.

The mere change of size or form of a simple structure, or of an element in a combination, made for the purpose of accommodating it to its work within the sphere of its contemplated uses, does not amount to invention. — *Eames v. Worcester*, 123 Fed. 67; 60 C. C. A. 37.

For an extreme holding that a change of form and also a change of material (cast iron to steel) is not invention, see *Harder v. United States*, 160 Fed. 463.

§ 602. Change of Form — When Patentable.

When form was the essence of the invention — a peculiar shaped car body where its strength was due to the form was held to be patentable. — *Winans v. Denmead* 15 How. 330; 14 L. Ed. 717.

To change the form of an existing machine, and by means of such change to introduce and employ other mechanical principles or natural powers, or, as it is termed, a new mode of operation, and thus attain a new and useful result, is the subject of a patent. — *Winans v. Denmead*, 15 How. 330; 14 L. Ed. 717.

Where form is the essence of the invention, it is necessarily material; and, if the same object can be attained by a machine different in form where that form is inseparable from the successful operation of the instrument, there is no infringement. — *Werner v. King*, 96 U. S. 218; 24 L. Ed. 613.

Winans v. Denmead, 15 How. 330.

Possibly an exact form of construction, possessing a distinct advantage over other forms, may be patentable; but a form that is merely tentative and varying with each case is not. — *Western v. Standard*, 84 Fed. 654; 28 C. C. A. 512.

Caverly v. Deere, 66 Fed. 305.

There are cases where the form of a device is the principle of the invention. There are other cases wherein the state of the prior art and the specific terms of the specifications and drawings leave no doubt of the intention of the applicant to restrict his claim to the specific form of the device or element he points out. In such cases claims of patents are sometimes limited to the specific forms of the devices pointed out by letters or numbers in the claims or specifications. — *National v. Interchangeable*, 106 Fed. 693; 45 C. C. A. 544.

Weir v. Morden, 125 U. S. 98; *Railroad Co. v. Kearney*, 158 U. S. 461; *Crawford v. Heysinger*, 123 U. S. 589; *McCormick v. Aultman*, 58 Fed. 773; *Newton v. Mfg. Co.*, 119 U. S. 373; *Bragg v. Fitch*, 121 U. S. 478; *Dryfoos v. Wiese*, 124 U. S. 32; *Hendy v. Iron Works*, 127 U. S. 370.

The question is, was there enough in the recesses and projections, as there used, to suggest the conception of the bands and grooves of the patent in suit? We think not, and conclude that these modifications of form and arrangement were new and valuable improvements, and involved sufficient inventive thought to sustain a patent. — *American v. Driggs-Seabury*, 114 Fed. 936; 52 C. C. A. 556.

The fact that this result was accomplished by a single change does not detract from its patentability. — *Hutter v. De Q. Bottle*, 128 Fed. 283; 62 C. C. A. 652.

§ 603. Combinations — Co-Action of Elements.

The appellant contends that this is not a patentable combination. We do not think the contention supportable. All the parts of the device cooperate to produce one result, and it is easily distinguishable from that denied in *Reckendorfer v. Faber*, 92 U. S. 347 and *Adams v. Stamping Co.* 141 U. S. 539. In the former case the pencil and rubber performed different and independent things. In the latter, the hinge attachment to the lantern was a substitute for a detachable fastening, and went no further. — *Butte City v. Pacific*, 60 Fed. 90; 8 C. C. A. 484.

Invention is that which brings out of the realms of the mind something that never existed before. It may consist in the combination of old elements, the invention being in the combination. To make it so there must be a joint action or operation of the elements, — i. e. the elements must cooperate or act jointly to produce the result or object of the combination, — or else the assembled elements is a mere aggregation, and is not patentable. It is not necessary, however, that their action should be simultaneous. — *San Francisco v. Keating*, 68 Fed. 351; 15 C. C. A. 476.

Standard v. Southern, 48 Fed. 110; *Engraving v. Hoke*, 30 Fed. 444; *Blessing v. Copper*, 34 Fed. 753; *Root v. Sontag*, 47 Fed. 309; *Mfg. Co. v. Brill*, 54 Fed. 383; *National v. American*, 53 Fed. 371; 3 Rob. Pat. 1016.

No combination of elements that so operate can be regarded as a mere aggregation, for each one has a direct influence upon the action of each of the others, the result necessarily being the product of the combination itself, and not a mere aggregate of several units, each the complete product of one of the combined elements. — *Von Schmidt v. Bowers*, 80 Fed. 121; 25 C. C. A. 323.

Hailes v. Van Wormer, 20 Wall. 353; *Royer v. Roth*, 132 U. S. 201; *Reckendorfer v. Faber*, 92 U. S. 347; *Beecher v. Atwater*, 114 U. S. 524.

Nor are the claims in question subject to the objection urged that it is “a mere collocation or aggregation of old elements,” as it is plain that the

several elements are brought into co-operation and thus "perform additional functions and accomplish additional results." — *Milwaukee v. Brunswick-Balke*, 126 Fed. 171; 61 C. C. A. 175.

Rob. Pat. sec. 155.

It is not necessary to a valid combination that all the parts shall co-operate at the same time. It is enough that, in the normal and progressive use of the machine, they do so at some time. — *Sanders v. Hancock*, 128 Fed. 424; 63 C. C. A. 166.

To constitute a combination it is essential that there should be some joint operation performed by the elements, producing a result due to their joint and co-operating action, while in an aggregation there is a mere adding together of separate contributions, each operating independently of the other. — *American v. Helmstetter*, 142 Fed. 978; 74 C. C. A. 240.

Hailes v. Van Wormer, 20 Wall. 353; *Reckendorfer v. Faber*, 92 U. S. 347; *Pickering v. McCullough*, 104 U. S. 310.

It is true that these elements do not act synchronously, but this is not necessary, simultaneous action being frequently absent from patentable combinations. — *International v. Dey*, 142 Fed. 736; 74 C. C. A. 68.

National v. American, 53 Fed. 367; *Heath v. Hay*, 67 Fed. 246; *Furbush v. Cook*, 2 Fish. P. C. 668.

The elements of the claims, considered separately or in different environments, were, speaking generally, all old. The question here is was the combination old? That the claim covers a combination, and not a mere aggregation, we have no doubt, even though the operations of the separate elements do not synchronize. — *United v. Beattie*, 149 Fed. 736; 79 C. C. A. 442.

Furbush v. Cook, 2 Fish. Pat. Cas. 668; *Heath v. Hay*, 67 Fed. 246; *International v. Dey*, 142 Fed. 736.

The argument that the straightening press does not act simultaneously with the other devices included in the combination, if true, is not enough to defeat a patent. If that device is so arranged with the other devices made elements in the combination so that each part co-operates to produce a single, practical and beneficial result, it is not important that the final result shall have been produced by a simultaneous or successive action of the combined elements. — *National v. Aiken*, 163 Fed. 254; C. C. A.

Sanders v. Hancock, 128 Fed. 424; *Stilwell-Bierce v. Eufaula*, 117 Fed. 410; *Furbush v. Cook*, 2 Fish. 688.

Note: The last clause must be read in the disjunctive sense. The action must be either simultaneous or successive.

If, however, the adaptation of old and separate elements, so that they co-act with each other in a unitary organization, involves the exercise of something more than the skill of an ordinary mechanic, the result may be patentable, if a more beneficial result is effected than by the separate operation of the parts. So if a new combination and arrangement of old elements produces a new and beneficial result, as to greatly increase the productive efficiency of a machine, it is evidence of invention. — *National v. Aiken*, 163 Fed. 254; C. C. A.

Thatcher v. Burtis, 121 U. S. 286; *Overweight v. Vogt*, 102 Fed. 957; *St. Louis v. American*, 156 Fed. 574; *Muller v. Tool Co.* 77 Fed. 621; *Star v. General*, 111 Fed. 398; *Loom Co. v. Higgins*, 105 U. S. 589.

It is true that the elements of the combination do not act simultaneously; but that is immaterial, since they are nevertheless so arranged that the action of each is necessary and contributes to the general result. — *Maimen v. Union*, 165 Fed. 440; C. C. A.

The fact that the completed nipple is developed by successive steps in the same machine does not prevent the organized mechanism, which produces the result, from being considered a combination. — *Manville v. Excelsior*, 167 Fed. 538; C. C. A.

Furbush v. Cook, Fed. Cas. 4931; *National v. American*, 53 Fed. 367.

A construction of the claims requiring such simultaneous action would relegate even such a marvelously organized machine as the Mergenthaler linotype to the unprotected and defenseless class of aggregations. — *Manville v. Excelsior*, 167 Fed. 538; C. C. A.

Mergenthaler v. Press, 57 Fed. 505.

§ 604. Combinations — Entirety.

A combination is an entirety; if one of the elements is given up, the thing claimed disappears. — *Vance v. Campbell*, 66 U. S. 427; 17 L. Ed. 168.

Argument to show that an invention consisting of a combination of three ingredients which are old is not the same as that of a combination of four old ingredients is quite unnecessary, as the negative of the proposition is as well settled in the patent law as it is in mathematics. — *Gill v. Wells*, 89 U. S. 1; 22 L. Ed. 699.

A combination is always an entirety. In such cases the patentee cannot abandon a part and claim the rest, nor can he be permitted to prove that a part is useless and therefore immaterial. — *Schumacher v. Cornell*, 96 U. S. 549; 24 L. Ed. 676.

Vance v. Campbell, 1 Black, 427.

None of the elements or devices of the patented machine are new, and the invention itself consists in a combination of old devices. Such a combination is an entirety, though more than one combination may be included in the same patent. — *Bates v. Coe*, 98 U. S. 31; 25 L. Ed. 68.

Gill v. Wells, 22 Wall. 2-24.

If a useful and new unitary result appears as the product of the interaction of the elements, though all be old, the union is a true combination; and, if unpatentable, it is for want of invention. — *Regent v. Penn*, 121 Fed. 80; 57 C. C. A. 334.

Parks v. Booth, 102 U. S. 96; *Johnson v. R. Co.* 33 Fed. 499; *National v. American*, 53 Fed. 367.

§ 605. Combinations — Limitation.

Four propositions were decided in the case of *Vance v. Campbell*, 1 Black, 428; (1) That a patentee, in a suit for an infringement of an invention consisting of a combination of old ingredients, cannot in his proofs abandon a part of such combination and maintain his claim to the rest, for the reason that unless the patented combination is maintained, the whole of the invention falls. (2) That the patentee in such a suit cannot be allowed to prove that any part of the combination is immaterial or useless. (3) That the combination is an entirety, and that if one of the ingredients be given up the thing claimed disappears, which is an obvious truth, as the invention

in such a case consists simply in the combination. (4) That the clause which provides that the suit shall not be defeated where the patentee claims more than he has invented, in case he shall disclaim such part, applies only when the part invented can be clearly distinguished from that improperly claimed, which shows that the clause cannot apply to a patent granted for an invention consisting of a combination of old ingredients. — *Gill v. Wells*, 89 U. S. 1; 22 L. Ed. 699.

Case v. Brown, 2 Wall. 320; *Burr v. Duryee*, 1 Wall. 566.

That a combination will be strictly limited to its elements, see *Knapp v. Morss*, 150 U. S. 221; 37 L. Ed. 1059; 14 S. Ct. 81.

It is material to observe that the invention claimed is the combination of certain described elements. This amounts to a disclaimer of anything new in the elements, so far as this patent is concerned. — *Wells v. Curtis*, 66 Fed. 318; 13 C. C. A. 494.

Corn Planter Pat. 23 Wall. 181; *Miller v. Brass Co.* 104 U. S. 350; *Rowell v. Lindsay*, 113 U. S. 97.

His claim is for the combination of three parts. His claim, then, is for an entirety. He cannot abandon a part, and claim the rest. He must stand by his claim as he has made it. If more or less than the whole of his ingredients are used by another, such party is not an infringer, because he has not used the invention or discovery patented. *Shumacher v. Cornell*, 96 U. S. 549. When a patent is for a combination only, none of the separate elements of which the combination is composed are included in the monopoly. *Rowell v. Lindsay*, 113 U. S. 101. Or, as expressed by Mr. Justice Bradley in the *Corn Planter Patent (Brown v. Guild)* 23 Wall. 181:

“When a patentee, after describing a machine, claims as his invention a certain combination of elements, or a certain device or part of the machine, this is an implied declaration, as conclusive, so far as that patent is concerned, as if it were expressed, that the specific combination or thing claimed is the only part which the patentee regards as new.”

See, also, *Voss v. Fisher*, 113 U. S. 213. — *Carter v. Hanes*, 78 Fed. 346; 24 C. C. A. 128.

The patent should not be limited to the particular form of devices described but it should be limited to cover a combination of these elements or their known equivalents, at the date of the patent. — *Beach v. Hobbs*, 92 Fed. 146; 34 C. C. A. 248.

Winans v. Denmead, 15 How. 330; *Machine Co. v. Lancaster*, 129 U. S. 263; *Tilghman v. Proctor*, 102 U. S. 707; *Proctor v. Bennis*, 36 Ch. Div. 740.

§ 606. Combinations — Necessary Elements.

One who has made a combination of three elements, all necessary to operation, cannot by making a claim for two of them forestall another who has so combined these two elements that they perform the same function as the three elements. — *National v. Hedden*, 148 U. S. 482; 37 L. Ed. 529; 13 S. Ct. 680.

The magnetic current itself, is not a part of the device, any more than is water an element of a water-wheel. In the one, the water is the power and in the other the electric current, and the devices are contrived for the purpose of controlling and applying the power. — *Western v. Sperry*, 58 Fed. 186; 7 C. C. A. 164.

The specification contains no suggestion that this particular arrangement of parts may be dispensed with; and when a patentee has there carefully and specifically pointed out the details of a structure, which details, as he shows, discharge a stated function, it is not for the courts to declare them immaterial. — *Philadelphia v. Weeks*, 61 Fed. 405; 9 C. C. A. 555.

A mechanical connection would not be indispensable, unless there was a necessity for it, or unless a mechanical connection created a difference in the means by which the result was accomplished, which, in view of the narrowness of the invention, was a radical difference. — *Westinghouse v. N. Y.* 63 Fed. 962; 11 C. C. A. 528.

Where an alternative construction is shown, dispensing with one element made essential to the principal construction such element cannot be claimed as essential in itself. — *Wells v. Curtis*, 66 Fed. 318; 13 C. C. A. 494.

Trimmer v. Stevens, 137 U. S. 423.

If the broader of two claims is valid, the narrower for the same combination with limitations which include some additional minor improvements, is also valid. — *Schenck v. Singer*, 77 Fed. 841; 23 C. C. A. 494.

It is difficult to understand why, if the drawings should be considered as controlling the "scroll shaped or convoluted plate," which they also depict, ought not to be regarded as a material feature, and this plate, it is admitted, the appellees do not use. — *Boynton v. Norris*, 87 Fed. 225; 30 C. C. A. 617.

Note: The attempt here was to introduce an element into a claim to make the case by reading in a minor element shown and described as a preferred form but not made an element of the claim itself, and the court held it could not be so read in.

Each element of the combination set forth in this claim is distinct in its character, and clearly and specifically described, and there is nothing in its structure to make it an exception to the general rule, that every part of the combination claimed is conclusively presumed to be material, so that if one of its elements is omitted, the thing claimed does not exist. — *Spear v. Kelsey*, 158 Fed. 622; 85 C. C. A. 444.

§ 607. Combinations — New Result.

Improvements in an apparatus may be valid, if new and if they accomplish a new and useful result, even though all the elements of the same are old, provided the combination or arrangement of the elements is new and of such a character as to involve invention. — *Fuller v. Yentzer*, 94 U. S. 299; 24 L. Ed. 107.

Dissenting: Waite, Strong, Miller, Bradley.

The combination of old and well known elements so as to produce a useful machine which is new is patentable. — *Wicke v. Ostrum*, 103 U. S. 461; 26 L. Ed. 409.

A combination is patentable only when the essential elements of which it is composed produce by their joint action a new and useful result, or an old result in a cheaper or otherwise more advantageous way. — *Stephenson v. Brooklyn*, 114 U. S. 149; 29 L. Ed. 58; 5 S. Ct. 777.

Hailes v. Van Wormer, 87 U. S. 353; *Reckendorfer v. Faber*, 92 U. S. 347; *Pickering v. McCullough*, 104 U. S. 310.

To sustain a patent on a combination of old devices it is well settled that a new result must be obtained which is due to the joint and co-operating action of all the old elements. Either this must be accomplished or a new machine of distinct character and function must be constructed.— *Brinkerhoff v. Aloe*, 146 U. S. 515; 36 L. Ed. 1068; 13 S. Ct. 221.

Pickering v. McCullough, 104 U. S. 310; *Hailes v. Van Wormer*, 87 U. S. 353; *Double Pointed v. Two Rivers*, 9 Biss. 258; *Metropolitan v. Young*, 14 Blatchf. 46.

The use of cast lines of type, as the unit of composition, instead of individual type, is an improvement in the art of unsurpassed value. Not only, then, are the combinations novel, but the result is entirely new and highly beneficial. In our judgment these inventions are fundamental, coming within the principle of the ruling in *Morley v. Lancaster*, 129 U. S. 263. We find nothing in the prior art to limit these claims, or to deprive the patentee of a liberal construction thereof. — *Rogers v. Mergenthaler*, 64 Fed. 799; 12 C. C. A. 422.

The argument that the claim is void for lack of novelty if construed to cover a stiff sectional brush, because such brushes were old, loses sight of the distinction, which we have endeavored to point out, that it is not the brush alone which gives patentability to the claim, but the novel motion of the brush. It would be better to hold the patent invalid at the outset than to destroy it by the illiberal construction for which the appellant contends. Few patents can survive if such criticisms are allowed to prevail. — *Cimioti v. American*, 115 Fed. 498; 53 C. C. A. 230.

§ 608. Combinations — Old Elements, New Results.

The combination must be new; and if productive of new and useful results, and not a mere aggregation of results, it might be the subject of a patent, though all the parts were used before. — *Dane v. Chicago*, 131 U. S. cxxvi, app.; 23 L. Ed. 82.

If a combination of old elements, as such, produces no new and useful results, there can be no doubt but that the combination is unpatentable. — *Palmer v. Corning*, 156 U. S. 342; 39 L. Ed. 445; 15 S. Ct. 381.

Hailes v. Van Wormer, 87 U. S. 350; *Reckendorfer v. Faber*, 92 U. S. 347; *Pickering v. McCullough*, 104 U. S. 310; *Thatcher v. Burtis*, 121 U. S. 286.

The mere fact that the patented invention is but a combination of old ingredients or materials is not a tenable objection to the patent, since it is a general rule that a patentable invention may consist entirely in a new combination or arrangement of old and well-known ingredients or elements, provided a new and useful result is thereby attained. — *Thomson v. Citizens Nat. Bk.*, 53 Fed. 250; 3 C. C. A. 518.

Seymour v. Osborne, 11 Wall. 516; *Rees v. Gould*, 15 Wall. 187.

If it were essential to a valid patent for any combination whatever that the mode of action of every element included in the combination should be changed by each of the others, it would have been impossible to sustain several combination patents which have in fact been upheld, as, indeed, it would be difficult to conceive of any mechanical combination which would be both possible and patentable. A screw or a lever can act only in one-way, yet a screw and a lever may so act in combination as to produce, in consequence of their combination, a single, new and useful result. Moreover, there is no intimation in the opinion in *Pickering v. McCullough* of a purpose

to overrule the earlier decisions with which (upon the view taken of it by counsel) it would appear to conflict, nor has it in later cases (which, of course, are to be followed) prevented the Supreme Court from declaring the law of this subject in accordance with our misunderstanding of it. — *National v. American*, 53 Fed. 367; 3 C. C. A. 559.

Explaining *Pickering v. McCullough*, 104 U. S. 310.

Blake v. Robertson, 94 U. S. 728; *Parks v. Booth*, 102 U. S. 96; *Loom Co. v. Higgins*, 105 U. S. 580; *Clough v. Barker*, 106 U. S. 166; *Railway v. National*, 110 U. S. 229; *Lock Co. v. Sargent*, 117 U. S. 536.

But the mere fact that the patentee's invention is but the combination of old ingredients or materials is no answer to the patent, for it is a general rule that a patentable invention may consist entirely in a new combination or arrangement of old or well known ingredients or elements, provided a new and useful result is thereby attained. — *Griswold v. Harker*, 62 Fed. 389; 10 C. C. A. 435.

Thomson v. Bank, 53 Fed. 250; *Seymour v. Osborne*, 11 Wall. 516; *Gould v. Rees*, 15 Wall. 187.

Drawings and a model have been submitted showing how easy it is to unite the C. patent with the W. patent. In our view this is but wisdom after the fact. The combination shown in the drawings and model submitted is a combination suggested by the patent in suit, and which but for the patent in suit, would seem much more difficult than it now does. More than this, it involved patentable invention to see that a union of the elements of the W. patent with those of the C. patent would have a beneficial result. — *Columbus v. Robbins*, 64 Fed. 384; 12 C. C. A. 174.

The elaborate effort of the defendant to show that the different elements of the Hook machine existed in scattered form in mechanism relating to arts remote from that of a continuous cigarette rod was superfluous. It is admitted by the complainant that each element per se was old, and it is practically admitted by the defendant that the combination of the several elements was new. — *Bonsack v. Elliott*, 69 Fed. 335; 16 C. C. A. 250.

If there is anything new or patentable in the construction described by Murphy, it is not in any of the elements he has used, but in the novelty of their combination. His patent must stand, if it can be maintained at all, on the principle that a new combination or arrangement of old or well known ingredients, by which a new and useful result is attained, may be a patentable invention. — *Murphy v. Excelsior*, 76 Fed. 965; 22 C. C. A. 658.

Griswold v. Harker, 62 Fed. 389; *Thomson v. Bank*, 53 Fed. 250; *Seymour v. Osborne*, 11 Wall. 516; *Gould v. Rees*, 15 Wall. 187.

In *Hoffman v. Young*, 2 Fed. 74, the claim in a combination patent was sustained on the ground that it presented evidence of invention, because a new result had been produced, though it was conceded the case was near the border line of nonpatentability. In *National v. American*, 53 Fed. 369, this court decided that the invention there in suit achieved by the inventor was absolutely and entirely new, and had not by any means been previously attained. In each of these cases, cited by counsel for the appellee, the production of a new result is made the test of patentability. On the other hand, numerous authorities may be found in which patents for combinations in machinery and in compositions have been held void for want of invention. We refer to a few only: *Vinton v. Hamilton*, 104 U. S. 485; *Heald v. Rice*, 104 U. S. 737; *Heating Co. v. Burtis*, 121 U. S. 286. In *Aron v. Railroad Co.*, 132 U. S. 84, a patentee had made use of devices of earlier patents. All that

he did was to adapt them to the special purpose to which he contemplated their application, by making modifications which did not require invention, but only the exercise of ordinary mechanical skill. This was held insufficient to sustain a patent. — *Green v. American*, 78 Fed. 119; 24 C. C. A. 41.

It is insisted that novelty of the combination can only be destroyed by showing that all of its elements have been used together before, and in the same relation to each other. The contrary is well established. — *Kelly v. Clow*, 89 Fed. 297; 32 C. C. A. 205.

Thompson v. Boisselier, 114 U. S. 1; *Hill v. Wooster*, 132 U. S. 693; *Burt v. Ivory*, 133 U. S. 349; *Pickering v. McCullough*, 104 U. S. 310; *Florsheim v. Schilling*, 137 U. S. 634; *Adams v. Stamping Co.* 141 U. S. 539; *Deere v. Plow-Works*, 56 Fed. 841; *Lumber Co. v. Perkins*, 80 Fed. 528.

Every element of the combination in controversy was unquestionably old, but there was nothing in the prior art to suggest a rotary brush working in the environment shown in the Sutton patent. There was nowhere a rotary brush making a "part" on a keen edged stretcher bar and brushing the fur down and out of reach of the cutting knives during the moment necessary for the removal of the stiff hairs. It is the presence of this element in the combination which produces the new result and entitles its originator to protection. — *Cimiotti v. American*, 115 Fed. 498; 53 C. C. A. 230.

Loom Co. v. Higgins, 105 U. S. 580; *Topliff v. Topliff*, 145 U. S. 156; *Hobbs v. Beach*, 180 U. S. 383.

Even if it be conceded that the individual elements composing the combination are to be found in the prior art, yet to make the selection of these parts from the prior art, and to combine them so as to produce a clutch which is at the same time simple, compact, effective and useful, required more than ordinary mechanical skill. — *Fairbanks v. Stickney*, 123 Fed. 79; 59 C. C. A. 209.

It is not of consequence that the elements of each claim may be old, for the claims are for a combination, and if the combination be new, or if by a new mode of organization new or better results are obtained, the patent may be sustained. — *Dunn v. Standard*, 163 Fed. 521; C. C. A.

Davis v. Perry, 320 Fed. 941; *Brown v. Huntington*, 134 Fed. 735; *Hobbs v. Gooding*, 111 Fed. 403; *Dececo v. Gilchrist*, 125 Fed. 293; *Western v. North*, 135 Fed. 80; *Sanders v. Hancock*, 128 Fed. 424; *Stilwell v. Eufaula*, 117 Fed. 410.

That the fact that all of the elements of a combination may be found in the prior art, and apparently in combination in the claims of prior patents, does not anticipate unless when read in connection with the specification of the patent in suit the structure and function of the invention appears, see — *Warren v. Blake*, 163 Fed. 263; C. C. A.

§ 609. Combinations — Old Elements, Old Result.

None of the separate elements of which the combination is composed are claimed as the invention of the patentee, therefore none of them standing alone are included in the monopoly of the patent. — *Rowell v. Lindsay*, 113 U. S. 97; 28 L. Ed. 906; 5 S. Ct. 507.

Corn Planter Pat. 23 Wall. 224; *Merrill v. Youmans*, 94 U. S. 573; *Water v. Desper*, 101 U. S. 332; *Miller v. Brass Co.* 104 U. S. 350.

The mere adaptation of an old device to a new combination, involving no functional change, is not invention. — *Royer v. Roth*, 132 U. S. 201; 33 L. Ed. 322; 10 S. Ct. 58.

Double Pointed *v.* Two Rivers, 109 U. S. 117; Pomice *v.* Ferguson, 119 U. S. 335; Thatcher *v.* Burtis, 121-U. S. 286; Dreyfus *v.* Searle, 124 U. S. 60; Hendy *v.* Golden, 127 U. S. 370.

The combination of old devices into a new article, without producing any new mode of operation is not invention. — Florsheim *v.* Schilling, 137 U. S. 64; 34 L. Ed. 574; 11 S. Ct. 20.

Burt *v.* Ivory, 133 U. S. 349; Hailes *v.* Van Wormer, 87 U. S. 353; Reckendorfer *v.* Faber, 92 U. S. 347; Double Pointed *v.* Two Rivers, 109 U. S. 117; Bussey *v.* Excelsior, 110 U. S. 131; Phillips *v.* Detroit, 111 U. S. 604; Stephenson *v.* Brooklyn, 114 U. S. 149; Beecher *v.* Atwater, 114 U. S. 523; Thatcher *v.* Burtis, 121 U. S. 286; Hendy *v.* Golden, 127 U. S. 370.

A new combination of old elements, by which an old result is attained in a more economical and efficient way may be protected by a patent. — Ide *v.* Trorlicht, 115 Fed. 137; 53 C. C. A. 341.

National *v.* Interchangeable, 106 Fed. 693; Seymour *v.* Osborne, 11 Wall. 516; Rees *v.* Gould, 15 Wall. 187; Thomson *v.* Bank, 53 Fed. 250.

His device may not have been a great improvement, but it was certainly a marked advance in the art, and, in view of the numerous less successful attempts to take the step he took which were rewarded with patents by the government, and in view of the evident inability of those inventors and of the proprietors of mere mechanical skill to reach the point to which Collins attained, the title of inventor ought not to be denied him. His invention is one of those intermediate steps in the gradual progress of a useful art toward perfection which are evidenced by the great majority of patented inventions, and it falls within the familiar rules that a new combination of old elements by which an old result is attained in a more facile, economical, and efficient way may be protected by a patent. — Anderson *v.* Collins, 122 Fed. 451; 58 C. C. A. 669.

National *v.* Interchangeable, 106 Fed. 693; Seymour *v.* Osborne, 11 Wall. 516; Rees *v.* Gould, 15 Wall. 187; Thomson *v.* Bank, 53 Fed. 250; Ide *v.* Trorlicht, 115 Fed. 137.

§ 610. Combinations — Presumptions.

A claim for a combination carries with it an implication that the separate elements are old. — Westinghouse *v.* Edison, 63 Fed. 588; 11 C. C. A. 342.

Corn Planter Pat. 23 Wall. 181.

When a combination is claimed, there arises an implied concession that the elements are old and not separately patentable. — Hay *v.* Heath, 71 Fed. 411; 18 C. C. A. 157.

The claim under consideration being, as finally amended in the patent office, "for a combination," it would seem clear that we may hold that the devices entering into such combination are old and common property. — Birmingham *v.* Gates, 78 Fed. 350; 24 C. C. A. 132.

Corn Planter Patent, 23 Wall. 181.

The invention claimed is a combination of the elements. This implies that all the rest is old, or, at least, that the patentee does not so far as this patent is concerned, claim the elements separately. — St. Louis *v.* National, 87 Fed. 885; 31 C. C. A. 265.

Corn Planter Pat. 23 Wall. 181.

§ 611. Combinations — Sub-Combinations.

Undoubtedly a patentee may claim and obtain a patent for an entire combination or process, and also for such parts of the combination or process as are new and useful, or he may claim and obtain a patent for both. — *Railroad v. DuBois*, 79 U. S. 47; 20 L. Ed. 265.

A sub-combination may be the subject of a claim for an improvement, and such sub-combination in combination with the machine or apparatus may be the subject of a claim. — *Parks v. Booth*, 102 U. S. 96; 26 L. Ed. 54.

Many subcombinations, although new, are not useful, except to perform their appropriate functions in the machine of which they are a part. The description in the patent of the whole machine, and of the means or mode by which the subcombination is brought into co-operative relation with the other parts, usually indicates how the subcombination may effect a useful result. When this is so, the combination need not be operative alone, because (to use the language of Mr. Walker) "utility is justly ascribed to things which have their use in co-operating with other things to perform a useful work." — *Thomson-Houston v. Black River*, 135 Fed. 759; 68 C. C. A. 461.

Taylor v. Sawyer, 75 Fed. 301; *Loom Co. v. Higgins*, 105 U. S. 585; *Thomson-Houston v. Elmira*, 71 Fed. 396.

§ 612. Combinations — Miscellaneous Rulings.

Cases arise where a patentee, having invented a new and useful combination consisting of several ingredients, which, in combination, compose an organized machine, also claims to have invented new and useful combinations of fewer numbers of the ingredients and, in such cases, the law is well settled that, if the several combinations are new and useful and will severally produce new and useful results, the inventor is entitled to a patent for the several combinations, provided that he complies with the requirement of the Patent Act and files in the Patent Office a written description of each of the alleged new and useful combinations and of the manner of making, constructing and using the same.

He may give the description of the several combinations in one specification and, in that event, he can secure the full benefit of the exclusive right to each of the several inventions, by separate claims referring back to the description in the specification. — *Gill v. Wells*, 89 U. S. 1; 22 L. Ed. 699.

The object of the patented combination was the accomplishment of a particular result. But this result or idea is not monopolized by the patent. The thing patented is the particular means devised by the inventor by which the result is attained, leaving it open to any other inventor to accomplish the same result by other means. To constitute identity of invention, and therefore infringement, not only must the result attained be the same, but in case the means used for its attainment is a combination of known elements, the elements combined in both cases must be the same, and combined in the same way, so that each element shall perform the same function, provided, however, that the differences alleged are not merely colorable, according to the rule forbidding the use of known equivalents. — *Electric v. Hall*, 114 U. S. 87; 29 L. Ed. 96; 5 S. Ct. 1069.

Prouty v. Ruggles, 16 Pet. 336; *Silsby v. Foote*, 14 How. 217; *McCormick v. Talcott*, 20 How. 402; *Vance v. Campbell*, 1 Black, 427; *Eames v. Godfrey*, 1 Wall. 78; *Dunbar v. Myers*, 94 U. S. 187; *Fuller v. Yentzer*, 94 U. S. 288; *Imhauser v. Buerk*, 101 U. S. 647; *Gage v. Herring*, 107 U. S. 640; *Seymour v. Osborne*, 11 Wall. 516; *Gould v. Rees*, 15 Wall. 194; *Gill v. Wells*, 22 Wall. 1; *McMurray v. Mallory*, 111 U. S. 97; *Fay v. Cordesman*, 109 U. S. 408.

The most that can be said of the invention of the patent in suit, is that it shows on the part of the inventor great industry in acquiring a thorough knowledge of what others had done in a rapid and improved mode by the various devices perfected by patents for that purpose, good, judgement in selecting and combining the best of them with no little mechanical skill in their application; but it presents no discoverable trace of original thought. *Busell v. Stevens*, 137 U. S. 423; 34 L. Ed. 719; 11 S. Ct. 150.

A grating which performed no mechanical function in the combination claimed in an improvement in the construction and operation of prisons cannot be considered as a part of a patentable mechanical combination. — *Fond Du Lac v. May*, 137 U. S. 395; 34 L. Ed. 714; 11 S. Ct. 98.

Brown v. Davis, 116 U. S. 237; *Fornecrook v. Root*, 127 U. S. 176.

It is true that the combination of known devices in such manner as to produce results new in kind or character is patentable; yet when patents for the combination of known devices in such manner as to produce results new and better in degree only than others previously produced are brought before the courts, they are held to be non-patentable. — *Ashton v. Coale*, 52 Fed. 314; 3 C. C. A. 98.

The constituent elements of the claims in suit are proved and conceded to be all old. As combined, they are without essential change of individual structure or function, and they effect by their co-operation, no distinctly new result. In the specification of the patent, the only novelty claimed is in features of construction. The one feature insisted upon in argument is the diverging and adjustable arms, and it is the adjustability on which chief reliance seems to be placed. But there is no novelty in that, nor in the means of producing it. — *Deere v. Case*, 56 Fed. 841; 6 C. C. A. 157.

Florsheim v. Schilling, 137 U. S. 64; *Burt v. Ivory*, 133 U. S. 349; *Pickering v. McCullough*, 104 U. S. 310; *Hill v. Wooster*, 132 U. S. 693; *Thompson v. Boisselier*, 114 U. S. 1.

In determining whether a new combination of old elements constitutes invention, the most important and controlling considerations are, the intrinsic novelty and utility of the concrete invention. — *Kelly v. Clow*, 89 Fed. 297; 32 C. C. A. 205.

A plausible and persuasive argument may be made that this combination falls under either class of cases (*Atlantic Works v. Brady*, 107 U. S. 192 or *Loom Co. v. Higgins*, 105 U. S. 580) that it might have been and was produced by the skill of the trained mechanic or by the intuitive genius of the inventor. The patent which describes it, however, raises a presumption in favor of its novelty and its patentability. It was a new combination. No such separate yet uniform grouping of corresponding annunciators and answering jacks with a multiple switchboard had ever been made or used before Seeley conceived and described it. That combination was not a pioneer; perhaps it was not a great invention. But it discharged the functions of the multiple switchboard, its annunciators, and switches more speedily and efficiently than they had ever been performed without it, and a new combination of old elements by which an old result is attained in a more facile, economical, and efficient way may be protected by a patent. — *Kinloch v. Western*, 113 Fed. 659; 51 C. C. A. 369.

National v. Interchangeable, 106 Fed. 693; *Seymour v. Osborne*, 11 Wall. 516; *Gould v. Rees*, 15 Wall. 187; *Thomson v. Bank*, 53 Fed. 250.

The addition of the drill-rest does not defeat the claim; for assuming that it is not of itself sufficient to support a patent, the uniting it with a combina-

tion which is patentable cannot render the new combination invalid. Combined with the new device, the conjoint mechanical effect is new. — *Eames v. Worcester*, 123 Fed. 67; 60 C. C. A. 37.

If it be true that the elements which make up the combination had never, before the date of that patent, been placed in precisely the same relation to each other as he placed them, yet it is by no means certain that the construction of his machine called for the exercise of the inventive faculty. — *Wilson v. Townley*, 125 Fed. 491; 60 C. C. A. 327.

Convinced, as we are, that the plaintiff has supplied features that have brought success, where others who had preceded him failed, we are inclined to scan narrowly the means by which it has been obtained. The mechanical elements combined are no doubt old, and so, to a certain extent, may be the result accomplished. But nowhere do we find the same combination employed to produce it, and the efficiency attained is so much in advance of what had gone before as of itself to suggest, if it does not prove, the exercise of inventive skill. — *Boyer v. Keller*, 127 Fed. 130; 62 C. C. A. 244.

Sessions v. Romadka, 145 U. S. 29; *Hobbs v. Beach*, 180 U. S. 383; *Taylor v. Sawyer*, 75 Fed. 301; *Stevenson v. McFassell*, 90 Fed. 707; *National v. I. changeable*, 106 Fed. 693.

The invention is not a generic one, far from it. Every element of the claims, considered separately and in different environment, was old, but Yawman was the first to assemble them in the combinations in controversy. By so doing he made an advance, which, though it did not go far, entitled him to protection. — *Yawman v. Vetter*, 159 Fed. 443; 86 C. C. A. 473.

Hobbs v. Beach, 180 U. S. 383; *Magowan v. Packing Co.* 141 U. S. 332; *Davis v. Perry*, 120 Fed. 941; *Hutter v. Stopper Co.* 128 Fed. 283.

§ 613. Date of Completion.

A patent relates back, where the question of novelty is in issue, to the date of the invention, and not to the time of the application for its issue. — *Klein v. Russell*, 86 U. S. 433; 22 L. Ed. 116.

In the absence of other evidence, the invention of the patent is presumed to be identical with that disclosed by the application. — *Drewson v. Hartje*, 131 Fed. 734; 65 C. C. A. 548.

Loom Co. v. Higgins, 105 U. S. 580.

The following opinion by Judge Holt is so complete a monograph upon this subject that it must be given well-nigh in full.

This is a bill in equity under 4920 R. S. for infringement. The only defense is priority of invention. Under sec. 4920 the defendant contends, first, that Watson was the original and first inventor of the thing patented, and, second, that Thomas unjustly obtained his patent for that which was in fact invented by Watson, who was using reasonable diligence in adapting and perfecting the same. The first defense turns upon the respective dates of the Thomas and Watson inventions, and the second defense raises a question of fact as to Watson's diligence in adapting and perfecting his invention. Thomas filed his application Dec. 17, 1896, and his patent issued July 26, 1904. Watson conceived his invention, illustrated it by a drawing, and disclosed it to others as early as Jan. 10, 1896. He reduced his invention to practice by the building of a machine in Apr., 1897. He filed his application Mar. 11, 1898, and his patent issued Sept. 26, 1899. It may be noted, first, that Thomas' application antedates Watson's reduction

to practice by 4 months, and Watson's application by 15 months; and second, that Watson's conception antedates Thomas' application by 11 months. The main controversy with respect to the Thomas invention is whether the date of his invention is the date of his application, Dec. 17, 1896, and the main controversy with respect to the Watson invention is whether the date of his invention is the date of his conception, Jan. 10, 1896.

Under a rule of the Patent Office, the filing of an allowable application is a constructive reduction to practice. In accordance with this rule, the date of the Thomas invention was fixed as of Dec. 17, 1896, the date of his application; and the burden of proof was thrown upon Watson to establish the fact of reasonable diligence from the date of his prior conception, Jan. 10, 1896, to the time Thomas filed his application. Upon this issue of diligence on the part of Watson, the Examiner of Interferences and the Commissioner of Patents, and the Court of Appeals, D. C., found against Watson, and adjudged Thomas the prior inventor, and accordingly a patent was issued to Thomas under sec. 4904. As a result of the interference proceedings, there are two outstanding patents for the same invention issued to independent inventors.

The decision in interference proceedings is not conclusive on the question of priority of invention. The same question may arise in subsequent suits instituted under secs. 4915, 4918 and 4920, R. S. In the present suit, the question of priority is raised under paragraphs 2 and 4 of sec. 4920. In order to determine the question of priority under these paragraphs, we must ascertain the respective dates of the Thomas and Watson inventions. If we find the date of the Thomas invention is prior to the date of the Watson invention, then Thomas is the original and first inventor, unless Watson was using reasonable diligence in adapting and perfecting his invention from the time of his conception. On the other hand, if we find that the date of the Watson invention is prior to the date of the Thomas invention, then Watson is the original and first inventor. No question of diligence arises regarding the Thomas invention, because the complainant does not undertake to carry the date of the Thomas invention back of his application, while in the case of Watson it is sought to carry the date of invention back to his conception.

In patented inventions there are several distinct stages of the invention. Some patented inventions comprise only three stages, namely, conception (evidenced by drawings, disclosures, or models), application, patent; while other patented inventions comprise four stages, namely, conception, reduction to practice, application, patent.

The date of the first class of patented inventions must be either (1) the date of the patent, or (2) the date of the application, or (3) the date of the conception; while the date of the second class must be either (1) the date of the patent, or (2) the date of the application, or (3) the date of the reduction to practice, or (4) the date of the conception.

When two patents for the same invention have been issued to independent inventors, we understand the rule to be that the dates of their respective inventions are, (1) the dates of the patents; (2) the dates of the applications, provided the application sufficiently describes the invention; (3) the dates of actual reduction to practice; (4) the dates of conception; with this qualification, that, if either patentee seeks to carry the date of his invention back to the date of his conception, he must show reasonable diligence in adapting and perfecting his invention, either by actual reduction to practice or by filing his application.

Applying this rule, it appears that Thomas' application of Dec. 17, 1896, carries the date of his invention back of Watson's application, Mar. 11, 1898, and back of Watson's conception, Jan. 10, 1896. It follows, therefore, that Watson, in order to establish an earlier date than Thomas, must show that

between the date of his conception, Jan. 10, 1896, and the date of his actual reduction to practice, Apr., 1897, he was "using reasonable diligence in adapting and perfecting" his invention.

The defendant contends that the courts have adopted another and a different rule for determining the dates of inventions under the patent laws, and that rule is as follows: Inventions are divided into two classes, simple and complicated. Simple inventions may be completed by drawings or disclosure which sufficiently describe the invention, while complicated inventions require for their completion actual reduction to practice. With respect to this theory of the defendant, it is sufficient to say that it is novel and plainly unsound. No such distinction between inventions is found in the statutes, or has ever been recognized by the courts in any adjudicated cases. It may be further observed that any such artificial distinction would lead to hopeless confusion and great injustice.

In the present case the question of priority of invention involves two fundamental inquiries: First, is the date of the patented invention as early as the date of the application? In other words, can Thomas carry back the date of his invention to the date of his application? Second, is the date of a patented invention as early as the date of conception? In other words, can Watson carry back the date of his invention to the date of his drawing and disclosure?

First. With respect to the first proposition it may be said that the law is well settled that the date of a patented invention is at least as early as the date of the application, provided it sufficiently describes the invention to enable those skilled in the art to understand it; and we have found no decision in which this rule is questioned. (Quoting and reviewing *Walk. Pat.* 4th ed. § 70; *Kearney v. Railroad*, 32 Fed. 320; *National v. Brown*, 36 Fed. 317; *Prindle v. Brown*, 155 Fed. 531; *Bates v. Coe*, 98 U. S. 31; *Barnes v. Walworth*, 51 Fed. 88, *affd.* 60 Fed. 605; *Barbed Wire Case*, 143 U. S. 275; *Miller v. Eagle*, 151 U. S. 186; *Westinghouse v. Chartiers*, 43 Fed. 582.)

The rule of the Patent Office that the filing of an allowable application is constructive reduction to practice is only the expression in another form of the rule that the application for a patented invention, if it sufficiently describes the invention, is conclusive evidence that the invention was made at least as early as that date. (Quoting and reviewing *Lorraine v. Thurmond*, 51 O. G. 1781; *Agawam v. Jordan*, 7 Wall. 583; *Seymour v. Osborne*, 11 Wall. 516; *Clark v. Willimantic*, 140 U. S. 481; *Woodcock v. Parker*, Fed. Cas. 1813; *Bedford v. Hunt*, Fed. Cas. 1217; *Reed v. Cutter*, Fed. Cas. 11,645; *Washburn v. Gould*, Fed. Cas. 17,214; *White v. Allen*, Fed. Cas. 17,535; *Winans v. New York*, Fed. Cas. 17,864.)

At the same time we have the equally well settled rule that an invention need not be perfected and adapted to use, or reduced to practice, in order to obtain a valid patent, since no such condition is contained in the statute. *Wheeler v. Clipper*, Fed. Cas. 17,493; *Telephone Cases*, 126 U. S. 1.

The cases which hold that a rejected application is not sufficient to establish priority of invention under the statutes have no bearing on the question of the legal effect of a complete and allowable application which will result or has resulted in the granting of a patent. *Corn Planter Pat.* 23 Wall. 181; *Lyman v. Lalor*, Fed. Cas. 8632; *Northwestern v. Philadelphia*, Fed. Cas. 10,337.

Second. We have now to consider the question whether Watson can carry the date of his invention back to the time of his conception, Jan. 10, 1896. This question must be viewed from two standpoints: First, can it be said that Watson's conception, drawings and disclosure to others, of themselves, or without regard to his subsequent acts, can constitute a complete invention within the meaning of the patent laws? Second, can Watson as a patentee carry back the date of his invention to the time of his conception?

(1) The law appears to be well established that a conception evidenced by disclosure, drawings, and even a model, confers no rights upon an inventor unless followed by some other act, such as actual reduction to practice, or filing an application for a patent. A conception of this character is not a complete invention under the patent laws. If it did constitute an invention under the statutes, then an inventor might stop with his drawings and disclosure, and hold the field for all time against a subsequent inventor who had reduced his invention to practice, or who had obtained a patent. The law will not permit this. An inventor must not stop with this stage of his invention, but he must proceed with reasonable diligence to perfect his invention, either by actual reduction to practice, or by filing his application for a patent. (Quoting and reviewing *Detroit v. Renchard*, 9 Fed. 293; *Reeves v. Keystone*, Fed. Cas. 11,660; *Pennsylvania v. Simpson*, 29 Fed. 288; *Winans v. New York*, Fed. Cas. 17,864; *Electric v. Hall*, 6 Fed. 603; *Draper v. Potomska*, Fed. Cas. 4072; *Ellithorp v. Robertson*, Fed. Cas. 4408.)

(2) The next question we have to consider is whether Watson as a patentee can carry back the date of his invention to the date of his conception; that is, to his drawing and disclosure of Jan. 10, 1896. We understand the true rule to be that a patentee who undertakes to carry back the date of his invention to his drawings and disclosure must show reasonable diligence in adapting and perfecting his invention, either by actual reduction to practice or by filing his application. This rule is supported by the great weight of authority, and we have found no cases which directly hold that this is not the law, though there are some cases in which a patentee has been permitted to carry back his invention to his drawings and disclosure, where the question of diligence was not raised or passed upon. *Loom Co. v. Higgins*, 105 U. S. 580; *Dodge v. Porter*, 98 Fed. 624; *Westinghouse v. Stanley*, 133 Fed. 167. No sound reason has been advanced why the doctrine of diligence should not apply to a patentee as well as an inventor who has not secured a patent. On the other hand, any such distinction in favor of patentees is not in harmony with the patent laws. We have seen that an invention in the sense of the patent law signifies a completed invention, and that the earliest date of an invention is the time of its completion. We have also seen that an invention may be completed either by actual reduction to practice or by filing a complete and allowable application in conformity with the statutes.

This general principle, however, is subject to this qualification: (Here follows a discussion of the acts of July 4, 1836, sec. 15; Feb. 21, 1793, sec. 6; and a review of the cases bearing thereon: *Reed v. Cutter*, supra; *Loom Co. v. Higgins*, supra; *Odell v. Stout*, 22 Fed. 159; *Reeves v. Keystone*, supra; *Christie v. Seybold*, 55 Fed. 69; *Merrow v. Shoemaker*, 59 Fed. 120; *Detroit v. Renchard*, supra; *Pennsylvania v. Simpson*, supra; *Electric v. Hall*, supra; *Morgan v. Daniels*, 153 U. S. 120). — *Automatic v. Pneumatic*, 166 Fed. 288; C. C. A.

§ 614. Definitions of.

The invention itself is an intellectual process or operation; and like all other expressions of thought, can in many cases scarcely be made known, except by speech. The invention may be consummated and perfect and may be susceptible of complete description in words, a month or even a year before it can be embodied in a visible form, machine or composition of matter. — *Railroad v. Stimpson*, 14 Pet. 448; 10 L. Ed. 535.

The complainant alleges that he has invented a new and useful improvement in the construction of jails. Now a jail can hardly come under the denomination of a "machine;" nor, though made by hands, can it well be classed with "manufactures;" nor, although compounded of matter can it be termed a "composition of matter" in the meaning of the Patent Act.

“But if the subject matter be neither a machine nor a manufacture nor a composition of matter,” then, says Curtis Pat. 91, “it must be an art, for there can be no valid patent except it be for a thing made or for the art or process of making a thing.” Now, without attempting to define the term “art” with logical accuracy, we take as examples of it, some things which, in their concrete form, exhibit what we all concede to come within a correct definition, such as the art of printing, that of telegraphy, or that of photography. The art of tanning might also come within the category, because it requires various processes and manipulations. The difficulty still exists however, under which category of the Patent Act an improvement in the construction of jails is to be classed or whether under any. — *Jacobs v. Baker*, 74 U. S. 295; 19 L. Ed. 200.

A patentable invention is a mental result. It must be new and shown to be of practical utility. Everything within the domain of the conception belongs to him who conceived it. The machine, process or product is but the material reflex and embodiment. — *Smith v. Nichols*, 88 U. S. 112; 22 L. Ed. 566.

Reviewed at length by Justice Brown in *McClain v. Ortmyer*, 141 U. S. 419; 35 L. Ed. 800; 12 S. Ct. 76.

A discovery which adds to our knowledge and makes a substantial advance in the useful arts is invention. — *Magowan v. N. Y.* 141 U. S. 332; 35 L. Ed. 781; 12 S. Ct. 62.

Atlantic v. Brady, 107 U. S. 192; *Hollister v. Benedict*, 113 U. S. 59.

Specifications and claims are necessary, but inventions consist in things, not in words. — *Thomson-Houston v. Western*, 72 Fed. 530; 19 C. C. A. 1.

It is not mere novelty. — *Tiemann v. Kraatz*, 85 Fed. 437; 29 C. C. A. 257. *Thompson v. Boisselier*, 114 U. S. 11; *Gardner v. Herz*, 118 U. S. 191.

As I look at it, the life germ of any creation is not so much the mechanical form in which it finally becomes embodied, as the flash of inspiration, out of the darkness in which it lay concealed, first revealed its possibility. The possibility of a thing once seen, it is of no great moment that a ready mechanical means of bringing it into form is at hand; nor that the mechanical means used are similar to those employed before in the allied arts; nor that any mind would have seen the adaptability, mechanically, of what already existed to what was now, for the first time, about to exist. Invention is not, in my judgment, confined to the concrete mechanical form into which an idea ultimately evolves. Invention is the idea itself, the burst of new thought, the discovery; and patentable invention is the conjunction of these two appropriate and efficient mechanical means. Confessedly, an old idea, carried out mechanically in a new form, is patentable invention. To my mind, a new idea, carried out mechanically in an old form, ought equally to be regarded as patentable invention. To hold otherwise is to dethrone the head and enthrone the hands — to leave genuine genius unrecompensed, while placing the crown on mechanical skill. (*Grosscup, J.* concurring unwillingly in view of *Kokomo v. Kitselman*, 189 U. S. 8.) — *Brown v. Crane*, 133 Fed. 235; 66 C. C. A. 676.

Whether, in a given case, there has been the exercise of the inventive faculty, within the meaning of the patent laws, is always a delicate and sometimes difficult question addressed to the sound judgment of the court. It is difficult, perhaps impossible, to describe general rules for the exercise

of this judicial function. It demands careful consideration of the prior art and the essential and distinguishing feature of the device or combination, as to which invention is alleged, and appreciation of the practical working of the mental faculties. But it must often happen, and is unavoidable, that what is evidence of inventive genius to one mind, may only suggest the exercise of mechanical skill to another equally sincere and intelligent. — *Buchanan v. Perkins*, 135 Fed. 90; 67 C. C. A. 564.

It is said that from time immemorial eye shades have been made by cutting visors from papers and tying them on with strings. If this was a matter of common knowledge, so much more the marked was the intuitive flash that finally came to Mahony's mind, and to his alone. We think there was invention of the "happy thought" kind. — *Mahony v. Malcom*, 143 Fed. 124; 74 C. C. A. 318.

Williams v. American, 86 Fed. 641; *Eastman v. Mayor*, 134 Fed. 844; *Regent v. Penn*, 121 Fed. 80.

§ 615. Dividing or Uniting Parts.

It is not invention to make the frame of a machine integral rather than to bolt two sections together when both perform the same service. — *Bagley v. Empire*, 58 Fed. 212; 7 C. C. A. 191.

It does not involve invention to cast a part of a machine in two pieces which before was cast in one piece. — *Birmingham v. Gates*, 78 Fed. 350; 24 C. C. A. 132.

It could not involve any invention to make a complete door frame in two parts. All that was necessary to be done by the carpenter was to make a complete frame, and then divide the jamb longitudinally into two sections by the saw. — *Roehr v. Bliss*, 102 Fed. 692; 42 C. C. A. 593.

The conclusion from all the cases must be that the mere making in one piece of a device formerly made in two parts mechanically attached is not invention. The exception to the general rule must depend upon special facts indicating the presence of inventive faculty in a degree greater than the mere mechanical knowledge exhibited by so simple an improvement. Much stress has been laid upon the alleged large use and sale of this improved socket. The evidence upon this point is not very forceful in respect to this particular invention. The sales were chiefly of a structure which included track plate and socket, or these in combination with a caster, the track plate and caster being the subject of other patents; and it is not made plain that any more of the alleged success of the sale of the track plate socket was due to the socket than to the track plate. However this may be, we do not think the question of patentability is doubtful, and it is only when the patentability of a device is doubtful that the general use of the patented article may turn the scale. — *Standard v. Caster*, 113 Fed. 162; 51 C. C. A. 109.

McClain v. Ortmyer, 141 U. S. 419; *Duer v. Lock*, 149 U. S. 216; *Krementz v. Cottle*, 143 U. S. 556; *Howard v. Stove*, 150 U. S. 164; *Mfg. Co. v. Holtzer*, 67 Fed. 907.

All that this claim requires is that there shall be air-passages and that they shall be screened. Since this is so, there surely is no invention in merely reducing the number of air-passages from two to one. — *Murray v. Continental*, 149 Fed. 989; 79 C. C. A. 499.

There is no invention in making two parts of one thing, or one of two, when by such change no different result is attained. — *D'Arcy v. Staples*, 161 Fed. 733; 88 C. C. A. 606.

Bundy v. Detroit, 94 Fed. 524; *Eames v. Worcester*, 127 Fed. 67; *General v. Yost*, 139 Fed. 568; *Standard v. Caster*, 113 Fed. 162; *Howard v. Detroit*, 150 U. S. 164.

§ 616. Double or Analogous Use — Analogous Use Non-Patentable.

The application of a patented device to another use, where such new application does not involve the exercise of the inventive faculty, is as much an infringement as though the machine were an exact copy of the old. — *Western v. LaRue*, 139 U. S. 601; 35 L. Ed. 294; 1 S. Ct. 670.

Winans v. Denmead, 56 U. S. 330; *Sewell v. Jones*, 91 U. S. 171; *Howe v. Abbott*, 2 Story, 190; *Walton v. Potter*, 1 Web. P. C. 585.

Mere analogous use is not patentable. — *Grant v. Walter*, 148 U. S. 547; 37 L. Ed. 552; 13 S. Ct. 699.

Brown v. Piper, 91 U. S. 37; *Pennsylvania v. Safety Truck*, 110 U. S. 491; *Miller v. Force*, 116 U. S. 22; *Dreyfus v. Searle*, 124 U. S. 60.

The adaptation of an old device to an analogous purpose in the same art is mere double use. — *Griswold v. Wagner*, 68 Fed. 494; 15 C. C. A. 525.

Potts v. Creager, 155 U. S. 597; *Brown v. Piper*, 91 U. S. 27; *Penna. v. Locomotive*, 110 U. S. 490; *Atlantic v. Brady*, 107 U. S. 192; *Tucker v. Spalding*, 13 Wall. 453.

Complainants seek to eliminate the Elston patent from the case by the suggestion that the workmen who make mattresses for beds, do not make seats for railroad cars (the Elston patent was for a seat for railroad car). That circumstance, however, is immaterial when an old contrivance is applied in an old way to an analogous subject, without any novelty in the mode of applying such a contrivance to the new purpose. — *Rogers v. Fitch*, 81 Fed. 959; 27 C. C. A. 23.

Penna. v. Locomotive, 110 U. S. 497; *Aron v. Railway*, 132 U. S. 89; *Briggs v. Ice Co.* 60 Fed. 87.

The form of his stay was old, the material was old, and in bringing them together in the particular form described in the patent, he did not develop in either any new characteristics or capacity. — *Janowitz v. Levison*, 82 Fed. 63; 27 C. C. A. 61.

It is true as already stated, that nearly all, if not all, the elements of Grosselin's combination were so common in the practical arts that their use anywhere must be regarded as analogous to previous uses; and especially is this true of the cone pulleys. But this does not wholly settle the matter. The statements of the rule in *Potts v. Creager*, 155 U. S. p. 606, show that the rule is not rigid but that it merely lays the basis of presumptions which ordinarily are against patentability. — *Heap v. Tremont*, 82 Fed. 449; 27 C. C. A. 316.

National v. Boston, 156 U. S. 502; *Watson v. Stevens*, 51 Fed. 757; *Osgood v. Metropolitan*, 75 Fed. 670; *Mfg. Co. v. Holtzer*, 67 Fed. 907.

That the mere transfer of a device from one field to an analogous use, without change of function is not patentable, see *Cushman v. Goddard*, 95 Fed. 664; 37 C. C. A. 221.

Penna. v. Locomotive, 110 U. S. 490; *Heap v. Tremont*, 82 Fed. 449.

The prior art showed both the ordinary atomizer and the especially designed atomizer for the use of pigments, the latter being especially designed to throw a much finer stream. The Fry patent required, for ceramic work, an ordinary atomizer, and the specially designed pigment atomizer would not do the work. It was held that the mere transfer of an ordinary atomizer to do the work which the existing pigment atomizer would not perform, was not invention. — *Fry v. Rookwood*, 101 Fed. 723; 41 C. C. A. 634.

The object is the old object, and the result is simply the old result of insulation, which is to prevent discharges at an injurious place. We cannot perceive that the effect of the insulation in an arc-rupturing device was anything more than the old effect, which has always accompanied insulation, and which was accomplished by the old mechanical means, although it was used to prevent lateral discharges in connection with an arc-rupturing device. — *Thomson-Houston v. Nassau*, 107 Fed. 277; 46 C. C. A. 263.

The only difference is that Bemis claimed his combination "in a transplanting machine," while the existing combinations appeared in seed planters. Granting that Bemis made a new and useful improvement in transplanters, the substitution of a known part of a seed planter for the corresponding part of a transplanter, with the required and self-suggesting changes, did not, in our judgment, involve the exercise of the inventive faculty. — *Seiler v. Fuller*, 121 Fed. 85; 57 C. C. A. 339.

In view of the fact that Gendron showed that his invention was designed to be used in vehicle manufacture in joining hollow seamless malleable castings "to whiffletrees, axles, and other similar bodies," we cannot ascribe to the transfer of the process to joining hollow seamless malleable spoke sockets to spokes the dignity of invention. — *Bettendorf v. Little*, 123 Fed. 433; 59 C. C. A. 473.

Lovell v. Cary, 147 U. S. 623; *Potts v. Creager*, 155 U. S. 597; *Mast v. Stover*, 177 U. S. 485; *Johnson v. Toledo*, 119 Fed. 885.

Whether houses and incubators are or are not in the same class is unimportant. The patent in suit deals with the problem of ventilating an incubator; the two earlier patents, with the problem of ventilating a house or a room; and we are clearly of the opinion that the devising of systems of ventilation belongs to a single art, whether such systems are to be applied to a hospital, a sewer, a ship's hold, a cold-storage box, an incubator, or any other structure where circulation of air is sought to be secured. — *Jones v. Cyphers*, 126 Fed. 753; 62 C. C. A. 21.

It is possible that the inventor was the first to conceive that windows thus constructed would be a valuable adjunct to fire-proof buildings. If so, it is the previousness of his conception that constitutes the merit of his so-called invention; for the mechanical embodiment of that conception is old. But it does not follow that a conception is patentable merely because it is first in time. Concept alone is not patentable. Concept must be accompanied by mechanical embodiment; and as the law now stands, the mechanical embodiment, to make the invention patentable, must itself be unanticipated. — *Voightmann v. Perkinson*, 138 Fed. 56; 70 C. C. A. 482.

As no adaptation beyond known equivalents was made or needed, and as the transfer was from the very same art, the claims must be void. — *Covel v. Rich*, 142 Fed. 468; 73 C. C. A. 584.

Potts v. Creager, 155 U. S. 597; *Mast v. Stover*, 177 U. S. 485; *Stearns v. Russell*, 85 Fed. 229; *Chisholm v. Johnson*, 115 Fed. 625.

The new and analogous use to which the old and familiar process was put (winnowing coffee after it had been roasted and slightly crushed) does not amount to invention. — *Baker v. Duncombe*, 146 Fed. 744; 77 C. C. A. 234.

Slawson v. Grand, 107 U. S. 649; *Grant v. Walter*, 148 U. S. 547; *Knapp v. Morss*, 150 U. S. 221; *Aron v. Manhattan*, 132 U. S. 84.

§ 617. Double or Analogous Use — Double Use Non-Patentable.

If what it actually did is in its nature the same as sawing, and its structure and action suggested to the mind of an ordinary skilled mechanic this double use to which it could be put without material change, it is not invention. — *Tucker v. Spalding*, 80 U. S. 453; 20 L. Ed. 515.

A double use is not patentable, nor does its cheapness make it so. — *Reckendorfer v. Faber*, 92 U. S. 347; 23 L. Ed. 719.

Curtis, sec. 56, 73.

The employment of old mechanism producing the same mechanical effect, the only advantage being an increased degree of security or safety is not invention. — *Fond du Lac v. May*, 137 U. S. 395; 34 L. Ed. 714; 11 S. Ct. 98.

Tucker v. Spalding, 80 U. S. 453; *Corn Planter Patent*, 90 U. S. 181; *Brown v. Piper*, 91 U. S. 37; *Dunbar v. Meyers*, 94 U. S. 187; *Vinton v. Hamilton*, 104 U. S. 485; *Heald v. Rice*, 104 U. S. 737; *Hall v. Maeneale*, 107 U. S. 90; *Thompson v. Boisselier*, 114 U. S. 1; *Stephenson v. Brooklyn*, 114 U. S. 149; *Aron v. Manhattan*, 132 U. S. 84; *Watson v. Cincinnati*, 132 U. S. 161; *Hill v. Wooster*, 132 U. S. 693; *Burt v. Ivory*, 133 U. S. 349; *St. Germain v. Brunswick*, 135 U. S. 227.

The public cannot be deprived of an old process because some one has discovered that it is capable of producing a better result or has a wider range of use than was before known. — *Lovell v. Cary*, 147 U. S. 623; 37 L. Ed. 307; 13 S. Ct. 472.

Smith v. Nichols, 88 U. S. 112; *Roberts v. Ryer*, 91 U. S. 150.

The mere carrying forward of an old process to perform an analogous use not invention. — *Lovell v. Cary*, 147 U. S. 623; 37 L. Ed. 307; 13 S. Ct. 472.

The combination of old elements which perform no new function and accomplish no new results does not involve patentable novelty. — *Knapp v. Morss*, 150 U. S. 221; 37 L. Ed. 1059; 14 S. Ct. 81.

Mosler v. Mosler, 127 U. S. 361; *Hailes v. Van Wormer*, 87 U. S. 353; *Reckendorfer v. Faber*, 92 U. S. 347; *Pickering v. McCullough*, 104 U. S. 310; *Peters v. Hanson*, 129 U. S. 541.

Dissented to. *Brown and Shiras*. While change was not radical it was still invention.

Loom Co. v. Higgins, 105 U. S. 580; *Washburn v. Beat Em All*, 143 U. S. 275; *Gandy v. Main*, 143 U. S. 587; *Topliff v. Topliff*, 145 U. S. 156.

For the leading cases on this subject (quoted under § 671) see *Potts v. Creager*, 155 U. S. 597; 39 L. Ed. 275; 15 S. Ct. 194.

He invented no new device, he used it for no new purpose; he applied it to no new machine. All he did was to apply it to a new purpose in a machine where it had not before been used for that purpose. In our opinion this transfer does not rise to the dignity of invention. — *Mast v. Stover*, 177 U. S. 485; 44 L. Ed. 856; 20 S. Ct. 708.

Potts v. Creager, 155 U. S. 597.

§ 618. Double or Analogous Use — Double Use Patentable.

The distinction between a double use, as the result of mere mechanical skill, and a new use created by the inventive faculty is strikingly illustrated in the case of *Colgate v. Western*, 15 Blatchf. 365. — *Busell v. Stevens*, 137 U. S. 423; 34 L. Ed. 719; 11 S. Ct. 150.

As a broad invention it has nothing which was not fully described in the prior systems except a single receiver in lieu of two. It is apparent that, when a single receiving instrument was desired in the place of two, the change could easily have been made by any person skilled in the art.

Therefore I felt at liberty to proceed in this case on my own convictions, on my understanding of the tendency and practical effect of the decisions of the Supreme Court during the last few years which have sustained so many decrees in the circuit courts holding patents invalid for want of patentable novelty, and reversed so many in which the patents have not been held invalid for that reason, and especially the tendency and practical effect of the series of cases concerning "double use," so called, beginning with *Penna. v. Locomotive*, 110 U. S. 490 and ending with *Knapp v. Morss*, 150 U. S. 221 and of the rule in *Gordon v. Warder*, 150 U. S. 47. But, apparently the trend of this court, as shown in *Folding Bed Co. v. Osgood*, 58 Fed. 583 and *Herrick v. Leveller Co.* 60 Fed. 80, precludes me from following my own views, as above expressed. (Dissenting opinion of Putnam, C. J.). — *Game-well v. Municipal*, 61 Fed. 948; 10 C. C. A. 184.

This was an action for infringement of a tanning process. Respondent set up as anticipatory a similar process for dyeing. *Held*: In dyeing and printing on fabrics and in the treatment of wools, the end finally accomplished is not at all analogous to that of manufactured leather. The same ingredients may be used to reach the one result as the other but they are not used for a like purpose. They do not affect the different materials in the same way, and the product evolved in the one case is wholly unlike the change effected in the other. The fact that hides are substituted for fabrics or wool, and that the thing produced is leather, and not dyed fabric or treated wool distinguishes the two processes. The art of dyeing and of leather making are wholly unallied, and therefore the doctrine of double use has no pertinency. — *Tannage v. Zahn*, 70 Fed. 1003; 17 C. C. A. 552.

Potts v. Creager, 155 U. S. 606.

§ 619. Duplication.

Mere duplication is not invention. — *Topliff v. Topliff*, 145 U. S. 156; 36 L. Ed. 658; 12 S. Ct. 825.

Dunbar v. Meyers, 94 U. S. 187; *Slawson v. Grand*, 107 U. S. 649.

Note: Further cases bearing on this subject will be found under *Aggregation*, *Adaptation*, *Mechanical Skill* and *Novelty*.

§ 620. Evidence of — Acquiescence.

In view of the Moore patent and of the state of the art, the patent in suit is an extremely narrow one; but in view of the favor with which it has been received by the trade, and the long acquiescence shown, we are not prepared to hold that there was no invention in so reorganizing the fastener of the prior art as to produce for the first time a device such as that described. — *Aeme v. Cary*, 101 Fed. 269; 41 C. C. A. 338.

Here was an invention which, if it was an invention, was of such a character that, notwithstanding the parties are at issue in regard to the extent

of its practical value, it promised and accomplished great pecuniary advantage. Yet it must be conceded, as is apparent from the general tone of the whole record, and from the way in which the case has been developed before us, that the patent was long acquiesced in. It is also certain from the testimony in the case that an interference was declared between Ferraris and Tesla, and decided in favor of the latter. While, of course, such decisions are not formally operative as between other parties, as we have shown in *Wilson v. Consolidated*, 88 Fed. 286, especially when, as in the present case, courts are not advised what the nature of the contest was, or even whether it was a real one, yet such issues, when determined, necessarily contribute, with other adjudications, to make up the body of expert and legal opinion which goes to show that the patent has been approved and acquiesced in by those who understand its relations to the art. Although such general judgment cannot be measured by the law, yet it must be conceded that it has its weight, especially with regard to the state of the art at a period some years remote. In some cases, after a long lapse of time, it is the most reliable test in reference thereto; and, in any event, it affords material support to the patentee on issues of fact of the kind at bar, relating to occurrences as to which so many years have gone by. — *Westinghouse v. Stanley*, 133 Fed. 167; 68 C. C. A. 523.

Never until this cause was instituted, so far as we are informed, was the validity of the patent disputed. During all that period of 10 years there seems to have been a public acquiescence in its validity. With these facts before us, we think we are not justified in holding the first claim of the patent invalid. — *Wolff v. Du Pont*, 134 Fed. 862; 67 C. C. A. 488.

Although the letters patent issued more than 14 years before the filing of this bill, no practical use was ever made of the alleged invention covered by the claim now in issue. Consequently the patent lacks the support coming from public acquiescence which is often of great value, not only in giving support to an alleged invention, but also in justifying a breadth of construction of the patent itself, so that the complainant is subject to the scrutiny and the limitations of the class observed in our opinion in *U. S. Hog v. North*, 158 Fed. 818, and in the cases there cited, and in *Deering v. Harvester*, 155 U. S. 286. — *Boston v. Pennsylvania*, 164 Fed. 557; C. C. A.

§ 621. Evidence of — Attempted Evasion.

Indeed, its great usefulness and ingenuity are especially illustrated by the cumbersome efforts of the respondent to accomplish the results of the patented device by its alleged infringing machine. — *Heap v. Tremont*, 82 Fed. 449; 27 C. C. A. 316.

§ 622. Evidence of — Commercial Success.

The argument drawn from commercial success is not always to be relied on. Other causes, such as the enterprise of the vendors and the lavish expenditures in advertising may cooperate to promote a large demand. But when the other facts in the case leave the question of invention in doubt, the fact that the device has gone into general use and has displaced other devices which had previously been employed for analogous uses is sufficient to turn the scale in favor of the existence of invention. — *Krementz v. Cottle*, 148 U. S. 556; 37 L. Ed. 558; 13 S. Ct. 719.

Quoting from *Con. B. S. Co. v. Detroit*, 47 Fed. 894.

Loom Co. v. Higgins, 105 U. S. 580; *Con. S. V. Co. v. Crosby*, 113 U. S. 157; *Magowan v. N. Y.* 141 U. S. 332; *Washburn v. Beat Em All*, 143 U. S. 275; *Gandy v. Main*, 143 U. S. 587; *Topliff v. Topliff*, 145 U. S. 156.

The shredders failed to properly prepare the cane for the mill. The Krajewski machine succeeds. — *Krajewski v. Pharr*, 105 Fed. 514; 44 C. C. A. 572.

In *Re Barbed Wire Patent*, 143 U. S. 275; *Schroeder v. Brammer*, 98 Fed. 880; *Dudley v. Munger*, 1 C. C. A. 158; *Consolidated v. Crosby*, 113 U. S. 157; *Smith v. Vulcanite*, 93 U. S. 486; *Magowan v. Packing Co.*, 141 U. S. 332-343; *Potts v. Creager*, 155 U. S. 597.

The fact that the device was at once successful, and that, to a large extent, it practically displaced all lifting jacks in previous use, must be regarded as a circumstance of decided significance. Such circumstance clearly discloses the meritoriousness of the device. And it is well settled that, when the question of patentable novelty is fairly open to doubt, the practical success of the device, with the fact that it displaced similar devices in previous use, is sufficient to turn the scale in favor of the invention. — *Kalamazoo v. Duff*, 113 Fed. 264; 51 C. C. A. 221.

Smith v. Vulcanite, 93 U. S. 486; *Magowan v. Packing Co.* 141 U. S. 333; *National v. Interchangeable*, 106 Fed. 693; *Hallock v. Davison*, 107 Fed. 482; *Barbed Wire Pat.* 143 U. S. 275; *Topliff v. Topliff*, 145 U. S. 156; *Krementz v. Cottle*, 146 U. S. 556; *Consolidated v. Detroit*, 47 Fed. 894; *Mfg. Co. v. Adams*, 151 U. S. 139.

If there is any doubt upon the question of patentability, the practical and commercial results of the improvement must resolve such doubt in its favor. (p. 498.)

It is at most merely the use of an old device for a new and analogous purpose, without the necessity of any adaptation in order to discharge the old function in the new device. Its confessed commercial success, therefore, cannot be accepted as evidence of invention. (p. 501.) — *Westinghouse v. Union*, 117 Fed. 495; 55 C. C. A. 230.

Note: It is true, these two conflicting statements, seemingly so, refer to two different patents; but it is perhaps as good an illustration how a so-called rule of law becomes a "wax nose" as can be found.

The testimony shows that the public by large purchases appreciated Hoyt's device; and while this fact is not controlling, it is entitled to consideration, when commercial success is not shown to be due to other causes. — *Dowagiac v. Minnesota*, 118 Fed. 136; 55 C. C. A. 86.

Gandy v. Belting, 143 U. S. 587; *Lane v. Welds*, 99 Fed. 286; *Dowagiac v. Superior*, 115 Fed. 886.

Commercial success is not an infallible standard by which to test the merit of an invention. Such success is often due to mere business ability in manufacturing, exploiting, and advertising; but given a large demand for a particular thing, a market already created, and an invention which it is free to use, the fact that it is not used strongly demonstrates its inadequacy. — *Ideal v. Crown*, 131 Fed. 244; 65 C. C. A. 436.

The hard-headed men of trade do not place themselves in a position where they must accept the alternative of an infringement suit or the payment of license fees for the use of an article when an equally good article may be had for nothing. It should be and is the desire of the court in approaching the consideration of a patent for a structure which has thus won a position of unchallenged supremacy in the commercial world, to endeavor to sustain rather than defeat the patent. — *Consolidated v. Firestone*, 151 Fed. 237; 80 C. C. A. 589.

Even if appellee's commercial success with a ventilated armature core was due to Reist's teachings, rather than to the skill of appellee's mechanics in working out indispensable features that were not disclosed by Reist, that fact "would only be influential in resolving a doubt" — it would not also serve to inject a doubt into an otherwise clear case. — *National v. General*, 159 Fed. 934; 87 C. C. A. 462.

§ 623. Evidence of — Commercial Success — When Not.

The appellants rely on the fact that the patented machine was the first successful one, and on the fact that it had great commercial success. The decisions touching the effect of these propositions are so numerous and modern that they need not be referred to specifically, but they limit the application of them to doubtful cases turning on questions of utility or patentable invention. They have no pertinency in cases which turn on the construction of the patent. — *DeLorica v. Whitney*, 63 Fed. 611; 11 C. C. A. 355.

The rule of commercial success determining invention is applied only in cases of doubtful invention, and not where there is palpable want of any inventive art. — *Olmsted v. Andrews*, 77 Fed. 835; 23 C. C. A. 488.

There is too much evidence in this record as to consent decrees against rival makers of tires to predicate much upon the mere fact that the Grant tire has met with a large sale. The general use of a patented article is only evidence of value when the novelty or utility of the article is a matter of great doubt, and its evidential value in even such cases is nothing when it can be attributed to something other than novelty. — *Goodyear v. Rubber*, 116 Fed. 363; 53 C. C. A. 583.

Watch Co. v. Robbins, 75 Fed. 17; *Lane v. Welds*, 99 Fed. 286; *McClain v. Ortmyer*, 141 U. S. 419.

In considering the question of the patentable character of the machine in question, we must not be misled by the fact that its use has been attended with commercial success in the way of a large, better, and cheaper product; for, in the steady advance incident to progress in manufacturing, many non-patentable processes and methods have proved most original and exceedingly profitable, and it must be remembered that everything novel and useful is not therefore necessarily patentable. — *Daylight v. American*, 142 Fed. 454; 73 C. C. A. 570.

That mere evidence of large sales without proof that the same was due to the improvement is not proof of novelty, see *Fielding v. Crouse*, 154 Fed. 377; 83 C. C. A. 331.

The commercial success of the article manufactured under the complainant's patent is also pointed out as indicating invention. But this is only one element to be considered, and then only when patentability is doubtful. Moreover, it is not entirely clear that this commercial success is not in some measure due to the machines used by the complainants and their licensees for attaching the binder. — *Locklin v. Buck*, 159 Fed. 434; 86 C. C. A. 414.

§ 624. Evidence of — Efficiency.

That a combination making a superior and cheaper article is itself a patentable invention, we are unable to agree with. — *Florsheim v. Schilling*, 137 U. S. 64; 34 L. Ed. 574; 11 S. Ct. 20.

Pickering v. McCullough, 104 U. S. 310.

Large capacity of device is persuasive but by no means conclusive proof of invention. — *National v. Hedden*, 148 U. S. 482; 37 L. Ed. 529; 13 S. Ct. 680.

A glance at the patent and the invention itself, and the fact that the defendant used and paid royalty for the use of it for years, and now infringes, sufficiently establish utility. — *Thomson v. Citizens Nat. Bk.*, 53 Fed. 250; 3 C. C. A. 518.

The patent was a notable step in advance, — a marked improvement; and, to those who made it, we think the quality of inventors ought not to be denied. — *Griswold v. Harker*, 62 Fed. 389; 10 C. C. A. 435.

Thomson v. Bank, 53 Fed. 250; *Loom Co. v. Higgins*, 105 U. S. 580; *Consolidated v. Crosby*, 113 U. S. 157; *Magowan v. Packing Co.* 141 U. S. 332; *Barbed Wire Case*, 143 U. S. 275.

It is argued that there must be invention in complainant's machine from the fact that it produces more per diem than any that preceded it. But the increased speed is due, not to the introduction of a new element into his combination, or to a new combination of known elements; it is attributable only to the superior strength and firmness. It requires no reasoning to prove that if the prior machines were constructed with equal strength and rigidity, they will run at the same speed and accomplish the same result with complainant's machine. — *Vulcan v. Smith*, 62 Fed. 444; 10 C. C. A. 493.

The protection of the statute is granted for things invented, not for things produced. The qualities claimed belong, as we think, to the domain of mechanical skill and not to the domain of the inventive faculty. It is excellence of workmanship, superiority and lightness of material, structural changes of form and proportion which produce the claimed result. — *Olmsted v. Andrews Co.* 77 Fed. 835; 23 C. C. A. 488.

When the increase of speed is so great as it appears to be in this instance, and that, too, in a part where increase of speed (efficiency being preserved) is of such practical importance, we are disposed to consider the changes in parts and arrangement of parts as showing meritorious invention. This capacity for high speed is not an afterthought, for at the beginning of the specification, is found a statement that the machine has been contrived with reference to running at a very high speed. — *Willcox v. Merrow*, 93 Fed. 206; 35 C. C. A. 269.

It is an improvement because it saves time. How much time is thus saved is not entirely clear. But whether it were greater or less, the majority of the court are of the opinion that the device employed to effect it is a simple and obvious mechanical contrivance, quite within the intelligence of the ordinary skilled workman to produce, and that it does not disclose patentable invention. — *Doig v. Morgan*, 122 Fed. 460; 59 C. C. A. 616.

Consolidated v. Barnard, 43 Fed. 527; *Office Specialty v. Globe*, 77 Fed. 465; *Aron v. Manhattan*, 132 U. S. 84.

While the mere assembling in a new organization of parts of old structures to perform the same function in their new place that they did in the old is not invention, yet where they are so taken and are organized in a new and useful manner, so as to produce a more beneficial result, there may be invention; and when the combination displays the exercise of intuitive skill and genius beyond that possessed and exercised by those well skilled in the practice of their art, and the discovery is of something new and useful, invention should be recognized. — *Western v. North*, 135 Fed. 79; 67 C. C. A. 553.

Not only is there a judicious selection by the inventor of the mechanism employed, but there is a discriminating adaptation of it to the work to be performed, which suggests something more than the mere skill of the ordinary mechanic, and partakes rather of the inventive insight and discovery which it is the design of the patent law to foster and protect. — *American v. Mills*, 149 Fed. 743; 79 C. C. A. 449.

In a very considerable sense, and from the very nature of things, every patent so far as the fact of invention is concerned, is to stand, if it stands at all, upon its own inherent merit, and therefore a given situation is not much aided by authorities otherwise than by the relative measure of merit ascertained under somewhat unsatisfactory methods of comparison; but if the ingenious barbed wire twist, which “turned a failure into a success” was invention, surely what Houghton accomplished through a successful substitution of metal parts for wood and by way of an ingenious adaptation of hard-tempered wire and sheet metal parts, so assembled as to be easily adjustable to old and new machines alike, ought to be accepted as invention. — *Houghton v. Whitin*, 153 Fed. 740; 83 C. C. A. 84.

Notwithstanding the fact that the vertical strip is new, the invention after all, resides in a broader sense, in the conception of the combination, and in the exceedingly practical and meritorious adaptation of the various metal parts in a complete mechanical appliance capable of doing the work and of successfully meeting the requirements of an existing necessity. — *Houghton v. Whitin*, 153 Fed. 740; 83 C. C. A. 84.

That a machine shall produce an original result is not necessary to patentability. If the new arrangement increases the effectiveness of the old by increased product or by lessening the expense, the fact affords evidence of invention. — *National v. Aiken*, 163 Fed. 254; C. C. A.

Loom Co. v. Higgins, 105 U. S. 589; *Star v. General*, 111 Fed. 398.

§ 625. Evidence of — Extensive Litigation.

The extent of this litigation attests at least the utility of the process supposed to be described in the patent, as it shows and measures the extent of the public demand for its use. — *Eames v. Andrews*, 122 U. S. 40 (*Driven Well Pat.*); 30 L. Ed. 1064; 7 S. Ct. 1073.

Another volume of 500 pages has been added to the library which has accumulated during the last ten years through the efforts of many defendants who seem determined to use what they, in effect, assert to be a useless device. The indomitable persistency with which these people have fought for the right to use the Grant patent is more persuasive evidence of its merits than the opinions of experts. — *Consolidated v. Diamond*, 162 Fed. 892; 89 C. C. A. 582.

§ 626. Evidence of — Extensive Use.

We do not say, the single fact that a device has gone into general use and has displaced other devices which had previously been employed for analogous uses establishes invention. It may, however, always be considered; and when the other facts in the case leave the question in doubt, it is sufficient to turn the scale. — *Smith v. Goodyear*, 93 U. S. 486; 23 L. Ed. 952.

This was a problem of the reconciliation of antagonisms, which so often occur in mechanics and without which practically successful results are not attained. — *Consolidated v. Crosby*, 113 U. S. 157; 28 L. Ed. 939; 5 S. Ct. 513.

The testimony is very full and clear that, as a process, it was not known or used before in the art; that it worked a valuable and important change in that art, in the particulars set forth in the specification; that it went at once extensively into use in Europe and the United States; and that it was recognized as a new and valuable invention in published works on the subject, immediately after it was made known. — *New Process v. Maus*, 122 U. S. 413; 30 L. Ed. 1193; 7 S. Ct. 1304.

The fact that an article sold generally on the market at from 15 to 20 per cent. more than other similar articles although it cost 10 per cent. less to produce it, is evidence of novelty. — *Magowan v. N. Y.* 141 U. S. 332; 35 L. Ed. 781; 12 S. Ct. 62.

Where an article went at once into such extensive public use as almost to supersede all others; that fact was pregnant evidence of novelty, value, and usefulness. — *Magowan v. N. Y.* 141 U. S. 332; 35 L. Ed. 781; 12 S. Ct. 62.

Smith v. Goodyear, 93 U. S. 486; *Webster v. Higgins*, 105 U. S. 580.

The fact that the salient feature of an invention has gone into general use is evidence that that feature was novel. — *Hoyt v. Horne*, 145 U. S. 302; 36 L. Ed. 713; 12 S. Ct. 922.

While the question of patentable novelty in this device is by no means free from doubt, we are inclined, in view of the extensive use to which these springs have been put by manufacturers of wagons, to resolve the doubt in favor of the patentees. — *Topliff v. Topliff*, 145 U. S. 156; 36 L. Ed. 658; 12 S. Ct. 825.

Taylor seems to have been the first to invent a practical trunk fastener to take the place of the old fashioned strap and buckle, and that, improved upon, as it undoubtedly has been, it has completely taken the place of the earlier devices, we should be inclined to resolve the doubt in favor of the patentee. — *Sessions v. Romadka*, 145 U. S. 29; 36 L. Ed. 609; 12 S. Ct. 799.

General use evidence of. — *Keystone v. Adams*, 151 U. S. 139; 38 L. Ed. 103; 14 S. Ct. 295.

The strongest evidence that the invention is a useful one is the fact that more than one-half of all the articles to which it is particularly applicable, are made under it and embody the combination of elements which is set forth in its specifications. Nor is it any answer that the companies using it have a monopoly of the business. They would use ordinary business discretion, and would be guided by the demands of the public. — *Columbus v. Robbins*, 64 Fed. 384; 12 C. C. A. 174.

Yet these are the facts that various crude and unsatisfactory expedients had been used by many persons for the purpose of accomplishing what Davis accomplished by his simple expedient, that this occurred to none of them, and that after it had been suggested by him it came into general use. The basis of the claim seems feeble, and, if it had nothing in its behalf except what we can find as a matter of first impression, we might reject it. Yet the presumptions arising in its favor from the findings of the patent office and the circuit court, in connection with those coming from the facts we have stated, prevent us from reversing the decree below. — *Davis v. Parkman*, 71 Fed. 961; 18 C. C. A. 398.

Watson v. Stevens, 51 Fed. 757.

The fact that this device may have gone into general use, and may have displaced other devices previously used for the same or analogous purposes, might be sufficient to turn the scale in favor of patentability, if the question were doubtful; but it is not sufficient in this case, when the court is clearly satisfied that there was no invention, in view of what was old and well known. — *Codman v. Amia*, 74 Fed. 634; 20 C. C. A. 566.

If this invention had been put in early use, and so continued with a long public acquiescence, it might, perhaps, have safely received therefrom a practical construction more favorable to the complainants. But in view of the rapidity with which mechanical improvements advance in this age, it would establish a very dangerous precedent to give a mere paper patent, which has lain dormant for years, a breadth not contemplated on its face, by reason of some new function discovered long after its issue, and after the function had been availed of in practice by others. — *Long v. Pope*, 75 Fed. 835; 21 C. C. A. 533.

The fact that a device has had large use when sold in combination with another patented device does not argue novelty when the extended use is due to the novelty of the device used in conjunction with it. — *Dueber v. Robbins*, 75 Fed. 17; 21 C. C. A. 198.

Extensive use is only an element to be considered in a case where patentability and invention are doubtful. Where, as here, the extended use can be attributed to something other than the mere novelty of the device it loses its evidential force. — *Dueber v. Robbins*, 75 Fed. 17; 21 C. C. A. 198.

In view of the prior state of the art thus exhibited, it seems now to have been a very simple thing to do what was done by the patentees. It was only necessary for them to take the Levitt frame, change the location of the brace, perhaps enlarge the diameter of its arms, remove the metallic loop, and insert in the cross brace the short shaft shown in the patent to Brill. But the record in this case affords extrinsic evidence of a most convincing kind that what was done by the patentees was not an obvious thing, and that the change of organization was not one which the skilled mechanics of the particular art could have suggested and introduced without the exercise of inventive faculty. This evidence is supplied, not only by the many patents for improvements, which fell short of producing the simple, compact, less expensive, and more efficient bearings of the patent, but by the sterility, during 20 years, of the great army of mechanics employed by the various sewing machine manufacturers. The complainant itself, from 1865 to 1879, used the overhung stud, and for several years of that period its machines contained cross braces readily adaptable to the office of the patented brace. It employed a vast number of skilled workmen. Yet to none of them did the suggestion occur which is embodied in the new organization of the patentees. The simple change made by the patentees has proved so valuable that the complainant has adopted it in more than 9,000,000 sewing machines. The sewing machine company whose president is the defendant in this suit has also adopted it. No one can examine the bearings of the patent, even cursorily, and compare them with those previously in use, without recognizing the meritorious improvements which they embody. We agree with the court below that these improvements were invention, and not merely the exercise of mechanical skill and adaptation. — *Schenck v. Singer*, 77 Fed. 841; 23 C. C. A. 494

Whether it was an obvious thing or not is a question of fact; and if it should appear upon the introduction of the patented article, it commended

itself to the public, and was accepted as supplying what had long been wanted, and obtained an extensive sale and use, these facts might be decisive. According to bill of complainant, the invention has been introduced in public use, articles have been largely introduced embodying the invention and it has made practically successful the use of asbestos fire-proof cloth for the purposes suggested in the patent. — *Beer v. Walbridge*, 100 Fed. 465; 40 C. C. A. 496.

Krementz v. Cottle, 148 U. S. 556.

About thirty millions of such bottle stoppers were put upon the market by the complainant company alone during the last year, and the fact that, until the Painter patents were issued, no other bottle stoppers of like character or based upon like principles, were ever sold, is of itself strong evidence of the individuality of the Painter devices. — *Crown v. Aluminum*, 108 Fed. 845; 48 C. C. A. 72.

Within three years after the issuance of the patent, 90 per cent. of the existing bowling alleys have had the new style of returnways. In the face of this evidence, we cannot hold that his improvement is devoid of patentable invention. — *Brunswick v. Thum*, 111 Fed. 904; 50 C. C. A. 61.

The combination had great utility. It went into immediate and general use. While this fact is insufficient in itself to sustain a patent where the machine or combination is clearly without novelty, yet where the question of novelty is fairly open under the law, the fact that a patented device or combination has displaced others which had previously been used to perform its function and has gone into immediate and general use, is pregnant and persuasive evidence that it involved invention. — *Kinloch v. Western*, 113 Fed. 659; 51 C. C. A. 369.

National v. Interchangeable, 106 Fed. 693; *Smith v. Vulcanite*, 93 U. S. 486; *Loom Co. v. Higgins*, 105 U. S. 580; *Mfg. Co. v. Adams*, 151 U. S. 139; *Magowan v. Packing*, 141 U. S. 332; *Graphophone v. Leeds*, 87 Fed. 873; *Topliff v. Topliff*, 145 U. S. 156.

That a vital demand, a successful meeting of that demand, and extensive use is sufficient to establish invention over a prior unsuccessful device, see *Dececo v. Gilchrist*, 125 Fed. 293; 60 C. C. A. 207.

It is urged that the great commercial success which has attended the introduction of the patented cap is persuasive that it supplied a long felt want, and which previous inventors had not been able to meet, and is therefore evidence of its patentable novelty. Such an argument is always legitimate, but in this case has not the usual force, first, because the caps put upon the market seem to have been made according to the earlier patent; and, secondly because the success is largely attributable to the machine used for fastening the caps on the bottles, and which enables it to be done with great rapidity and efficiency. — *Crown v. Standard*, 136 Fed. 841; 69 C. C. A. 200.

The disk produced by the patented process responds to the test of success when others have failed. But in addition to the inventive success, there is also a commercial success. And this success is not subject to the criticism that is due to extensive advertising, or the attractive manner of placing the articles before the public, or "the energy with which they were forced upon the market." *McClain v. Ortmyer*, 141 U. S. 428. Nor is the disk merely such an element of a device that its sales may be ascribed to the popularity of the elements thereof, or of the entire organism. *Doig v. Morgan*, 122 Fed. 460. The patentable novelty of the process of the patent is not only indicated

by larger sales, but also by the unassailable evidence of that most sincere form of flattering recognition, namely, imitation and appropriation by rival manufacturers. In short, it has so far supplanted other methods previously used that apparently all disk records are now made by said process. The validity of the patent is thus established by commercial success, resultant solely from inventive success, and such extensive public use as to supersede disks made by other processes, which is "pregnant evidence of its novelty, value and usefulness." — *American v. Universal*, 151 Fed. 595; 81 C. C. A. 139.

Magowan v. N. Y., 141 U. S. 332.

The industry of manufacturing mats and the like out of wild marsh grass or sedge is due, we think, rather to the commercial ability and financial resources at the command of appellant than to Lowry's conception of making binder twine from common products. But, if appellant's assertion were to be taken as true, it would only be influential in resolving a doubt. It would not also serve to inject a doubt into an otherwise clear case. — *American v. Choate*, 159 Fed. 140; 86 C. C. A. 330.

Apart from the presumption of novelty that always attends the grant of a patent, the law is that where it is shown that a patented device has gone into general use, and has superseded prior devices having the same purpose, it is sufficient evidence of invention in a doubtful case. — *Morton v. Llewellyn*, 164 Fed. 693; C. C. A.

Barbed Wire Pat. 143 U. S. 275; *Keystone v. Adams*, 151 U. S. 139; *Irwin v. Hasselman*, 97 Fed. 964; *Wilkins v. Webb*, 89 Fed. 982; *National v. Interchangeable*, 106 Fed. 693.

§ 627. Evidence of — Extensive Use — When Not.

The fact that plaintiffs had been able to overcome a prejudice against machine made articles, and established a trade is not in itself evidence of invention. — *Butler v. Steckel*, 137 U. S. 21; 34 L. Ed. 582; 11 S. Ct. 25.

The application of the rule of evidence of novelty, the success and general use of the invention, should be applied with caution to a limited class of cases. — *Consolidated v. Holtzer*, 67 Fed. 907; 15 C. C. A. 63.

Olin v. Timkin, 155 U. S. 141; *De Loria v. Whitney*, 63 Fed. 611.

We think the sudden and peculiar demand for some material of this kind (fibre chamois) in the sheet form in which it was put upon the market in 1894 explains its great sale, rather than any marked improvement in its mode of manufacture. — *American v. Port Huron*, 72 Fed. 516; 18 C. C. A. 670.

From aught that appears, it may have come from his superior construction, or the other claims of the patent, and especially from the fact that he omitted all adjusting devices. — *Kenney v. Bent*, 97 Fed. 337; 38 C. C. A. 205.

Public use, so far as any is shown, may have relation to other elements of their device than those covered by Claim 1; and as it relates to a discriminate use rather than to use by manufacturers and other persons engaged in the art, it can, in no event, be that kind of public use which the courts regard as of especial value in patent suits. — *Nutter v. Brown*, 98 Fed. 892; 39 C. C. A. 332.

DeLoria v. Whitney, 63 Fed. 611; *Mfg. Co. v. Holtzer*, 67 Fed. 907; *Bates v. Keith*, 84 Fed. 1014.

Extensive use does not of itself conclusively establish either novelty or utility; but if, upon technical grounds, the matter is doubtful, it is persuasive evidence of those qualities, unless it appears that such commercial success was due to other causes. — *Dowagiac v. Superior*, 115 Fed. 886; 53 C. C. A. 36.

Gandy v. Belting Co. 143 U. S. 587; *Lane v. Welds*, 99 Fed. 286.

That the large demand for and use of a device, in and of itself without other evidence of invention, is not evidence sufficient to sustain invention; especially so when the demand may have arisen from other conditions, see *Burns v. Mills*, 143 Fed. 325; 74 C. C. A. 525.

§ 628. Evidence of — Obvious Demand.

It appears from the record that prior to the granting of the patent in suit there had been manufactured by complainants what was known as the four-section track scale, which might be varied in length from 24 to 22 feet; that there was a large and growing demand for a longer scale; and, while the complainants had one upon the market, it was not satisfactory, though, with the aid of experts and skilled mechanics, they had been endeavoring to make it so. Under these circumstances we are unable to conclude that the result so long and unsuccessfully sought for was apparent, and did not need more than mechanical skill to construct. — *Standard v. Fairbanks*, 125 Fed. 4; 60 C. C. A. 91.

He was satisfied that such a machine would meet with a market and he constructed one. As soon as the want was apparent, he supplied that obvious want by what confessedly amounted only to the ordinary skill of a mechanic. — *Fay v. Mason*, 127 Fed. 325; 62 C. C. A. 159.

Hollister v. Benedict, 113 U. S. 59.

Note: The evidence showed that the inventor made extended inquiry as to an existing demand for the machine. He found such demand general. Extended inquiry among the several manufacturers of laundry machinery showed that no one had in any way met the demand. Fay met it, and as soon as he met it others began to infringe. This decision seems a perversion of the rule.

§ 629. Evidence of — Patent Prima Facie.

Letters patent are prima facie evidence of invention and of the regularity of their issuance. — *Railroad v. Stimpson*, 14 Pet. 448; 10 L. Ed. 535.

The act of 1790 made the patent prima facie evidence of invention. The act of 1793 repealed it. With the organization of the Patent Office under the act of 1836 the prima facie was restored and has since remained. — *Corning v. Burden*, 15 How. 252; 14 L. Ed. 583.

Letters patent, when introduced in evidence, are prima facie evidence of invention. — *Blanchard v. Putnam*, 75 U. S. 420; 19 L. Ed. 433.

Curt. Pat. sec. 118; *Pitts v. Hall*, 2 Blatchf. 229; *Cahoon v. Ring*, 1 Cliff. 625.

Letters patent are prima facie evidence of invention, unless sufficient evidence appears to overcome the presumption. — *Mitchell v. Tilghman*, 86 U. S. 287; 22 L. Ed. 125.

R. R. v. Stimpson, 14 Pet. 458; Curt. Pat. 4 ed. sec. 472.

The action of the commissioner of patents in granting a patent is not conclusive either as to novelty, utility or prior use. — *Reckendorfer v. Faber*, 92 U. S. 347; 23 L. Ed. 719.

Hotchkiss v. Greenwood, 11 How. 248; *Stimpson v. Woodman*, 10 Wall. 117; *Hailes v. Van Wormer*, 20 Wall. 353; *Rubber v. Howard*, 20 Wall. 498; *Smith v. Nichols*, 21 Wall. 115; *Hicks v. Kelsey*, 18 Wall. 670; *Seymour v. Osborne*, 11 Wall. 516.

The patent is prima facie evidence of the novelty of the invention. — *Smith v. Goodyear*, 93 U. S. 486; 23 L. Ed. 952.

In a suit where no proof was adduced to prove want of novelty, the defense relying upon an interference adjudication in their favor, *Held*: that in the absence of any proof the decree will be affirmed. — *Garratt v. Siebert*, 98 U. S. 75; 25 L. Ed. 84.

Power to grant patents is conferred upon the commissioner; and when that power has been duly exercised, it is, of itself, when introduced in evidence in cases like the present, prima facie evidence that the patentee is the original and first inventor of that which is therein described as his invention. Proof may be introduced by the respondent to overcome the presumption but in the absence of such proof, the prima facie presumption is sufficient to enable the party instituting the suit to recover for the alleged violation of his rights. — *Bates v. Coe*, 98 U. S. 31; 25 L. Ed. 68.

Blanchard v. Putnam, 8 Wall. 420; *Seymour v. Osborne*, 11 Wall. 538.

The letters patent are prima facie evidence of invention. — *Parks v. Booth*, 102 U. S. 96; 26 L. Ed. 54.

Are prima facie evidence of their novelty and utility. — *Lehnbeuter v. Holthaus*, 105 U. S. 94; 26 L. Ed. 939.

Whitney v. Mowry, 4 Fish. 207.

The patent issued by the Commissioner to the defendant as assignee is only prima facie evidence that the assignor was the inventor of the improvement patented. — *Kennedy v. Hazelton*, 128 U. S. 667; 32 L. Ed. 576; 9 S. Ct. 202.

Patent prima facie evidence of. — *Gandy v. Main*, 143 U. S. 587; 36 L. Ed. 272; 12 S. Ct. 598.

Lehnbeuter v. Holthaus, 105 U. S. 94.

There is no doubt that the letters patent are prima facie evidence that the device was patentable. Still, we are always required, with this presumption in mind, to examine the question of invention *vel non* upon its merits in each particular case. — *Palmer v. Corning*, 156 U. S. 342; 39 L. Ed. 445; 15 S. Ct. 381.

When both applications were pending at the same time, and no interference was declared, the issue of the subsequent patent is evidence that it was distinguishable from the former patent. — *Boyd v. Janesville*, 158 U. S. 260; 39 L. Ed. 973; 15 S. Ct. 831.

American v. Elizabeth, 4 Fish. P. C. 189; *Burns v. Meyer*, 100 U. S. 671.

The patent was prima facie evidence of its own validity, and the burden of proof was upon the defendant to establish its want of novelty. — *Singer v. Brill*, 54 Fed. 380; 4 C. C. A. 374.

Cantrell v. Wallick, 117 U. S. 690; *Smith v. Goodyear*, 93 U. S. 486; *Lehnbeuter v. Helthaus*, 105 U. S. 94.

If a machine has not been constructed and put into practical use, it may be difficult to determine whether it ever can be; but notwithstanding this, the grant of the patent makes a prima facie case in this particular, and the court may not be able to find in the record proofs to overcome this presumption. When such is the fact, and when, also, the device is of such a character, or relates to such special and peculiar subject matter, that it does not come within the range of common experience or judicial knowledge, the prima facie showing must stand. — *Packard v. Lacing*, 70 Fed. 66; 16 C. C. A. 639.

The presumption referred to is sometimes defined to mean that the patent itself is prima facie evidence of novelty and of invention, but the presumption is probably a mere rule of evidence, which casts the burden of proof upon the alleged infringer. This presumption cannot usurp the province of the court to declare what constitutes novelty. The court should give due consideration to the action of the patent office, but should not permit that action to control its deliberate judgment when it is manifest there is no invention. — *Warren v. Rosenblatt*, 80 Fed. 540; 25 C. C. A. 625.

Hollister v. Mfg. Co. 113 U. S. 59.

The patent is prima facie evidence that the invention it protects was not in public use or on sale for more than two years prior to the time of the application on which it was based, and that it was not proved to be abandoned. On the other hand, the application for the patent within two years after the invention was made, was presumptive evidence of an intention not to dedicate it to the public, and the issue of the patent was prima facie proof that it had not been abandoned. — *Mast v. Dempster*, 82 Fed. 327; 27 C. C. A. 191.

The line of demarkation between invention and mechanical skill is not well defined, and is often, especially in this age of improvement, difficult to follow. In case of doubt the law has wisely required the consideration of certain facts outside the question of invention or mechanical skill to resolve the doubt. The patent itself is, in a restricted sense, prima facie evidence of novelty and invention. — *Streator v. Wire-glass*, 97 Fed. 950; 38 C. C. A. 573.

Warren v. Rosenblatt, 80 Fed. 540.

A patent carries with it the presumption of novelty, and the trained experts of the patent office have decided that what was done arose to the dignity of an invention. — *Beer v. Walbridge*, 100 Fed. 465; 40 C. C. A. 496.

The patent itself is prima facie evidence of the novelty of his combination, and if that issue was doubtful this presumption would entitle it to a construction which would sustain, in preference to one which would destroy, the grant it evidences.— *National v. Interchangeable*, 106 Fed. 693; 45 C. C. A. 544.

That while the letters patent are evidence prima facie of invention the presumption is cancelled by the fact that the patentee signed as a witness the prior application of another for the same invention, see *Barr v. Chicago*, 110 Fed. 972; 49 C. C. A. 194.

There is in every case a prima facie presumption in favor of the validity of every patent issued by the Patent Office. Due heed and consideration must always be given by the court or jury to this presumption, but the real

question in all cases is whether or not the evidence in the case is or is not sufficient to overcome the prima facie presumption which the patent affords. — *Los Angeles v. Æolian*, 143 Fed. 880; 75 C. C. A. 88.

Hays v. Sulsor, 1 Fish. P. C. 532; *Corning v. Burden*, 15 How. 252; *Reckendorfer v. Faber*, 92 U. S. 347; *Bates v. Coe*, 98 U. S. 31; *Lehnbeuter v. Holthaus*, 105 U. S. 94; *Miller v. Eagle*, 151 U. S. 186; *Boyd v. Janesville*, 158 U. S. 260; *Ransome v. Hyatt*, 69 Fed. 148; *Wilgus v. Germain*, 72 Fed. 773.

The grant of a patent is presumptive evidence that the patentee is entitled to the monopoly fairly covered by his claims. He who asserts to the contrary must prove his assertions. — *American v. DeGrasse*, 157 Fed. 660; 87 C. C. A. 260.

The presumption that he believed himself to be the inventor of the pavement for which he was given a patent must be our starting point in determining whether his patent is defeated by anticipation. That somebody had, in fact, made the same composition before he did does not necessarily defeat his patent. In one sense he would not be the first inventor in such case. But in the sense of the patent statute, he is the first inventor who, by his own thought, makes an article or material and first perfects and adapts his discovery to actual use, although someone may have previously made a similar article without putting it to practical use or given his discovery to the public in any way. — *Warren v. City*, 166 Fed. 309; C. C. A.

Gayler v. Wilder, 10 How. 477; *Seymour v. Osborne*, 11 Wall. 517; *Albright v. Celluloid*, Fed. Cas. 147; *Bullock v. Jones*, Fed. Cas. 2132; *Agawan v. Jordan*, 7 Wall. 583; *Whiteley v. Swayne*, 7 Wall. 685; *Deering v. Winona*, 155 U. S. 286; *Corn Planter Pat.*, 23 Wall. 181; *Smith v. Goodyear*, 93 U. S. 486; *Game-well v. Municipal*, 61 Fed. 948.

§ 630. Evidence of — Patent Office Action.

It is significant that the application was some four years in being allowed, that it was three times rejected, and that it was finally allowed by an examiner who had not previously dealt with the application. — *Richmond v. Atwood*, 48 Fed. 910; 1 C. C. A. 144.

The action of the patent office, taken in connection with other matters, is evidence of novelty. — *Davis v. Parkman*, 71 Fed. 961; 18 C. C. A. 398.

Watson v. Stevens, 51 Fed. 757.

In view of the fact that the examiners-in-chief seem not to have had the remotest conception of what the specifications showed, or of what Fulton claimed, the presumption in this case of patentability arising from the allowance of the application by the patent office is of no practical value. — *Rogers v. Fitch*, 81 Fed. 959; 27 C. C. A. 23.

The record shows that the complainant's application was seven times rejected on references to prior patents, and was finally granted on an amendment to the claim, with expressed reluctance. — *Smidth v. Bonneville*, 114 Fed. 262; 52 C. C. A. 148.

The officials of the Patent Office, with the prior art before them so found, and granted a patent. This action on their part creates a presumption of patentable novelty, which presumption can be overcome only by clear proof that they were mistaken, and that the combination lacks patentable novelty. — *Fairbanks v. Stickney*, 123 Fed. 79; 59 C. C. A. 209.

Cantrell v. Wallick, 117 U. S. 689; *Coffin v. Ogden*, 18 Wall. 120; *Streator v. Wire*, 97 Fed. 950; *Fraim v. Keen*, 25 Fed. 820; *Osborne v. Glazier*, 31 Fed. 402.

There is the presumption arising from the granting of the patent, which, in this case, was issued, as the proceedings in the Patent Office show, after full and critical examination, and this after rejections and references to previous patents of a character very similar to those we have in the present record — indeed some of them are the same. — *Canda v. Michigan*, 124 Fed. 486; 61 C. C. A. 194.

We do not agree with the contention that the fact that the file wrapper discloses the patent to have been granted as first applied for, without any references, adds any force to the presumption of novelty. On the contrary, we think the force of that presumption is much diminished, if not destroyed, by the lack of any reference by the examiner to, or consideration of, the "Clark" patents. — *American v. Sample*, 130 Fed. 145; 64 C. C. A. 497.

If the patent relates to something of temporary interest, and the object sought is of little importance, and offers but slight chance of profitable use, it may receive but little attention in the Patent Office, and the presumption therefore is slight; but where the problem sought to be solved by the patent is of such importance that the solution of it promises great pecuniary returns, and the testimony shows that all the claims of the patent were subject to critical analysis by trained experts in that office, resulting in amendments and disclaimers designed to distinguish it from everything in the prior art, and the subject appears to have been thoroughly threshed out, the presumption in favor of novelty is greater than in those cases where the patent may have passed by inadvertence. — *Imperial v. Crown*, 139 Fed. 312; 71 C. C. A. 442.

Note: The first part of this holding (Brawley, J.) will hardly square with the experience of those who have done patent soliciting. To say that the thoroughness with which the examiners examine an application varies with the importance of the invention from a commercial point of view is wide of the mark.

Although it is true that the patentee encountered great difficulty in the Patent Office, his claims being rejected over and over again, yet we are unable to see that the proceedings there require a construction of the claim which will enable the defendant to escape the charge of infringement. — *Good Form v. White*, 160 Fed. 661.

§ 631. Evidence of — Prior Failures.

The very fact that the attempt which had been made to secure uniformity of product seems to have been abandoned after the Jones invention came into popular notice is strong evidence tending to show that the patent contains something which was of great value to manufacturers of steel, and which entitled Jones to the reward due to a successful inventor. — *Carnegie v. Cambria*, 185 U. S. 403; 46 L. Ed. 968; 22 S. Ct. 698.

The probative force of this fact (that the evil which the complainant's invention remedied had been apparent for years), added to the presumption arising from the letters patent, satisfies us of the novelty and patentability of the invention. If the display of the expected skill of the calling or the exercise of the ordinary faculties of reasoning had been sufficient to discover and put in practice this improvement, some bookkeeper would have displayed that skill or exercised those faculties, and thus obtained this result long ago. These were not sufficient. It required something more to attain this result; it required the exercise of "that intuitive faculty of the mind, put forth in the search for new results or new methods, which creates what had not before existed, or brings to light what lies hidden." This faculty the complainant exercised, and the result is this invention, — an invention, it is

true, that now seems so simple that we marvel that it did not before occur to every bookkeeper. — *Thomson v. Citizens Nat. Bk.*, 53 Fed. 250; 3 C. C. A. 518.

Loom Co. v. Higgins, 105 U. S. 580; *Consolidated v. Crosby*, 113 U. S. 157; *Magowan v. Packing Co.*, 141 U. S. 332; *Barbed Wire Pat.*, 143 U. S. 275.

Distinguishing Hollister v. Mfg. Co., 113 U. S. 59.

Various expedients for switching with such conductors have been resorted to by experts in the art. The fact that they overlooked devices like the patented device, and resorted to clumsy and inconvenient means, cannot be ignored. It was not a great invention, but that it was an invention requiring a degree of ingenuity somewhat beyond the ordinary skill of the calling we are unable to doubt. — *Thomson-Houston v. Elmira*, 71 Fed. 396; 18 C. C. A. 145.

Inventors of known repute and genius who have studied the subject, and who greatly desired to promote incandescent lighting, failed, and the patentee succeeded because he adopted the means which apparently had not occurred to them. — *Maitland v. Goetz*, 86 Fed. 124; 29 C. C. A. 607.

The fact that his combination had not suggested itself to any mechanic skilled in the art during 12 years of diligent search and effort for improvement; the facility and rapidity with which it took the place of old devices and went into immediate and extensive use as soon as it was disclosed, — all these facts converge upon the mind with compelling force to prove that the compelling and striking improvement he made was the production, not of the skill of the mechanic, but of the intuitive genius of the inventor. — *National v. Interchangeable*, 106 Fed. 693; 45 C. C. A. 544.

Thomson v. Bank, 53 Fed. 250; *Griswold v. Harker*, 62 Fed. 389; *Loom Co. v. Higgins*, 105 U. S. 580; *Consolidated v. Crosby*, 113 U. S. 157; *Magowan v. Packing Co.*, 141 U. S. 332; *In re Barbed Wire Patent*, 143 U. S. 275.

It is a novel contention that admitted failures during the preliminary stage of experiments should be adduced as evidence of want of utility in the perfected invention. — *Crown v. Aluminum*, 108 Fed. 845; 48 C. C. A. 72.

It aided to make a successful machine; and the fact that Cushman failed to accomplish that result notwithstanding his ingenuity, weighs strongly in favor of the patentability of complainant's box form, simple as it is. — *Hobbs v. Gooding*, 111 Fed. 403; 49 C. C. A. 414.

Watson v. Stevens, 51 Fed. 757.

It is a fact entitled to serious consideration in determining whether Anderson's improvement was so obvious as to be one which would occur to a mechanic skilled in the art that Van Depeole, with his conceded skill, did not attain the desired end. His change seems simple enough now, but it was the first to combine comprehension of the problem to be solved with practical arrangement of parts for its solution. This entitles his advance to the merit of invention. — *Star v. General*, 111 Fed. 398; 49 C. C. A. 409.

The fact that, in such circumstances, no one accomplished it, is cogent evidence that the later inventions of Tesla were beyond the compass of the ordinary skill of the profession and beyond the line which divides the products of such skill from invention. — *Dayton v. Westinghouse*, 118 Fed. 562; 55 C. C. A. 390.

Dowagiac v. Superior, 115 Fed. 886.

It is shown, however, that not only the skilled workmen, but those who were giving this art special study and exploring for improvements in rotary disk plows for several years, had not perceived this one, although the need of it was always pressing. This is no new suggestion, but it has no special relevancy when a series of improvements has culminated in one which contributes so decisively to the utility of a machine which others have been long trying to make operative. — *Sanders v. Hancock*, 128 Fed. 424; 63 C. C. A. 166.

We have been unable to find in the prior art any single device, or any sufficiently definite suggestions derivable from the various devices, which sustain the contention of defendants that the patented improvement is merely the result of mechanical skill. The reasons for the conclusion that the patented device involved invention sufficiently appear from a comparison of its construction, adapted to attain the objects stated in the specification and the practical results thereby secured, with the impracticality or insufficiency of the devices of the prior art. The failure of defendants to avail themselves of said earlier devices or improve them, and their bodily appropriation of the patented construction, is most persuasive upon the question of invention. — *General v. Wagner*, 130 Fed. 772; 66 C. C. A. 82.

The fact of discovery is often ascertained by results, and while it may be difficult to put our finger upon any precise thing in Painter's device, and say that Painter invented that, we find in the results a substantial addition to our stock of knowledge — a mode of application of simple forces embodied in an instrumentality so simple that our wonder is that it was not done before. Its very simplicity tends to raise a doubt whether the inventive faculty was needed to produce the results which seem so obvious that we are prone to think that any mechanic starting where Painter did, and with the knowledge of previous inventions which he had, could by mere mechanical skill accomplish what he did. The fact that no mechanic did accomplish it, although many inventors were eagerly trying to do so, and the world was eagerly awaiting a simple and cheap bottle-stopper device, if not conclusive proof, is very persuasive evidence, that something more than mechanical skill was required; that it demanded inventive genius or faculty to bridge the chasm which separated the bungling, imperfect, inoperative devices of previous inventors, and the simple, economical, and, for its purpose, perfect device which Painter gave to the world. If the subject-matter was of little importance and of merely transient interest, we might say that mechanical skill did not accomplish it, because it did not make the effort; but if it was a matter of enduring importance, and promised great profit if the problem was successfully solved, it is safe to assume that there was great likelihood of some mechanic applying his skill, if success could have been readily achieved by merely mechanical means. — *Imperial v. Crown*, 139 Fed. 312; 71 C. C. A. 442.

Crown v. Aluminum, 108 Fed. 863; *Farmers' v. Spruks*, 127 Fed. 691.

Twelve earlier patents are shown in the record, none responds in any way to the claims in suit. If, after the inventor had proven the advantages of his improvement, the skilled mechanic might reasonably have been expected to produce the device in suit by combining the teachings of the prior patentees, it is remarkable that the seven patentees during the succeeding 15 years should have reverted to the old type. — *Mahony v. Malcom*, 143 Fed. 124; 74 C. C. A. 318.

That the construction of a machine capable of producing such a fabric was not obvious appears from the 31 prior patents introduced by defendants, no one of which showed a solution of the problem, and from the inability of

defendants' experts to construct from the prior art any practical device or to satisfactorily indicate how the prior structures could be so adapted without radical and substantial modifications, involving the exercise of invention. — *Scott v. Fisher*, 145 Fed. 915; 76 C. C. A. 447.

The fact that some manufacturers did not know how to do it, and that successful results might not always have been obtained, even when the formulas were followed, does not prove that it could not be done. — *National v. New England*, 151 Fed. 19; 80 C. C. A. 485.

Indeed its inventive character is evidenced by the alleged anticipatory uses in the respondent's works. The combined use of a pneumatic hammer with a sieve was some years before there tried and abandoned. The evidence of exact practice is not such as to establish an anticipatory use, for it is contradictory as to how the hammer was applied, but the highly significant fact is that, even with the thought of a possible combination of pneumatic hammer and sieve suggested to men skilled in that art, they were not able to mechanically place the two in successful operative relation. But Arrott did just what they failed to do. He contributed to an important industry a device, labor-saving, effective, and which, in relieving to a degree labor under fierce heat conditions, rose to the plane of the humane. And it was these results which the respondent failed to secure that made Arrott's work invention, and theirs a fruitless and abandoned experiment. — *Mott v. Standard*, 159 Fed. 135; 86 C. C. A. 325.

That these defects were appreciated, and that an earnest effort was made to remedy them for more than ten years prior to the patent, is shown by the record. Though belonging to a limited field and dealing with subordinate improvements, we are of the opinion that the features added by Davies produced an advance in the art which required a higher grade of ability than can be attributed to the skill of the calling. — *Good Form v. White*, 160 Fed. 661.

Frost v. Cohn, 119 Fed. 505; *Young v. Wolfe*, 120 Fed. 956; *Parramore v. Taylor*, 114 Fed. 97.

It is always hazardous to assert the obviousness of a device which no one, with the whole art before him, up to that time has conceived. Nor were the benefits of the patented structure to be reasoned out, unaided. To deny to its successful solution the merit of invention upon the contrary idea is to declare that these efforts were needless, and that there was already disclosed in the art an easy and obvious way out, which ought to have been, but somehow was not, seen. — *Edison v. Novelty*, 167 Fed. 977; C. C. A.

In an art so highly advanced as the pump art, where all the elements which enter into the construction may be said to be old, it is impossible, in many cases, as an abstract proposition, to draw the line between invention and the skill of the designer. There is, however, strong evidence of invention, where we have presented the circumstances such as exist with respect to the patents in suit, namely, a demand for a more efficient pump, the failure of previous efforts to meet the demand, the immediate success of the patented device, and its great utility. Again, it may be said that these patents belong to the class which the patent law was designed to protect, inasmuch as they cover a device which is new and useful, and which immediately met a public want. — *Warren v. Blake*, 163 Fed. 263; C. C. A.

§ 632. Evidence of — Simplicity.

The greater simplicity of the Boyden patent certainly entitled it to a favorable consideration. — *Westinghouse v. Boyden*, 170 U. S. 537; 42 L. Ed. 1136; 18 S. Ct. 707.

It is easy after the event to see how simple an act turned failure into success; but prior to the time of Shuman no mechanical skill had solved the problem, and, if we may credit the testimony of this record, those engaged in the art were diligently at work to accomplish that which only Shuman effected. He has given to the world a new, useful, and valuable product. He succeeded where others failed. — *Streator v. Wire Glass*, 97 Fed. 950; 38 C. C. A. 573.

Barbed Wire Patent, 143 U. S. 275.

The fact that a new combination or device may be simple and obvious to the ordinary understanding, when once produced in concrete form, is not necessarily proof that invention was not involved. This is almost commonplace in the jurisprudence of the patent law. It is also true that admitted benefits resulting from the combination or device, and widely extended adoption, are facts relevant to the novelty and usefulness of the alleged invention. — *Buchanan v. Perkins*, 135 Fed. 90; 67 C. C. A. 564.

It may be conceded that the device is on the border line between invention and mechanical skill. But, because of its simplicity, efficiency and cheapness and the persistency with which the defendant insists upon using it, we are inclined to resolve the doubt in favor of the patent. — *Yawman v. Vetter*, 159 Fed. 443; 86 C. C. A. 473.

§ 633. Evidence of — Turning Failure into Success.

It is true that many valuable inventions seem simple when accomplished, and yet are entitled to protection. The books abound in cases showing inventions involving only small departure from former means, yet making the difference between a defective mechanism and a practical method of accomplishing results. In such cases a decision in favor of invention as distinguished from mere mechanical improvement has not infrequently resulted, in view of the fact that the device has made the difference between an impracticable machine and a useful improvement displacing others theretofore occupying the field. — *Computing v. Automatic*, 204 U. S. 609; 51 L. Ed. 645; 27 S. Ct. 307.

Krementz v. Cottle, 148 U. S. 556; *Consolidated v. Detroit*, 47 Fed. 894; *Star v. General*, 111 Fed. 398.

The first to make such an improvement is not in fact an inventor, and to infer invention merely because it had not been produced sooner, would be to reach a false conclusion by an argument neither persuasive nor plausible. — *Stover v. Mast*, 89 Fed. 333; 32 C. C. A. 231.

Parlin v. Moline, 89 Fed. 329.

Note: This is a ruling by Judge Woods, which though entirely proper when taken with the facts in the case, is not capable of application as a general rule.

If it be conceded that all prior machines were failures; that the machine of the patent was the first practical and commercially successful one; that it was accepted by the art, and has since monopolized the field — nevertheless such evidence is not helpful to the solution of the question presented on these two claims. There is nothing to show that this minor improvement in one

part of the machine contributed at all to any such far-reaching results. — *Doig v. Morgan*, 122 Fed. 460; 59 C. C. A. 616.

When it appears that the improvement, slight though it was, led from failure to success; that, though failure was appreciated and success sought for by skilled mechanics, no one before the patentee hit on this way to secure it; and that, when the improvement was made, it was generally accepted and the patent for it respected by those practising the art — courts are constrained to hold that the simple device is a patentable invention. — *Doig v. Morgan*, 122 Fed. 460; 59 C. C. A. 616.

Schenck v. Singer, 77 Fed. 841; *Brunswick v. Thum*, 111 Fed. 904.

Chambers succeeded. Eastman failed. The one produced a lamp having both these characteristics. The other a lamp having but one. Instead of anticipating or seriously limiting the scope of the patent, Eastman offers mute but persuasive tribute to Chambers' skill and ingenuity. — *Eldred v. Kirkland*, 130 Fed. 342; 64 C. C. A. 588.

§ 634. Evidence of — Use by Defendant.

If the infringer claims to have known of the combination and to have perfected it, why did he not put it into general use, and why did he not apply for a patent upon it? He was already a patentee of a different and inferior apparatus. He knew all about the method of going about to get a patent. He belonged to a profession which is generally alive to the advantages of a patent right. On the hypothesis of his being the real inventor his conduct is inexplicable. — *Loom Co. v. Higgins*, 105 U. S. 580; 26 L. Ed. 1177.

Where defendant took out a patent after commencement of suit claiming the main element of the patent in suit to a new use, and upon hearing stipulated that a decree for a certain royalty might be entered against him, is estopped to deny the utility of the device in suit. — *Western v. La Rue*, 139 U. S. 601; 35 L. Ed. 295; 1 S. Ct. 670.

Walker on Pat. sec. 85; *Lehnbeuter v. Holthaus*, 105 U. S. 94; *Morgan v. Seaward*, 1 Web. P. C. 170.

Use by a defendant of the patented process or article is evidence, at least against that defendant, of utility. — *Gandy v. Main*, 143 U. S. 587; 36 L. Ed. 272; 12 S. Ct. 598.

For the reasons stated we cannot doubt the validity of the patent. The defendants did not doubt it, but admitted it, by the purchase and sale of umbrellas under the patent, until dissatisfaction and dispute arose respecting the prices they should pay. The admission is not, of course, an estoppel; but in view of the defendants' presumed familiarity with the art, such an expression of judgement is evidence, and worthy probably of as much weight as that now expressed by their experts. — *Rose v. Hirsch*, 77 Fed. 469; 23 C. C. A. 246.

While the invention displayed is of a low order, it is sufficient to support the patent. The device though simple, was new in the art, and was cheap, convenient, and supplied a want distinctly felt. Manufacturers of matches immediately recognized its usefulness, and sought the privilege of making it. The defendants were among the first to do so, and seemed to have entertained no doubt respecting the validity of the patent, until their efforts to obtain such privilege on their own terms had failed. The defendants may well be regarded as experts in the art, and their conduct was an unbiased and

emphatic expression of judgement in favor of the patent; their present expression and that of their experts are probably entitled to less weight. — *Schenck v. Diamond*, 77 Fed. 208; 23 C. C. A. 122.

It is improbable that men will render themselves liable to actions for infringement unless infringement be useful. And the fact that a patent has been infringed by a defendant is, as against such infringer, sufficient to establish its utility. — *Goss v. Scott*, 108 Fed. 253; 47 C. C. A. 302.

Lehnbeuter v. Holthaus, 105 U. S. 96; *Vance v. Campbell*, Fed. Cas. 16,837.

No doubt is expressed of its utility. The defendants are engaged in the business of manufacturing and selling something very similar to it, and this must be accepted as very cogent evidence for the purposes of this case. — *Lamb v. Lamb*, 120 Fed. 267; 56 C. C. A. 247.

Lehnbeuter v. Holthaus, 105 U. S. 94; *Gandy v. Belting*, 143 U. S. 587; *Gibbs v. Hoefner*, 19 Fed. 323; *La Rue v. Electric*, 31 Fed. 82; *Seymour v. Osborne*, 11 Wall. 516.

The defendant furnishes strong evidence of its utility by persistent adoption of the means for like purpose. — *Austin v. American*, 121 Fed. 76; 57 C. C. A. 330.

And having regard to the presumption of validity arising from the grant, the success which it has attained, the nonexistence of any anticipation, and the adoption of it by the defendant in his business, with express notice of the patent, and with a view to profit by it, we think we should hold the combination of claim 2 to be valid. — *Sanders v. Hancock*, 128 Fed. 424; 63 C. C. A. 166.

Lamb v. Lamb, 120 Fed. 267; *Lehnbeuter v. Holthaus*, 105 U. S. 94; *Krementz v. Cottle*, 148 U. S. 556; *Streator v. Wire*, 97 Fed. 950.

The proof also shows that it met with considerable public favor, and what is persuasive evidence of its advantages over those of the constructions the defendant advances as anticipations, the latter appropriates Milner's production as the foundation of his own business, and has therewith been successful. — *Milner v. Yesbera*, 133 Fed. 916; 67 C. C. A. 210.

Lehnbeuter v. Holthaus, 105 U. S. 94; *Gandy v. Belting*, 143 U. S. 587; *Lamb v. Lamb*, 120 Fed. 267.

At the time he obtained this patent (the defendant and his patent in infringement of the patent in suit) he had been engaged for over 25 years in the manufacture and sale of rolling metallic shutters, and it was open to him to adopt the joint of the prior art. His adoption of the joint of the patent in suit is quite persuasive evidence of its merit. That the changes of form were not an obvious thing, but involved invention, is shown by the fact that for a period of 40 years since the earlier inventions in metallic shutters no one seems to have conceived of the practicability of the improvement. — *Kinnear v. Wilson*, 142 Fed. 970; 74 C. C. A. 232.

It is difficult to imagine an instance where a patent should be defeated on the ground of want of utility at the instigation of one who is himself persistently using the very thing which he denounces as useless. — *Hillard v. Fisher*, 159 Fed. 439; 86 C. C. A. 469.

We have not only the persistency of the respondent corporation in availing itself of the complainant's improvement, but also a mass of alleged anticipatory patents introduced by it, both of which indicate the desirability of

something better than the prior art. — *Draper v. American*, 161 Fed. 728; 88 C. C. A. 588.

§ 635. Evidence of — Utility — When Evidence.

As a matter of law, in the absence of evidence, the court cannot pass upon the efficiency of the device in suit. — *Eddy v. Dennis*, 95 U. S. 560; 24 L. Ed. 363.

It may be laid down as a general rule, though perhaps not an invariable one, that if a new combination and arrangement of known elements produce a new and beneficial result, never attained before, it is evidence of invention. — *Loom Co. v. Higgins*, 105 U. S. 580; 26 L. Ed. 1177.

We think from the evidence, that the modifications were new and useful, and sufficient in character to sustain a patent. The burner in the form patented by Barker appears to have superseded the burner in the form patented by Clough, and, after Barker had introduced his burner into use, Clough commenced making for market burners in the same form. — *Clough v. Gilbert*, 106 U. S. 178; 27 L. Ed. 138; 1 S. Ct. 198.

Richardson's invention brought to success what prior inventors had essayed and partly accomplished. He used some things which had been used before, but he added just that which was necessary to make the whole a practically valuable and economic apparatus. The facts that the known valves were not used, and the speedy and extensive adoption of Richardson's valve, are facts in harmony with the evidence that his valve contains just what the prior valves lacked, and go to support the conclusion at which we have arrived on the question of novelty. When the ideas necessary to success are made known, and a structure embodying these ideas is given to the world, it is easy for the skillful mechanic to vary the form by mechanism which is equivalent, and is, therefore, in a case of this kind an infringement. — *Consolidated v. Crosby*, 113 U. S. 157; 28 L. Ed. 939; 5 S. Ct. 513.

Where the question before the court was upon the patentable character, rather than the novelty, of the device, the court did not err in refusing to instruct that the extensive use of the device was evidence of patentability. — *Adams v. Bellaire*, 141 U. S. 539; 35 L. Ed. 849; 12 S. Ct. 66.

Utility is only evidence, not proof or even conclusive evidence of novelty. — *McClain v. Ortmayer*, 141 U. S. 419; 35 L. Ed. 800; 12 S. Ct. 76.

Criteria by which the one may be distinguished from the other in *McClain v. Ortmayer*, 141 U. S. 419; 35 L. Ed. 800; 12 S. Ct. 76.

Where the progress in allied arts is such as to render an old and well known process of utility, where the utility of the process is referable to the improvement in the subject matter to which it is applied, general use is not evidence of invention. — *Lovell v. Cary*, 147 U. S. 623; 37 L. Ed. 307; 13 S. Ct. 472.

McClain v. Ortmayer, 141 U. S. 419.

Utility as an element of invention may be considered. Discriminating and limiting *Gorham v. White*, 81 U. S. 511 (design case). — *Smith v. Whitman*, 148 U. S. 674; 37 L. Ed. 606; 13 S. Ct. 768.

Lehnbeuter v. Holthaus, 105 U. S. 94; *Northrup v. Adams*, 2 B. & A. 567; *Foster v. Crossin*, 44 Fed. 62; *Jennings v. Keble*, 10 Fed. 669; *Ripley v. Elson*, 49 Fed. 927.

Large capacity of device is persuasive but by no means conclusive proof of invention. — *National v. Hedden*, 148 U. S. 482; 37 L. Ed. 529; 13 S. Ct. 680.

While the patented article may have been popular and met with large sales, that fact is not important when the alleged invention is without patentable novelty. — *Olin v. Timken*, 155 U. S. 141; 39 L. Ed. 100; 15 S. Ct. 49.

Duer v. Corbin, 149 U. S. 216.

In passing upon the question of novelty we feel at liberty to consider the fact that the Beach machine and its congeners have completely supplanted the former method; that no manufacturer can successfully compete for the trade without adopting such machine; the work is done stronger and cheaper, cleaner and more uniform; there is also a saving of material. — *Hobbs v. Beach*, 180 U. S. 383; 45 L. Ed. 586; 21 S. Ct. 409.

We conclude, therefore, that in applying to cases of doubt the primary rules touching what constitutes invention, and the secondary rules touching what is a "new and useful result," a "new function," or a "new sphere of action," we may be influenced by the facts that the improvement in question, although desired for years, was not secured until brought out by the patentee; that the product of the improved machine or process went into general use by the manufacturer for whom it was intended, and displaced wholly or in a very large degree prior products; and that, while prior products had been unsuitable, either through lack of cheapness or adaptation, the new product answered all reasonable requirements. — *Watson v. Stevens*, 51 Fed. 757; 2 C. C. A. 500.

Topliff v. Topliff, 145 U. S. 156; *Adams v. Stamping Co.*, 141 U. S. 539; *Western v. La Rue*, 139 U. S. 601; *Ansonia v. Electric*, 144 U. S. 11; *Locomotive Truck Case*, 110 U. S. 490; *McClain v. Ortmyer*, 141 U. S. 419; *Loom Co. v. Higgins*, 105 U. S. 580; *Barbed Wire Patent*, 143 U. S. 275; *Magowan v. Belting Co.*, 141 U. S. 332; *Gandy v. Belting Co.* 143 U. S. 587.

The fact that the Edison lamp was capable of use by the public, while all prior lamps had failed in practical use is evidence of invention and novelty. — *Edison v. U. S.* 52 Fed. 300; 3 C. C. A. 83.

There was evidence that the plaintiffs' machine was used to a very considerable extent by manufacturers; that the plaintiff sold numerous shop rights for its use; and that he manufactured and sold a number of his wheels with their adjustable bearings. There were witnesses who testified to the novelty and utility of his invention. There is testimony that the wheels in use prior to his invention were unsatisfactory; that they were difficult to operate and were noisy in operation; and that a considerable amount of attention was bestowed upon the question of their improvement during a period of several years antedating his patent. All these facts may be taken into consideration in a doubtful case. — *Singer Mfg. Co. v. Brill*, 54 Fed. 380; 4 C. C. A. 374.

Topliff v. Topliff, 145 U. S. 164; *Loom Co. v. Higgins*, 105 U. S. 591; *Smith v. Goodyear*, 93 U. S. 495.

The plaintiff's machine, here involved, was devised with special reference to paring peaches, and it proved that it was the first machine that successfully did the work. Before it was put upon the market, peaches were pared by hand. Its undoubted utility was quickly perceived by the trade and immediately it went into extensive public use. This last mentioned

fact, of itself, it is well settled, is evidence of patentable novelty, and in a doubtful case will turn the scale in favor of the patentee. — *Sayre v. Scott*, 55 Fed. 971; 5 C. C. A. 366.

Smith v. Vulcanite Co. 93 U. S. 486; *Magowan v. Belting Co.* 141 U. S. 332; *Topliff v. Topliff*, 145 U. S. 156; *Loom Co. v. Higgins*, 105 U. S. 580; *Consolidated v. Crosby*, 113 U. S. 157; *Barbed Wire Patent*, 143 U. S. 275; *Gandy v. Belting Co.* 143 U. S. 587.

The machine with this improvement was accepted as perfected, and went into extensive general use. It was the first that was ever so accepted and used, and no machine without it has ever been commercially used since that time. We are of the opinion that the discovery by these patentees of the proper means for remedying the fatal defect which existed in all prior machines of this character, simple as the device was, amounted to something more than the exercise of merely ordinary mechanical skill, and reached a higher dominion of invention. The simplicity of the device, and its apparent obviousness after the event, ought not to detract from its meritoriousness. That it had never been suggested or thought of before, and effectually supplied the one thing necessary to bring success, when before there had been nothing but failure, is sufficient to entitle it to rank as a new and useful improvement in the mechanical arts within the meaning of the patent law. — *M'Kay v. Dizer*, 61 Fed. 102; 9 C. C. A. 382.

In determining the question of invention utility plays an important part. It is not, however, conclusive. Combined with the presumption arising from the grant of letters it is sufficient to sustain a patent in the absence of evidence disproving invention. — *Ritchie v. Obdyke*, 65 Fed. 224; 12 C. C. A. 583.

The evidence leaves no doubt that it did the work it was desired to do. Subsequent improvements made it do that work better, but that is immaterial when it has been shown, as it has been here, that machines made in strict conformity to the patent have been used by manufacturers for years in doing this very work. — *Inman v. Beach*, 71 Fed. 420; 18 C. C. A. 165.

Where the question of novelty is in doubt, the fact that the device has gone into general use, and has displaced other devices previously employed for a similar purpose is sufficient to turn the scale in favor of the inventor. — *Mast v. Dempster*, 82 Fed. 327; 27 C. C. A. 191.

Potts v. Creager, 155 U. S. 357; *Smith v. Vulcanite*, 93 U. S. 486; *Magowan v. Packing Co.* 141 U. S. 332.

After careful consideration, we are of the opinion that the complainant's patent relates to an article of substantial, practical merit, which excels in operation and results other existing appliances, and that the patent is valid. — *Diamond v. Goldie*, 84 Fed. 972; 28 C. C. A. 589.

Consolidated v. Detroit, 59 Fed. 902.

As shown by the record and the evidence, persons skilled in the art had previously endeavored to accomplish the desired result, but without practical avail, and until McElroy combined the known electrical energy with his happy mechanism, and described a device for putting the heat energy involved in electricity into practical operation for this purpose, the public had continued to ride in the cold. All agree that his device is practical, useful, and a decided advance upon any theretofore described or known. It does the work. Looking at the general use and the substantial results accomplished through the mechanical arrangement and the device described,

with the practical view of giving the inventor, rather than with the view through refining processes of reasoning, of depriving him of, what fairly belongs to him, it is difficult to see how the patentability of the device in suit can be seriously challenged. — *Consolidated v. West End*, 85 Fed. 662; 29 C. C. A. 386.

He created a device — a composite structure — by which all need of the former awkward and unhandy makeshift appliances was completely obviated. It may be upon this showing Mr. Philips does not appear to have been a pioneer, yet the fact remains that the device which he gave to the art was, in its entirety, new, and was not only more convenient in its adaptation for use than any appliance which had preceded it, but also performed its two-fold function, so as in both respects to produce much better results than had ever before been attained. Both in the character of the means which he employed and in the improvement in operation which he achieved, there is evidence of origination; and therefore we cannot assent to the suggestion that his performance amounted to nothing but ingenious aggregation of the varied, off-hand, and inefficient contrivances which it was his declared object to supplant. — *Clinton v. Hendrick*, 86 Fed. 137; 29 C. C. A. 612.

In a doubtful case, the fact that the patented device has gone into general use, and superseded other devices, may be sufficient to turn the scale. — *Stevenson v. McFassell*, 90 Fed. 707; 33 C. C. A. 249.

Smith v. Vulcanite Co. 93 U. S. 486.

It must be conceded that the sales were phenomenally large, and that the evidence shows that the Christy saddle was received with great favor by those who used the bicycle; and also, it may be admitted, that it not only added to their comfort but contributed to their safety. But still we do not think that it follows that, therefore, that invention was not required to design and construct it. — *Christy v. Hygeia*, 93 Fed. 965; 36 C. C. A. 31.

McClain v. Ortmayer, 141 U. S. 419; *Klein v. Seattle*, 77 Fed. 200; *Grant v. Walter*, 148 U. S. 547; *Aron v. Railway*, 132 U. S. 84.

It contains much which requires that we should hold that the invention consisted in producing the cap from a single blank, so as to be of the nature of the invention in issue in *Krementz v. Cottle*, 148 U. S. 556. — *B. & S. Fastener v. Edgerton*, 96 Fed. 489; 37 C. C. A. 523.

When the question of invention is doubtful, the presumption of validity should have due consideration. In such case, also, the success which has attended the patented thing ought not to be overlooked, and should be given due weight. It is true that the success may have resulted in large measure from the exercise of business energy and of liberal advertisement, but no enduring success could be attained unless the thing patented had merit. — *Streator v. Wire-glass*, 97 Fed. 950; 38 C. C. A. 573.

It is oftentimes sufficient to say that a thing is useful, and when the new scheme for arranging old elements and using power is universally adopted in place of the old, it is somewhat difficult to resist the conclusion that the new is a substantial improvement upon the older conditions. It is quite possible that the momentum caused, superadded to the belt power, is a more valuable element in the combination than the patentee realized; but this is hardly a reason for defeating the demonstrated practical usefulness of such superadded power as an element in the combination. — *Parsons v. Seelye*, 100 Fed. 455; 40 C. C. A. 486.

Potts v. Creager, 155 U. S. 597.

The utility of a machine, article of manufacture, process, and improvement thereof, is only allowed to turn the scale in favor of its patentability in those instances where the question whether the inventive faculty has been exercised is balanced in doubt and uncertainty. — *Falk v. Missouri*, 103 Fed. 295; 43 C. C. A. 240.

Duer v. Lock Co. 149 U. S. 216; *McClain v. Ortmayer*, 141 U. S. 419; *Magowan v. Packing Co.* 141 U. S. 332; *Smith v. Vulcanite Co.* 93 U. S. 486.

These facts establish neither the novelty nor the patentability of his device, but they certainly challenge admiration, and demand that the presumption of validity which supports his patents shall not be stricken down without careful consideration and cogent and convincing proof. The keen, shrewd, mercantile spirit of this age is seldom deceived into the purchase and continued use of worthless improvements in mechanical devices, and, when all is said, success is by no means the poorest criterion by which to judge of the acts and words of men. — *National v. Interchangeable*, 106 Fed. 693; 45 C. C. A. 544.

In 5 years after Hein disclosed his invention and obtained his patent, his brake beam was in use on 85 per cent. of the railroads controlling 80 per cent. of the cars using iron brake beams in this country, and in 11 years from the date of his patent, more than 1,000,000 of his brake beams had been made and sold. But where the question of novelty is fairly open for consideration under the law, the fact that a patented device or combination has displaced others which had previously been used to perform its function, and has gone into immediate and general use, is pregnant and persuasive evidence that it involves invention. — *National v. Interchangeable*, 106 Fed. 693; 45 C. C. A. 544.

Smith v. Vulcanite Co. 93 U. S. 486; *Loom Co. v. Higgins*, 105 U. S. 580; *Mfg. Co. v. Adams*, 151 U. S. 139; *Magowan v. Packing Co.*, 141 U. S. 332; *Graphophone Co. v. Leeds*, 87 Fed. 873; *Topliff v. Topliff*, 145 U. S. 156.

We have the *prima facie* arising from the grant. We have the fact that the device has gone into extensive use, — an element entitled to regard. It is to be noted that printing-press construction is mechanically a highly developed industry. The complex and intricate details of these great presses; the calls upon them for speed, strength, and product; the constant demand upon builders for improvement; and the keen rivalry existing among such builders and the users of the presses, — are factors which brought the art to this high mechanical standard. The very fact that, with all these stimulating considerations, insuring the most rapid strides in mechanical advance, no such step as Firm's was taken in duplex presses, shows that Firm's change was not in the line of mechanical progress, but in the original, inventive sphere. — *Goss v. Scott*, 108 Fed. 253; 47 C. C. A. 302.

Lehnbeuter v. Holthaus, 105 U. S. 94; *Smith v. Vulcanite*, 93 U. S. 486.

The advance over Cushman in the substitution of a box form with a rearward opening so simplified the construction as for that reason alone to be of very considerable utility, and to raise a very strong presumption in favor of patentability. — *Hobbs v. Gooding*, 111 Fed. 403; 49 C. C. A. 414.

It may be true that Anderson has only taken the familiar contact spring or brush, and placed it in a protected position, but this change seems to have made the difference between a defective mechanism and a practical method of attaining the desired result. Where, as in this case, the departure from former means is only small, yet the change is important, the doubt as to whether the inventive faculty has been exer-

cised is to be weighed in view of the fact that the device in question has displaced others which had previously been employed for analogous uses, and this may decide the issue in favor of invention. — *Star v. General*, 111 Fed. 398; 49 C. C. A. 409.

Krementz v. Cottle, 148 U. S. 556; *Consolidated v. Detroit*, 47 Fed. 894.

As organized, the heating apparatus supplied a practical and efficient adjunct to the fire engines, and its value is shown by its adoption and use by the officers of the fire department, and the fact that after it was introduced there was no attempt by them to find a substitute for it, or to improve it. In short, it fulfilled the requirements of the service for which it was designed with a degree of success not before attained or subsequently exceeded. It did not evince a high order of inventive talent to organize and construct it, but we think it did evince enough of thought and creative faculty to support a patent, and re-inforce the presumption arising from the grant. — *Brickill v. Mayor*, 112 Fed. 65; 50 C. C. A. 1.

The advance seems simple enough. One wonders why, pending its adoption, twelve years went by. But the same wonder accompanies every step forward in the useful arts. The eye that sees a thing already embodied in mechanical form gives little credit to the eye that first saw it in imagination. But the difference is just the difference between what is common observation and what constitutes an act of creation. The one is the eye of inventive genius; the other of a looker-on after the fact. Considering the utility of the new knot, and the unavailing efforts prior to the patent in suit, to reach some correction of the existing defects, and the length of time those efforts went on, we are convinced that the patent under consideration evinces something more than mere mechanical skill. — *Faries v. Brown*, 121 Fed. 547; 57 C. C. A. 609.

The improvement is confessedly novel. Its utility, apparent on its face, is reaffirmed by its great success. But did the production of it require the exercise of the inventive faculty? The conjunction of its being a true mechanical combination, its novelty, its great utility, and its notable commercial success, is persuasive that more than mechanical skill was required in taking this new step in the very, very ancient art of supporting and adjusting mirrors. The device seems exceedingly simple. But its very simplicity in such an old field, should be a warning against a too ready acceptance of the *ex post facto* wisdom of the bystander. — *Regent v. Penn*, 121 Fed. 80; 57 C. C. A. 334.

The testimony is abundant that the East barrel had gone into general use, that the public had attested its superior utility and value by adopting the same, and that it had superseded all other barrels previously used for like purposes. The fact that prior devices, such as the Roberts and the Georgia barrel, had not been successful, and that the East barrel secured general acceptance and extensive use, and was a commercial success, creates a strong and almost conclusive presumption that the East barrel was the product of invention and had patentable merit, and that something more than mere application of mechanical skill was involved in its production. — *Farmers' v. Spruks*, 127 Fed. 691; 62 C. C. A. 447.

But if the questions of novelty and merit were otherwise left in doubt by the evidence, they would have to be resolved in favor of the patent, because of the immediate and general use into which the device is shown to have gone when it was put upon the market. — *Heekin v. Baker*, 138 Fed. 63; 70 C. C. A. 559.

Dowagiac v. Minnesota, 118 Fed. 136.

The device in suit was a success from its inception, it came at once into general use, and we are satisfied is of manifest novelty and great utility. The testimony shows that it practically doubles the life of the belt. This consideration, coupled with its undoubted commercial success from the outset, would be entitled to turn the scales in favor of the validity of the patent, if it were otherwise in doubt. — *Robins v. American*, 145 Fed. 923; 76 C. C. A. 461.

Reviewing: *Keystone v. Adams*, 151 U. S. 139; *Consolidated v. Detroit*, 47 Fed. 894; *Krementz v. Cottle Co.* 148 U. S. 560.

Loom Co. v. Higgins, 105 U. S. 580; *Topliff v. Topliff*, 146 U. S. 156; *Consolidated v. Crosby*, 113 U. S. 157; *Magowan v. New York*, 141 U. S. 332; *Barbed Wire Patent*, 143 U. S. 275.

There is also evidence of more or less cogency that the device has superseded other devices in the few cities which employ scouring and flushing machines in use upon smooth or asphalt streets. These facts are entitled to weight when the question is whether the machine exhibits patentable invention. — *St. Louis v. American*, 156 Fed. 574; 84 C. C. A. 340.

Keystone v. Adams, 151 U. S. 139; *National v. Interchangeable*, 106 Fed. 693; *Kinloch v. Western*, 113 Fed. 652; *id.* 659; *Krementz v. Cottle*, 148 U. S. 556.

Has the patentee added anything of value to the sum of human knowledge, has he made the world's work easier, cheaper, safer, would the return to the prior art be a retrogression? When the court has answered this question, or these questions, in the affirmative, the effort should be to give the inventor the just reward of the contribution he has made. The effort should increase in proportion as the contribution is valuable. Where the court has to deal with a device which has achieved undisputed success and accomplishes a result never attained before, which is new, useful and in large demand, it is generally safe to conclude that the man who made it is an inventor. — *O'Rourke v. McMullen*, 160 Fed. 933; 88 C. C. A. 115.

Hobbs v. Beach, 180 U. S. 383; *Magowan v. N. Y.* 141 U. S. 332; *Barbed Wire Case*, 143 U. S. 275; *Potts v. Creager*, 155 U. S. 597; *Loom Co. v. Higgins*, 105 U. S. 590.

§ 636. Evidence of — Utility — When Not.

Although the invention confessedly has been of great utility, as proved abundantly, in the absence of any clear and positive exercise of the mind beyond mere mechanical skill, the utility of the device does not establish patentable novelty. — *Hollister v. Benedict*, 113 U. S. 59; 28 L. Ed. 901; 5 S. Ct. 717.

An invention though new in the sense that it had not been anticipated by any previous invention, and though shown to have superior utility, is not necessarily such an improvement as to be entitled to be regarded in the patent law as an invention. — *Gardner v. Herz*, 118 U. S. 180; 30 L. Ed. 158; 6 S. Ct. 1027.

The fact that the patented process involves greater care and higher skill does not effect its utility. — *Lawther v. Hamilton*, 124 U. S. 1; 31 L. Ed. 325; 8 S. Ct. 342.

Cannot be made to control the language of the statute which limits the benefit of the patent laws to things which are new as well as useful. — *Grant v. Walter*, 148 U. S. 547; 37 L. Ed. 552; 13 S. Ct. 699.

McClain v. Ortmyer, 141 U. S. 419.

Limitation of rule with reference to other factors which may enter in to produce popularity of article. — *Duer v. Corbin*, 149 U. S. 216; 37 L. Ed. 707; 13 S. Ct. 850.

It is true that such extensive public use, superseding other similar devices, is evidence more or less cogent of value and usefulness. "It is not conclusive of that; much less of its patentable novelty." *McClain v. Ortmyer*, 141 U. S. 428. Complainant was active and energetic in pursuing the sale of his machine by means of circulars and travelling agents; the latter drumming for it in 13 states. Under such circumstances, extensive sales constitute little or no evidence or test of patentability. — *Fox v. Perkins*, 52 Fed. 205; 3 C. C. A. 32.

Nor do we find in the record sufficient to warrant any different conclusion upon the theory that the device supplied a long felt want, which mechanics had tried to supply unsuccessfully, nor that it has driven other competitors out of the market because its superior merits have commended it to the public. There is nothing to show to what extent, price, workmanship, liberal discounts to dealers, and ingenious and extensive advertising may have contributed to whatever success has attended the effort to introduce complainants' tool, and, in the absence of any information on these points, there is not, in the circumstance that the sales of this tool have increased from 3,926 in 1885 to 10,727 in 1891, sufficient to warrant the conclusion that there was any patentable invention in devising it, in view of the state of the art. — *Saunders v. Allen*, 60 Fed. 610; 9 C. C. A. 157.

McClain v. Ortmyer, 141 U. S. 428; *Duer v. Corbin*, 149 U. S. 223.

It is not sufficient that the patentee may have produced a better and more marketable article, but there must have been something novel in the means which were employed in its production. — *Andrews v. Thum*, 67 Fed. 911; 15 C. C. A. 67.

Knapp v. Merss, 150 U. S. 221.

This we cannot do, to the extent of ascertaining for ourselves that the appellee's device does not represent a completed and useful invention. — *Packard v. Lacing*, 70 Fed. 66; 16 C. C. A. 639.

The authority for granting a patent rests exclusively upon statute, and is thereby strictly limited to the invention of what is new and useful. *McClain v. Ortmyer*, 141 U. S. 419. It is not therefore sufficient to show the utility or great popularity of the improvement, as strenuously urged here to sustain this patent. *Id.* But it must also be new, in the sense of patentable diversity from prior methods, forms, and accomplishments, as recognized by the decisions. — *Baldwin v. Kresl*, 76 Fed. 823; 22 C. C. A. 593.

Utility is not an infallible test of originality. There must be original thought or inventive skill, not merely mechanical change of what was old. — *Olmsted v. Andrews*, 77 Fed. 835; 23 C. C. A. 488.

Ex parte Greeley, Fed. Cas. 5,745; *Hollister v. Mfg. Co.* 113 U. S. 59; *Thompson v. Boisselier*, 114 U. S. 1; *Holder v. Ferguson*, 119 U. S. 335; *Heating v. Burtis*, 121 U. S. 286; *Marchand v. Emken*, 132 U. S. 195; *McClain v. Ortmyer*, 141 U. S. 419; *Clothing v. Glover*, 141 U. S. 560; *Mfg. Co. v. Cary*, 147 U. S. 623; *Howard v. Stove*, 150 U. S. 164.

It is undoubtedly true, that the utility of a device or machine, and the fact that it had never been used before, is sometimes high evidence of in-

vention, and in cases of doubt is given controlling effect. But every case depends upon the state of the art, the character of the improvements, the results accomplished, the methods used, the changes made, &c. The fact that a patented device has gone into general use, and has displaced other devices, is evidence of its value and usefulness, and is always of importance in considering the question whether the device or machine is patentable. But the fact that the patented device has gone into general use, while evidence of its utility, is not conclusive evidence of its patentable novelty. — *Klein v. Seattle*, 77 Fed. 200; 23 C. C. A. 114.

Smith v. Vulcanite, 93 U. S. 486; *Adams v. Stamping Co.* 141 U. S. 539; *Mfg. Co. v. Adams*, 151 U. S. 139; *McClain v. Ortmayer*, 141 U. S. 419; *Mfg. Co. v. Cary*, 147 U. S. 623; *Grant v. Walter*, 148 U. S. 547.

The commercial success of the patented article is only one element to be considered where patentability is otherwise in doubt. — *Lane v. Welds*, 99 Fed. 286; 39 C. C. A. 528.

Mfg. Co. v. Robbins, 75 Fed. 17; *McClain v. Ortmayer*, 141 U. S. 419.

It is true that the extensive use of a machine or combination which is clearly without novelty, does not dispense with that statutory requirement, and that it will not alone sustain a patent. — *National v. Interchangeable*, 106 Fed. 693; 45 C. C. A. 544.

McClain v. Ortmayer, 141 U. S. 419; *Duer v. Lock Co.* 149 U. S. 216; *Olin v. Timken*, 155 U. S. 141; *Klein v. City of Seattle*, 77 Fed. 200.

Utility being one of the qualities necessary to patentability, the granting of the patent is prima facie evidence of it; and this is not negatived by the fact that the device is susceptible of improvement, or that like inventions are so far superior to it that they may entirely supersede the use of it. Comparative utility between machines or processes is no criterion of infringement, and comparative superiority or inferiority does not necessarily import noninfringement; nor does it tend to avoid infringement if the defendant's device is simpler and produces better results, unless the cause is due to a difference in function or mode of operation or some essential change in character. — *Crown v. Aluminum*, 108 Fed. 845; 48 C. C. A. 72.

The mere fact that a patented device or an article meets with increasing sales and is popular is wholly unimportant when it clearly appears that the invention is without patentable novelty. — *American v. Bullivant*, 117 Fed. 255; 54 C. C. A. 287.

Duer v. Lock Co. 149 U. S. 216; *Printing Press v. Scott*, 103 Fed. 650; *National v. Interchangeable*, 106 Fed. 693; *McClain v. Ortmayer*, 141 U. S. 419; *Klein v. Seattle*, 77 Fed. 200.

The fact that these bookcases have gone into extensive use is due, as we think, to the elegant workmanship employed in their manufacture, and the convenience of having the sections separable, aided by the energy with which, as the bill states, they were pressed upon the market. — *Globe-Wernicke v. Macy*, 119 Fed. 696; 56 C. C. A. 304.

It sometimes happens that an improvement in a machine or device, which is the result of ordinary mechanical skill, adds much to the utility of the device or machine, but this fact does not render it patentable. If a doubt arises in the consideration of a patented article or device whether the inventive faculty has been exercised, the fact that the article in question has gone into general use, that there is a large demand for it, and that it seems to possess great utility, is entitled to great weight; but when it is apparent that the

inventive faculty has not been exercised, and that nothing more has been accomplished by the alleged inventor than what might have been done by an ordinary workman or mechanic acquainted with the art, if his attention had been directed to the subject, a patent, if granted, cannot and ought not to be sustained. — *Union v. Peters*, 125 Fed. 601; 60 C. C. A. 337.

McClain v. Ortmyer, 141 U. S. 419; *Duer v. Corbin*, 149 U. S. 216; *Fox v. Perkins*, 52 Fed. 205; *Dueber v. Robbins*, 75 Fed. 17; *Lovell v. Cary*, 147 U. S. 623; *Falk v. Missouri*, 103 Fed. 295; *Atlantic v. Brady*, 107 U. S. 192.

A large part of the success of complainant's tiles is undoubtedly due to their thickness and the secret composition of which they are made. — *New York v. Sierer*, 158 Fed. 819; 86 C. C. A. 79.

But the fact that the Furness patent shows a new and useful improvement does not, in itself, disclose invention. — *New York v. Sierer*, 158 Fed. 819; 86 C. C. A. 79.

Hollister v. Benedict, 113 U. S. 59.

It is true that the Marshall lining possesses the advantages of utility and cheapness, and that it has nearly supplanted in the market the hard fiber lining. In cases where the question of patentability is involved in more or less doubt, these practical considerations are entitled to much weight, and they have frequently been held to turn the scale in favor of sustaining the patent. They cannot avail, however, in a case where the court is clearly satisfied that the broad conception underlying the patent did not involve inventive thought. — *Marshall v. Pettingell-Andrews*, 164 Fed. 862; C. C. A.

§ 637. Evidence of — Want of Invention.

An analysis of this patent in the light of the prior art, taken in connection with the circumstances that no practical commercial machine containing this invention has ever been put into use, forbids us from holding that this is a pioneer patent which marks a great advance in the art, or lies at the basis of a new art. — *New York v. Hollingsworth*, 56 Fed. 224; 5 C. C. A. 490.

The single claim of the patent is for a "rectangular terra-cotta wire conduit pipe, having rectangular partitions, all of uniform thickness, and made in one integral piece." We might well take judicial notice of the fact, even if it was not abundantly proven by the testimony, that the art of making sewer or drain pipe, both rectangular and cylindrical in form, out of clay, is very old. — *Browning v. Colorado*, 61 Fed. 845; 10 C. C. A. 112.

The device was known for over 12 years before this bill was filed; and yet during the whole of that period it never had been put to practical use. If the case had been otherwise, the practical results might have enabled us to give the patent the support which might have come therefrom. — *B. & S. Fastener v. Edgerton*, 96 Fed. 489; 37 C. C. A. 523.

Boston v. Remis, 80 Fed. 287.

The Stonemetz patent did not go into use at all. These facts would not of themselves establish that the inventions were not novel and useful, but such circumstances, unexplained, give additional ground for the belief that no very substantial improvement in the art was made. — *Campbell v. Duplex*, 101 Fed. 282; 41 C. C. A. 351.

The fact that the two devices are not separately claimed, but only in combination, would indicate that the patentee regarded the elements individually considered as old. — *American v. Helmstetter*, 142 Fed. 978; 74 C. C. A. 240.

§ 638. Evidence of — Miscellaneous Holdings.

The conversations and declarations of a patentee stating that he had made an invention and describing its details and explaining its operation are assertions of his right to the invention. — *Railroad v. Stimpson*, 14 Pet. 448; 10 L. Ed. 535.

The attempted proof that the plaintiff invented a certain device over thirty years before, made and secreted a model of it, in the light of his subsequent patent which did not disclose it and which was claimed only in a reissue 15 years later, such evidence is not impressive. — *Johnson v. Flushing*, 105 U. S. 539; 26 L. Ed. 1162.

The conduct of the inventor considered as evidence as to whether he had or had not invented the device in suit at the time alleged. — *Atlantic v. Brady*, 107 U. S. 192; 27 L. Ed. 438; 2 S. Ct. 225.

The fact that contemporary publications give to the patentees the credit of this invention considered as evidence of invention. — *New Process v. Maus*, 122 U. S. 413; 30 L. Ed. 1193; 7 S. Ct. 1304.

Where licensee gave notice to licensor that the licensed device was inoperative and then continued to make an article embodying substantially the same device indicates that the notice was a mere pretence. — *St. Paul v. Starling*, 140 U. S. 184; 35 L. Ed. 404; 11 S. Ct. 803.

The fact that the patentee had at one time offered to sell the patent for \$15.00 is not competent evidence of want of novelty and was properly excluded. — *Harper v. Wilgus*, 56 Fed. 587; 6 C. C. A. 45.

Complainant patentee had suggested the idea of the device in suit to an inventor and manufacturer, who adapted a prior patented device to complainant's needs, made and sold complainant the device and marked it patented under his former patent. Later complainant took out a patent on the device, removed the former patent mark and applied his own. Upon remonstrance by the manufacturer, complainant removed his mark. *Held*: That in connection with the proofs this conduct amounted to a confession of invention of the prior patentee and of abandonment by complainant. — *Forgie v. Oil Well*, 58 Fed. 871; 7 C. C. A. 551.

When the patentee is silent as to the details of a particular feature it is to be presumed that it is a matter of common knowledge among those skilled in the art, and not novel with the patentee. — *Westinghouse v. Edison*, 63 Fed. 588; 11 C. C. A. 342.

The complainant has pressed upon us advertisements and other public declarations of the respondent maintaining the patentability of devices of the general character of the one in issue. In that class of litigation in which results can affect no interests except those of the parties to it, the court may well give weight to declarations of that nature; but with reference to a patent for an invention, which is of public concern, such declarations are

of little consequence, and neither the inventor nor the alleged infringer can be permitted to substitute his own acts or opinions for the judgment of the court. — *Osgood v. Metropolitan*, 75 Fed. 670; 21 C. C. A. 491.

It was a known law of nature when the early dental spittoons were devised; but until Hurlbut's time, it was not thought of in solving the problem of a sightly and sanitary dental basin. Is not this fact significant? Is it not persuasive that Hurlbut's conception was invention rather than mere skill — a flash of the intellect, creative and helpful, rather than the plodding advance of the mechanic. — *Justi v. Clark*, 108 Fed. 659; 47 C. C. A. 565.

The record discloses the labor and experiments required to produce a patentable supporter, and the inventive character of the device is made apparent despite first impressions as to triviality. Its novelty and utility "in its limited field" are manifest. — *Parramore v. Taylor*, 114 Fed. 97; 52 C. C. A. 45.

The learned judge said: "The case is a close one. We have not arrived at our conclusion without hesitation, and there are grounds for strongly urging a different one." But we think that the doubt which he seems to have entertained should have been resolved in support of the patent. — *Cleveland v. Kauffman*, 135 Fed. 360; 68 C. C. A. 658.

Railroad v. Stimpson, 14 Pet. 459; *Lehnbeuter v. Holthaus*, 105 U. S. 96; *Cantrell v. Wallick*, 117 U. S. 695.

§ 639. Force of Nature.

An exclusive right cannot exist to a new power, should one be discovered. Through the agency of machinery a new steam power may be said to have been generated. But no one can appropriate this power exclusively to himself under the patent laws. The same may be said of electricity and of any other power in nature, which is alike open to all. — *Le Roy v. Tatham*, 14 How. 156; 14 L. Ed. 367.

A force of nature cannot be broadly claimed in connection with an act. — *O'Reilly v. Morse*, 15 How. 62; 14 L. Ed. 601.

If this claim can be maintained, it matters not by what process or machinery the result is accomplished. For ought that we know some future inventor, in the onward march of science, may discover a mode of writing or printing at a distance by means of the electric or galvanic current, without using any part of the process or combination set forth in the plaintiff's specification. His invention may be less complicated — less liable to get out of order — less expensive in construction, and in operation. But yet if it is covered by this patent the inventor could not use it, nor the public have the benefit of it without the permission of the patentee. — *O'Reilly v. Morse*, 15 How. 62; 14 L. Ed. 601.

Note: No better law and no more wonderful prophecy is to be found in the books.

As it was held in *O'Reilly v. Morse*, 15 How. 62. A broad claim for the motive force of electricity could not be had, but a claim for a particular application of that force by given means is patentable. — *Telephone Cases*, 126 U. S. 1; 31 L. Ed. 863; 8 S. Ct. 778.

An artificial force is a natural force, so transformed in character or energies by human power as to possess new capabilities of action. This transformation

of a natural force into a force practically new involves a true inventive art. — *Wall v. Leck*, 66 Fed. 552; 13 C. C. A. 630.

1 Rob. Pat. secs. 92-96-99-103; *Neilson v. Hartford*, 1 Web. P. C. 295; *Lawther v. Hamilton*, 124 U. S. 1; *McClurg v. Kingsland*, 1 How. 202; *Burr v. Duryee*, 1 Wall. 568.

Discoveries of natural forces or of their laws are not the subjects of patents. It is only the employment of such forces by invented means, for useful purposes, which gives the inventor any standing ground. — *Cowles v. Lowrey*, 79 Fed. 331; 24 C. C. A. 616.

O'Reilly v. Morse, 15 How. 62.

That a claim covering the utilization of an article in a way to get the best results from its characteristics (such as using a veneer lumber with the dense side out to compensate swelling from dampness) is not patentable, see *Talbot v. Fear*, 89 Fed. 197; 32 C. C. A. 186.

Cameron having invented the tank employed and having defined it as "a septic tank," which in operation, becomes lined with a coating due to the action of bacteria and in a short time forms its own air-excluding cover by bacteria action; that these facts do not entitle him to a claim covering his elements and the elements built in by micro-organisms as constituting a combination, see *Cameron v. Saratoga*, 159 Fed. 453; 86 C. C. A. 483.

§ 640. Generic — Construction.

If one inventor precedes all the rest and strikes out something which includes and underlies all that they produce, he acquires a monopoly and subjects them to tribute. But if the advance towards the thing desired is gradual, and proceeds step by step, so that no one can claim the complete whole, then each is entitled only to the specific form of device which he produces, and every other inventor is entitled to his own specific form, so long as it differs from those of his competitors, and does not include theirs. — *Chicago v. Sayles*, 97 U. S. 554; 24 L. Ed. 1053.

It is not a pioneer patent, and is not entitled to that liberality of construction which would have been accorded to it had the inventor been the first to devise a scheme for these several adjustments. — *Consolidated v. Barnard*, 156 U. S. 261; 39 L. Ed. 417; 15 S. Ct. 333.

If it was all he claimed for it, it first supplied the efficient means of reducing to the service of the public an agency of great power and value in a highly important industry. To such an invention the courts will give precedence according to its breadth, and will treat all modifications of it which involve only the exercise of the ordinary skill and learning of that art as comprehended in the invention. — *Cowles v. Lowrey*, 79 Fed. 331; 24 C. C. A. 616.

Tilghman v. Proctor, 102 U. S. 707; *Eames v. Andrews*, 122 U. S. 40.

Undoubtedly Mr. Edison, by utilizing this film and perfecting the first apparatus for using it, met all the conditions necessary for commercial success. This, however, did not entitle him, under the patent laws, to a monopoly of all camera apparatus capable of utilizing the film. Nor did it entitle him to a monopoly of all apparatus employing a single camera. — *Edison v. American*, 114 Fed. 926; 52 C. C. A. 546.

This discovery was important. Tremaine & Paine were not mere improvers upon a prior machine which was capable of accomplishing the same general result. They brought to success what prior inventors had been unable

to accomplish. It was difficult, and had been considered impossible. They adopted some devices that had been used before, combined them with others that had not been used, and added the necessary elements to make a practical operative machine. Their invention was therefore more than a mere improvement or perfection of what had preceded it. It was of such novelty and importance as to constitute a distinct step in the progress of the art, and the claims of their patent are therefore entitled to a broad and liberal construction. — *Los Angeles v. Æolian*, 143 Fed. 880; 75 C. C. A. 88.

Morley v. Lancaster, 129 U. S. 263; *Letson v. Alaska*, 130 Fed. 129; *Brown v. Drohen*, 140 Fed. 97; *Hobbs v. Beach*, 180 U. S. 383.

§ 641. Generic — Definition.

Doubtless an invention may be good though the subject of it consists in the discovery of some principle of science or property of matter, never before known or used, by which some new and useful result is obtained, and such an invention or discovery may be the subject of a valid patent without including in the claim any new arrangement of machinery to accomplish the object, provided the inventor describes, as required in the patent law, the method, process or means of applying the invention to practical use and of obtaining the new and useful result. — *Mitchell v. Tilghman*, 86 U. S. 287; 22 L. Ed. 125.

Househill v. Neilson, 1 Web. P. C. 683; *Curt. Pat.* 4 ed. 279; *Foote v. Silsby*, 2 Blatchf. 260.

This word ("pioneer") 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. — *Westinghouse v. Boyden*, 170 U. S. 537; 42 L. Ed. 1136; 18 S. Ct. 707.

It is true that, when an invention is of a primary character, a larger latitude is given to the equivalents which the patent includes than if the invention were a modification of a well-explored art. In the former case, devices which operate upon the same principle and perform the same functions by analogous means are held to be infringements (*McCormick v. Talcott*, 20 How. 402) and it is also true that when mechanical means are for the first time invented, which enable a law of science or force of nature to be used so as to accomplish a practical and beneficial result, such as the Bell telephone, or when an inventor invents mechanical means for carrying into effect a newly discovered and useful principle of operation, like the double carbon of Brush, the inventor's properly drawn patent will include a very wide scope of analogous mechanical means which accomplish the same result. But this invention, though it may be called a primary one, is not of the character to which any such latitude can be given. Having made this improvement, he broadly claims in his patent any friction plate or pressure contrivance, and desires to include all the more elaborate and ingenious methods of constructing a brake which may be introduced. Such a construction is inadmissible, because a patented invention of this character which with difficulty maintains its right to patentability, belongs to a different class from the one to which the doctrine in *McCormick v. Talcott* and kindred cases, applies and is to receive a narrow construction. — *Dederick v. Seigmund*, 51 Fed. 233; 2 C. C. A. 169.

The result which he achieved was a distinct and single one, which had not, by any means, been previously attained. He entered upon a barren terri-

tory in the domain of invention, and was the first to occupy and appropriate it. He was a pioneer. — *National v. American*, 53 Fed. 367; 3 C. C. A. 559.

Machine Co. v. Lancaster, 129 U. S. 263.

The Kitselman invention, for the first time, put the fence-builder on its feet — an easy going, adaptable, working machine of the highest species. It built, for the first time, in the field, a wire mesh fence. It became a farm implement — an implement before unknown — as much so as the first harvester or the first stump puller. It turned over to the farmer in the field the work that had been previously done by the wire weaver in the shop. Out of it practically came a new product — a product as common now as the barbed fence, and probably much more useful. Kitselman disclosed to the world for the first time a practical means for supplying the farmer with a highly useful fence. He has set forth the means in detail, in the descriptive portion of his patent, and has framed the claims mentioned to correctly embody them in a mechanical unity. His work is the work of a primary inventor, certainly as much so as in the cases presented in the Corn Planter Patent, and his letters patent are therefore entitled to a liberal construction. — *Kitselman v. Kokomc*, 108 Fed. 632; 47 C. C. A. 538.

Corn Planter Patent, 25 Wall. 181; Barbed Wire Patent, 143 U. S. 275.

Where the originator has boldly struck out into a practical application, and stated it, though only in general terms, he has, for the most part, made his conception clear even though the mechanical details have not been expressed or thought out. — *Westinghouse v. Stanley*, 133 Fed. 167; 68 C. C. A. 523.

Telephone Cases, 126 U. S. 1.

A primary invention is “one which performs a function never performed by an earlier invention.” A secondary invention is one which performs a function previously performed, but in a substantially different way. Walker on Pat. secs. 353, 359. This word (pioneer), 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. — *Western v. Robertson*, 142 Fed. 471; 73 C. C. A. 587.

Westinghouse v. Boyden, 170 U. S. 537.

§ 642. Generic — Improvement.

He brought to success what prior inventors had essayed, and but very imperfectly accomplished. In so doing he adopted some devices that had been used before, combined them with others that had not been used, and added the necessary elements to make a practical and successful machine. His combination and invention was, we think, more than a mere improvement or perfection of what had preceded it. It was of such novelty and importance as to constitute a distinct step in the progress of the art, and it went into immediate and extensive use. Its claims are therefore entitled to a fairly liberal construction. — *Letson v. Alaska*, 130 Fed. 129; 64 C. C. A. 463.

Machine Co. v. Lancaster, 129 U. S. 263.

For further cases on this subject see *Improvement — Generic*.

§ 643. Generic — Scope of.

It may be that electricity cannot be used at all for the transmission of speech except in the way Bell has discovered, and that, therefore, practically,

his patent gives him his exclusive use for that purpose, but that does not make his claim one for the use of electricity distinct from the particular process with which it is connected in his patent. It will, if true, show more clearly the great importance of his discovery, but it will not invalidate his patent. — *Telephone Cases*, 126 U. S. 1; 31 L. Ed. 863; 8 S. Ct. 778.

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. — *Norton v. Jensen*, 49 Fed. 859; 1 C. C. A. 452.

Machine Co. v. Lancaster, 129 U. S. 273.

We find that the complainant's machine is a special one, adapted to a special purpose, relating to an art entirely different from that of ordinary shearing knives. We fail to find anything which leads us to the conclusion that complainant's invention was in any way anticipated, either by prior use or by any machine possessing its functions. — *Diamond v. Goldie*, 84 Fed. 972; 28 C. C. A. 589.

§ 644. Generic — What is.

It in no wise detracts from the merit of this invention that later devices have been adopted which render its practical operation more efficient. The very term "pioneer patent" signifies that the invention has been followed by others. A pioneer patent does not shut but opens the door for subsequent invention. — (Dissenting opinion of Mr. Justice Shiras in) *Westinghouse v. Boyden*, 170 U. S. 537; 42 L. Ed. 1136; 18 S. Ct. 707.

It appears that the complainant, although the owner of the patent in suit, is not manufacturing under it at all, but continues to manufacture under Young's earlier patent. It may, then, be affirmed confidently that the invention of the patent in suit is not one of primary character. — *Pittsburg v. Pittsburg*, 109 Fed. 644; 48 C. C. A. 580.

It was more than an advanced step in an old art. There was no prior art of molding tubes or cylinders (of this character). The patent was in a certain sense a pioneer patent. To produce from a mold a tube or cylinder of insulating material, cheaply and efficiently, so that the insulating function of the cellular structure should be preserved uniformly throughout the substance of the tube or cylinder, was not an obvious suggestion of the general molding art. — *Keasbey v. American*, 143 Fed. 490; 74 C. C. A. 510.

It may, therefore, fairly be said that he fulfilled the requirements of a generic invention, in that he devised a machine which performed the function of looping on a ribbed fabric, a function never performed thereon by any earlier machine, and thereby produced a result never before produced, namely, a ribbed fabric capable of being fleeced, and that in doing this he exercised invention of a high order. — *Scott v. Fisher*, 145 Fed. 915; 76 C. C. A. 447.

The contention that Gathright is entitled to the rewards of a pioneer inventor cannot be maintained. If we may be permitted a metaphor, he did not discover the new mine, he reached it by following trails blazed by others through the wilderness; but once arrived, by his genius and energy, he converted a non-producing failure into a busy, prosperous and lucrative enter-

prise. In other words, he developed the mine. — *Wagner v. Wycoff*, 151 Fed. 585; 81 C. C. A. 129.

§ 645. Immoral Object.

We think that a patent cannot be lawfully granted when, as in the present case, it appears that the claim preferred by the patentee that he has made a discovery of a new fact or principle in medical science, and of a new mode of operation of a known force whereby the discovery is utilized, rests upon no substantial foundation, and is at best an imaginary hypothesis, and was most likely put forward merely to obtain a patent on a device which he proposes to make and sell to the public for the treatment of disease. The granting of a patent under the circumstances last stated would give to the theories enunciated in the specification an appearance of authenticity, and tend to mislead and deceive the public if the theories are false. — *Mahler v. Animarium*, 111 Fed. 530; 49 C. C. A. 431.

If the device here in question should be found insusceptible of other use than to guard gambling machines from being operated by means of bogus coins, we should be led to an outlook from which two interesting queries appear: (1) The statutes of Illinois prohibit the use of coin-operated gambling machines, but not the manufacture or sale thereof. Should a circuit court sitting in Illinois hold invalid a patent on such a machine and thereby destroy the monopoly of its manufacture and sale, because its use is forbidden in Illinois, though its manufacture and sale in Illinois, and its use in certain other states is lawful? (2) If the federal courts may properly hold patents on gambling machines void for lack of utility, because immoral, though countenanced by the legislation of particular states, is a device attached to such a machine likewise inimical to good morals, which prevents a gambler from being also a cheat? It seems clear that one who practises his invention in a noxious way only has no better standing in equity than one who declines to use the device for good purposes or to permit others to use it. And in *Hoe v. Knapp*, 27 Fed. 204, there is a statement that "under a patent which gives a patentee a monopoly, he is bound to use the patent himself, or allow others to use it on reasonable terms." But this doctrine has been vigorously denied, and rightly, we think, in subsequent cases. *Roller v. Coombs*, 39 Fed. 803; *Campbell v. Manhattan*, 49 Fed. 935; *Heaton v. Eureka*, 77 Fed. 294; *Bement v. National*, 186 U. S. 70. So nonuse is not a defense in equity. Is misuse? Equity is not concerned with the general morals of a complainant; the taint that is regarded must affect the particular rights asserted in his suit. *Saddle v. Troxel*, 98 Fed. 620; *Folding v. Robertson*, 99 Fed. 985. A complainant asserts the validity of his patent, infringement, and asks an injunction. If the defendant can do no more than show that the complainant has committed some legal or moral offense, which affects the defendant only as it does the public at large, the court must grant the equitable remedy and leave the punishment of the offender to other forums.

But another consideration leads more strongly to the same result. The inventor's right to make, vend, and use his device does not come from the patent law; it is his natural right. The government's grant to the patentee and his assigns is the right to exclude others from practising the invention. *Bloomer v. McQuewan*, 14 How. 539; *Patterson v. Kentucky*, 97 U. S. 501. If the complainant in a patent suit is seeking merely to enforce his right to exclude, according to the terms of the government's grant, an inquiry into what use (or lack of use) the inventor is making of his natural right would seem to be clearly collateral and irrelevant.

Judge Grosscup, dissenting, says: Non-use and pernicious use must not be confounded. The inventor who declines to put his patent into use occu-

pies toward society an attitude entirely distinct from the inventor who is using his invention in a way that injuriously affects society. Pernicious use does not deny simply to society the present benefit of an invention — it visits upon society an affirmative moral harm. Pernicious use injures where non-use only withholds; wounds, where non-use only declines to help. The court should stand aloof from the whole transaction, not because the pernicious use is a defense that lies in appellee's mouth, but because it is a consideration the public may interpose, and because to issue the writ under such circumstances would be to pollute the writ itself. — *Fuller v. Berger*, 120 Fed. 274; 56 C. C. A. 288.

§ 646. Improvement — Non-Patentable.

Mere improvement in material or quality is not patentable. — *Heald v. Rice*, 104 U. S. 737; 26 L. Ed. 910.

Hotchkiss v. Greenwood, 11 How. 266; *Hicks v. Kelsey*, 85 U. S. 670; *Stow v. Chicago*, 104 U. S. 547.

A mere carrying forward of an original conception resulting in an improvement in degree is only the exercise of ordinary mechanical skill. — *Consolidated v. Walker*, 138 U. S. 124; 34 L. Ed. 920; 11 S. Ct. 292.

Burt v. Evory, 133 U. S. 349; *Hollister v. Benedict*, 113 U. S. 59; *Thompson v. Boisselier*, 114 U. S. 1; *Aron v. Manhattan*, 132 U. S. 84; *Hill v. Wooster*, 132 U. S. 693; *Howe v. National*, 134 U. S. 388.

With all due respect to the patent office, I must say that it seems to me all these patents in suit, as well as others in this record, were very improvidently issued. They may cover improvements in this class of devices, but all improvements do not involve or imply invention. — *Palmer v. McDermaid*, 54 Fed. 509; 4 C. C. A. 489.

There is not invention merely in reducing the friction of a device by adding antifriction rollers, a method well-known in the art. — *Barnes v. Walworth*, 60 Fed. 605; 9 C. C. A. 154.

The fact alone of improvement does not establish invention. Nor, on the other hand, can it be denied for mere simplicity, which may be the feature of special merit. For the improvement claimed in this patent, however, a test is furnished under the rule frequently declared by the Supreme Court, that "a change only in form, proportion or degree, the substitution of equivalents doing substantially the same thing in the same way, by substantially the same means, with better results, is not such invention as will sustain a patent." — *Baldwin v. Kresl*, 76 Fed. 823; 22 C. C. A. 593.

Smith v. Nichols, 21 Wall. 112; *Burt v. Evory*, 133 U. S. 349; *Cluett v. Claffin*, 140 U. S. 180; *McCarty v. R. R.* 160 U. S. 110; *Caverly's v. Deere*, 66 Fed. 305; *Griswold v. Wagner*, 68 Fed. 494.

We are constrained to conclude that, although the patentee was entitled to the credit of making a more artistic article than those who have preceded him, he did nothing new in the patentable sense. — *Janowitz v. Levison*, 82 Fed. 63; 27 C. C. A. 61.

The rule in *Smith v. Nichols*, 21 Wall. 112, 119, has been since so many times restated and applied that it has become familiar doctrine. — *Sochner v. Favorite*, 84 Fed. 182; 28 C. C. A. 317.

Fox v. Perkins, 52 Fed. 205; *Schreiber v. Grimm*, 72 Fed. 671; *Clark v. Deere*, 80 Fed. 534.

The coffee may look better or more attractive in the package, but this does not involve invention. It is only a change in the form or appearance of a well-known article of merchandise and is not patentable. — *Baker v. Duncombe*, 146 Fed. 744; 77 C. C. A. 234.

Glue Co. v. Upton, 97 U. S. 3; *King v. Gallun*, 109 U. S. 99; *Cerealine v. Bates*, 101 Fed. 272; *Sanitas v. Voigt*, 139 Fed. 551.

§ 647. Improvement — Patentability.

All improvement is not invention, and entitled to protection as such. Thus to entitle it, it must be the product of some exercise of the inventive faculties, and it must involve something more than what is obvious to a person skilled in the art to which it relates. — *Pearce v. Mulford*, 102 U. S. 112; 26 L. Ed. 93.

The first defense is based on the theory that a patent cannot be valid unless it is new in all its elements as well as in the combination. But this theory can not be maintained. If it were sound no patent for an improvement on a known contrivance or process could be valid. And yet the great majority of patents are for improvements in old and well known devices, or on patented inventions. Changes in the construction of an old machine which increases its usefulness are patentable. — *Cantrell v. Wallick*, 117 U. S. 689; 29 L. Ed. 1017; 6 S. Ct. 970.

Seymour v. Osborne, 11 Wall. 516; *Loom v. Higgins*, 105 U. S. 580; *Hailes v. Van Wormer*, 20 Wall. 353; *Star v. Crossman*, 4 Cliff. 568.

It is well settled that not every improvement in an article is patentable. The test is that the improvement must be the product of an original conception. — *Burt v. Evory*, 133 U. S. 349; 33 L. Ed. 647; 10 S. Ct. 349.

Pearce v. Mulford, 102 U. S. 112; *Slawson v. Grand*, 107 U. S. 649; *Munson v. N. Y.* 124 U. S. 601; *Smith v. Nichols*, 88 U. S. 112.

He has not made a great invention or a "pioneer invention," if that much abused expression be confined to its legitimate meaning, but he has produced a novel and useful device which is far removed from mechanical skill. His invention belongs to that vast field of minor achievement which has given this country its acknowledged pre-eminence and which it is the policy of the patent law to protect. — *Eldred v. Kirkland*, 130 Fed. 342; 64 C. C. A. 588.

§ 648. Improvement — Miscellaneous.

These, and all the other differences, were before the Patent Office. The granting of Volz's claims under the circumstances was a virtual finding that Volz was an independent improver in an open field, and we think such a finding is correct. — *Loew v. Miller*, 138 Fed. 886; 71 C. C. A. 266.

Note: This is a loose statement. There is nothing to indicate that it was an "open field" so far as the Patent Office action was concerned.

The courts have generally found it inadvisable to attempt to define invention, and concluding that there are no affirmative rules by which to determine its presence or absence in every case, have recognized and applied certain negative tests to establish want of invention. *Walker on Pats.* sees. 24, 29. But when, upon the application of these tests, the question of invention is still left in doubt, such doubts may be resolved in favor of the patent by evidence of successful results when others have tried and failed. — *American v. Universal*, 151 Fed. 595; 81 C. C. A. 139.

Loom Co. v. Higgins, 105 U. S. 580; *Steel Co. v. Cambria*, 185 U. S. 403; *Singer v. Schenck*, 77 Fed. 841; *Brunswick v. Thum*, 111 Fed. 904; *Frost Co. v. Cohn*, 119 Fed. 505; *Rumford v. Baking Co.* 134 Fed. 385.

When an existing process or device thus discloses what appear to be insuperable objections to practical operation, it is persuasive evidence of invention that an improver has the foresight and courage to break away from such disclosures and conceive of some new method involving a different principle, but it is also evidence of invention if one, by taking a step forward sees that what appears to be barriers to progress are mere obstructions to side paths and byways, and that the road to a practical invention lies straight before him. — *American v. Universal*, 151 Fed. 595; 81 C. C. A. 139.

What the adaptation does in practical operation upon widely used machines in cotton spinning and twisting, old and new machines alike, as compared with the older adaptations, goes far toward demonstrating the fact of invention. Though the patent is for an improved thread-guide support, rather than for a new and original discovery, its practical success is such as to entitle it to favorable consideration, and to relieve it in a measure from the operation of the narrow rules of construction which ordinarily apply to patents for improvements which only slightly advance the art, and accomplish only unimportant and inconsiderable results. — *Houghton v. Whitin*, 153 Fed. 740; 83 C. C. A. 84.

§ 649. **Manufacture.**

The patent covered as an article of manufacture a rubber tip for a pencil — not in combination and not of any shape or design. *Held*: Void as there was no novelty in the rubber tip independent of its particular shape form and use in combination, none of which were claimed. — *Rubber Tip v. Howard*, 87 U. S. 498; 22 L. Ed. 410.

A claim which does not describe an article differing at all in its completed state from prior articles is clearly invalid. — *Risdon v. Medart*, 158 U. S. 68; 39 L. Ed. 899; 15 S. Ct. 745.

It is not enough that the new manufacture, because of the fitness of the material to the purposes of the article, has obviated innumerable objections inherent in prior manufactures and superseded them in the trade. It must possess an advantage and novelty in form or construction beyond the ability of a mechanic of ordinary skill and intelligence, or be the result of means or methods devised by the maker. — *Kilbourne v. Bingham*, 50 Fed. 697; 1 C. C. A. 617.

Hollister v. Mfg. Co. 113 U. S. 72; *Smith v. Elliott*, 9 Blatchf. 403; *Morgan v. Seward*, Web. P. C. 174; *Smith v. Vulcanite*, 93 U. S. 492.

An article of manufacture which differs from other similar articles only in degree of quality, is not patentable as such. — *Blumenthal v. Burrell*, 53 Fed. 105; 3 C. C. A. 462.

Wood Paper Patent, 23 Wall. 566.

A mere form of construction which affords increased beauty may enter into a design patent but not a patent for a structure. — *Soehner v. Favorite*, 84 Fed. 182; 28 C. C. A. 317.

There is no clear line of demarkation between what may be called a new article of commerce, not patentable though useful, and new articles of manu-

facture patentable as such. Each instance brought the attention of the court must be determined more or less upon the situation peculiar to itself. We think it sufficient to say that no result of a machine or process is patentable independently, where it is apparent that such result is a degree only in advance, in the evolution of an art that is as wide as the manufacture of cereal foods and flour. — *Cerealine v. Bates*, 101 Fed. 272; 41 C. C. A. 341.

That where the patent is for a new article of manufacture, and the means for producing it are old, and the article itself is merely the result of transferring such means from an analogous art, and possesses characteristics similar to those of the articles of the analogous art, the patent is void, see, *Weierman v. Shaw*, 157 Fed. 928; 85 C. C. A. 222.

§ 650. Mathematical Formula.

But when the patentee in his claim enumerates as one element of his combination a wire of a length which will accomplish the result sought to be achieved, and his patent discloses a method for determining that length with mathematical exactness, his claim may fairly be sustained for the length thus shown, although it might be that some other length covered by the language of the claim, but not of the rule, would fall outside the claim. The "length of wire exposed," etc., "operated by," etc., "substantially as set forth," is the length of wire that the specification shows as the result of a given formula. The so-called "Stanley rule" is therefore a part of the invention disclosed and claimed in the patent, — indeed, it would seem to be the main part of the invention, — and, with the patent thus construed, the citations from the prior art show neither anticipation nor lack of invention. The whole argument of defendants on that branch of the case is so interwoven with the postulate that the Stanley rule is to be eliminated from the patent that when the postulate is not granted the argument becomes wholly unpersuasive. — *Westinghouse v. Saranac*, 113 Fed. 884; 51 C. C. A. 514.

§ 651. Means.

The invention covered must consist of a new and useful means of obtaining the end sought. In other words, the subject of a patent is the device or mechanical means by which the desired result is to be secured. — *Knapp v. Morss*, 150 U. S. 221; 37 L. Ed. 1059; 14 S. Ct. 81.

Carver v. Hyde, 41 U. S. 519; *Leroy v. Tatham*, 55 U. S. 156; *Corning v. Burden*, 56 U. S. 252; *Burr v. Duryee*, 68 U. S. 531; *Fuller v. Yentzer*, 94 U. S. 288.

Novelty must be a novelty in the means or mechanical device and not in the use to which the combination is put. — *Wollensak v. Sargent*, 151 U. S. 221; 38 L. Ed. 137; 14 S. Ct. 291.

Knapp v. Morss, 150 U. S. 221.

Patents cover means employed to effect results. — *Miller v. Eagle*, 151 U. S. 186; 38 L. Ed. 121; 14 S. Ct. 310.

Rubber Tip Pencil Co. v. Howard, 87 U. S. 507; *Fuller v. Yentzer*, 94 U. S. 288; *Roberts v. Ryer*, 91 U. S. 150; *Stow v. Chicago*, 104 U. S. 547.

In such case any appropriate means for making it operative will be understood. Otherwise the infringer might take the most important part of an invention and, by changing the method of adapting it to the machine to which it is an improvement, avoid the charge of infringement. The invention of a needle with an eye near the point is the basis of all the sewing machines used; but the methods of operating such a needle are many, and if Howe had been obliged to make his own method a part of every claim in which the

needle was an element, his patent would have been practically worthless. — *Deering v. Winona*, 155 U. S. 286; 39 L. Ed. 153; 15 S. Ct. 118.

If the inventor were in fact the first to invent the device of the patent, he is entitled to a patent therefor, though the infringer may make use of other means than those employed by him to operate it. — *Deering v. Winona*, 155 U. S. 286; 39 L. Ed. 153; 15 S. Ct. 118.

Webster v. Higgins, 105 U. S. 580.

The results attained by the means employed by the patent in suit are not in conflict with the rule of *Knapp v. Morss*, 150 U. S. 221; and *Wollensak v. Sargent*, 151 U. S. 227, that the end or purpose sought to be accomplished by a device is not the subject of a patent. The fallacy of defendant's argument lies in the assumption that the object to be accomplished was the moving of the wing instead of the more perfect operation of the rods. — *National v. Boston*, 156 U. S. 502; 39 L. Ed. 511; 15 S. Ct. 434.

Brown v. Piper, 91 U. S. 37; *Penna. v. Locomotive*, 110 U. S. 490; *Aron v. Manhattan*, 132 U. S. 84; *Wollensak v. Sargent*, 151 U. S. 221; *Blake v. San Francisco*, 113 U. S. 679; *St. Germain v. Brunswick*, 135 U. S. 227.

While it is true under the rule of *Knapp v. Morss*, 150 U. S. 221; *Wollensak v. Sargent*, 151 U. S. 227; that the end or object of an invention is not patentable, that the means, not the end, is the patentable subject matter, and while it is also true in view of *Brown v. Piper*, 91 U. S. 37; *Penna. v. Locomotive*, 110 U. S. 490; *Aron v. Manhattan*, 132 U. S. 84; *Wollensak v. Sargent*, supra; *Blake v. San Francisco*, 113 U. S. 679; and *St. Germain v. Brunswick*, 135 U. S. 227; that the employment of old and well known means to a new and analogous use is not patentable, — yet in a case where a desired function is accomplished by the employment of old means remotely analogous, such a degree of skill may be required as to involve the inventive faculty; and in that case it is the idea of means, though old, that is patentable, and not the end attained. — *National v. Boston*, 156 U. S. 502; 39 L. Ed. 511; 15 S. Ct. 434.

It is the character of the means employed, and not the inventions or details of forms, which denote the substance of the invention. — *Union v. Battle Creek*, 104 Fed. 337; 43 C. C. A. 560.

Morey v. Lockwood, 8 Wall. 230; *Ives v. Hamilton*, 92 U. S. 431; *Elizabeth v. Pavement Co.* 97 U. S. 137.

The Knowles & Tatham patent is merely for an improved form of means for accomplishing an old result. It does not employ any new mechanical principles or any essentially new mode of operation. The substance of the invention resides in the form of the means. It is a case where form and substance are inseparable. — *Lowell v. Saco*, 122 Fed. 632; 58 C. C. A. 324.

Winans v. Denmead, 15 How. 330.

In our opinion, upon full consideration, the device belongs to that class of inventions in which the invention resides, in the language of the Supreme Court in *Hobbs v. Beach*, 180 U. S. 383, rather in "the idea that such change could be made than in making the necessary mechanical alterations." Other inventors had been engaged in perfecting these machines, and yet it never occurred to anyone before that the old, cumbersome, and troublesome method of running off the nines could be obviated by this simple device. — *Comptograph v. Mechanical*, 145 Fed. 331; 76 C. C. A. 205.

§ 652. Mechanical Skill -- Adaptation.

Unless more ingenuity and skill in applying the old method of fastening the shank and the knob were required in the application of it to the clay or porcelain knob than were possessed by an ordinary mechanic acquainted with the business, there was an absence of that degree of skill and ingenuity which constitute essential elements of every invention. In other words the improvement is the work of the skillful mechanic, not that of the inventor. — *Hotchkiss v. Greenwood*, 11 How. 248; 13 L. Ed. 683.

To cut the material so as to get the grain in a particular way, and so as to avoid waste, requires simple mechanical skill, without involving invention. — *Brown v. D. C.* 130 U. S. 87; 32 L. Ed. 863; 9 S. Ct. 437.

It does not involve invention to place the gripping device of a cable railway system on a dummy car and attaching the dummy to a carrying car calculated to be used also upon other than cable systems. — *Butte City v. Pacific*, 60 Fed. 410; 9 C. C. A. 41.

The mere adaptation of means to avoid binding or friction, as changing the point of application of a force, such as would occur to any mechanic is not invention. — *Union v. Smith*, 69 Fed. 827; 16 C. C. A. 451.

Stirrat v. Mfg. Co. 61 Fed. 980.

The adaptation of a spring in form and location merely to make a more effective bicycle brake is not invention. — *Gormully v. Western*, 84 Fed. 968; 28 C. C. A. 586.

Invention cannot be predicated merely on making holes for purposes of ventilation. — *Tileston v. Vaughan*, 149 Fed. 999; 79 C. C. A. 509.

§ 653. Mechanical Skill -- Aggregation.

Mere duplication of parts, as placing two panes of glass where there was only one before, is not invention, but ordinary mechanical skill. — *Slawson v. Grand*, 107 U. S. 649; 27 L. Ed. 576; 2 S. Ct. 663.

Hotchkiss v. Greenwood, 11 How. 248; *Phillips v. Paige*, 24 How. 167; *Dunbar v. Meyers*, 94 U. S. 187; *Stimpson v. Woodman*, 10 Wall. 117; *Brown v. Piper*, 91 U. S. 37; *Atlantic v. Brady*, 107 U. S. 192.

Mere aggregation of old devices and elements, though useful, is not invention. — *Watson v. Cincinnati*, 132 U. S. 161; 33 L. Ed. 295; 10 S. Ct. 45.

§ 654. Mechanical Skill -- Carrying Forward.

The general rule stated in terms of *Smith v. Nichols*, 88 U. S. 112; and *Penna. v. Locomotive*, 110 U. S. 490. — *Stephenson v. Brooklyn*, 114 U. S. 149; 29 L. Ed. 58; 5 S. Ct. 777.

Vinton v. Hamilton, 104 U. S. 485; *Blake v. San Francisco*, 113 U. S. 679.

A mere carrying forward of an original conception, resulting in an improvement in degree, is only the exercise of ordinary mechanical skill. — *Consolidated v. Walker*, 138 U. S. 124; 34 L. Ed. 920; 11 S. Ct. 292.

Burt v. Evory, 133 U. S. 349; *Hollister v. Benedict*, 113 U. S. 59; *Thompson v. Boisselier*, 114 U. S. 1; *Aron v. Manhattan*, 132 U. S. 82; *Hill v. Wooster*, 132 U. S. 693; *Howe v. National*, 134 U. S. 388.

A mere carrying forward, or new or more extended application of the original thought, a change only in form, proportions or degree, the substi-

tution of equivalents doing substantially the same thing in the same way by substantially the same means with better results, is not such invention as will sustain a patent. — *Ansonia v. Electrical*, 144 U. S. 11; 36 L. Ed. 327; 12 S. Ct. 601.

Smith v. Nichols, 88 U. S. 112; *Morris v. McMillin*, 112 U. S. 244; *Busell v. Stevens*, 137 U. S. 423.

The adaptation of the process of tempering clock bells to that of helical coil springs held to be a mere carrying forward of an old process. — *Lovell v. Cary*, 147 U. S. 623; 37 L. Ed. 307; 13 S. Ct. 472.

Hollister v. Benedict, 113 U. S. 59.

It matters not that the means might have been so feeble or inadequate as to only imperfectly perform their duty; the mere extension of those means in size and number, or change of form, would not, in the absence of special circumstances, make the improvement produced thereby patentable. "It is a mere difference in degree; the carrying forward of an old idea; a result perhaps more perfect than had heretofore been attained, but not rising to the dignity of invention." — *Wells v. Curtis*, 66 Fed. 318; 13 C. C. A. 494.

Wright v. Yuengling, 155 U. S. 47.

A thing or a combination of cooperating parts may be invented and the original embodiment of it will be shown in a crude and imperfect form. The skill of the trained workman will develop the idea of the inventor in more refined, more delicate and more exactly suitable forms than the original. He may cut away needless bulk, he may increase the size of parts, he may make them stronger, if need be, by the substitution of one familiar material for another, make them lighter or heavier, he may divide one part into two, or combine two in one, or make any other transformation of details, so long as he is pursuing and working out the original discovery or invention by the exercise of the insight, good judgment, and expertness which he is expected to possess and apply. And this improvement may go on so long as any improvement in bringing the means already supplied to greater perfection can be made, and yet it continues to be only an embodiment of the primal idea. — *Bullock v. General*, 149 Fed. 409; 79 C. C. A. 229.

The time was so short after the introduction of the direct current dental motor that it would seem the alternating current motor of the patent was produced as a development due to the gradual extension of the use of commercial alternating currents. The record does not make out a case "where the need had long been apparent and various persons had vainly sought to accomplish the desired result." — *Pieper v. Electro-Dental*, 160 Fed. 930; 88 C. C. A. 112.

Electric v. Jamaica, 61 Fed. 655.

The mere bringing together of old elements which in their new places do no more than their original work and do not co-operate with other elements in doing something new and useful is not invention. — *National v. Aiken*, 163 Fed. 254; C. C. A.

Thatcher v. Burtis, 121 U. S. 286; *Richards v. Chase*, 158 U. S. 299; *Campbell v. Duplex*, 101 Fed. 282; *Goodyear v. Rubber*, 116 Fed. 363; *Johnson v. Foos*, 141 Fed. 73.

§ 655. Mechanical Skill — Change of Form.

Merely to change the form of a machine is the work of a constructor, not an inventor. Such a change cannot be deemed an invention. — *Winans v. Denmead*, 15 How. 330; 14 L. Ed. 717.

Change of form, though better, is not invention. — *Belding v. Challenge*, 152 U. S. 100; 38 L. Ed. 370; 14 S. Ct. 492.

Roberts v. Ryer, 91 U. S. 150.

A mere difference or change in the mechanical construction in the size or form of the thing used, in order to obviate known defects existing in the previous devices, although those changes are highly advantageous, and far better and more efficacious and convenient, does not make the improved device patentable. In order to be patentable, it must embody some new idea or principle not before known. It must, as before stated, be a discovery, as distinguished from mere mechanical skill or knowledge. *Atlantic v. Brady*, 107 U. S. 192; *Hollister v. Benedict*, 113 U. S. 59; *Thompson v. Boisselier*, 114 U. S. 2; *Busell v. Stevens*, 137 U. S. 423; *Andrews v. Thum*, 67 Fed. 911. Nor does the fact that better material is used in constructing the device, such material being well known as adapted to the purpose for which it is used, make the device patentable.

In *Hotchkiss v. Greenwood*, 11 How. 248, where it was held that the substitution of porcelain for metal in making door knobs of a particular construction was not patentable, the court said: "No one will pretend that a machine made, in whole or in part, of materials better adapted to the purpose for which it is used than the materials of which the old one is constructed, and for that reason better and cheaper, can be distinguished from the old one, or, in the sense of the patent law, can entitle the manufacturer to a patent. It may afford evidence of judgment and skill in the selection and adaptation of the materials in the manufacture of the instrument for the purposes intended, but nothing more." — *Klein v. Seattle*, 77 Fed. 200; 23 C. C. A. 114.

See also *Hicks v. Kelsey*, 18 Wall. 670; *Dunbar v. Myers*, 94 U. S. 187; *Florsheim v. Schilling*, 137 U. S. 64.

A mere change of curvature, or of form, or to a veneer from a single piece does not involve invention. — *Brunswick v. Phelan*, 79 Fed. 85; 24 C. C. A. 451.

Hicks v. Kelsey, 18 Wall. 670.

Each element, taken by itself, has its own effect, and it is also difficult to understand how it was that the practised eye of skilled mechanics did not at once see and apply the necessary remedy to the troublesome evil which the invention removes. The fact however, that such an evil long existed, and that no mechanic perceived or applied the remedy, is the most conclusive evidence that something more than his eyes and skill were required to discover and apply the requisite device. If nought but the skill of the mechanic was required to make this improvement it is passing strange that no mechanic ever made it until after Martin discovered and described it. The best evidence that the application of the internal-spur-wheel of the new use of propelling the machinery of a windmill would not occur to a person of ordinary mechanical skill, is that it did not occur to any one of them in all the years in which windmills had been in use before Martin discovered and applied it. — *Mast v. Dempster*, 82 Fed. 327; 27 C. C. A. 191.

Electric v. LaRue, 139 U. S. 601; *Crane v. Price*, Web. Pat. C. 409; *Potts v. Creager*, 155 U. S. 597; *Thomson v. Bank*, 53 Fed. 250; *Loom Co. v. Higgins*, 105 U. S. 580; *Consolidated v. Crosby*, 113 U. S. 157; *Magowan v. Packing Co.* 141 U. S. 332; *Barbed Wire Pat.* 143 U. S. 275.

It is the mere adaptation by the art of skill already possessed to the mechanical and technical solutions of a new draft on its resources. When existing skill meets such demand, there is no exercise of the higher faculty of original, creative invention. — *Way v. McClarin*, 96 Fed. 416; 37 C. C. A. 516.

Hollister v. Mfg. Co. 113 U. S. 59.

§ 656. Mechanical Skill — Definition and Distinction from Invention.

An instrument of manufacture which is the result of mechanical skill merely is not patentable. Mechanical skill is one thing; invention is a different thing. Perfection of workmanship, however much it may increase the convenience, extend the use, or diminish expense, is not patentable. The distinction between mechanical skill, with its conveniences and advantages and inventive genius, is recognized in all the cases. — *Reckendorfer v. Faber*, 92 U. S. 347; 23 L. Ed. 719.

Rubber v. Howard, 20 Wall. 498; *Curtis*, sec. 726.

The improvement consists in simply taking a material well known and long used, and constructing a pavement in a method well known and long used. It is plain that the improvement described in the patent was within the mental reach of any one skilled in the art to which the patent relates, and did not require invention to devise it, but only the use of ordinary judgment and mechanical skill. It involves merely the skill of a workman and not the genius of an inventor. — *Phillips v. Detroit*, 111 U. S. 604; 28 L. Ed. 532; 4 S. Ct. 580.

Hotchkiss v. Greenwood, 11 How. 248; *Hailes v. Van Wormer*, 20 Wall. 353; *Smith v. Nichols*, 21 Wall. 112; *Reckendorfer v. Faber*, 92 U. S. 347; *Atlantic v. Brady*, 107 U. S. 93; *Howe v. Abbott*, 2 Story. 190; *Key v. Marshall*, 8 Clark & F. 245; *Stimpson v. Woodman*, 10 Wall. 117; *Pencil v. Howard*, 20 Wall. 498; *Slawson v. R. R.* 107 U. S. 649; *King v. Gallun*, 109 U. S. 99.

Criteria by which one may be distinguished from the other in *McClain v. Ortmyer*, 141 U. S. 419; 35 L. Ed. 800; 12 S. Ct. 76.

It is not easy to draw a line that separates the ordinary skill of a mechanic versed in his art from the exercise of patentable invention, and the difficulty is especially great in the mechanic arts, where the successive steps in improvements are numerous, and where the changes and modifications are introduced by practical mechanics. — *Krementz v. Cottle*, 148 U. S. 556; 37 L. Ed. 558; 13 S. Ct. 719.

The task of distinguishing between invention and the power of adaptation possessed by a skillful mechanic is not always an easy one, nor have the courts apparently succeeded in formulating a proposition to cover all cases. While the statutes require that a patent, to be valid, must disclose invention and novelty, yet the degree or amount of invention required is not prescribed, and, from the nature of the case, cannot be. — *Hillborn v. Hale*, 69 Fed. 958; 16 C. C. A. 569.

It is true, as contended by counsel for the appellants, that no general definition has been found which clearly marks the distinction between invention and mechanical skill, and it is always difficult, and oftentimes impossible, to determine with certainty that the conception of a device was "spontaneous, and by a necessity of human reasoning," and that any doubt in that regard should then be resolved in favor of invention, unless it is clearly placed within the domain of mere mechanical construction by some of the well settled rules of the patent law. — *Baldwin v. Kresl*, 76 Fed. 823; 22 C. C. A. 593.

Long practice and observation naturally lead those familiar with the arts to the perception of new adaptations. Mechanical education and skill, fostered and promoted by the public, are rapidly advancing in every direction, and there is a constant and universal endeavor in handicraft to utilize that which is known, and press it into service in practical arts. But the steps

of this normal progress and improvement are not invention, nor the subject of monopoly to one who, in the exercise of the "skill of his calling," has put an old thing to a new use. — *Capital v. Kinnear*, 87 Fed. 333; 31 C. C. A. 3.

The line between mechanical ingenuity and invention is sometimes very hard to draw. It is a question of fact, and one upon which the opinions of men differ. In the present case, this court differs from the court below, and holds invention to be present in the Morrison device. — *Kisinger-Ison v. Bradford*, 97 Fed. 502; 38 C. C. A. 300.

No one has yet been able to formulate a test whereby a line of demarkation between the products of the inventor's intuition and the results of the skill of the mechanic may be surely drawn in all cases as they arise. That question is and always must be left for determination by a careful exercise of the judgment, enlightened by a knowledge of the state of the art and of the advance in it which the device in question makes, and guided by the established rules and principles of the law. The two classes of cases led by *Atlantic Works v. Brady*, 107 U. S. 192, and *Loom Co. v. Higgins*, 105 U. S. 580, have been again cited and reviewed for our guidance. — *Kinloch v. Western*, 113 Fed. 659; 51 C. C. A. 369.

There will always be a point where ordinary mechanical skill and invention are so closely associated as to make it difficult to say upon which side of the line the particular matter lies. Where this is the case the doubt should be settled in favor of the patent. But by analogy to a number of well-known precedents we have no trouble in holding that the present case (the use of zinc to hold a frog-plate in place, zinc having been used analogously) is not one of invention. — *Johnson v. Toledo*, 119 Fed. 885; 56 C. C. A. 415.

Mfg. Co. v. Cary, 147 U. S. 623; *Penn. v. Locomotive*, 110 U. S. 490; *Mast v. Stover*, 177 U. S. 485; *Stearns v. Russell*, 85 Fed. 218; *Ansonia v. Electrical*, 144 U. S. 11; *Schreiber v. Grimm*, 72 Fed. 671; *Aron v. Railroad*, 132 U. S. 84; *Brown v. Piper*, 91 U. S. 37; *Roberts v. Ryer*, 91 U. S. 150; *Griswold v. Wagner*, 68 Fed. 494.

It is not necessary to the patentable novelty of a device, which consists in employing a new material for an old one in constructing one of its parts, that the substitution should involve the discovery or utilization of an unknown or unexpected property of the material. This is one of the tests of patentable novelty, but it is not the only one. Whether the feature of novelty is the employment of a new material, or a change of adaptation in other respects, the inquiry always is whether what was done involved the exercise of inventive faculty as distinguished from the ordinary skill of the calling. When the substitution has accomplished a result which those skilled in the art had long and vainly sought to effect, the evidence that it involved something beyond the skill of the calling is so persuasive that it generally resolves the inquiry in favor of patentable novelty. — *Frost v. Cohn*, 119 Fed. 505; 56 C. C. A. 185.

The law does not allow mere mechanical skill to usurp the place of invention, which involves higher thought, and brings different faculties into activity. It will not allow one to take from the public that which the public already has, or grant exclusive privilege which the patent confers without consideration. It therefore is the duty of the courts, which, in the last analysis, are the guardians of the public interest, to scrutinize with care every attempt to establish the monopoly which the patent gives, to examine the state of the art, and to see if the idea expressed in the invention has ever been communicated to the public, and was in such a stage of development

in a prior patent that a skilled mechanic working upon the plan or principle therein suggested, could by mechanical means attain the result which the patentee attains. To constitute anticipation the previous patent should not only suggest the idea, but indicate the means and essential elements so distinctly that a mechanic versed in the art, in the light of the patent and of the state of the art at the time the same was granted, and not in the light of subsequent discoveries, could make, construct and practise the invention without the exercise of his own inventive skill. — *Imperial v. Crown*, 139 Fed. 312; 71 C. C. A. 442.

For a long and labored discussion of the questions of mechanical skill, invention, utility as evidencing invention, and prior unsuccessful attempts to attain an end as evidence of invention, see *Imperial v. Crown*, 139 Fed. 312; 71 C. C. A. 442.

§ 657. Mechanical Skill — Degree of Knowledge and Skill.

The improvement consists in simply taking a material well known and long used, and constructing a pavement in a method well known and long used. It is plain that the improvement described in the patent was within the mental reach of any one skilled in the art to which the patent relates, and did not require invention to devise it, but only the use of ordinary judgment and mechanical skill. It involves merely the skill of the workman and not the genius of the inventor. — *Phillips v. Detroit*, 111 U. S. 604; 28 L. Ed. 532; 4 S. Ct. 580.

Hotchkiss v. Greenwood, 11 How. 248; *Hailes v. Van Wormer*, 20 Wall. 353; *Smith v. Nichols*, 21 Wall. 112; *Reckendorfer v. Faber*, 92 U. S. 347; *Atlantic v. Brady*, 107 U. S. 193; *Howe v. Abbott*, 2 Story, 190; *Key v. Marshall*, 8 Clark & F. 245; *Stimpson v. Woodman*, 10 Wall. 117; *Pencil v. Howard*, 20 Wall. 498; *Slawson v. R. R.* 107 U. S. 649; *King v. Gallun*, 109 U. S. 99.

As soon as the mischief became apparent, and the remedy was seriously and systematically studied by those competent to deal with the subject, the present regulation was promptly suggested and adopted, just as a skilled mechanic, witnessing the performance of a machine inadequate by reason of some defect, to accomplish the object for which it had been designed; by the application of his common knowledge and experience, perceives the reason of the failure and supplies what is obviously wanting. It is but the display of the expected skill of the calling and involves only the exercise of the ordinary faculties of reasoning upon the materials supplied by a special knowledge, and the faculty of manipulation which results from the habitual and intelligent practice; and is in no sense the creative work of the inventive faculty which it is the purpose of the Constitution and the patent laws to encourage and reward. — *Hollister v. Benedict*, 113 U. S. 59; 28 L. Ed. 901; 5 S. Ct. 717.

The suggestion of such a change as would occur to the rudest and most unskilled mechanic could not be called invention, and ought not to be dignified by letters patent. — *Yale v. Greenleaf*, 117 U. S. 554; 29 L. Ed. 952; 6 S. Ct. 846.

Atlantic v. Brady, 107 U. S. 192; *Slawson v. Grand*, 107 U. S. 649; *Phillips v. Detroit*, 111 U. S. 604.

Given a disk-shaped file with a continuous cutting surface that clogs and chatters in action, and the plain statements of the patents to Keebles and Prescott which declare that the remedy for that evil is a broken cutting surface, and the problem Wright claims to have solved becomes so simple that one who is not a mechanic could hardly fail to perceive that the evil would

be remedied by cutting off the sides of the disk. This was all that Wright did. — *Samson v. Donaldson*, 69 Fed. 621; 16 C. C. A. 342.

Stirrat v. Mfg. Co. 61 Fed. 980; *Atlantic v. Brady*, 107 U. S. 192; *Vinton v. Hamilton*, 104 U. S. 485; *Slawson v. Railroad*, 107 U. S. 649; *King v. Gallun*, 109 U. S. 99; *Double Pointed v. Two Rivers*, 109 U. S. 117; *Estey v. Burdett*, 109 U. S. 633; *Busey v. Mfg. Co.* 110 U. S. 131; *Phillips v. Detroit*, 111 U. S. 604; *Morris v. McMillin*, 112 U. S. 244.

Although his pertinacity, diligence, money and skill has made his machine a success, his improvements are not thereby taken out of the domain of mechanical skill. — *Birmingham v. Gates*, 78 Fed. 350; 24 C. C. A. 132.

Atlantic v. Brady, 107 U. S. 199.

The need, such as it was, was not obscure; and granting that the remedy was not obvious to the ordinary mechanic, possessed of only the common skill and learning of his profession, yet, to one who was conversant, as Brown is necessarily presumed to have been, with the devices which scientific learning had already given to the world and had employed in this very art, it was not far to seek, and, indeed, was manifest. — *Brown v. King*, 107 Fed. 498; 46 C. C. A. 432.

Note: The soundness of this rule is seriously questioned. It is doubtful if it may be left to the Chancellor, to determine by his own judgment, the particular status of the particular engineer to whom the test of mechanical skill is to be applied. If this already shadowy rule may be made further obscure by giving the Court the right to determine the degree of intelligence and education necessarily possessed by the inventor, the rule would seem to be so vague as to have lost all of its usefulness.

This is apparent (that it was mere mechanical skill) from the fact that Brown and Gilmour each left this to the judgment of the workman or craftsman whom he employed. In view of the Little patent it did not involve invention to supply the means. They were at hand in the prior art. — *Lincoln v. McWhirter*, 142 Fed. 967; 74 C. C. A. 229.

Mast v. Stover, 177 U. S. 493; *Aron v. Manhattan*, 132 U. S. 84.

§ 658. Mechanical Skill — Dividing or Uniting Parts.

The prior art shows and the patent admits that such a thing in two pieces was old. That it does not involve invention merely to make such a lining in one piece is well settled. *Howard v. Detroit*, 150 U. S. 164; *Standard v. Caster*, 113 Fed. 162. Nor would the mere fact that the one-piece device was cheaper or more durable constitute invention when such results were merely such ordinary consequences of dispensing with joints as would naturally be anticipated by the workman. *Mfg. Co. v. Holzer*, 67 Fed. 907. — *General v. Yost*, 139 Fed. 568; 71 C. C. A. 552.

The hopper formed of two annular sections does not alter the operation of the crusher. Was this more than the employment of obvious mechanical expedients which would naturally occur to a skilled mechanic or engineer in the intelligent practice of his calling? We think not. To divide into parts what cannot be conveniently handled as a whole is elementary, if not instinctive, and to make the division of circular objects along circular lines has long been common. — *Gates v. Overland*, 147 Fed. 700; 78 C. C. A. 88.

Atlantic v. Brady, 107 U. S. 192; *Hendy v. Miners'*, 127 U. S. 370.

§ 659. Mechanical Skill — Improvement.

The plan covered by the claims is not "the creative work of that inventive faculty which it was the purpose of the constitution and the patent laws

to encourage and reward." To sustain these claims would be to sanction a monopoly in that which belongs to the public. — *Westinghouse v. Edison*, 63 Fed. 588; 11 C. C. A. 342.

Hollister v. Mfg. Co. 113 U. S. 59; *Atlantic v. Brady*, 107 U. S. 192.

A mere improvement in operation by the employment of well known elements and combinations in a well known art with no change of result is not of itself necessarily invention. — *Excelsior v. Foote*, 79 Fed. 442; 24 C. C. A. 673.

Indeed, while *Scribner*, in the earlier patent, may not have contributed to electrical knowledge the exact concept embodied in the inner combination of the patent suit, but did contribute there to the thought that led up to his later thought. — *Western v. Galesburg*, 144 Fed. 684; 75 C. C. A. 500.

§ 660. Mechanical Skill — Increased Efficiency.

It is no more than mechanical skill to perform with increased speed a series of surgical operations old in themselves and in the order in which they were before performed. — *International v. Gaylord*, 140 U. S. 55; 35 L. Ed. 347; 11 S. Ct. 716.

A more thorough doing of that which has already been done is not invention. — *Ansonia v. Electrical*, 144 U. S. 11; 36 L. Ed. 327; 12 S. Ct. 601.

§ 661. Mechanical Skill — Old Device, Analogous Use.

The mere adaptation of an old device to an analogous use to produce a known result with no other change than the substitution of a figured roller for a smooth one is not invention. — *Stimpson v. Woodman*, 77 U. S. 117; 19 L. Ed. 866.

The adaptation of an old device to an analogous use by a well known means of application does not involve invention. — *Bussey v. Excelsior*, 110 U. S. 131; 28 L. Ed. 95; 4 S. Ct. 38.

The employment of a device which would naturally suggest itself to any mechanic, used within the range of common knowledge and experience, and used here to perform an office exactly analogous to that in which it has been frequently formerly used is not invention. — *Day v. Fair Haven*, 132 U. S. 98; 33 L. Ed. 265; 10 S. Ct. 11.

Substituting a routing machine to perform that which was formerly done by hand to accomplish the same end is not invention. — *Corbin v. Eagle*, 150 U. S. 38; 37 L. Ed. 989; 14 S. Ct. 28.

The devising of means by which the temperature of the flowing water should be varied at different parts of the column, involved nothing but mechanical skill, and was plainly disclosed by *Richter's* patent. The question where the cooler water ought to be introduced and what the variations in temperature ought to be, were questions for experiment, and are not answered by anything in the patent. — *Solvay v. Michigan*, 90 Fed. 818; 33 C. C. A. 285.

Stearns v. Russell, 83 Fed. 218; *Steiner v. Adrian*, 59 Fed. 132.

That the use of well-known mechanical means or well-known mechanical methods to perform known functions, where the result is merely more effective, is only mechanical skill, see *U. S. Peg-Wood v. Sturtevant*, 125 Fed. 378; 60 C. C. A. 244.

Bates v. Keith, 82 Fed. 100; *affd.* 84 Fed. 1014; *Nutter v. Brown*, 98 Fed. 892; *Consolidated v. Holzer*, 67 Fed. 907.

Its location in its new environment evinced merely good judgment, and the slight changes necessary for the suitable adaptation of the associated parts evinced only ordinary mechanical skill. In short, the patentee invented no new device; he used it for no new purpose; he applied it to an old combination. All he did was to apply it to an old purpose in a different, but old, combination. This does not rise to the dignity of invention. — *Bradley v. Eccles*, 143 Fed. 521; 74 C. C. A. 478.

Mast v. Stover, 177 U. S. 493.

§ 662. Mechanical Skill — Old Device, New Use.

That mere combination of old devices is mechanical skill, see *Clark v. Ferguson*, 119 U. S. 335; 30 L. Ed. 406; 7 S. Ct. 387.

Vinton v. Hamilton, 104 U. S. 485; *Hall v. Macneale*, 107 U. S. 90; *Atlantic v. Brady*, 107 U. S. 192; *Slawson v. Grand*, 107 U. S. 649; *King v. Gallun*, 109 U. S. 99; *Double Pointed v. Two Rivers*, 109 U. S. 117; *Esty v. Burdett*, 109 U. S. 633; *Bussey v. Excelsior*, 110 U. S. 131; *Penna. v. Locomotive*, 110 U. S. 490; *Phillips v. Detroit*, 111 U. S. 604; *Morris v. McMillin*, 112 U. S. 244; *Hollister v. Benedict*, 113 U. S. 59; *Thompson v. Boissilier*, 114 U. S. 1; *Stephenson v. Brooklyn*, 114 U. S. 149; *Yale v. Greenleaf*, 117 U. S. 554; *Gardner v. Herz*, 118 U. S. 180.

Adaptation of an old device to a new use is presumably no more than mechanical skill. — *Knapp v. Morss*, 150 U. S. 221; 37 L. Ed. 1059; 14 S. Ct. 81.

Aron v. Manhattan, 132 U. S. 85.

The mechanical adaptation of a machine capable of large general use, such as the Blanchard former, to a specific use, such as a sole rounder involves only mechanical skill. — *Gibbon v. Loewer*, 79 Fed. 325; 24 C. C. A. 612.

Howe v. National, 134 U. S. 383.

As the inventor of a machine is entitled to all the uses to which it may be put it is not invention to apply that machine to a specific use after the patent has expired. — *Gibbon v. Loewer*, 79 Fed. 325; 24 C. C. A. 612.

Ansonia v. Electrical, 144 U. S. 11.

§ 663. Mechanical Skill — Old Elements, Old Result.

Combination of old elements which perform no new function and accomplish no new result does not involve patentable novelty. — *Knapp v. Morss*, 150 U. S. 221; 37 L. Ed. 1059; 14 S. Ct. 81.

If he has greatly increased the effectiveness of the mechanism he claims, his patent may be sustained, although his elements are old and no original result is accomplished, under the principle of *Loom Co. v. Higgins*, 105 U. S. 580. — *Muller v. Lodge*, 77 Fed. 621; 23 C. C. A. 357.

Barbed Wire Patent, 143 U. S. 275; *Topliff v. Topliff*, 145 U. S. 156.

It is a settled rule of law that the mere combination of several parts, chosen from old machines in the same art, to perform in a new machine the same functions which they performed in the old machines, where the adaptations are such as require only the skill of a mechanic trained in the art, is not patentable as an invention. — *Smith v. Ridgely*, 103 Fed. 875; 43 C. C. A. 365.

§ 664. Mechanical Skill -- Portability.

Merely putting rollers under an article, so as to make it movable, when, without rollers, it would not be movable, does not involve the inventive faculty. — *Hendy v. Golden*, 127 U. S. 370; 32 L. Ed. 207; 8 S. Ct. 1275.

Atlantic v. Brady, 107 U. S. 192; *Thompson v. Boissilier*, 114 U. S. 1; *Yale v. Greenleaf*, 117 U. S. 554; *Pomace v. Ferguson*, 119 U. S. 335.

The portability of a device is not patentable. — *Black Diamond v. Excelsior*, 156 U. S. 611; 39 L. Ed. 553; 15 S. Ct. 482.

Hendy v. Golden, 127 U. S. 370.

§ 665. Mechanical Skill — Strengthening or Increasing.

What is sought in all these patents is strength and lightness, together with cheapness and durability, but they are simply modes of construction. And that described in this patent embraces nothing that is not old and really nothing that is patentable, that is, which involves invention rather than mechanical skill. — *Pattee v. Kingman*, 129 U. S. 294; 32 L. Ed. 700; 9 S. Ct. 389.

It would certainly seem that the proportioning of parts was the work of a mechanic, and not of an inventor. — *American v. Driggs-Seabury*, 109 Fed. 83; 48 C. C. A. 241.

That strengthening parts by ordinary mechanical devices and mechanical skill does not constitute invention, see *American v. Wyeth*, 139 Fed. 389; 71 C. C. A. 485.

Smith v. Nichols, 21 Wall. 112; *Galvia v. Grand Rapids*, 115 Fed. 511; *Eames v. Worcester*, 123 Fed. 67.

It was a mere question of extent or degree, of an increase of the size of an existing device to more completely fulfil its purpose. — *Streit v. Kaiper*, 143 Fed. 981; 75 C. C. A. 167.

Smith v. Nichols, 21 Wall. 112; *Burt v. Ivory*, 133 U. S. 349; *Grant v. Walter*, 148 U. S. 547; *Market v. Rowley*, 155 U. S. 621; *Fox v. Perkins*, 52 Fed. 205; *Galvin v. Grand Rapids*, 115 Fed. 511; *Eames v. Worcester*, 123 Fed. 67.

§ 666. Mechanical Skill — Miscellaneous Decisions.

The mere addition of a cinder notch to a blast furnace, to perform the same function it had performed in a cupola furnace did not involve invention. — *Vinton v. Hamilton*, 104 U. S. 485; 26 L. Ed. 807.

The suggestion of such a change as would occur to the rudest and most unskilled mechanic could not be called invention and ought not to be dignified by letters patent. — *Yale v. Greenleaf*, 117 U. S. 554; 29 L. Ed. 952; 6 S. Ct. 846.

Atlantic v. Brady, 107 U. S. 192; *Slawson v. Grand*, 107 U. S. 649; *Phillips v. Detroit*, 111 U. S. 604.

That mechanical skill is not invention, see *Ansonia v. Electrical*, 144 U. S. 11; 36 L. Ed. 327; 12 S. Ct. 601.

Simply to do by a steam attachment, without novelty of application or operation, what had previously been done by hand does not disclose invention. — *Stillwell-Bierce v. Eufaula*, 117 Fed. 410; 54 C. C. A. 584.

That the improvement being a perfectly self-evident step which would occur to any mechanic, and being the natural and only change that could

be made to meet the demand is mere mechanical skill, see *American v. Morris*, 142 Fed. 166; 73 C. C. A. 384.

§ 667. Novelty — Definitions and Distinctions.

It is an elementary proposition in patent law, that, to entitle a plaintiff to recover for the violation of a patent, he must be the original inventor, not only in relation to the U. S. but to other parts of the world. Even if the plaintiff did not know that the discovery had been made before, still he cannot recover if it had been in use or described in public prints, and if he be not in truth the original inventor. — *Sewall v. Jones*, 91 U. S. 171; 23 L. Ed. 275.

Dawson v. Follen, 2 Wash. C. C. 311; *Bedford v. Hunt*, 1 Mas. 302.

Hotchkiss v. Greenwood, 11 How. 248, does not decide that no use of one material in lieu of another in the formation of a manufacture can, in any case, amount to invention, or be the subject of a patent. If such a substitution involves a new mode of construction, or develops new uses and properties of the article formed, it may amount to invention. The substitution may be something more than formal. It may require contrivance, in which case the mode of making it would be patentable; or the result may be productive of an analogous but substantially different manufacture. — *Smith v. Goodyear*, 93 U. S. 486; 23 L. Ed. 952.

Hicks v. Kelsey, 18 Wall. 670; *Crane v. Price*, 1 Web. P. C. 393; *Knease v. Bk.* 4 Wash. C. C. 9.

The degree of ability necessary to constitute patentable invention must be beyond ordinary mechanical skill. — *Dunbar v. Meyers*, 94 U. S. 187; 24 L. Ed. 34.

Hotchkiss v. Greenwood, 11 How. 267; *Phillips v. Paige*, 24 How. 167; *Jones v. Morehead*, 1 Wall. 162; *Stimpson v. Woodman*, 10 Wall. 121; *Hicks v. Kelsey*, 18 Wall. 670; *Brown v. Piper*, 91 U. S. 38; *Smith v. Nichols*, 21 Wall. 115; *Howe v. Abbott*, 2 Story, 194; *Bean v. Smallwood*, 2 Story, 411; *Glue v. Upton*, 6 O. G. 842, 7 O. G. 648.

Exclusive rights of the kind are granted only to inventors or discoverers of some new and useful art, machine, manufacture or composition of matter or some new and useful improvement thereof; and the law is well settled that nothing short of invention or discovery will support a patent for any such alleged new and useful improvement. Certain other important conditions are also annexed to the exercise of the right to obtain such a muniment of title for such an invention or discovery; as, for example, the improvement must not only be new and useful, but it must be one not known or used by others in this country and not patented or described before the invention or discovery in any printed publication in this or any foreign country, and must not have been in public use or on sale more than two years prior to the application for a patent. — *Roemer v. Simon*, 95 U. S. 214; 24 L. Ed. 384.

Collar v. Van Dusen, 23 Wall. 531; *Dunbar v. Meyers*, 94 U. S. 187.

All improvement is not invention, and entitled to protection as such. Thus to entitle it, it must be the product of some exercise of the inventive faculties, and it must involve something more than what is obvious to persons skilled in the art. — *Packing Company Cases*, 105 U. S. 566; 26 L. Ed. 1172.

Quoting from *Pearce v. Mulford*, 102 U. S. 112.

Rubber Tip v. Howard, 87 U. S. 498; *Hotchkiss v. Greenwood*, 11 How. 248; *Stimpson v. Woodman*, 77 U. S. 117.

In passing upon the novelty of the alleged improvement covered by this patent we are permitted to consider matters of common knowledge or things in common use. — *Phillips v. Detroit*, 111 U. S. 604; 28 L. Ed. 532; 4 S. Ct. 580.

Brown v. Piper, 91 U. S. 37; *Terhune v. Phillips*, 99 U. S. 592; *King v. Gallun*, 109 U. S. 99; *Ah Kow v. Nunen*, 5 Sawy. 552.

Novelty and utility regardless of the inventive act do not confer patentability. — *Gardner v. Herz*, 118 U. S. 180; 30 L. Ed. 158; 6 S. Ct. 1027.

Thompson v. Boisselier, 114 U. S. 1; *Yale v. Greenleaf*, 117 U. S. 554.

What constitutes, see *Clark v. Ferguson*, 119 U. S. 335; 30 L. Ed. 406; 7 S. Ct. 382.

Vinton v. Hamilton, 104 U. S. 485; *Hall v. Macneale*, 107 U. S. 90; *Atlantic v. Brady*, 107 U. S. 192; *Slawson v. Grand*, 107 U. S. 649; *King v. Gallun*, 109 U. S. 99; *Double Pointed v. Two Rivers*, 109 U. S. 117; *Esty v. Burdett*, 109 U. S. 633; *Bussey v. Excelsior*, 110 U. S. 131; *Penna. v. Locomotive*, 110 U. S. 490; *Phillips v. Detroit*, 111 U. S. 604; *Morris v. McMillin*, 112 U. S. 244; *Hollister v. Benedict*, 113 U. S. 59; *Thompson v. Boisselier*, 114 U. S. 1; *Stephenson v. Brooklyn*, 114 U. S. 149; *Yale v. Greenleaf*, 117 U. S. 554; *Gardner v. Herz*, 118 U. S. 180.

This court has repeatedly held that, under the Constitution and the Acts of Congress, a person, to be entitled to a patent, must have invented or discovered some new and useful art, machine, or some new and useful improvement thereof, and that "it is not enough that a thing shall be new in the sense that in the shape or form in which it is produced it shall not have been before known, and that it shall be useful," but it must, under the Constitution and the Statute, amount to an invention or discovery. — *Hill v. Wooster* 132 U. S. 693; 33 L. Ed. 502; 10 S. Ct. 228.

Thompson v. Boisselier, 114 U. S. 1; *Stephenson v. Brooklyn*, 114 U. S. 149; *Yale v. Greenleaf*, 117 U. S. 554; *Gardner v. Herz*, 118 U. S. 180; *Pomace v. Ferguson*, 119 U. S. 335; *Hendy v. Golden*, 127 U. S. 370; *Holland v. Shipley*, 127 U. S. 396; *Pattee v. Kingman*, 129 U. S. 294; *Brown v. D. C.* 130 U. S. 87; *Day v. Fair Haven*, 132 U. S. 98; *Watson v. Cincinnati*, 132 U. S. 161; *Marchand v. Emken*, 132 U. S. 195; *Royer v. Roth*, 132 U. S. 201.

The cheaper article is not always the better one. The substitution of one material for another, or the reduction or increase in size or weight, is not proof of invention. Such changes result from observation and experience, and most frequently are only the carrying forward of the plans and suggestions which have been already made by others. It is not enough that a thing shall be new in the sense that in the shape or form in which it is produced it shall not have been known, and that it shall be useful, but it must amount to an invention or discovery. — *Bonnell v. Stoll*, 61 Fed. 767; 10 C. C. A. 48.

Thompson v. Boisselier, 114 U. S. 1; *Esty v. Burdett*, 109 U. S. 633; *Penna. v. Locomotive*, 110 U. S. 490; *Hollister v. Mfg. Co.* 113 U. S. 59; *Burt v. Ivory*, 133 U. S. 349; *French v. Carter*, 137 U. S. 239.

Every novelty, in some sense, brings a new result, but whether the new result is such, within the meaning of the decisions, is a very different question. These words are very far from furnishing a universal solvent. Sometimes the character of the new result is such as appeals directly to the trained mind, as well as to the ordinary one. But usually the novelty of the result is only one fact to be weighed in the mass with others. — *Consolidated v. Holtzer*, 67 Fed. 907; 15 C. C. A. 63.

The subject (electricity) is one of the most abstruse and subtle of all the practical sciences, and its pursuit involves the exercise of the keenest in-

telligence and most patient research that gifted man can bestow upon it. We ought, therefore, to be cautious, when a distinct and practical improvement is made in so useful an art, in denying to the author the reward which the law gives to meritorious inventions. — *Dayton v. Westinghouse*, 118 Fed. 562; 55 C. C. A. 390.

But the fact that a thing is new does not prove that invention was present any more than it establishes the other element of patentability — usefulness. — *American v. Choate*, 159 Fed. 140; 86 C. C. A. 330.

Morris v. McMillin, 112 U. S. 244; *Underwood v. Gerber*, 149 U. S. 224.

§ 668. Novelty — Evidence of.

The fact that a device might, by modification and change, be made to perform a new and useful function other than the principal purpose of the patent, does not establish novelty or utility. — *Metropolitan v. Providence*, 87 U. S. 342; 22 L. Ed. 303.

Where prior attempts have not been along the same line as that of the patent in suit, such prior unsuccessful efforts do not evidence invention in the successful device. — *Butler v. Steckel*, 137 U. S. 21; 38 L. Ed. 582; 11 S. Ct. 25.

The fact that the change made was one which would have occurred only to a person skilled in the art, and to him only after bestowing considerable thought in overcoming difficulties, evidences the exercise of the inventive faculty. — *Gandy v. Main*, 143 U. S. 587; 36 L. Ed. 272; 12 S. Ct. 598.

The question is, whether a contrivance is patentable which is thus novel in structure and thus novel in its means and manner of using chloride of sodium and surprisingly successful beyond example in accomplishing its purposes. The use of ice as a cooling and of salt as a preserving agent is as old as human knowledge; but the means and manner of employing them in these functions may be infinite, opening a wide field for experiment and invention; and when a device is fallen upon which produces unprecedented and unequalled results in the use of these familiar agents, that device may possess a very high degree of patentable merit. Moreover, the device itself may be a combination of several elementary devices, each as familiar to the public as the letters of the alphabet; yet the combination of them may, as whole, possess an extraordinary novelty and utility. — *Haffcke v. Clark*, 50 Fed. 531; 1 C. C. A. 570.

Harrison v. Foundry, 1 App. Cas. 574; *Murray v. Clayton*, 7 Cn. App. 577; *Furbush v. Cook*, 2 Fish. P. C. 668; *Ryan v. Goodwin*, 3 Sumn. 514.

We conclude, therefore, that in applying to cases of doubt the primary rules touching what constitutes invention and the secondary rules touching what is a “new and useful result,” a “new function,” or a “new sphere of action,” we may be influenced by the facts that the improvement in question, although desired for years, was not secured until brought out by the patentee; that the product of the improved machine or process went into general use, and displaced wholly or in a very large degree, prior products. — *Watson v. Stevens*, 51 Fed. 757; 2 C. C. A. 500.

Novelty of combination does not establish invention. — *Lamson v. Hillman*, 123 Fed. 416; 59 C. C. A. 510.

Interior v. Perkins, 80 Fed. 528; *Kelly v. Clow*, 89 Fed. 297; *Busell v. Stevens*, 137 U. S. 423.

This precise combination in its entirety was novel; but mere novelty is not invention, when the teachings of the art would naturally lead one skilled therein to produce such a combination whenever an improvement of that sort was required. — *Pieper v. Electro-Dental*, 160 Fed. 930; 88 C. C. A. 112.

§ 669. Novelty — Miscellaneous Rules.

The combination must be new; and if productive of new and useful results and not a mere aggregation of results, it might be the subject of a patent, though all the parts were used before. But here the combinations patented as well as their separate elements, had been anticipated. — *Dane v. Chicago*, 131 U. S. cxxvi, app.; 23 L. Ed. 82.

Though it may be true that every one of these elements had been employed before, yet they had never been used in the same combination and put together in the same manner as the inventor combined and arranged them, so as to produce a result like his. — *Elizabeth v. American*, 97 U. S. 126; 24 L. Ed. 1000.

In any view of the case, the specification describes nothing that the patentee is entitled to claim; but only what every one had a right to use without his assistance. To sustain this patent would be to deprive the public of the right to arrange and use a well known apparatus in the only way in which its purpose can be beneficially accomplished. — *Preston v. Manard*, 116 U. S. 661; 29 L. Ed. 763; 6 S. Ct. 695.

Guidet v. Brooklyn, 105 U. S. 550; *Flood v. Hicks*, 2 Biss. 169; 4 Fish. P. C. 156; *King v. Wheeler*, 2 B. & A. 345; *Macnamara v. Hulse*, Car. & M. 4; *Kay v. Marshall*, 7 Scott, 548; S. C. 5 Bing. N. C. 492; 1 Beav. 535; 8 Cl. & Fin. 245; West. H. L. 682; 2 Web. P. C. 34, 68, 75, 77, 82, 84.

There is no novelty in applying an old device used for heating water by a steam coil to a similar use in heating wines to age them. — *Dreyfus v. Searle*, 124 U. S. 50; 31 L. Ed. 352; 8 S. Ct. 390.

When an element in the combination performs no function and has no mechanical effect it is not sufficient to constitute novelty in combination. — *Fond Du Lac v. May*, 137 U. S. 395; 34 L. Ed. 714; 11 S. Ct. 98.

Pickering v. McCullough, 104 U. S. 310; *Double Pointed v. Two Rivers*, 109 U. S. 117; *Stephenson v. Brooklyn*, 114 U. S. 149; *Hendy v. Golden*, 127 U. S. 370; *Aron v. Manhattan*, 132 U. S. 84.

The question of novelty, though not pleaded, is before the court. — *Richards v. Chase*, 158 U. S. 299; 39 L. Ed. 991; 15 S. Ct. 831.

Dunbar v. Myers, 94 U. S. 187; *Slawson v. Grand*, 107 U. S. 649; *Brown v. Piper*, 91 U. S. 37.

§ 670. Old Device, New Use — Aggregation.

With all the anticipatory devices before us, it is apparent that the mere changes in the shape of the dies was a minor part of the work involved in so changing the machine as to make it perform a wholly different function, the invention consisting rather in the idea that such change could be made, than in making the necessary mechanical alterations. — *Hobbs v. Beach*, 180 U. S. 383; 45 L. Ed. 586; 21 S. Ct. 409.

Beach v. American, 63 Fed. 597.

It is not invention to adapt two old devices to analogous uses and combining them into one machine, where each performs its own separate function,

the result being the sum and not the product of the two functions. — *Appleton v. Star*, 60 Fed. 411; 9 C. C. A. 42.

Penna. v. Locomotive, 110 U. S. 490; *Brown v. Piper*, 91 U. S. 37; *Howe v. Abbott*, 2 Story, 190; *Fuller v. Yentzer*, 94 U. S. 288; *Roberts v. Ryer*, 91 U. S. 150; *Stow v. Chicago*, 104 U. S. 550; *Heald v. Rice*, 104 U. S. 755; *Stimpson v. Woodman*, 10 Wall. 117; *Tucker v. Spalding*, 13 Wall. 453; *Grant v. Walter*, 148 U. S. 547.

§ 671. Old Device, New Use — General Rules.

The application of an old process or machine to a similar or analogous subject, with no change in the manner of application, and no result substantially distinct in its nature, will not sustain a patent, even if the new form of result has not before been contemplated.

The leading case, most frequently cited, giving both American and English authorities. — *Pennsylvania v. Locomotive*, 110 U. S. 490; 28 L. Ed. 222; 4 S. Ct. 220.

Hotchkiss v. Greenwood, 11 How. 248; *Phillips v. Page*, 24 How. 164; *Jones v. Morehead*, 1 Wall. 155; *Revg. 1 Fish. P. C.* 521; *Hicks v. Kelsey*, 18 Wall. 670; *Smith v. Nichols*, 21 Wall. 112; *Brown v. Piper*, 91 U. S. 37; *Roberts v. Ryer*, 91 U. S. 150; *Bridge v. Iron*, 95 U. S. 274; *Planing v. Keith*, 101 U. S. 479; *Pearce v. Mulford*, 102 U. S. 112; *Heald v. Rice*, 104 U. S. 737; *Atlantic v. Brady*, 107 U. S. 192; *Crane v. Price*, 4 Man. & G. 580; 5 Scott, (N. R.) 338; 1 Web. P. C. 393; *Dobbs v. Penn.* 5 Exch. 427; *Smith v. Dent. Co.* 93 U. S. 486; *Dental v. Davis*, 102 U. S. 222; *Bush v. Fox*, *Macredy P. C.* 152; 9 Exch. 651; 5 H. L. Cas. 707; *Brook v. Aston*, 27 L. J. (N. S.) Q. B. 145; 8 El. & Bl. 478; *Envelope v. Seymer*, 28 L. J. (N. S.) C. P. 22; 5 C. B. (N. S.) 164; *Herwood v. G. N. R. Co.* 11 H. L. Cas. 654.

The rule in *Penna. v. Locomotive*, 110 U. S. 490, quoted and followed. — *Blake v. San Francisco*, 113 U. S. 679; 28 L. Ed. 1070; 5 S. Ct. 692.

It is not invention to adapt an old device used at sea to an analogous use on land. — *Blake v. San Francisco*, 113 U. S. 679; 28 L. Ed. 1070; 5 S. Ct. 692.

The adaptation of an old device to a new and analogous use, involving such changes only as would occur to any skilled mechanic is not invention. — *Peters v. Hanson*, 129 U. S. 541; 32 L. Ed. 742; 9 S. Ct. 393.

Penna. v. Locomotive, 110 U. S. 490.

The adaptation of an old device to a new and analogous use, involving such changes as would occur to any skilled mechanic, is not invention. — *Peters v. Active*, 129 U. S. 530; 32 L. Ed. 738; 9 S. Ct. 389.

Penna. v. Locomotive, 110 U. S. 490.

Though the inventor be entitled to the merit of being the first to employ an old combination in a new and useful way, if the use be analogous, his right to a patent must depend upon the novelty of means employed and not the end accomplished. — *Aron v. Manhattan*, 132 U. S. 84; 33 L. Ed. 272; 10 S. Ct. 24.

If the adaptation required invention it was patentable; but if, in view of the state of the art it involved only mechanical skill it was not invention. — *Aron v. Manhattan*, 132 U. S. 84; 33 L. Ed. 272; 10 S. Ct. 24.

Neither is it invention to combine old devices into a new article without producing any new mode of operation. — *Burt v. Evory*, 133 U. S. 349; 33 L. Ed. 647; 10 S. Ct. 349.

Stirapson v. Woodman, 77 U. S. 117; *Heald v. Rice*, 104 U. S. 737; *Hall v. Macneale*, 107 U. S. 90; *Hill v. Wooster*, 132 U. S. 693.

The application of an old process or machine to a similar or analogous subject, with no change in the manner of applying it, and no result substantially distinct in its nature, will not sustain a patent, even if the new form of result has not before been contemplated. — *Howe v. National*, 134 U. S. 388; 33 L. Ed. 963; 10 S. Ct. 570.

Penna. v. Locomotive, 110 U. S. 490; *Thompson v. Boisselier*, 114 U. S. 1; *Peters v. Active*, 129 U. S. 530; *Peters v. Hanson*, 129 U. S. 542; *Aron v. Manhattan*, 132 U. S. 84; *Watson v. Cincinnati*, 132 U. S. 161.

Merely putting an old device to a new use is not invention. — *St. Germain v. Brunswick*, 135 U. S. 227; 34 L. Ed. 122; 10 S. Ct. 822.

The application of an old process, machine or device to a like or analogous use, with no change in the mode of application and no result substantially different in its nature, will not sustain a patent even if the new form of result has not been before contemplated. — *Consolidated v. Walker*, 138 U. S. 124; 34 L. Ed. 920; 11 S. Ct. 292.

Penna. v. Locomotive, 110 U. S. 490; *Blake v. San Francisco*, 113 U. S. 679.

Nothing is better settled in this court than that the application of an old process to a new and analogous purpose does not involve invention, even if the new result had not been before contemplated. It is no new invention to use an old machine for a new purpose. The inventor of a machine is entitled to all the uses to which it can be put, no matter whether he had conceived the idea of the use or not. — *Ansonia v. Electrical*, 144 U. S. 11; 36 L. Ed. 327; 12 S. Ct. 601.

Gandy v. Main, 143 U. S. 587; *Roberts v. Ryer*, 91 U. S. 150; *Pennsylvania v. Safety T.* 110 U. S. 490; *Miller v. Foree*, 116 U. S. 22; *Crandall v. Watters*, 20 Blatchf. 97; *Re Arkell*, 15 Blatchf. 437; *Blake v. San Francisco*, 113 U. S. 679; *Smith v. Elliott*, 9 Blatchf. 400; *Western Elec. Co. v. Ansonia*, 114 U. S. 447; *Spill v. Celluloid*, 22 Blatchf. 441; *Sewall v. Jones*, 91 U. S. 171.

It is not a patentable invention to apply old and well-known devices and processes to new uses in other and analogous arts. — *Lovell v. Cary*, 147 U. S. 623; 37 L. Ed. 307; 13 S. Ct. 472.

Virton v. Hamilton, 104 U. S. 485; *Stow v. Chicago*, 104 U. S. 547; *Penna. v. Locomotive*, 110 U. S. 490; *Blake v. San Francisco*, 113 U. S. 679; *Thompson v. Boisselier*, 114 U. S. 1; *Miller v. Foree*, 116 U. S. 22; *Dreyfus v. Searle*, 124 U. S. 60; *Brown v. D. C.* 130 U. S. 87; *Aron v. Manhattan*, 132 U. S. 82; *Watson v. Cincinnati*, 132 U. S. 161; *Marchand v. Emken*, 132 U. S. 195; *Royer v. Roth*, 132 U. S. 201; *Hill v. Wooster*, 132 U. S. 693; *Burt v. Ivory*, 133 U. S. 349; *Howe v. Needle Co.* 134 U. S. 388; *Florsheim v. Schilling*, 137 U. S. 64; *Consolidated v. Walker*, 138 U. S. 124; *Ansonia v. Electric*, 144 U. S. 11; *Ryan v. Hard*, 145 U. S. 241.

Compare *Cary v. Wolff*, 24 Fed. 139; *Crane v. Price*, 1 Web. P. C. 393; *Smith v. Goodyear*, 93 U. S. 486; *Loom Co. v. Higgins*, 106 U. S. 580.

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 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 clear 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 supersede other methods of doing the same work, the court will look with a less critical eye upon the means employed in making the transfer. Doubtless a patentee is entitled to every use to which his invention is susceptible, whether such use be known or unknown to him; but the person who has taken his device and by improvements thereon has adapted it to a different industry, may also draw to himself the quality of inventor. If, for instance, a person should take a coffee mill and patent it as a mill for grinding spices, the double use would be too manifest for serious argument. So, too, this court has denied invention to one who applied the principle of an ice cream freezer to the preservation of fish (*Brown v. Piper*, 91 U. S. 37); to another who changed the proportions of a refrigerator in such manner as to utilize the descending instead of the ascending current of cold air (*Roberts v. Ryer*, 91 U. S. 150); to another who employed an old and well-known method of attaching car trucks to the forward truck of a locomotive engine (*Penna. v. Locomotive*, 110 U. S. 490); and to still another who placed a dredging screw at the stem instead of the stern of a steamboat (*Atlantic v. Brady*, 107 U. S. 192). In *Tucker v. Spalding*, 80 U. S. 453, the patent covered the use of movable teeth in saws and saw plates. A prior patent exhibited cutters of the same general form as the saw teeth of the other patent, attachable to a circular disk, and removable as in the other, the purpose of which patent was for cutting of tongues and grooves, mortises, etc. The court held that if what it actually did was in its nature the same as sawing, and its structure and action suggested to the mind of an ordinary skilled mechanic this double use to which it could be adapted without material change, that such adaptation to a new use was not invention, and was not patentable.

Indeed it often requires as acute a perception of the relations between cause and effect, and as much of the peculiar intuitive genius which is 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. And this is not the less true if, after the thing has been done, it appears to the ordinary mind so simple as to excite wonder that it was not thought of before. The apparent simplicity of a new device often leads an inexperienced person to think that it would have occurred to anyone familiar with the subject; but the decisive answer is that with dozens and perhaps hundreds of others laboring in the same field, it had never occurred to anyone before. The practised eye of the ordinary mechanic may be safely trusted to see what ought to be apparent to anyone. As was said in *Webster v. Higgins*, 105 U. S. 580, "now that it has succeeded, it may seem very plain to anyone that he could have done it as well. This is often the case with inventions of the greatest merit. It may be laid down as a general rule, though perhaps not an invariable one, that if a new combination and arrangement of known elements produce a new and beneficial result never attained before, it is evidence of invention."

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 the exercise of the inventive faculty. — *Potts v. Creager*, 155 U. S. 597; 39 L. Ed. 275; 15 S. Ct. 194.

That an old device may be put to a new use, though the result itself be old, thus involving invention, see *National v. Boston*, 156 U. S. 502; 39 L. Ed. 511; 15 S. Ct. 434.

The defense of noninvention is, in this case, entirely theoretical. The question relates to an important and complex art in which experience is both valuable and is at hand; but experience has not apparently tested itself on the subject. The assertion is that inasmuch as the motive power of steam or air has been employed in many engines, and the means of such employment have been shown in many patents, nothing is necessary for the application of such power to produce a new result, but to select, and perhaps adapt, old and well known appliances. But as was said by Judge Wheeler, in the circuit court, with respect to the McCoy and Bates tools, "the building, adapting in size, proportion and relation, and so enclosing such parts as to form a tool of such power, capable of guidance to such work by hand, would seem to involve high and most useful inventive skill, well worthy of a patent upon the tool itself, or improvements of that kind upon it." While it is true that modern scientific skill has developed an exceedingly great variety of ways in which the agency of steam can be made useful, the element of novelty is generally present in the particular means which produce a new result. And it is not reasonable to infer from the variety of old appliances that the ascertainment of means to properly move and control the movement of a new tool of the delicacy, accuracy, force and rate of speed required for such an instrument as a dental tool demanded no invention, but required merely a selection by the mechanic from the types of engines at hand in a workshop, or in a volume of drawings. In addition, the history of the tool of this patent shows that the ascertainment of the appropriate means, or of an improvement upon existing means, which should properly move a hand cutter for the carving of marble, also called for an inventive mind. Though marble cutting and engine building were each old arts, no improvement upon the mallet and chisel appeared until the tools of McCoy and Bates came into existence. If the turning of a rock drill into a marble or granite cutter was a thing to be had for the asking, it would seem that the transformation would have been more promptly made. — *Fisher v. American*, 71 Fed. 523; 18 C. C. A. 235.

There may be invention in applying a device which is either simple or old where it is used in a new way, and accomplishes a new result; and the rule is well settled in cases of that class that doubt on the question of patentable novelty may be resolved in favor of the patent on such proof of utility and popular acceptance as shown in this record. — *Irwin v. Hasselman*, 97 Fed. 964; 38 C. C. A. 587.

Loom Co. v. Higgins, 105 U. S. 580; *Topliff v. Topliff*, 145 U. S. 156; *Krementz v. Cottle*, 148 U. S. 556.

It is only when the new use is so recondite and remote from that to which the old device has been applied, or for which it was conceived, that the application to the new use would not occur to the mind of the ordinary mechanic, skilled in the art, seeking to devise means to perform the desired function, with the old machine or combination present before him, that its conception rises to the dignity of invention. — *Mallon v. Gregg*, 137 Fed. 68; 69 C. C. A. 48.

Potts v. Creager, 155 U. S. 597; *Hobbs v. Beach*, 180 U. S. 383; *Adams v. Lindell*, 77 Fed. 432; *National v. Interchangeable*, 106 Fed. 693.

The rule is unquestionable that new adaptation of old means may constitute invention — that the test may reside in the creative thought, rather than the mechanical difficulties overcome — but it is equally well settled that monopoly cannot be granted for an adaptation which is merely a double use, or calls only for the exercise of ordinary mechanical skill. The line of distinction between the one and the other attribute is incapable of clear

general definition, and the grant of a patent which is rightly presumptive of invention should not be defeated as wanting in that quality, unless the prior art plainly taught such adaptation. But when analogous use is well known and no substantial departure appears in the patentee's adaptation, monopoly cannot be authorized within the policy of the law. — *Lowden v. Janesville*, 148 Fed. 686; 78 C. C. A. 548.

§ 672. Old Device, New Use — Non-Patentable.

The learned judge, by interpolating the new purpose of the improvement, not only inserted what was not specified in the claim; but if it had been, it would not have helped out the difficulty, as it was in effect, upon the construction given, simply applying an old organization to a new use, which is not a patentable object. — *Phillips v. Page*, 65 U. S. 164; 16 L. Ed. 639.

The elements of the combination were old; the result produced was old; the combination had been employed for analogous uses. The principal change was the substitution of a figured roller for pebbling for a smooth roller for smoothing. *Held*: not invention. — *Stimpson v. Woodman*, 77 U. S. 117; 19 L. Ed. 866.

The idea of this patentee was a good one, but his device to give it effect, though useful, was not new. Consequently he took nothing by his patent. — *Rubber Tip v. Howard*, 87 U. S. 498; 22 L. Ed. 410.

It is no new invention to use an old machine for a new purpose. The inventor of a machine is entitled to the benefit of all the uses to which it can be put, no matter whether he had conceived the idea of the use or not. — *Roberts v. Ryer*, 91 U. S. 150; 23 L. Ed. 267.

It would seem, that if all the elements may be found old, and that if, in the opinion of the Court (Justice Woods writing the opinion) the combination did not produce a new result (although an old result was produced in a new way by the combination of old elements) it did not require the least degree of ingenuity, and cannot be called invention. — *Stephenson v. Brooklyn*, 114 U. S. 149; 29 L. Ed. 58; 5 S. Ct. 777.

Hotchkiss v. Greenwood, 11 How. 248; *Stimpson v. Woodman*, 10 Wall. 117; *Atlantic v. Brady*, 107 U. S. 192; *Slawson v. R. R.* 107 U. S. 649; *King v. Gallun*, 109 U. S. 99; *Phillips v. Detroit*, 111 U. S. 604.

A patent cannot be taken out for an article old in purpose and shape and mode of use, when made for the first time out of an existing material, and with accompaniments before applied to such an article, merely because the idea has occurred that it would be a good thing to make the article out of that particular old material. — *Gardner v. Herz*, 118 U. S. 180; 30 L. Ed. 158; 6 S. Ct. 1027.

The mere adaptation of an old device to a new combination, involving no functional change, is not invention. — *Royer v. Roth*, 132 U. S. 201; 33 L. Ed. 322; 10 S. Ct. 58.

Double Pointed v. Two Rivers, 109 U. S. 117; *Pomace v. Ferguson*, 119 U. S. 335; *Dreyfus v. Searle*, 124 U. S. 60; *Hendy v. Golden*, 127 U. S. 370.

The adaptation of an old device to a new and analogous use to be patentable must show novelty of means. — *Aron v. Manhattan*, 132 U. S. 84; 33 L. Ed. 272; 10 S. Ct. 24.

It is not invention to adapt an old machine designed for turning wood to an analogous use in turning metal. — *Howe v. National*, 134 U. S. 388; 33 L. Ed. 963; 10 S. Ct. 570.

To make a combination of old elements patentable, there must be some new result accomplished, and as the result in this case is a mere aggregation of the several functions of the different elements of the combination, each performing its old function in the old way, we see nothing upon which a claim to invention can be based. The device is undoubtedly a convenient one, and appears to have proven profitable to the patentee, but we are unanimously of opinion that it lacks the necessary quality of invention. — *Richards v. Chase*, 159 U. S. 477; 40 L. Ed. 225; 16 S. Ct. 53.

The new use is not an analogous use. It is the same use. It seems clear to us, therefore, that it did not involve invention to take the hollow reel from the ordinary fire engine or water sprinkler, and put it on a chemical engine. The introduction of the hollow journaled reel in the chemical fire engine was nothing but the application of an old device to a similar subject, with little or no change in the manner of application, and with no result substantially distinct in its nature. The hollow journaled reel may have been better adapted to the use in the chemical engine than in the ordinary steam pressure pump engine; but this, it seems to us, is a mere difference in degree of the result, and did not involve, in bringing it about, anything but what would naturally occur to one skilled in the art. — *Steiner v. Adrian*, 59 Fed. 132; 8 C. C. A. 44.

Roller Mill v. Walker, 138 U. S. 124; *Electric v. LaRue*, 139 U. S. 606; *Blake v. San Francisco*, 113 U. S. 679; *Penna. v. Locomotive*, 110 U. S. 490; *Preston v. Manard*, 116 U. S. 661.

All the advantages ascribable to the patented combination are due to the assembling together of an old elevator and an old cutter adjusting mechanism. This could be effected without requiring any modification of the parts, which was not an obvious one and within the ordinary skill of the mechanic. The application of an old organism to an analogous use is not patentable. It is not invention to use an old combination of devices in a new location to perform the same operations, when no change or modifications are required to adapt it to the new use, or when only such are required as can be made by the exercise of ordinary mechanical skill. — *Briggs v. Central*, 60 Fed. 87; 8 C. C. A. 480.

Blake v. San Francisco, 113 U. S. 679; *Penna. v. Locomotive*, 110 U. S. 490; *Steiner v. Adrian*, 59 Fed. 132; *Aron v. Railway*, 132 U. S. 84.

The entire argument of the appellants proceeds upon the erroneous assumption that a machine or mechanical combination which in itself contains no novelty amounting to invention may be patentable because of some new use or result which is accomplished; a proposition which, as we have seen, leads to the inadmissible conclusion that for one use or purpose a device may be public property and for another use may be the subject of a patent. On the contrary, it is well settled, we suppose, "that a patent for a machine covers its use for all purposes, whether anticipated by the patentee or not, and that the functions or methods of operation of mechanical devices are not patentable." — *Galt v. Parlin*, 60 Fed. 417; 9 C. C. A. 49.

Appleton v. Star, 60 Fed. 411; *Western v. Sperry*, 58 Fed. 186; *Temple v. Goss*, 58 Fed. 196; *Collar Co. v. Van Deusen*, 23 Wall. 530; *Fuller v. Yentzer*, 94 U. S. 288; *Burr v. Duryee*, 1 Wall. 531; *Heald v. Fice*, 104 U. S. 755; *Stow v. Chicago*, 104 U. S. 550; *Roberts v. Ryer*, 91 U. S. 150; *Stimpson v. Woodman*, 10 Wall. 117; *Tucker v. Spalding*, 13 Wall. 453.

If the alleged new article of manufacture was in fact an old article at the date of the patent, — as we think it was, — then it goes without saying that the patentee was not entitled to a patent merely because he suggested the idea of devoting it to a new use. — *Browning v. Colorado*, 61 Fed. 845; 10 C. C. A. 112.

Brown v. Piper, 91 U. S. 37; *Roberts v. Ryer*, 91 U. S. 150; *Knapp v. Morss*, 150 U. S. 221; *Aron v. Railway*, 132 U. S. 84; *Ansonia v. Electrical*, 144 U. S. 11.

In the case at bar it cannot be said that there has been a transfer to a "branch of industry remotely allied," of the use of solid in lieu of jointed work, because this substitution has been practised in every industry, unless it be in the particular one at bar; and it cannot be said that the latter is remotely allied to all others, though it may be to some. Whatever has become free and common to the field of practical arts, as a whole, must be free to every part of that field, except under extremely exceptional circumstances. — *Consolidated v. Holtzer*, 67 Fed. 907; 15 C. C. A. 63.

Potts v. Creager, 155 U. S. 597.

If it is of importance to simultaneously raise two disconnected but adjacent objects of comparatively small size, which can be accomplished by a small expenditure of force, it would seem natural to connect them by a rod, and also that the experiment would be within the ordinary scope of the mechanic who is in charge of the work of construction. The simplicity of the device may lead us to disregard the inventive skill which produced it, but it was, in our opinion, an ordinary mechanical experiment appearing in a new place. When it is enlarged to meet the needs of enlarged train service, the looped wire becomes a series of levers, but the improvement, in its original and patented form, was an obvious and natural one. — *Mayor v. American*, 70 Fed. 853; 17 C. C. A. 467.

It is simply the case of an employment for a new use, and nothing more, and falls within the general doctrine of those cases in which it has been so many times held that the mere extension of a well-known device into another field of usefulness, where the transfer does not involve the faculty of inventive genius, will not support a patent. — *Schreiber v. Grimm*, 72 Fed. 671; 19 C. C. A. 67.

Distinguishing, *Potts v. Creager*, 155 U. S. 597; *Electric v. LaRue*, 139 U. S. 601; *Topliff v. Topliff*, 145 U. S. 156; *Barbed Wire Case*, 143 U. S. 275; *Sessions v. Romadka*, 145 U. S. 29.

Nor is it invention to inclose the operative mechanism in an old bicycle, double dish shell when used for a bicycle bell, instead of mounting it upon a standard, for a call bell; affixing it to a door jam for a door bell; or arranging it to engage with an opening window sash for a burglar alarm. — *New Departure v. Bevin*, 73 Fed. 469; 19 C. C. A. 534.

That the mere bringing together, in a new combination, of old devices or elements, especially if they belong to the same art or to arts kindred to that to which the combination belongs, does not constitute invention is well settled. "It is not enough that a thing shall be new, in the sense that in the shape or form in which it is produced it shall not have been before known and that it shall be useful, but it must, under the constitution and the statute, amount to an invention or discovery." — *Interior v. Perkins*, 80 Fed. 528; 25 C. C. A. 613.

Thompson v. Boisselier, 114 U. S. 1; *Hill v. Wooster*, 132 U. S. 693; *Burt v. Ivory*, 133 U. S. 349; *Pickering v. McCullough*, 104 U. S. 310; *Florsheim v.*

Schilling, 137 U. S. 64; Adams v. Stamping Co. 141 U. S. 539; Deere v. Case, 56 Fed. 841.

The adaptation of an old device to a new and un contemplated use, involving mere change of detail and arrangement is not invention. — Eastman v. Getz, 84 Fed. 458; 28 C. C. A. 459.

In view of the use of a string wrapper in the form of an envelope for letters, it was not invention to apply the string to wrappers or envelopes for newspapers. — Williams v. Wrapper, 84 Fed. 197; 28 C. C. A. 325.

It has long been settled that a mere use or function is not the subject of a patent, and also that "the inventor of a machine is entitled to the benefit of all the uses to which it can be put, no matter whether he conceived the idea of the use or not." Roberts v. Ryer, 91 U. S. 150; Goshen v. Bissell, 72 Fed. 67. It would seem to follow as a corollary to these two propositions that, where it requires substantially no change in the old device to adapt it to the new use, such adaptation cannot be the subject of a patent, no matter how remote and unthought of the 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 involves 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 an old machine, and be patentable as such; or the new use of the old machine may result in a new product, which is itself patentable; or the use may be a step in a new and patentable process. — Stearns v. Russell, 85 Fed. 218; 29 C. C. A. 121.

Penna. v. Locomotive, 110 U. S. 490; reviewing Potts v. Creager, 155 U. S. 597; Schreiber v. Grimm, 72 Fed. 671; Electric v. La Rue, 139 U. S. 601; Colgate v. Telegraph, 15 Blatch. 365; Williams v. McNeeley, 64 Fed. 766; Howe v. Abbott, 2 Story, 190; Bean v. Smallwood, 2 Story, 408; Knapp v. Morss, 150 U. S. 221; Aron v. Railroad, 132 U. S. 85; Ansonia v. Electrical, 144 U. S. 11; Trimmer v. Stevens, 137 U. S. 423; Dunbar v. Tack Co. 4 B. & A. 518; Moffitt v. Rogers, 8 Fed. 147; Miller v. Foree, 116 U. S. 22; Manufacturing Co. v. Cary, 147 U. S. 623; Kay v. Marshall, 2 Web. Pat. Cas. 36; Harwood v. Railway, 11 H. L. Cas. 654; McClain v. Ortmyer, 141 U. S. 419; Knapp v. Morss, 150 U. S. 221.

Note: This holding by Judge Taft, undoubtedly proper as applied to the case in hand, is believed to be too broad a statement of the rule. It is an attempt to draw the line between invention and double use or mechanical skill; and like every such attempt must have its faults. The line never can be drawn in advance of the case presented.

The arrangement of such pipe in transverse horizontal series with provisions for varying the heat in the different series, is shown in the beer-cooler patent. To apply the apparatus thus disclosed in the prior art to the Solvay column, does not seem to us to have required any invention whatever. — Solvay v. Michigan, 90 Fed. 818; 33 C. C. A. 285.

Attention is called to the circumstance that, when the former opinion of this court was handed down (Feb. 27, 1894, 60 Fed. 87), the Supreme Court had not decided Potts v. Creager, (1895) 155 U. S. 597, 15 Sup. Ct. 194. It is not thought, however, that that case lays down any new principle of law, nor that it has overruled the earlier decisions which were cited in Briggs v.

Ice Co. On the contrary, it indicates quite clearly that the question of so-called double use — whether, that is to say, the new use is 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 — is one dependent upon the peculiar facts of each case. It would be difficult to find uses more analogous than we have here. If the apparatus for raising and lowering had, in its earlier use, been applied, for instance, to the movements of ore buckets in a shaft, it might, perhaps, be urged that the analogy was imperfect; but here in both applications the apparatus moves a cutter (which is itself to remove surplus material) to the place where the operator wishes it to cut. It would seem to make little difference that the workmen who plane wood do not plane ice. In *Potts v. Creager*, the Supreme Court approved their former decision in *Brown v. Piper*, 91 U. S. 40, where a patent for preserving fish for food purposes was held to be without patentable novelty, in view of an earlier patent for a “corpse preserver” used in the undertaker’s art. — *Briggs v. Duell*, 93 Fed. 972; 36 C. C. A. 38.

Stearns v. Russell, 85 Fed. 218; *Rogers v. Fitch*, 81 Fed. 959.

But it is said that in the “furniture caster art” such a spring made integral with the caster socket is not shown, and that it may be invention to transfer a device from one art to another. *Potts v. Creager*, 155 U. S. 597. But the transfer has plainly been made from arts where the spring was integral with the socket, and where its purpose and function was precisely that to which it was applied in Berkey’s device. No change in form has been made to adopt (adapt) the device to a new application. No difficulties of adaptation have had to be cleared away. Such a change from even a non-analogous art cannot be regarded as involving invention. — *Standard v. Caster*, 113 Fed. 162; 51 C. C. A. 109.

Schreiber v. Grimm, 72 Fed. 671.

There was no substantial difference in the method or purpose in using zinc as a means of retaining Moxham’s plate in its pocket over its former well-known use in other branches of the founder’s or iron worker’s art. Its use by Moxham was plainly analogous, although never before applied in railway structure. It is merely a case of new use without any change in the method of using the old element to adapt it to the new use or any new mode of application. — *Johnson v. Toledo*, 119 Fed. 885; 56 C. C. A. 415.

Mfg. Co. v. Cary, 147 U. S. 623; *Potts v. Creager*, 155 U. S. 597.

It is not invention to combine old devices into a new article without producing any new mode of operation. — *Greist v. Parsons*, 125 Fed. 116; 60 C. C. A. 34.

Walker Pat. sec. 37; *Burt v. Ivory*, 133 U. S. 349; *Florsheim v. Schilling*, 137 U. S. 64; *Interior v. Perkins*, 80 Fed. 528; *Kelly v. Clow*, 89 Fed. 297.

The thought that a machine or combination which is discovered in a remote art, where it is used to perform another function, a machine or combination which was never designed by its maker, was never actually used, and was not apparently suitable, to accomplish the desideratum may be adopted to perform the requisite function, may be, and frequently is, with proper mechanical adaptation, the result of the exercise of the inventive faculty. But a thought which would naturally occur to any mechanic familiar with the object to be attained, and with an existing machine or combination discovered in the same art or in one nearly analogous to it, designed, suitable, and used to perform a similar function, that this machine or combination can be used or adapted to perform the function desired, is not the product of

inventive genius, but the mere result of the application of the skill of the mechanic to the subject under consideration. The application of an old device to a new use is not in itself an invention or capable of protection by a patent. A prior patentee who has plainly described and claimed his machine or combination has the right to every use to which his device can be applied, and to every way in which it can be utilized to perform its function, whether he was aware of all these uses or methods of use when he claimed and secured his monopoly or not. — *Mallon v. Gregg*, 137 Fed. 68; 69 C. C. A. 48.

National v. Interchangeable, 106 Fed. 693; *Roberts v. Ryer*, 91 U. S. 150; *Miller v. Mfg. Co.* 151 U. S. 186; *Goshen v. Bissell*, 72 Fed. 67; *Stearns v. Russell*, 85 Fed. 218; *Manufacturing Co. v. Neal*, 90 Fed. 725; *Tire Co. v. Lozier*, 90 Fed. 732.

That the mere adaptation of an elevator with closing floors to use in a refrigerating plant, although useful, is not invention. — *Wills v. Scranton*, 153 Fed. 181; 82 C. C. A. 355.

Conceding that plaintiff was the first to apply these old interlocking systems to an old flat mask of flexible material, we discover no invention in his doing so, but only the capacity of a skilled mechanic addressing himself to the particular problem in question. — *Merrill-Soule v. Star*, 159 Fed. 142; 86 C. C. A. 332.

Surely invention cannot be claimed in the appropriation of an old device by reason of the unthought of and undisclosed function in question (dove-tail armature laminæ). — *Bullock v. General*, 162 Fed. 28; 89 C. C. A. 68.

§ 673. Old Device, New Use — Patentable.

Though the inventor be entitled to the merit of being the first to employ an old combination in a new and useful way, if the use be analogous, his right to a patent must depend upon the novelty of means employed and not the end accomplished. — *Aron v. Manhattan*, 132 U. S. 84; 33 L. Ed. 272; 10 S. Ct. 24.

The patent for the adaptation of old and well known means to a new use with new material if sustainable at all must be limited specifically. — *Wright v. Clinton*, 67 Fed. 790; 14 C. C. A. 646.

Well-known cases are cited on behalf of the defendants, in which it has been held that the application of an old process or machine to a similar or analogous subject, with no change in the manner of application, and no result substantially distinct in its nature, will not sustain a patent, even if the new form of result had not before been contemplated. Without dissenting the least from this doctrine, we do not regard it as applicable to the present case. It has never been held that where the structures compared belong to totally distinct departments of invention — to practical arts that have no connection with or similarity to each other — the subsequent inventor is precluded from using well-known mechanical contrivances or devices that have become the common stock of manufacturers. Such a view would, in the mechanical arts, restrict the operation of the patent statutes to the first and most striking efforts of invention, and leave no field open for the exercising of the inventive power in devising the numerous less conspicuous machines and apparatus that do so much to promote the convenience and comfort of daily life. — *Hillborn v. Hale*, 69 Fed. 958; 16 C. C. A. 569.

When Beach took this machine from another art, where it was doing different work, and, by modification, adapted it to different use in his own

art, and thereby gave to his own art the first machine it ever had which could do work necessary to be done, and always theretofore done by hand, he made an invention to the fruits of which he should be entitled. — *Inman v. Beach*, 71 Fed. 420; 18 C. C. A. 165.

Admitting a closer resemblance and analogy between the two classes of machines, it by no means follows that the device in suit would come within the rule of "a double use," and thus fall short of invention and patentability. — *Taylor v. Sawyer*, 75 Fed. 301; 22 C. C. A. 203.

Potts v. Creager, 155 U. S. 607; *DuBois v. Kirk*, 158 U. S. 58; *Tamage v. Zahn*, 70 Fed. 1003; *Topliff v. Topliff*, 145 U. S. 156.

Where an inventor has devised a machine or tool for doing work which previously had been done only by hand, and the utility of the device is at once recognized by the trade, the court should hesitate to declare the patent void for want of invention simply because what was done may be affected by the modification of an old structure, used for a different purpose. — *Reynolds v. Buzzell*, 96 Fed. 997; 37 C. C. A. 656.

The fact that this conveyor is found in a different place in a former combination will not defeat the claim for invention, if the new location is such as to produce a new and useful result. — *Stillwell-Bierce v. Eufaula*, 117 Fed. 410; 54 C. C. A. 584.

Star v. General, 111 Fed. 398; *Dowagiac v. Superior*, 115 Fed. 886.

It is true that East has not discovered any new elementary material for the making of barrels, and the elementary principle upon which barrels are constructed is old; but he has adopted a new form, and discovered a new combination, a diversity of method and a diversity of effect, a new *modus operandi*, whereby it has been practically demonstrated that cheaper and better results are obtained, which benefit the world; and therefore, under the principles and precedents, he has become entitled to that protection which the patent laws are intended to secure for "any new and useful improvement on any art, machine, manufacture, or composition of matter." Such combination, however simple and obvious, if entirely new, is patentable, and not the less so because up to a certain point he uses old methods and old materials. — *Farmers' v. Spruks*, 127 Fed. 691; 62 C. C. A. 447.

It performs a beneficial function for which the device of the prior art was not designed, adapted, or used. We are of opinion that this creation involved invention. — *Cleveland v. Kauffman*, 135 Fed. 360; 68 C. C. A. 658.

Topliff v. Topliff, 145 U. S. 161; *Clough v. Barker*, 106 U. S. 176; *Wickelman v. Dick*, 88 Fed. 266; *Boyer v. Keller*, 127 Fed. 130.

Felt discovered the possibility of this new use of a series of pivoted levers in performing additive subtraction, and he adapted them to this new use. Such use was novel, and has proved of great utility. These circumstances negative the conclusion that the step taken by Felt was obvious to any skilled mechanic. — *Comptograph v. Mechanical*, 145 Fed. 331; 76 C. C. A. 205.

Hobbs v. Beach, 180 U. S. 383; *Loom Co. v. Higgins*, 105 U. S. 580; *Krementz v. S. Cottle Co.* 148 U. S. 556; *Potts v. Creager*, 155 U. S. 597; *Dowagiac v. Superior*, 115 Fed. 886; *Brunswick v. Thum*, 111 Fed. 904; *Schenck v. Singer*, 77 Fed. 841.

All of the elements were old, and if Avery made merely a selection and rearrangement of old elements, without producing any new result, want of invention would be clear. *Geist v. Parsons*, 125 Fed. 116. Or if he were only