

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 Grosseup, dissenting, says: Non-use and pernicious use must not be contounded. 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. — *Soehner 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. Ivory*, 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.* secs. 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. — *Lowe 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*, 189 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. 580.

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. Ivory, 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. But see 177 U. S. 485.

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. Ortmayer*, 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. Gallan*, 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 draftsman 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; *Galvin 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. Emen*, 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. 11; *Esty v. Burdett*, 109 U. S. 633; *Penna. v. Locomotive*, 110 U. S. 490; *Hollister v. Mfg. Co.* 113 U. S. 59; *Burt v. Evory*, 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; 35 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. — *Haffeke v. Clark*, 50 Fed. 531; 1 C. C. A. 570.

Harrison v. Foundry, 1 App. Cas. 574; *Murray v. Clayton*, 7 Ch. 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. 60; 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. Spaulding*, 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*, *Maeredy 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. Ivory*, 133 U. S. 349; 33 L. Ed. 647; 10 S. Ct. 349.

Stimpson 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. Force*, 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.

Vinton 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. Force*, 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. 193; *Collar Co. v. Van Deusen*, 23 Wall. 530; *Fuller v. Yentzer*, 94 U. S. 288; *Burr v. Duryee*, 1 Wall. 531; *Heald v. Rice*, 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. Romalka*, 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. Evory*, 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; *Decre 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. Reversed, 86 Fed. 641.

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; *Williames 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. Evory*, 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

a detail improver, he could not exclude others from gleaning in the same open fields. *Milwaukee v. Brunswick*, 126 Fed. 171. But, though old elements were used, the combination was not merely new in specific construction, but was new in kind; and in this very ancient and familiar art we do not see that the most gifted inventor could do more than produce a new result by a new mode of operation in some minor adjunct of the main structure. Inasmuch as Avery did this, he was entitled to generic as well as specific claims. *Lanson v. Hillman*, 123 Fed. 416; *Ries v. Barth*, 136 Fed. 850. — *Avery v. Case*, 148 Fed. 214; 78 C. C. A. 110.

If the Dodge patent (prior and mechanical) was of such a nature as to suggest a transference, by appropriate means, from the purely mechanical to the electric art, of the invention embodied in the *Parcelle* (electrical) patent, then the *Parcelle* patent contained no invention. And in this connection it is certainly a singular thing that the ten patents from the mechanical art, to which we have referred, should have been in existence for so many years without ever having suggested an expedient, like the *Parcelle* patent, for the purpose of supplying a needed want in the electrical art. Obviously, the relation between the mechanical and electric arts was not so close and apparent that it would follow as a matter of course that the invention of a method of bolting a bedstead together, or of securing a wooden covering on an iron pulley, would, of itself, furnish a suggestion for solving the problem of detachably fastening the laminated pole pieces of a field magnet to the solid yoke thereof. — *General v. Bullock*, 152 Fed. 427; 81 C. C. A. 569.

Potts v. Creager, 155 U. S. 597; *McClain v. Ortmyer*, 141 U. S. 419.

To accomplish a new and useful result within the meaning of the patent law, (R. S. 4886), it is not necessary that a result before unknown should be brought about, but it is sufficient if an old result is accomplished in a new and more effective way. If the value and effectiveness of a machine are substantially increased, the new combination of old elements which does it is patentable. — *St. Louis v. American*, 156 Fed. 574; 84 C. C. A. 340.

Loom Co. v. Higgins, 105 U. S. 580; *Cantrell v. Wallick*, 117 U. S. 689; *Anderson v. Collins*, 122 Fed. 451.

Note: This rule as applied in this case is correct; but as broadly stated it is entirely incorrect, for it is the novelty of the new elements in combination and not the effectiveness of the result wherein the patentability resides.

The reference to sundry sawmill patents showing conveying tables and driven chains extending between them for transferring logs or lumber from one table to the other do not show anticipations. There is little analogy between the problem involved in conveying and transferring rigid, cold bodies from one conveying table to another, and that presented when the subject is long, flexible sheets of hot metal, which must be cooled uniformly and without warping while the carrying and transferring is going on. We must not be misled by the apparent resemblance between a device taken from one industry and applied to a new use in another when the original inventor never designed nor actually used the device for the purpose to which it has been put. — *National v. Aiken*, 163 Fed. 254; C. C. A.

Potts v. Creager, 155 U. S. 597; *Western v. La Rue*, 139 U. S. 601; *Stearns v. Russell*, 85 Fed. 218; *Heaton-Peninsular v. Elliott*, 58 Fed. 220; *Topliff v. Topliff*, 145 U. S. 156.

§ 674. Old Elements, New Result.

Patented inventions are also made which embrace both a new ingredient and a combination of old ingredients embodied in the same machine. Even more particularity of description is required in such a case, as the property

of the patentee consists not only in the new ingredient, but also in the new combination, and it is essential that his invention shall be so fully described that others may not be led into mistake, as no other person can lawfully make, use or vend a machine containing such new ingredient or such new combination. — *Seymour v. Osborne*, 78 U. S. 516; 20 L. Ed. 33.

Valid letters patent may be granted for an invention which consists entirely in a new combination of old ingredients, provided it appears that the new combination of the ingredients produce a new and useful result, but the rule is equally well settled, in such a case, that the invention consists merely in the new combination of the ingredients, and that a suit for infringement cannot be maintained against a party who constructs or uses a substantially different combination, even though it includes the exact same ingredients. — *Gill v. Wells*, 89 U. S. 1; 22 L. Ed. 699.

Gould v. Rees, 15 Wall. 194.

The combination expressed in the claim, viewed as an entirety and in reference to its purposes and uses, is new, and produces a new and useful result. And it is no objection to the validity of a patent for such a combination that some of the elements of which it is composed are not new. — *Brown v. Guild*, 90 U. S. 181; 23 L. Ed. 161.

The combination to be patentable must produce a different force or effect, or result in the combined forces or processes from that given by their separate parts. There must be a new result produced by their union; if not so, it is only an aggregation of separate elements. — *Reckendorfer v. Faber*, 92 U. S. 347; 23 L. Ed. 719.

Every element found in complainant's machine is found in a prior patent, and was well known to the art. His patent, therefore, must be treated as for a combination of well-known devices and elements. — *Jones v. Munger*, 49 Fed. 61; 1 C. C. A. 158.

No pre-existing machine contained the specific means employed. It is also reasonably certain from the history of the machine that these claims describe combinations which are practically operative and successful, and a manifest weakness and insecurity characterize the defendant's attempts to deny patentable invention. — *Bagley v. Empire*, 58 Fed. 212; 7 C. C. A. 191.

But notwithstanding the fact that all the parts are old, in the sense that each of them may be found in previous patents, the combination of parts in the patent in suit brings about a new result, and involves patentable invention. — *Columbus v. Robbins*, 64 Fed. 384; 12 C. C. A. 174.

The new use of an old compound has been held to be patentable. — *Thomson-Houston v. National*, 65 Fed. 427; 12 C. C. A. 671.

Muntz v. Foster, 2 Web. P. C. 93; *Merwin*, 306.

Nor is the complainants' device only an aggregation of old parts. The metal and the rubber do not act independently, but co-operate in producing a new result, and this constitutes a patentable combination. — *Thomson-Houston v. National*, 65 Fed. 427; 12 C. C. A. 671.

Reckendorfer v. Faber, 92 U. S. 357; *Hailes v. Van Wormer*, 20 Wall. 353; *Pickering v. McCullough*, 104 U. S. 310.

“If a new combination and arrangement of known elements produce a new and beneficial result, never obtained before, it is evidence of invention.”—*Muller v. Lodge*, 77 Fed. 621; 23 C. C. A. 357.
Quoting, *Loom Co. v. Higgins*, 105 U. S. 586.

All the mechanisms which formed the elements of his combination, were old. His patent was granted, and it must stand, if it stand at all, not upon the ground that he invented or discovered any new machine or mechanical device, but on the ground that he organized a new combination of old and well-known elements, by means of which a new and useful result was obtained.—*Adams v. Lindell*, 77 Fed. 432; 23 C. C. A. 223.

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

The fact that each and every element of the combination was at the date of his patent, old and well-known, was not sufficient to deprive the invention claimed by him of novelty, for most of the inventions of the present day consist of the utilization and adaptation of mechanical appliances that are themselves old and well-known. Using an old process and utilizing a well-known device, by combinations which produce results not theretofore accomplished by the said process or device, is in fact invention.—*American v. Streat*, 83 Fed. 700; 28 C. C. A. 18.

The new result of a patentable combination is a result which is new and distinguishable as compared with results produced by the elements in their separated state, or as assembled in a mere aggregation, without functional relations to each other. A combination is not unpatentable merely because its results may also have been produced by other combinations.—*Deere v. Rock Island*, 84 Fed. 171; 28 C. C. A. 308.

Rob. Pat. 156, n.; *Reckendorfer v. Faber*, 92 U. S. 357.

It is a familiar rule that where the thing patented is an entirety, the mere fact that the different elements are taken from different old devices or exhibits, does not create conclusion of non-invention.—*National v. Elsas*, 86 Fed. 917; 30 C. C. A. 487.

Imhauser v. Buerk, 101 U. S. 647; *Dederick v. Cassell*, 9 Fed. 306.

But, while all the elements of appellant's patent may be found singly in the ore crushers which preceded it, the appellee's invention was in its combination a distinct departure in the art.—*Trent v. Risdon*, 102 Fed. 635; 42 C. C. A. 529.

The device was no mere mechanical device, or a mere juxtaposition of old elements, which only continued to exercise their former isolated functions. In their new relation, the three elements were made to so mutually co-operate, co-act, and in effect, unify with each other, that they produced a new unitary result.—*Bliss v. Reed*, 106 Fed. 314; 45 C. C. A. 304.

A new combination of old elements whereby a new and useful result is produced, or an old result is attained in a more facile, economical and efficient way, may be protected by patent as securely as a new machine or composition of matter.—*National v. Interchangeable*, 106 Fed. 693; 45 C. C. A. 544.

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

If they accomplished it in a new way, and to devise them involved thought and ingenuity beyond the ordinary skill of the calling, they were features of patentable novelty. We do not regard the prior patents for improvements in cheese-making apparatus as sufficient per se to negative invention in introducing and adapting these appliances. The appliances for a double hot water circulation shown in those patents are quite dissimilar in details of construction and arrangement to those of the patent in suit, and it is doubtful whether their use in supplying heated water to control the temperature of milk during the process of cheese-making can be regarded as a cognate case. — *Brickill v. Mayor*, 112 Fed. 65; 50 C. C. A. 1.

It is true that the mere bringing together of old elements found in older machines of the same or a kindred art to perform the same functions and to effect the same mechanical result does not constitute patentable invention. But the converse of the proposition is equally true, — that if a new organization of old elements is such that it produces a new mode of operation and a beneficial result, there may be a patentable invention. — *Dowagiac v. Superior*, 115 Fed. 886; 53 C. C. A. 36.

Campbell v. Duplex, 101 Fed. 282; *Overweight v. Vogt*, 102 Fed. 957; *Burnham v. Mfg. Co.* 110 Fed. 765; *Rob. Pat. sec. 155*; *Star v. General*, 111 Fed. 398.

While it is true that the mere bringing together of old elements found in older machines of the same or a kindred art, to perform the same functions and to effect the same mechanical results, does not constitute patentable invention, still, where a new organization of old elements is such that it produces a new mode of operation and a beneficial result, there may be a patentable invention. — *Dowagiac v. Minnesota*, 118 Fed. 136; 55 C. C. A. 86.

Rob. Pat. sec. 155; *Dowagiac v. Superior*, 115 Fed. 886.

The fact that the machine is an aggregation of known devices does not show that it is lacking in novelty. A machine of necessity is made of known things. — *American v. American*, 128 Fed. 709; 63 C. C. A. 307.

Note: The judge making this statement did not say what he meant; he did not mean by the use of the word "aggregation" what that word usually stands for in the patent law. Moreover, the statement that a machine is of necessity made of known things is generally, but not always, true.

Ries got together a collection of old elements. Motors, circuits, switches to close the circuits, levers, resistance coils, solenoids, and other actuating mechanisms for moving an arm over contact points, dashpots, and adjustable dashpots were all old. The prior patents prove this. They show the elements severally, and some in combinations. But none exhibits Ries's thought. That is, Ries disclosed to the world a new desirable result to be attained, and devised a new means by which the new idea could be put to use. Than this, there is no higher quality of invention. — *Ries v. Barth*, 136 Fed. 850; 69 C. C. A. 528.

Morley v. Lancaster, 129 U. S. 263.

Strictly speaking the combinations are not, as we have seen, of old elements, but conceding that the elements are all old, it cannot be denied, we think, that the combination is not only new but that it produces a new result or, at least, an old result in a better way than any device which preceded it. The elements of the combination so act that each qualifies every other and the new result is due to their co-operative action. Remove one and the machine becomes inoperative; it fails to produce the desired result. — *International v. Dey*, 142 Fed. 736; 74 C. C. A. 68.

By such coaction the three elements, each of which, in itself, we may assume was old — effected a novel and highly useful advance in armature construction. — *Prudential v. Westinghouse*, 158 Fed. 985; 86 C. C. A. 189.

§ 675. Old Elements, Old Result.

The elements of the claim of the patent in suit were all old; the result produced was well known; the combination of the elements employed had been used for other purposes. *Held*: void. — *Stimpson v. Woodman*, 77 U. S. 117; 19 L. Ed. 866.

It was well known that the points of a staple on their outer sides would force the points together in use; and there was no invention in beveling the points of a fastener so that they would both travel in the same direction. — *Double Pointed v. Two Rivers*, 109 U. S. 117; 27 L. Ed. 877; 3 S. Ct. 105.

Obiter dicta on the English law. Quoting, *Saxby v. Gloucester*, 7 Q. B. Div. 305. — *Gardner v. Herz*, 118 U. S. 180; 30 L. Ed. 158; 6 S. Ct. 1027. *Penna. v. Locomotive*, 110 U. S. 490.

While a combination of old elements producing a new and useful result will be patentable, yet where the combination is merely assembling of old elements producing no new and useful result, invention is not shown. — *Computing v. Automatic*, 204 U. S. 609; 51 L. Ed. 645; 27 S. Ct. 307.

Office v. Fenton, 174 U. S. 492.

The mere bringing together of elements selected from old machines, to perform the same functions which they severally performed in the machines from which they were taken, and producing the same result, is not invention. — *Campbell v. Duplex*, 101 Fed. 282; 41 C. C. A. 351.

Hailes v. Van Wormer, 20 Wall. 350; *Royer v. Roth*, 132 U. S. 201; *Union v. Keith*, 139 U. S. 530; *Wright v. Yuengling*, 155 U. S. 47.

There is no invention in merely selecting and fitting together the most desirable parts of different machines in the same art, where each operates in the same way in the new machine that it did in the old, and effects the same result. — *Overweight v. Vogt*, 102 Fed. 957; 43 C. C. A. 80.

Hailes v. Van Wormer, 21 Wall. 358; *Mfg. Co. v. Robbins*, 75 Fed. 17; *Stearns v. Russell*, 85 Fed. 218; *Campbell v. Duplex*, 101 Fed. 282.

The mere bringing together of elements selected from old machines to perform the same functions which they severally performed in the machines from which they were taken, and producing the same results, is not invention. — *Brown v. King*, 107 Fed. 498; 46 C. C. A. 432.

Union v. Keith, 139 U. S. 530; *Campbell v. Duplex*, 101 Fed. 282.

The application of an old structure to a similar use is not invention. (Thus was the application of ball-bearings to hair clippers). — *Coates v. Boker*, 119 Fed. 358; 56 C. C. A. 94.

None of the elements was new, and it did not produce a new result; but we think the record clearly discloses that the combination, although of old elements, was new, and that it accomplished an old result in a more facile, economical and efficient way. This gave it patentable novelty. — *Heekin v. Baker*, 138 Fed. 63; 70 C. C. A. 559.

National v. International, 106 Fed. 693.

§ 676. **Old Process, New Use — Non-Patentable.**

The adaptation of an old process to a new and similar use is not invention; and judicial notice will be taken of such common use in determining the question of invention. — *Dunbar v. Myers*, 94 U. S. 187; 24 L. Ed. 34.

Brown v. Piper, 91 U. S. 38.

The application of an old process or machine to a similar 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. The leading case, giving 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. S.) 338; 1 Web. P. C. 393; *Dobbs v. Penn.* 3 Exch. 427; *Smith v. Dent. Co.* 93 U. S. 486; *Dental v. Davis*, 102 U. S. 222; *Bush v. Fox, Macrery*, 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; *Harwood v. G. N. R. Co.* 11 H. L. Cas. 654.

The patent covers an old process applied to the same subject, with no change in the manner of applying it, and with no result substantially distinct in its nature. It cannot, therefore, be a valid patent. — *Western v. Ansonia*, 114 U. S. 447; 29 L. Ed. 210; 5 S. Ct. 447.

Penna. v. Locomotive, 110 U. S. 490; *Vinton v. Hamilton*, 104 U. S. 485.

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 had not before been contemplated. — *Miller v. Foree*, 116 U. S. 22; 29 L. Ed. 552; 6 S. Ct. 204.

Penna. v. Locomotive, 110 U. S. 490.

The adaptation of an old process to the production of another product than contemplated in the former process, with only mechanical change, is not invention. — *Eastman v. Getz*, 84 Fed. 458; 28 C. C. A. 459.

It was nothing more than the application of an old process to analogous matter, producing a result substantially similar in its nature, and was therefore entirely lacking in invention. — *De Lamar v. De Lamar*, 117 Fed. 240; 54 C. C. A. 272.

Ansonia v. Electrical, 144 U. S. 11; *Mfg. Co. v. Cary*, 147 U. S. 623.

It is a familiar proposition of law, recognized and enforced in a multitude of cases, "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." — *Neptune v. National*, 127 Fed. 563; 62 C. C. A. 345.

Pennsylvania v. Locomotive, 110 U. S. 490; *Morris v. McMillin*, 112 U. S. 244; *Blake v. San Francisco*, 113 U. S. 679; *St. Germain v. Brunswick*, 135 U. S. 227; *Gates v. Fraser*, 153 U. S. 332.

The mere application of a process for enameling iron to the enameling of steel involves no invention if the same result is obtained. — *National v. New England*, 151 Fed. 19; 80 C. C. A. 485.

§ 677. Old Process, New Use — Patentable.

In carrying out the purpose proposed, the materials employed were all old. It is also true that the steps in the process were not all new. But the process extended beyond the use of known materials and the employment of the processes mentioned. A new product was the result differing from all that had preceded it, not merely in degree of usefulness and excellence, but differing in kind, having new uses and properties. We cannot resist the conviction that devising and forming such a manufacture by such a process and of such materials was invention. — *Smith v. Goodyear*, 93 U. S. 486; 23 L. Ed. 952.

§ 678. Omitting Element.

While the omission of an element in a combination may constitute invention, if the result of the new combination be the same as before; yet if the omission of an element is attended by a corresponding omission of the function performed by that element, there is no invention, if the elements retained perform the same function as before. — *Richards v. Chase*, 159 U. S. 477; 40 L. Ed. 225; 16 S. Ct. 53.

§ 679. Patentability — Definition.

It is a new mode of operation, by means of which a new result is obtained. It is this new mode of operation which gives it the character of an invention, and entitles the inventor to a patent; and this new mode of operation is, in view of the patent law, the thing entitled to protection. The patentee may, and should, so frame his specification of claim as to cover this new mode of operation which he has invented. — *Winans v. Denmead*, 15 How. 330; 14 L. Ed. 717.

Whoever discovers that a certain useful result will be produced in any art, machine, manufacture or composition of matter by the use of certain means is entitled to a patent for his invention, provided he specifies the means he uses in a manner so full and exact that anyone skilled in the science to which it appertains can, by using the means he specifies, without any addition or subtraction from the described means, produce precisely the results he describes. Such description must be correct, as it is settled law that the patent is void if the described result cannot be obtained by the described means. — *Mitchell v. Tilghman*, 86 U. S. 287; 22 L. Ed. 125.

O'Reilly v. Morse, 15 How. 119.

Invention or discovery is the requirement which constitutes the foundation of the right to obtain a patent; and it was decided by this court, more than a quarter of a century ago, that unless more ingenuity and skill were required in making or applying the said improvement than are possessed by an ordinary mechanic acquainted with the business, there is an absence of that degree of skill and ingenuity which constitute the essential element of every invention. — *Dunbar v. Meyers*, 94 U. S. 187; 24 L. Ed. 34.

Hotchkiss v. Greenwood, 11 How. 267; *Phillips v. Page*, 24 How. 167; *Jones v. Morehead*, 1 Wall. 162; *Stimpson v. Woodman*, 10 Wall. 121.

Actual invention or discovery must have been made, and the English courts apply this rule more readily and with a much closer scrutiny than is done in this country. — *Dunbar v. Meyers*, 94 U. S. 187; 24 L. Ed. 34.

Ralston v. Smith, 11 H. L. Cases, 223; *Harwood v. R. R.* 11 H. L. Cas. 654; *Jordan v. Moore*, L. R. 1 C. P. 624; *Kay v. Marshall*, O. & F. 245; *Bush v. Fox*, 5 H. L. Cas. 707; *Tetley v. Easton*, 2 C. B. (N. S.) 70; *Horton v. Mabon*, 12 C. B. (N. S.) 437; *Ormson v. Clarke*, 4 C. B. (N. S.) 475; *Parks v. Stevens*, L. R. 8 Eq. 358; *Envelope v. Seymer*, 5 C. B. (N. S.) 471; *Ormson v. Clarke*, 13 C. B. (N. S.) 337; *Ralston v. Smith*, 9 C. B. (N. S.) 117; *Sanders v. Aston*, 3 B. & A. 881; *Seed v. Higgins*, 8 El. & Bl. 755.

The process of development in manufactures creates a constant demand for new appliances, which the skill of ordinary head workmen and engineers is generally adequate to devise, and which, indeed, are the natural and proper outgrowth of such development. Each step forward prepares the way for the next, and each is usually taken by spontaneous trials and attempts in a hundred different places. To grant to a single party a monopoly of every slight advance made, except where the exercise of invention somewhat above ordinary mechanical or engineering skill is distinctly shown, is unjust in principle and injurious in its consequences.

The design of the patent laws is to reward those who make some substantial discovery or invention, which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favor. It was never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufacture. Such an indiscriminate creation of exclusive privileges tends rather to obstruct than to stimulate invention. It creates a class of speculative schemers who make it their business to watch the advancing wave of improvement, and gather its foam in the form of patented monopolies, which enable them to lay a heavy tax upon the industry of the country, without contributing anything to the real advancement of the arts. It embarrasses the honest pursuit of business with fears and apprehensions of concealed liens and unknown liabilities, to law suits, and vexatious accountings for profits made in good faith. — *Atlantic v. Brady*, 107 U. S. 192; 27 L. Ed. 438; 2 S. Ct. 225.

The provisions of the Constitution (Art. 1, Sec. 8) is that "the Congress shall have power to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." The beneficiary must be an inventor and he must have made a discovery. The statute has always carried out this idea. Under the Act of July 4, 1836, 5 S. at L. 119, 36, in force when the patents were granted, the patentee was required to be a person who had "discovered or invented" a new and useful art, machine, manufacture or composition of matter. "In the Act of July 8, 1870, 16 S. at L. 201, 324, the patentee was required to be a person who had invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof;" and that language is reproduced in Sec. 4886 of the R. S. So 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 a discovery. — *Thompson v. Boisselier*, 114 U. S. 1; 29 L. Ed. 76; 5 S. Ct. 1042.

Vinton v. Hamilton, 104 U. S. 485; *Hall v. McNeal*, 107 U. S. 90; *Atlantic v. Brady*, 107 U. S. 192; *Slawson v. R. R.* 107 U. S. 649; *King v. Gallun*, 109 U. S. 99; *Tuck v. Mfg. Co.* 109 U. S. 117; *Esty v. Burdett*, 109 U. S. 633; *Bussey v. Mfg. Co.* 110 U. S. 131; *R. R. v. Truck Co.* 110 U. S. 490; *Phillips v. Detroit*, 111 U. S. 604; *Morris v. McMillin*, 112 U. S. 244; *Hollister v. Mfg. Co.* 113 U. S. 59.

But the object of an invention is a very different thing from the invention itself. The object may be accomplished in many ways; the invention shows one way. — *White v. Dunbar*, 119 U. S. 47; 30 L. Ed. 303; 7 S. Ct. 72.

Patents cover the means employed to effect results. Neither an idea nor a function, nor any other abstraction, is patentable in a machine patent. — *Goshen v. Bissell*, 72 Fed. 67; 19 C. C. A. 13.

Burr v. Duryee, 1 Wall. 570; *Fuller v. Yentzer*, 94 U. S. 288; *Eames v. Andrews*, 122 U. S. 40; *Roberts v. Ryer*, 91 U. S. 150; *McCormick v. Aultman*, 69 Fed. 371; *Pfeifer v. Dixon*, 55 Fed. 390.

The invention resides in the conception and its embodiment. — *Rose v. Hirsh*, 77 Fed. 469; 23 C. C. A. 246.

A patent must combine utility, novelty, and invention. It may, in fact, embrace utility and novelty in a high degree, and still be only the result of mechanical skill, as distinguished from invention. A person, to be entitled to a patent, must have invented or discovered some new and useful art, machine, manufacture, or composition of matter, or some new and useful improvement thereof. In the language of the Supreme Court:

“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 statute, amount to an invention or discovery.” *Hill v. Wooster*, 132 U. S. 701, and authorities there cited. — *Klein v. Seattle*, 77 Fed. 200; 23 C. C. A. 114.

If the fact that an improvement was found to be novel and useful should inevitably establish that the improvement came from an inventor, the skilled mechanic would be eliminated from the *dramatis personae*, and his part utterly deleted from the play of progress. — *Seiler v. Fuller*, 121 Fed. 85; 57 C. C. A. 339.

Patents are granted for advances in the useful arts, nor for increments of knowledge. — *Diamond v. Westinghouse*, 152 Fed. 704; 81 C. C. A. 630.

§ 680. Patentability — Patentable Difference.

The fact that the patent in suit was pending before the Department with another application owned by the plaintiff set up by the defense is strong evidence the plaintiff did not consider them competitive inventions. — *Pope v. Gormully*, 144 U. S. 248; 36 L. Ed. 420; 12 S. Ct. 637.

Issue of another patent *prima facie* evidence. — *Miller v. Eagle*, 151 U. S. 186; 38 L. Ed. 121; 14 S. Ct. 310.

Corning v. Burden, 56 U. S. 252; *Duff v. Sterling*, 107 U. S. 636.

As both applications were pending in the Patent Office at the same time, and as the respective letters were granted, it is obvious that it must have been the judgment of the officials that there was no occasion for an interference and that there were features which distinguished the one from the other. — *Boyd v. Janesville*, 158 U. S. 260; 39 L. Ed. 973; 15 S. Ct. 837.

American v. Elizabeth, 4 Fish. P. C. 189; *Burns v. Myer*, 100 U. S. 671.

The presumption from the grant of the letters patent is that there was a substantial difference between the inventions. — *Kokomo v. Kitselman*, 189 U. S. 8; 47 L. Ed. 689; 23 S. Ct. 521.

The issue of a subsequent patent relating to the same art is evidence presumptive of patentable difference although the two patents were not in interference nor concurrently before the patent office. — *Ney v. Ney*, 69 Fed. 405; 16 C. C. A. 293.

Boyd v. Tool Co. 158 U. S. 260.

In *Corning v. Burden*, 15 How. 265, the Supreme Court, after referring to the presumption which attends the fact that, after an examination of the records of the patent office, a patent has been issued for the plaintiff's invention, said:

"It is not easy to perceive why the defendant who uses a patented machine should not have the benefit of a like presumption in his favor, arising from a like investigation of the originality of his invention, and the judgment of the public officers that his machine is new, and not of the patent previously granted to the plaintiff."

The case of *Blanchard v. Putnam*, 8 Wall. 420, overruled this holding of the court and decided that evidence of the defendant's patent is not admissible.

The decision in *Blanchard v. Putnam* was followed in the trial of this case and also that of *Norton v. Can Co.* 59 Fed. 137 where it was said:

"Abstractly, it would seem that, if the plaintiff's patent was prima facie evidence of novelty (difference from things before it); a subsequent patent to the defendant, or for a device used by the defendant, would be prima facie evidence of novelty (difference from all things before it, and hence from the plaintiff's device) and hence would be admissible in evidence on the issue of infringement, and its use would be innocent, and it was so held in *Corning v. Burden*, 15 How. 271. But this case was overruled in *Blanchard v. Putnam*, 8 Wall. 420."

The recent cases, however, of *Miller v. Mfg. Co.* 151 U. S. 208, and *Boyd v. Tool Co.* 158 U. S. 260, citing *Pavement Co. v. Elizabeth*, 4 Fish. P. C. 189, expressly affirms the doctrine of *Corning v. Burden*, and held that the issuance of the defendant's patent creates a prima facie presumption of a patentable difference from the prior patent of the plaintiff. The plaintiff in error was entitled, therefore, to an instruction which would permit the jury to consider the presumption that the law creates from the fact that a patent has issued in any case. — *Ransome v. Hyatt*, 69 Fed. 148; 16 C. C. A. 185.

That Lorraine and Aubin were granted a patent for their combination affords a presumption that there is a patentable difference between their device and those of Janey or any of the many improvers who obtained patents between Janey and the application of Lorraine and Aubin. — *St. Louis v. National*, 87 Fed. 885; 31 C. C. A. 265.

Boyd v. Tool Co. 158 U. S. 250.

The rule is well settled that the grant of a subsequent patent raises a legal presumption of patentable difference from the earlier invention. — *Milwaukee v. Brunswick-Balke*, 126 Fed. 171; 61 C. C. A. 175.

Miller v. Eagle, 151 U. S. 186; *Kokomo v. Kitselman*, 189 U. S. 8.

That the grant of a subsequent patent covering the device alleged to infringe is evidence of patentable difference see *Union v. Diamond*, 162 Fed. 148; 89 C. C. A. 172.

Boyd v. Janesville, 158 U. S. 260; *Kokomo v. Kitselman*, 189 U. S. 8.

§ 681. Patentability — Duty of Court.

It is a thoroughly settled rule that, as to patentability and the range of the claims in a patent, inasmuch as these matters concern the public at

large, the court will not allow parties to frame their issues in such a way as to take from it the scrutiny of all the questions which may be involved. — *Millard v. Chase*, 108 Fed. 399; 47 C. C. A. 429.

Note: This is a sound rule. It is one which should be followed, and which is not followed to any extent whatever. It should be the duty of the court when it has a patent before it so narrow or so weak that infringement cannot be established, instead of following the line of least resistance and disposing of the case on noninfringement, to perform its duty by the public as well as by the parties, and, if on investigation the patent is found wanting in patentable novelty, to destroy then and there the monopoly improperly granted.

The judge who heard the case in the court below, apparently for a kindly desire to save the patent from extinction, contented himself with giving it a construction so narrow that it would not include defendant's tube. In affirming the decree of the court below we are constrained to base our decision upon the invalidity of the patent. — *Hurlbut v. U. S.*, 124 Fed. 66; 59 C. C. A. 626.

§ 682. Patentability — Mental Conception.

The complainant's claim to be enrolled upon the list of inventors is based upon propositions too theoretical and visionary for acceptance. — *Marchand v. Emken*, 132 U. S. 195; 33 L. Ed. 332; 10 S. Ct. 65.

Dreyfus v. Searle, 124 U. S. 60; *Crescent v. Gottfried*, 128 U. S. 158; *Hollister v. Benedict*, 113 U. S. 59.

Mere conception is not invention. It is the crystallizing of that conception into the invention itself, operative and practical, that entitled the inventor to the protection of letters patent. — *Forgie v. Oil Well*, 58 Fed. 871; 7 C. C. A. 551.

The mere existence of an intellectual notion that a certain thing could be done, and, if done, might be of practical utility, does not furnish a basis for a patent, or estop others from developing practically the same idea. — *Standard v. Peters*, 77 Fed. 630; 23 C. C. A. 367.

Agawam v. Jordan, 7 Wall. 583; *Cristie v. Seybold*, 55 Fed. 69.

And here we may observe that a mere mental conception, not tested or reduced to practice, nor followed by any embodiment of the idea, is not invention. — *Mississippi v. Franzen*, 143 Fed. 501; 74 C. C. A. 135.

This was the patent on expanded metal — the well-known article which consists in slitting sheet metal and stretching the intervening strips of metal. *Held:* We have been obliged to come to the conclusion that the so-called invention was not really an invention at all within the meaning of the patent laws. As we regard the application, it was no more than the announcement by Golding of a happy thought, unaccompanied by any sufficient description of the means by which his thought might be realized. Indeed it does not seem unfair to add, that the applicant himself was in such doubt about the validity of the patent that he hastened to take out a patent for a machine by which the desired result could be accomplished. The applicant is asking for a patent upon what may have been a valuable idea, but was after all no more than this. — *Bradford v. Expanded*, 146 Fed. 984; 77 C. C. A. 230. Reverse 1, 214 U. S. 366.

Rob. on Pat. 509; *Risdon v. Medart*, 158 U. S. 68

Note: This a wrong application of the rule stated by Robinson. If the inventor did, as a matter of fact, even as a "happy thought," hit upon a

new article of manufacture which possessed utility as well as novelty, he was entitled to a patent. Put to the test of novelty and utility, and surviving both tests, the court should have held the patent good. Such course would have conformed to good judgment, whether it squared with academic reasoning or not.

§ 683. Patentability — Scientific Principles and Ideas.

A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented as no one can claim in either of them an exclusive right. — *Le Roy v. Tatham*, 14 How. 156; 14 L. Ed. 367.

The discovery of a principle in natural philosophy or physical science is not patentable. — *O'Reilly v. Morse*, 15 How. 62; 14 L. Ed. 601.

We find no authority to grant a patent for a "principle" or a "mode of operation" or an idea or any other abstraction. — *Burr v. Duryee*, 68 U. S. 531; 17 L. Ed. 750.

An idea of itself is not patentable, but a new device by which it may be made practically useful is. — *Rubber Tip v. Howard*, 87 U. S. 498; 22 L. Ed. 410.

A principle or an idea is not patentable. — *Fuller v. Yentzer*, 94 U. S. 288; 24 L. Ed. 103.

Burr v. Duryee, 1 Wall. 531.

Their discovery, which is conceded to be valuable and of great benefit, was that the old process of fumigating trees by means of an oiled tent and hydrocyanic acid gas, both of which were old and free to the public, could be made successful "provided the fumigation is done at night." Such a discovery, however new and valuable it may be, is not within the pale of patentable inventions. It does not come within any of the principles of the patent law, or any of the provisions of the statute relating to patents. A mere naked principle, a law of nature or property of matter cannot be patented. So long as the principle is a mere item of knowledge, and sometimes from its nature it must always remain such, no patent can be held valid, however brilliant and useful the discovery may be. — *Wall v. Leck*, 66 Fed. 552; 13 C. C. A. 630.

Merw. Pat. Inv. 4, 73, 529; 1 Rob. Pat. sec. 140; *LeRoy v. Tatham*, 14 How. 156; *Morton v. Infirmary*, 2 Fish. P. C. 320.

A principle, considered as a natural physical force, is not the product of inventive skill. It is the common property of all mankind. It exists in nature independently of human effort, and can neither be diminished nor increased by human power. Man can discover and employ it, but his employment of it in the modes or through the instrumentalities by which it is applied in nature is a mere imitation of what every man is able to perceive and reproduce as well as he. All endeavors to confine it to himself are at once futile and unjust. It exists for all men, as well after his discovery as before. The laws necessarily recognize and protect his right, and do not permit any man to exclusively use the conditions which are the gifts of nature, simply because he was the first one to discover its value. Not until some new instrument or method is contrived for its direction towards ends which it cannot naturally accomplish does his creative genius manifest itself. — *Wall v. Leck*, 66 Fed. 552; 13 C. C. A. 630.

1 Rob. Pat. sec. 136 et seq.; *Detmold v. Reeves*, 1 Fish. P. C. 131; *Morton v. Infirmary*, 2 Fish. P. C. 320; *Morton's Patent*, 8 Op. Attys. Gen. 269.

The magnetic current is not itself a part of the device or invention any more than a current of water is an element of a water wheel. — *Thomson-Houston v. Western*, 70 Fed. 69; 16 C. C. A. 642.

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, must itself be unanticipated. — *Voightmann v. Perkinson*, 138 Fed. 56; 70 C. C. A. 482.

§ 684. Patentability — Miscellaneous Rules.

It would seem that an architectural design, such as an improvement in the construction of jails, is not patentable. — *Jacobs v. Baker*, 74 U. S. 295; 19 L. Ed. 200.

Whether an invention covering an "improvement in the constructions and operation of prisons" comes within any of the classes of patentable inventions doubted in *Fond du Lac v. May*, 137 U. S. 395; 34 L. Ed. 714; 11 S. Ct. 98.

Jacobs v. Baker, 74 U. S. 295.

An invention made principally to forestall competition in trade rather than to obtain the just reward of invention will not be looked upon favorably. — *Pope v. Gormully*, 144 U. S. 254; 36 L. Ed. 426; 12 S. Ct. 643.

Complainant consulted an inventor and manufacturer of machinery owning a patent upon a certain device as to devising improved means for performing an operation in complainant's business. The inventor consulted, at complainant's suggestion, made an adaptation of his patented device and constructed a device for complainant's use. Complainant bought and used the device and others; and a year later, took out a patent thereon in his own name. *Held*: That the suggestions of complainant did not amount to invention and that the manufacturer was the true inventor. — *Forgie v. Oil Well*, 58 Fed. 871; 7 C. C. A. 551.

If such a movement is patentable, evidently it must be because in itself, and apart from any mechanism, it constitutes "a new and useful art." R. S. 4886. There seems to be no controlling reason against considering the claims as if for mechanisms. — *Campbell v. Michle*, 102 Fed. 159; 42 C. C. A. 235.

§ 685. Process — Definition.

The processes used to extract, modify and concentrate natural agencies, constitute invention. The elements of the power exist; the invention is not in discovering them but in applying them to useful objects. Whether the machinery used be novel, or consist of a new combination of parts known, the right of the inventor is secured against all who use the same mechanical power, or one that shall be substantially the same. — *Le Roy v. Tatham*, 14 How. 156; 14 L. Ed. 367.

A process which attains a new and previously unknown result is novel and patentable, though the elements of the process are not novel. — *Mowry v. Whitney*, 81 U. S. 620; 20 L. Ed. 860.

In this case the inventor had a patent upon a process for preparing raw hides for belting, etc. In his claim he uses the words "prepared raw hide." The specification describes the entire several processes including that of

removing the hair and producing a "prepared raw-hide." Effort was made to limit the extent of the process to the several steps subsequent to those of preparing the hide. *Held*, that as these first steps were made an essential part of the specification and were fully described and the advantages set out, he is not at liberty to construe his invention by curtailment of the steps involved so as to place in infringement another using the subsequent steps of the process. — *Royer v. Coupe*, 146 U. S. 524; 36 L. Ed. 1073; 13 S. Ct. 166.

The familiar doctrine was not overlooked, though not restated, that a process consisting of different steps, like a combination of different mechanical elements, may be new and patentable though every step by itself be old. But when a process has no novelty unless it can be found in a particular step, and it proves to be wanting there, the entire process necessarily lacks patentability. — *Evans v. Suess*, 86 Fed. 779; 30 C. C. A. 367.

This patent cannot be sustained on the ground merely that the production of a pyroxyline compound in imitation of onyx or its production in the manner described in the specification was novel. It is necessary that such production should also have involved invention. — *Arlington v. Celluloid*, 97 Fed. 91; 38 C. C. A. 60.

§ 686. Process — Mechanical.

The case of *Westinghouse v. Boyden*, 170 U. S. 537, absolutely unsettles the question of the patentability of a mechanical process. The invention in question is the discovery by Westinghouse of the accomplishment of a new function, viz., sending the train-pipe air, in emergency, along with the reservoir air to produce a quick or emergency action. Westinghouse clearly was the first to perform this function, and he disclosed in his patent mechanical means for carrying out his discovery. Boyden invented mechanical means for performing the same function, and apparently as good or better means. It is not denied that the utilization of this function or process was well-nigh as great a discovery as that of the original air-brake by Westinghouse — it is even so admitted in the opinion of Mr. Justice Brown. But the court held by a bare majority of one (Justices Shiras, Brewer, Gray and McKenna dissenting) that although Westinghouse was unquestionably the discoverer of the function and the patentee of the process, the patent (although a pioneer) must be limited to the mechanical combination of the patent or absolute equivalents.

In order to show the unsettled holding, the following extracts are given from the opinion of Mr. Justice Brown and the dissenting opinion of Mr. Justice Shiras in which Mr. Justice Brewer concurred, Justices Gray and McKenna generally dissenting from the opinion and decision of the court.

Opinion of Court

The difficulty we have found in this claim is this: That, if it be interpreted simply as a claim for the function of admitting air to the brake cylinder directly from the train-pipe, it is open to the objection (held in several cases to be fatal) that the mere function of a machine cannot be patented (*Corning v. Burden*, 15 How. 252; *Burr v. Duryea*, 1 Wall. 531; *Fuller v. Yentzer*, 94 U. S. 288; *Locomotive v. Medart*, 158

Dissenting Opinion

It in no wise detracts from the merit of this invention that later devices have been adopted which under its practical operation are 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. Being of the character as described as a pioneer, the patent in suit is entitled to a broad

U. S. 68; *Wick v. Ostrum*, 103 U. S. 461; *Paper Bag Case*, 30 Fed. 63; *Machine Co. v. Waterbury*, 39 Fed. 771).

This rule was clearly laid down in the leading case of *Corning v. Burden*, 15 How. 252, in which Mr. Justice Grier, delivering the opinion of the court, drew the distinction between such processes as were the result or effect of "chemical action, by the operation or application of some element or power of nature, or of one substance to another" and the mere result of the operation of a machine. . . . We have no desire to qualify the repeated expressions of this court to the effect that, when the invention is functional and the defendant's device differs from that of the patentee only in form or in a rearrangement of the same elements of the combination, he would be adjudged an infringer, even if, in certain particulars, his device be an improvement upon that of the patentee. But after all, even if the patent for a machine be a pioneer, the alleged infringer must have done something more than reach the same result. He must have reached it by substantially the same or similar means, or the rule that the function of a machine cannot be patented is of no practical value. To say that the patentee of a pioneer invention for a new mechanism is entitled to every mechanical device which produces the same result is to hold in other language, that he is entitled to a patent for his function. Mere variations of form may be disregarded, but the substance of the invention must be there. . . . "That two machines produce the same effect will not justify the assertion that they are substantially the same, or that the devices used are therefore mere equivalents for those of the other."

or liberal construction. In other words, the invention is not to be restricted narrowly to the mere details of mechanism described as a means of carrying the invention into practical operation.

I cannot assent to what is perhaps rather intimated than decided in the opinion of the court, — that what is called a "process," in order to be patentable, must involve a chemical or other similar elemental action." The term "process or method" as describing the subject of a patent, is not found in the statutes. No reason is given in the authorities, and I can think of none in the nature of things, why a new process or method may not be patentable, even though a mechanical device or a mechanical combination may be necessary to render the new process practicable. It seems to be used by the courts as descriptive of an invention which, from its novelty and priority in the art to which it belongs, is not to be construed as inhering only in the particular means described in the letters patent as sufficient to exemplify the invention and bring it into practical use.

Winans v. Denmead, 15 How. 330; *McCormick v. Talcott*, 20 How. 402; *Machine Co. v. Lancaster*, 129 U. S. 263; *Proctor v. Bennis*, 36 Ch. Div. 740; *Neilson's Pat.* Web. P. C. 275; 715; *Tilghman v. Proctor*, 102 U. S. 767; *O'Reilly v. Morse*, 15 How. 62; *Telephone Cases*, 126 U. S. 1. . . .

The conclusion justified by the authorities is that whether you call Westinghouse's discovery, that "quick action" may be accomplished by the co-operation of the main pipe air and that from the reservoir, a "process" or a "mode of operation," yet if he was the first to declare it, and to describe a mechanical means to give practical effect to the invention, he must be regarded as a pioneer inventor, and as entitled to protection against those who, availing themselves of the discovery, seek to justify themselves by pointing to mere differences in mechanical form in the mechanical devices used.

— *Westinghouse v. Boyden*, 170 U. S. 537; 42 L. Ed. 1136; 18 S. Ct. 707.

Note: It is perfectly clear that this dire confusion of a principle of law could have been avoided and the proper award made Westinghouse for his great invention, rather than leaving him with the empty compliment of being a "pioneer," if the court had held to a broad, sane application of the doctrine of equivalents; but this the court did not do, and to what extent the next great "pioneer" will be shorn of the fruits of his genius by this narrow American rule, no one can surmise. With Germany holding "functional" claims the proper form, and England recognizing generic mechanisms capable of protection by functional claims, it seems to us Mr. Justice Shiras has the better of the argument.

When he disclosed his process, he disclosed enough to enable any mechanic familiar with the art or industry to which this discovery belonged to construct the apparatus essential to the employment of the patented process (the process of separating cotton hulls and lint). — *Johnson v. Foos*, 141 Fed. 73; 72 C. C. A. 105.

Whether a mechanical process is patentable, see *Daylight v. American*, 142 Fed. 454; 73 C. C. A. 570.

§ 687. Process — Non-Patentable.

This was simply the application by the patentee of an old process to a new subject, without any exercise of the inventive faculty and without the development of any idea which can be deemed new or original in the sense of the patent law. The thing was within the circle of what was well known before, and belonged to the public. No one could lawfully appropriate it to himself and exclude others from using it in any usual way for any purpose to which it may be desired to apply it. — *Brown v. Piper*, 91 U. S. 37; 23 L. Ed. 200.

Ames v. Howard, 1 Sumn. 487; *Howe v. Abbott*, 2 Story, 194; *Bean v. Smallwood*, 2 Story, 411; *Winans v. R. R.* 2 Story, 412; *Hotchkiss v. Greenwood*, 11 How. 248.

A mere difference in degree or thoroughness of a process resulting in the same but more advantageous product is mechanical skill, not invention. — *Commercial v. Fairbank*, 135 U. S. 176; 34 L. Ed. 88; 10 S. Ct. 972.

The complainants do nothing more than apply the lumps or cartridges to beer instead of to water, and thus adopt an old form or method of applying the alkali, without any novelty in the mode of application; and this, it has been frequently decided, will not sustain a patent even if the new form of result had not been before contemplated. — *Zinsser v. Krueger*, 48 Fed. 206; 1 C. C. A. 73.

Railroad v. Locomotive, 110 U. S. 490.

A mere intellectual process, such as "means for securing against excessive losses of bad debts" is not patentable. — *U. S. Credit v. American*, 59 Fed. 139; 8 C. C. A. 49.

§ 688. Process — Process and Machine.

Where the patentee has produced a better, though not novel, article of manufacture, and described and claimed his invention in the terms of his process, it was held, that all he invented was a machine for the more perfect manufacture, but that the operation or function of such machine was not patentable. — *Risdon v. Medart*, 158 U. S. 68; 39 L. Ed. 899; 15 S. Ct. 745.

Neilson v. Harford, 1 Web. P. C. 381; *O'Reilly v. Morse*, 50 U. S. 62, 115; *Househill v. Neilson*, 1 Web. P. C. 673; *Tilghman v. Proctor*, 102 U. S. 708; *Mowry v. Whitney*, 81 U. S. 620; *Cochrane v. Deener*, 94 U. S. 780; *New Process v. Maus*, 122 U. S. 413; *Telephone Cases*, 126 U. S. 1; *Bell Tel. v. Dolbear*, 15 Fed. 488; *Wyeth v. Stone*, 1 Story, 273; *Corning v. Burden*, 56 U. S. 252; *McKay v. Jackman*, 12 Fed. 615; *Brainard v. Cramme*, 12 Fed. 621; *Gage v. Kellogg*, 23 Fed. 891; *Hatch v. Moffat*, 15 Fed. 252; *Sickles v. Falls*, 4 Blatchf. 518; *Excelsior v. Union*, 32 Fed. 221.

(The patent contained both machine and process claims). The defense therefore is not the press upon the process. It is the other way, the process upon the press; for it is impossible to consider the 5th claim as describing anything but the operation and effect of the press. What, indeed, is the process — what is the force at work? And the inquiry is entirely independent of the questions as to what constitutes a patentable process discussed by this court in *Risdon v. Medart*, 158 U. S. 69; and in *Westinghouse v. Boyden*, 170 U. S. 537. What then, is the force at work and how is it applied? It is force (pressure) applied to sheets of paper placed between "compressing heads." In other words, a special application of pressure began in the press and continued in the bundle by means of strings and cords. This, however, is the operation and effect of the machine, and it is none the less so because the pressure is held indefinitely. Its existence in the bundle is not independent of the press. The pressure is as much an effect in the bundle as when first applied. The pressure is applied by the press. — *Busch v. Jones*, 184 U. S. 598; 46 L. Ed. 707; 22 S. Ct. 511.

It is established by authority that an inventor may be entitled to a patent for the method or process for producing new and useful results, and also for the means by which it is produced, when the method or process is susceptible of being performed by known means, and the means invented are of such a character as to merit a patent. — *Dayton v. Westinghouse*, 118 Fed. 562; 55 C. C. A. 390.

Merrill v. Yeomans, 94 U. S. 568.

§ 689. Property of Matter.

A new property discovered in matter, when practically applied, in the construction of a useful article of commerce or manufacture, is patentable. — *Le Roy v. Tatham*, 14 How. 156; 14 L. Ed. 367.

Househill v. Nelson, Web. P. C. 683; See, *Le Roy v. Tatham* (S. C.) 22 How. 132.

He had discovered a new property or force in matter, and had made practical application of such newly discovered force to an object. This was patentable. — *American v. Howland*, 80 Fed. 395; 25 C. C. A. 500.

Poillon v. Shmidt, Fed. Cas. 11,241; *Smith v. Ely*, Fed. Cas. 13,043; *Parker v. Hulme*, Fed. Cas. 10,740; *LeRoy v. Tatham*, 14 How. 156; *Collar Co. v. White*, Fed. Cas. 11,396; *Ansonia v. Electrical*, 144 U. S. 11; Rob. Pat. sec. 101.

§ 690. Result or Function.

A patent is not good for an effect, or the result of a certain process, as that would prohibit all other persons from making the same thing by any means whatsoever. This, by creating monopolies, would discourage arts and manufactures against the avowed policy of the patent laws. — *Le Roy v. Tatham*, 14 How. 156; 14 L. Ed. 367.

He claims a patent for an effect produced by the use of electro-magnetism, distinct from the process or machinery necessary to produce it. No patent

can lawfully issue for such a claim. — *O'Reilly v. Morse*, 15 How. 62; 14 L. Ed. 601.

It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted, and not for the result or effect itself. — *Corning v. Burden*, 15 How. 252; 14 L. Ed. 683.

The result produced by a machine or combination is not patentable. — *Brown v. Guild*, 90 U. S. 181; 23 L. Ed. 161.

The prior structures never effected the kind of result attained by Richardson's apparatus, because they lacked the thing which gave success. — *Consolidated v. Crosby*, 113 U. S. 157; 28 L. Ed. 939; 5 S. Ct. 513.

The plaintiff may or may not have been entitled to a patent for the machinery employed in the manufacture of the article in question; but he certainly was not entitled to a patent for the function of such machine, nor to the completed article which differs from the prior ones only in its superior workmanship. — *Risdon v. Medart*, 158 U. S. 68; 39 L. Ed. 899; 15 S. Ct. 745.

The distinction between the object of an invention and the means contrived for its accomplishment should not be forgotten. The object to be achieved is not patentable; the means may be. — *Brush v. Western*, 76 Fed. 761; 22 C. C. A. 543.

That an unexpected function develops in actual use, which cannot be referred to the combination described and claimed, if the combination described and claimed is anticipated by a prior patent, such new function is not sufficient to distinguish the invention from the anticipation. — *Magic v. Economy*, 97 Fed. 87; 38 C. C. A. 56.

Corning v. Burden, 15 How. 252; *Westinghouse v. Power Brake Co.*, 170 U. S. 537.

The mere end and purpose sought to be accomplished by a device is not the subject of a patent, but only the new and useful means for obtaining that end. — *Hickory v. Frazier*, 100 Fed. 99; 40 C. C. A. 296.

Knapp v. Morss, 150 U. S. 221; *Wollensak v. Sargent*, 151 U. S. 227.

While mere results are not ordinarily patentable, many constructions, and many processes, — simple and obvious enough when looked at after the occurrence, — have been held to be patentable inventions, not so much because the patentee exerted inventive thought in his immediate work of construction, as because the step taken lay toward the creation of some new aid to the convenience of mankind — some distinct addition to the equipment of civilized classes. — *Indiana v. Crocker*, 103 Fed. 496; 43 C. C. A. 287.

Note: Certainly this is a remarkable holding; for nowhere else in the books do I know of a case which has for one moment maintained that a result could be made the subject of a claim. While it is true that, in a sense, a process and a product are both patentable and in that sense, the result may be patented, there is no authority for the suggestion that "mere result" might possibly be patentable.

These ways of varying resistance, and the difference between them, have been brought out and emphasized by the learned and skilled experts. These ways are simply the different modes of operation of the material which com-

pose the electrodes. They certainly cannot form the basis for any method patent covering all materials whose mode of operation is the same, because there is nothing in the so-called area varying method, or density varying method, or intimacy of contact method, considered by themselves and apart from the discovery of microphonic action, or the special properties of some material like carbon, which has ever contributed anything to the progress of the telephonic art. — *American v. National*, 119 Fed. 893; 56 C. C. A. 423.

Where a new result has been attained by some patentable mode of operation, the patentee cannot have a monopoly of the new result. It is open for any one to devise and patent a new means of producing the same result — a means that has a different principle of operation — and one who succeeds in doing this is not an infringer of the older patent. — *Ries v. Barth*, 136 Fed. 850; 69 C. C. A. 528.

§ 691. Scientific Principles and Laws.

Imparting to matter a peculiar motion in rotation according to the natural laws of fluids for the purpose of assisting a chemical process, the means employed being old, is not patentable. — *Marchand v. Emken*, 132 U. S. 195; 33 L. Ed. 332; 10 S. Ct. 65.

The inventor need not understand the philosophic principle embodied in his invention. — *Cowles v. Lowrey*, 79 Fed. 331; 24 C. C. A. 616.

Eames v. Andrews, 122 U. S. 40.

That while a physical law or law of nature, like centrifugal action, is not patentable, the means of employing the same to effect a definite result may be patentable; but such patent will not cover other means for effecting the same result, see *Whitaker v. Huntington*, 95 Fed. 471; 37 C. C. A. 151.

He describes the process, the mode of operation and the result, and the means for obtaining it. The scientific principle is not part of the process, is not patentable, and need not be set forth. — *Emerson v. Nimocks*, 99 Fed. 737; 40 C. C. A. 87.

Eames v. Andrews, 122 U. S. 40.

While a law of nature — the mere principle — is not patentable, the inventor of means by which the principle can be utilized may be entitled to a patent. The new application of the law by the described mechanical means to a new purpose, which affords a new and useful practical result, is patentable. — *Thomson-Houston v. Nassau*, 107 Fed. 277; 46 C. C. A. 263.

Nor can the Bardsley patent be construed to rightfully exclude others from using a jet of water, tangentially applied to the inner surface of a bowl, to revolve the bowl. This was a law of nature, well known before the Bardsley device. — *Johnson v. McCurdy*, 108 Fed. 671; 47 C. C. A. 577.

The motor only utilized a well-known law of nature — that a jet of water, applied tangentially to the inner surface of a basin nicely pivoted, would tend to revolve it. This had been partially exemplified for many years in preceding water motors. — *Justi v. Clark*, 108 Fed. 659; 47 C. C. A. 565.

It was not, in any just sense, an independent discovery in nature, subsequently utilized in one of the arts; for, in substance, it was nothing but a chemical search into a chalk already in the art, for the ingredients which

gave to such chalk its excellence. It was research, but not patentable discovery. — *Hoskins v. Matthes*, 108 Fed. 404; 47 C. C. A. 434.

When, under special circumstances, a particular practical application of a known principle proves to be of advantage in the arts, and yet the thought of making it has not occurred to those expert therein, such application, at times, involves invention. — *Westinghouse v. Stanley*, 133 Fed. 167; 68 C. C. A. 523.

Watson v. Stevens, 51 Fed. 757; *Heap v. Tremont*, 82 Fed. 449; *Western v. La Rue*, 139 U. S. 601; *National v. Boston*, 156 U. S. 502; *DuBois v. Kirk*, 158 U. S. 58.

We do not understand that this ignorance of the patentee, or the knowledge subsequently gained from the prior art, affects the status of the invention in suit. The fact that the patentee did not fully understand the principle upon which his invention operated, or that his instructions were capable of a construction which would render the patent impracticable and defeat its purposes, should not deprive him of the benefit of a meritorious invention, provided it appears, as is found in this case, that the patent sufficiently disclosed to those skilled in the art the cause of previous defects and a new and useful discovery and invention by means of which they might be successfully overcome. He is not to be deprived of the benefit of his invention because he may have been mistaken in his statement of the reasons why the result was secured, or may have failed to correctly state the theory of their operation. — *Westinghouse v. Montgomery*, 153 Fed. 890; 82 C. C. A. 636.

Dixon v. Pfeifer, 55 Fed. 390.

§ 692. Simplicity — Does not Negative Invention.

The simplicity of an invention, or the fact that it might have occurred to anyone, does not negative invention. Citing *Loom Co. v. Higgins*, 105 U. S. 591. — *Pittsburgh v. Roberts*, 71 Fed. 706; 18 C. C. A. 302.

To obtain absolute simplicity is the highest trait of genius. — *Dececo v. Gilchrist*, 125 Fed. 293; 60 C. C. A. 207.

It cannot be denied that a mere simplification of a very substantial character, disposing of parts which have long been in use, expensive and burdensome in their nature, and which the trade has found no method of dispensing with, may amount to patentable invention. To obtain absolute simplicity is the highest trait of genius. — *Dececo v. Gilchrist*, 125 Fed. 293; 60 C. C. A. 207.

Hobbs v. Goodling, 111 Fed. 403; discussing *Richards v. Chase*, 159 U. S. 477; 159 U. S. 54; *National v. Hedden*, 148 U. S. 482; *Lawther v. Hamilton*, 124 U. S. 1; *Crescent v. Gottfried*, 128 U. S. 158.

The simplicity and obvious nature of East's device seem to be the chief argument against its patentability, but the books are full of cases where patents have been sustained for changes in methods which seem equally simple. — *Farmers' v. Spruks*, 127 Fed. 691; 62 C. C. A. 447.

Barbed Wire Pat. 143 U. S. 275; *Keystone v. Adams*, 151 U. S. 144; *Smith v. Goodyear*, 93 U. S. 498; *Topliff v. Topliff*, 145 U. S. 156; *Crown v. Aluminum*, 108 Fed. 845.

The device of the claim when completed is so diminutive in size and simple in construction that, unless care is taken, the assertion that there is no room for invention in so small a structure may receive greater consideration than is warranted. This court has repeatedly upheld patents for

similar improvements, the test being not the simplicity of the device, but the difficulties overcome and the result accomplished. — *U. S. Fastener v. Bradley*, 149 Fed. 222; 79 C. C. A. 180.

Fastener v. Littauer, 84 Fed. 164; *Kent v. Simons*, 39 Fed. 606; *Fastener v. Hays*, 100 Fed. 984; *Consolidated v. Fastener*, 79 Fed. 795.

§ 693. Simplicity — Ex post facto Judgment.

It should be borne in mind that this process was not one accidentally discovered, but was the result of a long search for the very purpose. The surprise is that the manufacturers of steel, having felt the want for so many years, should have never discovered from the multiplicity of patents and of processes introduced into this suit, and well known to the manufacturers of steel, that it was but a step from what they already knew to that which they had spent years in endeavoring to find out. It only remains now for the wisdom which comes after the fact to teach us that Jones (the inventor) discovered nothing, invented nothing, accomplished nothing. — *Carnegie v. Cambria*, 185 U. S. 403; 46 L. Ed. 968; 22 S. Ct. 698.

Loom Co. v. Higgins, 105 U. S. 591.

It is true the Jones patent is a simple one, and in the light of present experience it seems strange that none of the expert steel makers, who approached so near the consummation of their devices, should have failed to take the final step which was needed to convert their experiments into an assured success. This, however, is but the common history of important inventions, the simplicity of which seems to the ordinary observer to preclude the possibility of their involving an exercise of the inventive faculty. — *Carnegie v. Cambria*, 185 U. S. 403; 46 L. Ed. 968; 22 S. Ct. 698.

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.

It is difficult to draw the line between mechanical skill and patentable invention, and now that East has succeeded in producing a barrel of great commercial use, out of simple and inexpensive material, by what seems a trivial modification of previously known devices, it is easy to say that any mechanic skilled in the art, having before him the previous invention of Roberts, could readily have accomplished the same object by ordinary mechanical skill, but the fact remains that, notwithstanding the great demand and imperative need of the very thing that East produced, no other mechanic or barrel maker had ever produced such a barrel previous to East's patent. Simple as the device is, others failed to see it, or to estimate its value, or to bring it to the public notice. — *Farmers' v. Spruks*, 127 Fed. 691; 62 C. C. A. 447.

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 a commonplace in the jurisprudence of patent law. — *Buchanan v. Perkins*, 135 Fed. 90; 67 C. C. A. 564.

It is easy now to minimize its importance and say it consisted simply in applying a pneumatic hammer to a sieve, but the fact remains that, with the difficulty of enameling keenly recognized in the art, no one made such a combination. — *Mott v. Standard*, 159 Fed. 135; 86 C. C. A. 325.

§ 694. Simplification.

Under some circumstances it may happen that there is invention in substituting for a complex or expensive form something simple or inexpensive. If, therefore, the concave-convex form had been a long time in use, and the patentee had discovered that the convex-flat form was less expensive, and more simple, and yet would answer the purpose, and if he had been the first to put that discovery into practice, there might be invention in so doing, notwithstanding he had made a mistaken claim that his construction had other advantages; but the case does not show such a condition of things. — *Kenney v. Bent*, 97 Fed. 337; 38 C. C. A. 205.

While it is perhaps true that sometimes the mere simplification of mechanism by omitting parts may amount to patentable invention, yet this is only under exceptional circumstances. — *U. S. Peg-Wood v. Sturtevant*, 125 Fed. 378; 60 C. C. A. 244.

Patentable novelty may be found in an improvement which simplifies a complicated train of mechanism by eliminating some of its elements, with the result that the defects due to the presence of these elements are done away with. — *Brown v. Huntington*, 134 Fed. 735; 67 C. C. A. 639.

§ 695. Substitution — Elements.

There would be no invention in changing one of the elements of the Covel patent by bringing into it a feature of the Wilkin patent. — *Rich v. Baldwin*, 133 Fed. 920; 66 C. C. A. 464.

Overweight v. Vogt, 120 Fed. 957.

The evidence, we think, fairly leads to the conclusion that the patentee took the combination of Thyng's patent, but instead of using the form of link of that patent, substituted therefor another old form of link which had been commonly used for the same or analogous purposes. This substitution may have secured better results, but it did not involve invention. — *North Jersey v. Brill*, 134 Fed. 580; 67 C. C. A. 380.

Stimpson v. Woodman, 10 Wall. 117; *Smith v. Nichols*, 21 Wall. 112; *Pennsylvania v. Locomotive*, 110 U. S. 490; *Office Specialty v. Fenton*, 174 U. S. 492.

§ 696. Substitution — New Material — Non-Patentable.

But superiority of material of itself can never be the subject of a patent. 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 can be distinguished from the old one, or, in the sense of the patent law, can entitle the manufacturer to a patent. — *Hotchkiss v. Greenwood*, 11 How. 248; 13 L. Ed. 683.

A mere substitution for an element in a combination producing no change except a better result is not patentable. — *Hotchkiss v. Greenwood*, 11 How. 248; 13 L. Ed. 683.

Mere change of material is not sufficient to constitute invention, the purpose and the means being the same. — *Hicks v. Kelsey*, 85 U. S., 670; 21 L. Ed. 852.

Hotchkiss v. Greenwood, 11 How. 248; *Crane v. Price*, Web. P. C. 409; *Curt. Pat. secs. 70-73*.

Mere change in a machine, of one material for another, as wood or wood strengthened with iron for iron alone, is not invention. — *Dunbar v. Meyers*, 94 U. S. 187; 24 L. Ed. 34.

Hicks v. Kelsey, 18 Wall. 670.

The substitution of metal for wood was destitute both of patentable invention and utility. — *Terhune v. Phillips*, 99 U. S. 592; 25 L. Ed. 293.

The substitution of one material for another without involving a new mode of construction, or developing anything substantially new is not invention. — *Brown v. D. C.* 130 U. S. 87; 32 L. Ed. 863; 9 S. Ct. 437.

Hotchkiss v. Greenwood, 52 U. S. 248; *Hicks v. Kelsey*, 85 U. S. 670; *Smith v. Goodyear*, 93 U. S. 486; *Phillips v. Detroit*, 111 U. S. 604.

The substitution of one material for another which does not involve change of method nor develop novelty of use, even though it may result in a superior article, is not necessarily a patentable invention. — *Florsheim v. Schilling*, 137 U. S. 64; 34 L. Ed. 574; 11 S. Ct. 20.

Hotchkiss v. Greenwood, 52 U. S. 248; *Hicks v. Kelsey*, 85 U. S. 670; *Terhune v. Phillips*, 99 U. S. 592; *Brown v. D. C.* 130 U. S. 87.

The substitution of one material for another in the employment of an old method of manufacture is not invention. — *Hoff v. Iron Clad*, 139 U. S. 326; 35 L. Ed. 179; 11 S. Ct. 580.

Substitution of one well known material for another such as would occur to any mechanic who had skill enough to adapt a cumbersome device to new circumstances is not invention. — *Ryan v. Hard*, 145 U. S. 241; 36 L. Ed. 691; 12 S. Ct. 919.

Mere change of material is not invention. — *Potts v. Creager*, 155 U. S. 597; 39 L. Ed. 275; 15 S. Ct. 194.

Hotchkiss v. Greenwood, 52 U. S. 248; *Hicks v. Kelsey*, 85 U. S. 670; *Terhune v. Phillips*, 99 U. S. 592; *Brown v. D. C.* 130 U. S. 87.

But when the substitution was for a purpose wholly different from that for which they had been employed, under such circumstances we have repeatedly held that a change of material was invention. — *Potts v. Creager*, *supra*.

Smith v. Goodyear, 93 U. S. 486; *Goodyear v. Davis*, 102 U. S. 222.

The specification of material in the patent is nothing more than a selection, for it is stated that it is preferably though not necessarily, of wood. — *National v. Merrill*, 49 Fed. 157; 1 C. C. A. 214.

The use of wrought steel or iron in lieu of cast metal is mere substitution of materials, which, whatever the degree of superiority given to the manufacture thereby, is not patentable. — *Kilbourne v. Bingham*, 50 Fed. 697; 1 C. C. A. 617.

Hotchkiss v. Greenwood, 11 How. 248; *Hicks v. Kelsey*, 18 Wall. 670; *Phillips v. Detroit*, 111 U. S. 604; *Gardner v. Herz*, 118 U. S. 180; *Brown v. D. C.* 130 U. S. 87; *Florsheim v. Schilling*, 137 U. S. 64.

That the substitution of one material for another, even when the substitution produces a beneficial result, where the material substituted was known, is not invention, see — *Interior v. Perkins*, 80 Fed. 528; 25 C. C. A. 613.

The substitution of one kind of material for another, especially of kinds so intimately allied as those of cast or wrought or malleable iron or steel, is not of the character of invention, nor are the products thereof patentable, for the reason that one may possess greater advantages than another. No doubt there are exceptions to the general rule, but they depend upon especial facts, indicating the presence of more genius or invention than is exercised

by the ordinary skill and knowledge of those familiar with the qualities of materials and their various adaptations to the useful arts. — *Strom v. Weir*, 83 Fed. 170; 27 C. C. A. 502.

Kilbourne v. Bingham, 50 Fed. 697; *Hoff v. Mfg. Co.* 139 U. S. 326; *Potts v. Creager*, 155 U. S. 597.

It is conceded that the patent cannot be sustained upon the theory that *Shaw* substituted electric power instead of steam or hydraulic power in such machines. — *Shaw v. Shriver*, 86 Fed. 466; 30 C. C. A. 196.

That the mere substitution of electric or magnetic energy for mechanical energy is not invention, see *Bradford v. Belknap*, 115 Fed. 711; 53 C. C. A. 293.

It is elemental in the patent law that the mere substitution of steel or wrought iron for cast iron is not invention. The advantages and differences of the two forms of iron are too well known to require the skill of an inventor to displace one for the other, where the conditions are such as to make one preferable to the other. — *Drake v. Brownell*, 123 Fed. 86; 59 C. C. A. 216.

Kilbourne v. Bingham, 50 Fed. 697; *Strom v. Weir*, 83 Fed. 170; *Union v. Selchow*, 112 Fed. 1006; *Florsheim v. Schilling*, 137 U. S. 64; *Hicks v. Kelsey*, 18 Wall. 670.

The new thing done was to substitute paper for tin or other metal, as material for the dome-shaped cap. A mere substitution of one material for another does not constitute invention. — *Lafferty v. Acme*, 138 Fed. 729; 71 C. C. A. 285.

Florsheim v. Schilling, 137 U. S. 64; *Gardner v. Herz*, 118 U. S. 180; *Celluloid v. Tower*, 26 Fed. 451.

The rubber is fastened to the metal more securely than before, but that is all. If this be invention, it must follow that one who substitutes some other material — glass or porcelain, for instance — and fastens the rubber block to this handle by some well-known mechanical device which he substitutes for the gripping flanges of the patent in suit, will be entitled to a patent, and so on until all available fastening devices are exhausted. We are clearly of the opinion that the patent discloses nothing which does not belong to the skill of the calling. — *Kuhn v. Lock-Stub*, 165 Fed. 445; C. C. A.

Rubber-Tip v. Howard, 20 Wall. 498; *Reckendorfer v. Faber*, 92 U. S. 347.

§ 697. Substitution — New Material — Patentable.

Although carbon conductors had been used previously, it was invention to select a material capable of subdivision or filamentation to produce the Edison lamp. — *Edison v. U. S.* 52 Fed. 300; 3 C. C. A. 83.

Even if what he did was merely to employ a basic material differing in the degree of porosity and toughness, and a coating differing in the degree of softness from that which had been previously used, (using the "yoshino" paper and a soft wax to make a mimograph stencil) he accomplished thereby a new result. Each of these modifications was necessary to successfully introduce the new principle, which differentiated his production from the stencil sheets of the prior art. — *Wickelman v. Dick*, 88 Fed. 264; 31 C. C. A. 530.

That its selection (rubber for a button for a hose-supporter) was not an obvious thing is persuasively and cogently shown by the fact that during many years numerous inventors were trying to remedy the defects in the old

device, and it did not occur to them how simply and satisfactorily this could be done by making the button of rubber or some other elastic or yielding material. Its employment in the device was a new use, and imparted to the device a remarkable efficiency, as compared with the best type of former devices. — *Frost v. Cohn*, 119 Fed. 505; 56 C. C. A. 185.

To sustain a patent based upon a change of material, it must be shown that some new and useful result has been accomplished; for it is only then that the substitution of one material for another can attain the dignity of invention. — *Drake v. Brownell*, 123 Fed. 86; 59 C. C. A. 216.

Hotchkiss v. Greenwood, 11 How. 248; *Union v. Selchow*, 112 Fed. 1006; *Frost v. Cohn*, 119 Fed. 505.

Quite likely the substitution alone of one material for another would not amount to invention, but the successful adaptation of the metal finger-head which made the use of highly tempered thread guides possible is something to be considered in connection with the other elements of the combination upon the question as to whether what he did amounted to invention. — *Houghton v. Whitin*, 153 Fed. 740; 83 C. C. A. 84.

In solving that problem, he, in common with the plumber's art, was aware that brass and iron in contact will not rust; and that iron being harder than brass, sealing surfaces of those metals grind and seal into each other. In the face of these facts long and well known to the plumber's art, it is remarkable that no one took advantage of them to make a brass-to-iron contact in the simple and effective way Hewlitt did to produce a union for common plumbing use. There are instances where an iron nut was used to screw on to brass whereby a rustless joint was secured; there are instances where sealing faces of brass and iron were used, but even these uses and others we might add of even greater suggestiveness, led no one prior to Hewlitt to utilize these known facts to devise a common, cheap, and rustless plumber's union which could be repeatedly uncoupled and recoupled without injury. — *Rainear v. Western*, 159 Fed. 431; 86 C. C. A. 411.

§ 698. Systems and Arrangements.

There is nothing peculiar or novel in preparing a sheet of paper with headings generally appropriate to classes of facts to be recorded, and whatever peculiarity there may be about the headings in this case, is a peculiarity resulting from the transactions themselves. — *U. S. Credit v. American*, 59 Fed. 139; 8 C. C. A. 49.

Whether a new method of conducting a business such as insurance, is or is not patentable, and whether "forms of contract" by which improved methods in conducting such business are made effective are or are not patentable, are questions which were discussed at length upon the argument, but which need not be decided upon this appeal. They do not arise under the patent. — *U. S. Credit v. American*, 59 Fed. 139; 8 C. C. A. 49.

In view of the art, the arrangement of figures to operate as a safety check, as used in postal orders does not involve invention. — *Berry v. Wynkoop*, 84 Fed. 646; 28 C. C. A. 505.

The patent describes a new plan for handling the large number of passengers who patronize the public vehicles provided for rapid transit in large cities. It is argued that this is patentable as a "machine" under the language of the statute. If a scheme for handling the traveling public in congested districts can, for patent purposes, be regarded as a machine, it is by no means

easy to perceive why a new plan for reorganizing the police force, or mobilizing the army or manipulating the guests at crowded public functions, may not also be aptly described as a machine and patented as such. — *Fowler v. City of N. Y.* 121 Fed. 747; 58 C. C. A. 113.

The patent purports to disclose an improved method of preventing and rectifying mistakes in railroad shipping. The patentee has provided a box in which the truckman is to deposit the voucher instead of returning it to the shipping clerk, and has located it at the most convenient place, and where there is the least likelihood of his making the mistake of depositing the voucher in the wrong one. All this evidences good judgment upon the part of one who is experienced in the particular business, but it does not rise to the level of invention. — *Hocke v. N. Y. Central*, 122 Fed. 467; 58 C. C. A. 627.

This "system" is brought about by a rearrangement of old parts, and in the literature of the art these parts had already been brought together in such a variety of ways, and there had been so many substitutions of one device for another, so many methods shown of controlling one current by another and of displaying and obscuring signals, such a transposition of parts and shifting of currents that it seems to us entirely clear that the rearrangement of the patentees, clever though it may have been and in its details perhaps novel, was nevertheless one of those minor improvements which was easily within the ordinary skill of the telephone engineer. The case seems to come within the views expressed in *Atlantic v. Brady*, 107 U. S. 199, and peculiarly within those expressed in *Thomson-Houston v. Western*, 65 Fed. 619. — *Western v. Rochester*, 145 Fed. 41; 75 C. C. A. 313.

That an invention cannot be founded merely upon an arrangement of color signals, see *Library Bureau v. Macey*, 148 Fed. 380; 78 C. C. A. 194.

That an indexing system may be narrowly patentable, see *Library Bureau v. Macey*, 148 Fed. 380; 78 C. C. A. 194.

Note: As a matter of fact, in its last analysis, what is held to be patentable in this case is an article of manufacture or an implement, rather than a system. This I believe to be the test of invention in such cases. The invention must reside in the novel article or implement which makes the system possible.

If at the time of Hicks' application, there had been no system of book-keeping of any kind in restaurants, we should be confronted with the question whether a new and useful system of cash-registering and account-checking in such an art is patentable under the statute. This question seems never to have been decided by a controlling authority and its decision is not necessary now unless we find that Hicks has made a contribution to the art which is new and useful. We are decidedly of the opinion that he has not, the overwhelming weight of authority being that claims granted for such improvements as he has made are invalid for lack of patentability. — *Hotel v. Lorraine*, 160 Fed. 467; 87 C. C. A. 451.

Hocke v. N. Y. Central, 122 Fed. 467; *U. S. Credit v. American*, 59 Fed. 139.

§ 699. Tests of — Last Step Rule.

Sutton has taken the step which marks the difference between a successfully operating machine and one which stops short at that point, and that advance entitles him to the protection of a patent. — *Cimiotti v. American*, 198 U. S. 399; 49 L. Ed. 1100; 25 S. Ct. 697.

It is true that it has been said upon high authority that in the law of patents it is the last step that wins, but this stride must be made by the inventor, who originates, and not by the mechanic, who merely improves. It is also true that the cases recognize the fact that an improvement when made is not to be deprived of the protection of the law because it seems simple after it is accomplished. There are cases where many have been striving to reach a given result without success, when there comes upon the scene the inventor who solves the difficulty in a manner which makes strange the want of earlier discovery of a thing so simple, but who is, nevertheless, entitled to the protection of the patent law. — *Galvin v. City*, 115 Fed. 511; 53 C. C. A. 165.

It was this last step which has turned previous failures into a success, and we are therefore of opinion that the East patent is valid. — *Farmers' v. Spruks*, 127 Fed. 631; 62 C. C. A. 447.

If it be true that Boxley (the inventor of the alleged anticipating device), even though ignorant of the fact, had previously made a machine capable of doing the work of the Pine device (patent in suit) in the same way, the patent of the latter cannot be sustained. But, on the other hand, if Boxley intending to accomplish a different result ignorantly stumbled upon a structure which, in the light of Pine's achievement, can be distorted into a temporary and inefficient substitute for the successful machine, quite a different proposition is presented. If Pine did nothing more than take an old abandoned failure and, by the introduction of new and ingenious features, no matter how simple they may be, convert the rustic relic into a living machine which does the required work better, faster, cheaper than it was ever done before, he is entitled to the protection which his patent is intended to give. — *United v. Beattie*, 149 Fed. 736; 79 C. C. A. 442.

Potts v. Creager, 155 U. S. 597; *Clough v. Barker*, 106 U. S. 166.

§ 700. Tests of — Miscellaneous.

In determining the question of invention each case must depend upon its own facts, the inquiry always being whether what has been done required the exercise of the inventive faculties. Has a new or better result been obtained? Is it cheaper and more durable? Has it new capabilities? Does it perform new functions? — *Rumford v. New York*, 134 Fed. 385; 67 C. C. A. 367.

Smith v. Vulcanite Co., 93 U. S. 486; *Loom Co. v. Higgins*, 105 U. S. 580; *King v. Anderson*, 90 Fed. 500.

The number of patents relating to this subject which had been taken out is strong evidence that the results which had already been reached had already exhausted the common skill and learning of the craft. — *Western v. North*, 135 Fed. 79; 67 C. C. A. 553.

While it might be possible for a skilled mechanic with the prior art and the present object both before him to construct the device of the patent; *Held*: To conceive the idea and then embody it in a combination which produces a machine which for accuracy, convenience, celerity and fairness to employer and employed shows marked improvement over anything preceding it, required the exercise of the inventive faculty, though not, perhaps, of the highest order. — *International v. Dey*, 142 Fed. 736; 74 C. C. A. 68.

Hobbs v. Beach, 180 U. S. 383; *Loom Co. v. Higgins*, 105 U. S. 580; *Cimiotti v. Fur. Co.*, 198 U. S. 399; *Topliff v. Topliff*, 145 U. S. 156.

The practically abandoned experimental models made by the Brill Company, the real defendant in interest herein, the fact that it never made any

construction like the alleged infringement until after O'Leary had obtained his patent and shown it to the president of said company, the cogent and persuasive fact that in the Brill model illustrating the use of the inflexible and flexible sashes, its constructors showed their inability to adapt their methods to the storage of an inflexible sash overhead, and were obliged to arrange it so as to slide downwards, the state of the prior art, and the fact that with a great body of would-be inventors in the field, O'Leary was the first to show in a car a method of storage in an overhead chamber of inflexible panels arranged to slide abreast instead of tandem; the absence from the hansom cab structure of the merging and widening grooves, and the impossibility of adapting its construction to the roof of a car without substantial and radical modifications; the obviation by O'Leary of all overhead obstructions or interference, and the adoption by the Brill Company of a modified form of the patented car, considered together, show a compliance with the most rigid requirements of the tests of invention and demonstrate patentable novelty beyond question. — *O'Leary v. Utica*, 144 Fed. 399; 75 C. C. A. 377.

§ 701. Transposition of Parts.

It is true that where a mechanical result is obtained, by the movement of one element upon another element of a combination, it does not usually involve invention merely to reverse the operation, and secure the same result by making the first element stationary and the second movable. And so, where result of motion is secured by a stationary cam guiding a tool, it may often be an obvious change to reverse the parts by making the cam movable and the tool stationary. But the question whether it is obvious is to be determined by examination of the particular machines in which the change is made. — *Penfield v. Chambers*, 92 Fed. 630; 34 C. C. A. 579.

In the Jennings case, the circuit court indicated that the proper limit of the width of such strip should be not to exceed the depth of the teeth, to wit:—one-thirty-second of an inch. We concur in this conclusion.

Wallace, C. J. dissenting. When it becomes necessary to discriminate between a temper line which is within or beyond one thirty-second of an inch from the base of the teeth, and make the validity of the patent and the question of infringement depend upon that test, this seems to me to be splitting hairs, and, in view of the prior art, to be sustaining a patent for a mere change of degree, and utterly unwarranted. — *Thompson v. Bushnell*, 96 Fed. 238; 37 C. C. A. 456.

That the mere transposition of parts, performing the same functions, is not invention, see *Excelsior v. Morse-Keefer*, 101 Fed. 448; 41 C. C. A. 448.

Fastener Co. v. Hays, 100 Fed. 984.

§ 702. Utility.

Inventions, in order that they may be the proper subjects of letters patent, must be new and useful. Utility in most cases is a question of fact, as it usually depends upon the evidence resulting from an actual experiment. — *Mitchell v. Tilghman*, 86 U. S. 287; 22 L. Ed. 125.

Patent laws have for their leading purpose the encouragement of useful inventions. Practical utility is their object, and it would be strange if, with such object in view, the law should consider two things substantially the same which, practically and in reference to their utility, are substantially different. — *Mitchell v. Tilghman*, 86 U. S. 287; 22 L. Ed. 125.

Curt. Pat. sec. 331.

Neither an invention which will not enable the operator to accomplish the desired result, nor one which constantly exposes the operator to the loss of his life or to great bodily harm can be regarded as being useful within the meaning of the patent law. — *Mitchell v. Tilghman*, 86 U. S. 287; 22 L. Ed. 125.

The patent was for a process for spotting the leaves of tobacco to give them the appearance of the real sumatra leaf. *Held*: In authorizing patents to the authors of real and useful discoveries and inventions, Congress did not intend to extend protection to those which confer no other benefit upon the public than the opportunity of profiting by deception and fraud. To warrant a patent, the invention must be useful; that is, capable of some beneficial use as distinguished from a pernicious use. — *Rickard v. DuBon*, 103 Fed. 868; 43 C. C. A. 360.

We cannot think that a decision adverse to the utility and operativeness of this invention could safely rest on the ill success of experiments made by those who were not specially desirous of making their experiments succeed. — *Crown v. Aluminum*, 108 Fed. 845; 48 C. C. A. 72.

The evidence showed that the device of the patent was not a success and that the patent did not disclose means for obviating the difficulties in adapting such apparatus to the needs of the art. *Held*: Taking this as the strongest answer that can be made (that experiment would be necessary to reduce the invention to actual practice) of the statutory requirement that the patentee shall make a written description of his invention or discovery, "in such full, clear and exact terms as to enable any person skilled in the art to make, construct and use the same," we are of opinion, in the face of strong and uncontradicted proof of those skilled in the art, that the problem of roll contour has not been solved — that the disclosures of this patent are not of the practical and useful character the law makes the consideration for the grant of a patent monopoly. The evidence satisfies us the problem of continuous sheet-rolling was neither solved nor disclosed by this patent, and that to sustain this patent would not be to reward invention, but to block further experiment and development. — *Donner v. American*, 165 Fed. 199; C. C. A.

Deering v. Harvester Works, 155 U. S. 286.

INVENTOR.

Statute and General Statement § 703
See — Administrator § 38; Assign-
ment § 149; Copartnership § 270;

Death of Applicant § 300; Employer
and Employee § 364; Joint Inventions
§ 704; License § 749

§ 703. Statute and General Statement.

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 * * * R. S. 4886.

Any person having the maturity and mentality to understand the nature of an oath may make application for a patent. By the terms of Sec. 4896, as enacted 3 March, 1871, an executor or administrator of a deceased inventor may make application for a patent upon an invention of a deceased person; and since the amendment of May 23, 1908, to that section, the legal representative of an insane person may, in like manner, make or prosecute an application for patent. Thus there are no restrictions as to sex, race or citizenship, and the full enjoyment of the right of patent is open to all who are able to establish the statutory prerequisites to the grant.

A party seeking a right under the patent statutes may avail himself of all their provisions, and the court may not deny him the benefit of a single one. — *United States v. Am. Bell*, 167 U. S. 224; 42 L. Ed. 144; 17 S. Ct. 809.

JOINT INVENTIONS.

General Statement and Rules § 704 | See — *Letters Patent* § 738

§ 704. General Statement and Rules.

The rights of joint inventors have been recognized from the earliest times, and but few questions of joint inventorship have reached the appellate courts. Moreover, the few rules which are given below are not altogether universal in their application. The rule in *Welsbach v. Cosmopolitan*, for example, in that particular case was undoubtedly correct; but it is not difficult to conceive of a case where an invention consisting of a "single thought" might be the product of collaboration of two minds working toward and finally reaching the single, decisive step and taking it in step, so to speak, in such unity and simultaneousness that neither of the two could declare under oath which actually produced the "single thought." On the other hand, the rule in *Quincy v. Krause* must be qualified. Many cases exist where the invention consists of a series of sub-combinations which go to make up a machine, the machine itself as an entirety being non-patentable; and in many such cases two or more engineers are at work improving the machine or apparatus or system generally; and it is evident that a joint patent of such a series of improvements would be improper, and yet would be within the strict terms of the rule of that case.

There is no statutory provision as to joint inventorship; and it is well there is not, for any attempt to delimit joint inventorship from sole inventorship must be unsatisfactory.

Roper having with Spencer invented and constructed a machine which contains a certain useful combination, thereafter takes out a patent in his own name covering this very combination. If the prior machine produced by both men, and known to both, does not disentitle Roper to cover such combination in his patent, it would not disentitle Spencer to cover the same combination in a patent to himself; and we should have two joint inventors, each rightfully holding a separate patent for the same invention, which is absurd. — *Bannerman v. Sanford*, 99 Fed. 294; 39 C. C. A. 534.

The patent contains two claims, the first is for a single thought, — the described improvement in strengthening incandescence mantles, consisting in coating a completed mantle with paraffine or other suitable material. It is difficult to apprehend how two could have shared in the conception. — *Welsbach v. Cosmopolitan*, 104 Fed. 83; 43 C. C. A. 418.

At the time the application was made they were going into a partnership, and it appears most probable that they conceived the idea of having the patent vest a joint interest to conform to their interest in the business. If these are the facts, the patent was not properly issued to them jointly. — *Standard v. Computing*, 126 Fed. 639; 61 C. C. A. 541.

The co-owners of the invention were foreigners and made joint application in the United States after one of them had obtained sole foreign patents. The invention was clearly that of one, while minor adaptations were joint. *Held*: Invalid. — *De Laval v. Vermont*, 135 Fed. 772; 68 C. C. A. 474.

"Every machine before it can be used must be constructed as well as invented. If one man does all the inventing and another does all the constructing, the first is the sole inventor." — *United v. Beattie*, 149 Fed. 736; 79 C. C. A. 442.

Agawam v. Jordan, 7 Wall. 583.

When a claim covers a series of steps or a number of elements in combination, the invention may well be joint, though some of the steps or some of the elements may have come as the thought of but one. — *Quincy v. Krause*, 151 Fed. 1012; 81 C. C. A. 290.

Welsbach v. Cosmopolitan, 104 Fed. 83.

JUDICIAL NOTICE.

General Statement § 705
Common Knowledge § 706
Novelty § 707
Patentability § 708
Prior Art § 709

Public Use § 710
Records § 711
Miscellaneous § 712
See — *Demurrer* § 324

§ 705. General Statement.

The exercise of this prerogative has occurred, perhaps, more frequently in connection with demurrer raising the question of the validity of the patent in suit. See title *Demurrer*. It is thought that there is a growing tendency to exercise this right in connection with injunctions. Properly exercised the effect is salutary. The First Circuit has said:

It is a thoroughly settled rule that, as to patentability and the range of the claims in a patent, inasmuch as these matters concern the public at large, the court will not allow parties to frame their issues in such a way as to take from it the scrutiny of all the questions which may be involved. *Millard v. Chase*, 108 Fed. 399 (§ 681). And it is believed that the courts must, in the future, recognize their duty to the public more fully than they have done in the past, and with the scientific knowledge possessed by our courts, the range of judicial notice should be extended.

§ 706. Common Knowledge.

Courts will take notice of whatever is generally known within the limits of their jurisdiction; and if the judge's memory is at fault, he may refresh it by resorting to any means for that purpose which he may deem safe and proper. This extends to such matters of science as are brought before him. — *Brown v. Piper*, 91 U. S. 37; 23 L. Ed. 200.

Greenleaf, Ev. 11; *Gres. Eq. Ev.* 294; *Taylor* Ev. 4; *Hoare v. Silverlock*, 12 Ad. & Ell. (N. S.) 624.

The court will take judicial notice of matters of common knowledge and use. — *Dunbar v. Meyers*, 94 U. S. 187; 24 L. Ed. 34.

Brown v. Piper, 91 U. S. 38.

It has always been done, and we are not required to shut our eyes to the fact that with this object, among others, the sheer and flare of vessels of all classes have been almost infinitely varied. — *Boynton v. Morris*, 87 Fed. 225; 30 C. C. A. 617.

King v. Gallun, 109 U. S. 99.

There are some elementary details of everyday domestic mechanics of which a court will take judicial notice. No sworn testimony is needed to

inform it that the use of leather washers to relieve friction, prevent rattling, secure even pressure and avoid wear and tear between metal surfaces, has been the common property not only of mechanics but of all persons possessing ordinary intelligence, for many generations. — *Bradley v. Eccles*, 139 Fed. 447; 71 C. C. A. 291.

It is only when the court by bringing to its aid matters of common knowledge, is convinced, that the patent is void on its face, that such proofs can be dispensed with. — *American v. DeGrasse*, 157 Fed. 660; 87 C. C. A. 260.

§ 707. Novelty.

In passing upon the novelty of the alleged improvement, 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 Know v. Nunen*, 5 Sawy, 552.

Whether or not the design is new is a question of fact, which, whatever our impressions may be, we do not think it proper to determine by taking judicial notice of the various designs which may have come under our observation. It is a question which may and should be raised by answer and settled by proper proofs. — *New York v. New Jersey*, 137 U. S. 445; 34 L. Ed. 741; 11 S. Ct. 193.

The court will take judicial notice of devices which are common. — *Black Diamond v. Excelsior*, 156 U. S. 611; 39 L. Ed. 553; 15 S. Ct. 482.

Brown v. Piper, 91 U. S. 37; *Terhune v. Phillips*, 99 U. S. 592; *King v. Gallun*, 109 U. S. 99; *Phillips v. Detroit*, 111 U. S. 604.

It is a thoroughly well settled principle of patent law that in clear cases the court may, of its own motion, adjudge a patent invalid, even if its validity is not set up by the alleged infringer. — *Osgood v. Metropolitan*, 75 Fed. 670; 21 C. C. A. 491.

That the court will take judicial notice of palpable want of novelty, even if the answer contains only a general denial and no notice of the prior art, see *Baker v. Duncombe*, 146 Fed. 744; 77 C. C. A. 234.

Black Diamond v. Excelsior, 156 U. S. 611; *Brown v. Piper*, 91 U. S. 37; *Richards v. Chase*, 158 U. S. 299; *Specialty v. Fenton*, 174 U. S. 492; *Fond Du Lac v. May*, 137 U. S. 406; *Mahler v. Animarium*, 111 Fed. 530; *Westinghouse v. Union*, 117 Fed. 495; *Appleton v. Star*, 60 Fed. 411; *Beer v. Walbridge*, 100 Fed. 465.

§ 708. Patentability.

We think the practice thus sanctioned is not unfair or unjust to complainants in suits brought on letters patent. If letters patent are void because the device or contrivance described therein is not patentable, it is the duty of the court to dismiss the cause on that ground, whether the defense is made or not. It would ill become a court of equity to render money decrees in favor of a complainant for the infringement of a patent which the court could see was void on its face for want of invention. Every suitor in a cause founded on letters patent should, therefore, understand that the question whether his invention is patentable or not is always open to the consideration of the court, whether the point is raised by the answer or not. — *Slawson v. Grand*, 107 U. S. 649; 27 L. Ed. 576; 2 S. Ct. 663.

Dunbar v. Myers, 94 U. S. 187; *Brown v. Piper*, 91 U. S. 44.

In deciding whether the patent covers an article, the making of which requires invention, we are not required to shut our eyes to matters of common knowledge or things in common. — *King v. Gallun*, 109 U. S. 99; 27 L. Ed. 870; 3 S. Ct. 202.

Brown v. Piper, 91 U. S. 43; *Terhune v. Phillips*, 99 U. S. 592; *Ah Know v. Nunan*, 5 Sawy, 552.

Where the combination, or the elements described are well known, the court is at liberty to judge whether there be any invention in using them in the combination claimed. — *Richards v. Chase*, 158 U. S. 299; 39 L. Ed. 991; 15 S. Ct. 831.

§ 709. Prior Art.

The state of the art, under many circumstances, is a matter of which the court can take judicial notice, especially in equity suits, where the court exercises the privileges to a jury as well as of judges sitting to determine questions of law. It is also true there may be, with reference to a particular subject matter, such a mass of patents covering so long a period, that they may be taken to have become part of the common knowledge which the court shares. So also, a mass of patents continued for a long period, may so clearly indicate such a state of the art as to be sufficient to invalidate a patent, precisely as the common state of the practical art existing throughout the community may invalidate it. Of course, under such circumstances, in neither the one case nor the other need the defense be specially pleaded under the statute.

This court has several times said that it cannot assume to take notice of special facts, within a limited and peculiar field, like that which the appellee seeks to bring to our attention. It is plain that the state of the art of which the court may take judicial notice, and as to which it can be assisted by the statements of the parties or their counsel, without proofs furnished in accordance with the rules of law, is matter of general knowledge, and such judicial notice cannot extend to a single patent, relating to a particular fact in a limited art. — *Parsons v. Seelye*, 100 Fed. 452; 40 C. C. A. 484.

Potts v. Creager, 155 U. S. 597; *Locomotive v. Medart*, 158 U. S. 68; *Richards v. Elevator*, 158 U. S. 299; *Office Specialty Co. v. Fenton*, 174 U. S. 492; *N. Y. v. New Jersey*, 137 U. S. 445; *American v. Buckskin*, 72 Fed. 508.

The courts will take judicial notice of facts which are within common knowledge, including those relating to the arts and industries and matters of science, and may refer to the dictionaries and encyclopedias for information when necessary to go outside the records. — *Beer v. Walbridge*, 100 Fed. 465; 40 C. C. A. 496.

Brown v. Piper, 91 U. S. 37.

§ 710. Public Use.

The determination of this case is controlled by *Brown v. Piper*, 91 U. S. 37. We cannot fail to take judicial notice that the thing patented was known and in general use long before the issuing of the patent. — *Terhune v. Phillips*, 99 U. S. 592; 25 L. Ed. 293.

Such a familiar device the court may properly take judicial notice of. — *Office v. Fenton*, 174 U. S. 492; 43 L. Ed. 1058; 19 S. Ct. 641.

Brown v. Piper, 91 U. S. 37; *Terhune v. Phillips*, 99 U. S. 592; *King v. Gallun*, 109 U. S. 99; *Phillips v. Detroit*, 111 U. S. 604.

§ 711. Records.

For the purpose of ascertaining the state of the art, when it concerns a matter of general interest, as it does in the determination of the construction of this class of letters patent, we are certainly authorized to take notice of our own records, and perhaps we may always do so. — *Cushman v. Goddard*, 95 Fed. 664; 37 C. C. A. 221.

Butler v. Eaton, 141 U. S. 240; *Smelting Co. v. Billings*, 150 U. S. 31; *Creamer v. Washington*, 168 U. S. 124; *In re Boardman*, 169 U. S. 39.

If there were any doubt as to what those questions are, we could take judicial notice of the records of our own court for the purpose of informing ourselves. — *Rumford v. Hygienic*, 159 Fed. 436; 86 C. C. A. 416. Reversed, 215 U. S. 156.

§ 712. Miscellaneous.

Where the bill did not allege the signature of the acting commissioner of patents, the court will take judicial notice of such officer whether of a permanent or transient character. — *Railroad v. Winans*, 58 U. S. 31; 25 L. Ed. 1009.

Wilson v. Rousseau, 4 How. 686.

Of private and special facts, in trials in equity and at law, the court or jury is bound carefully to exclude the influence of all previous knowledge. — *Brown v. Piper*, 91 U. S. 37; 23 L. Ed. 200.

That the same rule as to judicial notice applies in design patents as is the rule with mechanical patents, see *Roberts v. Bennett*, 136 Fed. 193; 69 C. C. A. 533.

Black Diamond v. Excelsior, 156 U. S. 611; *Market v. Rowley*, 155 U. S. 621.

JURISDICTION.

The Statute § 713	Miscellaneous § 720
Contracts § 714	Infringement § 721 (<i>see</i> § 445)
Court of Claims § 715 (<i>see</i> § 428)	Licensor and Licensee § 722 (<i>see</i> § 765)
District Judge § 716	Residence § 723
Equity (<i>see</i> § 370)	State Court § 724 (<i>see</i> § 920)
Expiration of Patent Pendente Lite § 717	Supreme Court § 725
Rule § 718	<i>See — Appeals</i> § 130; <i>Decrees</i> § 301;
For Determining Profits or Assessing Damages Only § 719	<i>Equity</i> § 370; <i>Pleading</i> § 788

§ 713. The Statute.

The district courts shall have original jurisdiction as follows:

* * * * *

Seventh. Of all suits at law or in equity arising under the patent, the copyright, and the trade-mark laws of the United States. — Jud. Code, Sec. 24.

The jurisdiction vested in the courts of the United States in the cases and proceedings hereinafter mentioned, shall be exclusive of the courts of the several States.

* * * * *

Fifth. Of all cases arising under the patent-right or copyright laws of the United States. Jud. Code, Sec. 256.

By the Act of Mar. 3, 1897, and re-enactment as Sec. 48, of the Judicial Code, the following provision was made as to jurisdiction and service of process:

That in suits brought for the infringement of letters patent the circuit courts of the United States shall have jurisdiction in law or in equity, in the district of which the defendant is an inhabitant, or in any district in which the defendant, whether a person, partnership, or corporation, shall have committed acts of infringement and have a regular and established place of business. If such suit is brought in a district of which the defendant is not an inhabitant, but in which such defendant has a regular and established place of business, service of process, summons, or subpoena upon the defendant may be made by service upon the agent or agents engaged in conducting such business in the district in which the suit is brought.

The subject of appellate jurisdiction, so far as the statute is concerned, need not be recited here, as it has been fully set out under *Appeals*.

§ 714. Contracts.

The object of the bill was to set aside a contract licensing the use of a patented machine. The dispute does not arise under any act of Congress, nor does the decision depend upon the construction of any law in relation to patents. It arises out of the contract stated in the bill; and there is no act of Congress providing for or regulating contracts of this kind. The rights of the parties depend altogether upon common law and equity principles. The injunction asked is to be the consequence of the decree of the court sanctioning the forfeiture. And if the case made in the bill was a fit one for relief in equity, it is very clear that whether the contract ought to be declared forfeited or not in a court of chancery depended wholly upon the rules and principles of equity and in no degree whatever upon any act of Congress. — *Wilson v. Sanford*, 10 How. 99; 13 L. Ed. 344.

Complainant and defendant had made a contract (verbal) and defendant had entered upon the use of the patent under such agreement. Plaintiff then presented a written contract embodying the terms (and others) of the agreement. Defendant refused to sign, and complainant brought action for infringement upon the failure of defendant to pay royalties. Both were citizens of the same state.

If either party disregards it, it can be specifically enforced against him, or damages can be recovered for its violation. But until so rescinded or set aside it is a subsisting agreement, which, whatever it is, or may be shown to be, must govern the rights of these parties in the use of complainant's process, and must be the foundation of any relief given to a court of equity. Such a case is not cognizable in a court of the United States, by reason of its subject-matter, and as the parties could not sustain such a suit in the circuit court by reason of citizenship, this bill should have been dismissed. — *Hartell v. Tilghman*, 99 U. S. 547; 25 L. Ed. 357.

Reviewing: *Burr v. Gregory*, 2 Paine, 426; *Littlefield v. Perry*, 21 Wall. 205; *Meserole v. Paper*, 6 Blatchf. 356; *Blanchard v. Sprague*, 1 Cliff. 288; *Hill v. Whitcomb*, 1 Holmes. 317; *Brooks v. Stolley*, 3 McLean. 523; *Goodyear v. Rubber Co.*, 4 Blatchf. 63.

The controversy as stated by the appellants is whether certain goods manufactured by them embody the invention covered by the appellees' patents. Both parties may agree as to what the patented invention is, and yet disagree on the question whether the invention is employed in the manufacture of certain specified goods. The controversy between the parties in this case is clearly of the latter kind and cannot be said to be one which grows

out of the legislation of Congress. — *Albright v. Teas*, 106 U. S. 613; 27 L. Ed. 295; 1 S. Ct. 550.

Wilson v. Sanford, 10 How. 99; *Hartell v. Tilghman*, 99 U. S. 547; *Goodyear v. Rubber*, 4 Blatchf. 63; *Meserole v. Paper*, 6 Blatchf. 355; *Blanchard v. Sprague*, 1 Cliff. 288; *Hill v. Whitcomb*, 1 Holmes, 317.

While in actions for infringement, in which the validity of the patent is put at issue under R. S. 4920, the circuit courts have exclusive jurisdiction, actions founded on contracts for the use of patented inventions may be maintained elsewhere. — *U. S. v. Palmer*, 128 U. S. 262; 32 L. Ed. 442; 9 S. Ct. 104.

U. S. v. Burns, 79 U. S. 246; *Wilson v. Sanford*, 51 U. S. 99; *Hartell v. Tilghman*, 99 U. S. 547; *Albright v. Teas*, 106 U. S. 613; *Dale v. Hyatt*, 125 U. S. 46.

But the same does not hold good with reference to the licensee. There were practically but two ways in which the patentee could impair the grant he made to the licensee, and those were by a revocation of the license by a bill in equity, or by treating it as abandoned and revoked, and granting a license to another party. He elected the latter remedy and made a contract with the Pacific Bridge Co. to make and sell wooden pipe within the same territory. A suit in a state court would either be inadequate or would involve questions under the patent law. If the licensee sued at law he would be obliged to establish the fact that the patent had been infringed which the patentee might have denied and in any case could only recover damages for past infringement. If he sued in equity he could only pray an injunction against future infringements; but this is exactly what he prays in this case, and thereby raises a question under the patent laws. In either case the patentee could defeat the action by showing that he did not infringe, — in either case the defendant could so frame his answer as to put in issue the title, the validity, or the infringement of the patent. The natural and practically the only remedy, as it seems to us, was for the plaintiff to assert his title under the license, and to prosecute the defendants as infringers. In doing this he does what every plaintiff is bound to do, namely, set forth his title either as patentee, assignee, or licensee, and thereby put that title in issue. The defendant is at liberty in such a case to deny the title of the plaintiff by declaring that the license no longer exists, but in our opinion this does not make it a suit upon the license or contract, but it still remains a suit for the infringement of a patent, the only question being as to the validity of plaintiff's title. There can be no doubt whatever that if the plaintiff sued some third person for an infringement of his patent, the defendant might attack the validity of his license in the same way, but it would not oust the jurisdiction of the court. Why should it do so in this case? — *Excelsior v. Pacific*, 185 U. S. 282; 46 L. Ed. 910; 22 S. Ct. 681.

Hartell v. Tilghman, 99 U. S. 547; *Littlefield v. Perry*, 21 Wall. 205; *Atherton v. Atwood-Morrison*, 102 Fed. 949; *White v. Rankin*, 144 U. S. 628.

An oral agreement existed between the parties whereby the defendants were to perform certain acts in the exploitation of the invention, but by which they acquired no legal or equitable interest in the patent. A subsequent written agreement existed, the contents and intent of which was seriously disputed, by which, apparently, the defendants acquired some legal interest in the title. The defendants failed to perform and the action was for specific performance under the oral contract and also for cancellation of the alleged written assignment. *Held*: Cases are not infrequent where, upon the facts, it is somewhat difficult to draw the jurisdictional line. The case in hand, however, presents no difficulty. It is perfectly apparent that the case is one which arises entirely under the contract as set out in the bill, and for the tort

involved in the alleged fraudulent or forged assignment, and not in any wise under the patent laws or laws of the United States. — *Kurtz v. Straus*, 106 Fed. 414; 45 C. C. A. 366.

Atherton v. Atwood, 102 Fed. 949.

Under this contract the complainant claims that it had the exclusive right to use, and to let to others to use and sell and deal in within the states of Maryland and Delaware and the District of Columbia. The jurisdiction of the court therefore rests altogether on the diverse citizenship of the parties. — *Rahley v. Columbia*, 122 Fed. 623; 58 C. C. A. 639.

Excelsior v. Pacific, 185 U. S. 282.

When a contract is made respecting a right under a patent, and the parties get into litigation, confusion sometimes arises over the question whether the cause of action originates in the contract or in the patent laws. The test is this: If the plaintiff is seeking a judgment for debt or damages, or a decree for cancellation or specific performance, on account of the defendant's breach of his covenants, the cause of action arises out of the contract; and, though the determination of the issue of breach or no breach may involve the interpretation of the patent and of the prior art, the insistence of the defendant that his device, according to the true construction of the patent and the prior art, is not within the patent right granted him in the contract, cannot change the nature of the action. *Standard v. Leslie*, 118 Fed. 557. On the other hand, if the plaintiff is seeking a judgment for damages, or a decree for an injunction and an accounting, on account of defendant's unauthorized use of the patent right in making or using or selling the device without license, the cause of action arises out of the patent laws; and, though the determination of the issue of infringement or no infringement may involve the interpretation of the contract, the insistence of the defendant that his act was within his rights under the contract, if properly construed, cannot change the nature of the action. — *Victor v. The Fair*, 123 Fed. 424; 61 C. C. A. 58.

Wilson v. Sanford, 10 How. 99; *Littlefield v. Perry*, 21 Wall. 205; *Excelsior v. Pacific*, 185 U. S. 282; *Atherton v. Atwood*, 102 Fed. 949; *Ball v. Ball*, 58 Fed. 818; *Siebert v. Manning*, 32 Fed. 625.

An action which raises a question of infringement is an action arising under the patent law. That the patentee may have a remedy for breach of contract also does not defeat the jurisdiction. — *Rupp v. Elliott*, 131 Fed. 730; 65 C. C. A. 544.

Heaton-Peninsular v. Eureka, 77 Fed. 288; *Victor v. The Fair*, 123 Fed. 424.

When a patentee imposes such restrictions, they may likewise constitute a contract between the patentee and his direct vendee or licensee. In such case the patentee would have a double remedy — an action in tort for infringement, or an action for the breach of the contract. — *Park v. Hartman*, 153 Fed. 24; 82 C. C. A. 158.

Heaton v. Eureka, 77 Fed. 288; *Victor v. The Fair*, 123 Fed. 424; *Bement v. National*, 186 U. S. 70; *National v. Schlegel*, 128 Fed. 733.

As is well known, a suit for injunctive relief against the infringement of a patent, and incidentally for the recovery of damages arising therefrom, is one arising under the patent laws of the United States, and may be maintained in the courts of the United States; but it is firmly settled that, in the absence of diversity of citizenship of the parties, a suit on a private contract between the parties fixing and governing their rights to use a patented device, or a suit for the specific performance or rescission of a contract for

the use or sale of a patent, is not maintainable in those courts. — *St. Louis v. Sanitary*, 161 Fed. 725; 88 C. C. A. 585.

Wilson v. Sanford, 10 How. 99; *Brown v. Shannon*, 20 How. 55; *Dale v. Hyatt*, 125 U. S. 46; *Albright v. Teas*, 106 U. S. 613; *Pratt v. Paris*, 168 U. S. 255.

§ 715. Court of Claims.

It would seem that an action for infringement against the U. S. would be properly brought in the Court of Claims. — *James v. Campbell*, 104 U. S. 356; 26 L. Ed. 786.

Carr v. U. S. 98 U. S. 433.

It would seem that the use of an invention by a government official in the discharge of his duties would be an exercise of the right of eminent domain, and that action would lie in the Court of Claims. — *Hollister v. Benedict*, 113 U. S. 59; 28 L. Ed. 901; 5 S. Ct. 717.

U. S. v. Mfg. Co. 112 U. S. 645.

The court of claims has jurisdiction to award royalties arising under an implied contract. — *U. S. v. Palmer*, 128 U. S. 262; 32 L. Ed. 442; 9 S. Ct. 104.

Distinguishing: *Pitcher's Case*, 1 Ct. Cl. 7.

The Court of Claims has no jurisdiction of an action for tort in infringement. — *U. S. v. Berdan*, 156 U. S. 552; 39 L. Ed. 530; 15 S. Ct. 420. But see App. § 428.

Gibbons v. U. S. 75 U. S. 269; *Morgan v. U. S.* 81 U. S. 531; *Pill v. U. S.* 149 U. S. 593; *Schillinger v. U. S.* 155 U. S. 162; *U. S. v. Palmer*, 128 U. S. 262.

§ 716. District Judge.

The fourth objection is based upon the provisions of section 719 of the Revised Statutes of the United States, relating to the issuing of an injunction by a district judge. But that section does not apply to this case. *Vulcanite Co. v. Folsom*, 3 Fed. 509. The injunction here was not issued by the district judge under section 719. When the case was heard below, and the injunction was granted, the district judge was holding the circuit court, under section 609, Rev. St. U. S.; and his authority was co-extensive with that of any other judge sitting in the same court. *Robinson v. Satterlee*, Fed. Cas. No. 11,967. Therefore his action in granting the injunction had the same force and effect as if the court had been held by the circuit justice, or a circuit judge, or by a full bench. *Industrial v. Electrical*, 58 Fed. 732. The decree appealed from is the decree of the circuit court. — *McDowell v. Kurtz*, 77 Fed. 206; 23 C. C. A. 119.

§ 717. Equity — Expiration of Patent Pendente Lite.

The bill was filed 15 days before the expiration of the patent. The general allegations of the bill were sufficiently comprehensive to meet such a case. But even without that, if the case was one for equitable relief when the suit was instituted, the mere fact that the ground for such relief expired by the expiration of the patent would not take away the jurisdiction and preclude the court from proceedings to grant the incidental relief which belongs to cases of that sort. This has often been done in patent causes, and a large number of cases may be cited to that effect; and there is nothing in *Root v. Railway*, 105 U. S. 189 to the contrary. — *Clark v. Wooster*, 119 U. S. 322; 30 L. Ed. 392; 7 S. Ct. 217.

Cotton v. Simmons, 106 U. S. 89; *R. R. Co. v. Car Brake*, 110 U. S. 229; *Consolidated v. Crosby*, 113 U. S. 157; *Thomson v. Wooster*, 114 U. S. 104.

As the patent was in force at the time the bill was filed, and as the complainants were entitled to a preliminary injunction at that time, the jurisdiction of the court is not defeated by the expiration of the patent by lapse of time before final decree. There is nothing in the case of *Root v. Railway*, 105 U. S. 189, to sustain the objection made by the appellant on this account. See also *Clark v. Wooster*, 119 U. S. 322 and cases there cited. — *Beedle v. Bennett*, 122 U. S. 71; 30 L. Ed. 1074; 7 S. Ct. 1090.

This seeks to determine jurisdiction of the court by conditions which came into existence after the commencement of the suit, not upon those which existed at the time the bill was filed. Appellee's contention as to the jurisdiction is, therefore, not justified, and a discussion of the reasons for this conclusion is not necessary. — *Busch v. Jones*, 184 U. S. 598; 46 L. Ed. 707; 22 S. Ct. 511.

Clark v. Wooster, 119 U. S. 322; *Beedle v. Bennett*, 122 U. S. 71.

When this suit was commenced the patent had two months and 22 days to run. It was therefore clearly within the power of the court to grant a temporary injunction, if not to enter a final decree, before the patent should expire; and though no restraining order was issued or perhaps could have been after the patent had expired, jurisdiction of the case was not lost on that account. — *Ross v. Ft. Wayne*, 63 Fed. 466; 11 C. C. A. 288.

Clark v. Wooster, 119 U. S. 322; *Beedle v. Bennett*, 122 U. S. 71; *American v. Brown*, 58 Fed. 409; *American v. Weston*, 58 Fed. 410.

The patents bearing numbers below 164,050 all expired before the suit was commenced, and, therefore, as the circuit court held, afforded no basis for equitable relief. No. 164,050 expired just after the filing of the original bill, but before the return day of the subpoena; and the bill in respect to that patent was within the discretion of the court to dismiss the bill in respect to that patent for want of equity. — *Russell v. Kern*, 69 Fed. 94; 16 C. C. A. 154.

Keyes v. Mining Co. 15 Sup. Ct. 772.

It is well settled that the expiration of a patent pending suit for infringement does not defeat the jurisdiction of a court of equity, although it is a reason for denying an injunction which was the basis of equity jurisdiction. — *Reedy v. Western*, 83 Fed. 709; 28 C. C. A. 27.

Beedle v. Bennett, 122 U. S. 71; *Clark v. Wooster*, 119 U. S. 322.

The bill was filed nearly three months before the expiration of the patent, and contained prayers for a preliminary and a perpetual injunction. The patent had yet a month to run after the defendant was required to answer under the rules. It was therefore clearly within the power of the court, when the suit was begun, not only, upon proper proof, to grant a preliminary injunction, but, either by a decree pro confesso, in case of default, or upon the bill and answer, if an answer should be filed within the rules, to dispose of the case finally, by awarding a permanent injunction, before the expiration of the patent. The conditions at the time the bill was filed thus availing to give the court jurisdiction, both for the purpose of a preliminary injunction and a permanent decree, during the life of the patent, such jurisdiction could not be defeated by subsequent happenings, whether due to the delay of the defendant or the contingencies of litigation. — *U. S. Mitis v. Detroit*, 122 Fed. 863; 59 C. C. A. 589.

New York v. Peoria, 21 Fed. 878; *Brooks v. Miller*, 28 Fed. 615; *Singer v. Wilson*, 38 Fed. 586; *American v. Chicago*, 41 Fed. 522; *Keyes v. Mfg. Co.* 45 Fed. 199; *Ross v. City*, 63 Fed. 466; *Chinnock v. Paterson*, 110 Fed. 199; *Clark*

v. Wooster, 119 U. S. 322; *Beedle v. Bennett*, 122 U. S. 71; *Busch v. Jones*, 184 U. S. 598.

The court below took the view that its jurisdiction in equity was dependent upon the right of the complainant to a preliminary injunction upon the bill as filed, and therefore held the verification upon information and belief insufficient. But there was no attempt to use the bill as evidence to secure an injunction pendente lite. Nor was there any need to do so, in order to sustain the jurisdiction of the court. The bill was filed Apr. 10. The patent did not expire until July 8. Under the rules the answer of the defendant was due June 5, more than a month before the patent expired. The bill, after describing the patent, averring its ownership by the complainant, and setting forth the adjudication sustaining it, charged the defendant with infringement, and called for answers to certain interrogatories calculated to clear up any doubt upon the point of infringement. If the defendant had answered upon the rule day, June 5, admitting the use of the patented process, or if it had failed to plead, and allowed the bill to be taken pro confesso, in either event the complainant would have been entitled to a permanent injunction a month before the expiration of the patent. The fact that the defendant failed to comply with the rules cannot prejudice the complainant. The complainant had reason to expect the answer on the rule day, and on each day thereafter until the defendant filed its pleading. For these reasons it was not necessary to verify the bill in positive terms. — *U. S. Mitis v. Detroit*, 122 Fed. 863; 59 C. C. A. 589.

Hughes v. Northern, 18 Fed. 106; *Black v. Allen*, 42 Fed. 618; *Burns v. Lynde*, 6 Allen, 305; *More v. Cheeseman*, 23 Mich. 290; *Hawkins v. Hunt*, 14 Ill. 42; *Sand Creek v. Robbins*, 41 Ind. 79.

The bill was filed Mar. 12, 1906. The patent expired June 3, 1906. The bill was for a preliminary and permanent injunction and an accounting. No motion for a preliminary injunction was made. Demurrer was filed challenging jurisdiction. *Held*: The suit was then one of equitable jurisdiction when instituted, and under the rules of practice in equity there can be no doubt there was ample time to award a preliminary injunction before the patent expired. These facts, we think, conferred jurisdiction for all purposes, not only for the preliminary injunctive relief, but also for the incidental accounting. — *Carnegie v. Colorado*, 165 Fed. 195; C. C. A.

Root v. Railway, 106 U. S. 189; *Keyes v. Eureka*, 158 U. S. 150; *Deere v. Dowagiac*, 153 Fed. 177; *Clark v. Wooster*, 119 U. S. 322; *Beedle v. Bennett*, 122 U. S. 71; *Busch v. Jones*, 184 U. S. 598; *Ross v. Fort Wayne*, 63 Fed. 466; *Chinnock v. Paterson*, 112 Fed. 531; *U. S. Mitis v. Detroit*, 122 Fed. 863.

§ 718. Equity — Rule.

The plain and obvious purpose of this provision (the Act of 1870) is, to furnish appropriate modes in equity pleading for the trial of all issues, both of fact and law, relating both to the alleged infringement and the validity of the patent, without the necessity of framing special issues out of chancery for trial by jury, or sending the parties to a court of law for the trial of an action in that forum, in order to determine their legal right. It proceeds upon the idea that the court of equity having acquired jurisdiction, for the purpose of administering the equitable relief sought by the bill, may determine directly and for itself, in the same proceeding, all questions incidental to the exercise of its jurisdiction, notwithstanding they may be questions affecting legal rights and legal titles. — *Root v. Ry.*, 105 U. S. 189; 26 L. Ed. 975.

The difficulty with the defendant's position in the case under consideration is that it apparently leaves the plaintiff without an adequate remedy. De-

defendant has broken no express covenant of the contract, since it has made no covenant. It has simply ignored the existence of the contract and granted a license to another party. It is difficult to see what remedy is available to the plaintiff in a state court that would not involve the right of the defendant to use the patent. In other words, it would be an ordinary suit for infringement in which the federal courts alone would have jurisdiction. Whether it sued at law, or in equity, its damages would be such as are usual in cases of infringement, and the only injunction it could obtain would be against the further use of the invention. — *Excelsior v. Pacific*, 185 U. S. 282; 46 L. Ed. 910; 22 S. Ct. 681.

Pratt v. Paris, 168 U. S. 255.

It is not denied in this case (*Root v. Railway*) but that there may be other grounds for equitable relief than the right to an injunction which would justify a circuit court, sitting as a court in equity, in trying a patent case, and, as an incident to the equitable matters presented in the bill, take an accounting of the profits and revenues of which the patentee may have been deprived by the infringement of his patent, and also the validity of the patent, and the fact of infringement. Before any of these matters however, can be considered, the bill must clearly present some ground for the interposition of a court of equity. — *Germain v. Wilgus*, 67 Fed. 597; 14 C. C. A. 561.

Root v. Railway, 105 U. S. 189; *Smith v. Sands*, 24 Fed. 470; *Adams v. Iron*, 26 Fed. 324; *Brooks v. Miller*, 28 Fed. 615; *Clark v. Wooster*, 119 U. S. 323.

§ 719. Equity — For Determining Profits or Assessing Damages Only.

The objection that there is a remedy at law is only available when such remedy is as plain, adequate and effectual as the remedy in equity. Here, if the complainants could recover the moneys claimed, they would be entitled also to discovery and account. — *Sullivan v. Railroad*, 94 U. S. 806; 24 L. Ed. 324.

Boyce v. Grundy, 3 Pet. 215.

The prayers of the bill are sufficient in either aspect, as they include discovery and an account, a decree for payment, injunctions to prevent the violation of the provisions of the agreement, "and such other relief as the equity of the case may require." So far as the relief desired is a mere account of stipulated royalties, counsel are not able to point out any decision of the Supreme Court clearly sustaining the bill. On the other hand, it is claimed that *Root v. Railway*, 105 U. S. 189, defeats jurisdiction in the case at bar. But that was a case of a mere tortious infringement of a patent expired before the bill was brought, while this suit, in our view, relates to patents still in life, and, in another, to agreed royalties. — *B. & S. Fastener v. B. G. Fastener*, 58 Fed. 818; 7 C. C. A. 498.

The ground upon which a court of equity will take cognizance of a suit for an infringement of a patent is the relief through an injunction. There is nothing so peculiar to a suit for damages and profits for infringement of a patent as will, independently of some recognized ground of equitable jurisdiction, justify a court of chancery in assuming jurisdiction. It must appear that the legal remedy at law is inadequate, and if the case is one in which equitable relief by injunction is inappropriate, as when the patent has expired, or when the circumstances are such as to justify a court in refusing equitable relief, the suit will not be entertained for the mere purpose of an account of past damages and profits. — *Woodmansee v. Williams*, 68 Fed. 489; 15 C. C. A. 520.

Root v. Railway, 105 U. S. 189; *McLaughlin v. Railway*, 21 Fed. 574; *Clark v. Wooster*, 119 U. S. 325.

It is doubtless true, as contended, aside from any right to an injunction, that there may be ground for jurisdiction in equity in the nature and circumstances of the account, and in the necessity for discovery, but in respect to the expired patents, which are here assumed to be valid, it is not shown that the remedy at law would be inadequate. — *Russell v. Kern*, 69 Fed. 94; 16 C. C. A. 154.

Equity will not entertain a suit which simply involves the ascertainment of damages and profits for past infringement. — *Truman v. Holmes*, 87 Fed. 742; 31 C. C. A. 215.

Root v. Railway, 105 U. S. 189; *Hayward v. Andrews*, 106 U. S. 672; *Cary v. Wooster*, 119 U. S. 325; *Rob. Pat. sec. 1086*; *Walk. Pat. sec. 572*.

§ 720. Equity — Miscellaneous.

The single question remains whether the assignee of a chose in action may proceed by bill in equity to enforce for his own use the legal right of his assignor, merely because he cannot sue at law in his own name. If the assignee of the chose in action is unable to assert in a court of law the legal right of the assignor, which in equity is vested in him, then the jurisdiction of a court of chancery may be invoked because it is the proper forum for the enforcement of equitable interests and because there is no adequate remedy at law; but when, on the other hand, the equitable title is not involved in the litigation, and the remedy is sought merely for the purpose of enforcing the legal right of his assignor, there is no ground for an appeal to equity because, by an action at law in the name of the assignor, the disputed right may be perfectly indicated and the wrong done by the denial of it fully redressed. To hold otherwise would be to enlarge the jurisdiction of courts of equity to an extent the limits of which could not be recognized; and that, in cases where the only matters in controversy would be purely legal rights. — *Hayward v. Andrews*, 106 U. S. 672; 27 L. Ed. 271; 1 S. Ct. 544.

Explaining, *Root v. Ry.* 105 U. S. 189; *Hammond v. Messenger*, 9 Sim. 327.

Walker v. Brooks, 125 Mass. 241; *Dhegetaft v. London*, 4 Bro. P. C. 2nd ed. 436; *Motteux v. Insurance*, 1 Atk. 545; *Cator v. Burke*, 1 Bro. Ch. 434; *Hunt v. Hollingsworth*, 100 U. S. 103; *Van Norden v. Merton*, 99 U. S. 380; *Rose v. Clark*, 1 Yew. & C. Ch. 534; *Carter v. Ins. Co.* 1 Johns, Ch. 463; *Bank v. Mumford*, 2 Barb. Ch. 596; *Riddell v. Mandevill*, 5 Cranch, 322; *Lenox v. Roberts*, 2 Wheat. 373; *Thompson v. R. R.* 6 Wall. 134; *Walker v. Derville*, 12 Wall. 442.

Where plaintiff's damages were measurable in terms of royalties established, there being no other ground for equity jurisdiction, the remedy is complete at law. — *Keyes v. Eureka*, 158 U. S. 150; 39 L. Ed. 929; 15 S. Ct. 772.

The respondent having made a full appearance and pleaded to the merits of the bill, has waived the objection that as the suit was begun it was against another party on account of an erroneous statement as to county location, and also the objection that the original complainant had an adequate remedy at law. — *Ross v. Ft. Wayne*, 63 Fed. 466; 11 C. C. A. 288.

Kilborn v. Sunderland, 130 U. S. 509.

A complainant in equity may transfer to another his interest in the subject-matter of the contest, and confer upon the assignee the right to prosecute

the suit to a decree upon the merits, notwithstanding by reason of events subsequent to the bringing of the suit the controversy has so changed as to be the subject only of an action at law; and such new party may be substituted by filing an original bill in the nature of a supplemental bill. — *Ross v. Ft. Wayne*, 63 Fed. 466; 11 C. C. A. 288.

In this case the appellee had sued appellant at law for infringement of a subsequent patent. This bill is for infringement of a prior patent owned by appellant and for an injunction to restrain appellee from prosecuting his action at law on the subsequent patent. *Held*: That ground for equitable relief was not shown. — *Germain v. Wilgus*, 67 Fed. 597; 14 C. C. A. 561.

Note: While it would seem that the ruling in this case upon this point is acceptable, the doctrine set forth by Knowles, D. J. of equity jurisdiction is open to grave doubt.

The suggestion has been made that, although defendants may be guilty of infringement, complainant's remedy at law is adequate, and, under the circumstances of the case, equity ought not to accord to the patentee the equitable relief of injunction. As to this aspect of the case, it would seem clear that, if complainant has imposed a legal restriction upon the use of the invention embodied in the structures made and sold by it, the remedy at law is wholly inadequate, and relief by injunction should be awarded upon the case stated in the bill. If the complainant has a right to reserve a control over the use in the manner stated in its bill, then its machines, to the extent it has reserved such control, are within the monopoly of the patent. If its licenses do not infringe public policy, but are within the purposes awarded by the patent, then it must follow that the case presented should be accorded relief by injunction restraining the acts complained of. A court of equity has the power, independently of any other relief, to restrain the continuing infringement of a patent. — *Heaton v. Eureka*, 77 Fed. 288; 25 C. C. A. 267.

Supply Co. v. McCready, Fed. Cas. 295.

The bill was upon the Gray patent, but the infringement was of the Hahl patent which complainant owned but did not sue on. Defendant failed to answer and the decree was *pro confesso*. On the accounting, the Hahl patent having expired *pendente lite*, defendant came in and claimed want of jurisdiction, as the remedy should be at law, and that the infringement was, if any, of the Hahl patent. *Held*: We think the argument for the appellant overlooks the distinction between the facts which show that the merits of the case are against the plaintiff, and facts which establish that the court is without jurisdiction to determine the merits of the case. It is also very clear that the facts which the appellant's counsel says show that the plaintiff's remedy is at law really in their effect establish that the plaintiff is without any right to recover either at law or in equity, for, if the device were made under the Hahl patent, it is clear that the plaintiff could not recover in an action at law any more than by a suit in equity, the suit being upon the Gray patent only. If the defendant had regularly filed answer and made an issue on the facts stated in the bill, and had on hearing disproved the allegations of the bill, it would certainly not be insisted that this defeated the jurisdiction of the court. — *Reedy v. Western*, 83 Fed. 709; 28 C. C. A. 27.

That after a circuit court has obtained jurisdiction in the premises by the issuance of a subpoena, that jurisdiction will not be ousted by the hard and fast rules of the Patent Office, see — *Lobel v. Cossey*, 157 Fed. 664; 85 C. C. A. 142.

We are content to rest affirmance of the court below with the remark upon the case of *Kessler v. Eldred*, 206 U. S. 285, decided since the hearing below, as

plainly upholding jurisdiction in equity for like relief, in favor of the manufacturer, primarily sued for infringement, to prevent complication and injury in further suits against purchasers from him of the alleged infringing article. Whether the injunction should issue depends upon the equities presented. — *Commercial v. Avery*, 159 Fed. 935; 87 C. C. A. 206.

§ 721. Infringement.

An action which raises a question of infringement is an action arising "under the patent law," and one who has the right to sue for the infringement may sue in the circuit court. Such a suit may involve the construction of a contract as well as the patent, but that will not oust the court of its jurisdiction. If the patent is involved it carries with it the whole case. — *Littlefield v. Perry*, 88 U. S. 205; 22 L. Ed. 577.

It would seem that an action for infringement against the U. S. would be properly brought in the Court of Claims. — *James v. Campbell*, 104 U. S. 356; 26 L. Ed. 786.

Carr v. U. S. 98 U. S. 433.

Where the validity of the patent was admitted and there was an established license fee, the remedy at law was complete and adequate at law. — *Keyes v. Eureka*, 158 U. S. 150; 39 L. Ed. 929; 15 S. Ct. 772.

The act of Congress of 1870, as embodied in Section 629 of the Revised Statutes, provides that the "circuit courts shall have original jurisdiction as follows: . . . of all suits at law or in equity, arising under the patent or copyright laws of the United States." The jurisdiction thus conferred is exclusive. All questions, therefore, which concern the infringement or validity of, and the title to, patents granted under the patent laws of the United States, must be litigated in the circuit courts of the United States. "It is perfectly well settled," however, "that where a suit is brought on a contract, of which a patent is the subject-matter, either to enforce such contract or to annul it, the case arises on the contract or out of the contract, and not under the patent laws." Where a bill in equity states a contract between complainant and defendant, and which it seeks to have set aside in order to pursue the defendant as an infringer, or where the bill states a contract between complainant and defendant, which it seeks to enforce, as giving complainant title to the patent, the case cannot be said to arise under the patent laws. In either case the court is called upon to administer the law of the contract, and not the patent laws of the United States, or rights claimed under them. But, where the contract set up or stated is not between the parties to the suit, it is not a contract thereto and cannot, therefore, give character to the case as being on a contract, and not one arising under the patent laws. In the case before us the action was not brought to enforce a contract or to set aside a contract between defendant and complainant. In other words, it was not a suit upon a contract between the parties to the suit, within the scope of the decisions referred to. The appellee is mistaken in its contention that questions of title to patents, such as are raised in this case, cannot be questions arising under the patent laws of the United States, because they involve the derivation of title from a contract. The complainant in this case has stated in its bill that it is the owner of the patent in suit, and derives title through an assignment from the patentee. — *Atherton v. Atwood-Morrison*, 102 Fed. 949; 43 C. C. A. 72.

That one who manufactures, filling a specific order for a dealer according to the terms of the order, without intent to infringe, and after discontinu-

ance of such infringement, and with no evidence of threatened continuance of infringement, cannot be sued in equity, there being adequate remedy at law for past acts, see — *Globe-Wernicke v. Brown*, 121 Fed. 90; 57 C. C. A. 344.

Although both the parties are citizens of New York, as the action was for the infringement of a patent, and was so tried and decided in the courts below, this court has jurisdiction, notwithstanding that one of the defenses depends upon the construction of a contract of license. We do not think that the decision in *Hartell v. Tilghman*, 99 U. S. 547, implies. — *Clancy v. Troy*, 157 Fed. 554; 85 C. C. A. 314.

Complainant's counsel contends before this court that the defendants by filing a general appearance in the cause without objection to the jurisdiction of the court, waived their right to object to being sued in the Eastern District of Pa., and hence that, as the action is within the general jurisdiction of the circuit court, the complainant, because of such waiver, may show in support of his bill acts of infringement committed outside of such district. If that be admitted, however, as a general proposition, it does not relieve the complainant in this case of the burden of proving that the defendants have committed infringing acts within said district, since that was substantially the issue tendered by the bill, denied by the answer, and to the maintenance of which the proofs were directed. — *Gray v. Grinberg*, 159 Fed. 138; 86 C. C. A. 328.

§ 722. Licensor and Licensee.

A mere licensee cannot sue strangers who infringe. In such cases redress is obtained through or in the name of the patentee or his assignee. Here, however, the patentee is the infringer, and as he cannot sue himself, the licensee is powerless so far as the courts of the United States are concerned unless he can sue in his own name. A court of equity looks to substance rather than form. When it has jurisdiction of parties it grants the appropriate relief without regard to whether they come in as plaintiff or defendant. In this case the person who should have protected the plaintiff against all infringements has become himself the infringer. He held the legal title to his patent in trust for his licensees. He has been faithless to his trust, and courts of equity are always open for the redress of such a wrong. This wrong is an infringement. Its redress involves a suit, therefore, arising under the patent laws, and of that suit the circuit court has jurisdiction. — *Littlefield v. Perry*, 88 U. S. 205; 22 L. Ed. 577.

While we do not allow the jurisdiction of the federal courts to be invoked primarily for the determination of the respective rights of parties to a contract concerning patents, yet when the bill is an ordinary one for infringement, and the answer puts in issue the title of the plaintiff to sue, we think the jurisdiction is not ousted by the mere allegation that the license has been revoked, and that the court is at liberty to go on and determine that fact. — *Excelsior v. Pacific*, 185 U. S. 282; 46 L. Ed. 910; 22 S. Ct. 681.

Littlefield v. Perry, 21 Wall. 205; *White v. Rankin*, 144 U. S. 628.

The bill in this case is in the customary form for infringement of letters patent, and the proposition contended for necessarily implies that the jurisdiction invoked by the filing of such a bill may be defeated by a plea of license which admits the use and validity of the patent sued on. If the decision of *Hartell v. Tilghman*, 99 U. S. 547, ever meant that much, it has been explained and limited by later decisions, which leave no doubt of the federal jurisdiction in cases like the present. — *Elgin v. Nichols*, 65 Fed. 215; 12 C. C. A. 578.

White v. Rankin, 144 U. S. 628; *Mfg. Co. v. Hyatt*, 125 U. S. 46; *Marsh v. Nichols*, 140 U. S. 344.

The validity of the under-license or contract and the right of the licensee to restrain future sale in violation thereof must necessarily be determined by the patent laws, and by the rules applicable to a suit by a patentee or an assignee to enjoin the infringement of a patent. — *National v. Schlegel*, 128 Fed. 733; 64 C. C. A. 594.

§ 723. Residence.

The Act of Congress exempts a defendant from suit in any district of which he is not an inhabitant, or in which he is not found at the time of the service of the writ. It is an exemption which he may waive, but unless waived, he need not answer and will not be bound by anything which may be done against him in his absence. — *Butterworth v. Hill*, 114 U. S. 128; 29 L. Ed. 119; 5 S. Ct. 796.

The act of March 3, 1897, was obviously intended to add to the general statutes upon the subject of jurisdiction in patent cases a definition for the particular requisites for jurisdiction, of such cases by the various circuit courts, and of the proper method of service of process upon a defendant in the district of which he is not an inhabitant. The object was to determine with precision the boundaries of jurisdiction, and to create a future method of service of process in patent causes against non-resident defendants, which had not theretofore been stated in a federal statute. — *Westinghouse v. Great Northern*, 88 Fed. 258; 31 C. C. A. 625.

The averment is, that the defendant had a regular and established place of business in Philadelphia, and that the acts of infringement had been committed by the defendant in that city. It by no means follows, that, because the defendant had not such a place of business in the exhibition, it might not have had one or more such places of business elsewhere in Philadelphia; nor are we ready to hold that because one writ of subpoena in this case has proved ineffectual, valid service of another may not be made. We, therefore, do not regard the order appealed from as in any sense a final decree either in substance or form. — *Waterman v. Parker*, 107 Fed. 141; 46 C. C. A. 203.

In re Grossmayer, 177 U. S. 48; *Ex parte Schollenberger*, 96 U. S. 369.

A corporation chartered under the laws of New Jersey is not an inhabitant of the district in Texas where it does business. It might have agents and carry on business in every one of the many districts of the United States, and it could not be held that, because of such business, it was an inhabitant of every district in which it did business. — *Shaw v. American*, 108 Fed. 842; 48 C. C. A. 68.

Shaw v. Mining Co. 145 U. S. 444; *Carter*, Jur. Fed. Cts. 155.

§ 724. State Court.

An action to recover royalties under contract for the sale of a patent, though there may arise collaterally the question whether articles made come within the patent does not arise under the patent laws so as to give jurisdiction to the Circuit Court. — *Albright v. Teas*, 106 U. S. 613; 27 L. Ed. 295; 1 S. Ct. 550.

Wilson v. Sanford, 10 How. 99.

The federal courts have no right, irrespective of citizenship, to entertain suits for the amount of an agreed license or royalty, or for the specific execution of a contract for the use of a patent, or of other suits where a subsisting contract is shown governing the rights of the party in the use of an invention, and that such suit not only may, but must, be brought in the state court. — *Pratt v. Paris*, 168 U. S. 255; 42 L. Ed. 458; 18 S. Ct. 62.

Hartell v. Tilghman, 99 U. S. 547; *Wilson v. Sanford*, 10 How. 99; *Albright v. Teas*, 106 U. S. 613; *Goodyear v. Day*, 1 Blatch. 565; *Blanchard v. Sprague*, 1 Cliff. 288; *Mfg. Co. v. Hyatt*, 125 U. S. 46; *Wade v. Lawder*, 165 U. S. 624.

It is no objection to the jurisdiction of the state court that the question of validity may involve the examination of conflicting patents, or the testimony of experts. It is the fact of its invalidity, and not the reasons for it, that is material. (Citing at length the state law on the subject). — *Pratt v. Paris*, 168 U. S. 255; 42 L. Ed. 458; 18 S. Ct. 62.

§ 725. Supreme Court.

The Supreme Court has jurisdiction on appeal of a cause arising under the patent laws regardless of the amount involved. — *Phillip v. Nock*, 80 U. S. 185; 20 L. Ed. 567.

As the court had jurisdiction at the inception of the suit, even though upon narrow ground, yet, as the defendants did not ask the dismissal of the bill on the ground of want of jurisdiction, we should be very reluctant, if we had the power now, on an appeal, after the case had been tried and determined, to reverse the decree. — *Clark v. Wooster*, 119 U. S. 322; 30 L. Ed. 392; 7 S. Ct. 217.

We have jurisdiction to review the final decree in the suit and all interlocutory decrees and orders. — *Worden v. Scarles*, 121 U. S. 14; 30 L. Ed. 853; 7 S. Ct. 814.

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

The Supreme Court has jurisdiction to review a judgment of the Court of Appeals D. C. — *U. S. v. Seymour*, 153 U. S. 353; 38 L. Ed. 742; 14 S. Ct. 849.

Now, actions at law for infringement and suits in equity for infringement, for interference, and to obtain patents, are suits which clearly arise under the patent laws; being brought for the purpose of vindicating rights created by those laws, and coming strictly within the avowed purpose of the act, (Judiciary Act, Mar. 3, 1891) to relieve the court of that burden of litigation which operated to impede the disposition of cases of peculiar gravity and general importance. We are of opinion that it is reasonable to assume that the attention of Congress was directed to this class of cases; — that there is nothing intended to place a limitation on the appellate jurisdiction of this court in a case such as this. — *United States v. Am. Bell*, 159 U. S. 548; 40 L. Ed. 255; 16 S. Ct. 69.

LACHES.

General Statement § 726
Application § 727
Bringing Suit § 728
Excuses § 729
Injunction § 730 (see § 533)

Reissue § 731 (see § 869)
Miscellaneous Rulings § 732
See — *Abandonment* § 1; *Defenses* § 306; *Disclaimer* § 339; *Injunction* §§ 558, 568

§ 726. General Statement.

The Patent Statute does not employ the term laches. Delay of application which bars a patent is abandonment under Sec. 4886. See title *Abandonment*. Failure to prosecute an application may work abandonment. Sec. 4894. Failure to pay the final fee within the prescribed period may work abandonment, and the question of abandonment will be considered as a question of fact by the Patent Office. Sec. 4897. While Sec. 4916, relating to reissues does not make delay a bar to a valid reissue, the fact of unreasonable delay or of intervening rights may render the reissue invalid. See *Reissue*. The common rules of laches and stale claims apply to cases in equity involving patents.

§ 727. Application.

Congress has established a department, with officials selected by the government, to whom all applications for patents must be made; has prescribed the terms and conditions of such applications, and entrusted the entire management of affairs of the department to those officials; that when an applicant complies with the terms and conditions prescribed, and files his application with the officers of the department, he must abide their action, and cannot be held to suffer or lose rights by reason of any delay on the part of those officials, whether reasonable or unreasonable, unless such delay has been brought about through his corruption of the officials or through his inducement or at his instance. Proof that they were in fault, that they acted unwisely, unreasonably, and even that they were culpably dilatory, casts no blame on him and abridges none of his rights. — *United States v. Am. Bell*, 167 U. S. 224; 43 L. Ed. 144; 17 S. Ct. 809.

The mere fact of delay does not, therefore, operate to deprive the inventor of his legal rights. Before he can be punished it must be shown that he has been guilty of a wrong — that he has caused the delay. He cannot be punished on account of the delay of the tribunal before which he is presenting his suit. — *United States v. Am. Bell*, 167 U. S. 224; 43 L. Ed. 144; 17 S. Ct. 809.

We do not, however, intend to have it inferred that we have determined that the law requires any degree of diligence beyond a compliance with the statutory provisions, official regulations, and the formal demands from time to time of the public officials charged with duties under the patent law. We do not determine that any degree of laches whatever will forfeit a patent once granted, reserving, of course, cases of abandonment, and other cases where, through laches, the equities of strangers have become established. Congress, in 4894 and 4904, R. S., established certain fixed periods for giving progress to applications for patents, which the Supreme Court has so far recognized by analogy as to apply the limitation to a bill in equity filed under sec. 4915 R. S. *Gandy v. Marble*, 122 U. S. 432. The United States asks us to establish a period of limitations other than that fixed by statute, and we do not decide that, under any circumstances, we have any authority so to do. We merely determine that the case of extreme diligence as made by the United States cannot be maintained. — *Am. Bell Tel. v. U. S.* 68 Fed. 542; 25 C. C. A. 569.

That others received his invention with incredulity and ridicule was no fault of his. He never abandoned his invention. Nor do we find such laches on his part as to deprive him of its use. He was a poor man and was ill for a long time. He, unaided, was without means to construct his apparatus on such a scale as to demonstrate its merit. Those to whom he applied for its

introduction turned a deaf ear to him. In the face of discouragement and with reasonable diligence in view of his circumstances, he persisted in his efforts until they were finally crowned with success. We must therefore hold that the Reid & Billington apparatus did not anticipate any of the claims of the patent in suit, and consequently that Willames was under no obligation to enter a disclaimer. — *McNeely v. Willames*, 96 Fed. 978; 37 C. C. A. 641.

Late in December, 1893, the inventor became insane. At this crisis there remained three months' time during which an application might have been filed, if there had been anyone legally capable of making an application. The trouble was that there was then no law authorizing the guardian to file an application for a patent upon an invention made by an insane person. The law which for the first time took cognizance of such a situation was passed Feb. 28, 1899 (C. 227, 30 Stat. 915). The act of that date amended sec. 4896 R. S. which authorizes the administrator or executor of a deceased inventor to file an application for an invention made by his intestate or testator, by providing that the guardian of an insane person may file an application upon an invention made by such person before his insanity. The last clause of that act provides that it "is to cover all applications now on file in the Patent Office or which may be hereafter made." Jenner, as guardian, at date of this act had on file an application for a patent upon the insane inventor's invention. There was no authority of law for its filing at the time it was filed, but that trouble, we shall assume, was cured by the retroactive effect of the act of 1899. But the date of that application was Nov. 20, 1895, and we are confronted with the fact that at that date the invention had been in public use for more than three years. Congress having created the monopoly, may put such restrictions upon it as it pleases. Having made no exception in favor of an insane person, we can make none. — *Jenner v. Bowen*, 139 Fed. 556; 71 C. C. A. 540.

§ 728. Bringing Suit.

Delay in bringing suit for 15 years is laches. — *Leggett v. Standard*, 149 U. S. 287; 37 L. Ed. 737; 13 S. Ct. 902.

McLean v. Fleming, 96 U. S. 245; *Spiedel v. Henrici*, 120 U. S. 377; *Galliber v. Cadwell*, 145 U. S. 368.

It is thus apparent that so far from the complainant having made out a case of wilful infringement by defendant company, the converse is the fact. Fully aware as early as 1880, which is about a year after the infringing nets were made, that the defendant was using them, and kept advised from time to time by his foreman that infringement was continuing, complainant carefully refrained from saying or doing anything to warn defendant that it was infringing until almost the very day when the patent expired. The reason for this policy of inaction is quite apparent. A careful examination of the record will leave no doubt in any unprejudiced mind, that, had complainant notified defendant at any time from 1880 to 1886 that the slings were infringements of his patent, the use of such slings would have ceased forthwith. They were convenient, and in some respects and under some conditions, superior to other appliances; hence, the set of four were always kept renewed. But manifestly, they were not so superior as complainant contends, for their number was never increased. If they did not offer sufficient advantages to warrant increasing their number, it is difficult to believe that those advantages would have been sufficient to induce continued use after defendant was advised that they were infringements of a patent. The complainant has deliberately chosen not to warn an unconscious infringer, whom he has watched infringing year after year, no doubt hoping thereby to increase the

amount of profits ultimately recoverable. This is sharp practice, and if there ever was a case where complainant should be required to establish these profits by reliable and tangible proof, this is preeminently such. — *Hohorst v. Hamburg-American*, 91 Fed. 655; 34 C. C. A. 39.

§ 729. Excuses.

It would seem that poverty or sickness would excuse delay in prosecuting an application. — *Woodbury v. Keith*, 101 U. S. 479; 25 L. Ed. 939.

Where, it otherwise appearing on the face of the bill that the claim is stale, or is barred by lapse of time, and it is sought to avoid the effect of such a bar on the ground that the fraud complained of was concealed and had been only recently discovered. It is necessary that the particular acts of fraud or concealment should have been set forth by distinct averments, as well as the time when discovered, so that the court may see whether, by the exercise of ordinary diligence the discovery might have been before made. — *Wollensak v. Reiher*, 115 U. S. 96; 29 L. Ed. 355; 5 S. Ct. 1132.

Beanbien v. Beanbien, 23 How. 190; *Stearnes v. Page*, 7 How. 819; *Moore v. Green*, 19 How. 69; *Marsh v. Whitmore*, 21 Wall. 178; *Godden v. Kimmell*, 99 U. S. 201; *Badger v. Badger*, 2 Wall. 87; *Wood v. Carpenter*, 101 U. S. 135; *Lansdale v. Smith*, 106 U. S. 391.

Plaintiff's poverty is no excuse for laches in this case. — *Leggett v. Standard*, 149 U. S. 287; 37 L. Ed. 737; 13 S. Ct. 902.

Hayward v. Bank, 96 U. S. 611.

Note: This holding is without authority and the citation is not truly made. In *Hayward v. Bank*, the court did not say "that a party's poverty or pecuniary embarrassment was not a sufficient excuse for postponing the assertion of his rights." What the court did say was "*His* poverty or pecuniary embarrassment was not a sufficient excuse for postponing the assertion of his rights," which is quite a different thing when the true context is seen. That was a case for the recovery of hypothecated stocks, a case in equity to recover title to personal property. The delay there was a very different one from an action in tort against a great monopoly like the present case; and the learned justice went a long way and spun a very fine thread of analogy in an attempt to make such a hard and fast rule.

The plaintiff's excuse, in this instance, that he preferred for prudential reasons, to receive a salary from the defendant rather than to demand a royalty is entitled to a less favorable consideration by a court of equity than if his conduct had been that of mere inaction. — *Lane v. Locke*, 150 U. S. 193; 37 L. Ed. 1049; 14 S. Ct. 78.

The Edison company brought suit seasonably against the first and principal infringer. It was not laches to delay bringing suit against other infringers until the first suit had reached adjudication. *Edison Electric v. Sawyer-Man*, 53 Fed. 592; 3 C. C. A. 605.

With knowledge of infringement by complainant and its predecessors in business for fourteen years without any excuse equitable rights are lost. *Woodmansee v. Williams*, 68 Fed. 489; 15 C. C. A. 520.

Action was brought against a prior infringer within a year from the time the infringement began, and the issue was not finally settled until within a year previous to the time this suit was brought. *Held:* That suit was finally determined in favor of the complainant on Oct. 21, 1898 (the bill here was filed Apr. 10, 1899). Such pending litigation involving the validity and con-

struction of the patent was sufficient reason for not bringing other suits for infringement until the patent should be finally adjudicated. — *U. S. Mitis v. Detroit*, 122 Fed. 863; 59 C. C. A. 589.

Edison v. Sawyer, 53 Fed. 502; *Taylor v. Sawyer*, 75 Fed. 301; *New York v. Loomis*, 91 Fed. 421; *Stears-Roger v. Brown*, 114 Fed. 939.

§ 730. Injunction.

Where 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. People's, 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.

For full list of cases on this subject see *Injunction — Grounds for Refusing — Laches*, § 568.

§ 731. Reissue.

Even if the patentee had the right to a reissue if applied for in seasonable time, he had lost it by his laches and unreasonable delay. — *Johnson v. Flushing*, 105 U. S. 539; 26 L. Ed. 1162.

Miller v. Brass Co. 104 U. S. 350.

Laches in obtaining reissue. — *Wollensak v. Sargent*, 151 U. S. 221; 38 L. Ed. 137; 14 S. Ct. 291.

For full list of cases on this subject see *Reissue — Delay*, §§ 875-9.

§ 732. Miscellaneous Rulings.

Delay of twelve years raises laches. — *Lane v. Locke*, 150 U. S. 193; 37 L. Ed. 1049; 14 S. Ct. 78.

Reasonable diligence as well as good faith are necessary to call into operation the powers of a court of equity. — *Woodmansee v. Williams*, 68 Fed. 489; 15 C. C. A. 520.

Maxwell v. Kennedy, 8 How. 222; *Kittle v. Hall*, 29 Fed. 511; *Piatt v. Vattier*, 9 Pet. 416; *Leggett v. Oil*, 149 U. S. 288; *McLaughlin v. Railway*, 21 Fed. 574; *Speidel v. Henrici*, 15 Fed. 753; *The Walter M. Fleming*, 9 Fed. 474; *Lewis v. Chapman*, 3 Beav. 133; *Lane v. Locke*, 150 U. S. 193; *Keyes v. Mining*, 158 U. S. 772.

The infringement not being evident either from the name or character of the article, and neither complainant nor its assignor having actual knowledge of it, although the article was sold for years, does not constitute laches to prevent recovery by accounting. — *Imperial v. Stein*, 77 Fed. 612; 23 C. C. A. 353.

This suit was brought about two and one-half months before the expiration of the patent, and after the extensive and expensive manufacture of Appleby machines had progressed at an increasingly active rate within the complainant's knowledge and observation for about 14 years. All the adjudged cases in regard to laches proceed upon the inequitable conduct of the complainant, and the inequity which would result if the stale claim was permitted to be enforced, and the judgments adverse to the complainant are founded upon the fact that the party to whom the laches is imputed has all the time "knowledge of his rights, and an ample opportunity to establish them in

the proper forum; that, by reason of his delay, the adverse party had good reason to believe that the alleged rights are worthless or had been abandoned; and that, because of the change in conditions or relations during this period of delay, it would be an injustice to the latter to permit him to now assert them." A further reference to the cited cases is unnecessary, as Judge Coxe has cited many of them in his opinion (82 Fed. 95). — *Richardson v. Osborne*, 93 Fed. 828; 36 C. C. A. 610.

LAW ACTIONS

General Statement § 733
 Directing Verdict § 734
 Findings § 735
 Instructions § 736
 Miscellaneous Rules § 737

See — *Appeals* §§ 131-2; *Damages* § 285; *Defenses* § 306; *Evidence* §§ 401-6; *Infringement* § 492; *Jurisdiction* § 713; *Pleading and Practice* § 788

§ 733. General Statement.

The subject of *Jurisdiction* has been considered under that title, and Sec. 491 need not be here repeated. Under the old practice, prior to the revision of the Patent Act in 1870-1872, action on the case was the common method of procedure. At the present time law actions are rare except in the Ninth Circuit. Where there is no ground for equitable relief, with the present rules as to damages, and in the absence of a very clear measure of damages — making the computation little more than a simple problem in arithmetic — a law action is well-nigh futile. It is, furthermore, the observation of the writer that the submission of facts in a patent case to a jury is a most hazardous proceeding. It is not possible, under our jury system, to obtain a panel of scientific men.

§ 734. Directing Verdict.

The courts of the United States have no power to order a peremptory nonsuit, against the will of the plaintiff. — *Silby v. Foote*, 14 How. 218; 14 L. Ed. 394.

Doc v. Grymes, 1 Pet. 469; *D'Wolf v. Raband*, 1 Pet. 476; *Cram v. Morris*, 6 Pet. 598.

Where it is entirely clear that the plaintiff cannot recover, it is proper to give such a direction, but not otherwise. — *Klein v. Russell*, 86 U. S. 433; 22 L. Ed. 116.

In our opinion this was a question of fact properly to be left for determination to the jury, under suitable instructions from the court upon the rules of law, which should guide them to their verdict. And there was evidence upon both sides of the issue sufficient to require that it should be weighed and considered by the jury in determination of the question; and this implies that, if it had been submitted to the jury and the verdict had been for the plaintiffs, it would have been the duty of the court to set it aside as not supported by sufficient evidence. The court erred, we think, in withdrawing the case from the jury as it did by directing a verdict for the defendants. — *Keyes v. Grant*, 118 U. S. 25; 30 L. Ed. 54; 6 S. Ct. 974.

Randall v. Baltimore, 109 U. S. 478.

A motion to direct a verdict is broad enough to cover the question of the invalidity of the patent. — *May v. Juneau*, 137 U. S. 408; 34 L. Ed. 729; 11 S. Ct. 102.

Brown v. Piper, 91 U. S. 37; *Dunbar v. Myers*, 94 U. S. 187; *Slawson v. Grand*, 107 U. S. 649; *Hendy v. Golden*, 127 U. S. 370.

We are of opinion the court ought to have directed a verdict for the defendant on the ground that the patent was void. — *Fond Du Lac v. May*, 137 U. S. 395; 34 L. Ed. 714; 11 S. Ct. 98.

Note: But see on this subject whether such a course as here suggested by Justice Blatchford is justified by the rule laid down in *Silsby v. Foote*, 14 How. 218; *Doe v. Grymes*, 1 Pet. 469; *D'Wolf v. Raband*, 1 Pet. 476; *Cram v. Morris*, 6 Pet. 598; and compare Justice Fuller's remark in *Haines v. McLaughlin*, 135 U. S. 584, saying, "all questions of fact are exclusively for the jury to decide. The court does not decide nor instruct you whether any device was or was not an anticipation of plaintiff's patent. The question of anticipation is purely a question of fact and is exclusively for the jury to determine."

In view of the fact that the state of the art had to be considered in this case, the broad statement of Justice Blatchford seems open to criticism.

If upon the state of art as shown to exist by the prior patents, and upon a comparison of the older devices with those described in the patent in suit, it should appear that the patented claims are not novel, it becomes the duty of the court to so instruct the jury. — *Market v. Rowley*, 155 U. S. 621; 39 L. Ed. 284; 15 S. Ct. 224.

Giant v. California, 98 U. S. 126; *Heald v. Rice*, 104 U. S. 737; *Fond Du Lac v. May*, 137 U. S. 396.

Dissented to by Justice Brown, and rightly, too, as I think, in view of *Battin v. Taggart*, 58 U. S. 74; *Bischoff v. Wetherhead*, 76 U. S. 812.

And if, therefore, the construction of plaintiff's patent was for the determination of the court, either on the face of the patent, or on the face of the patent in connection only with facts of such nature that their existence and effect could not be reasonably disputed, it follows that the entire issue of infringement was practically for the court, however it might have been with issues of novelty, and patentability, or other issues which might have been raised if the issue of infringement could properly have been submitted to the jury, or determined for the plaintiffs. — *DeLoria v. Whitney*, 63 Fed. 611; 11 C. C. A. 355.

The law is now well settled that the trial court not only has the power, but it is its duty, where the evidence is insufficient to support a verdict in favor of the plaintiff, to instruct the jury to find a verdict in favor of the defendant. — *Overweight v. Improved*, 94 Fed. 155; 36 C. C. A. 125.

The question of invention is ordinarily for the jury, subject to the direction of the court concerning the construction to be put on the letters patent. If, however, the patent in suit appears to the court to be plainly invalid for want of invention, a verdict for the defendants should be ordered. The presumption of validity which arises from the patent itself does not necessarily require the submission of the question of invention to the jury. — *Look v. Smith*, 148 Fed. 12; 78 C. C. A. 180.

Heald v. Rice, 104 U. S. 737; *May v. Juneau*, 137 U. S. 408; *Fond Du Lac v. May*, 137 U. S. 395; *Market v. Rowley*, 155 U. S. 621.

§ 735. Findings.

In a suit at law where evidence was taken and the question of infringement was determined, this court will not review the evidence as if it were a suit in equity. — *St. Paul v. Starling*, 140 U. S. 184; 35 L. Ed. 404; 11 S. Ct. 803.

Upon a special finding upon different issues, if judgment has been given in favor of the defendant, if the finding on one issue is unassailable, no error of law or fact in respect to another issue can be deemed harmful. — *Keene v. Barratt*, 100 Fed. 590; 40 C. C. A. 571.

§ 736. Instructions.

It is not error to refuse to instruct as to an abstract question, and instructions should never be given upon hypothetical statements of fact, of which there is no evidence. — *Haines v. McLaughlin*, 135 U. S. 584; 22 L. Ed. 241; 10 S. Ct. 876.

Where the court stated the facts as shown by the evidence as to an anticipating device, and then left the matter wholly to them, there was no error. — *Haines v. McLaughlin*, 135 U. S. 584; 22 L. Ed. 241; 10 S. Ct. 876.

Eastern v. Hope, 95 U. S. 297.

A statement by the court to the jury which is immaterial, if it is justified in the course of the trial, will not be regarded on appeal. — *Haines v. McLaughlin*, 135 U. S. 584; 22 L. Ed. 241; 10 S. Ct. 876.

At the trial in the court below, the presiding judge read to the jury, as a part of his charge, an extract from the opinion of Judge Colt in *McDonald v. Whitney*, 24 Fed. 600. Defendants excepted. We are of opinion that this action of the court below was erroneous, and that the exception was well taken. The case read from was a suit between different parties on the same patent. In the extract read to the jury, Judge Colt gave his views upon the questions of law and fact involved. Upon these issues the finding of another tribunal in a case between other parties was not competent evidence, and should not have been called to the attention of the jury. — *Arey v. DeLorica*, 55 Fed. 323; 5 C. C. A. 116.

It was the duty of the court to define the patented invention as the same was expressed in the language of the claim. — *Holmes v. Truman*, 67 Fed. 542; 14 C. C. A. 517.

Rob. Pat. p. 378.

§ 737. Miscellaneous Rules.

During opening, and before any evidence was taken, a juror became ill. The court called and swore a new juror. On exception, held that as such was the practice in the state where the circuit was held, and as it was a case where no serious injury could result, it was in the discretion of the court. — *Silsby v. Foote*, 14 How. 218; 14 L. Ed. 394.

When the essence of an alleged infringing machine is not in dispute, so that the question of infringement by it turns so plainly on the true construction of the patent alleged to be infringed that such construction being ascertained or not in dispute, a verdict in one direction ought to be set aside as against the weight of evidence, then, under the rule as now understood, the court ought to direct a verdict in the other direction; and under such circumstances, the issue of infringement is essentially the same as that of the construction of the patent in suit. — *DeLorica v. Whitney*, 63 Fed. 611; 11 C. C. A. 355.

The action was on contract. The court directed non-suit on the ground that the claims of the patents in suit, in view of the prior art, could not be con-

strued to cover defendant's acts. *Held:* The present case is at law, and the question is not one of equity but of strict contract right. The contract is explicit, and, in our opinion, excludes any enquiry into the prior art for the purpose of limiting the scope of the patent. — *Leslie v. Standard*, 98 Fed. 827; 39 C. C. A. 314.

LETTERS PATENT.

Statutory Requirements § 738
 General Statement § 739
 Construction § 740
 Contract Theory § 741
 Defective § 742
 Definition § 743
 Monopoly § 744
 Nature of Grant § 745
 Property Rights in § 746

Scope § 747
 Miscellaneous Decisions § 748
*See — Assignment § 149; Copartner-
 ship § 270; Joint Invention § 704;
 License § 749; Licensor and Licensee
 § 765; Reissue § 869; Royalties §
 897; Title § 925; Unpatented Inven-
 tions § 930*

§ 738. Statutory Requirements.

The seal heretofore provided for the Patent Office shall be the seal of the Office, with which letters patent and papers issued from the Office shall be authenticated. R. S. 478.

All patents shall be issued in the name of the United States of America, under the seal of the Patent Office, and shall be signed by the Commissioner of Patents, and they shall be recorded, together with the specifications, in the Patent Office in books to be kept for that purpose. R. S. 4883.

Every patent shall contain a short title or description of the invention or discovery, correctly indicating its nature and design, and a grant to the patentee, his heirs or assigns, for the term of seventeen years, of the exclusive right to make, use, and vend the invention or discovery throughout the United States and the Territories thereof, referring to the specifications for the particulars thereof. A copy of the specifications and drawings shall be affixed to the patent and be a part thereof. R. S. 4884.

Every patent shall issue within a period of three months from the date of the payment of the final fee, which fee shall be paid not later than six months from the time at which the application was passed and allowed and notice thereof was sent to the applicant or his agent; and if the final fee is not paid within that period the patent shall be withheld. R. S. 4885 as amended May 23, 1908.

As thus amended the section differs materially from the section as originally enacted July 8, 1870. The section as affecting all patents issued prior to May 23, 1908, read as follows:

Every patent shall bear date as of a day not later than six months from the time at which it was passed and allowed and notice thereof was sent to the applicant or his agent; and if the final fee is not paid within that period the patent shall be withheld.

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

As provided by Sec. 4896, the representative of a deceased inventor or an insane inventor may make the necessary application.

§ 739. General Statement.

It is unnecessary to enter upon the refinements that have been made to establish the so-called "contract theory," or the distinction between a patent and a crown monopoly, or even the distinction between a patent for an invention and a patent for land. This is certain: The patent for an invention is a grant which exists only by reason of the Constitution and the acts of Congress. Every right and every ruling must, therefore, root back in the statute. This principle is fundamental. Again, this we know to be the fact: Whether the contract theory applies or not, the practical question in determining whether the inventor has performed his part is whether he has complied with the terms of the statute.

§ 740. Construction.

The letters patent need not contain a recital that all prerequisites to the grant have been complied with. — *Railroad v. Stimpson*, 14 Pet. 448; 10 L. Ed. 535.

The character and purpose of the specification as compared with the English system. — *Hogg v. Emerson*, 6 How. 437; 12 L. Ed. 505.

It is not, of course, doubted that the courts in construing the patent as all other statutes, must have regard to the spirit as well as the letter. That simply requires that the courts shall ascertain their true meaning, but when this is ascertained the applicant for a patent is entitled to all the benefits which these statutes thus construed give. — *United States v. Am. Bell*, 167 U. S. 224; 42 L. Ed. 144; 17 S. Ct. 809.

§ 741. Contract Theory.

The legislation based on the provision (Const. Art I, sec. 8) regards the right of property in the inventor as the medium of the public advantage derived from his invention; so that in every grant of the limited monopoly two interests are involved, that of the public, who are the grantors, and that of the patentee. There are thus two parties to any application for a patent, and more, when, as in case of interfering claim or patents, other private interests compete for preference. The questions of fact arising in this field find their answers in every department of physical science, in every branch of mechanical art; the questions of law, necessary to be applied in the settlement of this class of public and private rights, have founded a special branch of technical jurisprudence. — *Butterworth v. Hoe*, 112 U. S. 50; 28 L. Ed. 656; 5 S. Ct. 25.

A patent is a contract by which the Government secures to the patentee the exclusive right to vend and use his invention for a few years, in consideration of the fact he has perfected and described it and has granted its use to the public forever after. The general rules for the interpretation of grants and contracts govern its construction. — *National v. Interchangeable*, 106 Fed. 693; 45 C. C. A. 544.

§ 742. Defective.

In this case the patent was issued in the regular process of business. Subsequently and after infringement and after this suit was brought, it was discovered that the signature of the acting or assistant Secretary of the Interior had, by accident, been omitted. This defect was sought to be cured

by having the signature supplied by the secretary who had been succeeded in that office. The defense had left complainant to his proofs as to the grant of the letters, and therefore set up the defense that the patent was invalid. *Held*, that such error defeated the patent; that the same might be remedied by proper proceeding, but not by having the signature supplied; that no recovery for infringement prior to the correction could be had, and that under correction the grant could not relate back to the date of its issue. — *Marsh v. Nichols*, 128 U. S. 605; 32 L. Ed. 538; 9 S. Ct. 168.

Note: While it is not the author's purpose to criticise the decisions of the great court at Washington, it would seem, that if the court had considered the fact of notice which the issue and record of the grant gave, and the fact that the defendant was a tortfeasor, trespassing under such notice, it should have held that, notwithstanding the general rule, the defendant was estopped to question the regularity of the method by which the error was corrected.

A mistake in issuance cannot be corrected by supplying the omitted signature after issue, and certainly not after such officer had gone out of office. — *Marsh v. Nichols*, 128 U. S. 605; 32 L. Ed. 538; 9 S. Ct. 168.

Where the defect in the patent is apparent on its face, it may be attacked without special pleading setting up the specific acts which defeat the instrument. — *Marsh v. Nichols*, 128 U. S. 605; 32 L. Ed. 538; 9 S. Ct. 168.

Eureka v. Bailey, 78 U. S. 492.

The patent, as originally issued being in every respect a regularly executed document, and the statute providing for no subsequent alteration thereof by the patent office (except in cases of reissue, which this is not) the action of the commissioner in endorsing it with an attempted "correction," was without jurisdiction and wholly void. — *Edison v. U. S.* 52 Fed. 300; 3 C. C. A. 83.

§ 743. Definition.

The meaning of the words "patent" and "patented" as used in section 4887, is not difficult to ascertain. The word "patent," originally a qualifying adjective applied to the "open letters" by which a sovereign grants an estate or privilege, has come to mean, in connection with the so-called patent laws of the United States, as well as in common parlance, the exclusive privilege itself granted by the sovereign authority to an inventor with respect to his invention. What the nature and extent of the exclusive privilege thus granted by the constitution and laws of the United States may be, depends upon the terms of the act of Congress providing for and regulating the same; and, when this section 4887 speaks of an invention which has been previously patented in a foreign country, it obviously means an invention with respect to which the inventor has received from the sovereign authority of such country such exclusive privilege as its laws provide for or sanction. — *Atlas v. Simonds*, 102 Fed. 643; 42 C. C. A. 398.

§ 744. Monopoly.

His exclusive right does not rest alone upon his discovery, but also upon the legal sanctions which have been given to it, and the forms of law with which it has been clothed. — *Shaw v. Cooper*, 7 Pet. 292; 8 L. Ed. 689.

The entire question of a monopoly founded upon a patent or a series of patents in relation to recent federal legislation against restraint of commerce and trade has been so fully reviewed by the Supreme Court in the *Harrow*

Case that to excerpt from it would result in quoting substantially the entire opinion. A few of the salient points of that case may be summarized:

1. That the findings of a state court in an equity suit are conclusive upon the Supreme Court.

2. That the Act of July 2, 1890, may be set up as a defense by an individual.

3. That ordinarily, restrictive provisions in the license or sale of a patent are not in contravention of that act.

4. That the owner of a patent may sell, keep, use, license, or refuse to use a patent, as he pleases; this the monopoly grants.

5. That a state has the right to regulate its internal affairs, including the manufacture, use, or sale of an article subject to a patent.

6. That common carriers employing patented means in its business must recognize the paramountcy of their duties under their franchises, and cannot make a patent monopoly, if used, a means for the evasion of duty to the public.

7. That notwithstanding these limitations (5 and 6), the general rule is absolute freedom in use, sale, or license; since the patent is a monopoly created under the constitution and statute in contravention of the common-law right.

8. That reasonable and legal conditions and restrictions put upon an assignee or licensee are not within the purview of the interstate commerce act.

9. That license or sale conditions fixing prices of a patented article are not in violation of that act.

It is believed that the fundamental principle underlying this decision and the others quoted from in this section is this: When the essence of the act resides within the monopoly of the patent, such act is a conceded, limited privilege; when the essence of the act resides without the monopoly of the patent, and the monopoly of the patent is made a cover for combinations and machinations contrary to law, the patent grant will not avail the wrongdoer. — *Bement v. National*, 186 U. S. 70; 46 L. Ed. 1058; 22 S. Ct. 747.

It is manifest, as well from the contract as from the proofs outside of it, that the purpose of the parties was to form a combination between the various manufacturers to prevent competition in business and enhance prices. The corporation provided to hold the legal title of the several patents, is merely an instrument to effect this object. The fact that the property involved is covered by letters patent is urged as a justification; but we do not see how any importance can be attributed to this fact. Patents confer a monopoly as respects the property covered by them, but they confer no right upon the owners of several distinct patents to combine for the purpose of restraining competition and trade. Patented property does not differ in this respect from any other. The fact that one patentee may possess himself of several patents, and thus increase his monopoly, affords no support for an argument in favor of a combination by several distinct owners of such property to restrain manufacture, control sales and enhance prices. Such combinations are conspiracies against the public interests, and abuses of patent privileges. The object of these privileges is to promote the public benefit, as well as to reward inventors. The suggestion that the contract is justified by the situation of the parties — their exposure to litigation — is entitled to no greater weight. Patentees may compose their differences, as the owners of other property may, but they cannot make the occasion an excuse or cloak for the creation of monopolies to the public disadvantage. — *National v. Hench*, 83 Fed. 36; 27 C. C. A. 349.

Nestor v. Brewing Co. 161 Pa. St. 473; *Carbon Co. v. McMillin*, 119 N. Y. 46; *Morris v. Barclay*, 68 Pa. St. 173; *Distilling v. People*, 41 N. E. 188; *National v. Quick*, 67 Fed. 130.

The parties had entered into a monopoly agreement which practically closed the art to every other person. The policy was to be to "tire out" as well as to defend the patents. *Held*: That such a contract is not void as against public policy, in that it tends to create a monopoly, has been decided in the case of *Bement v. National*, 186 U. S. 70. — *U. S. Consolidated v. Griffin*, 126 Fed. 364; 61 C. C. A. 334.

We do not look on this as a contract in restraint of trade. It binds no one to stay out of the trade. At most, it is an agreement, merely, that if Pungs renews his connection with the trade, he shall return the consideration received. He has merely put himself where, without putting any binding restraint on his inventive faculties, he will realize, for the time being, on what he has already invented. — *American v. Pungs*, 141 Fed. 923; 73 C. C. A. 157.

Harrison v. Glucose, 116 Fed. 304; *Morse v. Morse*, 103 Mass. 73.

That articles made under patents may be the subject of contracts by which their use and price in subsales may be controlled by the patentee, and that such contracts, if otherwise valid, are not within the terms of the act of Congress against restraints of interstate commerce or the rules of the commerce law against monopolies and restraints of trade, is now well settled. — *Park v. Hartman*, 153 Fed. 24; 82 C. C. A. 158.

Heaton v. Eureka, 77 Fed. 286; *Dickerson v. Tinling*, 84 Fed. 192; *Edison v. Kaufman*, 105 Fed. 960; *Edison v. Pike*, 116 Fed. 863; *Rupp v. Elliott*, 131 Fed. 730; *Victor v. The Fair*, 123 Fed. 428; *Bement v. National*, 186 U. S. 70.

That an article which is the product of a patent is not an ordinary article of commerce, see — *Indiana v. Case*, 154 Fed. 365; 83 C. C. A. 343.

The rule in *U. S. Bell Tel. Co.* 167 U. S. 224, followed. — *Indiana v. Case*, 154 Fed. 365; 83 C. C. A. 343.

Congress having created the patent law, has the right to repeal or modify it, in whole or in part, directly or by necessary implication. The Sherman law contains no reference to the patent law. Each was passed under a separate and distinct constitutional grant of power; each was passed professedly to advantage the public; the necessary implication in not one iota was taken away from the patent law; the necessary implication is that patented articles, unless or until they are released by the owner of the patent from the dominion of his monopoly, are not articles of trade or commerce among the several states. — *Rubber Tire v. Milwaukee*, 154 Fed. 358; 83 C. C. A. 336.

The only grant to the patentee was the right to exclude others, to have and to hold for himself and his assigns a monopoly, not a right limited or conditioned according to the sentiment of judges, but an absolute monopoly constitutionally conferred by the sovereign lawmakers. Over and above an absolute monopoly created by law, how can there be a further and unlawful monopoly in the same thing? If plaintiff were the sole maker of Grant tires, how could plaintiff's control of prices and output injure the people, deprive them of something to which they have a right? Is a greater injury or deprivation inflicted, if plaintiff authorizes a combination or pool to do what plaintiff can do directly? — *Rubber Tire v. Milwaukee*, 154 Fed. 358; 83 C. C. A. 336.

The right of an owner of a patent to reserve to himself as a part of his monopoly the control of the price at which dealers may sell the patented product to users is unquestioned. — *The Fair v. Dover*, 166 Fed. 117; C. C. A.

Victor v. The Fair, 123 Fed. 424; *Fuller v. Berger*, 120 Fed. 274; *Rubber Tire v. Milwaukee*, 154 Fed. 358; *Indiana v. Case*, 154 Fed. 365; *Continental v. Eastern*, 210 U. S. 405; *Bobbs-Merrill v. Straus*, 210 U. S. 339; *Globe v. Walker*, 210 U. S. 356.

§ 745. Nature of Grant.

Letters patent are not to be regarded as monopolies, created by the executive authority at the expense and to the prejudice of all the community except the persons therein named as patentees, but as public franchises granted to the inventor of new and useful improvements for the purpose of securing to others as such inventors, for the limited term therein mentioned, the exclusive right and liberty to make and use and vend to others to be used their own inventions, as tending to promote the progress of science and the useful arts, and as matter of compensation to the inventors for their labor, toil and expense in making the inventions, and reducing the same to practice for the public benefit, as contemplated by the Constitution and sanctioned by the laws of Congress. — *Seymour v. Osborne*, 78 U. S. 516; 20 L. Ed. 33.

The authority by which the patent issues is that of the United States of America. The seal which is used is the seal of the Patent Office, and that was created by Congressional enactment. It is signed by the Secretary of the Interior, and the Commissioner of Patents, who also countersigns it, is an officer of that Department. The patent, then, is not the exercise of any prerogative power or discretion by the President, or by any other officer of the Government, but it is the result of a course of proceeding, quasi judicial in its character, and is not subject to be repealed or revoked by the President, the Secretary of the Interior, or the Commissioner of Patents, when once issued. — *United States v. Am. Bell*, 128 U. S. 315; 32 L. Ed. 450; 9 S. Ct. 90.

U. S. v. Schurz, 102 U. S. 378.

Charters and patents authenticating grants of personal privileges were in the earlier days of the English Government made by the Crown. They were supposed to emanate directly from the King, and were not issued under any authority given by Acts of Parliament, nor were they regulated by any statutes. Being, therefore, in their origin an exercise of his personal prerogative, the power of working them, so far as they could be worked at all, was in the King, and was exercised by him as a personal privilege. But whatever may have been the course of procedure in English jurisprudence, it can have but little force in limiting or restraining the measures by which the government of the United States shall have a remedy for an imposition upon it or its officers in the procurement or issue of a patent. We have no King in this country; we have had no prerogative right of the Crown; and letters patent whether for inventions or for grants of land, issue not from the President, but from the United States. The President has no prerogative in the matter. He has no right to issue a patent, and, though it is the custom for patents for lands to be signed by him, they are of no avail until the proper seal of the Government is affixed to them. Indeed, a recent Act authorizes the appointment of a clerk for the special purpose of signing the President's name to patents of that character. And so far as patents for inventions are concerned, since the Act of 1870, they are issued without his signature and

without his name or his style of office being mentioned in them. — *United States v. Am. Bell*, 128 U. S. 315; 32 L. Ed. 450; 9 S. Ct. 90.

The monopoly thus granted is one entire thing and cannot be divided into parts except as authorized by law. — *Waterman v. Mackenzie*, 138 U. S. 252; 34 L. Ed. 923; 11 S. Ct. 334.

Compared with Patents for Land, see *United States v. Am. Bell*, 167 U. S. 224, and cases cited; 42 L. Ed. 144; 17 S. Ct. 809.

The cases declare that he receives nothing from the law that he did not have before, and that the only effect of the patent is to restrain others from manufacturing and using that which he has patented. Wherever this court has had occasion to speak, it has decided that an inventor receives from a patent the right to exclude others from its use for the time prescribed by the statute. — *Continental v. Eastern*, 210 U. S. 405; 51 L. Ed. 922; 28 S. Ct. 748.

Root v. Railway, 105 U. S. 189; *U. S. v. Bell Telephone*, 167 U. S. 224; *Grant v. Raymond*, 6 Pet. 242; *Bloomer v. McQuewan*, 14 How. 539; *Patterson v. Kentucky*, 97 U. S. 501; *Wilson v. Rousseau*, 4 How. 646; *Seymour v. Osborne*, 11 Wall. 516; *Cammeyer v. Newton*, 94 U. S. 225; *Densmore v. Scofield*, 102 U. S. 375; *Bement v. National*, 186 U. S. 70; *Heaton v. Eureka*, 77 Fed. 294; *Hoe v. Knapp*, 27 Fed. 204.

Under its constitutional right to legislate for the promotion of the useful arts, Congress passed the patent statutes. The public policy thereby declared is this: Inventive minds may fail to produce many useful things that they would produce if stimulated by the promise of a substantial reward; what is produced is the property of the inventor; he and his heirs and assignees may hold it as a secret till the end of time; the public would be largely benefited by obtaining conveyances of these new commodities; so the people through their representatives say to the inventor: Deed us your property, possession to be yielded at the end of 17 years, and in the mean time we will protect you absolutely in the right to exclude everyone from making, using, or vending the thing patented, without your permission. Congress put no limitations, excepting time, upon the monopoly. Courts can create none without legislating. The monopoly is of the invention, the mental concept as distinguished from the materials that are brought together to give it a body. Use of the materials may be enjoined as injurious to the public; but that does not invade the monopoly. Use of the invention cannot be had except on the inventor's terms. Without paying or doing whatever he exacts, no one can be exempted from his right to exclude. Whatever the terms, courts will enforce them, provided only that the licensee is not thereby required to violate some law outside of the patent law, like the doing of murder or arson. Does the requirement that the licensee join other licensees in a combination or pool to control the prices and output of an innocuous patented article violate the Sherman law? We cannot dispose of the question on the authority of *Bement v. National*, 186 U. S. 70, for according to our reading the question was expressly excepted from the decision. — *Rubber Tire v. Milwaukee*, 154 Fed. 358; 83 C. C. A. 336.

Bloomer v. McQuewan, 14 How. 539; *U. S. v. Bell Tel.*, 167 U. S. 224; *Bement v. National*, 186 U. S. 70; *Good v. Deland*, 121 N. Y. 1; *Fuller v. Berger*, 120 Fed. 274; *Victor v. The Fair*, 123 Fed. 424; *Rupp v. Elliott*, 131 Fed. 730.

§ 746. Property Rights in.

Inventions secured by letters patent are property in the holder of the patent, and as such are as much entitled to protection as any other property, consisting of a franchise, during the time for which the franchise or the

exclusive right is granted. — *Seymour v. Osborne*, 78 U. S. 516; 20 L. Ed. 33.

Right of parties with reference to a patented invention will be construed according to the act under which the patent was granted. — *Brown v. Piper*, 91 U. S. 37; 23 L. Ed. 200.

The right of property in a patented invention is as much entitled to protection as any other right. — *Cammeyer v. Newton*, 94 U. S. 225; 24 L. Ed. 72.

Seymour v. Osborne, 11 Wall. 516; 16 St. at L. 201.

Patents rightfully issued are property, and are surrounded by the same rights and sanctions which attend all other property. Patentees as a class are public benefactors, and their rights should be protected. But the public has rights also. The rights of both should be upheld and enforced by an equally firm hand, wherever they come under judicial consideration. — *Densmore v. Scofield*, 102 U. S. 375; 26 L. Ed. 214.

The property right of a patentee is, after all, but a property right, and subject as is all other property, to the general law of the land. We may also concede that contracts respecting the use of inventions and discoveries are, like all other contracts, subject to the limitations imposed by definite principles of public policy.

Neither the patentee, nor the machine involving his invention, nor a license for use, can be exempted from the liabilities and regulations which, in public interest, attach to all persons and property under the general law of the land. Neither is the right to make or sell or use a patented invention or process free from the restraints imposed by the police power in the states. — *Heaton v. Eureka*, 77 Fed. 288; 25 C. C. A. 267.

Missouri v. Bell Tel. Co., 23 Fed. 539; *State v. Delaware*, 47 Fed. 633; *State v. Delaware*, 50 Fed. 677; *Patterson v. Kentucky*, 97 U. S. 501; *Vasuni v. Paine*, 1 Har. 65; *Registering Co. v. Sampson*, L. R. 19 Eq. 462.

If he see fit, he may reserve to himself the exclusive use of his invention or discovery. If he will neither use his device, nor permit others to use it, he has but suppressed his own. That the grant is made upon the reasonable expectation that he will either put his invention to practical use, or permit others to avail themselves of it upon reasonable terms, is doubtless true. This expectation is based alone upon the supposition that the patentee's interest will induce him to use, or let others use, his invention. The public has retained no other security to enforce such expectations. A suppression can endure but for the life of the patent, and the disclosure he has made will enable all to enjoy the fruit of his genius. His title is exclusive and so clearly within the constitutional provisions in respect of private property that he is neither bound to use his discovery himself, nor permit others to use it. The dictum found in *Hoe v. Knapp*, 27 Fed. 204, is not supported by reason or authority. — *Heaton v. Eureka*, 77 Fed. 288; 25 C. C. A. 267.

Wilson v. Rousseau, 4 How. 674; *Pitts v. Wemple*, Fed. Cas. No. 11,194; *Grant v. Raymond*, 6 Pet. 218; *U. S. v. Bell Tel.* 29 Fed. 17; *Consolidated v. Coombs*, 39 Fed. 805; *Campbell v. Manhattan*, 49 Fed. 935.

Whether his patent be good or bad, no one has the right to claim the privilege of making and selling his goods as though made under it and thereby depriving the owner of such credit as belongs to it, and inducing the public to suppose that the seller has title to the invention supposed to be embodied in the subject of the sale. — *Stimpson v. Stimpson*, 104 Fed. 893; 44 C. C. A. 241.

§ 747. Scope of.

It was authoritatively declared in *James v. Campbell*, 104 U. S. 356, that the right of the patentee was exclusive of the government as well as of all others. — *Hollister v. Benedict*, 113 U. S. 59; 28 L. Ed. 901; 5 S. Ct. 717.

The inventor's right to make, use, and vend 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. As Mr. Chief Justice Taney said in *Boomer v. McQuewan*, 14 How. 539: "The franchise which the patent grants consists altogether in the right to exclude every one from making, using or vending the thing patented, without permission of the patentee. This is all he obtains by the patent." — *Fuller v. Berger*, 120 Fed. 274; 56 C. C. A. 588.

§ 748. Miscellaneous Decisions.

Delivery is not necessary to the validity of letters patent. — *Marbury v. Madison*, 1 Cranch, 137; 2 L. Ed. 60.

Power to grant letters patent is conferred by law upon the Commissioner of Patents, and when that power has been lawfully exercised, and a patent has been duly granted, it is of itself prima facie evidence that the patentee is the original and first inventor of that which is therein described and secured to him as his invention. — *Seymour v. Osborne*, 78 U. S. 516; 20 L. Ed. 33.

The power therefore, (in view of Art. 4, sec. 3, par. 2) to issue a patent for an invention, and the authority to issue such an instrument for a grant of land, emanate from the same source, and although exercised by different bureaux or officers under the Government, are of the same nature, character and validity, and imply in each case the exercise of the power of government according to modes regulated by Acts of Congress. — *United States v. Am. Bell*, 128 U. S. 315; 32 L. Ed. 450; 9 S. Ct. 90.

The full six months are allowed by the statute to the applicant, and it can hardly be supposed that Congress intended that this period could be cut short by the exigencies of the Patent Office. Again, the statute declares that, if the final fee is not paid within the six months, the patent shall be withheld, but it does not declare that, if not dated as directed, the patent shall not issue, or, if issued, shall be void. — *Western v. North*, 135 Fed. 79; 67 C. C. A. 553.

LICENSE.

Statutory Provision § 749
 General Distinction from Assignment § 750
 Assignment § 751 (see § 149)
 Construction of § 752
 Contract § 753
 Estoppel § 754 (see § 381)
 Forfeiture § 755
 Implied § 756
 Machine § 757 (see § 768)
 Non-Assignable § 758
 Patol § 759
 Royalties § 760 (see § 897)

Scope § 761
 Termination of § 762
 Territorial § 763
 Miscellaneous § 764
See — Administrator § 40; Assignment § 165; Copartnership § 270; Corporations § 271; Damages § 292; Defenses § 311; Employer and Employee § 366; Estoppel § 384; Infringement §§ 509-13; Injunction § 569; Jurisdiction § 722; Licensor and Licensee § 765; Royalties § 897; Sale of Patented Article § 899

§ 749. Statutory Provision.

The statute does not use the term license. By the terms of sec. 4898

Every patent or any interest therein shall be assignable in law by an instrument in writing, and the patentee or his assigns or legal representatives may, in like manner, grant and convey an exclusive right under his patent to the whole or any specified part of the United States.

And sec. 4899 makes the following provision as to purchase before application:

Every person who purchases of the inventor or discoverer, or, with his knowledge and consent, constructs any newly invented or discovered machine, or other patentable article, prior to the application by the inventor or discoverer for a patent, or who sells or uses one so constructed, shall have the right to use, and vend to others to be used, the specific thing so made or purchased, without liability therefor.

§ 750. General Distinction from an Assignment.

The patentee or his assigns may, by instrument in writing, assign, grant and convey, either (1) the whole patent comprising the exclusive right to make, use and vend the invention throughout the United States; or, (2) an undivided part or share of that exclusive right; or, (3) the exclusive right under the patent within and throughout a specified part of the United States. (R. S. 4898.) A transfer of either of these three kinds of interests is an assignment properly speaking, and vests in the assignee a title in so much of the patent itself, with a right to sue infringers; in the second place conjointly with the assignor, in the first and third cases in the name of the assignee alone. Any assignment or transfer short of one of these, is a mere license, giving the licensee no title in the patent; and no right to sue at law in his own name for infringement. — *Waterman v. Mackenzie*, 138 U. S. 252; 34 L. Ed. 923; 11 S. Ct. 334.

Gayler v. Wilder, 51 U. S. 477; *Moore v. Marsh*, 74 U. S. 515.

§ 751. Assignment.

An assignment of a right to make, use and sell for a limited time in a limited territory, in the absence of express words, does not pass to an executor or administrator. — *Oliver v. Rumford*, 109 U. S. 75; 27 L. Ed. 862; 3 S. Ct. 61.

Troy v. Corning, 14 How. 193.

Not assignable unless so expressed in instrument. — *Lane v. Locke*, 150 U. S. 193; 37 L. Ed. 1049; 14 S. Ct. 78.

Where a licensee assigns a license to a corporation succeeding to the business and the original licensor acquiesces in or by implication ratifies the transfer it is binding upon him. — *Lane v. Locke*, 150 U. S. 193; 37 L. Ed. 1049; 14 S. Ct. 78.

Hammond v. Mason, 92 U. S. 724; *Lightner v. Boston*, 1 Law. Des. 338.

Distinguishing, *Hapgood v. Hewitt*, 119 U. S. 226; *Troy v. Corning*, 55 U. S. 193; *Oliver v. Rumford*, 109 U. S. 75; Applying, *McClurg v. Kingsland*, 42 U. S. 202; *Solomons v. U. S.* 137 U. S. 342.

No license is assignable by the licensee to another unless it contains words which show that it was intended to be assigned. — *Waterman v. Shipman*, 55 Fed. 982; 5 C. C. A. 371.

Factory v. Corning, 14 How. 193; *Rubber Co. v. Goodyear*, 9 Wall. 788; *Adams v. Howard*, 22 Fed. 656; *Baldwin v. Sibley*, 1 Cliff. 150.

A license to use a patented invention that does not contain words importing assignability is a grant of a mere personal right to the licensee which does not pass to his heirs or representatives and which cannot be transferred to another without the expressed consent of the licensor. — *Bowers v. Lake Superior*, 149 Fed. 983; 79 C. C. A. 493.

Hapgood v. Hewitt, 119 U. S. 227; *Oliver v. Rumford*, 109 U. S. 75; *Troy v. Corning*, 14 How. 193.

§ 752. Construction of.

“The sole and exclusive right and license to manufacture and sell fountain penholders containing the said patented improvement throughout the United States,” did not include the right to use such penholders, at least if manufactured by third persons, and was therefore a mere license and not an assignment of any title and did not give the licensee the right to sue alone, at law or in equity. — *Waterman v. Mackenzie*, 138 U. S. 252; 34 L. Ed. 923; 11 S. Ct. 334.

Gayler v. Wilder, 51 U. S. 477; *Paper Bag Cases*, 105 U. S. 766, 771.

An assignment which is neither an undivided interest in the whole patent, nor of an exclusive right within a certain territory, is a mere license. — *Pope v. Gormully*, 144 U. S. 298; 36 L. Ed. 420; 12 S. Ct. 637.

We are, however, of opinion that tender of an executed license is not a condition precedent to recovery of royalties arising from use of the patented machines. By the contract the defendants agreed to pay a specified royalty for such use, they, or another for them, have had the use and reaped the benefit. The delivery of the executed, formal license in no way affected that obligation, and was not by any term of the contract a condition precedent to its fulfillment. The obligation to pay was dependent upon the use, not upon the license. The defendants were in no way injured, nor their interest jeopardized by the omission. Aside from the grant of use, the licenses were merely for the benefit of the lessor, regulating and restricting the use. The contract was of itself, a license to use, fully protecting the defendants against any claim of infringement of the plaintiff's right. It estopped the plaintiff to assert infringement. An agreement to license is as efficacious as a license in that respect, the conditions being performed by the licensee. A license would be presumed from the mere acquiescence of the plaintiff in such use and from the relation and acts of the parties. — *American v. VanNortwick*, 52 Fed. 752; 3 C. C. A. 274.

Blanchard v. Sprague, 1 Cliff. 288; *McClurg v. Kingsland*, 1 How. 202; *Chabot v. Overseaming Co.* 6 Fish. 71; *Hermann v. Hermann*, 29 Fed. 94. •

That where two license agreements existed in which license fees were not to be paid under the terms of the second license except in the event of the termination of the first license, that when the first license was terminated in fact by failure of the parties to perform thereunder, the terms of the second license became of force and royalties were recoverable thereunder, see — *Shepard v. Kinnear*, 86 Fed. 638; 30 C. C. A. 315.

That a contract to be subsequently approved and signed, is invalid if, before approval, alterations or amendments therein have been made not consistent with the purpose and intent of the parties at the time the minds met, see — *Keene v. Barratt*, 100 Fed. 590; 40 C. C. A. 571.

No implied contract of license, arising from the circumstances under which the patent was taken out and the relations of the parties, can be set up in the face of a proved special contract. — *Standard v. Arrott*, 135 Fed. 750; 68 C. C. A. 388.

That a state statute or code provision affecting contractile relations applies to licenses of patents, see *Wilfley v. New Standard*, 164 Fed. 421; C. C. A.

§ 753. Contract.

Complainant agreed to furnish patented parts, and in event of failure, to allow defendant to make. Complainant failed to furnish; defendant made. *Held*, that no notice from defendant was necessary and the making was not infringement. — *Hammond v. Mason*, 92 U. S. 724; 23 L. Ed. 767.

A license contract cannot be set aside at the mere volition of the licensor so that he can sue for infringement. — *Burdell v. Denig*, 92 U. S. 716; 23 L. Ed. 764.

Complainants contracted to sell to defendants certain machines upon agreed terms of royalty. Defendants thereupon organized the W. P. B. Co., officered by them and had the machines shipped to their company. *Held*: that as there was no consent on the part of complainant as creditor of defendants, the delivery of the machines to such company at the request of defendants did not work novation. — *American v. VanNortwick*, 52 Fed. 752; 3 C. C. A. 274.

The contract was between complainant and defendant. It is no answer to say that, in ordering the licensed machines to be delivered to their company, they acted in a representative capacity. If they had personal objection to such delivery, they should have made it manifest. They were silent when it became them to speak. They cannot now object that the delivery, which as representatives of the company, they sought and obtained, was counter to their individual wishes. They are estopped. — *American v. VanNortwick*, 52 Fed. 752; 3 C. C. A. 274.

Swain v. Seamens, 9 Wall. 254; *Bronson v. Chappell*, 12 Wall. 681.

The right does not, however, grow out of the paper, but out of the contract, of which the paper is evidence simply. — *Union v. Johnson*, 61 Fed. 940; 10 C. C. A. 176.

Walk. Pat. sec. 303; Rob. Pat. secs. 806, 809; *Buss v. Putney*, 38 N. H. 44; *Potter v. Holland*, 4 Blatchf. 206; *Baldwin v. Sibley*, 1 Cliff. 150; *Jones v. Berger*, 58 Fed. 1006.

The secret intentions of the parties cannot be injected into a written contract to vary its terms by parol evidence. — *Standard v. Leslie*, 78 Fed. 325; 24 C. C. A. 107.

Proof of the circumstances out of which the contract grew, and which surrounded its adoption, may be proven to ascertain its subject-matter and the standpoint of the parties in relation to it, where the language of the contract is obscure or doubtful; but such evidence cannot be received to vary the contract by addition or substitution. — *Standard v. Leslie*, 78 Fed. 325; 24 C. C. A. 107.

West v. Smith, 101 U. S. 263; *Union v. Western*, 59 Fed. 49.

Grammatical rules raise only a prima facie presumption, and do not preclude the settling of the meaning by detracting somewhat from the exactness

of the language in order to give effect to more cogent reasons of another sort. — *Cowles v. Lowry*, 79 Fed. 331; 24 C. C. A. 616.

C. Litt. 197 a; *Justice Windham's Case*, 5 Coke, 7 b; *Wharton v. Fisher*, 2 Serg. & R. 182; *Williams v. Hadley*, 21 Kan. 350; *Judd v. Gibbs*, 3 Gray, 539; *Von Wittberg v. Carson*, 44 Conn. 289; *Coffin v. Douglass*, 61 Tex. 406; *Shore Co. v. Terrell*, 68 Tex. 638; *Bank v. Beedle*, 37 Minn. 527.

The license contract contained a provision requiring the plaintiff in error to "vigorously prosecute infringers of said letters patent, and to prevent as far as possible all unlawful interference with the business and rights of said party of the second part under and by virtue of the contract." These are proper provisions, and they are not open to criticism. — *U. S. Consolidated v. Griffin*, 126 Fed. 364; 61 C. C. A. 334.

§ 754. Estoppel.

A plea of that condition, to satisfy the words "in case it should at any time be judicially decided" that the patent was bad, would have to be that it had been decided to that effect. It would not be enough to say that the defendant thought the patent bad and would like to have the court decide so now. — *U. S. v. Harvey*, 196 U. S. 310; 49 L. Ed. 492; 25 S. Ct. 240.

Complainant sold defendant two of his designs before patent at the regular price with knowledge that the same were purchased to be copied. It was a license, although the sale was made in the threat of defendant to purchase elsewhere if complainant would not sell them. — *Anderson v. Eiler*, 50 Fed. 775; 1 C. C. A. 659.

The complainant company is the owner of the Spaulding patent with a great many others in the same art. Some time before bringing this suit, it made an arrangement with the owners of other patents by which all were conveyed to a trustee to issue licenses to others for the use of all their patents. In some of these licenses the Spaulding patent was included as one of a number, and it is now agreed that the complainant company cannot be heard to deny the operativeness of the Spaulding patent. As the defendants were not among complainant's licensees, no estoppel arises in this suit, and the fact is only evidential as an admission against complainant which can be explained or rebutted. The evidence in the case as to the Spaulding patent, and its inoperative character, in our view, completely overcomes any inference thus sought to be drawn, while the omnibus character of the licenses, including so many patents, much weakens the evidential force of the otherwise natural implication of a license that the licensor asserts the operativeness of the device licensed. — *McCormick v. Aultman*, 69 Fed. 371; 16 C. C. A. 259.

The defendants agreed to pay the expenses of the patents, but failed and refused to do so. They as infringers are estopped to plead a license. — *Timoney v. Buck*, 84 Fed. 887; 28 C. C. A. 561.

That a licensee may show the state of the prior art for the purpose of enabling the court to ascertain the scope of the patent, see — *American v. Helmstetter*, 142 Fed. 978; 74 C. C. A. 240.

In a former suit between the same parties, a mutual agreement had been reached by which the complainant practically licensed the defendant to manufacture the device in brass so long as he did not manufacture it in iron. Subsequently the defendant manufactured a device in iron, but not one which came within the terms of the contract. Complainant then brought this

suit on the ground that the conduct of defendant had operated as a revocation of the license. *Held*: that such manufacture of the device in iron not in infringement of the patent did not revoke the license to manufacture in brass. — *Clancy v. Troy*, 157 Fed. 554; 85 C. C. A. 314.

§ 755. Forfeiture.

An attempted sale in violation of a specific agreement works a forfeiture of the license. — *Platt v. Fire Extinguisher*, 59 Fed. 897; 8 C. C. A. 357.

The defendant agreed that if he failed to perform his covenants, the license might be forfeited by a written notice served upon him, or his successor, and this was done. His subsequent tender of money in payment of royalties, and a promise to perform his covenants, could not avail to remove the forfeiture without the consent of the licensor and the other licensees. — *Platt v. Fire Extinguisher*, 59 Fed. 897; 8 C. C. A. 357.

Hammacher v. Wilson, 26 Fed. 239; *White v. Lee*, 3 Fed. 222.

The license purported to be an exclusive one. Its very exclusiveness was the substance of the thing granted. It was of the essence of that for which the defendants in error agreed to pay royalties. It was coupled with a covenant to protect the licensees in the exclusive use of the rights so granted. There has been a total breach of that covenant. The licensors, instead of affording the promised protection, have by their own acts in effect reappropriated to their own use that which they granted the licensee. In short, their course was such that the licensee was evicted from the granted right immediately after the execution of the license, and the eviction was continuous until the commencement of the suit. — *Willey v. New Standard*, 164 Fed. 421; C. C. A.

Rob. Pat. § 1241; *Angier v. Eaton*, 98 Pa. 594; *Edison v. Thakara*, 167 Pa. 530; *McKay v. Smith*, 39 Fed. 556; *National v. Boston*, 41 Fed. 48; *Standard v. Ellis*, 159 Mass. 448.

It will hardly be denied that, if at any time the licensees' operations are unsatisfactory, the parties might by subsequent agreement modify them; or, if the operations of the licensee were so unsatisfactory and unbusinesslike as to amount to a breach of the agreement, the licensor would have the right to terminate it and make a license to another. — *Goshen v. Single Tube*, 166 Fed. 431; C. C. A.

§ 756. Implied.

Whatever license resulted to the corporation from the facts of the case to use the invention, it was confined to that corporation and not assignable by it. — *Hapgood v. Hewitt*, 119 U. S. 226; 30 L. Ed. 369; 7 S. Ct. 193.

Troy v. Corning, 55 U. S. 193; *Oliver v. Rumford*, 109 U. S. 75.

Where complainant through his foundryman furnished defendant with certain parts of machinery used in complainant's process, which parts were employed in other processes, the defendant could not claim implied license to the process from the purchase of such elements used therein. — *Lawther v. Hamilton*, 124 U. S. 1; 31 L. Ed. 325; 8 S. Ct. 342.

Where partnership constructed a machine with knowledge and consent of inventor before application; an implied license arises in favor of the machine so constructed. *Wade v. Metcalf*, 129 U. S. 202; 32 L. Ed. 661; 9 S. Ct. 271.

Where a government employee made an invention and made a contract with his superior licensing the bureau to use his invention during the term of his employment, *Held*, that such agreement did not abrogate the right of the bureau to a shop right use of the invention after the discharge of the employee. — *McAler v. U. S.* 150 U. S. 424; 37 L. Ed. 1130; 14 S. Ct. 160.

Solomons v. U. S., 137 U. S. 342; *Davis v. U. S.* 23 Ct. Cl. 329; *McClurg v. Kingsland*, 42 U. S. 202; *Seitz v. Brewers*, 141 U. S. 510.

Where a government employs a mechanic who invents, obtains a patent and makes a specific assignment of a shop right to his bureau, such license will not be abrogated by any subsequent parol agreement. — *McAler v. U. S.* 150 U. S. 424; 37 L. Ed. 1130; 14 S. Ct. 160.

We know of no principle upon which a contract can be evoked from a distinct refusal of one party to recognize the rights of the other, and a formal protest against any such rights being granted him. — *Kirk v. U. S.* 163 U. S. 49; 41 L. Ed. 66; 16 S. Ct. 911.

Defendant purchased of complainant two articles of complainant's design with the stated purpose of copying them, paying the market price. *Held*: that such sale constituted a license. — *Anderson v. Eiler*, 50 Fed. 775; 1 C. C. A. 659.

Do the facts that the copartnership, styled the Bank of Fargo, was permitted to use the patented invention for seven months before the application for a patent was filed, and that the defendant subsequently succeeded to their business and property, confer upon it an implied license to make and use the new account books embodying the patented invention? The application was filed Dec. 31, 1886. The Bank of Fargo first applied the invention to their account book June 2, 1886, and used it thereafter with complainant's consent until the firm was dissolved Jan. 1, 1887. The defendant corporation was organized and commenced business on that day. The defendant did not purchase, construct, or use any article embodying complainant's invention before he filed his application for a patent, since it did not come into existence until after that filing. Whatever license it had it derived from the dissolved copartnership by purchase or assignment; but the only right the partnership had was the statutory privilege of using and vending to others to be used the specific thing they had made with complainant's consent. This was not a grant of any portion of the franchise; it was a mere naked license, personal to the copartnership, and incapable of assignment or transfer. — *Thomson v. Citizens Nat. Bk.* 53 Fed. 250; 3 C. C. A. 518.

Hapgood v. Hewitt, 119 U. S. 226; *Locke v. Bodley*, 35 Fed. 289; *Troy v. Corning*, 14 How. 193; *Oliver v. Chem. Wks.*, 109 U. S. 75.

The duration and scope of a license must depend upon the nature of the invention and the circumstances out of which an implied license is presumed, and both must at least depend upon the intention of the parties. — *Withington v. Kinney*, 68 Fed. 500; 15 C. C. A. 531.

Rob. Pat. secs. 808-811; *Montross v. Mabie*, 30 Fed. 237.

According to the rule in *Mfg. Co. v. Kinney*, 68 Fed. 500, an implied license, if it relates to an improvement in the process, ordinarily authorizes the employer to continue to practise the process during the whole period of the patent. This follows because the subject matter is indivisible; but, if the invention pertains to a machine, it is understood, ordinarily, that only the specific machine or machines which have been set up during the time of the employment are protected. Such is the ordinary rule, and it is plainly based

on a sound discretion. It is, of course, more a rule for the application of facts than a rule of law, and therefore is not rigid. When the patented matter is a product, particularly if it is a minor product, or even if it is a minor machine, so that in either case it is used in quantity, like the stop-valve in *Lane v. Locke*, 150 U. S. 193, its unlimited use during the time of employment may raise an implication of facts in favor of a license for a time likewise unlimited, as in the case of a process. — *Boston v. Allen*, 91 Fed. 248; 33 C. C. A. 485.

McClurg v. Kingsland, 1 How. 202; *Hapgood v. Hewitt*, 119 U. S. 226; *Wade v. Metcalf*, 129 U. S. 202; *Solomons v. U. S.* 137 U. S. 342; *Dalzell v. Mfg. Co.*, 149 U. S. 315; *Keys v. Mining Co.* 158 U. S. 150; *Gill v. U. S.* 160 U. S. 426.

To restrict the right of a purchaser of an apparatus embodying a patented invention to use it for the purposes for which it is peculiarly adapted, there must appear some express or implied agreement by which the mode or time or place of use has been limited; and this was the principle upon which the *Button Fastener Case* was decided. But there may be circumstances under which the sale by a patentee of one patented article, will carry with it the right to use another in co-operation with the first, although the thing be covered by a second patent. Thus, if the article sold be of such peculiar construction as that it is of no practical use unless it be used in combination with some subordinate part, covered by another patent to the vendor, the right to use the latter in co-operation with the former, might be implied from circumstances. It is a general principle of law that a grant necessarily carries with it that without which the thing granted cannot be enjoyed. The limitation upon this is, that the things which pass by implication only must be incident to the grant, and directly necessary to the enjoyment of the thing granted. The foundation of the maxim lies in the presumption that the grantor intended to make his grant enjoyable. — *Edison v. Peninsular*, 101 Fed. 831; 43 C. C. A. 479.

Cutter v. Sheldon, 10 Blatchf. 1; *Heaton v. Eureka*, 77 Fed. 288; *Adams v. Burks*, 17 Wall. 453.

It is evident that the extent of an implied license must depend upon the peculiar types of each case. The question in each case is, whether or not the circumstances are such as to estop the vendor from asserting infringement. — *Edison v. Peninsular*, 101 Fed. 831; 43 C. C. A. 479.

Roosevelt v. Electric Co. 20 Fed. 724; *United v. California*, 25 Fed. 475; *American v. Ament*, 74 Fed. 789; *Stonecutter v. Shortsleeves*, 16 Blatchf. 381; *Illingsworth v. Spaulding*, 43 Fed. 831.

Among the defenses interposed was that of an implied license to the defendants to use the invention. The defense was based upon *Brickill's* conduct in equipping two of the steam fire engines of the fire department with his patented apparatus before making application for his patent, and in permitting other engines to be equipped with it while he remained in the employ of the department. The court below was of the opinion that a license to use the invention with the first two engines was to be implied, but that none was to be implied as to the others. There is no assignment of error challenging the correctness of the decree in respect to this defense. The defense was not argued at the bar, although it is urged in the brief for the appellants. Under the circumstances we do not feel called upon to consider it further than to say that we think the court below disposed of it correctly. — *Brickill v. Mayor*, 112 Fed. 65; 50 C. C. A. 1.

In view of the fact that buildings specially designed for the use of *Barber's* process and apparatus were constructed under his direction, we think the

presumption is that he intended to grant to the carbon company the right to use his process in connection with the machines, for which space in the several factories had been specially arranged with his knowledge and under his direction. The right of use presumed is the right to use such number of machines as had been prepared for, and the right is not limited to the life of the particular machine, but will include replacements so long as the carbon company continues in the manufacture of carbons. The scope of the license therefore includes the seventh machine, constructed after Barber was discharged, to occupy the place prepared for it under Barber's direction. By his conduct Barber has estopped himself from asserting that the use of his invention to this extent is an infringement of his right as a patentee. — *Barber v. National*, 129 Fed. 370; 64 C. C. A. 40.

Solomons v. U. S. 137 U. S. 342; *Lane v. Locke*, 150 U. S. 193; *Gill v. U. S.* 160 U. S. 426.

Facts: Complainant sold defendant 22 electric locomotives for use in its tunnels and consented to the installation, by a third party, of electric switches, without which the locomotives could not be operated. Subsequently defendant purchased other locomotives of another manufacturer and operated the same in its tunnels in connection with the electric switches installed. The infringement complained of consisted in the use of the patented electric switches with any locomotive not made by complainant, it being claimed that the right to use the switch was given only in connection with the purchase of complainant's locomotives. *Held*: Appellee having no notice of the restriction and not having dealt for the purchase of the locomotives with such restriction in mind, the license that the law raises upon the transactions between the parties is as broad as if no such restriction usually entered into the dealings of appellant (compl't.) with the purchasing world. The sole transaction disclosed here in the sale of locomotives to be operated without royalty, restriction (express or implied) or further license in connection with the trolley switching devices — a transaction that must be held to permit the use of the same devices in connection with other locomotives. — *Thompson-Houston v. Illinois*, 152 Fed. 631; 81 C. C. A. 473.

Edison v. Peninsular, 101 Fed. 836.

§ 757. Machines.

The purchase of a machine with the right to use the invention embraced therein carries with it no interest in the patent. — *Mitchell v. Hawley*, 83 U. S. 544; 21 L. Ed. 322.

When the patentee has himself constructed a machine and sold it without any conditions, or authorized another to construct, sell and deliver it, or to construct, use and operate it, without any conditions and for a consideration paid, he parts with his monopoly in that machine. — *Mitchell v. Hawley*, 83 U. S. 544; 21 L. Ed. 322.

Bloomer v. Millinger, 1 Wall. 350.

A machine made with the knowledge and consent of the inventor before his application, as provided in sec. 4899, carries with it an implied license from the inventor good to any purchaser. — *Wade v. Metcalf*, 129 U. S. 202; 32 L. Ed. 661; 9 S. Ct. 271.

McClurg v. Kingsland, 42 U. S. 202; *Bloomer v. McQueewan*, 55 U. S. 539; *Bloomer v. Millinger*, 68 U. S. 340; *Adams v. Burks*, 84 U. S. 453; *Birdsall v. Shaliol*, 112 U. S. 485.

§ 758. Non-Assignable.

A license, though usually not transferable, is transmissible by succession to a corporation formed by the union of two licensees succeeding to the obligations of both. — *Lane v. Locke*, 150 U. S. 193; 37 L. Ed. 1049; 14 S. Ct. 78. *Lightner v. Boston*, 1 Law. Des. 338.

May be waived if the patentee ratifies the transfer of the license by otherwise treating the assignee as the licensee was entitled to be treated. — *Lane v. Locke*, 150 U. S. 193; 37 L. Ed. 1049; 14 S. Ct. 78.

Hammond v. Mason, 92 U. S. 724.

§ 759. Parol.

It is true that a license may be created by parol and be established by clear implication from proven facts and circumstances (*Solomons v. U. S.* 137 U. S. 342; *McClurg v. Kingsland*, 1 How. 202; *Anderson v. Eiler*, 50 Fed. 775; *Withington v. Kinney*, 68 Fed. 500) but it is also true that by like implication arising from facts and circumstances and the conduct of the parties a continuing assignable quality may be given to a license originally unassignable. That the proof thereof rests in parol is not material where no one is concerned except the parties and their privies. — *Bowers v. Lake Superior*, 149 Fed. 983; 79 C. C. A. 493.

As to the world at large, an assignment is not good unless put in writing and recorded; but as between parties to the transaction, a license by parol may be sustained, and enforced, if need be, by a decree for specific performance. — *Cook v. Sterling*, 150 Fed. 766; 80 C. C. A. 502.

§ 760. Royalties.

There was at least an implied license to use the improvement upon the same terms and royalties fixed for other parties from the time complainants left the employ of defendant, while defendant was entitled to use the invention without payment of any royalties during the continuance of such employment. And, apart from that, that the decree cannot be reversed on the ground that the circuit court erred in dismissing the bill because when it was filed complainants were not entitled to any relief resting on grounds of equity, while their remedy at law, then and thereafter, was plain, adequate and complete. — *Keyes v. Eureka*, 158 U. S. 150; 39 L. Ed. 929; 15 S. Ct. 772.

The contract embraces only what the parties reasonably may be understood to have expected to be patented. The provision for the cessation of payments on final adverse action must be applied to such claims as were rejected for want of novelty; and after such rejection, the licensor can make the defendant account only for the use of devices embodying what remained of his claims. The covenant to use due business diligence in pushing the sale did not preclude defendant from using any later invention, nor would it require him to enter upon a hopeless contest, and would not prevent him from avoiding such contest by purchase. In that event he would not be accountable to the licensor for royalties on the new machine. — *Eclipse v. Farrow*, 199 U. S. 581; 50 L. Ed. 317; 26 S. Ct. 150.

Thorn v. Washburn, 159 U. S. 423.

Complainant licensed the invention to defendant at a specific royalty and minimum selling price. This complainant violated, making and selling at a lower price. The defendant's ability to pay the royalty depended upon the

non-competition by complainant at reduced prices. This breach by complainant of his undertakings, when found to be unjustifiable by any previous conduct of defendant, relieved defendant from the obligation which it has assumed. — *Brusie v. Peck*, 54 Fed. 820; 4 C. C. A. 597.

Kingston v. Preston, Doug. 634; 2 Parson Con. 189.

Defendant gave a license to plaintiff providing for a minimum annual royalty so much per article and a fixed royalty per article in excess of that number. Defendant also agreed to make no other license on better terms, or if he did to give plaintiff the benefit of a like reduction. Defendant subsequently gave another license to other parties at the same rate per article but for a smaller minimum number and no royalty on articles over that number. Plaintiff sues. *Held*: That he was entitled to recover moneys paid, subsequent to said second agreement in excess of the royalty provided in the second contract whether the second contract had resulted in the production of the minimum number of articles or not. — *Guggenheim v. Kirchhofer*, 66 Fed. 755; 14 C. C. A. 72.

The parties made a contract containing the following clause: "And provided, further, and it is hereby distinctly understood and agreed, that if the said parties of the second part shall sell or lease, or cause to be sold or leased, for use, or shall cause to be used, in any foreign country any . . . machines at rates of royalty or rental less than those charged for the use of like machines in this country, then the royalty rate to be paid by said parties of the second part to said parties of the first part shall be forty-five per cent., in lieu of forty per cent., as herein above provided." The licensees subsequently began selling machines in foreign countries and offered to pay the increased per cent. from that time. Licensors brought suit for the difference between 40 and 45 per cent. for the time prior to the beginning of such foreign business. *Held*: That the contract could not be retroactive from its language and that the licensor was entitled to only 40 per cent. up to the time the foreign sales commenced. — *National v. Willcox*, 74 Fed. 557; 20 C. C. A. 654.

Unless the contrary appears to have been the intention of the parties, the presumption is that, under a license for the exclusive right to manufacture and sell under a patent, royalties are not payable upon articles manufactured and sold after the expiration of the life of the patent. Parties may, of course, contract as they choose; but, in the absence of some provision by which a promise for the continuing payment of royalties upon expired patents may be fairly incurred, the presumption is that the contract is upon the ordinary terms as to the duration of royalties. — *Sproull v. Pratt & Whitney*, 108 Fed. 963; 48 C. C. A. 167.

For a case covering license for several patents, capable both of conjoint and separate use, and a curious holding as to the effect of the expiration of one of the patents under the peculiar terms of that contract, see — *Sproull v. Pratt & Whitney*, 108 Fed. 963; 48 C. C. A. 167.

§ 761. Scope of.

Where one sells a machine to another and subsequently purchases the patent, or an interest therein, covering such machine, such subsequent purchase gives the purchaser of the machine a license as against his vendor, but whether such license by purchase would extend to and include other co-owners of the patent is not decided. — *Gottfried v. Miller*, 104 U. S. 521; 26 L. Ed. 851.

That a license for the invention of a patent cannot be construed to cover other devices made by the licensee which are not fairly within the terms of the patent, see — *Eclipse v. Farrow*, 199 U. S. 581; 50 L. Ed. 317; 26 S. Ct. 150.

The exclusive right granted to a person other than the patentee to use and sell a patented device within a named district of country, excludes the owner of the letters patent from selling the same or using the same in that region. A licensee does not use or sell in the name of the owner of the patent, but in his own name, and for his own benefit. Having an exclusive license to use and sell, no one has a right to use or sell in the country of such a licensee. — *Brush v. California*, 52 Fed. 945; 3 C. C. A. 368.

A license which provides that the licensee shall supply the market and pay royalties on all machines containing the patented improvement, when the invention licensed is not a monopoly and where it is no specific restriction, does not prohibit the licensee from making and selling devices not containing the patented devices without paying royalty. — *Standard v. Leslie*, 78 Fed. 325; 24 C. C. A. 107.

By its terms, the grant covers three separate or separable fields. The patentee may agree with one that he will not exclude him from making, with another from using, and with yet another from selling devices that exemplify the principles of his invention. Within the field of making, it has never been doubted, so far as we are aware, that he may subdivide as he pleases and offer to sell or lease in the most fanciful parcels on the harshest terms; that whether purchasers and tenants come or not is purely his own concern; and that, if purchasers or tenants do come, the courts will enforce the terms of the sale or lease. And how could it be otherwise? Owning the whole, he owns every part. The field being his property, and there being no law for seizing it and adjudging his damages, he cannot be compelled to part with his own except on inducements to his liking. The same conditions must prevail within the field of use, for how can it be distinguished? — *Victor v. The Fair*, 123 Fed. 424; 61 C. C. A. 58.

Heaton v. Eureka, 77 Fed. 288; *Cortelyou v. Lowe*, 111 Fed. 1005; *Bement v. National*, 186 U. S. 70; *Edison v. Kaufman*, 105 Fed. 960; *Edison v. Pike*, 116 Fed. 863.

The consideration upon which the defendant agreed to pay royalties was the privilege of using "the devices described and claimed." This must be interpreted as an agreement to pay for the use of such devices as the defendant would not otherwise have the right to use, namely, such as were covered by the claims of the patent, and not for such as were merely described and not claimed, or as were included as single elements only in a combination claimed as a whole. — *Western v. Robertson*, 142 Fed. 471; 73 C. C. A. 587.

§ 762. Termination of.

Defendant cannot force a termination of contract except by suit to set it aside, until which time he cannot say what he afterwards does is not under the contract provided the machine made embodied the patent in suit. — *St. Paul v. Starling*, 140 U. S. 184; 35 L. Ed. 404; 11 S. Ct. 803.

The truth seems to be that the proviso is a more or less well-known and conventional one in licenses, not a special contrivance for this special case, and that the fact alone is enough to invalidate attempts to twist the meaning of the words to the interest of either side. The proviso was inserted, no doubt,

on the assumption that a licensee, when sued for royalties, is estopped to deny the validity of the patent which he has been using, and to give him the benefit of litigation by or against third persons, notwithstanding that rule. — *U. S. v. Harvey*, 196 U. S. 310; 49 L. Ed. 492; 25 S. Ct. 240.

Charter v. Charter, 47 Ill. App. 36.

It is settled law that a license to use a patent is a personal privilege, which terminates with the life of the individual licensee to which it is granted, unless the grant contains words expressly confirming the power to sell or assign. In the absence of such power if the licensee be a natural person and dies, or an artificial person or partnership and ceases to exist, the license expires equally in either case. — *Haffeke v. Clark*, 50 Fed. 531; 1 C. C. A. 570.

Oliver v. Chemical Co. 109 U. S. 75; *Nail Factory v. Corning*, 14 How. 19; *Gayler v. Wilder*, 10 How. 477.

It is to be kept in mind that the license under consideration was not like that in *St. Paul v. Starling*, 140 U. S. 184, unlimited in duration, which requires mutual consent, or some positive act by one of the parties to terminate it. This license was of limited duration; it ran only for a year; and the positive act required was not one to end, but to extend, it. — *Seal v. Bookkeeper*, 130 Fed. 449; 64 C. C. A. 651.

§ 763. Territorial.

The right to use a machine or article made under a territorial license stands on a different ground from the right to make and sell them, and inheres in the nature of a contract of purchase which carries no implied limitation of the right of use within a given locality. — *Adams v. Burks*, 84 U. S. 453; 21 L. Ed. 700.

Where a patentee has assigned his right to manufacture, sell and use within a limited district an instrument, machine or other manufactured product, a purchaser of such instrument or machine, when rightfully bought within the prescribed limits, acquires by such purchase the right to use it anywhere without reference to other assignments of territorial rights by the same patentee. — *Adams v. Burks*, 84 U. S. 453; 21 L. Ed. 700.

A license to make and sell within a specified territory does not prevent the use of an article so made and sold rightfully within the territory from being used anywhere without the territory. — *Adams v. Burks*, 84 U. S. 453; 21 L. Ed. 700.

Defendant cannot terminate, without consent of plaintiff, the rights conferred by the license, and that, as there was no limitation on its face, the license continued until the expiration of the patent. — *St. Paul v. Starling*, 140 U. S. 184; 35 L. Ed. 404; 11 S. Ct. 803.

The sale of a patented article by an assignee within his territory carries the right to use it everywhere, notwithstanding the knowledge of both parties that a use outside the territory is intended. — *Hobbie v. Jennison*, 149 U. S. 355; 37 L. Ed. 766; 13 S. Ct. 879.

Adams v. Burks, 84 U. S. 453; *Birdsall v. Shaliol*, 112 U. S. 485; *Wade v. Metcalf*, 129 U. S. 202; *Boesch v. Gräff*, 133 U. S. 697.

One who buys patented articles of manufacture from one authorized to sell them becomes possessed of an absolute property in such articles, unre-

stricted in time or place. Whether a patentee may protect himself and his assignees by special contracts brought home to the purchasers is not a question before us, and upon which we express no opinion. It is, however, obvious that such question would arise as a question of contract, and not as one under the inherent meaning and effect of the patent laws.

The conclusion reached does not deprive a patentee of his just rights, because no article can be unfettered from the claim of his monopoly without paying its tribute. The inconvenience and annoyance to the public that an opposite conclusion would occasion are too obvious to require illustration. — *Keeler v. Standard*, 157 U. S. 659; 39 L. Ed. 848; 15 S. Ct. 738. •

Dissenting: Justices Brown, Fuller and Field.

The grant was of the exclusive right to use and sell within the states named. This, under the authorities, was perhaps nothing more or less than a license. — *Brush v. California*, 52 Fed. 945; 3 C. C. A. 368.

Walk. Pat. sec. 296; *Hamilton v. Kingsbury*, 17 Blatchf. 264; *Waterman v. Mackenzie*, 138 U. S. 252.

§ 764. Miscellaneous.

The exclusive right to use a machine continues no longer than the term of the original patent. — *Paper Bag Cases*, 105 U. S. 766; 26 L. Ed. 959.

Wilson v. Rousseau, 4 How. 646.

An infringer does not by paying damages for making and using a machine in infringement of a patent, acquire any right himself to the future use of the machine. On the contrary he may, in addition to the payment of damages for past infringement, be restrained by injunction from further use, and, when the whole machine is an infringement of the patent, be ordered to deliver it up to be destroyed. — *Birdsall v. Shaliol*, 112 U. S. 485; 28 L. Ed. 768; 5 S. Ct. 244.

Suffolk v. Hayden, 3 Wall. 315; *Root v. Ry.* 105 U. S. 189; *Needham v. Oxley*, 8 L. T. N. S. 604; *Frearson v. Loe*, 9 Ch. Div. 48.

Note: The destruction of infringing machine is not based on any statute and has been denied in *American v. Kitsell*, 35 Fed. 521.

The licenses were never demanded by the defendants nor executed. If tender of the licenses were essential to recovery under the contract, we are of opinion that the conduct of the defendants operates as a waiver of performance. The proper licenses were tendered for execution. Failure of execution and delivery were due to the inattention or evasion of the defendants. They are not permitted to take advantage of their own wrong. The licenses contained mutual obligations. The duty of the parties to execute them was concurrent. — *American v. VanNortwick*, 52 Fed. 752; 3 C. C. A. 274.

U. S. v. Peck, 102 U. S. 64.

As a general rule, it may be said that a license is not divisible. The term "assigns" must be construed as the right to assign the license as an entirety. — *Brush v. California*, 52 Fed. 945; 3 C. C. A. 368.

Walk. sec. 310; *Brooks v. Byam*, 2 Story, 525.

Upon the defendants rests the burden of proof that Kendrick, though not an owner of record, had a right to license manufacture under the patent. — *Denning v. Bray*, 61 Fed. 651; 10 C. C. A. 6.

Although the agent exceeded his authority under his power of attorney, and although his authority might be revoked (under *Willcox v. Ewing*, 141 U.

S. 627) all acts previously done in pursuance of it remain in force. — *Union v. Johnson*, 61 Fed. 940; 10 C. C. A. 176.

A license from one member of a firm to the firm during the continuance of the partnership is not an assignable or purchasable asset, notwithstanding that the tools and patterns exclusively useful in the making of the patented device pass as an asset to an assignee or receiver. — *Elgin v. Nichols*, 65 Fed. 215; 12 C. C. A. 578.

Anderson v. Eiler, 50 Fed. 775.

That while a former licensee may be restrained by injunction from using the trade name which designated the article of the patent, in an action seeking such relief, the injunction order may not include restraint from using the patent, see — *Stimpson v. Stimpson*, 104 Fed. 893; 44 C. C. A. 241.

In an action by a licensor against a licensee to recover royalties upon sales made under an exclusive license upon an invalid patent, which was, at the time when the account accrued, apparently valid and in force, and from which there had been no eviction, the invalidity of which had not been declared by an adjudication under legal proceedings, and no notice had been given by the licensee of its refusal to pay on account of its defects, such invalidity is no defense to the suit. As long as the licensee continues to manufacture under a patent presumably valid, without giving notice of its invalidity and without eviction, he is presumed to manufacture in accordance with his license. — *Holmes v. McGill*, 108 Fed. 238; 47 C. C. A. 296.

Marston v. Swett, 66 N. Y. 211 and 82 N. Y. 526; *Lawes v. Purser*, 38 Eng. Law & Eq. Rep. 48; *White v. Lee*, 14 Fed. 789; *Birdsall v. Perego*, Fed. Cas. 1,435; *Stott v. Rutherford*, 92 U. S. 107; *Eureka v. Bailey*, 11 Wall. 488; 3 Rob. Pat. 696.

Kisinger Co. sued *Bradford Co.* on *Morrison* patent and *Kisinger* patent. *Bradford Co.* defended under *Girard & Lawrence* patent, a subsequent improvement to which it held license. Decree for *Kisinger Co.* on *Morrison* patent. *Bradford Co.* then brought this suit alleging that *Girard & Lawrence* had in the assignment of use to *Bradford Co.* guaranteed the patent against all prior patents, etc., and alleging that *Kisinger Co.* prior to suit had obtained by mesne assignments from *Girard & Lawrence* the full title to the patent under which the *Bradford Co.* held license and guaranty from *Girard & Lawrence* and that such purchase was with full knowledge. *Held*: No doubt the general rule is that the assignee takes the title subject to the equities of the other parties who have acquired rights therein, of which he had notice, express or implied. But he takes no other burden. He comes under no affirmative obligation to make good the previous contracts of his assignor. The claim of the appellant is that it is let into the enjoyment of the *Morrison* patent by a transaction which it had no right to compel or prevent. The appellant has been put in no worse situation by the transfer. What equity has supervened in its favor since the decree in the former suit? The appellee owed it no duty, and has not prejudiced the appellant. Nor has it acquired any right which it has not paid for, or which, owing no duty to the appellant, it had not equal right to purchase with any other person. — *Bradford v. Kisinger-Ison*, 113 Fed. 811; 51 C. C. A. 483.

The owner of an undivided part of the rights secured by a patent may, without the consent of his co-owners, grant a valid license to use the monopoly it protects. — *Paulus v. Buck*, 129 Fed. 594; 64 C. C. A. 162.

Bloomer v. McQueewan, 14 How. 539; *Blackledge v. Weir*, 108 Fed. 71.

The license so granted is personal in its nature, and unassignable, no intent being shown in the contract that it should be otherwise. — *Standard v. Arrott*, 135 Fed. 750; 68 C. C. A. 388.

Complainant's final letter, ordering defendants to "discontinue building said racks in cars without authority by me to do so under penalty of the law," coupled with the statement that, if he should "conclude to allow said racks built in cars, my standing price will be five dollars per car," was in entire accord with the understanding of both parties either that there had been no contract for a future license, or that, even if any such license might have been claimed, it was one terminable at the will of complainant's assignor, and the statements in his letter were acquiesced in by defendants as constituting a complete revocation of whatever rights or license they might otherwise have claimed. The contract, if any, was thereby rescinded by mutual agreement. — *American v. Jones*, 142 Fed. 974; 74 C. C. A. 236.

Hartell v. Tilghman, 99 U. S. 547; *Walker on Pat.* 266; *White v. Lee*, 14 Fed. 789; *Ross v. Fuller*, 105 Fed. 510; *Schenectady v. Holbrook*, 101 N. Y. 45; *Denise v. Swett*, 142 N. Y. 602.

Use of the invention cannot be had except on the inventor's terms. Without paying or doing whatever he exacts, no one can be exempted from his right to exclude. Whatever the terms, courts will enforce them, provided only that the licensee is not thereby required to violate some law outside of the patent law. — *Rubber Tire v. Milwaukee*, 154 Fed. 358; 83 C. C. A. 336.

LICENSOR AND LICENSEE.

Right to Sue § 765

Title § 766 (*see* § 925)

Miscellaneous § 767

See — *Assignment* § 165; *Copartner-*

ship § 270; *Defenses* § 311; *Employer and Employee* §§ 367-8; *Estoppel* § 384; *Infringement* §§ 509-13; *Injunction* § 749; *Jurisdiction* § 722

§ 765. Right to Sue.

The conveyance was for neither an individual interest in the patent nor for an exclusive territory. It is therefore to be regarded as a license only, and under the act does not enable the assignee to maintain an action for infringement. — *Gayler v. Wilder*, 10 How. 477; 13 L. Ed. 504.

A mere licensee cannot sue strangers who infringe. In such cases redress is obtained through or in the name of the patentee or his assignee. — *Littlefield v. Perry*, 88 U. S. 205; 22 L. Ed. 577.

The defendants first took a license from the patentee, and under it and under his directions erected substantially the same apparatus now used. Receiving what they regarded as additional light, they refused to continue payment of royalty and put the complainant to his legal remedy. — *Tilghman v. Procter*, 102 U. S. 707; 26 L. Ed. 279.

Licensees must enforce their rights through the name of the patentee (or assignee). — *Paper Bag Cases*, 105 U. S. 766; 26 L. Ed. 959.

Littlefield v. Perry, 88 U. S. 223.

See full discussion and settlement of the law in *Waterman v. Mackenzie*, 138 U. S. 252; 34 L. Ed. 923; 11 S. Ct. 334.

If the licensee cannot use the name of its licensor in an action to protect its rights against an infringement of the patented device or improvement it

has the exclusive right to use and sell, we have a case of a person possessing important rights with no legal power to protect them; for a licensee cannot sue in his own name for an infringement of the patent concerning which he has a license. — *Brush v. California*, 52 Fed. 945; 3 C. C. A. 368.

Gayler v. Wilder, 10 How. 477; *Waterman v. Mackenzie*, 138 U. S. 252; 2 Washb. Real. Prop. 302; *Rogers v. Cox*, 96 Ind. 157; 2 Bl. Comm. 442; *Littlefield v. Perry*, 21 Wall. 205; *Welch v. Mandeville*, 1 Wheat. 233; *Hammond v. Hart*, 4 Ban. & A. 111; *Huber v. Sanitary Depot*, 34 Fed. 752; *Goodyear v. Bishop*, 4 Blatchf. 438; *Brush v. Thomson*, 48 Fed. 224.

A mere licensee cannot sue strangers who infringe. In such a case redress is obtained through or in the name of the owner of the patent. — *Waterman v. Shipman*, 55 Fed. 982; 5 C. C. A. 371.

A license amounting to a transfer of the title is not forfeited by a breach, in paying royalties, so as to enable the grantor to sue the grantee under the patent for infringement. — *Atkins v. Parke*, 61 Fed. 953; 10 C. C. A. 189.

Hartell v. Tilghman, 99 U. S. 547.

As licensee, the defendant in error has no authority to maintain the action. — *Chauche v. Pare*, 75 Fed. 283; 21 C. C. A. 329.

Birdsall v. Shaliol, 112 U. S. 486; *Waterman v. Mackenzie*, 138 U. S. 252.

There can be no doubt that a licensee can sue the patentee, who has granted the license, for infringing the patent within the field covered by the license, in the same manner and with like effect as though the patentee were a stranger. — *Smith v. Ridgley*, 103 Fed. 875; 43 C. C. A. 365.

Littlefield v. Perry, 21 Wall. 205; *Adriance v. McCormick*, 55 Fed. 288; *Walk. Pat. sec. 400*.

The complainant had a license to make and sell within certain territory, but the license was not exclusive. The defendant held a release or license for what it had done from the patentee. *Held*: Complainant could not recover. — *Excelsior v. City of Seattle*, 117 Fed. 140; 55 C. C. A. 156.

Waterman v. Mackenzie, 138 U. S. 256; *Gayler v. Wilder*, 10 How. 477; *Mitnell v. Hawley*, 16 Wall. 544; *Hayward v. Andrews*, 106 U. S. 672; *Oliver v. Chemical*, 109 U. S. 75.

§ 766. Title.

The fact that the licensor has undertaken to make an assignment which it had no authority to make, will not work any forfeiture of its rights. There is no stipulation in the contract of license that any such action shall work a forfeiture of the rights granted by it. Under such circumstances there is no forfeiture. — *Brush v. California*, 52 Fed. 945; 3 C. C. A. 368.

Walker. sec. 308; *Purifier Co. v. Wolf*, 28 Fed. 814.

In the terms of the grant of license, it was contemplated that the license should extend to any patents which the licensor should thereafter acquire. Under such circumstances, the licensor should be estopped to deny the validity of the license granted the licensee on the ground that it did not own said patent, or that it had no existence at the time the grant or license was made, or on the ground that it had no authority at that date to grant the license. To hold otherwise would work a most extensive fraud upon the licensee. The sale of a patent right contains an implied warranty as to title, and an after acquired title obtained by the vendor inures to the vendee. — *Brush v. California*, 52 Fed. 945; 3 C. C. A. 368.

Faulks *v.* Camp, 3 Fed. 898; Curran *v.* Birdsall, 20 Fed. 835; Gottfried *v.* Miller, 104 U. S. 520; Smith *v.* Sheley, 12 Wall. 358.

§ 767. Miscellaneous.

The recovery of nominal damages by a licensor without joining his licensee does not bar the licensee from recovering actual damages by a separate suit for the same infringement. — Birdsall *v.* Shaliol, 112 U. S. 485; 28 L. Ed. 768; 5 S. Ct. 244.

Defendants were licensees from plaintiffs, and an agreement based upon such license provided for an equal sharing of expenses of litigation affecting such patents. Defendants were sued, and plaintiffs intervened and defended. The licensed patent was held bad and defendants refused on that ground and on the ground that plaintiffs had intervened to pay their share of costs and expenses. *Held*: Neither the intervention nor the defeat of the patent excused the defendants. — Leicester *v.* Macon, 116 Fed. 196; 53 C. C. A. 621.

We are satisfied, in view of the radical departures from said licensed blocks, and from the patented construction, in defendant's later blocks, that it is not precluded from showing that said blocks are not covered by the claims in suit. — Western *v.* Robertson, 142 Fed. 471; 73 C. C. A. 587.

The patentee may grant, if he will, an unrestricted right to make or sell or use the device embodying his invention, or may grant only a restricted right in either the field of making, using or selling. To the extent that he restricted either one of these separable rights, the article is not released from the domain of the patent, and any one who violates the restrictions imposed by the patentee, with notice, is an infringer. — Park *v.* Hartman, 153 Fed. 24; 82 C. C. A. 158.

The licensor has the right not only to royalties, but also to the licensee's silence respecting the validity and *prima facie* scope of the patents. — Indiana *v.* Case, 154 Fed. 365; 83 C. C. A. 343.

Siemans *v.* Duncan, 142 Fed. 157.

MACHINE.

Statute and Definition § 768

Right to Use § 769

See — Anticipation § 100; Designs § 333; Destruction of § 338; Infringement §§ 514-5; Invention § 686;

License § 767; Machine and Process § 770; Machine and Product § 771; Process § 817; Secret Process or Machine § 898

§ 768. Statute and Definition.

A machine is the second of the classes of patentable inventions named in sec. 4886. Brief reflection will reveal the insufficiency and inaccuracy of the following definitions. No one of them distinguishes, clearly, a machine from a tool — an article of manufacture. Take this simple example: A screw-driver of the ordinary sort is clearly a tool and not a machine; it is an article of manufacture, and if it were novel, would be patentable as such. Now add to this screw-driver a ratchet mechanism, so that when one rotates the handle one way the blade or bit must turn with the handle, and when rotated the other way the bit remains at rest and the ratchet permits the handle to turn independently of the bit. In the ordinary screw-driver there is no law of action imposed by the mind of the inventor; in the ratchet screw-driver there is the law imposed by the mind of the inventor, which law

is that, when the handle is rotated in one direction the bit is compelled, by the ratchet mechanism, to rotate with the handle, and when the handle is rotated in the other direction, the law is that the bit shall remain at rest. It will be seen that no one, nor all, of the following definitions distinctly classifies these two devices — the one as an article of manufacture and the other as a machine.

On the other hand, passing from matters of sharp distinction to those of broad construction, the law has never clearly distinguished between a machine and an aggregation or a so-called "system." Perhaps the nearest approaches have been in *Dunbar v. Eastern*, 81 Fed. 201 (§ 48) and *Western v. Rochester*, 145 Fed. 41 (§ 698). It is evident that the definition of a machine must be redrawn to mark the distinction between those true combinations patentable under the statute and the ever-increasing number of constructions which are the product of engineering skill, but which, however useful and however skillfully devised, are nevertheless aggregations and systems, and clearly non-patentable.

The term "machine" includes every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result. But when the effect or result is produced by chemical action by the operation or application of some element or power of nature, or of one substance to another, such modes, methods or operations are called processes. — *Corning v. Burden*, 15 How. 252; 14 L. Ed. 683.

A machine is a concrete thing, consisting of parts, or of certain devices. The principle of a machine is properly defined to be "its mode of operation" or the peculiar combination of devices which distinguishes it from other machines. A machine is not a principle or an idea. The use of ill defined abstract phraseology is the frequent source of error. — *Burr v. Duryee*, 68 U. S. 531; 17 L. Ed. 750.

The doctrine which is applicable to a machine patent is of a kindred character with that applied in this country and in England to a patent for a process. — *Morley v. Lancaster*, 129 U. S. 263; 32 L. Ed. 715; 9 S. Ct. 299.

McCormick v. Talcott, 61 U. S. 402; *Chicago v. Sayles*, 97 U. S. 554; *Clough v. Barker*, 106 U. S. 166; *Duff v. Sterling*, 107 U. S. 636; *Consolidated v. Crosby*, 113 U. S. 157.

And comparing, *Tilghman v. Proctor*, 102 U. S. 707; *Nelson v. Hartford*, 1 Web. P. C. 295; *O'Reilly v. Morse*, 56 U. S. 62, 115; *Curtis v. Platt* (note) L. R. 3 Ch. Div. 134; *Badische v. Levinstein*, L. R. 24 Ch. Div. 156, 171; *Jupe v. Pratt*, 1 Web. P. C. 146; *Househill v. Nelson*, 1 Web. P. C. 685; *Proctor v. Bennis*, L. R. 36 Ch. Div. 740; *Clark v. Adie*, L. R. 2 App. Cas. 315, 320.

The argument that a machine must be automatic in order to be patentable is not sound. A piano is not automatic, nor is any tool or implement intended for use by hand. But improvements in any such tool used in an art or industry are patentable. — *Weatherhead v. Coupe*, 147 U. S. 322; 37 L. Ed. 188; 13 S. Ct. 312.

A machine or structure may embody several different inventions. There may be subcombinations in a machine which are new and useful, and operate conjointly to perform some subordinate function. Such a sub-combination, if not patented by a claim, might be appropriated by another without infringing a patent for a machine. Being for a different invention, it is the proper subject for a distinct patent. — *Thompson-Houston v. Elmira*, 71 Fed. 396; 18 C. C. A. 145.

§ 769. Right to Use.

When the patented machine passes rightfully to the hands of the purchaser from the patentee, or from any other person by him authorized to convey it, the machine is no longer within the limits of the monopoly. By a valid sale the machine becomes the private individual property of the purchaser, and is no longer protected by the laws of the U. S. but by the laws of the state in which it is situated. — *Chaffee v. Boston*, 63 U. S. 217; 16 L. Ed. 240.

The lawful purchase of a patented machine carries with it the right to use the machine, regardless of renewals or extensions of the patent, until it is worn out. — *Bloomer v. Millinger*, 68 U. S. 340; 17 L. Ed. 581.

Wilson v. Rousseau, 4 How. 640; *Bloomer v. McQueewan*, 14 How. 549; *Chaffee v. Boston*, 22 How. 223; *Crane v. Price*, Web. P. C. 413.

A license to use and operate during the life of the patent carries the right to repair and right to continue use after extension. — *Mitchell v. Hawley*, 83 U. S. 544; 21 L. Ed. 322.

Bloomer v. Millinger, 1 Wall. 350.

The lawful purchase of a machine carries with it the right to use the patented device embodied. — *Adams v. Burks*, 84 U. S. 453; 21 L. Ed. 700.

Right to patented machine carries with it the right to use and sell the product of that machine. — *Morgan v. Albany*, 152 U. S. 425; 38 L. Ed. 500; 14 S. Ct. 627.

MACHINE AND PROCESS.

General Rules § 770

| See — *Machine* § 768

§ 770. General Rules.

A machine may be new, and the product or manufacture proceeding from it may be old. In that case the former would be patentable and the latter not. The machine may be substantially old and the product new. In that event, the latter and not the former, would be patentable. In the former case both would be patentable; in the latter, neither. The same remarks apply to processes and their results. Patentability may exist as to either, neither or both, according to the fact of novelty, or the opposite. The patentability or the issuing of a patent as to one, in no wise affects the rights of the inventor or discoverer in respect to the other. They are wholly disconnected and independent facts. Such is the sound and necessary construction of the statute. — *Rubber Co. v. Goodyear*, 76 U. S. 788; 19 L. Ed. 566.

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.

The driven well patent is for a process and not a machine, as the process is used whenever water is drawn. — *Andrews v. Hovey*, 124 U. S. 694; 31 L. Ed. 557; 8 S. Ct. 676.

McClurg v. Kingsland, 1 How. 202; *Beedle v. Bennett*, 122 U. S. 71.

It is upon its face "for an improved process of manufacture," and mechanism is shown and described simply for the purpose of ex-

hibiting its operation, which is described in detail. The result is a more perfect article, but it was not because the patentee had discovered anything new in the result produced, but because the mechanism was better adapted to produce that result than anything that had been known. As devices of that description had been produced before, doubtless, with great care in manufacture of them, one as perfect as plaintiff's might have been made. So that all that he invented in fact was a machine for the more perfect manufacture of such devices. The operation or function of such a machine however, is not patentable as a process. — *Risdon v. Medart*, 158 U. S. 68; 39 L. Ed. 899; 15 S. Ct. 745.

Neilson v. Harford, 1 Web. P. C. 331; *O'Reilly v. Morse*, 56 U. S. 62, 115; *Househill v. Neilson*, 1 Web. P. C. 673; *Tilghman v. Proctor*, 102 U. S. 708; *Mowry v. Whitney*, 81 U. S. 620; *Cochrane v. Deener*, 94 U. S. 780; *New Process v. Maus*, 122 U. S. 413; *Telephone Cases*, 126 U. S. 1; *Bell Tel. v. Dolber*, 15 Fed. 488; *Weyeth v. Stone*, 1 Story, 273; *Corning v. Burden*, 56 U. S. 252; *McKay v. Jackman*, 12 Fed. 615; *Brainard v. Cramme*, 12 Fed. 621; *Gage v. Kellogg*, 23 Fed. 891; *Hatch v. Moffit*, 15 Fed. 253; *Sickles v. Falls*, 4 Blatchf. 518; *Excelsior v. Union*, 32 Fed. 221.

Can it be said that a process and an apparatus are inevitably so independent as never to be "connected in their design and operation?" They may be completely independent. But they may be related. They may approach each other so nearly that it will be difficult to distinguish the process from the function of the apparatus. In such cases the apparatus would be the dominant thing. But the dominance may be reversed and the process carry an exclusive right, no matter what apparatus may be devised to perform it. — *U. S. ex rel. Steinmetz v. Allen*, 192 U. S. 543; 48 L. Ed. 555; 24 S. Ct. 416.

Cochrane v. Deener, 94 U. S. 780; *Telephone Cases*, 126 U. S. 1.

Whether such a process patent might have been valid for the steps in pill-dipping pointed out in the complainant's specifications, we need not discuss, because the complainant, as a condition of getting the patent in suit, expressly abandoned and withdrew an application for just such a process patent, and he is thereby estopped from contending for any construction of his present patent which would, in effect, secure him the same thing. — *Stearns v. Russell*, 85 Fed. 218; 29 C. C. A. 121.

Sutter v. Robinson, 119 U. S. 530; *Siepard v. Carrigan*, 116 U. S. 593; *Leggett v. Avery*, 101 U. S. 256.

MACHINE AND PRODUCT.

General Rules § 771

§ 771. General Rules.

Patents for a machine will not be sustained if the claim is for a result, the established rule being that the invention, if any, within the meaning of the Patent Act, consists in the means or apparatus by which the result is obtained, and not merely in the mode of operation, independent of the mechanical devices employed; nor will a patent be held valid for a principle or for an idea or any other mere abstraction. — *Fuller v. Yentzer*, 94 U. S. 288; 24 L. Ed. 103.

Dissenting: Strong, Waite, Miller, Bradley.

Burr v. Duryee, 1 Wall. 531.

A patent upon a machine may also cover a manufacture. — *Miller v. Eagle*, 151 U. S. 186; 38 L. Ed. 121; 14 S. Ct. 310.

Where right to use patented machine is acquired right to use and sell product goes with it. — *Morgan v. Albany*, 152 U. S. 425; 38 L. Ed. 500; 14 S. Ct. 627.

We do not think that an article manufactured in a machine in the manner and for the purposes contemplated when the machine itself was made, can be held to be a part of the machine which so produces it. — *American v. Streat*, 83 Fed. 700; 28 C. C. A. 18.

Morgan v. Albany, 152 U. S. 425.

MANUFACTURE.

Statute and General Statement § 772
 Manufacture and Product § 773 (see
 § 771)
 Novelty § 774
 Patentability § 775

See — *Aggregation* § 46; *Art* § 146;
Composition of Matter § 264; *Machine
 and Product* § 771; *Process* §§ 820-1;
Product § 823

§ 772. Statute and General Statement.

Manufactures constitute the third class of patentable inventions under sec. 4886. The Supreme Court has held that a manufacture may mean either the process or the product. *Merrill v. Yeomans*, 94 U. S. 568. Shall we then say that the art of making carborundum by electrolytic decomposition and synthesis belongs in the same class with the invention of a new and useful tool? It is at once clear that, as in the case of an art (§ 147), the classification of patentable inventions as made by the statute and as made by the courts do not agree in terminology.

§ 773. Manufacture and Product.

After a patent is granted for an article described as made by causing it to pass through a certain method of operation to produce it, the inventor cannot afterwards, on an independent application, secure a patent for the method or process covered by the previous patent, which article was described in that patent as produced by the method or process sought to be covered by taking out the second patent. — *Mosler v. Mosler*, 127 U. S. 354; 32 L. Ed. 182; 8 S. Ct. 1148.

Where a patent upon an article of manufacture does not claim the composition of matter, though it describes it, such omission is public dedication of the said composition. — *Underwood v. Gerber*, 149 U. S. 224; 37 L. Ed. 710; 13 S. Ct. 854.

§ 774. Novelty.

But whether, within the meaning of the patent law, a device should be deemed to be a manufacture or a machine, in order to be patentable, it must be novel; and by the decided cases the test of novelty would seem to be essentially the same in the one instance as in the other. — *Campbell v. Bayley*, 63 Fed. 463; 11 C. C. A. 284.

Glue Co. v. Upton, 4 Cliff. 237 F. C. 9,607; *Collar Co. v. Vandusen*, 23 Wall. 530; *Wood Paper Pat.* 23 Wall. 566; *Cochrane v. Badische*, 111 U. S. 293; *Reckendorfer v. Faber*, 92 U. S. 347.

This is for the constructed article and not for the art of constructing it. (That is, the claim.) All suggestions, therefore, about the economy of constructing the blanks by cutting them off widthwise from a strip of a plate of

metal, so that the wide and narrow ends of the plate shall alternate and thus utilize the whole of the metal are irrelevant. — *Strom v. Weir*, 83 Fed. 170; 27 C. C. A. 502.

§ 775. Patentability.

For general rules as to limitation of patentability of a manufacture, see *Rubber Tip v. Howard*, 87 U. S. 498; 22 L. Ed. 410.

Nothing short of invention or discovery will support a patent for a manufacture any more than for an art, machine or composition of matter. — *Union v. Vandeusen*, 90 U. S. 530; 23 L. Ed. 128.

Hotchkiss v. Greenwood, 11 How. 265; *Phillips v. Page*, 24 How. 167; *Jones v. Morehead*, 1 Wall. 162; *Simpson v. Woodman*, 10 Wall. 121.

Articles of manufacture may be new in the commercial sense when they are not new in the sense of the patent law. — *Union v. Vandeusen*, 90 U. S. 530; 23 L. Ed. 128.

Glue Co. v. Upton, 6 O. G. 840.

The Patent Office fully comprehends the rule that new articles of commerce are not patentable as new manufactures, unless it appears in the given case that the production of the new articles involved the exercise of invention or discovery beyond what was necessary to construct the apparatus for its manufacture or production. — *Milligan v. Upton*, 97 U. S. 3; 24 L. Ed. 985.

Ex parte Ackerson, C. D. 1869, 75; *Ex parte Chatillon*, 2 O. G. 115; *Bates v. Serger*, 2 O. G. 493; *Ex parte Jerome*, 3 O. G. 64; *Ex parte Adams*, 3 O. G. 150; *Ex parte Wattles*, 3 O. G. 291; *Ex parte Leggett*, 2 O. G. 199; *Ex parte Baxter*, 2 O. G. 470; *Ex parte Beach*, 3 O. G. 607; *Draper v. Hudson*, 3 O. G. 354; *Sawyer v. Bixby*, 1 O. G. 165; *Merrill v. Yeomans*, 5 O. G. 267.

A distinction must be observed between a new article of commerce and a new article which, as such, is patentable. Any change in form from a previous condition may render the article new in commerce; as powdered sugar is a different article in commerce from loaf sugar, and ground coffee is a different article in commerce from coffee in the berry. But to render the article new in the sense of the patent law, it must be more or less efficacious, or possess new properties by a combination with other ingredients; not from a mere change of form produced by a mechanical division. It is only where one of these results follows that the product of the compound can be treated as the result of invention or discovery and be regarded as a new and useful article. — *Milligan v. Upton*, 97 U. S. 3; 24 L. Ed. 985.

Approving, *Hotchkiss v. Greenwood*, 11 How. 265; *Phillips v. Paige*, 24 How. 167; *Jones v. Morehead*, 1 Wall. 162; *Simpson v. Woodman*, 10 Wall. 121; *Knight v. R. R. Comp. (Taney C. C.)* 109; *Bean v. Smallwood*, 2 Story, 411; *Winans v. R. R.* 2 Story, 416; *Hicks v. Kelsey*, 18 Wall. 670; *Union v. Vandeusen*, 10 Blatchf. 119; *Langdon v. DeGroot*, 1 Paine, 204; *LeRoy v. Tatham*, 14 How. 175.

Where certain properties are known to belong generally to classes of articles there can be no invention in putting a new species of the class in a condition for the development of its properties similar to that in which other species of the same class have been placed for similar development; nor can the changed form of the article from its condition in bulk to small particles, by breaking or crushing or sheing or rasping or filing or grinding or sifting, or other similar mechanical means, make it a new article, in the sense of the patent law. — *Milligan v. Upton*, 97 U. S. 3; 24 L. Ed. 985.

Where a manufacture is claimed without claiming the composition of matter, in view of the art the patent was held void. — *Brigham v. Coffin*, 149 U. S. 557; 37 L. Ed. 845; 13 S. Ct. 939.

Underwood v. Gerber, 149 U. S. 224.

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.

The patent in suit is for a manufacture, and therefore entitled to a more liberal construction or treatment in respect to the question of aggregation of parts, than if the invention were a machine. This distinction is stated by *Robinson on Patents*, sec. 185, n., but the definition can hardly be deemed clear enough for practical application. — *Campbell v. Bayley*, 63 Fed. 463; 11 C. C. A. 284.

An article of manufacture must be patentable, if patentable at all, apart from the mechanical means employed in its production. — *Andrews v. Thum*, 67 Fed. 911; 15 C. C. A. 67.

It is only when a new process introduces new characteristics into the manufactured article by which it can be identified and distinguished from all preceding manufactures that the article itself becomes patentably new. — *National v. New England*, 151 Fed. 19; 80 C. C. A. 485.

If a lace front stocking is claimed as a patentable product, when made on a seamless machine with a single thread, in a continuous operation, every other well known form of stocking can be considered a patentable product when so made, which would amount to a practically indefinite extension of the monopoly originally granted by the patent for the seamless stocking. It must be admitted that it is somewhat difficult to properly define in general terms what is or is not a patentable "manufacture," and distinguish it from the mere effect or result of a process or machine. The difficulty possibly arises from what *Robinson* calls the want of technical language that will clearly express all that the words "new and useful manufacture" in the patent law connote. But however this may be, the difficulty is best met, as in the interpretation of all statutes, by a close adherence to the ordinary and common sense meaning and usage of the words employed to express the legislative will. A new and useful product or manufacture must be differentiated from all other articles, by something that is fundamental and radical. In a machine-made, seamless, lace front stocking, we do not find this radical differentiation from the subject-matter of the patent in suit. — *Kilborn v. Liveright*, 165 Fed. 902; C. C. A.

Collar Co. v. Vandusen, 23 Wall. 530; *McCloskey v. Du Bois*, 8 Fed. 710; *Weierman v. Shaw*, 157 Fed. 928.

MARKING "PATENTED."

The Statute § 776

| Rulings Under the Statute § 777

§ 776. The Statute.

It shall be the duty of all patentees, and their assigns and legal representatives, and of all persons making or vending any patented article for or under them, to give sufficient notice to the public that the same is patented; either by fixing thereon the word "patented," together with the day and year the patent was granted; or when, from the character of the article, this can not be done, by fixing to it, or to the package wherein one or

more of them is enclosed, a label containing the like notice; and in any suit for infringement, by the party failing so to mark, no damages shall be recovered by the plaintiff, except on proof that the defendant was duly notified of the infringement, and continued, after such notice, to make, use, or vend the article so patented. R. S. 4900.

§ 777. Rulings under the Statute.

In view of the fact that all letters patent are recorded, with their specifications, in the Patent Office, a record which is notice to all the world, it is not an unreasonable requirement that the defendant, who relies upon a want of knowledge upon his part of the actual existence of the patent, should aver the same in his answer, that the defendant may be duly advised of the defense. — *Sessions v. Romadka*, 145 U. S. 29; 36 L. Ed. 609; 12 S. Ct. 799.

Providence v. Goodyear, 79 U. S. 788; *Allen v. Deacon*, 10 Sawy. 210.

Failure to mark article "patented" or to give notice is a bar to the recovery of more than nominal damages; and where the question of notice is in dispute it should be left to the jury. — *Coupe v. Royer*, 155 U. S. 565; 39 L. Ed. 263; 15 S. Ct. 199.

Providence v. Goodyear, 76 U. S. 801; *Sessions v. Romadka*, 145 U. S. 50; *Dunlap v. Schofield*, 152 U. S. 247.

The contention of the appellants that there is no proof that complainant gave public notice of his patent by marking his machines relates only to the question of damages. — *Inman v. Beach*, 71 Fed. 420; 18 C. C. A. 165.

The question is not whether the rules of pleading required the allegation of notice in a bill in equity which asked for damages and profits (that question is settled in *Dunlap v. Schofield*, supra); but it is whether the neglect to take notice of the omission, either by answer or by any other form, until after the final decree, was not a waiver of the want of notice. It was so held in *Rubber Co. v. Goodyear*, 9 Wall. 811, where the point of want of notice did not appear until the hearing before the master, and the court held that the triable issue must be confined to the pleadings. This was affirmed in *Sessions v. Romadka*, 145 U. S. 29. In *Dunlap v. Schofield*, supra, (a bill in equity to recover damages), the bill and answer made the proper averments and denials, but no proof was given, and the court held that the burden of proof rested upon the complainant. In *Coupe v. Royer*, 155 U. S. 583, the pleadings were silent; but the question was actually litigated upon the trial by contradictory evidence, and the court thought that it should have been submitted to the jury. In this case the pleadings were silent. The question never became one actually in issue, and was never raised in the circuit court.

It is too late to raise for the first time in an appellate court technical questions of pleading or proof which are not jurisdictional in their character, and which were not raised either in the pleadings or before the trial courts, where defects might have been remedied, and which must therefore, be considered to have been waived. It is therefore not necessary to consider whether the provisions of section 4900 are applicable only to cases in law or in equity, in which damages, as distinguished from profits, are the subject of investigation. — *Tuttle v. Claffin*, 76 Fed. 227; 22 C. C. A. 138.

The defendants seem to place stress upon the fact that the complainant's boxes had been marked with the dates of other patents beside that of the patent in suit. This solitary fact is of no importance if the patents are of no importance. — *National v. Elsas*, 86 Fed. 917; 30 C. C. A. 487.

That the failure to mark the articles or packages with the word "patented," in order to be employed as a bar against recovery, the fact must be distinctly pleaded, see — *Hart v. Anchor*, 92 Fed. 657; 34 C. C. A. 606.

Sessions v. Romadka, 145 U. S. 29.

As a result of a neglect to mark, or to notify the defendants in the absence of it, damages are denied by the statute; the infringement being otherwise presumptively innocent. An issue being made by the answer, a compliance with the statute is required to be affirmatively shown in order to lay ground for an account. It is immaterial that in the present instance the complainants neither license nor sell their machines, reserving the benefit of the patent for the advantage of their own business. The fact still remains that without notice, either direct or constructive, the defendants are entitled to be regarded as acting innocently, and so not liable to damages, by the express provision of the statute. — *American v. Mills*, 162 Fed. 147; 89 C. C. A. 171.

Dunlap v. Schofield, 152 U. S. 244; *U. S. Mitis v. Midvale*, 135 Fed. 103.

Note: This decision is distinctly a step in the right direction. It only remains to make "notice, either direct or constructive," positively sufficient to meet the demands of the statute.

There is no evidence in the record which shows or tends to show any actual or constructive notice to the defendant of the patent in suit prior to the filing of the bill of complaint. Under circumstances like these, however, an accounting of profits and damages subsequent to the date of the filing of the bill was allowed by this court in *American v. Mills*, 162 Fed. 147. The mandate in that case, by implication at least, clearly permitted such an accounting, and we have not been referred to any controlling authority to the contrary. Turning to the statute upon this point (R. S. 4900), this goes no further than to prohibit the recovery of damages without proof of notice. It prescribes no particular form of notice or any particular time for the accounting. To permit an accounting, therefore, after notice is given by the filing of the bill, if the complainant shall establish his right thereto, does not contravene the statute, since, notwithstanding such notice, the complainant can recover no damages unless it affirmatively shows infringement after notice.

As the proofs now stand, the complainant can recover no damages; but if he shall be able to show infringement after the bill was filed, we see no reason why it should not be permitted to do so, and recover the amount so shown, and in this suit. If the complainant's proofs, when taken, shall not affirmatively disclose infringement subsequent to the filing of the bill, it will be mulcted with costs, and the defendant will not have been injured. — *Maimen v. Union*, 165 Fed. 440; C. C. A.

MORTGAGE.

General Statement and Rulings § 778 | See — *Assignment* § 149

§ 778. General Statement and Rulings.

A mortgage interest is an assignable and recordable interest under Sec. 4898. It is a curious fact that all of the appellate law bearing directly upon this subject centers about the *Waterman Cases*.

The right conferred by letters patent for an invention is limited to a term of years; and a large part of its value consists in the profits derived from royalties and license fees. In analogy to the rules governing mortgages to lands and chattels, and even with stronger reason, the assignee of a patent by a mortgage duly recorded, whose security is constantly wasting by the lapse of time, must be held, (unless otherwise provided in the mortgage) entitled

to grant licenses to receive fees and royalties, and to have an account of profits or an award of damages against infringers. There can be no doubt that he is "the party interested either as patentee, assignee or grantee," and as such entitled to maintain an action at law to recover damages for an infringement; and it cannot have been the intention of Congress that a suit in equity against an infringer to obtain an injunction and an account of profits, in which the court is authorized to award damages, when necessary to fully compensate the plaintiff, and has the same powers to treble the damages as in an action at law, should not be brought by the same person. — *Waterman v. Mackenzie*, 138 U. S. 252; 34 L. Ed. 923; 11 S. Ct. 334.

Root v. Railway, 105 U. S. 189; U. S. R. S. sec. 4919.

A patent right is incorporeal property, not susceptible of actual delivery and possession, and the recording of a mortgage thereof in the Patent Office, in accordance with the Act of Congress is equivalent to a delivery of possession, and makes the title of the mortgagee complete towards all other persons, as well as against the mortgagor. — *Waterman v. Mackenzie*, 138 U. S. 252; 34 L. Ed. 923; 11 S. Ct. 334.

This instrument being a conveyance made to secure the payment of a debt, upon condition that it should be avoided by the subsequent payment of that debt at a time fixed, was a mortgage, in apt terms and in legal effect. — *Waterman v. Mackenzie*, 138 U. S. 252; 34 L. Ed. 923; 11 S. Ct. 334.

Conard v. Atlantic, 26 U. S. 386, 446.

Whether the court at the suggestion of mortgagor or mortgagee will join the mortgagor to prevent multiplicity of suits or the miscarriage of justice, *quaere*. — *Waterman v. Mackenzie*, 138 U. S. 252; 34 L. Ed. 923; 11 S. Ct. 334.

After the mortgagee has taken possession the mortgagor had no power to lease; and the mortgagor is entitled to have and is bound to account for the accruing rents and profits, and damages. — *Waterman v. Mackenzie*, 138 U. S. 252; 34 L. Ed. 923; 11 S. Ct. 334.

Keech v. Hall, 1 Doug. 21; *Turner v. Cameron's*, 5 Exch. 932; *Dawson v. Johnson*, 1 Fost. & F. 656; *Fairclough v. Marshall*, L. R. 4 Exch. Div. 37; *Sniggs v. Memphis*, 108 U. S. 368; *Teal v. Walker*, 111 U. S. 242; *Hutchings v. King*, 68 U. S. 53; *Gove v. Jennes*, 19 Me. 53; *Bagnall v. Villar*, L. R. 12 Ch. Div. 812; *Stelle v. Carroll*, 37 U. S. 201; *Van Ness v. Hyatt*, 38 U. S. 294; *Brobet v. Brock*, 77 U. S. 519.

The mortgage was subject to the license which had previously been granted to the complainant, and could in no manner operate to restrict or curtail the exclusive right of the complainant to make and sell the patented improvements, so long as the license should remain unrevoked. The recital in the mortgage of the existence of this license was notice of all its terms and conditions. — *Waterman v. Shipman*, 55 Fed. 982; 5 C. C. A. 371.

It is entirely clear upon the authority of *Waterman v. Mackenzie*, 138 U. S. 252, that by virtue of the mortgage, the whole title to the patents at the time of the execution of the instrument became vested in the mortgagees, subject only to be defeated by performance of the condition or by redemption within a reasonable time, and that the right of possession of the incorporeal property was in legal effect delivered to the mortgagees at the time of the recording of the mortgage in the Patent Office. — *Waterman v. Shipman*, 55 Fed. 982; 5 C. C. A. 371.

OATH.

Statutory Requirements and General
Rule § 779
Supplemental Oath § 780

See — Amendment § 52; Defenses
§ 306

§ 779. Statutory Requirements and General Rule.

The applicant shall make oath that he does verily believe himself to be the original and first inventor or discoverer of the art, machine, manufacture, composition or improvement for which he solicits a patent; and that he does not know and does not believe that the same was ever before known or used, and shall state of what country he is a citizen. Such oath may be made before any person within the United States authorized by law to administer oaths, or, when the applicant resides in a foreign country, before any minister, charge d'affaires, consul, or commercial agent holding commission under the Government of the United States, or before any notary public, *judge, or magistrate having an official seal and authorized to administer oaths in the foreign country in which the applicant may be, whose authority shall be proved by certificate of a diplomatic or consular officer of the United States.* — R. S. 4892, as amended Mar. 3, 1903.

By the Act 3 Mar. 1903, the clause in italics was substituted for the original clause which read: "of the foreign country in which the applicant may be."

Section 4895 provides for the granting of patents to assignees, and specifically provides that the application must be made and the oath sworn to by the inventor. It also provides that in cases of reissue the application must be made and the oath made by the inventor, if living.

Section 4896 provides for the making of oath by the representative of a deceased inventor or of an insane inventor.

The patent law makes it essential to the validity of a patent that it shall be granted on the application, supported by the oath of the original and first inventor (or of his executor or administrator) whether the patent is issued to him or to his assignee. A patent which is not supported by the oath of the inventor, but applied for by one who is not the inventor, is unauthorized by law, and void, and whether taken out in the name of the applicant or of any assignee of his, confers no rights against the public. — *Kennedy v. Hazelton*, 128 U. S. 667; 32 L. Ed. 576; 9 S. Ct. 202.

U. S. R. S. 4886, 4888, 4892, 4895, 4896, 4920.

The recitals upon the face of the patent, in the absence of fraud, are conclusive evidence that the necessary oaths were taken by the applicants before the letters patent were granted. — *Seymour v. Osborne*, 78 U. S. 516; 20 L. Ed. 33.

That Warren believed himself to be the discoverer of his composition is presumed from his oath to that effect, and that presumption must stand until overthrown by very clear evidence. — *Warren v. City*, 166 Fed. 309; C. C. A.

Smith v. Goodyear, 93 U. S. 486; *Elizabeth v. Pavement Co.* 97 U. S. 126.

§ 780. Supplemental Oath.

If the application as amended were to be construed as embodying such an invention as is now claimed, it was another and different invention from that for which the patent was originally sought, and, if an amendment having the consequence was permissible, it should have been verified by the oath of the inventor. — *American v. Steward*, 155 Fed. 731; 84 C. C. A. 157.

Ry. Co. v. Sayles, 97 U. S. 554; Eagleton v. West, 111 U. S. 490; Kennedy v. Hazelton, 128 U. S. 667; Mich. v. Consolidated, 57 Fed. 121; Cleveland v. Detroit, 131 Fed. 853.

Note: A dangerous decision. See 128 Fed. 599.

OPERATIVENESS.

General Statement § 781 Decisions § 782 See — Anticipation § 87; Defenses	§ 314; Reduction to Practice § 860; Reissue § 884
---	--

§ 781. General Statement.

Operativeness relates directly to utility; and while it is true that an inoperative device is lacking in patentable utility, the reverse does not necessarily follow. A device may be operative and still lack patentable utility. Furthermore, operativeness relates to the matter of proper disclosure of the invention in the patent. One may have, for example, a machine which possesses both utility and operativeness, but if the patent fails to show an operative machine — fails to show that which would enable one skilled in the art to which it appertains or is most nearly related to make and use the same — the invention viewed within the four corners of the grant is inoperative. The authorities under *Invention — Evidence of — Utility* and *Invention — Utility* should be examined in connection with this subject.

§ 782. Decisions.

The very fact that a machine is patented is some evidence of its operativeness, as well as of its utility. — Dashiell v. Grosvenor, 162 U. S. 425; 40 L. Ed. 1025; 16 S. Ct. 805.

When a model is constructed after a design shown in a patent, which is not perfectly operative, the inference is that there was an error in working out the drawings, and not that the patentee deliberately took out a patent for an inoperative device. — Dashiell v. Grosvenor, 162 U. S. 425; 40 L. Ed. 1025; 16 S. Ct. 805.

We are even further from an ability to determine that a mechanic of ordinary skill in the art could not make the patented machine in issue, and, with the aid of the specification, overcome the minor difficulty to which the appellant refers. The law does not require more than this. Persons possessed of the most brilliant conceptions are sometimes the poorest mechanics. — Packard v. Lacing, 70 Fed. 66; 16 C. C. A. 639.

Pickering v. McCullough, 104 U. S. 310; Telephone Cases, 126 U. S. 1; Rob. Pat. sec. 128-129.

That so long as operative means are disclosed, commercial efficiency is not required, especially in a pioneer invention, see — Von Schmidt v. Bowers, 80 Fed. 121; 25 C. C. A. 323.

Mergenthaler v. Publishing Co. 57 Fed. 502.

But it is erroneous to suppose that because the element, or the combination of elements, in a claim, do not of themselves constitute an operative thing, or one capable of any use, the claim is therefore void. — Canda v. Michigan, 124 Fed. 486; 61 C. C. A. 194.

It is asserted that the Bradley process is not operative. Having found that the defendant is using the process and it appearing that the annual output

of its works is now over 7,000,000 pounds, it seems unnecessary to enter upon an extended discussion of this proposition. — *Electric v. Pittsburg*, 125 Fed. 926; 60 C. C. A. 636.

It is frequently a characteristic of generic inventions that their first embodiments work imperfectly, and where the imperfections may be remedied, as in this case, by what amounts to a mere readjustment of relative sizes, such change does not affect the character of the underlying creative conception. — *Scott v. Fisher*, 145 Fed. 915; 76 C. C. A. 447.

PATENT OFFICE.

The Statutes § 783
Arbitrary Conduct § 784
Decisions of § 785
Rules § 786
Miscellaneous § 787

See — *Adjudication* § 30; *Claims* §§ 207-10; *Commissioner of Patents* § 258; *Injunction* § 575; *Interferences* § 580; *Invention* § 630; *Res Judicata* § 895

§ 783. The Statutes.

The Secretary of the Interior is charged with the supervision of business relating to the following subjects:

* * * * *

Fifth. Patents for invention. — R. S. 441.

There shall be in the Department of the Interior an office known as the Patent Office, where all records, books, models, drawings, specifications, and other papers and things pertaining to patents shall be safely kept and preserved. — R. S. 475.

There shall be in the Patent Office a Commissioner of Patents, one Assistant Commissioner, and three examiners-in-chief, who shall be appointed by the President, by and with the advice and consent of the Senate. All other officers, clerks, and employees authorized by law for the Office shall be appointed by the Secretary of the Interior, upon the nomination of the Commissioner of Patents. — R. S. 476.

Section 440 specifies the salaries of these officers. Sec. 478 provides a seal. Sec. 486 creates the scientific library. Secs. 489 and 496 relate to printing and disbursements. While there are numerous other provisions for the conduct of the Office, they need not be quoted here.

No writer on the subject of patents would do his full duty who did not raise his voice in solemn protest against the present inefficient provision made by Congress for the needs of the Office.

§ 784. Arbitrary Conduct.

The statute gives the right to join inventions in one application in cases where the inventions are related, and it cannot be denied by a hard and fixed rule which prevents such joinder in all cases. Such a rule is not the exercise of discretion; it is a determination not to hear. The unity of the inventions claimed is not denied. It is manifest that if an appeal cannot be compelled from the decision of the primary examiner, an applicant is entirely without remedy. It was the duty of the primary examiner to accord a hearing or, refusing to do so, to grant an appeal. — *Steinmetz v. Allen*, 192 U. S. 543; 48 L. Ed. 555; 24 S. Ct. 416.

§ 785. Decisions of.

Controlling in subsequent suit between same parties in absence of other thoroughly convincing testimony. — *Morgan v. Daniels*, 153 U. S. 120; 38 L. Ed. 657; 14 S. Ct. 772.

That office employs the best experts in mechanics which it can secure in this and other countries. Its examinations are, indeed, ex parte in form, but they are nevertheless conducted under hot and skilled contestation in every case of importance; and its decisions, though not conclusive, are entitled to great respect. That ruling takes rank here as the testimony of experts of the highest experience, skill and knowledge in mechanics. — *Boyden v. Westinghouse*, 70 Fed. 816; 17 C. C. A. 430.

§ 786. Rules.

If there is a divergence of views between the courts and the Patent Office and the divergence proceeds from a different interpretation of the statute, the view of the courts ought to prevail. — *Steinmetz v. Allen*, 192 U. S. 543; 48 L. Ed. 555; 24 S. Ct. 416.

The Patent Office has not been consistent in its views in regard to the division of inventions. At times convenience of administration has seemed to be of greatest concern; at other times more anxiety has been shown for the rights of inventors. The policy of the office has been denominated that of "battledore and shuttlecock" and rule 41 as it now exists was enacted to give simplicity and uniformity to the practice of the office. Its enactment was attempted to be justified by the assumption that the patent laws gave the office a discretion to permit or deny a joinder of inventions. But, as we have already said, to establish a rule applicable to all cases is not to exercise discretion. Such a rule ignores the differences which invoke discretion, and which can alone justify its exercise, and we are of opinion therefore that rule 41 is an invalid regulation. — *Steinmetz v. Allen*, 192 U. S. 543; 48 L. Ed. 555; 24 S. Ct. 416.

If there is inconsistency between the (Patent Office) rules and Statute, the latter must prevail. — *Steinmetz v. Allen*, 192 U. S. 543; 48 L. Ed. 555; 24 S. Ct. 416.

§ 787. Miscellaneous.

The judgment of the patent office, the tribunal established by Congress to determine such questions, was adverse to the contention of the government, and such judgment cannot be reviewed in this suit. — *United States v. Am. Bell*, 167 U. S. 224; 42 L. Ed. 144; 17 S. Ct. 809.

The six months within which the final fee for a patent must be paid as prescribed by R. S. sec. 4897 means six calendar months. — *Economy v. Lamprey*, 65 Fed. 1000; 13 C. C. A. 271.

Guaranty v. Green, 139 U. S. 137; Seemingly overruling *Walk. Pat. sec. 125*; *Rob. Pat. sec. 585*; 2 *Bouv. Law. sec. 7*.

Unless the Patent Office itself is satisfied of the patent's validity, the public should not be burdened with a monopoly, with the expectation that the courts will invalidate it. — *Weissenthanner v. Dodge*, 161 Fed. 915; 88 C. C. A. 388.

PLEADING AND PRACTICE.

General Statement § 788
 Amendment § 789
 Bill of Review § 790
 Demurrer § 791
 Infringement § 792 (*see* § 445)
 Laches § 793
 Multifariousness § 794 (*see* § 804)
 Notice § 795
 Parties
 Complainant § 796
 Defendant § 797
 Joinder § 798
 Patentability § 799
 Pleas § 800 (*see* § 21)
 Profert § 801
 Replication § 802
 Sufficiency § 803
 Suit on Plurality of Patents § 804
 (*see* § 794)

Supplemental Bills § 805
 Title § 806 (*see* § 925)
 Miscellaneous Rules of Practice and Pleading § 807
See — Abatement § 21; *Actions* § 24; *Adjudication* § 28; *Appeals* § 109; *Arbitration* § 145; *Comity* § 250; *Costs* § 272; *Damages* § 278; *Decrees* § 301; *Defenses* § 306; *Demurrer* § 323; *Equity* § 370; *Estoppel* § 381; *Fraud* § 425; *Infringement* §§ 483-4, 516; *Injunction* § 533; *Interferences* §§ 582-3; *Interfering Patents* § 586; *Jurisdiction* § 713; *Laches* § 726; *Law Actions* § 733; *Marking "Patented"* § 776; *Profits* § 825; *Rehearings* § 868; *Reopening Case* § 890; *Res Judicata* § 893

§ 788. General Statement.

This work deals with the subjects of pleading and practice only so far as the appellate courts have ruled on those subjects in patent causes. The following sections, therefore, cover only a small portion of the law applicable to such actions, and should not be relied upon by the practitioner as being in any sense complete.

§ 789. Amendment.

A motion to amend, or file an answer after default, is generally addressed to the discretion of the court. — *Dean v. Mason*, 61 U. S. 198; 15 L. Ed. 876.

Defendants admitted making the patented device and justified under the plea of title. Becoming satisfied that their title was bad they moved to amend by denying validity of the patent and also denying infringement.

Held: that amendment denying validity could be made but that the admission of infringement must stand. — *Jones v. Morehead*, 68 U. S. 155; 17 L. Ed. 662.

It would be subversive of all sound practice, and tend largely to defeat the ends of justice, if the court should refuse to accept a fact as settled which is distinctly alleged in the bill and admitted in the answer. — *Jones v. Morehead*, 68 U. S. 155; 17 L. Ed. 662.

Crockett v. Lee, 7 Wheat. 523.

Issues not raised by the pleadings cannot be brought in when the case is before a master. — *Rubber v. Goodyear*, 76 U. S. 788; 19 L. Ed. 566.

The bill did not set up specifically the second reissue, but the case was tried on the theory that such reissue had been pleaded. Amendment setting forth such reissue was allowed after decree on the ground that the defendant was not injured and such pleading conformed to the proofs. — *Tremain v. Hitchcock*, 90 U. S. 518; 23 L. Ed. 97.

It is competent to allow an amendment to answer *nunc pro tunc* giving notice of prior use. — *Roemer v. Simon*, 95 U. S. 214; 24 L. Ed. 384.

Teese v. Huntington, 23 How. 2.

We have already found that, as the record stands, it contains no proof to sustain an allegation of this character. Therefore an amendment of this nature would require the opening of the record below for further proofs. It is not at all a case where a complainant has proved his case, but his allegations are found by the appellate court to be inapt. To grant this motion would, under the circumstances, violate all rules requiring diligence from parties complainant. — *American v. U. S.*, 68 Fed. 542; 15 C. C. A. 569.

We think the distinction must be kept closely in view between amendments allowable before an appeal and those for which a case is to be kept along thereafter. This case comes within the closing remarks of our opinion in *Am. Bell Tel. Co. v. U. S.* 68 Fed. 542, 570, as follows: We have already found that, as the record stands, it contains no proof to sustain an allegation of this character. Therefore an amendment of this nature would require the opening of the record below for further proofs. It is not at all a case where a complainant has proved his case, but his allegations are found by the appellate court to be inapt. To grant this motion would, under the circumstances, violate all the rules requiring diligence from parties complainant. — *Martin v. Martin*, 71 Fed. 519; 18 C. C. A. 234.

The appellee now moves for leave to amend his brief in this court by introducing a prior patent, which he maintains, shows the improvement which the claims in issue would cover on the construction of them, which the appellant contends for. The appellee does not offer this as "proof," in the proper sense of the word, and, of course, if so offered, it could not be received in the court, unless by consent of both parties. — *Parsons v. Seelye*, 100 Fed. 452; 40 C. C. A. 484.

U. S. v. Hopewell, 51 Fed. 798; *Nashua v. Boston*, 61 Fed. 237.

The granting leave to file an amended and supplemental bill is within the discretion of the court. *Railroad v. Newman*, 77 Fed. 791. The granting or refusing leave to file an amended bill or plea is a matter within the discretion of the trial court, and will not be reviewed in an appellate court unless there has been gross abuse of this discretion. *Chapman v. Barney*, 129 U. S. 677; *Gormley v. Bunyan*, 138 U. S. 623; *Marco v. Hicklin*, 56 Fed. 549. As a general rule matters resting in the discretion of the court below cannot be re-examined in the appellate court. *Cheang-Kee v. U. S.* 3 Wall. 320. In the case at bar the court exercised its discretion after careful examination. A petition was filed asking leave to file the amended and supplemental bill. Notice was given. A day was fixed for the hearing, and full discussion was had. We see no abuse of discretion in the court. — *Berliner v. Seaman*, 113 Fed. 756; 51 C. C. A. 440.

Bates, Fed. Eq. Pr. sec. 637.

§ 790. Bill of Review.

New evidence, discovered after the hearing before the master is closed, may, in proper cases, be ground for bill of review, on which issue may be joined and evidence adduced by both parties in the usual way. — *Thompson v. Wooster*, 114 U. S. 104; 29 L. Ed. 105; 5 S. Ct. 788.

The subject matter of a litigation having been disposed of on appeal in another suit, after appeal in this suit, a supplemental bill in the form of a bill of review will be ordered. — *Ballard v. Searles*, 130 U. S. 50; 32 L. Ed. 846; 9 S. Ct. 418.

The case being affirmed on an issue not raised, but raised by the court, a special mandate will be made to allow a bill of review. — *Woodward v. Boston*, 63 Fed. 609; 11 C. C. A. 353.

The question has been made whether, ordinarily, equity requires that a bill of review should be permitted to be filed on a new issue which might have been presented in the principal cause, but was not. On general principles, it would seem that there would be no equity in this behalf, unless in very exceptional cases. Nevertheless later authorities do not permit a formulated rule of this character, and as no fixed formula can ever be laid down, limiting equity as to relief against error, fraud, or misfortune, all that can be said in this behalf is that, under the circumstances, the fact that the petitioner for the review was originally contented to rest his case on certain issues ought to bar him from calling on equity to aid him to present new issues after he has been defeated as the result of protracted litigation in the principal causes. — *Boston v. Bemis*, 98 Fed. 121; 38 C. C. A. 661.

The new matter should be such as if known, "might probably have produced a different determination;" and that there would be "a reasonable probability that the proofs if they sustained the allegations of the petition, would require reconsideration from us if the case should come here again." — *Boston v. Bemis*, 98 Fed. 121; 38 C. C. A. 661.

Story Eq. Pl. 10th ed. sec. 413; Daniell Chan. Prac. 6 ed. 1577; *Re Gamewell*, 73 Fed. 908.

With reference to the nature and degree of diligence which must be shown in a petition of this character, Lord Bacon's rule requires that the new proof "could not possibly have been used at the time when the decree was passed." Story says that it must be such as the party, by the use of reasonable diligence, could not have known. The necessity for enforcing this rule strictly, with reference to anticipatory matter, was stated in *re Gamewell*, 73 Fed. 908; and the new defence now sought to be raised is of the same family. — *Boston v. Bemis*, 98 Fed. 121; 38 C. C. A. 661.

Purcell v. Uliner, 4 Wall. 519; Story Eq. Pl. 10 ed. sec. 414; *Young v. Keighly*, 16 Ves. 348.

The record shows that not until after the patent had been long contested did the real defendant, the Brill Company, make any effort to discover prior use where it would be most likely to be found. When defendant did go to the residence of the inventor at the time he obtained his patent, it only required a single day to at once discover substantially all of the material evidence presented on the petition. It was held that in view of this fact, and in view of the fact that defendant was dealing with the railroad companies, constantly, by whom such prior use would have been had, presented a case where due diligence was palpably wanting. — *Boston v. Bemis*, 98 Fed. 121; 38 C. C. A. 661.

The question of laches is ordinarily for the court below. In the case at bar, however, we have a form of petition, setting out all the facts necessary to dispose of the question of laches, while, as already said, the affidavits are so contradictory that the court cannot properly dispose of that of materiality, although ordinarily it is for the appellate tribunal. — *Boston v. Bemis*, 98 Fed. 121; 38 C. C. A. 661.

The patent in suit, it was averred by the petitioner, expired pending appeal by reason of the expiration of a foreign patent. The petitioner did not inform the court of such fact at the time of argument on appeal; and the court held

that such conduct constituted sufficient laches to prevent the granting of the petition to lift the injunction or limit the accounting. — *Westinghouse v. Stanley*, 138 Fed. 823; 71 C. C. A. 189.

In *re Gamewell*, 73 Fed. 908; *Boston v. Bemis*, 98 Fed. 121; *Mossberg v. Nutter*, 124 Fed. 966; *Kisinger-Ison v. Bradford*, 123 Fed. 91; *Ricker v. Powell*, 100 U. S. 104; *Story*, Eq. Pl. sec. 406.

§791. Demurrer.

If it be suggested that the claim of the patent is for the boot described, and that the bill merely alleges that the defendant has made, used and sold boots containing and embracing the invention covered by the patent, instead of alleging that the defendant had made, used and sold the invention on the patented boot, we are of opinion that there is no force in the objection. The bill is entirely sufficient to put the defendant upon his answer. — *McCoy v. Nelson*, 121 U. S. 484; 30 L. Ed. 1017; 7 S. Ct. 1000.

Where demurrer was had to a bill on the ground that the invention was not patentable, we think that the demurrer should have been overruled, and that the defendants should have been put to answer the bill. Whether or not the design is new is a question of fact, which, whatever our impressions may be, we do not think it proper to determine by taking judicial notice of the various designs which may have come under our observation. It is a question which may and should be raised by answer and settled by proper proofs. — *New York v. New Jersey*, 137 U. S. 445; 34 L. Ed. 741; 11 S. Ct. 193.

§ 792. Infringement.

The circuit court held that the bill could not be maintained for several infringements by portions of the respondents because they are described as a copartnership. Nevertheless it sets out that they infringed "jointly and severally," so that the reference to them as copartners is merely *descriptio personarum*, which cannot override a positive allegation. — *Hobbs v. Gooding*, 111 Fed. 403; 49 C. C. A. 414.

Simonds v. Hathorn, 93 Fed. 958.

The averment of the bill charged the defendant with infringement "within the said Eastern District of Michigan, and since the first day of January, 1893." It is not fairly open to the construction that the infringement charged began on the 1st day of January, 1893, and has continued ever since. The natural and reasonable construction is that the infringement charged occurred after or subsequent to January 1, 1893, without specifying precisely when. — *U.S. Mitts v. Detroit*, 122 Fed. 863; 59 C. C. A. 589.

Kaolatype v. Hoke, 30 Fed. 444; *Wycoff v. Wagner*, 88 Fed. 515.

In some rare instances where the cases seem to have been exceptional, the plaintiff in an infringement suit has been required to specify in limine the claims relied on, but there is no such precedent in this circuit for such an order. Applications therefor were denied by the Circuit Court in *Johnson v. Columbia* and *Johnson v. National*, 106 Fed. 319. — *Morton v. American*, 129 Fed. 916; 64 C. C. A. 367.

The argument rests upon the omission to aver in the bill that infringement occurred "at New York City in the Southern District of New York and elsewhere" — the words "and elsewhere" being omitted. But the defendants denied that they had infringed at New York City or elsewhere, and the case was tried in all respects as if the question were properly presented

by the pleadings. It would be a hardship to all concerned to subject them to the expense and annoyance of a new action when the addition of the two words "and elsewhere" will make the bill criticism proof. — *O'Rourke v. McMullen*, 160 Fed. 933; 88 C. C. A. 115.

§ 793. Laches.

The defense of laches need not even be set up in the pleadings when it is apparent that the court may upon its own motion refuse relief on that ground. — *Sullivan v. Railroad*, 94 U. S. 806; 24 L. Ed. 324.

Laches is a defense which may be made by demurrer, or by plea, or by answer, or presented by argument, either upon a preliminary or final hearing. — *Woodmansee v. Williams*, 68 Fed. 489; 15 C. C. A. 520.

Keyes v. Eureka, 158 U. S. 150; *McLaughlin v. Railway*, 21 Fed. 574; *Lane v. Locke*, 150 U. S. 193; *Maxwell v. Kennedy*, 8 How. 222; *Walker*, 597; *Curtis*, 440.

§ 794. Multifariousness.

We do not regard a bill multifarious which seeks to enjoin an unauthorized person from using a patented article, and also from using the generic name of that article. — *Adam v. Folger*, 120 Fed. 260; 56 C. C. A. 540.

Animarium v. Neiman, 98 Fed. 14; *Javos v. Fleece*, 60 Fed. 622; *Weir v. Gas Co.* 91 Fed. 940; *Dennison v. Thomas*, 94 Fed. 651; *Harper v. Holman*, 84 Fed. 222; *U. S. v. American*, 128 U. S. 315; *Oliver v. Piatt*, 3 How. 333.

§ 795. Notice.

Defendants undertook to prove specific prior use by witness without statutory notice. *Held*: Inadmissible. — *Railroad v. Stimpson*, 14 Pet. 448; 10 L. Ed. 535.

The defendant gave notice of a prior publication by reference merely to a book of some 1300 pages, giving neither page nor topic. Rejected as insufficient. — *Silsby v. Foote*, 14 How. 218; 14 L. Ed. 394.

The notice merely gave the name and place of residence of the person alleged to have had prior knowledge and use; *Held*: that the notice should also have stated where the use was had. — *Silsby v. Foote*, 14 How. 218; 14 L. Ed. 394.

Prior invention cannot be set up and proved, unless properly pleaded under the statute of notice. — *O'Reilly v. Morse*, 15 How. 62; 14 L. Ed. 601.

A court order is not required either for the original or an amended notice under the statute. — *Teese v. Huntington*, 23 How. 2; 16 L. Ed. 479.

It is not necessary to state the time, in addition to the person and place, in the statutory notice, or if stated by the defendant, restricted in proof to the time specified. — *Phillips v. Page*, 65 U. S. 164; 16 L. Ed. 636.

When, in addition to the particular town or city, the name and residence of the witness by whom that use is to be proved is also given there is sufficient precision and certainty in the notice. — *Wise v. Allis*, 76 U. S. 737; 19 L. Ed. 784.

Phillips v. Page, 24 How. 164.

Nor do we think that a party giving notice is bound to be so specific as to relieve the other from all inquiry or effort to investigate the facts. — *Wise v. Allis*, 76 U. S. 737; 19 L. Ed. 784.

The purpose of the statutory notice is to apprise plaintiff fairly of what he may expect to meet. — *Wise v. Allis*, 76 U. S. 737; 19 L. Ed. 784.
Teese v. Huntington, 23 How. 10.

The defense of want of novelty can be raised only upon the statutory notice. — *Blanchard v. Putnam*, 75 U. S. 420; 19 L. Ed. 433.

Corning v. Burden, 15 How. 271; *Teese v. Huntington*, 23 How. 10; *Agawam v. Jordan*, 7 Wall. 583; *R. R. v. Stimpson*, 14 Pet. 459; *Silsby v. Foote*, 14 How. 222; *Phillips v. Page*, 24 How. 168.

The defendant must comply with the requirements of the statute to raise the defense of anticipation. — *Agawam v. Jordan*, 74 U. S. 583; 19 L. Ed. 177.

Wilton v. R. R. 1 Wall. Jr. 195; *Teese v. Huntington*, 23 How. 10.

It is an abuse of the privilege of giving such notice without some reason to suppose some defense can be successfully made and the proofs obtained, as it exposes the complainant to unnecessary expense and trouble in preparing for trial. — *Seymour v. Osborne*, 78 U. S. 516; 20 L. Ed. 33.

Parties defendant, such as infringers, are not allowed in an action at law to set up the defense of a previous invention, knowledge or use of the thing patented unless they have given notice of such a defense 30 days before the time, and have stated in the notice "the names and places of residence of those whom they intend to prove to have possessed a prior knowledge of the thing and where the same had been used;" and the settled practice in equity is to require the respondent, as a condition precedent to such a defense, to give the complainant substantially the same information in his answer. — *Seymour v. Osborne*, 78 U. S. 516; 20 L. Ed. 33.

Agawam v. Jordan, 7 Wall. 596; *Teese v. Huntington*, 23 How. 10.

In the absence of notice on pleading in equity, evidence to assail novelty cannot be considered. — *Eureka v. Bailey*, 78 U. S. 488; 20 L. Ed. 209.

The statute requiring notice was not intended to apply to cases involving matters of common knowledge. The court can take judicial notice of it and give it the same effect as if it had been set up as a defense in the answer and the proof were plenary. — *Brown v. Piper*, 91 U. S. 37; 23 L. Ed. 200.

Glue Co. v. Upton, 6 O. G. 843; *Needham v. Washburn*, 7. O. G. 651.

Parties defendant sued as infringers are not allowed, in an action at law, to set up the defense of a prior invention, knowledge or use of the thing patented unless they have given the statutory notice. — *Roemer v. Simon*, 95 U. S. 214; 24 L. Ed. 384.

R. S. sec. 4920; *Seymour v. Osborne*, 11 Wall. 516; *Blanchard v. Putnam*, 8 Wall. 420.

It is well settled law that the failure to interpose objection before the final hearing is a waiver of the required notice in an equity suit. — *Roemer v. Simon*, 95 U. S. 214; 24 L. Ed. 384.

Brown v. Hall, 6 Blatchf. 405.

The requirement as to names and residences of persons having prior knowledge etc. does not include names of witnesses called by the defense to make such proof. — *Roemer v. Simon*, 95 U. S. 214; 24 L. Ed. 384.

Teese v. Huntington, 23 How. 2.

Persons sued as infringers in a suit in equity, if they give the required notice in their answer, may prove at the final hearing the same matters in defense to the charge of infringement as those which the defendant, in an action at law, may set up under like conditions. — *Bates v. Coe*, 98 U. S. 31; 23 L. Ed. 68.

Section 4920 R. S. declares that the proofs of previous invention, knowledge or use of the thing patented, may be given upon notice, in the answer of the defendant, stating the names and residences of the persons alleged to have invented, or to have had the prior knowledge of the thing patented, and where and by whom it had been used. The statute does not declare that the names of the witnesses who may be called to testify to such prior invention or use shall be stated in the answer. It is only the names and residences of the persons alleged to have invented or to have had prior knowledge of the thing patented that are required. — *Woodbury v. Keith*, 101 U. S. 479; 25 L. Ed. 939.

Wilton v. R. R. 1 Wall. Jr. 195; *Many v. Jagger*, 1 Blatchf. 376; *Roemer v. Simon*, 95 U. S. 218.

When the answer admitted and the proofs showed defendant had made and sold the device of the patent in suit five years, four years of said time being prior to the date of the patent, it was held such answer was sufficient as to notice and the proofs as to prior use. — *Anderson v. Miller*, 129 U. S. 70; 32 L. Ed. 635; 9 S. Ct. 224.

These two patents were not set up in the answer, and cannot, therefore, be availed of as an anticipation to invalidate the claim upon the ground of want of novelty. *Grier v. Wilt*, 120 U. S. 429. But they are admissible in evidence as showing the state of the prior art; and when the court, advised as to the prior art, reaches the conclusion that the improvement on such prior art described in the patent sued on did not embody or require invention, and was not patentable, it is the duty of the court to dismiss the cause on that ground. "The question whether the invention which is the subject-matter in controversy is patentable, or not, is always open to the consideration of the court, whether the point is raised by answer or not." — *Jones v. Cyphers*, 126 Fed. 753; 62 C. C. A. 21.

Slawson v. Grand, 107 U. S. 652; *Mahn v. Harwood*, 112 U. S. 358; *Hendy v. Miners'*, 127 U. S. 375.

The law is well settled that the defendant to a suit for infringement must give notice in his answer of any defense by way of prior patents, publications, or public use, if he desires to prove any of such defenses to show want of novelty or invention in the patent sued on. Otherwise such defenses are receivable in evidence only to show the state of the art, and to aid in the proper construction of the patent. — *Morton v. Llewellyn*, 164 Fed. 693; C. C. A.

Grier v. Wilt, 120 U. S. 412; *Vance v. Campbell*, 1 Black, 427; *Railroad v. Dubois*, 12 Wall. 47; *Brown v. Piper*, 91 U. S. 37; *Eachus v. Broomall*, 115 U. S. 429.

§ 796. Parties — Complainant.

Grants as well as assignments must be in writing, and they must carry the exclusive right under the patent, to make, use and vend to others to be

used, the thing patented, within and throughout some specified district or portion of the U. S. and such right must be exclusive of the grantee, as well as of all others except the grantee. Suits for infringement in such districts, if committed subsequent to the grant, can only be brought in the name of the grantee, as it is clear that no one can maintain such an action until his rights have been invaded, nor until he is interested in the damages to be recovered. — *Moore v. Marsh*, 74 U. S. 515; 19 L. Ed. 37.

Assignee of territorial right, for a particular district, could not bring an action on the patent in his own name; but the Act of Congress having made him a party interested in the patent, it is now equally well settled that he may sue in his own name for invasion of the patent in that territorial district, as no one else is injured by any such infringement. — *Moore v. Marsh*, 74 U. S. 515; 19 L. Ed. 37.

Tyler v. Tuel, 6 Cranch, 324; *Gayler v. Wilder*, 10 How. 477; Curt. Pat. 346.

When the patentee has assigned his whole interest, either before or after the patent has issued, the action must be brought in the name of the assignee, because he alone was interested in the patent at the time the infringement took place; but when the assignment is of an undivided part of the patent, the action should be brought for every infringement committed subsequent to the assignment in the joint names of the patentee and assignee, as representing the entire interest. — *Moore v. Marsh*, 74 U. S. 515; 19 L. Ed. 37.

Herbert v. Adams, 4 Mas. 15; Curt. Pat. 347; *Gayler v. Wilder*, 10 How. 477; *Whittemore v. Cutter*, 1 Gall. 430; *Woodworth v. Wilson*, 4 How. 712.

Correct interpretation of the words "person or persons interested" is, that the words mean the person or persons interested in the patent at the time when the infringement was committed, which is the cause of action for which the damages may be recovered. — *Moore v. Marsh*, 74 U. S. 515; 19 L. Ed. 37.

Dean v. Mason, 20 How. 198.

Licensees must enforce their rights through the name of the patentee (or assignee). — *Paper Bag Cases*, 105 U. S. 766; 26 L. Ed. 959.

Littlefield v. Perry, 88 U. S. 223.

A licensee of a patent cannot bring a suit in his own name at law or in equity, for its infringement by a stranger; an action at law for the benefit of the licensee must be brought in the name of the patentee alone; a suit in equity may be brought by the patentee and the licensee together. — *Birdsall v. Shaliol*, 112 U. S. 485; 28 L. Ed. 768; 5 S. Ct. 244.

Gayler v. Wilder, 10 How. 477; *Littlefield v. Perry*, 21 Wall. 205; *Paper Bag Cases*, 105 U. S. 766.

The objection that the plaintiff is not entitled to maintain this suit because it does not itself manufacture is without force. Its right to sue for the protection of its licensees is unquestionable. — *Adams v. Tannage*, 81 Fed. 178; 26 C. C. A. 326.

That the granting of a license carries with it the right for the licensee to join the licensor as co-complainant, see — *Excelsior v. Ailen*, 104 Fed. 553; 44 C. C. A. 30.

Nor is a court of equity divested of its power to decree appropriate and final relief from the fact, if it be a fact, that the patentee has conspired with

the defendant to infringe the rights of the licensee. The former practice of courts of Chancery which required the dismissal of a bill in case of the joinder of complainants whose interests were antagonistic, has given place to a more equitable procedure, which recognizes the power of the court to so arrange the parties to the suit as their interests demand, to make a complainant a defendant, and to decree relief to all parties before it, whether they appear as complainants or defendants so long as they are all the necessary parties to the controversy. — *Excelsior v. Allen*, 104 Fed. 553; 44 C. C. A. 30.

Boughton v. Allen, 11 Page 321; *Osgood v. Franklin*, 2 John. Ch. 1; *Bowen v. Ibley*, 1 Edw. Ch. 148; *LeFort v. Delafield*, 3 Edw. Ch. 22; *Parkman's Admr. v. Aicardi*, 34 Ala. 393; *Snydam v. Dequidre*, Har. Rep. 347; *U. S. v. Union*, 98 U. S. 569.

§ 797. Parties — Defendant.

The suit was brought against the company and three individual defendants. The court below limited its decree in favor of the complainant to the joint infringement of all the defendants. We see no sufficient reason, under the present bill, why the defendant Hathorn should not account for his several or individual infringements. We understand this to be the general rule. — *Simonds v. Hathorn*, 93 Fed. 958; 36 C. C. A. 24.

Herring v. Gage, Fed. Cas. 6,422; *Tatham v. Lowber*, Fed. Cas. 13,765; *New York v. American*, 42 Fed. 455.

Maxwell was properly enjoined as an infringer by reason of his connection with the two corporations. — *National v. Polk*, 121 Fed. 742; 58 C. C. A. 24.

Rob. Pat. sec. 897; *Trent v. Risdon*, 102 Fed. 635; *Toppan v. Tiffany*, 39 Fed. 420.

An injunction against the corporation restrains all its officers, agents and servants and there is little justification for making these persons defendants except in rare instances where it is shown that they have infringed the patent as individuals or have personally directed infringement. The courts of this circuit have frequently had occasion to criticise this practice and have, in some instances, imposed costs upon the complainant as a penalty for thus subjecting innocent parties to the expense and annoyance of defending themselves against an unwarrantable accusation. (Costs were imposed in this case.) — *Hutter v. De Q. Bottle*, 128 Fed. 283; 62 C. C. A. 652.

Farmers' v. Spruks, 119 Fed. 594; *Consolidated v. Columbian*, 79 Fed. 795; *Bowers v. Atlantic*, 104 Fed. 887; *King v. Anderson*, 90 Fed. 500; *Greene v. Buckley*, 120 Fed. 955; *Rowbotham v. Iron*, 71 Fed. 59; *Linotype v. Ridder*, 65 Fed. 853; *Howard v. Plow*, 35 Fed. 743.

The facts recited in the statement of the case satisfy us that the company is simply an incorporation of Duncan. Therefore the corporation should be enjoined, just as its officers, directors, and stockholders would be, if, as individuals and without resorting to the corporate form, they were aiding and abetting Duncan in the infringement. — *Siemens-Halske v. Duncan*, 142 Fed. 157; 73 C. C. A. 375.

Telegraph v. Himmer, 19 Fed. 322; *Parker v. McKee*, 24 Fed. 808; *Burr v. Kimbark*, 28 Fed. 574; *Burdsall v. Curran*, 31 Fed. 918; *Woodward v. Boston*, 60 Fed. 283; *National v. Connecticut*, 73 Fed. 491; *Daniel v. Miller*, 81 Fed. 1000; *Alvin v. Scharling*, 100 Fed. 87.

§ 798. Parties — Joinder.

One holding the exclusive right to a specific territory may be joined as party plaintiff in a suit for infringement within his territory in an action

by the holder of the superior title. — *Woodworth v. Wilson*, 4 How. 712; 11 L. Ed. 1171.

It is the rule that none should be made parties plaintiff or defendant in equity who have no interest in the controversy or who cannot be affected by the decree. In cases where the want of interest applies it is equally fatal when applicable to plaintiffs or defendants. In the former case it is fatal to the whole suit; in the latter it is fatal, if taken in due time, only against the defendant improperly joined. Objection ought to be taken by demurrer, for if not so taken, and the court proceeds to a hearing on the merits it will be disregarded, at least if it does not materially affect the propriety of the decree. In the case before us the objection of misjoinder appears nowhere upon the pleadings, and is urged for the first time after final decree. As to this objection, therefore, it comes too late. — *Livingston v. Woodworth*, 15 How. 546; 14 L. Ed. 809.

Story Eq. ch. 4, sec. 231; *Raffity v. King*, VI L. J. 93; *Morley v. Hawkes*, Y. & J. 520; *Alywin v. Bray*, Y. & J. 518.

In an equity suit by the patentee, the court may order the joinder of a licensee. — *Birdsall v. Shaliol*, 112 U. S. 485; 28 L. Ed. 768; 5 S. Ct. 244.

Hammond v. Hart, 4 Ban. & A. 111.

The O. S. Co. brought this action against defendant S. P. Co. for infringement in transporting cars made by Whittier, Fuller & Co. which were alleged to infringe complainant's patent. Preliminary injunction issued on \$5000 bond filed by complainant. Defendant answered setting up fact of ownership of the cars in Whittier, F. & Co. and the fact that defendant as a common carrier was obliged to transport the cars. Thereupon Whittier, Fuller & Co. petitioned to intervene and defend. Petition was granted and complainant ordered to file a new bond for \$20,000. *Held*: We find no difficulty, under the circumstances, in determining that Whittier, Fuller & Co. were properly admitted as defendants in the action, and that the court had authority, under its equitable jurisdiction, to require a new bond of the complainant, to meet the new conditions of the case. — *Standard v. Southern*, 54 Fed. 521; 4 C. C. A. 491.

The patent was assigned conveying the entire right, title and interest of the assignor, but with a license fee provision, and conditions subsequent by which the title might revert to the assignor. The assignor was made a party to the action. On demurrer it was *held*: That the so-called license was an absolute grant, and that the assignor was not a necessary party to the action. — *Sichler v. Deere*, 113 Fed. 285; 51 C. C. A. 242.

It is true that a licensee cannot prosecute a suit in equity in his own name against a third party for infringement, but must at least join the patentee as co-complainant, who may be so joined whether willing or unwilling. — *Excelsior v. City of Seattle*, 117 Fed. 140; 55 C. C. A. 156.

Birdsall v. Shaliol, 112 U. S. 485; *Littlefield v. Perry*, 21 Wall. 205; *Paper Bag Cases*, 105 U. S. 766; *Brush v. California*, 52 Fed. 945.

This is a petition presented after this cause was reached on the regular call of the calendar and is ready for argument, asking that the petitioner be permitted to intervene, and that the cause be remanded to the circuit court to take testimony on the question of complainant's laches. The petitioner was fully informed of the pendency of this action, and declined an opportunity to intervene when the case was pending in the circuit court. The proof is wholly insufficient to warrant the extraordinary relief asked for

by the petitioner, assuming the power of the court to grant such relief. — *Thomson-Houston v. Western*, 158 Fed. 813; 86 C. C. A. 73.

§ 799. Patentability.

The patentability of the device in suit can be attacked without setting it up in an answer. — *Hendy v. Golden*, 127 U. S. 370; 32 L. Ed. 207; 8 S. Ct. 1275.

Dunbar v. Myers, 94 U. S. 187; *Slawson v. Grand*, 107 U. S. 649; *Mahn v. Harwood*, 112 U. S. 354.

Want of patentability is a defense, though not set up in an answer or plea. — *May v. Juneau*, 137 U. S. 408; 34 L. Ed. 729; 11 S. Ct. 102.

Brown v. Piper, 91 U. S. 37; *Dunbar v. Myers*, 94 U. S. 187; *Slawson v. Grand*, 107 U. S. 649; *Hendy v. Golden*, 127 U. S. 370.

§ 800. Pleas.

As the case was decided on the sufficiency of the plea, its allegations must be taken as true. — *Hammond v. Mason*, 92 U. S. 724; 23 L. Ed. 767.

The only issue upon the plea and replication was as to the sufficiency of the testimony to support the plea as pleaded; and as the plea was not supported by the testimony, it should be overruled, and the defendant ordered to answer the bill. — *Dalzell v. Dueber*, 149 U. S. 315; 37 L. Ed. 749; 13 S. Ct. 886.

Stead v. Course, 8 U. S. 403; *Farley v. Kittson*, 120 U. S. 303; Equity rule. 34.

The hearing was upon the plea, a general replication, and the evidence taken in support of the plea. Such a plea is a special answer to the bill, and nothing is put in issue, so far as the plea extends, but the truth of the matter pleaded. — *Hartz v. Cleveland*, 95 Fed. 681; 37 C. C. A. 227.

Farley v. Kittson, 120 U. S. 303; *Dalzell v. Mfg. Co.* 149 U. S. 315.

By setting the pleas down for argument the complainant has admitted the facts but not the conclusions pleaded therein. — *General v. New England*, 128 Fed. 738; 63 C. C. A. 448.

Farley v. Kittson, 120 U. S. 303; *Burrell v. Hackley*, 35 Fed. 833.

The establishment of a license was all that was required to constitute a defense, and there was no necessity for pleading more than that. — *Barber v. National*, 129 Fed. 370; 64 C. C. A. 40.

That the defense that the patent was illegally issued may be raised by plea, see — *Western v. North*, 135 Fed. 79; 67 C. C. A. 553.

That the defense of noninfringement cannot be raised by plea, see — *Western v. North*, 135 Fed. 79; 67 C. C. A. 553.

§ 801. Profert.

“The weight of authority is that the profert of any recorded instrument is equivalent to annexing a copy. And if a party avers that he holds title to anything by a certain instrument which he annexes, and that that instrument both grants the title and describes the full extent of the rights conferred, it is equivalent to an averment that he has title to all the rights

specifically described in such instrument." — *Germain v. Wilgus*, 67 Fed. 597; 14 C. C. A. 561.

Quoting *American v. Southern*, 34 Fed. 803.

Bogart v. Hinds, 25 Fed. 484; *Post v. Hardware*, 26 Fed. 618.

If it were so, such profert were unnecessary to be made, as none of the assignments of the patent referred to are required to be under seal. If profert is made of any document, of which it is not necessary, it will be treated as mere surplusage, and will not entitle the defendant to oyer. *Walk. Pat. sec. 433*. The complainant was entitled to stand upon its prima facie case as to title, and the failure to set out the assignments referred to could not, under the circumstances, be taken advantage of by demurrer. — *Atherton v. Atwood-Morrison*, 102 Fed. 949; 43 C. C. A. 72.

§ 802. Replication.

Where replication was not filed, but proofs were taken and the case treated as at issue the court on appeal will not seriously consider such omission. — *Tilghman v. Procter*, 102 U. S. 707; 26 L. Ed. 279.

The replication cannot perform the function of exceptions. A replication recognizes the sufficiency of the answer and takes issue on the facts charged. — *Robinson v. American*, 135 Fed. 693; 68 C. C. A. 331.

§ 803. Sufficiency.

No objection was made to the sufficiency of the pleading when the final decree was stipulated in evidence. We are well satisfied that thereby the appellant waived the defective nature of the pleading, if the plea is to be taken as a plea of res adjudicata. — *Bradley Mfg. Co. v. Eagle Mfg. Co.* 58 Fed. 721; 7 C. C. A. 442.

Parties are no longer turned out of court because their i's are not dotted or their t's crossed, and courts are diligent rather to search for the substantial justice of a case, than to insist upon strict conformity to pleading. And, while the rule remains, courts at the present day are not inclined to permit parties, for the first time upon appeal, to assert the objection that the testimony, which has been taken without objection in the court below, supports an issue not comprehended within the allegations of the pleading. — *Bradley Mfg. Co. v. Eagle Mfg. Co.* 58 Fed. 721; 7 C. C. A. 442.

Wasatch v. Crescent, 148 U. S. 293.

The bill states the number of the patent, and the answer denies that the complainant was the original and first inventor of the improvement specified in the letters patent so numbered; thus making certain the invention spoken to. It is a sufficient denial of the novelty of the alleged invention. — *Robinson v. American*, 135 Fed. 693; 68 C. C. A. 331.

§ 804. Suit on Plurality of Patents.

Several patents may be joined and sued on together when they are conjointly related. — *Seymour v. Osborne*, 78 U. S. 516; 20 L. Ed. 33.

More than one patent may be included in one suit. — *Bates v. Coe*, 98 U. S. 31; 25 L. Ed. 68.

Gill v. Wells, 22 Wall. 27.

In an action to annul two patents, the Government may join them in one suit where they relate to the same subject matter and where the defendants and their interests are the same. — *United States v. Am. Bell*, 128 U. S. 315; 32 L. Ed. 450; 9 S. Ct. 90.

The bill assails two patents, issued nearly a year apart, but they were issued to the same party and relate to the same subject, the latter patent being supposed to be for an improvement upon the earlier one. Both are held by the same defendant, and are used by it in the same operations. The principle of multifariousness is very largely in evidence, and is more often applied where two parties are attempted to be brought together by a bill in chancery who have no common interest in the litigation, whereby one party is compelled to join in the expense and trouble of a suit in which he and his co-defendants have no common interest, or in which one party is joined as complainant with another party with whom in like manner he either has no interest at all, or no such interest as requires the defendant to litigate it in the same action.

In the present case there is no such difficulty. The Company and Mr. Bell are the only parties defendant, and their interest in sustaining the patents is the same. So also there is no such diversity of the subject matter embraced in the assault on the two patents that they cannot be conveniently considered together, and although it may be possible that one patent may be sustained and the other may not, yet it is competent for the court to make a decree in conformity with such finding. It seems to us in every way appropriate that the question of the validity of the two patents should be considered together. — *United States v. Am. Bell*, 128 U. S. 315; 32 L. Ed. 450; 9 S. Ct. 90.

Oliver v. Piatt, 44 U. S. 333; *Walker v. Powers*, 104 U. S. 245.

A failure of the complainant either to establish its title to one of the patents, or show an infringement of one or more of the patents, would not affect its right to an injunction and an accounting with respect to the other patents. — *Kansas City v. Devol*, 81 Fed. 726; 26 C. C. A. 578. Reversed, 84 Fed. 463.

Nourse v. Allen, Fed. Cas. 459; *Gillespie v. Cummings*, Fed. Cas. 5,434; *Herman v. Brooklyn*, Fed. Cas. 6703; *Seymour v. Osborne*, 11 Wall. 516; *Hayes v. Dayton*, 8 Fed. 702.

§ 805. Supplemental Bills.

An application may be entertained by the appellate court, after judgement and the issue of mandate and after the close of the term, subject to certain limitations arising out of laches. — *In re Gamewell*, 73 Fed. 908; 20 C. C. A. 111.

Ricker v. Powell, 100 U. S. 109.

That after decision and decree on appeal the Appellate Court may, upon motion, pass down an order for the Circuit Court to allow a party to file a supplemental bill, see — *Bliss v. Reed*, 106 Fed. 314; 45 C. C. A. 304.

Steel Co. v. Vermilya, 90 Fed. 493.

We deem this the better practice (to allow a supplemental bill rather than supplemental proof of infringement of other types before the master) because, if an accounting before the master is extended to devices that have not been adjudged by the court to be infringements, a very great and unnecessary consumption of time and burden of costs may be imposed upon the parties. — *Murray v. Orr*, 153 Fed. 369; 82 C. C. A. 445.

§ 806. Title.

An averment of title in the complainant must necessarily be made, and is the necessary foundation for all rights asserted or litigated by the complainant. It is an averment without which complainant has no proper standing in court. It matters not whether the title be that of the patentee, derived directly from the grant made by the government, or that of an assignee of the patentee or the assignee of an assignee. In either case it is the statement of a *prima facie* qualification, to institute the suit, and such title, whether direct to the patentee, or derivative from him by assignment or assignments, is the creature of the patent law, and not of the common law; and, whether admitted or attacked by the opposing party, the questions raised are raised under the patent laws, and are, therefore, within the meaning of the Revised Statutes of the United States, justiceable in the circuit courts. — *Atherton v. Atwood-Morrison*, 102 Fed. 949; 43 C. C. A. 72.

§ 807. Miscellaneous Rules of Practice and Pleading.

The principles involved having been decided upon their merits in a previous case, this court will not review the subject upon mere technical points of pleading. — *Smith v. Ely*, 15 How. 137; 12 L. Ed. 634.

An action for infringement may be tried before a referee by consent. — *Hecker v. Fowler*, 69 U. S. 123; 17 L. Ed. 259.

Yates v. Russell, 17 Johns. 468; *Hall v. Mister*, Salk. 84; *Bank v. Widner*, 11 Paige Ch. 533; *Green v. Pathen*, 13 Wend. 295; *Caldwell*, Arb. 359; *Felter v. Heath*, 11 Wend. 482; *Graves v. Fisher*, 5 Me. 70; *Miller v. Miller*, 2 Pick. 570; *Com. v. Props.* 7 Mass. 417.

Proofs without the requisite allegations are as unavailing as such allegations would be without the proofs requisite to support them. — *Rubber v. Goodyear*, 76 U. S. 788; 19 L. Ed. 566.

Foster v. Goddard, 1 Black, 518; *Tripp v. Vincent*, 3 Barb. Ch. 613; *Boone v. Chiles*, 10 Pet. 178; *Harrison v. Nixon*, 9 Pet. 483.

Persons owning reissued letters patent, and seeking redress from those who have invaded their exclusive rights, are not obliged to introduce in evidence the surrendered patent, and if the old patent is not introduced by the party sued, he cannot have the benefit of such defense. — *Seymour v. Osborne*, 78 U. S. 516; 20 L. Ed. 33.

It is possible that this objection to the evidence would have been available if it had been taken in season, (that the prior invention set up in the answer did not comply with the statute). But we are not referred to anything to show that it was taken in the court below or before the examiner when the witnesses were examined. In *Roemer v. Simon*, 95 U. S. 220, we held that the failure to interpose such objection before the final hearing is a waiver of the required notice in an equity suit. — *Loom Co. v. Higgins*, 107 U. S. 580; 26 L. Ed. 1177.

Practice under our rules defined and distinguished from the English rule. — *Thompson v. Wooster*, 114 U. S. 104; 29 L. Ed. 105; 5 S. Ct. 788.

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.

It is a mistake to suppose that in stating the facts which constitute a fraud, where relief is sought in a bill in equity, all the evidence which may be adduced to prove the fraud must be recited in the bill. It is sufficient if the main facts or incidents which constitute the fraud against which relief is desired shall be fully stated, so as to put the defendant upon his guard and apprise him of what answer may be required of him. — *United States v. Am. Bell*, 128 U. S. 315; 32 L. Ed. 450; 9 S. Ct. 90.

Story Eq. Pl. sec. 252; *Harding v. Handy*, 24 U. S. 103; *St. Louis v. Knapp*, 104 U. S. 658.

It is doubtless necessary, when special pleading is required, that a former recovery should be pleaded in bar. But if the record be properly before us in evidence, although not well pleaded, we are not only at liberty to consider it, but are bound to give full effect to it. — *Bradley v. Eagle*, 57 Fed. 980; 6 C. C. A. 661.

The matter charged is merely additional evidence in support of the issue presented and determined in the former suit. It was competent evidence in that suit without any statement of it in the pleading, if the objection of the statute was not timely urged. The proposed evidence comes too late to be availing. The decree of a court is not the less conclusive because a party has failed to produce all the evidence at command, or because of newly-discovered evidence. — *Bradley v. Eagle*, 57 Fed. 980; 6 C. C. A. 661.

Loom Co. v. Higgins, 105 U. S. 580; *Zane v. Soffe*, 110 U. S. 200.

It is said, and is apparently true, that the parties did not wish to raise this question (estoppel). But that, if successful, would, in effect, result in submitting to the court a moot patent cause, which, on account of the public interests involved, the court is ordinarily disinclined to permit. As a general rule, the court, before passing on the question of patentability, is entitled to require that it should be properly presented by parties legally competent and interested to do it. — *Woodward v. Boston*, 63 Fed. 609; 11 C. C. A. 353.

A settlement made after final decree should be brought before the court in supplemental proceedings in order to be a bar to a final decree. — *Marden v. Campbell*, 79 Fed. 653; 25 C. C. A. 142.

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

The complainant has not pleaded the estoppel he claims, and defendant was without the notice in the pleadings to which he was entitled. Notwithstanding the 45th equity rule, the complainant was at liberty, and should have availed himself thereof, to plead by way of anticipation the estoppel to the defense of non-validity of the patent. — *Newark v. Ryan*, 102 Fed. 693; 42 C. C. A. 594.

It, however, took another course that was clearly open to it to take, and that was to state the defense of this pretended assignment by way of anticipation in the bill, in order that it might make special answer thereto, and thus avoid the disadvantageous position in which it would be placed by the forty-fifth equity rule, by which special replications are prohibited. If the bill sets forth a case within the jurisdiction of the court, the jurisdiction cannot be ousted by the anticipation and denial of possible defenses that may or may not be made. Even if the title of complainant, as set forth in the bill, were put in issue by plea or answer, the question would still be one arising under the patent laws of the United States. Such an issue would be incidental and collateral to the main purpose of the suit. In this case the

patentee and original assignor is not a party to the suit, and the suit could not, therefore, be said to be upon the contract with him. This is not a suit to enforce a contract or to avoid one, but is a claim of ownership under the laws of the United States, which is properly justiciable in the federal circuit courts. — *Atherton v. Atwood-Morrison*, 102 Fed. 949; 43 C. C. A. 72.

If, on the hearing of the motion, or after its decision, the plaintiff had made timely offer to amend the petition by alleging that the acts of infringement complained of were committed in the district in which the suit was brought, the court should have allowed the amendment. — *Shaw v. American*, 108 Fed. 842; 48 C. C. A. 68.

The discovery feature of the bill will be disregarded; first, because an answer under oath is expressly waived in the bill; second because the bill propounds no interrogatories. — *Excelsior v. City of Seattle*, 117 Fed. 140; 55 C. C. A. 156.

Huntington v. Saunders, 120 U. S. 78; 6 Enc. Pl. & Prac. 732.

That the requirement of Sec. 4921 and amendment of Mar. 3, 1897, does not require that the complainant in equity or the plaintiff at law shall specially allege that the infringement charged took place during the six years immediately preceding, see — *Peters v. Hanger*, 134 Fed. 586; 67 C. C. A. 386.

We hold that where, in a suit in equity as in this case, testimony as to facts, upon which an estoppel is contended for, is introduced, not only without objection but contentious testimony disputing such facts is produced on the other side, the contention for an estoppel may be made at the hearing without having been pleaded. — *Standard v. Arrott*, 135 Fed. 750; 68 C. C. A. 388.

The fact that an invention was not in public use or on sale in this country for more than two years prior to the application for the patent is an indispensable condition to its validity, and an averment of that fact is essential to the statement of a good cause of action for its infringement. — *Hayes-Young v. St. Louis*, 137 Fed. 80; 70 C. C. A. 1.

R. S. sec. 4886; Walker on Pat. sec. 425; *Krick v. Jansen*, 52 Fed. 823; *Nathan v. Craig*, 47 Fed. 522; *Blessing v. Copper*, 34 Fed. 753.

We dismiss without notice other partial defenses which are not established by the evidence, or which if sustained by any proof, were not pleaded. *Rubber Co. v. Goodyear*, 9 Wall. 788. — *Indiana v. Case*, 154 Fed. 365; 83 C. C. A. 343.

Assuming that the defendant, having alleged and attempted to establish the invalidity of the patent, is in a position to claim a license under it, we find no evidence which convinces us that, as to the digesters in controversy, such a license was given. — *American v. DeGrasse*, 157 Fed. 660; 87 C. C. A. 260.

PRIORITY.

General Statement § 808
 Evidence § 809 (see § 288)
 Interference § 810 (see § 580)
 Reduction to Practice § 811 (see § 860)
 Miscellaneous Holdings § 812
 See — *Anticipation* § 58; *Divisional*

Patenting § 348; *Double Patenting* § 356; *Evidence* §§ 389-93; *Experiment* § 412; *Foreign Patent* § 423; *Improvement* § 439; *Interferences* § 580; *Interfering Patents* § 586; *Invention* § 613; *Reduction to Practice* § 860

§ 808. General Statement.

Priority is a question arising between two pending applications, a pending application and an issued patent, or between two issued patents. The first two conditions are subjects for interference proceedings; the third is a condition which may be met either by an action under 4918 R. S. (see *Interfering Patents*, § 587), or it may be met and settled in an action for infringement. The subject of interference has been considered under §§ 582-585.

§ 809. Evidence.

An invention relating to machinery may be exhibited in a drawing or in a model, so as to lay the foundation of the claim to priority, if it be sufficiently plain to enable those skilled in the art to understand it. — *Loom Co. v. Higgins*, 105 U. S. 580; 26 L. Ed. 1177.

After defendant had introduced in evidence earlier patents, it was proper for plaintiff to show that prior to the date of any of them he had reduced his invention to a working form. — *St. Paul v. Starling*, 140 U. S. 184; 35 L. Ed. 404; 11 S. Ct. 803.

Elizabeth v. Nicholson, 97 U. S. 126; *Webster v. Higgins*, 105 U. S. 580.

Where a patent is introduced in suit showing with certainty the date of its publication and prior to the date of the patent in suit, it is incumbent upon complainant to show, if not with equal certainty, yet to the satisfaction of the court that the invention of the patent in suit preceded that date. — *Clark v. Willimantic*, 140 U. S. 481; 35 L. Ed. 521; 11 S. Ct. 846.

St. Paul v. Starling, 140 U. S. 184.

The defendant's patent having been issued before that of the complainant, upon an application filed in advance of the latter's application, the burden of proof is upon complainant to establish a prior use of the machine by a preponderance of testimony over that of defendant to the contrary. — *Ashton v. Coale*, 52 Fed. 314; 3 C. C. A. 98.

If the evidence in its favor were fortified by the presumption of validity afforded by the patent in ordinary cases, we might think it right that that should turn the scale, and that this claim in the patent should be held valid. But the presumption does not apply in such circumstances, and the burden of proof is on the other side. — *Michigan v. Consolidated*, 67 Fed. 121; 14 C. C. A. 232.

Eagleton v. West, 2 Fed. 774; *Eagleton v. West*, 111 U. S. 490.

§ 810. Interference.

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

The complainant withdrew from the interference proceeding, permitted the contestant to make his case, and took a license from the contestant. We regard it as an admission of the contestant's priority and his consequent right to a patent. — *Shoemaker v. Merrow*, 61 Fed. 945; 10 C. C. A. 181.

It may be observed, too, that the features of the later patents are all described and illustrated in the patent to Barter, a copy of which is made an exhibit in the bill. If, therefore, they were not included in the interference (with Barter) and did not so become the established property of Smith under

the three patents mentioned (the prior patent in interference) then they belong to Barter, if included in his claims, and if not to him, then to the public, because of his failure to claim them. — *Russell v. Kern*, 69 Fed. 94; 16 C. C. A. 154.

§ 811. Reduction to Practice.

It is impossible to examine them, and look at the process and the machinery and the results of each, so far as the facts are before us, without perceiving at once the substantial and essential difference between them and the decided superiority of the one invented by Morse (This was a comparison of the alleged foreign devices with those of Morse; and the line of reasoning here pursued is substantially the same as that in the Telephone Cases, 126 U. S. 1, in comparing Bell and Reis.) — *O'Reilly v. Morse*, 15 How. 62; 14 L. Ed. 601.

He is the first inventor and entitled to the patent, who, being an original discoverer, has first perfected and adapted the invention to actual use. — *Whiteley v. Swayne*, 74 U. S. 685; 19 L. Ed. 199.

Curt. Pat. 43 notes.

He is the first inventor in the sense of the patent law, and entitled to a patent for his invention, who first perfected and adapted the same to use, and it is well settled that until the invention is so perfected and adapted to use it is not patentable. — *Seymour v. Osborne*, 78 U. S. 516; 20 L. Ed. 33.

Washburn v. Gould, 3 Story, 122; *Cahoon v. Ring*, 1 Cliff. 612.

We do not doubt that Drawbaugh may have conceived the idea that speech could be transmitted to a distance by electricity and that he was experimenting upon the subject; but to hold that he had discovered the art of doing it before Bell did would be to construe testimony without regard to "the ordinary laws that govern human conduct." — Telephone Cases, 126 U. S. 1; 31 L. Ed. 863; 8 S. Ct. 778.

Atlantic v. Brady, 107 U. S. 192.

In the law of patents it is the last step that counts. — *Washburn v. Beat Em All*, 143 U. S. 275; 36 L. Ed. 154; 12 S. Ct. 443.

Loom Co. v. Higgins, 105 U. S. 580; *Safety Valve Co. v. Crosby*, 113 U. S. 157; *Smith v. Goodyear*, 93 U. S. 486; *Magowan v. N. Y.* 141 U. S. 332.

It is obvious that the man who first reduces an invention to practice, is prima facie the first and true inventor, but that the man who first conceives, and, in a mental sense, first invents a machine, art or composition of matter, may date his patentable invention back to the time of its conception, if he connects the conception with its reduction to practice by reasonable diligence on his part, so that they are substantially one continuous act. The burden is on the second reducer to practice to show the prior conception, and to establish the connection between that conception and his reduction to practice by due diligence. It has sometimes been held, in the decisions in the patent office, that the necessity for diligence on the part of the first conceiver does not arise until the date of the second conception; but this, we think, cannot be supported on principle. — *Christie v. Seybold*, 55 Fed. 69; 5 C. C. A. 33.

Rob. Pat. sec. 384–386; *Millward v. Banes*, 11 O. G. 1060; *Christie v. Seybold*, 54 O. G. 957; *Bedford v. Hunt*, 1 Mason, 302; *Agawam v. Jordan*, 7 Wall. 583; *Whiteley v. Swayne*, 7 Wall. 685; *Reed v. Cutter*, 1 Story, 590; *White v. Allen*, 2 Cliff. 224; *Wright v. Postal*, 44 Fed. 352.

Having thus abandoned any attempt to make his idea practically available and to develop his theory, in fact, the subsequent inventor conceived the idea, embodied it in means by which it could be carried out, proceeded to make articles, and thereby first perfected it, and is entitled to be recognized as the real inventor. — *Ecaubert v. Appleton*, 67 Fed. 917; 15 C. C. A. 73.

Woolen v. Jordan, 7 Wall. 583; *Whiteley v. Swayne*, 7 Wall. 687; *Reed v. Cutter*, 1 Story, 590; *Howe v. Underwood*, 1 Fish. P. C. 166.

If the inventor conceived the improvements, and actually gave such substantial expression to the invention as that, without further exercise of the inventive faculty, one familiar with the construction and operation of the old machine could construct a new machine embodying the novel features, and made a full disclosure of the same to a subsequent inventor, the latter is not entitled to the attitude of one whose conception is later, but who first constructed an organized machine, and first applied for a patent. — *Standard v. Peters*, 77 Fed. 630; 23 C. C. A. 367.

It was said by this court in *Christie v. Seybold*, heretofore cited:

“That the man who first reduces an invention to practice is *prima facie* the first and true inventor, but that the man who first conceives, and in a mental sense, first invents, a machine, art, or composition of matter, may date his patentable invention back to the time of its conception, if he connects the conception with its reduction to practice by reasonable diligence on his part, so that they are substantially one continuous act. The burden is on the second reducer to practice to show the prior conception, and to establish the connection between that conception and his reduction to practice by proof of due diligence.”

That burden may be met by the exhibition of drawings, and by oral explanations of his conception antedating the first reduction to practice by another. — *Standard v. Peters*, 77 Fed. 630; 23 C. C. A. 367.

Railroad v. Stimpson, 14 Pet. 448; *Reed v. Cutter*, Fed. Cas. 11,645; *McCormick v. Minn.* 42 Fed. 152.

If ineffectual efforts were made to give the idea form, through drawings, models, or machines, but were abandoned before reaching such a stage of completion as to require only ordinary mechanical skill to carry the conception to success, the claim of priority of invention could not be sustained against a later independent conception, carried into practical form at an earlier date. — *Standard v. Peters*, 77 Fed. 630; 23 C. C. A. 367.

Reed v. Cutter, Fed. Cas. No. 11,645.

The failure of an inventor to push his invention to completion at an earlier date or file an application for a patent does not avail a subsequent reducer to practice and applicant for a patent who derived his knowledge of the invention from the prior inventor. — *Standard v. Peters*, 77 Fed. 630; 23 C. C. A. 367.

For a full, complete and detailed statement of the law upon this subject, see the quotation under § 860 from *Automatic v. Pneumatic*, 166 Fed. 288; C. C. A.

§ 812. Miscellaneous Holdings.

When defendant claimed to have invented the device in suit, not having made an application for a patent, the right of the complainant to his patent is not disturbed even by priority of invention by the defendant unless he could show more than two years public use prior to plaintiff's application. — *Loom Co. v. Higgins*, 105 U. S. 580; 26 L. Ed. 1177.

The date of application is controlling over two applications made by the same inventor, and date of application and not date of patent determines legal effect of the two patents. — *Washburn v. Beat Em All*, 143 U. S. 275; 36 L. Ed. 154; 12 S. Ct. 443.

The fact that a subsequent inventor devised the same thing without knowledge of the former invention avails nothing in view of R. S. sec. 4884-4886. — *United States v. Berdan*, 156 U. S. 552; 39 L. Ed. 530; 15 S. Ct. 420.

Rob. on Pat. sec. 5S.

Faure's French patent was dated Oct. 20, 1880, and, inasmuch as he was a citizen of France, he is not permitted to claim his invention before that date, as against a citizen of the United States, who, being also an original inventor, subsequently received a patent for his own invention in this country. — *Elec. v. Brush*, 52 Fed. 130; 2 C. C. A. 682.

Brown's disclaimer, in taking his patent, of itself, is a sufficient answer to the claim now made in his favor. — *Brown v. Stonemetz*, 58 Fed. 571; 7 C. C. A. 374.

If it is permissible, as contended, to maintain his patent upon evidence, dehors the proceedings in the patent office, that he had made the invention at an earlier date than is to be presumed from his application and patent, so as to carry it back to antedate the public use, the proof should be clear and unequivocal that he was the original inventor. — *Michigan v. Consolidated*, 67 Fed. 121; 14 C. C. A. 232.

Eagleton v. West, 2 Fed. 774; *Eagleton v. West*, 111 U. S. 490; *Robinson*, 1026 n. 14.

Where a disclaimer was filed with special reference to a pending application in favor of such application, such disclaimer establishes priority of invention of the matter disclaimed in favor of the application referred to, see *North Jersey v. Brill*, 134 Fed. 580; 67 C. C. A. 380.

PROCESS.

General Statement § 813
 Claims § 814 (see § 184)
 Definitions § 815
 Equivalents § 816 (see § 373)
 Mechanical § 817
 Old Elements, New Result § 818
 Patentability § 819
 Process and Product
 Claims for § 820 (see § 184)
 Patentability § 821

Miscellaneous Rulings § 822
See — Anticipation §§ 100-2; *Art* § 146; *Claims* § 243; *Composition of Matter* § 264; *Equivalents* § 373; *Infringement* §§ 518-20; *Invention* §§ 676-7, 685-8; *Machine and Process* § 770; *Manufacture* § 772; *Secret Process or Machine* § 897; *Specification* § 914

§ 813. General Statement.

There never has been any question as to the patentability of a process. While the statute does not employ the term, undoubtedly the terms "art" and "manufacture," as used in Sec. 4886, are sufficient. The definitions found under § 815 will be found unsatisfactory. Probably those found in *Cochrane v. Deener* and in *Tilghman v. Proctor* are the most satisfactory. Since the decision of *Expanded v. Bradford* (see § 817), mechanical processes are patentable, provided that the process is independent of any particular mechanism for carrying it out; otherwise the rule of *Westinghouse v. Boyden*

(see § 686) is controlling, and a purely mechanical method is patentable only as a mechanical combination.

Rulings bearing on this subject will be found under *Infringement — Process, and Invention — Process*.

§ 814. Claims.

Where the patent is for a specific process, not being generic, it must be shown that the defendants used all the different steps of that process, or there could be no infringement. — *Royer v. Coupe*, 146 U. S. 524; 36 L. Ed. 1073; 13 S. Ct. 166.

Merely to describe the use of heated acid, without any information whatever as to the extent of the required dilution of the acid, was to add nothing to the stock of common knowledge. Mitchell's invention, it will be observed, rested upon an original discovery, and he was bound to disclose fully to the public, in and by his patents, his *modus operandi*. Upon this the provisions of section 4888 of the Revised Statutes are imperative. — *Chemical v. Raymond*, 71 Fed. 179; 18 C. C. A. 31.

Wood v. Underhill, 5 How. 1; *Tyler v. Boston*, 7 Wall. 327; *Electric v. McKeesport*, 73 O. G. 1289.

§ 815. Definitions.

The invention related to the casting of cylinders. By constructing a tangential hole or gate a centrifugal action was produced, carrying the heavy iron to the periphery and the dross to the center. This was clearly a process as all of the devices employed were old. — *McClurg v. Kingsland*, 1 How. 202; 11 L. Ed. 102.

A new process is usually the result of discovery; a machine of invention. — *Corning v. Burden*, 15 How. 252; 14 L. Ed. 683.

An art may require one or more processes on machines in order to produce a certain result or manufacture. The term "machine" includes every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result. But where the effect or result is produced by chemical action, by the operation or application of some element or power of nature, or of one substance to another, such modes, methods or operations are called processes. — *Corning v. Burden*, 15 How. 252; 14 L. Ed. 683.

The Whitney process for annealing car wheels, though consisting of several parts, is a process, and not a mere combination. — *Mowry v. Whitney*, 81 U. S. 620; 20 L. Ed. 860.

That a process may be patentable, irrespective of the particular form of the instrumentality used, cannot be disputed. If one of the steps of a process be that a certain substance is to be reduced to a powder, it may not be at all material what instrument or machinery is used to effect that object, whether a hammer, a pestle and mortar, or a mill. Either may be pointed out; but if the patent is not confined to that particular tool or machine, the use of the others would be an infringement, the general process being the same. A process is a mode of treatment of certain materials to produce a given result. It is an act or a series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing. If new and useful it is just as patentable as is a piece of machinery. In the language of the patent law, it is an art. The machinery pointed out as suitable to

perform the process may or may not be new or patentable; whilst the process itself may be altogether new; and produce an entirely new result. The process requires that certain things should be done with certain substances, and in a certain order; but the tools to be used in doing this may be of secondary consequence. — *Cochrane v. Deener*, 94 U. S. 780; 24 L. Ed. 139.

That a patent can be granted for a process; there can be no doubt. The patent law is not confined to new machines and new compositions of matter, but extends to any new and useful art or manufacture. A manufacturing process is clearly an art, within the meaning of the law. Goodyear's patent was for a process, namely, the process of vulcanizing India rubber by subjecting it to a high degree of heat when mixed with sulphur and a mineral salt. The apparatus for performing the process was not patented, and was not material. The patent pointed out how the process could be effected, and that was deemed sufficient. Nelson's patent was for the process of applying the hot blast to furnaces by forcing a blast through a vessel or receptacle situated between the blowing apparatus and the furnace, and heated to a red heat; the form of the heated vessel being stated by the patent to be immaterial. These patents were sustained after the strictest scrutiny and against the strongest opposition. — *Tilghman v. Proctor*, 102 U. S. 707; 26 L. Ed. 279.

Corning v. Burden, 56 U. S. 267; *Nelson v. Thompson*, Web. P. C. 275, 371; *Househill v. Nelson*, Web. P. C. 715; *O'Reilly v. Morse*, 56 U. S. 62.

A patent for a process and a patent for an implement or a machine are very different things. Where a new process produces a new substance, the invention of the process is the same as the invention of the substance, and a patent for the one may be reissued so as to include both, as was done in the case of Goodyear's vulcanized rubber patent. But a process and a machine for applying the process are not necessarily one and the same invention. They are generally distinct and different. — *James v. Campbell*, 104 U. S. 356; 26 L. Ed. 786.

Powder v. Powder, 98 U. S. 126.

The doctrine which is applicable to a machine patent is of a kindred character with that applied in this country and in England to a patent for a process. — *Morley v. Lancaster*, 129 U. S. 263; 32 L. Ed. 715; 9 S. Ct. 299.

McCormick v. Talcott, 61 U. S. 402; *Chicago v. Sayles*, 97 U. S. 554; *Clough v. Barker*, 106 U. S. 166; *Duff v. Sterling*, 107 U. S. 636; *Consolidated v. Crosby*, 113 U. S. 157.

And comparing,

Tilghman v. Proctor, 102 U. S. 707; *Nelson v. Hartford*, 1 Web. P. C. 295; *O'Reilly v. Morse*, 56 U. S. 62. 125; *Curtis v. Platt*, (note) L. R. 3 Ch. Div. 134; *Badische v. Levinstein*, L. R. 24 Ch. Div. 156.171; *Jupe v. Pratt*, 1 Web. P. C. 146; *Househill v. Nelson*, 1 Web. P. C. 685; *Proctor v. Bennis*, L. R. 36 Ch. Div. 740; *Clark v. Adie*, L. R. 2 App. Cas. 315.320.

§ 816. Equivalents.

When substitution is not infringement, see *Seabury v. Am Ende*, 152 U. S. 561; 38 L. Ed. 553; 14 S. Ct. 683.

The patentee of an invention of a process is entitled to the benefit of all which his process will accomplish. — *Cowles v. Lowrey*, 79 Fed. 331; 24 C. C. A. 616.

If a metallic salt of any kind was previously used, the substitution of another metallic salt which produced the same result would be the employment merely of an equivalent. — *National v. New England*, 153 Fed. 184; 82 C. C. A. 359.

§ 817. Mechanical.

That a claim for a mechanical process cannot be maintained, see — *Westinghouse v. Boyden*, 170 U. S. 537; 42 L. Ed. 1136; 18 S. Ct. 707.

The utterances of the Supreme Court upon the question of whether or not a mechanical process is patentable are not in clear harmony; but it would seem that processes, which are to be effected wholly by mechanical means, in order to be patentable must be capable of being distinguished from the method of operation or mere function of the mechanism necessary for their accomplishment. — *Appleton v. Star*, 60 Fed. 411; 9 C. C. A. 42.

Corning v. Burden, 15 How. 267; *O'Reilly v. Morse*, 15 How. 62; *Tilghman v. Proctor*, 102 U. S. 707; *Lawther v. Hamilton*, 124 U. S. 1; *Cochrane v. Deener*, 94 U. S. 788; *Brown v. Piper*, 91 U. S. 37.

The process is purely mechanical. The devices and machinery necessary for its accomplishment are illustrated by drawings and minutely described in the specification. The application for the patent was rejected in the first instance on the ground that "the alleged method is, as presented, the necessary function or operation of the mechanism described," and notwithstanding the amendments made we are of opinion that the objection was not obviated, and that the patent should not have been granted. In *Appleton v. Star*, 60 Fed. 411 where it was necessary to consider the question of the patentability of mechanical processes, we were unable to deduce from decided cases a definite rule; but whatever uncertainty there had been, or lack of harmony in the dicta and decisions of the Supreme Court, on the subject, was removed by the recent opinion of that court in *Locomotive v. Medart*. — *Wells v. Henderson*, 67 Fed. 930; 15 C. C. A. 84.

Corning v. Burden, 15 How. 252.

The method may be practised by the employment of any means adapted to the purpose, and then known to the art, or which might thereafter become known. To be sure, if the mechanical means employed are the subject of a patent, the party who uses the process may have to secure the right to use the patented method. Assuming for the moment that claim 2 was for a combination of generic means, such a claim would cover all known means of the kind enumerated. And it would cover all equivalents which might thereafter be discovered by the ordinary skill of the art, and were not the fruit of invention; and it would dominate the latter, if the latter was of an improvement merely of the means covered by the former invention. But the invention of means hitherto unknown would be an independent invention, not covered by the patent, and, according to the well-settled rule, would of itself be entitled to a patent. — *Dayton v. Westinghouse*, 118 Fed. 562; 55 C. C. A. 390.

Such a process (the mechanical separation of cotton hulls and lint) may be wholly independent of the particular machinery or appliance used, and is something more than the functions of the machine which is employed. — *Johnson v. Foos*, 141 Fed. 73; 72 C. C. A. 105.

American v. Buckskin, 72 Fed. 508.

The means, method, or process constitutes a patentable process, consisting, as it does, of a series of treatments of a peculiarly obstinate material

(cotton hulls), each treatment having relation to the character of the material acted upon and the condition produced by the preceding treatment. — *Johnson v. Foos*, 141 Fed. 73; 72 C. C. A. 105.

Mowry v. Whitney, 14 Wall. 620; *Cochrane v. Deener*, 94 U. S. 780; *Carnegie v. Cambria*, 185 U. S. 403; *American v. Buckskin*, 72 Fed. 508.

The first and second claims are for a process. They seem to us to be nothing else than claims for the function of the apparatus described. No doubt it is competent, when the circumstances permit it, for an inventor in describing a machine or apparatus which he has devised, to make a claim for a process which his patented device is capable of carrying out. But to entitle him to do this the process must be one capable of being carried out by other means than by the operation of his patented machine, and, unless such other means are known or within the reach of ordinary skill and judgement, the patentee is bound to point them out; for, unless the public are informed by what other means the process can be carried out, the process is to them nothing else than the operation of the machine — in other words the exercise of its functions. In the present case no other means or way of practising the process are suggested by the patentee than the particular device on which his claims for the apparatus rests. And it is impossible for us to see how the process which is the subject of these claims could be worked out by any other means than the particular means described by the apparatus. Certainly it is not explained how else it could be done. Moreover, if the apparatus is not new its functions are not new. — *American v. Steward*, 155 Fed. 731; 84 C. C. A. 157.

Westinghouse v. Boyden, 170 U. S. 537; *Wessel v. United*, 139 Fed. 11; *American v. Sexton*, 139 Fed. 564.

Note: This is refusal to follow same patent decided in 2nd Cir. C. C. A., 128 Fed. 599.

The patent was for a "method of making expanded sheet metal." It had been held void in the Third Circuit (*Bradford v. Expanded*, 146 Fed. 984). *Held:* Nor can we agree to the suggestion that the patent was for the function only of a machine. No doubt the function or principle of a machine cannot be the subject of a patent. It is not a distinct entity, but a mere property of the machine, and inseparable from it, and is developed by its normal use. But *Golding* was not here seeking to patent a machine, or the operation of a machine. It was a matter of indifference to him by what particular means his method could be practised, but only that certain things should be done in a certain order. The apparatus he suggests would not by any known method of use be of any value. True, he could slit and bend sheets and strands of metal with it. That was the function of it. But still, and unless he invented a specific method of use, his apparatus was of no account. The material and the apparatus were mere *disjecta membra* until the light of more than ordinary intelligence pointed the way to the subjection of the one to the operation of the other to a useful purpose. We think the invention may rightly and aptly be characterized as an improvement in the art of expanding sheet metal, and is within the letter and spirit of the statute. To hold otherwise would be to adopt a rule which would operate to exclude from the benefits of the law many valuable inventions of things new and useful, and this, not by resting upon any exception found in the statute, but upon an artificial graft of error alien to its spirit and purpose. — *Expanded v. General*, 164 Fed. 849; C. C. A.

Mowry v. Whitney, 14 Wall. 620; *Cochrane v. Deener*, 94 U. S. 780; *Telephone Cases*, 126 U. S. 1; *Carnegie v. Cambria*, 185 U. S. 403. *Distinguishing Risdon v. Medart*, 158 U. S. 68.

Note: This opinion and that of *Bradford v. Expanded*, supra, quoted and criticized under § 682, present the two sides of a most difficult and unsettled problem. The opinion of Judge Gray in *Kilborn v. Liveright*, 165 Fed. 902, may be read with interest in connection with these cases. It is my opinion that Judge Gray was right in the stocking case and wrong in concurring in the decision of *Bradford v. Expanded*.

A process patent can only be anticipated by showing an earlier similar process. It is not enough to show that the Enzinger filter might have been operated according to the process of Stockheim, but that his process had been actually used in its practical operation, or that the character of the structure was such as to plainly indicate to one called upon to operate it that its intended mode of operation was similar to that now claimed by Stockheim. — *Loew v. German-American*, 164 Fed. 855; C. C. A.

Carnegie v. Cambria, 185 U. S. 421.

§ 818. Old Elements, New Result.

A process to obtain a product from a substance from which it has never been taken may be creative of invention, but the thing itself, when obtained, cannot be called a new manufacture. It may have been in existence and in common use before the new means of obtaining it was invented, and possibly before it was known that it could be extracted from the subject to which the new process is applied. — *American v. Fiber Co.* 90 U. S. 566; 23 L. Ed. 31.

The public cannot be deprived of an old process because someone has discovered that it is applicable to a wider range of use and capable of producing a better result, 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.

§ 819. Patentability.

It is when the term "process" is used to represent the means or method of producing a result that it is patentable, and that it will include all methods or means which are effected by mechanism or mechanical combination. — *Corning v. Burden*, 15 How. 252; 14 L. Ed. 683.

"Whoever discovers that a certain useful result will be produced in any art by the use of certain means is entitled to a patent for it, provided he specifies the means." But everything turns on the force and meaning of the word "means." It is very certain that the means need not be a machine, or an apparatus, it may, as the court says, be a process. A machine is a thing. A process is an act, or a mode of acting. The one is visible to the eye; an object of perpetual observation. The other is a conception of the mind, seen only when being executed or performed. Either may be the means of producing a useful result. — *Tilghman v. Proctor*, 102 U. S. 707; 26 L. Ed. 275.

Explaining *O'Reilly v. Morse*, 15 How. 62.

We think that the method or art covered by the patent is patentable as a process, irrespective of the apparatus or instrumentality for carrying it out. — *New Process v. Maus*, 122 U. S. 413; 30 L. Ed. 1193; 7 S. Ct. 1304.

Corning v. Burden, 56 U. S. 252; *Cochrane v. Deener*, 94 U. S. 780; *Tilghman v. Proctor*, 102 U. S. 707.

It is not a patentable process to apply heat within a barrel of wine by old and well known means to produce the same result attained by applying heat

to the outside of the barrel. — *Dreyfus v. Searle*, 124 U. S. 60; 31 L. Ed. 352; 8 S. Ct. 390.

And why is not such new method a process? There is no new machinery. The rollers are an old instrument, the mixing machinery is old, the hydraulic press is old; the only thing that is new is the mode of using and applying these old instrumentalities. And what is that but a new process? This process consists of a series of acts done. It is a mode of treatment. Why should it be doubted that such a discovery is patentable? It is highly useful, and it is shown by the evidence to have been the result of careful and long continued experiments and the application of much ingenuity. — *Lawther v. Hamilton*, 124 U. S. 1; 13 L. Ed. 325; 8 S. Ct. 342.

For general rule on patentability of an art or an art and process, see *Telephone Cases*, 126 U. S. 1; 31 L. Ed. 863; 8 S. Ct. 778.

Full discussion of in light of the leading cases which are cited. — *Risdon v. Medart*, 158 U. S. 68; 39 L. Ed. 899; 15 S. Ct. 745.

The question now concerns the prima facie validity of the claim. Owing to the natural qualities which distinguish the constituents of a grain of corn, namely, the germ, the starchy portion, and the hull, and the natural qualities of water, the characteristic process of the claim is attained under the conditions named therein; that is, when the apparatus specified, or some equivalent apparatus, is supplied. Without the forces inevitably and naturally brought into play by the water and the ingredients of the corn grains, the apparatus would accomplish nothing. The apparatus is functional, towards the result intended, only as supplying conditions under which movements and changes of structure due to the natural qualities of the substance treated take place. If the process be new, if it were first reduced to practice by the apparatus proposed or indicated in the claim when read in the light of the specification, then the claim sets forth a new means. If the operation, namely, the automatic separation of an increasing mass of corn into germs, hulls, and starch by means of starch milk, itself continuously and automatically formed in the course of the operation, be new, then the claim would seem to be valid and patentable. — *Chicago v. Pope*, 84 Fed. 977; 28 C. C. A. 594.

Rob. Pat. 1 256 n.; *Corning v. Burden*, 15 How. 247; *Locomotive v. Medart*, 158 U. S. 68; *Eames v. Andrews*, 122 U. S. 41; *Cochrane v. Deener*, 94 U. S. 780.

There is, in fact, a difference in the material of the two pavements, and we are inclined to differ from the circuit court, and to regard the Perkins patent as patentable, because it was an application of an old process of intense heating, by means of a movable furnace, to different and dissimilar materials. The two processes were not exactly alike. Crochet treated the surface by vivid heat, removed the damaged part, roughened the remaining surface, and added new material. Perkins heated in the same way, reduced the old material to a soft, pliable state, agitated it with a rake, and mixed it with enough new material to fill up the spot to be repaired. — *U. S. Repair v. Standard*, 95 Fed. 137; 37 C. C. A. 28.

As it involves not merely the function of a mechanical device, but certain elemental action, we think it the proper subject of a process patent. It is, in fact, a series of acts performed with molten glass and wire-gauze, by which they are transformed into a separate manufacture, within the definition of a process patent. — *Streator v. Wire-glass*, 97 Fed. 950; 38 C. C. A. 573.

Cochrane v. Deener, 94 U. S. 780.