

lished to the general rule of the last section. If the substitution of materials involved a new mode of construction, or if it developed new properties and uses of the article made, it may amount to invention.³⁵ And substitution of materials may constitute invention, where it produces a new mode of operation, or results in a new function,³⁶ or in the first practical success in the art in which the substitution is made,³⁷ or in increased efficiency or in a decided saving in cost of operation.³⁸ So also, where the excellence of the material substituted could not be known beforehand, and where practice shows its superiority to consist not only in greater cheapness and greater durability, but also in more efficient action, the substitution of a superior for an inferior material amounts to invention.³⁹

It may or may not be invention to substitute one material for another, as an agent in performing a process, or as an ingredient of a composition of matter. The question of invention in any such case, is to be decided by some other rule or rules, than that of the substitution of materials.

§ 30. It is not invention to so enlarge and strengthen a

³⁵ *Smith v. Dental Vulcanite Co.*, 93 U. S. 496, 1876; *Fairbanks Wood Rim Co. v. Moore*, 78 F. R. 490, 1897; *Badische Anilin & Soda Fabrik v. Kalle*, 94 F. R. 164, 1899; *Hogan v. Westmoreland Specialty Co.*, 163 F. R. 289, 1908; *Archer v. Imperial Machine Co.*, 207 F. R. 81, 1913.

³⁶ *Potts v. Creager*, 155 U. S. 609, 1895; *Wickelman v. A. B. Dick Co.*, 88 F. R. 264, 1898.

³⁷ *Edison Electric Light Co. v. U. S. Electric Lighting Co.*, 52

F. R. 308, 1892; *George Frost Co. v. Cohn*, 119 F. R. 505, 1902; *Western Tube Co. v. Rainer*, 156 F. R. 49, 1907.

³⁸ *George Frost Co. v. Samstag*, 180 F. R. 739, 1910.

³⁹ *Dalton v. Nelson*, 13 Blatch. 357, 1876; *Celluloid Mfg. Co. v. American Zylonite Co.*, 35 F. R. 301, 1888; *Celluloid Mfg. Co. v. Crane Chemical Co.*, 36 F. R. 110, 1888; *King v. Anderson*, 90 F. R. 503, 1898.

See Section 31a,

machine that it will operate on larger materials than before.⁴⁰

In *Phillips v. Page*⁴¹ the patent covered the first circular sawmill which was adapted to sawing logs. Its utility was great, and was unquestioned. Machines like it, except that they were much smaller in every part, had been used before, to saw lath and other slender articles out of small blocks of wood. The Supreme Court therefore held that Mr. Page did not invent a circular sawmill, but merely constructed one, by copying on a larger scale the prior machine for sawing lath.

In the case of the *Planing Machine Co. v. Keith*,⁴² the patent covered the Woodbury planing machine, a machine which differed from the older Woodworth planing machine in one respect only. Woodworth used rollers to press the boards against the bed of the machine, whereas Woodbury used pressure bars for that purpose. The Supreme Court held the Woodbury patent to be void because Alfred Anson, of Norwich, Connecticut, had previously invented and constructed a machine for dressing window-sash, which had pressure bars like Woodbury, instead of pressure rollers like Woodworth. This decision was made notwithstanding the fact that the Anson machine was too small and too weak for general planing work upon boards and planks. And this rule has been applied, and is well illustrated, in several other Supreme Court cases.⁴³

§ 31. It is not invention to change the size or degree of

⁴⁰ *American Well Works v. F. C. Austin Mfg. Co.*, 98 F. R. 993, 1900.

⁴¹ *Phillips v. Page*, 24 Howard, 164, 1860.

⁴² *Planing Machine Co. v. Keith*, 101 U. S. 490, 1879.

⁴³ *Peters v. Active Mfg. Co.*, 129 U. S. 530, 1889; *Morgan Envelope Co. v. Albany Paper Co.*, 152 U. S. 430, 1894.

a thing, or of any feature or function of a machine or manufacture.⁴⁴

In *Glue Co. v. Upton*⁴⁵ the patent covered pulverized glue made from flake glue by grinding it in any suitable manner. It had several points of superiority over all former kinds of glue, but the Supreme Court held that, not being a product of invention, the patent covering it was void.

In *Guidet v. Brooklyn*⁴⁶ the patent covered paving-stones of a certain shape and with rough sides. Paving-stones of the same shape, but with sides less rough, had been known before. To make the sides of the prior stones rougher was held by the Supreme Court to be a change in degree only, and therefore not patentable.

In *Estey v. Burdett*,⁴⁷ one of the claims of the patent involved, depended upon concentrating certain valve openings into a smaller space than had theretofore been occupied by them. The Supreme Court held that there was no invention in that change.

In *Preston v. Manard*⁴⁸ the alleged invention consisted in making the reel of a fountain hose-carriage of larger diameter than were the reels of former hose-carriages, in

⁴⁴ *Baldwin v. Kresl*, 76 F. R. 826, 1896; *Thomson-Houston Electric Co. v. Nassau Electric R. Co.*, 98 F. R. 111, 1899; *Rumford Chemical Works v. N. Y. Baking Powder Co.*, 125 F. R. 231, 1903; *Neptune Meter Co. v. National Meter Co.*, 127 F. R. 563, 1904; *Sloan Filter Co. v. Portland Gold Mining Co.*, 139 F. R. 23, 1905; *Yost Electric Mfg. Co. v. Perkins Electric S. Mfg. Co.*, 179 F. R. 511, 1910; *Neureuther v. Mineral Point*

Zinc Co., 179 F. R. 850, 1910; *Young v. Burley*, 200 F. R. 258, 1912; *Hyde v. Minerals Separation Co., Ltd.*, 214 F. R. 100, 1914.

⁴⁵ *Glue Co. v. Upton*, 97 U. S. 6, 1877.

⁴⁶ *Guidet v. Brooklyn*, 105 U. S. 552, 1881.

⁴⁷ *Estey v. Burdett*, 109 U. S. 640, 1884.

⁴⁸ *Preston v. Manard*, 116 U. S. 663, 1886.

order to allow the water to pass through the hose when partly wound upon the reel. The Supreme Court held that there resided no invention in that improvement.

In *French v. Carter*,⁴⁹ the patent claimed a roof for a vault, which consisted, like an earlier roof, of two gable-stones, and two sloping roof-stones, and one cap-stone; and which differed from the earlier roof in that its roof-stones were narrower, and its cap-stone was wider, than the corresponding stones of the earlier vault. The Supreme Court held that these differences of degree did not constitute invention.

In *American Road Machine Co. v. Pennock & Sharp Co.*,⁵⁰ the patent claimed various combinations, in each of which a very heavy hand-wheel was the distinguishing element. The extra weight of the wheel gave it a useful momentum in the combination; but the Supreme Court held that it was not invention to increase the weight of a hand-wheel for that purpose.

Circuit Court cases which have been decided by skillful judges furnish still other illustrations of the rule of this section.⁵¹

It may or may not be invention to change the degree of heat, or other agent, used in a process,⁵² or to change the amount of an ingredient used in a composition of matter,⁵³

⁴⁹ *French v. Carter*, 137 U. S. 239, 1890.

⁵⁰ *American Road Machine Co. v. Pennock & Sharp Co.*, 164 U. S. 26, 1896.

⁵¹ *Stow v. City of Chicago*, 3 Bann. & Ard. 91, 1877; *White v. Lee*, 14 F. R. 790, 1882; *Woonsocket Rubber Co. v. Candee*, 23 F. R. 797, 1885; *Smith v. Murray*, 27 F. R. 69, 1886; *Hurd v. Snow*,

35 F. R. 423, 1888; *Blumenthal v. Burrell*, 43 F. R. 669, 1890; *Murphy v. Trenton Rubber Co.*, 45 F. R. 571, 1891; *Caverly v. Deere*, 52 F. R. 763, 1892.

⁵² *Musgrave & Nye v. Commissioner of Patents*, 78 O. G. 2047, 1897; *De Lamar v. De Lamar Mining Co.*, 117 F. R. 240, 1902.

⁵³ *National Newsboard Co. v.*

or to change the size of a feature of a design. The question of presence or absence of invention, in every such case, is to be decided by the application of some other rule or rules, than that of this section.

§ 31*a*. A meritorious exception, to the rule of the last section, is involved in the adjudicated validity of the Edison incandescent light patent.⁵⁴ The carbon filament which constitutes the only new part of the combination of the second claim of that patent, differs from the earlier carbon burners of Sawyer and Man, only in having a diameter of one-sixty-fourth of an inch or less, whereas the burners of Sawyer and Man had a diameter of one-thirty-second of an inch or more. But that reduction of one-half in diameter increased the resistance of the burner four-fold, and reduced its radiating surface two-fold, and thus increased eight-fold, its ratio of resistance to radiating surface. That eight-fold increase of proportion, enabled the resistance of the conductor of electricity from the generator to the burner, to be increased eight-fold, without any increase of percentage of loss of energy in that conductor, or decrease of percentage of development of heat in the burner; and thus enabled the area of the cross section of that conductor to be reduced eight-fold, and thus to be made with one-eighth of the amount of copper or other metal, which would be required if the reduction of diameter of the burner from one-thirty-second to one-sixty-fourth of an inch had not been made. And that great reduction in the size and cost of conductors, involved also a great difference in the composition of the electric energy employed in the system; that difference consisting

Elkhart Egg Case Co., 123 F. R. 432, 1903.

⁵⁴ Edison Electric Light Co. v. U. S. Electric Lighting Co., 52

F. R. 300, 1892; also see Toledo Computing Scale Co. v. Computing Scale Co., 208 F. R. 410, 1913.

in generating the necessary amount of electrical energy with comparatively high electro-motive force, and comparatively low current, instead of contrarywise. For this reason, the use of carbon filaments, one-sixty-fourth of an inch in diameter or less, instead of carbon burners one-thirty-second of an inch in diameter or more, not only worked an enormous economy in conductors, but also necessitated a great change in generators, and did both according to a philosophy, which Edison was the first to know, and which is stated in this paragraph in its simplest form and aspect, and which lies at the foundation of the incandescent electric lighting of the world.

Another exception based on similar principles to the last is found where an old result is accomplished in a more facile, economical and efficient way. Cheapness of construction, simplicity of construction, and operation and ease of operation as compared with prior structures are all indications of invention.⁵⁵

§ 32. Aggregation is not invention; either in processes,⁵⁶ machines,⁵⁷ or manufactures.⁵⁸

In *Hailes v. Van Wormer*⁵⁹ the patents passed upon, covered certain self-feeding coal stoves. These stoves were

⁵⁵ *James Heekin Co. v. Baker*, 138 F. R. 63, 1905; *Electric Candy Machine Co. v. Morris*, 156 F. R. 972, 1905; *National Tube Co. v. Aiken*, 163 F. R. 254, 1908; *Acme Steel Goods Co. v. Am. Metal Fasteners Co.*, 206 F. R. 478, 1913.

See Section 29.

⁵⁶ *In re Mond*, 16 App. D. C. 354, 1900.

⁵⁷ *Overweight Counterbalance El. Co. v. Henry Vogt Mach. Co.*, 102 F. R. 961, 1900; *Brown*

H. & C. Mach. Co. v. King Bridge Co., 107 F. R. 504, 1901; *National Tube Co. v. Aiken*, 163 F. R. 254, 1908; *Gas Machinery Co. v. United Gas Improvement Co.*, 228 F. R. 684, 1915.

⁵⁸ *Antisdell v. Chicago Hotel Cabinet Co.*, 89 F. R. 312, 1898.

⁵⁹ *Hailes v. Van Wormer*, 20 Wallace, 353, 1873; also, *Warner Instrument Co. v. Stewart & Clark Mfg. Co.*, 185 F. R. 507, 1911.

better than any which preceded them, because they contained more good things than were ever before assembled in that kind of heater. All of the things so assembled were old. The superiority of the patented stoves arose from the fact that sundry good features, theretofore scattered through several, were in them gathered into one such article of manufacture. The things so united did not, however, perform any joint function, but each did only what it had formerly done in former stoves. The Supreme Court held the whole to be a mere aggregation of devices, and not to be invention.

The case of *Reckendorfer v. Faber*⁶⁰ was based upon patents for a new and useful article, of which many millions of specimens had been made and sold since those patents were granted. That article was a piece of soft rubber united to one end of a lead pencil. The Supreme Court called attention to the fact that there was no joint operation performed by the pencil and the rubber, and therefore held the patents to be void for want of invention.

In *Pickering v. McCullough*⁶¹ Justice MATTHEWS said: "In a patentable combination of old elements, all the constituents must so enter into it as that each qualifies every other; to draw an illustration from another branch of the law, they must be joint tenants of the domain of invention, seized each of every part, *per my et per tout*, and not mere tenants in common, with separate interests and estates. It must form either a new machine of a distinct character and function, or produce a result due to the joint and co-operating action of all the elements, and which is not the mere adding together of separate contributions."

The first of these sentences has been thought to imply a severer doctrine than the second, and some of the lower

⁶⁰ *Reckendorfer v. Faber*, 92 U. S. 357, 1875.

⁶¹ *Pickering v. McCullough*, 104 U. S. 318, 1881.

courts have inclined to ascribe to the opinion a milder signification than the first sentence standing alone may appear to warrant.

The Circuit Court of Appeals for the third circuit has said that: "If, instead of an extract, the whole opinion be read, in connection with the authorities which are cited in it, it may be readily perceived that the substance of the doctrine intended to be affirmed, is that a combination, to be patentable, must produce a new and useful result as the product of the combination, and not a mere aggregate of several results, each the complete result of one of the combined elements." And that: "If it were essential to a valid patent for any combination whatever, that the mode of operation of every element included in the combination should be changed by each of the others, it would have been impossible to sustain several combination patents which have in fact been upheld, as, indeed, it would be difficult to conceive of any mechanical combination which would be both possible and patentable."⁶²

And Judge McKenna expressly declined, when strenuously urged by counsel so to do, to recognize as an established rule of law, that in all cases where the action of each of the combined devices remains its own individual action, there is no patentable combination.⁶³

And while the language above quoted from *Pickering v. McCullough* has been often quoted since it was delivered,

⁶² *National Cash Register Co. v. American Cash Register Co.*, 53 F. R. 371, 1892.

⁶³ *Bowers v. Von Schmidt*, 63 F. R. 582, 1894; also, *Pelton Water Wheel Co. v. Doble*, 190 F. R. 760, 1911; *Krell Auto Grand Piano Co. v. Story & Clark Co.*, 207 F. R. 946, 1913; Interna-

tional Mausoleum Co. *v. Sievert*, 213 F. R. 225, 1914; *Railroad Supply Co. v. Hart Steel Co.*, 222 F. R. 261, 1915; *New York Scaffolding Co. v. Whitney*, 224 F. R. 452, 1915; *E. E. Johnson Co. v. Grinnell Washing Machine Co.* (citing many cases), 231 F. R. 988, 1916.

there is no case in which the severer doctrine of the first sentence of that language has been applied to defeat any patent or claim which could have endured the milder doctrine of the second of those sentences, or the milder doctrine held in the three last-mentioned cases. Indeed, the Supreme Court has shown its preference for the milder view, by substantially quoting the second sentence of Justice MATTHEWS,⁶⁴ while omitting the first sentence from all of its later decisions.

The law of this subject is well settled, and the dividing line between combinations and aggregations is well established. Every case must fall on one side or the other of that line, and no case can stand upon it. But the facts in particular cases, which will arise hereafter, will often make it difficult to determine upon which side of the line those cases respectively belong.⁶⁵ Such decisions may sometimes be made by direct analysis without extensive comparisons with precedents; but in other cases, reasoning by analogy from precedents may be helpful to just decisions, and therefore the Supreme Court cases, which have not been already mentioned as relevant to the subject, and also some others are collected by name in a note.⁶⁶

⁶⁴ *Brinkerhoff v. Aloe*, 146 U. S. 516, 1892.

⁶⁵ *Standard Oil Co. v. Southern Pacific Railroad Co.*, 48 F. R. 110, 1891.

⁶⁶ *Tack Co. v. Mfg. Co.*, 109 U. S. 120, 1883; *Bussey v. Mfg. Co.*, 110 U. S. 145, 1883; *Phillips v. Detroit*, 111 U. S. 607, 1883; *Stephenson v. Railroad Co.*, 114 U. S. 158, 1884; *Beecher Mfg. Co. v. Atwater Mfg. Co.*, 114 U. S. 523, 1884; *Thatcher Heating Co. v. Burtis*, 121 U. S. 293,

1886; *Hendy v. Iron Works*, 127 U. S. 375, 1887; *Royer v. Roth*, 132 U. S. 201, 1889; *Fond Du Lac County v. May*, 137 U. S. 407, 1890; *Union Edge Setter Co. v. Keith*, 139 U. S. 539, 1891; *Adams v. Stamping Co.*, 141 U. S. 539, 1891; *Wright v. Yuengling*, 155 U. S. 53, 1894; *Richards v. Elevator Co.*, 158 U. S. 301, 1895; and 159 U. S. 486, 1895; *Office Specialty Mfg. Co. v. Fenton Metallic Mfg. Co.*, 174 U. S. 492, 1899; *Anton v. Grier Bros.*

§ 33. The rule of the last section does not state nor imply that all the parts of a patentable combination must act at the same time. The fact on that point is no criterion by means of which to distinguish invention from aggregation. Justice CURTIS, in a Circuit Court case,⁶⁷ stated the true doctrine on this subject, and stated it with marked lucidity, saying: "To make a valid claim for a combination, it is not necessary that the several elementary parts of the combination should act simultaneously. If those elementary parts are so arranged that the successive action of each contributes to produce some one practical result, which result, when attained, is the product of the simultaneous or successive action of all the elementary parts, viewed as one entire whole, a valid claim for thus combining those elementary parts may be made." And that view of the law has also been taken in more recent times.⁶⁸ Nor is it necessary that all the parts of a machine combination should co-operate all the time. "It is enough that, in the normal and progressive use of the machine, they do so some of the time."⁶⁹

§ 34. It is not invention to duplicate one or more of the parts of a machine or a manufacture; unless the duplication causes a new mode of operation, or produces a new unitary result.

Co., 185 F. R. 796, 1911; *Gould & Eberhardt v. Cincinnati Shafer Co.*, 194 F. R. 680, 1912; *Sheffield Car Co. v. D'Arcy*, 194 F. R. 686, 1912; *Houser v. Starr*, 203 F. R. 264, 1913; *H. J. Heinz Co. v. Cohn*, 207 F. R. 547, 1913; *Ball v. Coker*, 210 F. R. 278, 1913.

⁶⁷ *Forbush v. Cook*, 2 Fisher, 669, 1857.

⁶⁸ *Holmes Alarm Tel. Co. v. Do-*

mestic Tel. Co., 42 F. R. 226, 1890; *San Francisco Bridge Co. v. Keating*, 68 F. R. 353, 1895; *E. J. Manville Mach. Co. v. Excelsior Needle Co.*, 167 F. R. 538, 1909; *Novelty Glass Mfg. Co. v. Brookfield*, 170 F. R. 946, 1909.

⁶⁹ *Sanders v. Hancock*, 128 F. R. 424, 1904; *National Tube Co. v. Aiken*, 163 F. R. 254, 1908.

In *Dunbar v. Myers*⁷⁰ the patent was based on a circular sawmill adapted to sawing lumber into thin sheets to be used for the backs of picture-frames and mirrors. It differed from former machines used for the same purpose, mainly in the fact that it had a plate on each side of the saw for the purpose of expanding the saw kerf and thus keeping the sawed parts away from the sides of the saw, whereas earlier machines had such a plate only on one side of the saw. The two plates of the patented machine differed from each other in diameter and in one or two other respects, but the function performed by each of them was substantially identical with that performed by the other. The Supreme Court therefore held the claim which covered the additional plate to be void for want of invention.

In *Slawson v. Grand Street R. R. Co.*⁷¹ the patented improvement consisted merely in putting an additional pane of glass in the fare-box of a street car, on the side next to the passengers, so that they could see into the box, as well as the driver, for whose use one pane of glass was already in the side of the box next to him. The Supreme Court said that the putting in of that additional pane of glass required no more invention than the putting of an additional window in a room opposite one already there.

*Millner v. Voss*⁷² was decided by Judge BOND in Virginia. The patent involved, purported to cover an arrangement of furnaces and flues in a tobacco-curing house. It appeared to differ from prior arrangements only in the fact that each of the furnaces had two or more fire-places of

⁷⁰ *Dunbar v. Myers*, 94 U. S. 197, 1876.

⁷² *Millner v. Voss*, 4 Hughes, 262, 1882.

⁷¹ *Slawson v. Grand Street R. R. Co.*, 107 U. S. 653, 1882.

different sizes on each side of a chimney, whereas former arrangements had but one. Judge BOND wittily said that, "Where one stove is found to be unequal to the heating of a room, to put another beside it, even though smaller, requires no invention." Mr. Millner's patent was therefore held to be void.

And the rule of this section has been applied in cases not so simple as those above mentioned;⁷³ and may be applied still more widely hereafter.

The first exception which belongs to the general rule of this section, is illustrated by the Parker water-wheel. Before the date of that invention, it was customary to place a single turbine, upon a vertical shaft, in such a way that the pressure of the water was partly exerted endwise of the shaft; and that pressure, in addition to the weight of the shaft, and of the wheel, had to be sustained by the bearing of the shaft. Parker placed two such wheels in a pair, face to face, on the same shaft, and the water entered between them, so that the downward pressure of the water upon one wheel was balanced by the upward pressure of the water upon the other wheel. In this case the duplication of the wheel caused a new mode of operation; and the patent was held to be valid.⁷⁴

The second exception which belongs to the general rule of this section, is illustrated by the Goss printing-press. The distinguishing characteristic of that press, consists in mounting one prior "straight-run" web-perfecting printing-press, on top of another like press, so that the two printed webs can be brought flatwise together, without any edgewise movement of either. Thus a new uni-

⁷³ *Electrical Accumulator Co. v. Julien Electric Co.*, 38 F. R. 138, 1889; *Sugar Apparatus Co. v.*

Yaryan Mfg. Co., 43 F. R. 149, 1890.

⁷⁴ *Parker v. Hulme*, 1 Fisher, 44, 1849.

tary result was obtained; and the patent on the duplex press, was held to be valid.⁷⁵

§ 35. It is not invention to omit one or more of the parts of a machine or manufacture, unless that omission causes a new mode of operation of the parts retained.

Stow v. Chicago,⁷⁶ decided by Judge BLODGETT, is the case which perhaps most exactly corresponds with this rule. The patent in that case covered a wood pavement like that of Nicholson, except that it omitted the board foundation and also the board strips of that earlier pavement. Judge BLODGETT held that those omissions constituted no invention, saying: "A reconstruction of a machine, so that a less number of parts will perform all the functions of the greater, may be invention of a high order, but the omission of a part, with a corresponding omission of function, so that the retained parts do just what they did before in the combination, cannot be other than a mere matter of judgment, depending upon whether it is desirable to have the machine do all, or less, than it did before." These views were also reiterated and reinforced by the same judge many years after they were stated and applied by him in the leading case.⁷⁷

And the Supreme Court, when the latter case reached that tribunal, affirmed Judge BLODGETT's decision;⁷⁸ and has since rendered several decisions to the same effect.⁷⁹

⁷⁵ *Goss Printing-Press Co. v. Scott*, 108 F. R. 260, 1901.

⁷⁶ *Stow v. Chicago*, 3 Bann. & Ard. 92, 1877.

⁷⁷ *McClain v. Ortmyer*, 33 F. R. 287, 1888; see *Brown v. Huntington Piano Co.*, 134 F. R. 735, 1904, where omission of parts was held to constitute invention; also *J. Stevens Arms &*

Tool Co. v. Davenport, 134 F. R. 869, 1905.

⁷⁸ *McClain v. Ortmyer*, 141 U. S. 425, 1891.

⁷⁹ *Hat Pouncing Machine Co. v. Hedden*, 148 U. S. 489, 1893; *Giles v. Heysinger*, 150 U. S. 632, 1893; *Olin v. Timken*, 155 U. S. 148, 1894; *Richards v. Chase Elevator Co.*, 159 U. S. 477, 1895.

The exception which is stated in the general rule of this section was judicially applied, and is well illustrated, in a case decided by Judge NATHANIEL SHIPMAN, where invention was found to reside in so reorganizing a meat-mincing machine, as to dispense with some of its parts, and as to cause the parts retained to do the work of the original machine.⁸⁰

And the same exception is illustrated in a later case, in the Circuit Court of Appeals for the second circuit.⁸¹ And in a case which involved a process patent, the Supreme Court has decided that invention resided in omitting one of the steps in an old process, where the resulting new process was the result of careful and long-continued experiment, and where its utility was decidedly greater than that of the old process.⁸² And Judge GILBERT has held that it is invention to omit, from a prior process, a step which those skilled in its performance considered essential, but which the inventor proved to be useless.⁸³ It is not invention, however, merely to make in one piece what was formerly made in two.⁸⁴

§ 36. It is not invention to change a process, machine, manufacture or composition of matter, by substituting an equivalent for either of its parts; unless the new part, not

⁸⁰ *Enterprise Mfg. Co. v. Sargent*, 28 F. R. 187, 1886; *Dunn Mfg. Co. v. Standard Computing Scale Co.*, 163 F. R. 521, 1908.

⁸¹ *Consolidated Store Service Co. v. Siegel-Cooper Co.*, 107 F. R. 716, 1901; *Dececo Co. v. Gilchrist Co.*, 125 F. R. 293, 1903.

⁸² *Lawther v. Hamilton*, 124 U. S. 1, 1887.

⁸³ *Pacific Contracting Co. v. Bingham*, 62 F. R. 283, 1894.

⁸⁴ *General Electric Co. v. Yost Electric & Mfg. Co.*, 139 F. R. 568, 1905; *Sheffield Car Co. v. D'Arcy*, 194 F. R. 686, 1912; *Milwaukee Co. v. Avery*, 209 F. R. 616, 1913; *Enterprise Mfg. Co. v. Wm. Shakespear Co.*, 220 F. R. 304, 1915; *Pedersen v. Dundon*, 220 F. R. 309, 1915; *Stuber v. Central Brass and Stamping Co.*, 224 F. R. 712, 1915.

only performs the function of the part for which it was substituted, but also performs another function, by another mode of operation.⁸⁵

What is signified in the patent law by the word "equivalent" is explained in detail in the chapter on infringement. The subject is of double importance, because it relates sometimes to the validity and sometimes to the infringement of patents. A. B. may contrive and may patent a process, machine, manufacture, or composition of matter, which differs from the prior patented invention of C. D. in one part only. If the courts decide that the new part inserted, is an equivalent of the old part omitted, then the contrivance of A. B. will be an infringement; and it will not be an invention, save in the exceptional case stated in the rule. If, on the other hand, the courts hold that the part inserted is not an equivalent of the old part omitted, then the machine of A. B. may be an invention, and it will not be an infringement of any claim covering the entire machine of C. D.

§ 37. It is not invention to combine old devices into a new machine or manufacture⁸⁶ or design,⁸⁷ without producing any new mode of operation.

⁸⁵ *Smith v. Nichols*, 21 Wallace, 119, 1874; *Crouch v. Roemer*, 103 U. S. 797, 1880; *Cochrane v. Waterman*, 1 McArthur's Patent Cases, 54, 1844; *In re Hebbard*, 1 McArthur's Patent Cases, 550, 1857; *Perry v. Foundry Co.*, 12 F. R. 436, 1882; *Celluloid Mfg. Co. v. Tower*, 26 F. R. 451, 1885; *Tiemann v. Kraatz*, 85 F. R. 440, 1898; *Grimes v. Allen*, 102 F. R. 615, 1900; *Westinghouse Electric & Mfg. Co. v. New England Granite Co.*, 103 F. R. 967, 1900;

Ajax Metal Co. v. Brady Brass Co., 155 F. R. 409, 1907.

⁸⁶ *Burt v. Evory*, 133 U. S. 349, 1890; *Florsheim v. Schilling*, 137 U. S. 77, 1890; *Morgan Envelope Co. v. Albany Paper Co.*, 40 F. R. 582, 1889; *Mahon v. McGuire Mfg. Co.*, 51 F. R. 684, 1892.

See Section 26.

⁸⁷ *General Gaslight Co. v. Matchless Mfg. Co.*, 129 F. R. 137, 1904; *Graff, Washbourne & Dunn v. Webster*, 195 F. R. 522, 1912.

This rule differs from that of Section 32 in not depending upon absence of joint mode of operation, but only upon antiquity of mode of operation. For this reason, while the invalidity of a patent, under the rule of Section 32, can be shown, where it exists, from the face of the patent; the invalidity of a patent under the rule of this section requires outside evidence for its establishment, and depends upon the state of the prior art for its applicability.⁸⁸ The meaning and scope of this rule, like all the primary rules of this chapter, require illustration and example for full comprehension; and such examples and illustrations are abundantly supplied by the adjudicated cases.

*Stimpson v. Woodman*⁸⁹ involved a patent for a machine for pebbling leather. It gave the leather the pebbled surface by means of a roller, which had the counterpart of that surface engraved or sunk on its periphery. The same kind of roller had previously been used for the same purpose by hand, and the same kind of machine had been used for compressing leather, except that the roller in it was smooth. The Supreme Court held that the change involved in putting the old figured hand roller in the place of the plain roller of the machine, involved no invention, and that the patent was void, if the facts were as stated.

*Heald v. Rice*⁹⁰ was based on a patent which covered a certain previously known straw-feeding attachment in combination with a certain previously known return-flue boiler, that straw-feeding attachment having been previously combined with a fire-box boiler. The utility of the return-flue boiler in that combination was much greater

⁸⁸ *Brickill v. Hartford*, 57 F. R. 217, 1893.

⁹⁰ *Heald v. Rice*, 104 U. S. 754, 1881.

⁸⁹ *Stimpson v. Woodman*, 10 Wallace, 117, 1869.

than that of the fire-box boiler, but the Supreme Court nevertheless held that there was no invention in the union of the former with the straw-feeding attachment.

*Hall v. Macneale*⁹¹ shows the following state of facts. The patentee first made safe doors, the plates of which were held together by cored conical arbors, having screw threads cut on their exterior surfaces, and later he made other safe doors, the plates of which were held together by solid conical arbors which had no such screw threads as the cored conical arbors had, and he afterward obtained a patent for the combination of the plates of safe doors with solid conical arbors having such screw threads. The Supreme Court, speaking by Justice BLATCHFORD, said that "There was no invention in adding to the solid conical bolt the screw thread of the cored conical bolt."

Many Circuit Court cases also involve the doctrine of this section. In one such case⁹² Justice BLATCHFORD held a patent to be void for want of invention, which covered a combination of a whip socket having an annular recess in it, with a flexible elastic ring held in that recess by its own elasticity, and provided on its inner edge with non-contiguous projections, separated so that they could not be pressed into contact with each other by the insertion of the whip handle into the ring. That decision was based on the fact that a prior whip socket having an annular recess, had been combined with a plain rubber ring in that recess, and on the further fact that flexible elastic rings constructed like those of the patent had been combined with a whip socket which had no annular recess, but which clamped that ring between the upper end of that socket and a cap above it. Judge JOHN LOWELL likewise decided

⁹¹ *Hall v. Macneale*, 107 U. S. 90, 1882.

⁹² *Searls v. Merriam*, 22 O. C. 1040, 1882.

three similar cases. In one of them ⁹³ he held it to be no invention to give paper collars the same kind of surface that had theretofore been impressed upon other articles of paper. In another ⁹⁴ he decided that embossed lines on writing paper being old, and ogee lines on other paper being old, there was no invention in embossing ogee lines on writing paper to serve as guides to the eye of the writer. In a third case ⁹⁵ he held that soft base-balls having been covered with a double cover, and hard base-balls having been covered with a single cover, there was no invention in covering a hard base-ball with a double cover. And other still later cases illustrate the same doctrine.⁹⁶

But while a new combination with an old mode of operation is not invention, an old combination with a new mode of operation may be an invention. The Supreme Court found that the Henry Adams corn sheller was an invention, and was patentable to him, although his father, Augustus Adams, had previously made corn shellers from which that of Henry differed only in reversing the direction of revolution of one of its parts. That part was the revolving beater, which Augustus Adams made to turn in the direc-

⁹³ *Union Paper Collar Co. v. Leland*, 1 Bann. & Ard. 491, 1874.

⁹⁴ *Cone v. Morgan Envelope Co.*, 4 Bann. & Ard. 109, 1879.

⁹⁵ *Mahn v. Harwood*, 3 Bann. & Ard. 517, 1878.

⁹⁶ *Yale Lock Mfg. Co. v. National Bank*, 17 F. R. 533, 1883; *Kaaps v. Hartung*, 23 F. R. 187, 1885; *Troy Machinery Co. v. Bunnell*, 27 F. R. 810, 1886; *Union Edge Setter Co. v. Keith*, 31 F. R. 46, 1887; *Washburn & Moen Mfg. Co. v. Barbed Wire*

Co., 33 F. R. 273, 1888; *Low v. Stove Co.*, 36 F. R. 903, 1888; *Rodebaugh v. Jackson*, 37 F. R. 886, 1889; *Royer v. Coupe*, 38 F. R. 115, 1889; *Royer v. Belting Co.*, 40 F. R. 160, 1889; *Gates-Iron Works v. Fraser*, 42 F. R. 49, 1890; *Abbott Machine Co. v. Bonn*, 51 F. R. 223, 1892; *Hunt v. Garsed*, 51 F. R. 678, 1892; *Electric Ry. Co. v. Jamaica R. R. Co.*, 61 F. R. 655, 1894; *National Harrow Co. v. Westcott*, 84 F. R. 671, 1898; *Kursheedt Mfg. Co. v. Naday*, 103 F. R. 948, 1900.

tion opposite to the desired motion of the ears of corn, expecting it to knock back any ear that might ride upon another, and thus tend to prevent choking the shelling devices. This mode of operation was not successful, and Henry Adams reversed the revolution of the beater so that its wings moved in the same direction as that of the ears of corn, and thus drove them forward into the shelling devices. The old combination, with that new mode of operation, was entirely successful, and the patent thereon was therefore held to be valid.⁹⁷

A new combination, with a new mode of operation, may be invention; even if all the parts thereof are old, and even if the function of the combination, is also old.⁹⁸ As applied to designs a design patent may involve invention even though it is made up of features which are separately found in prior patents and articles of the same class.⁹⁹ There are several cases which contain dicta contrary to this rule; but those dicta must have resulted from incomplete thinking. In each of many arts, many patents have been granted, on a corresponding number of new combinations of old parts, for performing precisely the same function. The earlier of those combinations may be useful; but not useful enough, because not rapid enough.

⁹⁷ *Keystone Mfg. Co. v. Adams*, 151 U. S. 143, 1894.

⁹⁸ *Deere & Co. v. Rock Island Plow Co.*, 84 F. R. 176, 1898; *Hale & Kilburn Co. v. Oneonta, etc., Ry. Co.*, 124 F. R. 514, 1903; *Western Electric Co. v. North Electric Co.*, 135 F. R. 79, 1905; *Buchanan v. Perkins Electric, etc., Co.*, 135 F. R. 90, 1905; *Lavigne Mfg. Co. v. John F. McCanna Co.*, 194 F. R. 112, 1911; *E. H. Freeman Electric*

Co. v. Johns-Pratt Co., 204 F. R. 288, 1913; *Proudfit Loose Leaf Co. v. Kalamazoo Loose Leaf Binder Co.*, 230 F. R. 120, 1915; *Diamond Rubber Co. v. Consolidated Tire Co.*, 220 U. S. 428, 1911.

⁹⁹ *Bush & Lane Piano Co. v. Becker Bros.*, 209 F. R. 233, 1913; *Ashley v. Weeks-Numan Co.*, 220 F. R. 899, 1915; *Grelle v. City of Eugene*, 221 F. R. 68, 1915.

To deny the quality of invention, to all the later, different, and far superior combinations for doing the same thing, would be unreasonable, and unjust, and plainly contrary to Section 4886 of the Revised Statutes.

The same principles apply to process patents and a process consisting of a number of steps may be valid even though each of the steps was old.¹⁰⁰

§ 38. It is not invention to use an old process,¹⁰¹ machine,¹⁰² manufacture,¹⁰³ composition of matter,¹⁰⁴ or design,¹⁰⁵ for a new and analogous purpose.

¹⁰⁰ *Victor Talking Machine Co. v. American Graphophone Co.*, 189 F.R. 359, 1911.

¹⁰¹ *King v. Gallun*, 109 U. S. 99, 1883; *Miller v. Foree*, 116 U. S. 27, 1885; *Dreyfus v. Searle*, 124 U. S. 63, 1887; *Crescent Brewing Co. v. Gottfried*, 128 U. S. 169, 1888; *Marchand v. Emken*, 132 U. S. 195, 1889; *Lovell Mfg. Co. v. Cary*, 147 U. S. 637, 1893; *De Lamar v. De Lamar Mining Co.*, 110 F. R. 538, 1901; *Farrell v. Boston & M. Copper & Silver Mining Co.*, 121 F. R. 841, 1903; *Baker v. F. A. Duncombe Mfg. Co.*, 146 F. R. 744, 1906.

¹⁰² *Pennsylvania Railroad Co. v. Truck Co.*, 110 U. S. 494, 1883; *Blake v. San Francisco*, 113 U. S. 679, 1884; *Hendy v. Iron Works*, 127 U. S. 375, 1888; *Aron v. Railway Co.*, 132 U. S. 84, 1889; *Howe Machine Co. v. Needle Co.*, 134 U. S. 397, 1890; *Fond Du Lac County v. May*, 137 U. S. 406, 1890; *Bussell Trimmer Co. v. Stevens*, 137 U. S. 433,

1890; *Wollensak v. Sargent*, 151 U. S. 227, 1894; *Gates Iron Works v. Fraser*, 153 U. S. 347, 1894; *Mast Foos & Co. v. Stover Mfg. Co.*, 177 U. S. 485, 1900; *Lettelier v. Mann*, 91 F. R. 914, 1899; *American Well Works v. F. C. Austin Mfg. Co.*, 98 F. R. 994, 1900.

¹⁰³ *Peters v. Active Mfg. Co.*, 129 U. S. 530, 1889; *Peters v. Hanson*, 129 U. S. 541, 1889; *St. Germain v. Brunswick*, 135 U. S. 230, 1890; *Patent Clothing Co. v. Glover*, 141 U. S. 563, 1891; *Ansonia Co. v. Electrical Supply Co.*, 144 U. S. 18, 1892; *Neptune Meter Co. v. National Meter Co.*, 127 F. R. 563, 1904; *Morton Trust Co. v. American Car & Foundry Co.*, 169 F. R. 109, 1909; *Lewis Construction Co. v. Semple*, 177 F. R. 407, 1910.

¹⁰⁴ *Browning v. Colorado Telephone Co.*, 61 F. R. 845, 1894.

¹⁰⁵ *Smith v. Saddle Co.*, 148 U. S. 679, 1893; *Cahoone Barnet Mfg. Co. v. Rubber & Celluloid*

In *Tucker v. Spalding*¹⁰⁶ the patent covered a combination of a circular disk with removable saw teeth. There was a prior combination of a circular disk with removable cutters for the purpose of cutting tongues and grooves. The Supreme Court held that if what the latter combination did, was in its nature the same as sawing, and if its structure and its action suggested to the mind of the ordinarily skillful mechanic this double use to which it could be adapted without material change, then the combination of the patent was but a double use of the older combination, and was therefore not an invention, and not patentable.

*Brown v. Piper*¹⁰⁷ is a case in which the Supreme Court held that a patent for an apparatus for preserving fish and other articles in a close chamber by means of a freezing mixture having no contact with the atmosphere of the preserving chamber, covered nothing but a double use of the well known ice-cream freezer.

In *Roberts v. Ryer*¹⁰⁸ the same tribunal decided that to change the form and proportions of the compartments of a refrigerator, so as to utilize the descending instead of the ascending current of endlessly circulating air, was but a double use of that refrigerator.

More than forty other cases also embody the rule of this section, and apply it to particular new uses of old inventions.^{108a}

Harness Co., 45 F. R. 582, 1891; *Bevin Bros. Mfg. Co. v. Starr Bros. Bell Co.*, 114 F. R. 362, 1902; *Phoenix Knitting Works v. Hygienic Fleeced Underwear Co.*, 194 F. R. 703, 1911.

¹⁰⁶ *Tucker v. Spalding*, 13 Wallace, 543, 1871; *Conley v. King Bridge Co.*, 175 F. R. 79, 1909; *F. E. Myers & Bro. v. Fairbanks,*

Morse & Co., 194 F. R. 971, 1912; *Mallon v. Gregg & Co.*, 137 F. R. 68, 1908 (containing very clear statement of the principle).

¹⁰⁷ *Brown v. Piper*, 91 U. S. 37, 1875.

¹⁰⁸ *Roberts v. Ryer*, 91 U. S. 157, 1875.

^{108a} *Bean v. Smallwood*, 2 Story, 408, 1843; *Meyer v. Pritchard*, 1

§ 39. It may be invention, to use an old process, machine, manufacture, composition of matter, or design, for

Bann. & Ard. 261, 1874; Adams *v.* Loft, 4 Bann. & Ard. 496, 1879; Royer *v.* Mfg. Co., 20 F. R. 853, 1884; Howe Machine Co. *v.* Needle Co., 21 F. R. 630, 1884; Spill *v.* Celluloid Mfg. Co., 21 F. R. 639, 1884; Celluloid Mfg. Co. *v.* Noyes, 25 F. R. 319, 1885; Aaron *v.* Manhattan Ry. Co., 26 F. R. 317, 1886; Marchand *v.* Emken, 26 F. R. 629, 1886; Shenfield *v.* Mfg. Co., 27 F. R. 808, 1886; Gloucester Isinglass & Glue Co. *v.* Le Page, 30 F. R. 370, 1887; Ansonia Brass & Copper Co. *v.* Electrical Supply Co., 32 F. R. 81, 1887; Acme Hay Harvesting Co. *v.* Martin, 33 F. R. 249, 1888; Mann's Car Co. *v.* Monarch Car Co., 34 F. R. 130, 1888; Babcock & Wilcox Co. *v.* Pioneer Iron Works, 34 F. R. 338, 1888; Rubber Harness Trimming Co. *v.* Rubber Comb Co., 35 F. R. 498, 1888; Hale & Kilbourn Mfg. Co. *v.* Hartford Mattress Co., 36 F. R. 762, 1888; Schmid *v.* Mfg. Co., 37 F. R. 345, 1889; Foster *v.* Crossin, 44 F. R. 62, 1890; American Road Machine Co. *v.* Pennock & Sharp Co., 45 F. R. 255, 1890; Watson *v.* Stevens, 47 F. R. 117, 1891; Whitcomb *v.* Coal Co., 47 F. R. 660, 1891; Zinsser *v.* Krueger, 48 F. R. 298, 1891; Buckingham *v.* Iron Co., 51 F. R. 236, 1892; Steiner Extinguisher Co. *v.* Adrian, 52 F. R. 733, 1892; Steiner Extinguisher Co. *v.* Adrian, 59 F. R. 132, 1893; Forgie *v.* Oil-Well Supply Co., 57 F. R. 747, 1893; Consolidated Bunging Apparatus Co. *v.* Brewing Co., 60 F. R. 93, 1894; Adams Electric Ry. Co. *v.* Lindell Ry. Co., 63 F. R. 990, 1894; Thomson-Houston Electric Co. *v.* Western Electric Co., 70 F. R. 96, 1895; Rose *v.* Hirsh, 71 F. R. 881, 1896; Schreiber & Sons Co. *v.* Grimm, 72 F. R. 671, 1896; Dunbar *v.* Eastern Elevating Co., 81 F. R. 201, 1897; Palmer *v.* John E. Brown Mfg. Co., 84 F. R. 454, 1897; Frederick R. Stearns Co. *v.* Russell, 85 F. R. 230, 1898; Capital Sheet Metal Co. *v.* Kinnear & Gager Co., 87 F. R. 333, 1898; Edison Electric Light Co. *v.* E. G. Bernard Co., 88 F. R. 276, 1898; Solvay Process Co. *v.* Michigan Alkali Co., 90 F. R. 818, 1898; Briggs *v.* Duell, 93 F. R. 974, 1899; Thomson-Houston Electric Co. *v.* Rahway E. L. & P. Co., 95 F. R. 660, 1899; Indiana Novelty Mfg. Co. *v.* Crocker Chair Co., 103 F. R. 496, 1900; Standard Caster & Wheel Co. *v.* Caster Socket Co., 113 F. R. 162, 1901; Johnson Co. *v.* Toledo Traction Co., 119 F. R. 892, 1903; Antisdell *v.* Bent, 122 F. R. 811, 1903; Bettendorf Pat-

a new and non-analogous purpose.^{108b} The question whether a particular new use is analogous, or is non-analogous, to some old use of the same process or thing, is a question, the answer to which depends on the particular facts of the case in which it arises.¹⁰⁹ The decision of such a case can be reached by comparing the facts thereof, with the facts of some of the cases wherein the new uses were held to be analogous, and also with the facts of some of the cases, in which the new uses were held to be non-analogous, to the old uses of the same processes of things. The first of those classes of cases have already been cited,¹¹⁰ and the second class are cited now.¹¹¹ Where a new use of

ents Co. *v.* J. R. Little Metal Wheel Co., 123 F. R. 433, 1903; Wm. B. Mershon & Co. *v.* Bay City Box & Lumber Co., 189 F. R. 741, 1910; O'Brien-Worthen Co. *v.* Steffel, 209 F. R. 847, 1913.

^{108b} Potts *v.* Creager, 155 U. S. 608, 1895; Cash Register Co. *v.* Cash Indicator Co., 156 U. S. 502, 515, 1895; Hale & Kilburn Mfg. Co. *v.* Oneonta, etc., Ry., 124 F. R. 514, 1903.

¹⁰⁹ Briggs *v.* Duell, 93 F. R. 974, 1899; Herman *v.* Youngstown Car Mfg. Co., 191 F. R. 579, 1911.

¹¹⁰ Section 38.

¹¹¹ Potts *v.* Creager, 155 U. S. 608, 1895; Cash Register Co. *v.* Cash Indicator Co., 156 U. S. 515, 1895; Rapid Service Store Ry. Co. *v.* Taylor, 43 F. R. 253, 1887; Mack *v.* Optical Mfg. Co., 52 F. R. 821, 1892; Brown Mfg. Co. *v.* Mast, 53 F. R. 585, 1892; Loewer *v.* Ford, 55 F. R. 62, 1893;

New Departure Bell Co. *v.* Bevin Mfg. Co., 64 F. R. 863, 1894; Collins *v.* Gleason, 68 F. R. 915, 1895; Thomson-Houston Electric Co. *v.* Elmira & Horseheads Ry. Co., 69 F. R. 264, 1895; American Pneumatic Tool Co. *v.* Fisher, 69 F. R. 332, 1895; Hillborn *v.* Hale & Kilburn Mfg. Co., 69 F. R. 963, 1895; Taws *v.* Laughlins & Co., 70 F. R. 107, 1895; American Sulphite Pulp Co. *v.* Howland Falls Pulp Co., 70 F. R. 991, 1895; Tannage Patent Co. *v.* Zahn, 70 F. R. 1004, 1895; Thomson-Houston Electric Co. *v.* Winchester Ave. Ry. Co., 71 F. R. 195, 1895; Brownson *v.* Dodson-Fisher-Brockmann Co., 71 F. R. 517, 1895; A. B. Dick Co. *v.* Wichelman, 74 F. R. 799, 1895; Consolidated Car Heating Co. *v.* American Electric Heating Corp., 82 F. R. 997, 1897; Electric Smelting & Aluminum Co. *v.* Car-

an old thing consists in combining it with other things in a new organization, invention may be present in the combination, though absent from the separate parts.¹¹²

§ 40. Want of invention, if it really exists in a particular process or thing, can nearly always be detected by one or another of the foregoing rules. When a case arises to which neither of them applies, and relevant to which the mind remains in uncertainty, that uncertainty may be removed by means of the rule in *Smith v. The Dental Vulcanite Co.*¹¹³ namely: When the other facts in the

borundum Co., 102 F. R. 631, 1900; *National Hollow Brake-Beam Co. v. Interchangeable Brake-Beam Co.*, 106 F. R. 702, 1901; *Diamond Drill & Machine Co. v. Kelly Bros.*, 120 F. R. 292, 1903; *Forsythe v. Garlock*, 142 F. R. 461, 1905; *General Electric Co. v. Bullock Electric Mfg. Co.*, 152 F. R. 427, 1907; *National Tube Co. v. Aiken*, 163 F. R. 254, 1908; *Wayne Mfg. Co. v. Benbow-Brammer Mfg. Co.*, 168 F. R. 271, 1909; *Ramsay v. Lynn*, 187 F. R. 218, 1909; *H. J. Heinz Co. v. Cohn*, 207 F. R. 547, 1913.

¹¹² *Telephone Cases*, 126 U. S. 572, 1887.

¹¹³ *Smith v. Dental Vulcanite Co.*, 93 U. S. 495, 1876; *Hollister v. Benedict Mfg. Co.*, 113 U. S. 72, 1884; *Adams v. Stamping Co.*, 141 U. S. 542, 1891; *Magowan v. Belting Co.*, 141 U. S. 343, 1891; *Gandy v. Belting Co.*, 143 U. S. 594, 1892; *Barb Wire Patent*, 143 U. S. 284, 1892; *Sessions v. Romadka*, 145 U. S. 44, 1892; *Top-*

liff v. Topliff, 145 U. S. 164, 1892; *Hat Pouncing Machine Co. v. Hedden*, 148 U. S. 489, 1893; *Krementz v. Cottle Co.*, 148 U. S. 560, 1893; *Duer v. Lock Co.*, 149 U. S. 223, 1893; *Keystone Mfg. Co. v. Adams*, 151 U. S. 143, 1894; *Olin v. Timken*, 155 U. S. 155, 1894; *Potts v. Creager*, 155 U. S. 609, 1895; *Canda v. Michigan Malleable Iron Co.*, 124 F. R. 486, 1903; *Julius King Optical Co. v. Billhoeffler*, 124 F. R. 521, 1903; *Brookfield v. Novelty Glass Co.*, 124 F. R. 551, 1903; *Dececco Co. v. Gilchrist Co.*, 125 F. R. 293, 1903; *Union Biscuit Co. v. Peters*, 125 F. R. 601, 1903; *Farmers' Mfg. Co. v. Spruks Mfg. Co.*, 127 F. R. 691, 1904; *Warren Featherbone Co. v. American Featherbone Co.*, 133 F. R. 304, 1904; *Milner Seating Co. v. Yesbera*, 133 F. R. 916, 1904; *Comptograph Co. v. Mechanical Accountant Co.*, 145 F. R. 331, 1903; *Voightman v. Weiss & Ridge Cornice Co.*, 148 F. R. 848, 1903; *Am. Caramel*

case leave the question of invention in doubt, but only then,¹¹⁴ the fact that a process or machine, or other subject of a patent, has gone into general use, and has displaced other processes or things which had previously been employed for analogous uses, is sufficient to turn the scale in favor of the existence of invention. The same rule holds in case of a design patent.^{114a}

In fact it has been announced as a rule of law in the ninth circuit that it is proper to charge a jury that the fact that a device has gone into general use and has supplanted other devices used for a similar purpose is sufficient evidence of invention in the absence of evidence to show

Co. v. Thomas Mills & Bro., 149 F. R. 743, 1906; *Consolidated Rubber Tire Co. v. Firestone T. & R. Co.*, 151 F. R. 237, 1907; *Wagner Typewriter Co. v. Wyckoff, Seamans & Benedict*, 151 F. R. 585, 1907; *Am. Graphophone Co. v. Universal Talking Machine Co.*, 151 F. R. 595, 1907; *St. Louis Street, etc. Co. v. Am. Street, etc. Co.*, 156 F. R. 574, 1907; *O'Rourke Engineering Construction Co. v. M'Mullen*, 160 F. R. 933, 1908; *Morton v. Llewellyn*, 164 F. R. 693, 1908; *Electric Controller, etc. Co. v. Westinghouse Electric, etc. Co.*, 171 F. R. 83, 1909; *Poole Bros. v. Isaac H. Blanchard Co.*, 204 F. R. 285, 1913; *Stebler v. Riverside Heights Orange Growers Association*, 205 F. R. 735, 1913; *Barry v. Harpoon Castor Mfg. Co.*, 209 F. R. 207, 1913; *Railroad Supply Co. v. Hart Steel Co.*, 222 F. R. 261, 1915; *Cadillac*

Motor Car Co. v. Austin, 225 F. R. 983, 1915; *Computing Scale Co. v. Automatic Scale Co.*, 204 F. R. 609, 1907; *Diamond Rubber Co. v. Consolidated Tire Co.*, 220 U. S. 428, 1911.

See Section 26.

¹¹⁴ *Boss Mfg. Co. v. Thomas*, 182 F. R. 811, 1910; *Republic Rubber Co. v. G. & J. Tire Co.*, 212 F. R. 170, 1914; *Hyde v. Minerals Separation, Ltd.*, 214 F. R. 100, 1914; *Jackson Skirt & Novelty Co. v. Rosenbaum*, 225 F. R. 531, 1915; *Keene v. New Idea Spreader Co.*, 231 F. R. 701, 1916; *Apple v. American Shoe Machinery & Tool Co.*, 232 F. R. 603, 1916.

^{114a} *Scotfield v. Brown*, 158 F. R. 305, 1907; *Charles Boldt Co. v. Nivison-Weiskoff Co.*, 194 F. R. 871, 1912; *Theodore W. Foster & Bros. Co. v. Tilden Thurber Co.*, 200 F. R. 54, 1912.

that the success was due to any other cause than that of the merits of the device.¹¹⁵

Conversely the fact that, although a large market has been created, the patent has had no commercial success in its field is entitled to weight on the question of invention.¹¹⁶ But the fact that a machine or other article has been forced into extensive sale, by judicious advertising and business energy,¹¹⁷ or by reason of the fact that it is made more cheaply than before,¹¹⁸ or the fact that the patented invention constitutes only a part of the complete device,¹¹⁹ will usually be sufficient to offset the showing made by the extensive use. Another strong circumstance to establish the quality of invention is the fact that the patentee has succeeded after others seeking the same result have failed.¹²⁰ And a closely analogous circumstance to prove invention is public acquiescence in the inventor's

¹¹⁵ *Sherman-Clay & Co. v. Searchlight Horn Co.*, 214 F. R. 86, 1914.

¹¹⁶ *Ideal Stopper Co. v. Crown Cork & Seal Co.*, 131 F. R. 244, 1904; *Fielding v. Crouse-Hinds Electric Co.*, 148 F. R. 230, 1906; *Adt v. Bay State Optical Co.*, 226 F. R. 925, 1915.

¹¹⁷ *McClain v. Ortmyer*, 141 U. S. 427, 1891; *Fox v. Perkins*, 52 F. R. 213, 1892; *Billings & Spencer Co. v. Van Wagoner & Williams Hardware Co.*, 98 F. R. 732, 1899; *Stillwell v. McPherson*, 207 F. R. 837, 1913.

See *Diamond Rubber Co. v. Consolidated Tire Co.*, 220 U. S. 428, 1911; *Epstein v. Dryfoos*, 229 F. R. 756, 1914; *Apple v. American Shoe Machinery &*

Tool Co., 232 F. R. 603, 1916; *Johnson v. Lambert*, 234 F. R. 886, 1916.

¹¹⁸ *General Electric Co. v. Yost Electric Mfg. Co.*, 131 F. R. 874, 1904; *Heekin Co. v. Baker*, 138 F. R. 63, 1905; *Robins Conveying Belt Co. v. American Road Machine Co.*, 145 F. R. 923, 1906.

¹¹⁹ *De Mayo Coaling Co. v. Michener Stowage Co.*, 231 F. R. 736, 1916.

¹²⁰ *Boyer v. Keller Tool Co.*, 127 F. R. 130, 1904; *Albright v. Langfeld*, 131 F. R. 473, 1904; *Kotten v. Knight*, 137 F. R. 597, 1905; *American Caramel Co. v. Mills & Bro.*, 149 F. R. 743, 1906; *Amer. Graphophone Co. v. Universal Talking Machine Co.*, 151 F. R. 595, 1907; *Hall Signal Co.*

rights over an extended period of time.¹²¹ The same principles apply to design patents.¹²²

§ 41. To change the form of a machine or manufacture is sometimes invention, and sometimes it is not invention. Where a change of form is within the domain of mere construction, it is not invention; ^{122^a} but where it involves a change of mode of operation, or of function, or of result, it is invention, unless it is held to be otherwise in pursuance of some rule other than any that relates to form.^{122^b}

§ 41a. To change the proportions of a machine or manufacture will seldom, or never amount to invention; but it may be invention to change the proportions of the ingredients of a chemical combination, or other composition of matter. For example, Charles Goodyear invented soft vulcanized rubber, consisting of crude India rubber and sulphur in the proportion of one part of sulphur to five parts of rubber, mixed and subjected to a high degree of heat; and afterward Nelson Goodyear invented hard vulcanized rubber, consisting of equal, or comparatively

v. General Railway Signal Co., 169 F. R. 290, 1909; *Novelty Glass Mfg. Co. v. Brookfield*, 170 F. R. 946, 1909; *New York Scaffolding Co. v. Whitney*, 224 F. R. 452, 1915; *Expanded Metal Co. v. Bradford*, 214 U. S. 366, 1909.

¹²¹ *Keasby & Mattison Co. v. Philip Carey Mfg. Co.*, 139 F. R. 571, 1905; *Mahony v. Malcolm*, 143 F. R. 124, 1905.

¹²² *Scofield v. Browne*, 158 F. R. 305, 1907.

^{122^a} *J. J. Warner Co. v. Rosenblatt*, 80 F. R. 542, 1897; *National Harrow Co. v. Wescott*, 84 F. R. 670, 1898.

^{122^b} *Winans v. Denmead*, 15 Howard, 341, 1853; *Davis v. Palmer*, 2 Brock, 310, 1827; *Mabie v. Haskell*, 2 Cliff. 510, 1865; *Aiken v. Dolan*, 3 Fisher, 204, 1867; *United States Bung Mfg. Co. v. Independent Bung Co.*, 31 F. R. 76, 1887; *Electrical Accumulator Co. v. Julien Electric Co.*, 38 F. R. 143, 1889; *Parker v. Dickinson*, 38 F. R. 413, 1889; *Hammond Buckle Co. v. Goodyear Rubber Co.*, 58 F. R. 413, 1893; *Goldie v. Iron Co.*, 64 F. R. 237, 1894; *Diamond State Iron Co. v. Goldie*, 84 F. R. 975, 1898.

equal, parts of sulphur and crude rubber mixed and subjected to a high degree of heat. In this case, the change in proportion of the two materials resulted in two entirely distinct articles, having entirely distinct modes of operation and functions; and the later article was well held to be an invention.¹²³

§ 42. A question of invention is a question of fact and not of law;¹²⁴ though it is to be determined by means of the rules of law set forth in this chapter. In applying those rules, patents are not held void for want of invention except where invention is clearly absent.¹²⁵ And invention is not clearly absent from the subject of a patent, however simple,¹²⁶ unless that subject was logically deducible from the prior art.¹²⁷

§ 43. Every inventor or constructor is presumed by the law to have borrowed from another, whatever he produces that was actually first invented and constructed or used by that other, in the United States;¹²⁸ or was previously patented¹²⁹ or described in a printed publication¹³⁰ in

¹²³ *Goodyear v. Vulcanite Co.*, 2 Fisher, 312, 1856.

¹²⁴ *Poppenhusen v. Fakke*, 5 Blatch. 49, 1862; *Shuter v. Davis*, 16 F. R. 564, 1883; *Keene v. New Idea Spreader Co.*, 231 F. R. 701, 1916.

See Section 23.

¹²⁵ *Reiter v. Jones*, 35 F. R. 421, 1888; *Marvin v. Gotshall*, 36 F. R. 908, 1888; *Hunt Bros. Fruit Packing Co. v. Cassidy*, 53 F. R. 260, 1892.

¹²⁶ *Weber Electric Co. v. National Gas & Electric Co.*, 204 F. R. 79, 1913; *Ferro Concrete Construction Co. v. Concrete*

Steel Co., 206 F. R. 666, 1913; *Expanded Metal Co. v. Bradford*, 214 U. S. 366, 1909.

See Section 26.

¹²⁷ *Williams v. American String Wrapper Co.*, 86 F. R. 641, 1898.

¹²⁸ *Mast, Foos & Co. v. Stover Mfg. Co.*, 177 U. S. 493, 1900; *Crompton v. Knowles*, 7 F. R. 203, 1881; *Williams v. Rubber Shoe Co.*, 54 F. R. 499, 1893; *Allen v. Steele*, 64 F. R. 795, 1894.

¹²⁹ *Duer v. Lock Co.*, 149 U. S. 223, 1893.

¹³⁰ *French v. Carter*, 137 U. S. 239, 1890.

any country, after having been invented by another. But a mere application for a patent is not a part of the prior art, since an application is confidential and the public cannot be informed of its contents until a patent issues upon it.¹³¹ It follows that such of the foregoing rules as involve an inquiry into the state of the art to which the thing or process in controversy pertains, may involve an inquiry into the date and the character of inventions which were in fact unknown to the patentee, when he produced that thing or process. Where those prior inventions are proved by prior patents, those patents are the record evidence of those parts of the prior art which they present. The rights under the later patent are subject to what this record evidence actually shows. To change this record, by making theoretical modifications of these earlier patents, would be the same in principle, as to change by interpolation or modification, any other evidence between the parties.¹³²

§ 44. It was shown in Section 23 that patents are grantable for nothing but inventions. It is also the law that they can be granted only to those who invented the inventions they respectively cover, or to the assignees or legal representatives of those persons.¹³³ The subjects of assignments and devolutions of inventions and patents are explained in the chapter on title; but this is the proper place in which to treat the subjects of joint invention and sole invention.

¹³¹ *Sundh Electric Co. v. Interborough Rapid Transit Co.*, 198 F. R. 94, 1912; *Vacuum Engineering Co. v. Dunn*, 209 F. R. 219, 1913; *Patents Selling & Exporting Co. v. Dunn*, 213 F. R. 40, 1914; *Mergenthaler Linotype Co. v. International Typesetting*

Machine Co., 229 F. R. 168, 1914.

¹³² *Western Electric Co. v. Home Tel. Co.*, 85 F. R. 656, 1898.

¹³³ *Kennedy v. Hazelton*, 128 U. S. 672, 1888; *Eager v. United States*, 35 Court of Claims, 567, 1900.

§ 45. If A. B. notices the need of a new machine to perform a particular function, and thereupon conceives the plan of such a machine, and proceeds to embody that plan in a successful working structure, and does all this without assistance from any other person, then it is clear that he is a sole inventor of that machine. If, on the other hand, C. D. notices the need of a new machine to perform a particular function, and calls the attention of E. F. to the matter, and a successful invention is, after many conversations between the two, embodied in a working machine constructed by the hands of both, then it may be that C. D. is the sole inventor, or it may be that E. F. is the sole inventor, or it may be that both are joint inventors of the machine they produce.

§ 46. 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. But where two or more persons exercised their inventive faculties in the mutual production of a new and useful process, machine, manufacture, composition of matter, or design, those persons are joint inventors thereof, regardless of whether one, or part, or all, or neither of those persons constructed or helped to construct the first specimen of that thing, or performed or helped to perform the first instance of that process. And the fact that one of two joint inventors conceived the best thought that went into the invention does not invalidate the patent issued to them jointly, where the claim covers a series of steps or a number of elements in a combination.¹³⁴ Nor is a patent to joint inventors invalidated by the fact that one of them only first perceived the crude form of the elements and the possibility of their adapta-

¹³⁴ Quincy Mining Co. v. Krause, 151 F. R. 1012, 1907.

tion to accomplish the result desired.¹³⁵ In fact the conception of the entire device may be due to one, but if the other makes suggestions of practical value which assist in working out the main idea and making it operative, or contributes an independent part of the entire invention which helps to create the whole, he is a joint inventor even though his contribution be of minor importance.¹³⁶ But if the contribution is the subject of a separate claim in the patent such person is not a joint inventor.¹³⁷

§ 47. The case of the *Agawam Co. v. Jordan*¹³⁸ is not inconsistent with what is advanced at the close of the last section. The defendant in that case did not set up a joint invention by the patentee and another, but set up an alleged sole invention by that other of the thing patented. The most that it could get its witness to testify, however, was that he suggested to the patentee one of the parts of one of the combinations secured by the patent, but that the patentee himself contrived the devices by means of which that part was incorporated into that combination. The patentee did not claim the suggested part as his invention, but only claimed several new combinations of old devices, and among the number, a combination of several things, one of which was said to have been suggested by the defendant's witness. In that state of facts it was clear that the latter was neither sole nor joint inventor of anything covered by the patent, and accord-

¹³⁵ *Vrooman v. Penhallow*, 179 F. R. 296, 1910.

¹³⁶ *De Laski & Thropp C. W. T. Co. v. Wm. R. Thropp & Sons Co.*, 218 F. R. 458, 1914; *Wm. R. Thropp & Sons Co. v. De Laski & Thropp, etc., Co.*, 226 F. R. 941, 1915.

¹³⁷ *De Laski & Thropp C. W. T. Co. v. Wm. R. Thropp & Sons Co.*, 218 F. R. 458, 1914.

¹³⁸ *Agawam Co. v. Jordan*, 7 Wallace, 583, 1868. See also *Lloyd v. Antisdell*, 95 O. G. 1646, 1901.

ingly the Supreme Court so decided. Other authority to the same effect is found in the note.¹³⁹

And the case of *Forgie v. Oil Well Supply Co.*¹⁴⁰ is also consistent with the views of the last section. In that case Forgie wanted a machine by means of which to exert great power horizontally, and it occurred to him that a lifting jack might be somehow used for the purpose. With this view he called on Barrett, who was the inventor and manufacturer of a particularly good lifting jack, and presented his case to him. Barrett thereupon caused his lifting jack to be reconstructed on a plan prescribed by himself, and thereafter made a number of the reconstructed tools for Forgie, who sold them to others who, like himself, wanted such a machine. They filled the vacant place by entirely successful operation, and became very popular. Thereupon Forgie applied for and obtained a patent on the reconstructed machine as his own invention; but the Circuit Court of Appeals for the third circuit held the patent to be void, because the machine had been produced by Barrett, and not by Forgie.

§ 48. In order to make an invention of importance, a considerable fund of general knowledge must be possessed by the inventor. Where that fund was acquired before he undertook his invention, it is easy to see that those who imparted it, are not thereby made joint inventors with him. Though not quite so obvious, it is equally certain that if, pending his experiments, an inventor seeks and secures one point of information from a scientist, and another from a machinist, and a third from a book, he is not, on account of having done the first two, any less a

¹³⁹ *Novelty Glass Mfg. Co. v. Brookfield*, 170 F. R. 946, 1909; *Cheshire v. Cox Multi-Mailer Co.*, 229 F. R. 415, 1915.

¹⁴⁰ *Forgie v. Oil Well Supply Co.*, 58 F. R. 871, 1893. See also *Upton Nut Co. v. H. Chapin Sons Co.*, 117 F. R. 320, 1902.

sole inventor than he is on account of having done the last.¹⁴¹

§ 49. To constitute a man an inventor, it is not necessary for him to have skill enough to embody his invention in a working machine, or in a model, or even in a drawing. If a man furnishes all the ideas needed to produce the invention aimed at, he may avail himself of the mechanical skill of others, to practically embody or represent his contrivance, and still be the sole inventor thereof.¹⁴² But it is not invention to conceive a result, and then employ another to produce that result.¹⁴³

§ 50. Under the statute, only he or they who have invented a particular process or thing can lawfully receive a patent therefor, except in a case where the patentee is an assignee or legal representative of the true inventor or inventors. The patent must disclose the real inventor, and must be founded on his right as such. It follows that if one of two or more persons obtains a patent for a process or thing which was jointly invented by them all, that patent is not valid.¹⁴⁴ In such a case it is not true that the patentee invented the thing patented. He only helped to invent it. If he could have a valid patent for that thing or process, each of his co-inventors could do likewise, and each of several persons would possess the exclusive right to the same. As to each other, such a state of affairs among patentees would be impossible, and as to the public it would be intolerable.

¹⁴¹ *O'Reilly v. Morse*, 15 Howard, 62, 1853.

¹⁴² *Sparkman v. Higgins*, 1 Blatch. 209, 1846; *Stearns v. Davis*, 1 McArthur's Patent Cases, 696, 1859; *Smith v. Stewart*, 55 F. R. 483, 1893; *Huebel v. Barnard*, 90 O. G. 751, 1899.

¹⁴³ *Streat v. White*, 35 F. R. 426, 1888.

¹⁴⁴ *Arnold v. Bishop*, 1 McArthur's Patent Cases, 36, 1841; *H. T. Slemmer's Appeal*, 58 Penn. 164, 1864; *Newgold v. American Electrical Novelty & Mfg. Co.*, 108 F. R. 959, 1901.

It has been held, however, that where the application for such a patent has been assigned prior to issuance of the patent, the patent is not invalid by reason of each of joint inventorship on the ground that the patent, having been granted to an assignee, the reason for the rule does not exist.¹⁴⁵

§ 51. So also, if several persons obtained a joint patent for what was invented solely by one of them, that patent is void.¹⁴⁶ And where several independent inventions are claimed by several different claims in a joint patent, and where one of those inventions was made by one of the joint applicants for the patent, without any co-operation of another joint applicant, the claim of the patent which covers that invention, is void.¹⁴⁷ There is no statutory authority to grant a patent or a claim to a non-inventor jointly with an inventor, without an assignment or a death, any more than there is to grant a patent to a non-inventor alone. But very convincing evidence is required to establish the invalidity of a patent on the ground stated in this section.¹⁴⁸

¹⁴⁵ *De Laski & Thropp C. W. T. Co. v. Wm. R. Thropp & Sons Co.*, 218 F. R. 458, 1914.

¹⁴⁶ *Ransom v. New York*, 1 Fisher, 269, 1856; *Hotchkiss v. Greenwood*, 4 McLean, 461, 1848; *Barrett v. Hall*, 1 Mason, 473, 1818; *Royer v. Coupe*, 29 F. R. 363, 1886; *Stewart v. Tenk*, 32 F. R. 665, 1887; *Welsbach Light Co. v. Cosmopolitan Incandes-*

cent Gaslight Co., 100 F. R. 650, 1900.

¹⁴⁷ *Heulings v. Reid*, 58 F. R. 868, 1893; *Welsbach Light Co. v. Cosmopolitan Gaslight Co.*, 104 F. R. 86, 1900.

¹⁴⁸ *Button Fastener Co. v. Lucas*, 28 F. R. 371, 1886; *Schlicht & Field Co. v. Machine Co.*, 36 F. R. 585, 1888; *Priestly v. Montague*, 47 F. R. 651, 1891.

CHAPTER III

NOVELTY

52. Novelty necessary to patentability.
53. Novelty defined.
54. Not negatived by prior knowledge or use in a foreign country.
55. Not negatived by any private patent granted in a foreign country.
56. Prior printed publications.
57. Fullness of prior patents and printed publications.
58. Novelty not negatived by any prior abandoned application.
59. Qualification of the last rule.
60. Successful prior applications.
61. Novelty not negatived by any unpublished drawing, or prior model.
62. Novelty not negatived by anything substantially different.
63. Abandoned experiments.
64. Novelty in cases of designs.
65. Novelty not negatived by anything apparently similar, but comparatively useless.
66. Novelty not negatived by antiquity of parts.
67. Novelty not negatived by prior accidental and not recognized production.
68. Novelty not negatived by anything neither designed, nor apparently adapted, nor actually used for the same purpose.
69. Comparative dates.
70. Dates of patented inventions.
71. Novelty is negatived by one instance of prior knowledge and use in this country.
72. Novelty is negatived by prior existence and knowledge in this country.
73. Inventor's lack of knowledge of anticipating matter is immaterial.
74. Old thing derived from new source, is not novel.
75. Questions of novelty are questions of fact.
76. Burden of proof relevant to novelty, and want of novelty.

§ 52. THE statutes of the United States have always provided that anything to be patentable must be new. Statements that some things are not patentable because,

though new in a commercial sense, they are not new in the eye of the patent law, occur in a few reported cases. In every such instance, however, it would have been more accurate to say that some things are not patentable because, though new things, they are not invented things. Such things lack patentability not because they lack newness, but because they lack invention. The subject belongs to the domain of invention and not to that of novelty, and it is therefore treated in the second chapter of this book. With this explanation, it is not untrue nor misleading to say that whatever is really new, is new in the eye of the patent law. Therefore in order to negative novelty or as it is usually expressed, to "anticipate" an invention, it is necessary that all of the elements of the invention or their equivalents be found in one single description or structure where they do substantially the same work in substantially the same way.¹

§ 53. Many things are new in the eye of the patent statutes, in addition to those things which are really new. The word has therefore a broader signification in those statutes than it has in the dictionaries; but that broader meaning is not capable of a short definition. Novelty is the conventional name of the statutory newness, but that name does not indicate the boundaries of the thing which it denotes. Those boundaries can be delineated only by enumerating and explaining those classes of facts which fall within them, but which fall without the boundaries of actual newness; those classes of facts which negative newness, but which do not negative novelty.

§ 54. Novelty is not negatived by prior knowledge and prior use in a foreign country, of the subject of a United

¹ Ottumwa Box Car Loader Co. v. Christy Box Car Loader Co., 215 F. R. 362, 1914; Vented Cushion & Spring Co. v. D'Arcy, 232 F. R. 468, 1916.

States patent; provided that subject had nowhere been patented to another, and nowhere been described in a printed publication when it was invented by the applicant for that patent.²

In former editions of this book, this rule was coupled with the additional proviso; that the patentee, at the time of making his application for a United States patent, believed himself to be the first inventor of the thing covered thereby.³ That proviso was based on Section 4923 of the Revised Statutes; but it now appears that that section does not attend to any case in which a person, at the time of making his application for a patent, does not believe himself to be the first inventor of the thing covered thereby. On the contrary, that section leaves that class of cases to the operation of Section 4886 of the Revised Statutes. That section prescribes that a patent may be obtained by any person who has invented any subject of a patent, not known or used by others in this country, and not patented or described in any printed publication anywhere, before his invention thereof; but it does not couple that permission with the condition that the patentee, at the time of making his application for a patent, shall believe himself to be the first inventor of the thing covered thereby. Accordingly, it has now been held by the Circuit Court of Appeals for the first circuit, that novelty is not negatived by prior knowledge and use in a foreign country, of the subject of a United States patent, where that prior knowledge and use became known to the applicant for that patent, between the time when he made his invention, and the time when he made his application, and which information prevented him from believing him-

² Revised Statutes, Section 4886; *Westinghouse Electric & Mfg. Co. v. Saranac Lake Electric Light Co.*, 108 F. R. 226, 1901.

³ See third edition.

self, at the time of making his application, to be the first inventor of the invention covered thereby.⁴

Prior knowledge, possessed in this country, by some other person than the applicant for a particular patent, that the subject of that patent was known and used in some foreign country, before its invention here, is not such knowledge in this country as will negative the novelty of the patent covering that subject.⁵ And this rule is not altered by the fact that one who acquired the prior knowledge of the foreign use came to the United States and disclosed his knowledge to others before the date of invention of the United States applicant,^{5a} provided of course that the United States applicant did not learn of the disclosure before his date of conception. If such were the case he would not, of course, be an inventor of the thing disclosed.

§ 55. Novelty is not negatived by any United States patent which was issued after the contested invention was made, though applied for before that event,⁶ nor by any prior private patent granted in any foreign country,⁷ nor by any public patent granted in England, unless the latter was sealed before the person obtaining the Amer-

⁴ American Sulphite Pulp Co. v. Howland Falls Pulp Co., 80 F. R. 398, 1897.

⁵ Doyle v. Spalding, 19 F. R. 746, 1884.

^{5a} Revised Statutes, Section 4923; Westinghouse Machine Co. v. General Electric Co., 207 F. R. 75, 1913. See Vacuum Engineering Co. v. Dunn, 209 F. R. 219, 1913.

⁶ American Roll Paper Co. v. Weston, 45 F. R. 689, 1891; Diamond Drill & Machine Co. v. Kelly Bros., 120 F. R. 287, 1902;

Anderson v. Collins, 122 F. R. 418, 1903; Eck v. Kutz, 132 F. R. 758, 1904 (but such a patent is inadmissible on the issue of priority of invention, *ib.*); Gray Telephone Pay Station Co. v. Baird Mfg. Co., 174 F. R. 417, 1909; Sundh Electric Co. v. Interborough Rapid Transit Co., 198 F. R. 94, 1912; Turner Brass Works v. Appliance Mfg. Co., 203 F. R. 1001, 1909; Vacuum Engineering Co. v. Dunn, 209 F. R. 219, 1913.

⁷ Brooks v. Norcross, 2 Fisher, 661, 1851.

ican patent made the invention.⁸ In neither of those three cases can it be truly said that the invention was antecedently patented, and therefore such transactions do not come within the statute. A French patent becomes effective to negative novelty as soon as it is sealed and enrolled, and it matters not for such a purpose that it was afterward permitted to lapse for non-payment of the annual fee, or was never printed, or that the device was not commercially successful.⁹ The date of a German patent for purposes of anticipation is the "ausgegeben" or publication date.¹⁰ But though novelty is not negatived by any United States patent, issued after the contested invention was made; novelty may be negatived by the prior art, as that art was shown in the specification or the drawing of the application for such a patent, if that application was filed in the Patent Office before the contested invention was made,¹¹ and provided that there had been prior to the invention of the patent in suit some actual use of the invention. For a mere application in the Patent Office, while it may be sufficient to prove the date of invention of a patent, cannot of itself be used to anticipate another patent as it is not of itself a part of the prior art.^{11a} And novelty is negatived by a full description, in the specification of a prior public patent, of the subject cov-

⁸ *Siemens v. Sellers*, 123 U. S. 283, 1887; *Bliss v. Merrill*, 33 F. R. 40, 1887; *Electrical Accumulator Co. v. Julien Electric Co.*, 38 F. R. 141, 1889; *American Roll Paper Co. v. Weston*, 45 F. R. 691, 1891.

⁹ *Sirocco Engineering Co. v. B. F. Sturtevant Co.*, 220 F. R. 137, 1914.

¹⁰ *Merrell-Soule Co. v. Pow-*

dered Milk Co. of America, 222 F. R. 911, 1915.

¹¹ *Millett v. Duell*, 96 O. G. 1242, 1901.

^{11a} *Thomson-Houston Electric Co. v. Ohio Brass Co.*, 130 F. R. 542, 1904; *Alvord v. Smith & Watson Iron Works*, 216 F. R. 150, 1914; *Sundh Electric Co. v. Interborough Rapid Transit Co.*, 222 F. R. 334, 1911.

ered by an American patent, even though that subject was not covered by any of the claims of the prior patent, and therefore not patented to the prior inventor.¹² This rule must result from the fact that whatever is well described in a public patent is set forth to the public, whether it is claimed by the patentee or not. Indeed novelty is negatived by a prior patent which shows the invention in its drawings and describes it in its specification, but does not even state its use.¹³

§ 56. A printed publication is anything which is printed, and, without any injunction of secrecy, is distributed to any part of the public in any country; and such a publication may negative novelty.¹⁴ Indeed, it seems reasonable that no actual distribution need occur, but that exposure of printed matter for sale is enough to constitute a printed publication. But the mere existence of a printed thing is not a printed publication,¹⁵ though its deposit in a public library is.¹⁶ A drawing, in a prior patent or printed publication, if its meaning is really undeniable, may negative novelty in a later patent on a machine, manufacture, or design.¹⁷

Inasmuch as drawings can generally give information which is as clear as that which words alone can give, relevant to the construction and character of a machine, or manufacture, or design, there is no reason for their not having the same effect on the novelty of subsequent pat-

¹² *United States Bung Mfg. Co. v. Independent Bung Co.*, 31 F. R. 79, 1887; *Saunders v. Allen*, 60 F. R. 613, 1894.

¹³ *Stow v. Chicago*, 104 U. S. 547, 1881.

¹⁴ *Rosenwasser v. Spieth*, 129 U. S. 47, 1889.

¹⁵ *Britton v. White Mfg. Co.*, 61 F. R. 95, 1894.

¹⁶ *John Crossley & Sons v. Hogg*, 83 F. R. 489, 1897.

¹⁷ *Millett v. Duell*, 96 O. G. 1242, 1901; *Britton v. White Mfg. Co.*, 61 F. R. 96, 1894; *Keene v. New Idea Spreader Co.*, 231 F. R. 701, 1916.

ents. No injustice can result from this rule; because in order to have any effect on such novelty, drawings as well as words, must be able to endure the test stated in the next section.

§ 57. Novelty is not negatived by any prior patent or printed publication, unless the information contained therein, is full enough and precise enough to enable any person skilled in the art to which it relates, to perform the process or make the thing covered by the patent sought to be anticipated.¹⁸ Testimony is not admissible to show that a prior patent or printed publication is out of conformity with the intention of its author,¹⁹ or to explain an otherwise uninforming statement by evidence of some apparatus or article not in itself competent as an anticipation.²⁰ Nothing can be used for that purpose except what is disclosed on the face of the patents.²¹ And expert testimony, though admissible on the question of the meaning of a prior patent or publication, is not weighty, unless it is supported by reasoning; and is not conclusive in court, even if so supported.²² A prior patent or publication needs not to have been reduced to practice, or to be more than a paper proposition, in order to negative the novelty of a later patent,²³ even though the devices of the

¹⁸ *Seymour v. Osborne*, 11 Wallace, 516, 1870; *Cawood Patent*, 94 U. S. 704, 1876; *Downton v. Milling Co.*, 108 U. S. 466, 1882; *Eames v. Andrews*, 122 U. S. 66, 1886; *Carnegie Steel Co. v. Cambria Iron Co.*, 89 F. R. 737, 1898; *Westinghouse Electric & Mfg. Co. v. Saranac Lake Electric Light Co.*, 168 F. R. 227, 1901; *Hess-Bright Mfg. Co. v. Standard Roller-Bearing Co.*, 177 F. R. 435, 1910.

¹⁹ *Badische Anilin & Soda Fabrik v. Kalle*, 94 F. R. 168, 1899; and 104 F. R. 808, 1900.

²⁰ *Loew Filter Co. v. German-American Filter Co.*, 164 F. R. 855, 1908; *Naylor v. Alsop Process Co.*, 168 F. R. 911, 1909.

²¹ *Beckwith v. Malleable Iron Range Co.*, 174 F. R. 1001, 1910.

²² *Hanifen v. Godshalk Co.*, 84 F. R. 652, 1898.

²³ *E. M. Miller Co. v. Meriden*

prior patents be incapable of successful operation. It is sufficient if the prior patents embody the elements and disclose the principle of operation of the patent in suit.²⁴ This doctrine has been applied to the proof of anticipation by prior structures,²⁵ but its application to such cases is doubtful.^{25a} And a difference, which consists of a mere omission of something which a skillful mechanic would supply, is not fatal to anticipation.²⁶ The phrase "skillful mechanic," as used in this connection, does not include mechanics who are skillful only in methods of servile imitation. It refers only to mechanics who know how to vary form without varying substance, and who, in constructing a machine or manufacture, from a printed description, or from Patent Office drawings, could readily, and would freely, alter proportions and change details in order to adapt the contrivance to a particular use, or in order to secure greater merit of workmanship for the thing constructed.

But prophetic suggestions and surmises in prior patents or publications, of what results can be achieved in a particular art, are not enough to negative the novelty of any patent on an invention which can accomplish that result.^{26a}

Bronze Co., 80 F. R. 525, 1897;
Ideal Stopper Co. v. Crown Cork
& Seal Co., 131 F. R. 244, 1904.
See *Timolat v. Phila. Pneumatic
Tool Co.*, 131 F. R. 257, 1904.

²⁴ *Westinghouse Air Brake Co.
v. Christensen Eng. Co.*, 128 F. R.
437, 1904; *Van Epps v. United
Box Board & Paper Co.*, 143 F.
R. 869, 1906; *Hyde v. Minerals
Separation, Ltd.*, 214 F. R. 100,
1914. *Contra Hale & Kilburn
Mfg. Co. v. Oneonta, etc., Ry.
Co.*, 129 F. R. 598, 1904.

²⁵ *Merrimac Mattress Mfg. Co.
v. Feldman*, 133 F. R. 64,
1904.

See Section 67, *post*.

^{25a} See *Kings County, etc., Co.
v. U. S. Consolidated, etc., Co.*,
182 F. R. 59, 1910.

²⁶ *Chase v. Fillebrown*, 58 F. R.
378, 1893; *Ideal Stopper Co. v.
Crown Cork & Seal Co.*, 131
F. R. 244, 1904.

^{26a} *Westinghouse Air-Brake Co.
v. Great Northern Ry. Co.*, 88
F. R. 263, 1898; *Asbestos Shingle*,

And a claim for an article of manufacture may be anticipated by a prior patent or printed publication, which describes the article, without describing any process of making it; provided a knowledge of the article would teach a skillful mechanic some process of making it.²⁷

§ 58. Novelty is not negatived by any prior abandoned application for a patent.²⁸ Abandoned applications for patents are not, by the statutes, made bars to patents to later applicants. They furnish no evidence that the processes or things they describe were ever made or used anywhere. Being only pen and ink representations of what may have existed only as mental conceptions of the men who put them upon paper, they do not prove that the processes or things which they depict were ever known in any country. Nor can they be classed among printed publications, for they are usually in writing, and are not published by the Patent Office. It is true that certified copies of abandoned applications are sometimes obtained, and may be published by those who obtain them, but such a publication will operate as of its own date, and not as of the date of the application.

§ 59. When there is evidence that he who made and abandoned an application for a patent, made also some effort to carry his invention into practical use, then that application is admissible in evidence to aid the court to determine the date and the nature of the invention which was sought to be embodied in a working form. If, however, upon the whole of the evidence, it appears that what the

etc., Co. *v.* H. W. Johns-Mansville Co., 184 F. R. 620, 1910.

²⁷ *Cohn v. Corset Co.*, 96 U. S. 366, 1876; *In re Schaeffer*, 2 App. D. C. 8, 1893.

²⁸ *Corn-planter Patent*, 23 Wallace, 211, 1874; *N. W. Extinguisher Co. v. Phila. Extinguisher*

Co. v. Phila. Extinguisher Co., 1 Bann. & Ard. 177, 1874; *Lyman Ventilating & Refrigerator Co. v. Lalor*, 1 Bann. & Ard. 403, 1874; *Interurban Ry. & Terminal Co. v. Westinghouse Electric & Mfg. Co.*, 186 F. R. 166, 1911.

inventor did, outside of his abandoned application, did not amount to enough to negative the novelty of a subsequent patent to a later inventor, then that abandoned application becomes immaterial to that issue.²⁹

§ 60. Novelty is not negatived by any successful application for a patent, nor by any documents pertaining thereto, different from the letters patent issued in pursuance thereof.³⁰ When such an application, or such a document, is offered to prove the existence of something which is not shown by the letters patent themselves, the justice and propriety of this rule is apparent. But a successful application may be properly used to prove the date of the invention set forth therein, and claimed in the resulting patent.³¹

§ 61. Novelty of a machine or manufacture, is not negatived by any prior unpublished drawings, no matter how completely they may exhibit the patented invention,³² nor by any prior model, no matter how fully it may coincide with the thing covered by the patent.³³ The reason of this rule is not stated with fullness in either of the cases which support it, but that reason is deducible from the statute and from the nature of drawings and of

²⁹ Corn-planter Patent, 23 Wallace, 211, 1874.

³⁰ *Howes v. McNeal*, 5 Bann. & Ard. 77, 1880.

³¹ *Westinghouse v. Gas Co.*, 43 F. R. 588, 1890; *Barnes Co. v. Walworth Co.*, 51 F. R. 88, 1892; 60 F. R. 606, 1894; *Sundh Electric Co. v. Interborough Rapid Transit Co.*, 198 F. R. 94, 1912.

³² *Ellithorp v. Robertson*, 4 Blatch. 309, 1859; *Draper v. Potomska Mills*, 3 Bann. & Ard. 214, 1878; *Detroit Lubricator*

Mfg. Co. v. Renchard, 9 F. R. 293, 1881; *Odell v. Stout*, 22 F. R. 159, 1884; *Pennsylvania Diamond Drill Co. v. Simpson*, 29 F. R. 291, 1886.

³³ *Cahoon v. Ring*, 1 Cliff. 593, 1861; *Stainthorp v. Humiston*, 4 Fisher, 107, 1864; *Johnson v. McCullough*, 4 Fisher, 170, 1870; *Stillwell & Bierce Mfg. Co. v. The Cincinnati Gas Light & Coke Co.*, 1 Bann. & Ard. 610, 1875; *Bowers v. Von Schmidt*, 63 F. R. 577, 1894.

models. The statute provides, relevant to the newness of patentable machines and manufactures, that they shall not have been previously known or used by others in this country.³⁴ Now, it is clear that to use a model or a drawing is not to use the machine or manufacture which it represents; and it is equally obvious that to know a drawing or a model is not the same thing as knowing the article which that drawing or model more or less imperfectly pictures to the eye. It follows that neither of those things can negative the newness required by the statute. Nor is the statutory provision on this point lacking in good reasons to support it. Private drawings may be mislaid or hidden, so as to preclude all probability of the public ever deriving any benefit therefrom; and even if they are seen by several or by many, they are apt to be understood by few or by none. Models also are liable to be secluded from view and to suffer change, and thus to fail of propagation. Moreover, if a patent could be defeated by producing a model or a drawing to correspond therewith, and by testifying that it was made at some sufficiently remote point of time in the past, a strong temptation would be offered to perjury. Several considerations of public policy and of private right combine, therefore, to justify the rule of this section.

The word "model" it should be noted as used in the foregoing connection is used in the limited sense of a "pattern, a copy, a representation usually upon a reduced scale" and not in the sense of an operative structure identical with the structure of the patent.³⁵

§ 62. Novelty is not negatived by anything not substantially identical with the subject of the patent, even though

³⁴ Revised Statutes, Section 4886. *Co. v. Wagner Typewriter Co.*, 151 F. R. 576, 1906.

³⁵ American Writing Machine

the function of the prior process or thing was identical with that of the patented matter. This rule follows from the doctrine that a valid patent may be granted for a new means of producing an old result.³⁶ But substantial identity in some respects, is consistent with substantial difference in others. For novelty is negatived by a prior process or mechanism which included the subject of the patent, though it also included some other process or device. But if a patented process or thing possesses distinct and apparently important characteristics not possessed by any alleged anticipation, the defense for want of novelty will fail.³⁷ But a prior process or thing, which will not defeat a patent for want of novelty, may defeat it for want of invention.³⁸ It will do so wherever the observed difference corresponds in character with either of those differences between a patented process or thing, and the prior art, which in the second chapter of this book were shown not to constitute invention.

Several judicial opinions contain the statement that "That which infringes, if later, would anticipate, if earlier." But that epigrammatic formula is too broad, and those who have used it must have overlooked the distinction between primary patents and secondary patents. That which would infringe a primary patent, if later, may or may not anticipate that patent, if earlier. Where an inventor believes his invention to be primary, but thinks it may possibly turn out to be secondary, he may properly make his claim in a form that can be construed to fit his invention, in either event. Afterward, when he seeks to suppress a different but competing contrivance, as being

³⁶ *O'Reilly v. Morse*, 15 Howard, 62, 1853.

³⁷ *Los Alamitos Sugar Co. v. Carroll*, 173 F. R. 280, 1909.

³⁸ *Untermeyer v. Freund*, 58 F. R. 209, 1893; *Universal Winding Co. v. Willimantic Linen Co.*, 82 F. R. 239, 1897.

an infringement of his claim, when broadly construed; that contrivance may be held to infringe, if later, while not being held to anticipate, if earlier. If the competing contrivance turns out to be earlier, it may have no effect upon his patent, except to relegate it to the secondary position in the art, and thus to limit its claim so narrowly that the competing contrivance does not infringe it. The distinction between primary patents and secondary patents is further developed in Sections 184, 359, 362 and 362a of this book.

§ 63. The rule of Section 62 will probably govern every case which justly comes within the doctrine that novelty is not negatived by any unsuccessful abandoned experiment. That rule is more comprehensive and reliable than that doctrine, because the latter is subject to such qualifications and explanations that its practical utility in deciding cases is but small. A thing may have been abandoned and still negative the novelty of a thing independently invented long after that abandonment.³⁹ Such will be the result if the earlier thing was identical with the later, and was used long enough to show that it would work.^{39a}

If an experimental machine or manufacture was unsuccessful in the hands of its contriver, that fact must have been due either to one or more faults of principle, or to one or more faults of construction, or to one or more

³⁹ *Waterman v. Thomson*, 2 Fisher, 463, 1863; *Shoup v. Henrici*, 2 Bann. & Ard. 249, 1876; *N. W. Extinguisher Co. v. Phila. Extinguisher Co.*, 1 Bann. & Ard. 177, 1874; *McNish v. Everson*, 5 Bann. & Ard. 484, 1880; *Merri-mac Mattress Mfg. Co. v. Feldman*, 133 F. R. 64, 1904.

^{39a} *Gayler v. Wilder*, 10 Howard, 477, 1850; *Sayles v. Railway Co.*, 4 Fisher, 588, 1871; *Stephenson v. Railroad Co.*, 14 F. R. 459, 1881; *Electrical Accumulator Co. v. Julien Electric Co.*, 38 F. R. 131, 1889; *American Roll Paper Co. v. Weston*, 51 F. R. 240, 1892.

faults of each of these kinds. If partly or wholly due to any fault of principle, that very fact shows that the unsuccessful device was substantially different from subsequent successful patented things. For that reason alone it would have failed to negative the novelty of those things, even if it had not been unsuccessful. If, on the other hand, a prior device was unsuccessful merely because its construction was weak, it is far from certain that it will not be held to negative the novelty of subsequent devices identical with it in plan, mode of operation, and function.^{39^b}

The truth, therefore, appears to be that an unsuccessful abandoned experimental machine or manufacture, may possibly negative the novelty of a later invention, and that where it fails to have that effect, it would have failed, even if it had been neither unsuccessful nor abandoned. Novelty is to be ascribed to new things, regardless of whether old and different things were successful or unsuccessful, abandoned or not abandoned. Novelty is to be denied to old things, regardless of the accidents which caused earlier specimens of the same things to fail to operate, or caused their use to be discontinued.

But a court is not called upon to struggle to decipher an anticipation, in the unfinished work and the surmises of earlier students of the same subject.^{39^c} And unsuccessful abandoned experiments in processes, cannot be properly held to constitute prior uses of successful patented processes in the same art.⁴⁰

^{39^b} *Pickering v. McCullough*, 104 U. S. 319, 1881; *Merrimac Mattress Mfg. Co. v. Feldman*, 133 F. R. 64, 1904; *Van Epps v. United Box Board & Paper Co.*, 143 F. R. 869, 1906.

^{39^c} *American Graphophone v. Leeds*, 87 F. R. 877, 1898; *Warren*

Bros. v. City of Owosso, 166 F. R. 309, 1909.

⁴⁰ *Westinghouse Electric & Mfg. Co. v. Beacon Lamp Co.*, 95 F. R. 464, 1899; *Consolidated Contract Co. v. Hassam Paving Co.*, 227 F. R. 436, 1915.

§ 64. A design as in the case of any other subject-matter of a patent must possess novelty.⁴¹ The question of the novelty of a design, is to be determined by the comparative appearance of that design and of prior designs, in the eyes of average observers, and not by their comparative appearance in the eyes of experts making analytical inspections.⁴² Nor is the novelty of any design negatived by the fact that all of its features can be collected out of scattered prior designs.⁴³

§ 65. Novelty is not negatived by anything beneficially incapable of the function of the subject of the patent, even though apparently similar thereto.⁴⁴

In *Morey v. Lockwood*⁴⁵ the prior Mau syringe was set up to negative the novelty of the syringe of Dr. Davidson and his brother. The latter is the well-known soft rubber bulb apparatus. The former was exactly like it, except that the central part was a soft rubber cylinder with metallic heads, instead of a soft rubber bulb. The theoretical mode of operation of the two syringes was the same. But the Mau apparatus proved to be of no practical value, and very few specimens of it were ever sold; because the metallic heads of the cylinder strongly counteracted the

⁴¹ *Weisgerber v. Clowney*, 131 F. R. 477, 1904.

⁴² *Perry v. Starrett*, 3 Bann. & Ard. 489, 1878; *Foster v. Crossin*, 23 F. R. 402, 1885; *Kraus v. Fitzpatrick*, 34 F. R. 39, 1888; *Redway v. Ohio Stove Co.*, 38 F. R. 583, 1889; *Paine v. Snowden*, 46 F. R. 189, 1891; *Anderson v. Saint*, 46 F. R. 763, 1891.

⁴³ *Simpson v. Davis*, 12 F. R. 144, 1882; *Stearns v. Beard*, 46 F. R. 193, 1891; *New York Belting Co. v. New Jersey Car Spring*

Co., 48 F. R. 557, 1891; *Matthews & Willard Mfg. Co. v. American Lamp & Brass Co.*, 103 F. R. 639, 1900.

⁴⁴ *Crown Cork & Seal Co. v. Ideal Stopper Co.*, 123 F. R. 666, 1903; *Kirchberger v. Am. Acetylene Co.*, 124 F. R. 764, 1903; *Dececo Co. v. Gilchrist Co.*, 125 F. R. 293, 1903; *Farmers' Mfg. Co. v. Spruks Mfg. Co.*, 127 F. R. 691, 1904.

⁴⁵ *Morey v. Lockwood*, 8 Wallace, 230, 1868.

user's efforts to compress its rubber walls. For these reasons, the Supreme Court held that it did not negative the novelty of the Davidson patent.

The *Wood Finishing Co. v. Hooper*⁴⁶ is a case the patent involved in which, covered the employment of finely powdered flint, quartz, or feldspar, mixed with oil or other fluent substance, for the purpose of filling the pores of the surface of wood. A prior patent had been granted for the employment of silicious marl or infusorial earth for the same purpose. It was shown that all five of these substances consisted mainly of silica, but that the first three differed from the last two in being non-absorbent instead of porous, and in consisting of angular instead of rounded particles. These two differences made the first three substances very valuable for wood-filling, whereas the others were not valuable for that purpose. Judge NATHANIEL SHIPMAN, therefore, decided that the prior patent did not negative the novelty of the later one.

*Matheson v. Campbell*⁴⁷ is a case which was based on a patent for a black dye stuff named "naphthol-black." A prior dye stuff, named "azo-black," though made from a different starting material, was chemically identical with "naphthol-black," or was at least chemically equivalent thereto. But the two dye stuffs were not beneficially alike; because "azo-black" rubbed off very badly, and "naphthol-black" was so superior thereto, that the latter dye stuff entirely superseded the former, in actual use. Judge TOWNSEND, therefore, decided that "azo-black" did not negative the novelty of "naphthol-black."

It has been held that novelty is not negated by a prior patent which describes a device which is so similar to the patent in suit as to constitute an equivalent, if

⁴⁶ *Bridgeport Wood Finishing Co. v. Hooper*, 5 F. R. 63, 1880.

⁴⁷ *Matheson v. Campbell*, 77 F. R. 282, 1896.

the prior patent gives no indication that the inventor of the prior patent contemplated that his invention is capable of the use of the patent in suit.⁴⁸

§ 66. Novelty is not negatived by antiquity of parts.⁴⁹ This rule follows from the doctrine which allows patents for new combinations of old elements or ingredients. In such cases the whole is different from the sum of all its parts, much as this printed page is different from what it would be, if the same words were arranged in alphabetical order.

If, however, a new assemblage of old things amounts only to aggregation and not to combination,⁵⁰ or if it results in no new mode of operation,⁵¹ the patent which covers it will be void for want of invention, though not void for want of novelty.

§ 67. Novelty is not negatived by any prior accidental occurrence or production, the character and function of which was not recognized until later than the date of the patented invention sought to be anticipated thereby.⁵²

⁴⁸ *Canada v. Michigan Malleable Iron Co.*, 124 F. R. 486, 1903.

⁴⁹ *Bates v. Coe*, 98 U. S. 48, 1878; *Imhaeuser v. Buerk*, 101 U. S. 660, 1879; *Parks v. Booth*, 102 U. S. 104, 1880; *Cantrell v. Wallick*, 117 U. S. 694, 1885; *Johnson v. Railroad Co.*, 33 F. R. 501, 1888; *Consolidated Roller Mill Co. v. Coombs*, 39 F. R. 32, 1889; *Bryam v. Friedberger*, 82 O. G. 1420, 1897; *A. B. Dick Co. v. Belke & Wagner Co.*, 86 F. R. 149, 1897; *German-American Filter Co. v. Erdrich*, 98 F. R. 308, 1899; *Goss Printing-Press Co. v. Scott*, 103 F. R. 657, 1900;

Lowrie v. Meldrum, 124 F. R. 761, 1904; *St. Louis Street, etc., Co. v. Am. Street, etc., Co.*, 156 F. R. 574, 1907.

⁵⁰ *Adams v. Stamping Co.*, 141 U. S. 542, 1891; *Campbell v. Bailey*, 45 F. R. 565, 1891.

⁵¹ *Burt v. Evory*, 133 U. S. 349, 1890; *Florsheim v. Schilling*, 137 U. S. 77, 1890.

⁵² *Tilghman v. Proctor*, 102 U. S. 711, 1880; *Ransom v. New York*, 1 Fisher, 256, 1856; *Pelton v. Waters*, 1 Bann. & Ard. 399, 1874; *Andrews v. Carman*, 2 Bann. & Ard. 277, 1876; *Pittsburgh Reduction Co. v. Cowles Electric*

The reason of this rule arises out of that point of patent law policy, which rewards persons for teaching the public how to perform processes and construct things which nobody else in the United States knew how to perform or to construct, and relevant to which no adequate information could be found in any public patent or printed publication anywhere in the world. But novelty is negatived by proof of prior use of a process, where that use was understood in point of method, though not correctly understood in point of result.⁵³

§ 68. Novelty is not negatived by anything which was neither designed, nor apparently adapted, nor actually used, to perform the function of the thing covered by the patent, though it might have been made to perform that function by means not substantially different from that of the patented invention;⁵⁴ but this rule cannot govern any

Co., 55 F. R. 307, 1893; Chase *v.* Fillebrown, 58 F. R. 377, 1893; Taylor Burner Co. *v.* Diamond, 72 F. R. 184, 1896; National Harrow Co. *v.* Quick, 74 F. R. 240, 1896; Wickelman *v.* A. B. Dick Co., 88 F. R. 266, 1898; Tannage Patent Co. *v.* Donallan, 93 F. R. 821, 1899; Ajax Metal Co. *v.* Brady Brass Co., 155 F. R. 409, 1907; Western Tube Co. *v.* Rainer, 156 F. R. 49, 1907; Hillard *v.* Fisher Book Typewriter Co., 159 F. R. 439, 1908; Edison Electric Lighting Co. *v.* Novelty Incandescent Lamp Co., 167 F. R. 977, 1909; Anthracite Separator Co. *v.* Pollock, 175 F. R. 108, 1909; Byerly *v.* Barber Asphalt Paving Co., 230 F. R. 995, 1916; Toch *v.* Zibell Damp

Resisting Paint Co., 233 F. R. 993, 1916.

⁵³ Dorlon *v.* Guie, 25 F. R. 816, 1885; Schultz Belting Co. *v.* Belting Co., 40 F. R. 156, 1889.

⁵⁴ Topliff *v.* Topliff, 145 U. S. 161, 1892; Carnegie Steel Co. *v.* Cambria Iron Co., 185 U. S. 422, 1902; Knickerbocker Co. *v.* Rogers, 61 F. R. 297, 1894; Kinnear & Sager Co. *v.* Capital Sheet-Metal Co., 81 F. R. 492, 1897; Bowers *v.* San Francisco Bridge Co., 91 F. R. 410, 1898; National Hollow Brake-Beam Co. *v.* Interchangeable Brake-Beam Co., 106 F. R. 702, 1901; United Shirt & Collar Co. *v.* Beattie, 149 F. R. 736, 1906; Am. Sales Book Co. *v.* Carter-Crume Co., 150 F. R. 333, 1906.

case which lacks either of the circumstances upon which it is founded, for negation of novelty is not averted by the mere fact that the inventor of the prior device did not design it to perform the function of the patented device,⁵⁵ nor by the mere fact that its ability to perform that function is not apparent to every beholder, nor by the mere fact that it was never actually used for that purpose, nor by any two of these facts combined. The same principle applies to a prior patent. Although a prior patent may incidentally show a similar arrangement of parts, if that arrangement is not claimed nor designed to perform the function of the later patent, it cannot act as an anticipation.⁵⁶

§ 69. Novelty is not negated by anything which was invented, patented, or described in a printed publication prior to the granting of the patent sought to be anticipated, or even prior to the application therefor, unless the anticipating event occurred prior to the date of the invention secured by that patent.⁵⁷

One apparent exception to this rule has been stated in one leading case by the Supreme Court,⁵⁸ and indorsed in another good precedent by Judge McKINNON.⁵⁹ In those instances it was said that where two patents for the

⁵⁵ Leonard *v.* Lovell, 29 F. R. 315, 1886.

⁵⁶ Gray Telephone Pay Station Co. *v.* Baird Mfg. Co., 174 F. R. 417, 1909; Beckwith *v.* Malleable Iron Range Co., 174 F. R. 1001, 1910; Kryptok Co. *v.* Stead Lens Co., 207 F. R. 85, 1913; A. R. Mosler & Co. *v.* Lurie, 209 F. R. 364, 1913; Munising Paper Co. *v.* American Sulphite Pulp Co., 228 F. R. 700, 1915.

⁵⁷ Cochraue *v.* Deener, 94 U. S.

791, 1876; Elizabeth *v.* Pavement Co., 97 U. S. 130, 1877; Clark Thread Co. *v.* Willimantic Linen Co., 140 U. S. 486, 1891; Pacific Cable Ry. Co. *v.* Butte City Ry. Co., 58 F. R. 422, 1893; Western Electric Co. *v.* Capital Telephone & Telegraph Co., 86 F. R. 771, 1898.

⁵⁸ Suffolk Co. *v.* Hayden, 3 Wallace, 315, 1865.

⁵⁹ McMillin *v.* Rees, 5 Bann. & Ard. 269, 1880.

same invention are granted to the same inventor, the last, and not the first, is void, even where the last was first applied for. The exception is, however, only apparent, because the patent last applied for is as much entitled to date from the making of the invention as the other. The date of invention assignable to the two patents being exactly the same, the first patent will negative the novelty of the last, regardless of which was first applied for. The saying of the Supreme Court in this matter is not inconsistent with the rule that, in the absence of other evidence of the dates of invention, the first application must be taken to represent the first invention,⁶⁰ because the fact of an identical inventor is evidence in such cases that the date of invention was identical.

And the saying in *Suffolk Co. v. Hayden* has no applicability to a case where an inventor takes out a patent which describes and claims what was described but not claimed in a prior patent of his, because in such a case the prior patent is not for the same invention as the last.⁶¹

Where several patents are granted to one inventor on different inventions in the same art, the dates of their applications, instead of the dates of the patents themselves, in the absence of evidence of the dates of the making of the respective inventions, determine the relative rank of those patents in the art to which they belong.⁶²

When two applications by the same inventor are filed

⁶⁰ *Pope Mfg. Co. v. Gormully Mfg. Co.*, 144 U. S. 244, 1892; *Pennington v. King*, 7 F. R. 462, 1881.

⁶¹ *Suffolk Co. v. Hayden*, 3 Wallace, 315, 1865; *Singer v. Braunsdorf*, 7 Blatch. 521, 1870; *Wheeler v. McCormick*, 11 Blatch. 334, 1873; *Graham v. McCormick*,

5 Bann. & Ard. 244, 1880; *McMillin v. Rees*, 5 Bann. & Ard. 269, 1880; *Graham v. Mfg. Co.*, 11 F. R. 138, 1880; *Victor Talking Machine Co. v. American Graphophone Co.*, 140 F. R. 860, 1905.

⁶² *Barbed Wire Patent*, 143 U. S. 281, 1892.

contemporaneously, one with generic claims and the other with specific claims, the inventor does not lose his right to the generic patent because it happens to issue after the issuance of the specific patent.⁶³ The same rule applies when the patentee files an application for an improvement after he files an application for his generic invention and the patent on the former is issued first, and it is not necessary for the application of the rule that there be in the later application an express disclaimer of the invention of the first.⁶⁴

It has been held that where several applications describe the same structure or process, but no one of the issued patents claims any invention claimed in any of the others and they are all pending at the same time, the applications and patents cannot be used to anticipate each other.⁶⁵

In the absence of proof as to the date of actual invention, the date of issue is proof of that fact, and where two patents are issued on the same day, the earlier in number must be regarded as the senior and earlier in publication.⁶⁶ The exception to this rule is where the patentee had an application pending for the later numbered patent at the time when the earlier numbered patent issued, both of which patents were the result of a divided application.⁶⁷

§ 70. In order to apply the rule of the last section, it is necessary to fix the date of the invention covered by the patent sought to be anticipated. In cases where the invention may be exhibited in a drawing or in a model, it

⁶³ *Badische Anilin & Soda Fabrik v. Klipstein & Co.*, 125 F. R. 543, 1903.

⁶⁴ *Cleveland Foundry Co. v. Detroit Vapor Stove Co.*, 131 F. R. 853, 1904.

⁶⁵ *Century Electric Co. v. West-*

inghouse Electric & Mfg. Co., 191 F. R. 350, 1911.

⁶⁶ *Crown Cork & Seal Co. v. Standard Stopper Co.*, 136 F. R. 841, 1905.

⁶⁷ *Benjamin Electric Mfg. Co. v. Dale Co.*, 158 F. R. 617, 1907.

will date from the completion of such a model or such a drawing as is sufficiently plain to enable those skilled in the art to understand the invention;⁶⁸ and patented inventions always date at least as early as the dates of the execution of the original applications therefor, provided the original applications exhibit the inventions with the above-mentioned extent of sufficiency.⁶⁹ In cases where a patented invention was explained in words, without the aid of any model or any drawing, it will date from the completion of such a written description as would teach others how to make and use the invention described. In cases where the inventor makes a specimen of the thing invented, before he makes any model, or drawing, or written description to represent that thing, the invention will date from the completion of that specimen. Perfection is not necessary to such a specimen in order to entitle it to such an effect. Substantial completeness is enough.⁷⁰ And where the distinguishing characteristic of an invention, consists of a composition of matter capable of considerable variations in its ingredient, the invention will date from the time when the first of those variations was reduced to successful practice.⁷¹

No invention ought to date from any day wherein it

⁶⁸ *Loom Co. v. Higgins*, 105 U. S. 594, 1881; *Deering v. Harvester Works*, 155 U. S. 298, 1894; *Heath v. Hildreth*, 1 McArthur's Patent Cases, 24, 1841; *Perry v. Cornell*, 1 McArthur's Patent Cases, 78, 1847; *Farley v. Steam Gauge Co.*, 1 McArthur's Patent Cases, 621, 1859; *Hubel v. Dick*, 28 F. R. 139, 1886; *Von Schmidt v. Bowers*, 80 F. R. 140, 1897; *Moline Plow Co. v. Rock Is-*

land Plow Co., 212 F. R. 727, 1914.

⁶⁹ *Kearney v. Railroad Co.*, 32 F. R. 322, 1887; *National Machine Co. v. Brown*, 36 F. R. 321, 1888.

⁷⁰ *National Cash Register Co. v. Store Service Co.*, 60 F. R. 603, 1894; *Coffee v. Guerrant*, 68 O. G. 279, 1894.

⁷¹ *American Sulphite Pulp Co. v. Howland Falls Pulp Co.*, 80 F. R. 401, 1897.

had no existence or representation outside of the mind of the inventor, no matter how clear or how complete his mental conception of its character and mode of operation may have been. Mental conceptions are not useful inventions until they are so embodied that the world could use them after the deaths of the persons who conceived them.⁷² To allow inventions to take date from mental conceptions, would strongly tempt inventors to commit perjury in order to appear to anticipate real anticipations of their patents.

Whether an oral description given by the inventor to another, of a subsequently patented invention, can give that invention a date earlier than that to which it would otherwise be entitled, depends upon the nature of the invention and the capacity of the hearer to understand it and remember it. Where an invention is abstruse or is complicated, and where it is not certain that the hearer understood it and has remembered it well enough to communicate it to the world in case of the inventor's death, the invention ought not to date from such a description.⁷³ But where it is shown that the person to whom such an oral description was given, understood it completely, and has remembered it accurately, a patented invention may date back to that oral description.⁷⁴ In such cases it is

⁷² *Clark Thread Co. v. Willimantic Linen Co.*, 140 U. S. 489, 1891; *Voightman v. Perkinson*, 138 F. R. 56, 1905; *Killeen v. Buffalo Furnace Co.*, 140 F. R. 33, 1905; *Corrington v. Westinghouse Air Brake Co.*, 178 F. R. 711, 1910.

⁷³ *Stephens v. Salisbury*, 1 McArthur's Patent Cases, 385, 1855,

⁷⁴ *Philadelphia & Trenton R. R. v. Stimpson*, 14 Peters, 448, 1840;

Stephens v. Salisbury, 1 McArthur's Patent Cases, 385, 1855; *Hill v. Dunklee*, 1 McArthur's Patent Cases, 483, 1857; *Davidson v. Lewis*, 1 McArthur's Patent Cases, 599, 1858; *McCormick Machine Co. v. Harvester Works*, 42 F. R. 153, 1890; *Merrow v. Shoemaker*, 59 F. R. 122, 1893; *Westinghouse Electric & Mfg. Co. v. Roberts*, 125 F. R. 6, 1903.

not necessary that all the mechanical details shall be expressed in the disclosure or even have been thought out.⁷⁵ The reason for allowing a patented invention to date back to an oral or a written description, or to a drawing or a model, as the case may be, while an unpatented invention, which is set up to negative the novelty of a patented invention, is not allowed to date back to either of those things, resides in the fact that those things are incipient in their nature, and in the principle that an invention which is ultimately developed and given to the world in a patent, ought equitably to date from such an incipency, while the rights of a patentee ought not to be impaired by a similar incipency which was never developed into a patent.⁷⁶

When a patent is questioned in point of novelty, and when that question depends upon the date of the invention claimed in that patent, it is not material whether the event, which constituted that invention, occurred in the United States or in some other country.⁷⁷

For a very complete discussion of the whole subject of priority of date of invention as between two inventors, see the opinion of Judge COLT in *Automatic Weighing Machine Co. v. Pneumatic Scale Corporation*.⁷⁸

§ 71. Novelty is negatived by prior knowledge and use in this country, by even a single person, of the thing patented.⁷⁹ This rule applies even to cases where that knowl-

⁷⁵ *Westinghouse Electric & Mfg. Co. v. Stanley Inst. Co.*, 133 F. R. 167, 1904.

⁷⁶ *Bowers v. Von Schmidt*, 63 F. R. 577, 1894.

⁷⁷ *Hanifen v. E. H. Godshalk Co.*, 78 F. R. 811, 1896; *Hanifen v. Price*, 96 F. R. 441, 1899; *Welsbach Light Co. v. American Incandescent Lamp Co.*, 98 F. R.

616, 1899; *Badische Anilin & Soda Fabrik v. Klipstein & Co.*, 125 F. R. 543, 1903.

⁷⁸ *Automatic Weighing Machine Co. v. Pneumatic Scale Corporation*, 166 F. R. 288, 1909; *McCreery Engineering Co. v. Mass. Fan Co.*, 195 F. R. 498, 1912.

⁷⁹ *Coffin v. Ogden*, 18 Wallace, 120, 1873; *Brush v. Condit*, 132

edge and use were purposely kept secret;⁸⁰ and it applies no matter whether or not the prior structure was used.⁸¹

In *Gayler v. Wilder*⁸² the Supreme Court announced an exception to this rule, but in a later case it intimated a denial, or at least a doubt, of the validity of that exception.⁸³ According to the opinion of a majority of the court in the first case, a single instance of prior knowledge and use will not negative novelty, if that use had ceased when the patent was granted, and that knowledge was forgotten until called to mind by the reinvention. A recent case holds that under the rule of *Gayler v. Wilder* the prior use must be so far understood and practiced or persisted in as to become an established fact, accessible to the public and contributing definitely to the sum of human knowledge, and that the prior use must have been of an article which was complete and capable of producing the result accomplished by the patented article and not merely one which by modification could be made to perform the same function.⁸⁴ The latter proposition is a reiteration of one of the doctrines of *Coffin v. Ogden*.

This is the doctrine that novelty is not negated by a forgotten art, even if that art is remembered again by one who formerly knew it, when his mind is prompted by new knowledge of its reinvention by another. This doctrine is

U. S. 39, 1889; *Toch v. Zibbell Damp Resisting Paint Co.*, 231 F. R. 711, 1916.

⁸⁰ *Reed v. Cutter*, 1 Story, 598, 1841.

⁸¹ *Bedford v. Hunt*, 1 Mason, 301, 1817; *Rich v. Lippincott*, 2 Fisher, 2, 1853; *Imperial Brass Mfg. Co. v. Nelson*, 194 F. R. 165, 1912.

⁸² *Gayler v. Wilder*, 10 Howard, 477, 1850.

⁸³ *Coffin v. Ogden*, 18 Wallace, 125, 1873; for a further discussion of the doctrine and as to what is meant by the word "forgotten" in connection with it see *Buser v. Novelty Tufting Machine Co.*, 151 F. R. 478, 1907.

⁸⁴ *Diamond Patent Co. v. S. E. Carr Co.*, 217 F. R. 400, 1914.

applicable to a forgotten "art" or "process"; because a process is intangible and exists only while its constituent acts are being performed. But the doctrine of lost or forgotten arts is not applicable to a machine or a manufacture, which still exists in its entirety, and can be found whenever it is diligently sought, and can be understood whenever it is intelligently inspected. In *Gayler v. Wilder*, the doctrine was applied to the use of gypsum in the spaces between the walls of iron safes. But the doctrine is not applicable to any composition of matter, which is patentable independent of any environment, and which still exists, and can be found and identified, when it is sought and analyzed. Nor is the doctrine applicable to a design, which may have remained forgotten and unseen in a book in a library for many years, but which can be found by regular searching, and can be appreciated when it is found.

§ 72. Novelty is also negatived by evidence that even one specimen of the thing patented, existed and was known in this country prior to its invention by the patentee, even though it was not used prior to that time.⁸⁵ This rule results from the statute which provides that things, in order to be patentable, must not have been known or used by others in this country.⁸⁶ If, however, the identity of the patented and the prior article can be known only by actual use, and if the prior article never was actually used till after the date of the patented invention, then its prior existence will not negative novelty.⁸⁷ In that case though

⁸⁵ *Corn-Planter Patent*, 23 Wallace, 220, 1874; *Parker v. Ferguson*, 1 Blatch. 408, 1849; *Pitts v. Wemple*, 2 Fisher, 15, 1855; *Stitt v. Railroad Co.*, 22 F. R. 650, 1884; *Universal Winding Co. v. Willimantic Linen Co.*, 82 F. R.

239, 1897; see *Lincoln Iron Works v. M'Whirter Co.*, 142 F. R. 967, 1905.

⁸⁶ Revised Statutes, Section 4886.

⁸⁷ *Sayles v. Railway Co.*, 4 Fisher, 588, 1871; *Stitt v.*

its existence was known prior to the invention of the patented thing, it was not known to be what the patented thing afterward was. Knowledge, in order to negative novelty, must include knowledge of the character, as well as knowledge of the existence, of the prior thing.

§ 73. Negation of novelty is not averted by the fact that the inventor had no knowledge of the anticipating matter when he made the invention covered by the patent.⁸⁸ The patent laws do not reward people for producing things which, though new to them, are old to others in this country.

§ 74. Negation of novelty in a machine is not averted by the fact that the anticipating machine operated upon a different material.⁸⁹ And negation of novelty in a manufacture or a composition of matter, is not averted by the fact that the anticipating substance was made by a different process, or derived from a different source, from that which produced the patented substance; for it does not make an old thing new to derive it from a new and unexpected quarter⁹⁰ or to make it by a new and improved method.⁹¹

§ 75. Questions of novelty are questions of fact.⁹² This point is very obvious, except in cases where the prior thing is a patent or printed publication. In those cases it may be supposed that questions of novelty are questions of law

Railroad Co., 22 F. R. 650, 1884.

⁸⁸ *Derby v. Thompson*, 146 U. S. 481, 1892; *Many v. Sizer*, 1 Fisher, 19, 1849; *New Departure Bell Co. v. Bevin Bros. Mfg. Co.*, 73 F. R. 476, 1896; *Universal Winding Co. v. Willimantic Linen Co.*, 82 F. R. 240, 1897.

⁸⁹ *United States Peg Wood, S. & L. B. Co. v. B. F. Sturtevant Co.*, 122 F. R. 472, 1903.

⁹⁰ *Cochrane v. Badische Anilin*

& Soda Fabrik, 111 U. S. 311, 1883; *Badische Anilin & Soda Fabrik v. Cummins*, 4 Bann. & Ard. 490, 1879.

⁹¹ *Cottle v. Kremetz*, 31 F. R. 42, 1887; *Societe Fabriquer de Produits Chimiques, etc., v. Geo. Lueders & Co.*, 135 F. R. 102, 1904.

⁹² *Battin v. Taggert*, 17 Howard, 74, 1854; *Turrill v. Railroad Co.*, 1 Wallace, 491, 1863.

arising on the construction of documents. The point has, however, been settled by the Supreme Court, in a case involving the consideration of a prior patent, and bearing with equal logical force upon a prior printed publication.⁹³ In that case it was held that the question whether the novelty of a patent is negatived by a prior patent, depends not upon the construction of the latter, but depends rather upon the outward embodiment of the terms contained in the latter document; and that such outward embodiment is to be properly sought, like the explanation of latent ambiguities arising from the description of external things, by evidence *in pais*. The court accordingly indorsed the proposition that such questions belong to the province of evidence, and not to that of construction; and said that even where no testimony is required to explain the terms of art or the description contained in the respective documents, the question is still to be treated as a question of fact.

§ 76. The burden of proof of a want of novelty rests upon him who avers it, and every reasonable doubt should be resolved against him.⁹⁴ Novelty can only be negatived by proof which puts the fact beyond a reasonable doubt.⁹⁵ But such proof can be made with less evi-

⁹³ *Bischoff v. Wethered*, 9 Wallace, 812, 1869.

⁹⁴ *Coffin v. Ogden*, 18 Wallace, 120, 1873; *Cantrell v. Wallick*, 117 U. S. 696, 1885; *Parham v. Machine Co.*, 4 Fisher, 482, 1871; *Webster Loom Co. v. Higgins*, 4 Bann. & Ard. 88, 1879; *Shirley v. Sanderson*, 8 F. R. 908, 1881; *Green v. French*, 11 F. R. 591, 1882; *Duffy v. Reynolds*, 24 F. R. 858, 1885; *Dreyfus v. Schneider*, 25 F. R. 481, 1885; *Osborne v. Glazier*, 31 F. R. 404, 1887; *Smith*

v. Davis, 34 F. R. 785, 1888; *Howard v. Plow Works*, 35 F. R. 745, 1888; *Pacific Cable Ry. Co. v. Butte City Ry. Co.*, 55 F. R. 764, 1893; *Kinnear & Gager Co. v. Capital Sheet-Metal Co.*, 81 F. R. 492, 1897; *Cleveland Foundry Co. v. Kauffman*, 135 F. R. 360, 1905.

⁹⁵ *Barbed Wire Patent*, 143 U. S. 284, 1892; *Wood v. Mill Co.*, 4 Fisher, 560, 1871; *Hawes v. Antisdell*, 2 Bann. & Ard. 10, 1875; *Bignall v. Harvey*, 5 Bann. & Ard.

dence, where anticipation is probable, than where it is less to be expected.⁹⁶ And testimony of want of novelty is not overthrown, by *prima facie* improbability that has been explained away;⁹⁷ or by innocent errors on collateral points;⁹⁸ or even by impeaching a principal witness, if his testimony is shown to be true by other evidence, which his bad character could not vitiate.⁹⁹ The unsupported oral testimony of one witness is seldom strong enough to negative the novelty of the patent beyond a reasonable doubt;¹⁰⁰ and the oral testimony of many witnesses, if unsupported by any evidence consisting of documents or things, must be very reasonable and very strong, in order to negative novelty.¹⁰¹ This rule of reasonable

636, 1880; Worswick Mfg. Co. v. Buffalo, 20 F. R. 126, 1884; Thayer v. Hart, 20 F. R. 694, 1884; Everest v. Oil Co., 20 F. R. 849, 1884; American Bell Telephone Co. v. People's Telephone Co., 22 F. R. 313, 1884; McDonald v. Whitney, 24 F. R. 600, 1885; Jennings v. Kibbe, 24 F. R. 698, 1885; Wetherell v. Keith, 27 F. R. 364, 1886; Hobbie v. Smith, 27 F. R. 659, 1886; Cohansey Mfg. Co. v. Wharton, 28 F. R. 191, 1886; American Bell Telephone Co. v. Globe Telephone Co., 31 F. R. 733, 1887; Hunt Bros. Packing Co. v. Cassidy, 53 F. R. 260, 1893; Dodge v. Post, 76 F. R. 809, 1896; National Hollow Brake-Beam Co. v. Interchangeable Brake-Beam Co., 106 F. R. 703, 1901; Young v. Wolfe, 120 F. R. 959, 1903.

⁹⁶ Lee v. Upson & Hart Co., 43

F. R. 670, 1890; Rochester Coach Lace Co. v. Schaefer, 46 F. R. 190, 1891; Moline Plow Co. v. Parlin & Orendorff Co., 84 F. R. 351, 1897.

⁹⁷ Parlin & Orendorff Co. v. Moline Plow Co., 89 F. R. 330, 1898; Diamond Drill & Machine Co. v. Kelly Bros., 120 F. R. 299, 1903.

⁹⁸ Simmonds v. Morrison, 44 F. R. 762, 1891.

⁹⁹ Olin v. Timken, 155 U. S. 152, 1894; Timken v. Olin, 37 F. R. 207, 1888.

¹⁰⁰ Bowman v. DeGraw, 60 F. R. 911, 1894; Mast, Foos & Co. v. Dempster Mill Mfg. Co., 82 F. R. 332, 1897; Single Track Overhead Ry. Mfg. Co. v. Roden, 98 F. R. 619, 1895; Peters v. Union Biscuit Co., 120 F. R. 683, 1903.

¹⁰¹ Barbed Wire Patent, 143 U. S. 284, 1892; Deering v. Harvester Works, 155 U. S. 300, 1894;

doubt applies where the question of novelty depends upon the identity of the patented thing or process with the alleged anticipation; as well as where that question depends upon the existence or the priority of the latter.¹⁰²

Where an anticipating fact prior to the date of a patent is proved beyond reasonable doubt, the burden is shifted to the plaintiff to prove, by convincing preponderance of evidence, that his invention was made still earlier than that fact occurred; and if the plaintiff does not introduce enough evidence to strongly outweigh whatever evidence is introduced to the contrary, the patent must be held to be void for want of novelty.¹⁰³

The "reasonable doubt" rule is not however entirely approved. In fact the degree of proof required to establish anticipation or prior invention is stated in such

American Roll Paper Co. v. Weston, 59 F. R. 150, 1893; *Knickerbocker Co. v. Rogers*, 61 F. R. 297, 1894; *Pratt v. Sencenbaugh*, 64 F. R. 781, 1893; *Campbell Printing-Press Co. v. Marden*, 64 F. R. 785, 1894; *Wickes v. Lockwood*, 65 F. R. 611, 1895; *Singer Mfg. Co. v. Schenck*, 68 F. R. 194, 1895; *Rodwell v. V. F. Tuckfarber Co.*, 127 F. R. 138, 1903; *Parker v. Stebler*, 177 F. R. 210, 1910; *Emerson & Norris Co. v. Simpson Bros. Corporation*, 202 F. R. 747, 1913; *Greenwald Bros. v. LaVogue Petticoat Co.*, 226 F. R. 448, 1915.

¹⁰² *Pittsburgh Reduction Co. v. Aluminum Co.*, 55 F. R. 308, 1892; *Simonds Rolling-Mach. Co. v. Hathorn Mfg. Co.*, 93 F. R. 961, 1899.

¹⁰³ *Clark Thread Co. v. Wilimantic Linen Co.*, 140 U. S. 492, 1891; *Caverly v. Deere*, 52 F. R. 760, 1892; *Curtis v. Atlanta Street Railway Co.*, 56 F. R. 600, 1892; *Simmons v. Standard Oil Co.*, 62 F. R. 930, 1894; *Ecaubert v. Appleton*, 67 F. R. 925, 1895; *Brooks v. Sacks*, 81 F. R. 405, 1897; *Rogers v. Fitch*, 81 F. R. 962, 1897; *Wheaton v. Kendall*, 85 F. R. 672, 1898; *Westinghouse Electric & Mfg. Co. v. Saranac Lake Electric Light Co.*, 108 F. R. 222, 1901; *Westinghouse Electric & Mfg. Co. v. Catskill Illuminating & Power Co.*, 121 F. R. 832, 1903; *Sacks v. Kufferle*, 127 F. R. 569, 1904; (beyond reasonable doubt) *Columbus Chain Co. v. Standard Chain Co.*, 148 F. R. 622, 1906; *New England Motor Co. v. B. F.*

various ways that it is useless to attempt to make a general statement. It may be remarked that if the "reasonable doubt" rule is applied in its full sense as the phrase is used in criminal law it has few parallels in civil jurisprudence. Some of the phrases used in defining the degree of proof required are found in the note.¹⁰⁴

An exception to the "reasonable doubt" rule has been noted in the ninth circuit where the question of priority of invention is at issue, and where at the time of issuance of the patent in suit the defendant had an application pending for the same invention and no interference was declared.¹⁰⁵

Sturtevant Co., 150 F. R. 131, 1906; (if not with equal certainty, then to the satisfaction of the court) Consolidated Ry., etc., Co. v. Adams & Westlake Co., 161 F. R. 343, 1908; Torrey v. Hancock, 184 F. R. 61, 1910.

¹⁰⁴ (Full, unequivocal and convincing) Westinghouse Elec. & Mfg. Co. v. Stanley Inst. Co., 133 F. R. 167, 1904; (proofs which satisfy the court, *ib.*); (beyond reasonable doubt) Pettibone, etc., Co. v. Pennsylvania Steel Co., 133 F. R. 730, 1904; (strong and convincing) Chisholm v. Fleming, 133 F. R. 924, 1905; (clear and satisfactory, no hard and fast rule) Sipp Electric, etc., Co. v. Atwood-Morrison Co., 142 F. R. 149, 1905; (beyond fair doubt) Bradley v. Eccles, 144 F. R. 90, 1906; (exceptionally clear and convincing) United

Shirt & Collar Co. v. Beattie, 149 F. R. 736, 1906; (beyond reasonable doubt) Buser v. Novelty Tufting Machine Co., 151 F. R. 478, 1907; (so clear and satisfactory as to convince the court beyond a reasonable doubt) Parker v. Stebler, 177 F. R. 210, 1910; T. B. Wood's Sons Co. v. Valley Iron Works, 191 F. R. 196, 1911; DeLavel Separator Co. v. Iowa Dairy Separator Co., 194 F. R. 423, 1912; (clear, unequivocal and convincing) DeLaski & Thropp, etc., Co. v. Fisk Rubber Co., 203 F. R. 986, 1913; (beyond a reasonable doubt) H. J. Heinz Co. v. Cohn, 207 F. R. 547, 1913; (a high degree of proof) Wright v. Brownlee, 212 F. R. 157, 1914; Drum v. Turner, 219 F. R. 188, 1914.

¹⁰⁵ Wilson & Willard Mfg. Co. v. Bole, 227 F. R. 607, 1915.

CHAPTER IV

UTILITY

77. Utility necessary to patentability. work evil, and sometimes work good.
78. Utility is negatived by lack of function. 83. Functions thought by some to be good, and by others to be bad.
79. Perfection not necessary to utility. 84. Good functions in wrong places.
80. Beauty has utility.
81. Utility is negatived where function is evil. 85. Doubts relevant to utility to be solved against infringers.
82. Functions which sometimes

§ 77. THE useful arts are those that Congress is authorized by the Constitution to promote, and accordingly the statute includes utility among the qualities which a process or a thing must have in order to be patentable.¹ To possess utility, a thing or a process must be capable of producing a result, and that result must be a good result. Both these elements inhere in the meaning of the word; and they are so distinct as to require separate explanation.

Utility, whatever the term may have meant in connection with design patents, is not required under the present law as an element of a design patent.² And although the present statute has dropped the specific provision that a new shape or configuration given to an article shall be patentable as a design, a design which consists merely of a new and ornamental shape is still patentable

¹ Revised Statutes, Section 4886. 32 Stat. 193; *H. S. Earle Mfg. Co. v. Clark & Parsons Co.*, 154 F. R.

² Revised Statutes, Sec. 4929, as amended May 9, 1902, Ch. 783, 851, 1907.

as such.³ And although the word useful has also been dropped from the statute it is not necessary that the thing to be patented shall have been made for the sole purpose of ornament.⁴

§ 78. Utility is absent from all processes and devices which cannot be used to perform their specified functions, and patents for such subjects are therefore void.⁵ This rule applies even to cases in which, by simply adding new elements to useless contrivances, highly useful inventions are produced.

In *Burrall v. Jewett*,⁶ the patent covered the cylinder of a threshing-machine, having rows of teeth inserted in its convex surface and revolving within a barrel which had no teeth. The contrivance was confessedly useless. After the patent for it was granted, the patentee, or some other person, by simply inserting rows of teeth in the concave surface of the barrel, produced the successful threshing-machine, which has everywhere succeeded the ancient flail. The law applicable to these facts was stated by Chancellor WALWORTH in the following terms: "The patent is void if the machine will not answer the purpose for which it was intended, without some addition, adjustment, or alteration, which the mechanic who is to construct it must introduce of his own invention, and which had not been invented or discovered by the patentee at the time his patent was issued."

In *Bliss v. Brooklyn*⁷ the patent covered a certain hose-

³ *Theodore W. Foster & Bro. Co. v. Tilden-Thurber Co.*, 200 F. R. 54, 1912.

⁴ *Mygatt v. Schaffer*, 218 F. R. 827, 1914; *Ashley v. Weeks-Numan Co.*, 220 F. R. 899, 1915.

⁵ *Coupe v. Royer*, 155 U. S. 574, 1895; *Bliss v. Brooklyn*, 10 Blatch.

522, 1873; *Rowe v. Blanchard*, 18 Wisconsin, 465, 1864; *Carter Machine Co. v. Hanes*, 70 F. R. 864, 1895.

⁶ *Burrall v. Jewett*, 2 Paige, 143, 1830.

⁷ *Bliss v. Brooklyn*, 10 Blatch. 522, 1883.

coupling. The contrivance was worthless, because it proved on trial to be inoperative. The subsequent addition of a lug to one of its parts, transferred the coupling into a useful invention. Judge BENEDICT nevertheless held the patent to be invalid for want of utility.

§ 79. If, however, an invention performs a good function, though but imperfectly, its utility is not negatived by the fact that it is susceptible of improvement, which will make it operate much better,⁸ nor by the fact that some prior invention performed the same function quite as well,⁹ or even performed it with superior excellence.¹⁰ Nor is utility negatived by later inventions which are so much superior to the patented process or thing, that they entirely superseded the use of the latter.¹¹ Indeed, patents are never held to be void for want of utility, merely because the things covered by them perform their functions but poorly.¹² In such cases no harm results to the public from the exclusive right, because few will use the invention, and because those who do use it without permission, will seldom or never be obliged to pay for that use, anything beyond the small benefit they may really have realized therefrom.¹³

§ 80. Utility in a manufacture, is not negatived by the fact that it has no function except to decorate the object to

⁸ *Wheeler v. Reaper Co.*, 10 Blatch. 189, 1872; *Mergenthaler Co. v. Press Pub. Co.*, 57 F. R. 505, 1893; *Crown Cork & Seal Co. v. Aluminum Stopper Co.*, 108 F. R. 848, 1901.

⁹ *Seymour v. Osborne*, 11 Wallace, 516, 1870; *Shaw v. Lead Co.*, 11 F. R. 715, 1882.

¹⁰ *Bell v. Daniels*, 1 Fisher, 375, 1858.

¹¹ *Railway Co. v. Sayles*, 97 U. S. 559, 1878; *Poppenhusen v. Comb Co.*, 2 Fisher, 72, 1858; *McComb v. Ernest*, 1 Woods, 203, 1871.

¹² *Vance v. Campbell*, 1 Fisher, 485, 1859; *Conover v. Roach*, 4 Fisher, 16, 1857.

¹³ *Gibbs v. Hoefner*, 19 F. R. 324, 1884.

which it is designed to be attached.¹⁴ In such case utility resides in beauty. Whatever is beautiful is useful, because beauty gives pleasure, and pleasure is a kind of happiness, and happiness is a kind of utility.

§ 81. Utility is negatived if the function performed by an invention is injurious to the morals, the health, or the good order of society.¹⁵ An invention to improve the art of forgery, or one to facilitate the spread of a contagious disease, or one to render air or water intoxicating, would of course be unpatentable for want of utility. The more completely such an invention could perform its function, the more objectionable it would be in this respect. But utility is not negatived by the fact that the article covered by a patent is an imitation of a natural substance,¹⁶ except where the imitation is a fraudulent counterfeit.¹⁷

§ 82. An important question relevant to utility in this aspect, may hereafter arise and call for judicial decision. It is perhaps true, for example, that the invention of Colt's revolver was injurious to the morals, and injurious to the health, and injurious to the good order of society. That instrument of death may have been injurious to morals, in tending to tempt and to promote the gratification of private revenge. It may have been injurious to health, in that it is very liable to accidental discharge, and to thereby cause wounds, and even homicide. It may also have been injurious to good order, especially in the newer parts of the country, because it facilitates and increases private warfare among frontiersmen. On the other hand,

¹⁴ *Magic Ruffle Co. v. Douglas*, 2 Fisher, 330, 1863.

¹⁵ *Bedford v. Hunt*, 1 Mason, 301, 1817; *National Device Co. v. Lloyd*, 40 F. R. 89, 1889; *Reliance Novelty Co. v. Dworzek*, 80 F. R.

902, 1897; *Schultze v. Holtz*, 82 F. R. 448, 1897.

¹⁶ *In re Corbin and Martlett*, 1 McArthur's Patent Cases, 521, 1857.

¹⁷ *Rickard v. DuBon*, 103 F. R. 868, 1900.

the revolver, by furnishing a ready means of self-defense, may sometimes have prompted morals and health and good order. By what tests, therefore, is utility to be determined in such cases? Is it to be done by balancing the good functions with the evil functions? Or is everything useful within the meaning of the law, if it is used, or is designed and adapted to be used, to accomplish a good result, though in fact it is oftener used, or is as well or even better adapted to be used, to accomplish a bad one? Or is utility negatived by the mere fact that the thing in question is sometimes injurious to morals, or to health, or to good order? The third hypothesis cannot stand, because if it could, it would be fatal to patents for steam-engines, dynamos, electric railroads, and indeed many of the noblest inventions of the nineteenth century. The first hypothesis cannot stand, because if it could it would make the validity of the patents to depend on a question of fact, to which it would often be impossible to give a reliable answer. The second hypothesis is the only one which is consistent with the reason of the case, and with the practical construction which the courts have given to the statutory requirement of utility.¹⁸

§ 83. Another question revelant to utility of function will sooner or later demand the attention of counsel and of courts. A particular invention may invariably perform one specific function, which function is deemed good in some quarters, and in other quarters is thought to be bad. The function performed by a newly invented smoking-pipe, would be thought by many persons to be only evil, and that continually: would be deemed by many moralists to be injurious to the morals, and by many physicians to be injurious to the health of the people. On the

¹⁸ Fuller v. Berger, 120 F. R. Novelty Co., 230 F. R. 463, 275, 1903; Mills v. Industry 1916.

other hand, there are many other persons who would regard such an invention as truly useful. Personal opinion cannot control the decision of such a question, for if it could there would be no stability to the jurisprudence of the subject. Nor ought former custom to be the criterion, for if it were, each age would be hampered by a prior and lower civilization. It seems, therefore, that in such cases of divided personal opinion on ethical questions, the only criterion of decision is the average public sentiment of the time when such a question arises.¹⁹ Accordingly, the courts at present uphold patents which relate to tobacco, and will probably always sustain the utility of inventions which perform functions that average public sentiment is willing to have performed.

§ 84. Utility is negatived by the fact that the patented process or thing is injurious to the thing to which it is applicable,²⁰ and also by the fact that the function performed by the patented part of a machine, though good in itself, is injurious to the utility of the machine as a whole.²¹ The first of these points is well illustrated by the first case cited in this section: a case based on a patent for a process of treating leather to an application of fat liquor. The second point is equally well illustrated by the second case: a case based on a patent for a locomotive spark arrester. To arrest sparks is in itself a good thing to do, but where it must be done in such a way as to stop or seriously retard the locomotive, it is not desirable to attempt it. Therefore a device which would arrest sparks, but only at the expense of retarding the locomotive, from the smoke-pipe of which they issued, was rightly held to be wanting in utility.

¹⁹ *Pope Mfg. Co. v. Gormully*,
144 U. S. 233, 1892.

²⁰ *Klein v. Russell*, 19 Wallace,
433, 1873.

²¹ *Wilton v. Railroad Co.*, 1
Brightley's Federal Digest, 618,
1849.

§ 85. A patent is *prima facie* evidence of utility,²² and doubts relevant to the question should be resolved against infringers,²³ because it is improbable that men will render themselves liable to actions for infringement, unless infringement is useful.²⁴ In fact if the defendant has adopted the distinctive features of a patented device he is estopped to deny its utility.²⁵

²² *Vance v. Campbell*, 1 Fisher, 483, 1859; *Crown Cork & Seal Co. v. Aluminum Stopper Co.*, 108 F. R. 848, 1901; *Kennicott Co. v. Holt Ice & Cold Storage Co.*, 230 F. R. 157, 1915.

²³ *Western Electric Co. v. La Rue*, 139 U. S. 608, 1891; *Whitney v. Mowry*, 4 Fisher, 215, 1870.

²⁴ *Lehnbeuter v. Holthaus*, 105 U. S. 94, 1881; *Gandy v. Belting Co.*, 143 U. S. 595, 1892; *La Rue*

v. Electric Co., 31 F. R. 82, 1887; *Westinghouse Electric & Mfg. Co. v. Beacon Lamp Co.*, 95 F. R. 464, 1899; *Goss Printing-Press Co. v. Scott*, 108 F. R. 258, 1901; *Grever v. United States Hoffman Co.*, 202 F. R. 923, 1913.

²⁵ *F. D. Cummer & Son Co. v. Atlas Dryer Co.*, 193 F. R. 993, 1912; *Boyce v. Stewart-Warner Speedometer Corporation*, 220 F. R. 118, 1914.

CHAPTER V

ABANDONMENT

86. The several sorts of abandonment.
87. Abandonment of inventions.
88. Actual abandonment of inventions.
89. Actual abandonment by express declaration.
90. Actual abandonment by formal disclaimer.
91. Actual abandonment resulting from laches before application.
92. Actual abandonment resulting from laches after application and before issue of letters patent.
93. Constructive abandonment before application.
94. "Public use," defined and delineated.
95. Experimental use.
96. "On sale," delineated and defined.
97. Sale of inchoate right to a patent.
98. Degree of identity necessarily involved between the thing constructively abandoned and the thing patented.
99. Making, works no constructive abandonment.
100. Public knowledge, works no constructive abandonment.
101. Public use or sale in a foreign country.
103. Constructive abandonment after application, and before issue of letters patent.
104. Rules of constructive abandonment are inflexible.
- 104*a*. Constructive abandonment in four new classes of cases.
105. Surrender of letters patent.
106. Abandonment of invention after letters patent, unknown to the law.
107. Acquiescence in unlicensed use of patented invention.
108. Questions of abandonment are questions of fact.
98. Degree of identity neces-

§ 86. AN inventor may abandon an unsuccessful endeavor to make an invention; or having made an invention, he may abandon it to the public; or having made an invention and having applied for a patent thereon, he may abandon that application with or without abandon-

ing that invention. Transactions of the first sort are commonly called unsuccessful abandoned experiments. They confer no rights upon those who make them, and they affect no rights of any other person.¹ Transactions of the third sort are treated in the chapter on applications; the sixth chapter of this book. Transactions of the second sort require treatment in respect that they are inventions; and also require separate treatment in respect that they are abandoned. Treatment of the first sort takes no account of the fact of abandonment, because abandoned inventions have the same effect on the rights of subsequent inventors that they would have if they had not been abandoned.² That subject, therefore, does not belong to this chapter. It is treated in the chapters on invention and letters patent, where the state of the art is a very important factor in the discussion; and also in the chapter on novelty, where anticipation is the point of inquiry. Treatment of the second sort indicated above, is the special function and scope of this chapter. Abandoned inventions are here considered with regard to the effect abandonment of them has upon the rights of their inventors, and with regard to the rules by means of which abandonment is to be affirmed or denied in particular cases.

§ 87. Abandonment of an invention may be actual, or it may be constructive. It is actual when it is the result of intention.³ It is constructive when it is the result of some statute which operates regardless of the intention of the inventor. The two sorts require and will receive separate

¹ *Deering v. Harvester Works*, 155 U. S. 302, 1894; *American Bell Telephone Co. v. Cushman Telephone Co.*, 35 F. R. 734, 1888; *Brush Electric Co. v. Ft. Wayne Electric Co.*, 44 F. R. 284,

1890; *Ecaubert v. Appleton*, 67 F. R. 922, 1895.

² *Olds v. Brown*, 41 F. R. 703, 1890.

³ *Mast, Foos & Co. v. Dempster Mill Mfg. Co.*, 82 F. R. 331, 1897.

treatment in this chapter, but there are some points of fact and of law which apply equally to both. Either kind may occur before any application for a patent is made, or may occur after such an application, and before any letters patent are issued.⁴ So also, either actual or constructive abandonment of an invention, is fatal to the validity of any patent that may afterward be granted therefor. The inchoate right to a patent when once abandoned can never be resumed; for where gifts are once made to the public, they become absolute and irrevocable.⁵

§ 88. Actual abandonment of an invention occurs whenever there is an entire relinquishment of all expectation of securing a patent therefor, and an accompanying formation of an expectation that the invention will always be free to the public.⁶ Such a relinquishment may be shown by direct, or by circumstantial evidence.⁷ It may be proved by things done or omitted by the inventor, or it may be proved by his omission, or delay to do what the law requires to be done in order to secure letters patent. The burden of proof is on the party seeking to prove the abandonment and it must be proven beyond a reasonable doubt.⁸ And the fact which constitutes an actual abandonment of an invention, may have occurred within two years before the inventor endeavored to recall that abandonment by filing an application for a patent on that invention.⁹

⁴ *Rifle & Cartridge Co. v. Arms Co.*, 118 U. S. 24, 1885.

⁵ *Pennock v. Dialogue*, 2 Peters, 1, 1829; *Kendall v. Winsor*, 21 Howard, 328, 1858; *Consolidated Fruit Jar Co. v. Wright*, 94 U. S. 96, 1876; *Planing Machine Co. v. Keith*, 101 U. S. 484, 1879; *Consolidated Fruit Jar Co. v. Stamping Co.*, 27 F. R. 377, 1886.

⁶ *Babcock v. Degner*, 1 McArthur's Patent Cases, 616, 1859.

⁷ *Crown Cork & Seal Co. v. Aluminum Stopper Co.*, 108 F. R. 850, 1901.

⁸ *Kellogg Switchboard & S. Co. v. International Telephone Mfg. Co.*, 158 F. R. 104, 1907.

See Section 108, *post*.

⁹ *Mast, Foos & Co. v. Dempster*

§ 89. An inventor abandons his invention to the public when he makes an express declaration to that effect.¹⁰ And a declaration that a particular invention is open to anybody, is a declaration of abandonment of any special right thereto.¹¹

§ 90. So also an inventor will be held to abandon a particular invention, when he formally disclaims it in an application for a patent for some other invention;¹² and where he cancels from an application, a claim for that invention, and substitutes no other claim for the same invention, before his patent is issued;¹³ and also when he formally disclaims a particular invention or claim, in a separate paper filed for that purpose. The Supreme Court decided in 1854, that no abandonment results from the mere fact that the inventor described the invention in an application for a patent, without either claiming or disclaiming the same.¹⁴ When the cited case was tried in the court below, the judge charged the jury "That a description, by the applicant for a patent, of a machine, or a part of a machine, in his specification, unaccompanied by a notice that he has rights in it as an inventor, or that he desires to secure title to it as a patentee, is a dedication of it to the public." But when the case reached the Su-

Mill Mfg. Co., 82 F. R. 331, 1897; Warren Bros. v. City of Owosso, 166 F. R. 309, 1909.

¹⁰ Kendall v. Winsor, 21 Howard, 328, 1858; Rifle & Cartridge Co. v. Arms Co., 118 U. S. 24, 1885.

¹¹ Westinghouse Electric & Mfg. Co. v. Saranac Lake Electric Light Co., 108 F. R. 224, 1901, and 113 F. R. 885, 1902.

¹² Leggett v. Avery, 101 U. S. 259, 1879.

¹³ Yale Lock Co. v. Berkshire Bank, 135 U. S. 403, 1890; Pittsburgh Reduction Co. v. Cowles Electric Co., 55 F. R. 320, 1893.

¹⁴ Battin v. Taggert, 17 Howard, 83, 1854; also Kinnear Mfg. Co. v. Wilson, 142 F. R. 970, 1905; Victor Talking Machine Co. v. Am. Graphophone Co., 145 F. R. 350, 1906; Victor Talking Machine Co. v. Duplex Phonograph Co., 177 F. R. 248, 1909.

preme Court, that instruction was decided to be erroneous, and a new trial was therefore awarded. The paramount precedent thus established has been followed by the Supreme Court, in a recent case, by holding that a particular combination, which was described in an original patent, but neither claimed nor disclaimed therein, was lawfully claimed in a reissue of that patent.¹⁵ This holding constituted a decision that no abandonment results from the mere fact that the inventor described the invention in an application for a patent, without either claiming or disclaiming the same; for the Supreme Court has always held that an abandonment of a right to a patent on a particular invention, whenever it occurs, is absolute and irrevocable.¹⁶

§ 91. Abandonment is also proved by evidence that the inventor is chargeable with laches or lack of diligence, relevant to applying for a patent.¹⁷ Long delay constitutes laches, unless there was some reason which rendered that delay consistent with an expectation to finally secure a patent.¹⁸ Extreme poverty of the inventor is such a reason;¹⁹ but poverty which was not sufficient to prevent the inventor from securing patents on other inventions,²⁰

¹⁵ *Topliff v. Topliff*, 145 U. S. 165, 1892.

¹⁶ *Pennock v. Dialogue*, 2 Peters, 1, 1829; *Kendall v. Winsor*, 21 Howard, 328, 1858; *Consolidated Fruit Jar Co. v. Wright*, 94 U. S. 96, 1876; *Planing Machine Co. v. Keith*, 101 U. S. 484, 1879.

¹⁷ *Consolidated Fruit Jar Co. v. Wright*, 94 U. S. 96, 1876; *Craver v. Weyhrich*, 31 F. R. 607, 1887; *Wright v. Postel*, 44 F. R. 352, 1890.

¹⁸ *Eck v. Kutz*, 132 F. R. 758.

1904; *International Tel. Mfg. Co. v. Kellogg S. B. & S. Co.*, 171 F. R. 651, 1909; *Curtain Supply Co. v. National Lock Washer Co.*, 174 F. R. 45, 1909.

¹⁹ *Smith v. Dental Vulcanite Co.*, 93 U. S. 491, 1876; *Celluloid Mfg. Co. v. Crofut*, 24 F. R. 796, 1885.

²⁰ *Rifle & Cartridge Co. v. Arms Co.*, 118 U. S. 24, 1885; *Wickersham v. Singer*, 1 McArthur's Patent Cases, 689, 1859.

or from spending money for an education,²¹ is not such a reason. The fact that during all, or during much of the delay the inventor was within the rebellious Southern Confederacy, and therefore unable to apply for a United States patent, has also been repeatedly held to be such a reason.²² Mental disorder which was great enough to generally incapacitate the inventor for business during the time of the delay, is also such a fact as will negative laches,²³ and physical disorder ought, under the same circumstances, to have the same effect. Also where the inventor's working hours were compelling and he was consequently unable to readily confer with his solicitor, but in spite of which he made his best efforts, he is not chargeable with lack of diligence.²⁴ In short, the entire question is one of fact in the particular case and the circumstances surrounding the inventor must always be taken into account.²⁵

Neither can laches be predicated of any delay caused by absorbing misfortune,²⁶ nor of any neglect of which the patent solicitor was guilty,²⁷ nor of any delay which was caused by the experiments of the inventor in making or perfecting his invention.²⁸ The latter proposition, however, does not go to the extent of permitting the inventor to wait until everything in the nature of an accessory improvement that makes the machine commercially

²¹ Craver *v.* Weyhrich, 31 F. R. 607, 1887.

²² Johnsen *v.* Fassman, 1 Woods, 142, 1871; Knox *v.* Loweree, 1 Bann. & Ard. 589, 1874.

²³ Ballard *v.* Pittsburg, 12 F. R. 784, 1882.

²⁴ Courson *v.* O'Connor, 227 F. R. 890, 1915.

²⁵ Courson *v.* O'Connor, 227 F. R. 890, 1915.

See Section 108, *post*.

²⁶ Beedle *v.* Bennett, 122 U. S. 76, 1886.

²⁷ Birdsall *v.* McDonald, 1 Bann. & Ard. 165, 1874; Howes *v.* McNeal, 3 Bann. & Ard. 376, 1878.

²⁸ Agawan Co. *v.* Jordan, 7 Wallace, 583, 1868; Von Schmidt *v.* Bowers, 80 F. R. 143, 1897.

better has been perfected. When the inventor has grasped the idea and put it into mechanical form, he must be diligent in making his application.²⁹ As between two inventors the question is not one of relative diligence but it is a question of the actual diligence of the owner of the patent in suit without reference to the degree of diligence practiced by the alleged prior inventor, so that if the former is the prior inventor and has used proper diligence he is entitled to the patent.³⁰ Nor does delay constitute laches when it was caused by the fact that the invention could only be used in connection with one covered by another patent, and by the fact that the inventor failed to make any arrangement with the owner of that patent for the joint use of the two inventions.³¹ If under such circumstances the inventor waits till the older patent expires before securing his patent, his delay is amply accounted for by his desire to enjoy for the full statutory term of a patent the practically exclusive right to his invention. To predicate abandonment of delay suffered for such a purpose would be logically impossible.

But a delay of years, between reduction to practice and filing an application for a patent, which is taken for the purpose of profiting, first from secrecy, and finally from a patented monopoly, is a delay which constitutes actual abandonment, even if the inventor intended to apply for a patent, when he could maintain secrecy no longer.³²

§ 92. Abandonment is also established by evidence that an inventor is chargeable with laches relevant to prosecut-

²⁹ *Universal Adding Machine Co. v. Comptograph Co.*, 146 F. R. 981, 1906.

³⁰ *Continental Rubber Works v. Single Tube Automobile, etc., Co.*, 178 F. R. 452, 1910.

³¹ *Webster v. New Brunswick Carpet Co.*, 1 Bann. & Ard. 84, 1874.

³² *In re Mower*, 15 App. D. C. 144, 1899.

ing or renewing his application after it has been rejected or withdrawn.³³ For example, where an application for a patent is rejected when it ought to be allowed, and where the inventor long acquiesces in that erroneous rejection, supposing it to be right, he cannot, on receiving better information, renew his application or file another, and thereupon secure a valid patent.³⁴ In such a case the desire of the inventor to secure a patent may never have left him, but there was doubtless a complete, though perhaps reluctant, relinquishment of all expectation of so doing. An abandonment of an invention is not less real because it was unnecessary. But Congress by a special act may waive an abandonment and authorize a patent to issue for the abandoned invention.³⁵ And laches cannot be predicated of any delay which was incurred by an applicant as the result of slowness of procedure in his case in the Patent Office, whether that slowness was due to neglect³⁶ or to routine.³⁷ Nor can laches be predicated of any delay to take a particular step, in prosecuting an application, where that delay was not longer than the time allowed by the statute, or by the rules of the Patent Office, for that particular step in such a prosecution.³⁸

§ 93. Constructive abandonment of inventions prior to applications for letters patent, is the offspring of certain

³³ *Planing Machine Co. v. Keith*, 101 U. S. 484, 1879; *Rifle & Cartridge Co. v. Arms Co.*, 118 U. S. 22, 1885.

³⁴ *Marsh v. Commissioner*, 3 Bissell, 321, 1872; *Consolidated Fruit Jar Co. v. Stamping Co.*, 27 F. R. 377, 1886.

³⁵ *Graham v. Johnston*, 21 F. R. 42, 1884.

³⁶ *Sayles v. Railroad Co.*, 2 Fisher, 523, 1865.

³⁷ *American Bell Telephone Co. v. United States*, 68 F. R. 542, 1895.

³⁸ *Crown Cork & Seal Co. v. Aluminum Stopper Co.*, 108 F. R. 852, 1901; *Columbia Motor Car Co. v. C. A. Duerr & Co.*, 184 F. R. 893, 1911.

See Section 146.

statutes, the earliest of which was the Patent Act of 1836.³⁹ Sections 6 and 7 of that Act authorized the Commissioner of Patents to grant a patent only where the alleged invention had not been in public use or on sale with the applicant's consent or allowance, prior to the application. Section 15 provided that in suits for infringement, judgment should be rendered for the defendant if he should have pleaded and proved that the thing patented had been in public use or on sale with the consent or allowance of the patentee before his application for a patent. Section 7 of the Patent Act of 1839⁴⁰ provided that no patent should be held to be invalid by reason of purchase, sale, or use of the thing covered thereby, prior to the application for a patent, except on proof of abandonment of such invention to the public, or on proof that such purchase, sale, or use had been for more than two years prior to such application for a patent. This provision of the Act of 1839 was in one respect restrictive of the enactments just cited from the statute of 1836, and in one respect it enlarged their operation. Its effect was to amend those enactments in the same way that it would have done if it had inserted the words "for more than two years" in the proper place in their phraseology, and had also canceled the qualification which related to consent and allowance.⁴¹ This phrase "for more than two years" means earlier than two years,⁴² so that the law which the two statutes established on the subject is expressed in the following sentence. A patent is void if the invention covered thereby was in public use or on sale earlier than two years before the application for that patent. And that continued to be the law of the

³⁹ 5 Statutes at Large, Ch. 357, p. 117.

⁴⁰ 5 Statutes at Large, Ch. 80, p. 354.

⁴¹ *Andrews v. Hovey*, 123 U. S. 267, 1887; 124 U. S. 694, 1887.

⁴² *Consolidated Fruit Jar Co. v. Wright*, 94 U. S. 94, 1876.

United States on the subject, under the Consolidated Patent Act of July 8, 1870,⁴³ and also under the Revised Statutes.⁴⁴ The two years contemplated by this law are ascertained by measuring backward from the date of the filing of the application in the Patent Office;⁴⁵ but where a second or renewed application is filed to take the place of another which described and claimed the same invention, and which was withdrawn or relinquished with intent to file the second application, the two years are ascertained by measuring backward from the date of the filing of the first application.⁴⁶ An application which described a particular invention, takes date on the day of its filing, whether or not it claimed that invention at that time.⁴⁷

§ 94. What is "public use," within the meaning of the statute? This question has now received light from a sufficient number of decisions, affirming or negating the fact of public use in particular cases, to make it possible to deduce a nearly complete answer from judicial authorities.

If the inventor allows his invention to be used by other persons generally, either with or without compensation, then it will be in public use within the meaning of the statute.⁴⁸ And the use is public, which follows a transfer of the thing used from its inventor to the user, without

⁴³ 16 Statutes at Large, Ch. 230, p. 198.

⁴⁴ Revised Statutes, Section 4886, 29 Statutes at Large, Ch. 391; *Anderson v. Eiler*, 46 F. R. 778, 1891; *In re Drawbaugh*, 67 O. G. 929, 1894; *Eastman v. Mayor, etc., of City of New York*, 134 F. R. 844, 1904.

⁴⁵ *Campbell v. New York*, 35 F. R. 504, 1888.

⁴⁶ *International Crown Co. v. Richmond*, 30 F. R. 778, 1887; *Hayes-Young, etc., Co. v. St. Louis Transit Co.*, 137 F. R. 80, 1905.

See Section 145.

⁴⁷ *Edison v. American Mutoscope Co.*, 110 F. R. 662, 1901.

⁴⁸ *Elizabeth v. Pavement Co.*, 97 U. S. 135, 1877.

reserving any control over it, and without expecting to make any change in it, or without any restriction.⁴⁹

If the inventor uses his invention for profit, and not by way of experiment, that is a public use,⁵⁰ unless actual use resulting in profit is necessary to show the inventor how to perfect his invention, and unless he does perfect it in accordance with the teachings of such use;⁵¹ but experimental use becomes public use when it extends further, either in time, or in number of instances, than is reasonably required to test the invention.⁵² Nor will the fact that the inventor is but an employee in the place where he uses his invention, or the fact that the profit goes primarily to his employer, oust the operation of this rule.⁵³

To constitute public use, it is not necessary that more than one specimen of the thing invented should have been publicly used,⁵⁴ nor that more than one person should have known of that use.⁵⁵ Nor is it necessary to public use that the article used could have been seen by the public eye, if the ordinary use of such articles is veiled from view.⁵⁶

A design is in public use whenever any article which embodies it, or any picture of it, is exhibited for the purpose of making its character publicly known.

§ 95. Experimental use is never public use within the

⁴⁹ *Root v. Third Avenue Railroad Co.*, 146 U. S. 221, 1892; *Delemater v. Heath*, 58 F. R. 416, 1893.

⁵⁰ *Elizabeth v. Pavement Co.*, 97 U. S. 137, 1877; *Jenner v. Bowen*, 139 F. R. 556, 1905.

⁵¹ *Sprague v. Mig. Co.*, 12 F. R. 724, 1882.

⁵² *International Tooth Crown Co. v. Gaylord*, 140 U. S. 63, 1891.

⁵³ *Worley v. Tobacco Co.*, 104 U. S. 340, 1881.

⁵⁴ *Consolidated Fruit Jar Co. v. Wright*, 94 U. S. 94, 1876; *Jones v. Barker*, 11 F. R. 597, 1882; *National Cash Register Co. v. American Cash Register Co.* (containing history of the statute), 178 F. R. 80, 1910.

⁵⁵ *Egbert v. Lippmann*, 104 U. S. 336, 1881.

⁵⁶ *Egbert v. Lippmann*, 104 U. S. 336, 1881; *International Tooth Crown Co. v. Gaylord*, 140 U. S. 58, 1891.

meaning of the statute, if it is conducted in good faith for the purpose of testing the qualities of the invention, and for no other purpose not naturally incidental to that.⁵⁷ In such a case it is immaterial whether the experimental use disclosed a necessity for improvement, or disclosed no such necessity; and it is also immaterial whether the use was conducted with secrecy or not. It may indeed have been had in the open air, and have continued every day for several years, and have been known to hundreds of persons, and have incidentally inured to the profit of the user and of the public, and still not be a public use, within the meaning of the statute, if the nature of the invention was such that only long-continued out-door use could show whether the invention possessed utility, or show in what respects, if any, it required to be improved.⁵⁸ In the case of a patented machine designed to manufacture articles the inventor may make as many articles as are necessary to enable him to observe and remedy the defects in his machine, and he is not thus brought within the statute merely because the articles themselves may be perfect or because he makes the best possible use of them by selling them.⁵⁹

The liberal ideas which underlie the decision just cited will doubtless be applied to every variety of invention, as occasion serves, and will be found elastic enough to cover every meritorious case. Indeed, Judge JOHN LOWELL went still further in the direction of liberally allowing scope to experimental use, and decided that such use is not

⁵⁷ *Beedle v. Bennett*, 122 U. S. 77, 1886; *Harmon v. Struthers*, 43 F. R. 443, 1890; *Pacific Cable Railroad Co. v. Butte City Ry. Co.*, 55 F. R. 765, 1893; *Harmon v. Struthers*, 57 F. R. 641, 1893; *International Tel. Mfg. Co. v.*

Kellogg S. B. & S. Co., 171 F. R. 651, 1909.

⁵⁸ *Elizabeth v. Pavement Co.*, 97 U. S. 134, 1877.

⁵⁹ *Bryce Bros. v. Seneca Glass Co.*, 140 F. R. 161, 1905.

public use within the meaning of the law, where, in order to test its comparative as well as its absolute utility, and in order to convince others of its merits, an inventor allows them to use his invention after he has himself become satisfied that it is useful.⁶⁰

But where the main object of the use was profit, and improvement was only an incidental aim, the use is not experimental in the eye of the law;⁶¹ though incidental profit is not inconsistent with use being only experimental;⁶² and absence of profit is not inconsistent with use being not experimental, but public.⁶³

The use of a minor invention in a large machine, may be a public use thereof, though the use of the machine as a whole is experimental.⁶⁴

Evidence of the experimental character of any use which occurred earlier than two years before the application for a patent, must be full, unequivocal, and convincing, or it cannot prevail to save that patent from invalidity.⁶⁵

Public use by a stranger, without the knowledge of the inventor, more than two years before the inventor applies for a patent, generally has the same operation of constructive abandonment, that public use by the inventor himself would have;⁶⁶ but Judge WHEELER decided, that where

⁶⁰ *Sinclair v. Backus*, 5 Bann. & Ard. 81, 1880.

⁶¹ *Smith & Griggs Mfg. Co. v. Sprague*, 123 U. S. 256, 1887; *Penn Electrical & Mfg. Co. v. Conroy*, 159 F. R. 943, 1908; *Star Mfg. Co. v. Crescent Forge & Shovel Co.*, 179 F. R. 856, 1910.

⁶² *Westinghouse Electric & Mfg. Co. v. Saranac Lake Electric Light Co.*, 108 F. R. 230, 1901; 113 F. R. 888, 1902.

⁶³ *Thomson-Houston Electric Co. v. Lorain Steel Co.*, 117 F. R. 252, 1902.

⁶⁴ *Thomson-Houston Electric Co. v. Lorain Steel Co.*, 110 F. R. 654, 1901; 117 F. R. 249, 1902.

⁶⁵ *Smith & Griggs Mfg. Co. v. Sprague*, 123 U. S. 264, 1887; *Swain v. Holyoke Machine Co.*, 111 F. R. 408, 1901.

⁶⁶ *Andrews v. Hovey*, 123 U. S. 267, 1887; 124 U. S. 694, 1887;

the inventor continued his experiments legitimately, until less than two years before he applied for his patent, that patent will not be defeated by the fact that another person constructed, and still another used, his invention, without his knowledge, more than two years before the application for the patent was made.⁶⁷

This holding has been more or less doubted, but at any rate it is safe to say that a fraudulent, surreptitious and piratical use of the invention by a stranger, taking place before the two-year period, does not operate to show an abandonment. This doctrine is discussed by the Circuit Court of Appeals of the second circuit in *Eastman v. Mayor, etc., of the city of New York*,⁶⁸ and while it is upheld on the authorities, its correctness is strongly doubted by Judge COXE who delivered the opinion, and the "fraudulent, surreptitious and piratical use" is confined to that arising out of a breach of trust.

§ 96. What is being "on sale," within the meaning of the statute? The answer to this question also, can now be accurately delineated in nearly or quite all of its boundaries.

A single instance of sale of one specimen of the thing invented is enough to constitute putting the invention on sale,^{68a} and it is immaterial if the purchase price is not paid more than two years before the application.⁶⁹ Indeed a device will be on sale within the meaning of the law, if it is offered for sale, whether any specimen of it is actually sold or not.⁷⁰ If, however, the nature of the invention is such

Glauber v. H. Mueller Mfg. Co. (reviewing previous cases on general subject of prior public use), 169 F. R. 110, 1909.

⁶⁷ *Campbell v. New York*, 47 F. R. 515, 1891.

⁶⁸ *Eastman v. Mayor, etc., of*

City of New York, 134 F. R. 844, 1904.

^{68a} *Consolidated Fruit Jar Co. v. Wright*, 94 U. S. 94, 1876.

⁶⁹ *Anderson v. Munroe*, 55 F. R. 405, 1893.

⁷⁰ *Plimpton v. Winslow*, 14

that the inventor is obliged to put it into the hands of others for crucial experiment, he may sell specimens to those others for that purpose, and such a sale will not be obnoxious to the law now under consideration.⁷¹ But if the invention could have been tested by the inventor on his own premises, as well as by anyone there or elsewhere, then either an absolute or a conditional sale of a specimen of the thing invented, will be putting the invention on sale, unless there is unequivocal evidence that the sale was made for the purpose of experimental use.⁷²

Where an inventor furnishes a specimen of his invention for use on approval, to be paid for if successful, there is an instance of being "on sale" if the use is successful and the specimen is paid for⁷³; but if the use is unsuccessful and is abandoned, there is no instance presented of being "on sale," even if the specimen was partly or wholly paid for, while being constructed.⁷⁴ A sale for the purpose of testing the commercial merits of an invention, will constitute being "on sale;"⁷⁵ but where a specimen of an invention is built or made to order, it is not "on sale" till it is completed, delivered, and accepted.⁷⁶ This proposition is of

F. R. 921, 1883; *Covert v. Covert*, 106 F. R. 188, 1901; *Wende v. Horine*, 225 F. R. 501, 1915; *Burke Electric Co. v. Independent Tool Co.*, 234 F. R. 93, 1916.

⁷¹ *Graham v. McCormick*, 5 Bann. & Ard. 244, 1880; *Graham v. Mfg. Co.*, 11 F. R. 142, 1880.

⁷² *Henry v. Soapstone Co.*, 5 Bann. & Ard. 108, 1880; *De Lamater v. Deeley*, 53 F. R. 380, 1892.

⁷³ *Craig v. Michigan Lubricator Co.*, 72 F. R. 173, 1896.

⁷⁴ *Huntington Dry-Pulverizer*

Co. v. Newell Universal Mill Co., 109 F. R. 269, 1901; *Wm. B. Mershon & Co. v. Bay City Box & Lumber Co.*, 189 F. R. 741, 1910.

⁷⁵ *Smith & Davis Mfg. Co. v. Mellon*, 58 F. R. 707, 1893.

⁷⁶ *Campbell v. New York*, 36 F. R. 261, 1888; *National Cash Register Co. v. American Cash Register Co.*, 178 F. R. 79, 1910; *McCreery Engineering Co. v. Mass. Fan Co.*, 195 F. R. 498, 1912; *Burke Electric Co. v. Independent Pneumatic Tool Co.*, 234 F. R. 93, 1916.

course all the more true if the acceptance of the specimen or specimens is subject to approval by the buyer of a sample to be submitted.⁷⁷

§ 97. An assignment of the inchoate right to an invention, is not such a sale as will be obnoxious to the statute now under explanation.⁷⁸ So far from furnishing evidence of abandonment, the sale of the inchoate right to a patent indicates an expectation that such a patent will be obtained, and that right be thus translated into a legal title.

§ 98. Precise identity between the thing covered by the patent, and the thing which the inventor allowed to be in public use or on sale more than two years before he applied for that patent, is not necessary to constitute constructive abandonment of the invention covered by the latter. It is enough if the two devices are substantially the same,⁷⁹ or if the advance from one to the other did not amount to invention,⁸⁰ but it is not enough that the two devices perform the same function, and are somewhat similar in construction and in mode of operation.⁸¹

§ 99. No constructive abandonment results from any mere making of a specimen of an invented thing more than two years before the application for a patent.⁸² But where an invention consists in a process of making a thing, the making of a specimen of that thing, by that process, is a use of that process, and is therefore subject to the rules which govern using, and not to that which applies to making only.

⁷⁷ *Burke Electric Co. v. Independent Pneumatic Tool Co.*, 232 F. R. 145, 1916.

⁷⁸ *Elm City Co. v. Wooster*, 6 Fisher, 452, 1873.

⁷⁹ *Hall v. Macneale*, 107 U. S. 90, 1882; *Theberath v. Trimming Co.*, 15 F. R. 251, 1883.

⁸⁰ *International Tooth Crown Co. v. Gaylord*, 140 U. S. 62, 1891.

⁸¹ *Draper v. Wattles*, 3 Bann. & Ard. 618, 1878.

⁸² *Comstock v. Sandusky Seat Co.*, 3 Bann. & Ard. 188, 1878; *Campbell v. New York*, 36 F. R. 261, 1888.

§ 100. Public knowledge of an invention, acquired with the consent of the inventor, prior to his application for a patent, was formerly fatal to the validity of any patent granted for that invention. The Patent Act of 1793⁸³ provided that to be patentable, a thing must not have been known before the making of an application for a patent thereon. The Supreme Court construed that enactment to mean only that the invention must not have been known to the public with the consent of the inventor.⁸⁴ The Patent Act of 1836 repealed all prior statutes on the subject of patents, and did not provide that any unfavorable effect on an inventor's right should result from public knowledge of his invention, acquired at any time after its production by him.⁸⁵ Nor has any later statute made any such provision.

§ 101. A public use or a sale of a specimen of a newly invented thing, occurring in any foreign country after its invention by an applicant for an American patent, but more than two years before his application is made, will not have the same effect upon such a patent, that it would have had if that public use or that sale had occurred in the United States. The language of Section 4886 of the Revised Statutes, contains no restriction as to the country wherein the public use or the sale of a newly invented thing, more than two years prior to an application for a patent thereon, must occur, in order to constitute constructive abandonment of that invention; and it was held by one Circuit Court, that no such restriction exists.⁸⁶ But the Supreme Court reversed that decision, and decided that Sections 4886, 4887, 4920 and 4923 of the Re-

⁸³ 1 Statutes at Large, Ch. 11, Section 1, p. 318.

⁸⁴ *Pennock v. Dialogue*, 2 Peters, 18, 1829.

⁸⁵ *Elizabeth v. Pavement Co.*, 97 U. S. 136, 1877.

⁸⁶ *Gandy v. Belting Co.*, 28 F. R. 570, 1886.

vised Statutes, taken together, show that the right of an inventor, to obtain a United States patent, is not lost by reason of the fact that his invention was in public use or on sale, in some foreign country, more than two years before his application for a United States patent thereon.⁸⁷

§ 103. Constructive abandonment of an invention, after an application for a patent thereon, necessarily results from constructive abandonment of that application, in certain classes of cases which are explained in the chapter on applications.⁸⁸ In still another class of cases, constructive abandonment of an invention, after an application for a patent thereon, necessarily results from a particular kind of constructive abandonment of that application, unless a new application is filed within a certain time after such abandonment. That class of cases is the following: Where an applicant omits to pay the final fee within six months from the time at which his application was allowed, and notice thereof sent to him or to his agent, and where he also omits to make any new application for a patent on the same invention within two years after such an allowance, he loses all right to obtain a patent for that invention.⁸⁹ The two-year period begins to run from the date of the allowance, whether or not the fee is paid.⁹⁰ Only one renewal application may be made.⁹¹

§ 104. The statutory law relevant to constructive abandonment, resulting from a public use or from a sale of a newly invented thing, more than two years before an ap-

⁸⁷ *Gandy v. Belting Co.*, 143 U. S. 592, 1892.

⁸⁸ Section 147 of this book.

⁸⁹ Revised Statutes, Section 4897.

⁹⁰ *Weston Electrical Inst. Co. v. Empire Electrical Inst. Co.*, 136 F. R. 599, 1905.

⁹¹ *Weston Electric Inst. Co. v. Empire Electrical Inst. Co.*, 131 F. R. 90, 1904.

plication for a patent, is a law which operates inflexibly upon all cases coming within it. Its effect cannot be obviated by any evidence showing reasons for the delay, however ample and meritorious those reasons may be.⁹² The rule of this section doubtless applies also to the constructive abandonment explained in the last.

§ 104a. Constructive abandonment of inventions prior to applications for letters patent, in two new classes of cases, is enacted by the Patent Act of 1897; and in two other new classes of cases, by the Patent Act of 1903.

The first of these classes of cases is confined to patents applied for after 1897. Constructive abandonment of any invention claimed in such a patent, will be found to have occurred, if its inventor did not make his application for that patent, until more than two years after some person, not in privity with him, received a patent on the same subject in some country, or until more than two years after that subject was described in some printed publication somewhere.⁹³

The second class of cases is confined to patents which were applied for after 1897, and on or before March 3, 1903. Constructive abandonment of any invention claimed in such a patent, will be found to have occurred, if its inventor did not make his application for that patent, till more than seven months after he, or some person in privity with him, filed an application for a patent on the same invention, in some foreign country, and if a foreign patent was granted on that foreign application.⁹⁴

⁹² *Sisson v. Gilbert*, 9 Blatch. 189, 1871; *Jenner v. Bowen*, 139 F. R. 556, 1905.

⁹³ 29 Statutes at Large, p. 692, Ch. 391. Sections 1, 3, and 8 construed together.

⁹⁴ 29 Statutes at Large, p. 692, Ch. 391. Sections 3 and 8 construed together, and with Section 1 of Ch. 1019 of 32 Statutes at Large.

The third class of cases is confined to patents applied for after March 3, 1903; on processes, machines, manufactures, or compositions of matter. Constructive abandonment of any invention claimed in such a patent, will be found to have occurred, if its inventor did not make his application for that patent, till more than twelve months after he, or some person in privity with him, filed an application for a patent on the same invention, in some foreign country, and if a foreign patent was granted on that foreign application.⁹⁵ In the computation of the twelve months' period the day of filing the foreign application is excluded.⁹⁶

The fourth class of cases is confined to patents on designs, applied for after March 3, 1903. Constructive abandonment of any invention claimed in such a patent, will be found to have occurred, if its inventor did not make his application for that patent, till more than four months after he, or some person in privity with him, filed an application for a patent on the same invention, in some foreign country, and if a foreign patent was granted on that foreign application.⁹⁷

An application for a patent in the United Kingdom of Great Britain and Ireland, is filed within the meaning of the law of this section, at the time of the filing of a provisional specification in the British Patent Office, in cases where a provisional specification is filed in that office, in advance of the complete specification.⁹⁸

§ 105. Surrender of an invention may be effected after the grant of letters patent therefor, by means of a formal

⁹⁵ 32 Statutes at Large, Part 1, p. 1225, Ch. 1019, Section 1.

⁹⁶ *Hess-Bright Mfg. Co. v. Standard Roller Bearing Co.*, 171 F. R. 114, 1909.

⁹⁷ 32 Statutes at Large, Part 1, p. 1225, Ch. 1019, Section 1.

⁹⁸ *In re Swinburne*, 19 App. D. C. 565, 1902.

surrender of those letters patent. A proceeding of the kind was mentioned by the Supreme Court as being undoubtedly proper as early as 1832,⁹⁹ and an actual surrender of the sort was tacitly approved by that tribunal about twenty years later.¹⁰⁰

§ 106. No abandonment of an invention after the issue of letters patent thereon has ever been judicially decided to exist in the United States. The Patent Act of 1832¹⁰¹ provided that a certain class of aliens might obtain United States patents who had theretofore been excluded from that privilege; but it coupled with that provision an enactment that every patent granted by virtue of that Act should cease and determine in case of failure on the part of the patentee to introduce the invention into public use in the United States within one year from the issuing of the patent, or in case of a discontinuance of such public use for any period of six months, or in case of failure on the part of the patentee to become a citizen of the United States. In providing such a rule of constructive abandonment for a certain class of aliens, Congress showed that it did not overlook the subject of non-user of patented inventions; and in omitting to provide any such rule for citizens of the United States, Congress showed that it did not intend constructive abandonment to result from non-user in their cases. Even as to aliens, the policy of the law upon the point was soon changed. The Act of 1836 repealed all former patent statutes, and did not reenact the provision just cited from the Act of 1832, nor put any corresponding restrictions upon any class of patentees. Nor has any later statute contained any pro-

⁹⁹ *Grant v. Raymond*, 6 Peters, 240, 1832.

¹⁰⁰ *Battin v. Taggert*, 17 Howard, 74, 1854.

¹⁰¹ 4 Statutes at Large, Ch. 203, p. 577.

vision of the kind. The fair inference from this course of legislation seems to be that Congress does not intend any patent right to be lost on any ground of non-user of that right. Even before Congress had thus indicated its intention on the subject, Justice WASHINGTON instructed a jury that no disuser of an invention, after it is patented, can amount to an abandonment, so as to deprive the patentee or his assignees of their exclusive right to it for the term of the patent.¹⁰² So, also, the Supreme Court has held that no presumption arises against a patent, from any use of the invention by the public after the patent is granted.¹⁰³ Since no abandonment of an invention, after it is patented, can arise out of any existing statute, nor be based on any non-user by the patentee, or on any user by the public, we are shut up to the conclusion that no such abandonment is known to our laws.

§ 107. Acquiescence by a patentee in unlicensed use of his invention during the life of the patent, has sometimes been said or been intimated by courts to amount to an abandonment of the patent and of the invention. Four cases containing such statements or suggestions are to be found in the reports. In two of them the judges made their observations on the subject, in spite of their decisions that no such question was involved in the pleadings. In the other two cases the views of the judges were inserted in charges to juries, but inasmuch as the juries found for the respective plaintiffs, it seems that there were no facts in the cases which called for such statements in the charges. The opinions of the four judges on the point seem, therefore, to be no more weighty than the reasons which sup-

¹⁰² *Gray v. James*, 1 Peters C. C. 320, 1833; *Crown Cork & Seal Co. v. Aluminum Stopper Co.*, 108

¹⁰³ *Shaw v. Cooper*, 7 Peters, F. R. 869, 1901.

port them. But no reasons applicable to the subject of abandonment of a patent are contained in either of the cases, though one of them contains statements of reasons adapted to support the doctrine of estoppel. Nor do the four cases agree among themselves relevant to the character or to the quantity of acquiescence needed to support an hypothesis of abandonment of a patent. In *Wyeth v. Stone*¹⁰⁴ Justice STORY intimated that such acquiescence must be without objection, and must continue for a series of years. In *Ransom v. New York*,¹⁰⁵ Judge HALL placed no such limitation as the last of these upon the doctrine, and if he hinted at the first of them he hinted but vaguely. In *Bell v. Daniels*,¹⁰⁶ Judge LEAVITT said that it would require a strong case to prove abandonment of a patent actually granted. In *Williams v. Railroad Co.*,¹⁰⁷ Judge WALLACE said: "Neither does mere delay or acquiescence establish an abandonment or dedication of the patent. There must be an acquiescence in the appropriation of the right of such a character as reasonably to induce the belief that the owner intended to relinquish it to the public use." The opinions cited in this section, so far as they disagree with the statutes and decisions cited in the last, do not agree in that disagreement, and they seem insufficient to outweigh, or even to modify, the doctrine set forth in that section.

§ 108. Questions relevant to actual or to constructive abandonment of inventions are questions of fact;¹⁰⁸ and every reasonable doubt relevant to any such question

¹⁰⁴ *Wyeth v. Stone*, 1 Story, 282, 1840.

¹⁰⁵ *Ransom v. New York*, 1 Fisher, 273, 1856.

¹⁰⁶ *Bell v. Daniels*, 1 Bond, 219, 1858.

¹⁰⁷ *Williams v. Boston & Albany*

Railroad Co., 4 Bann. & Ard. 441, 1879.

¹⁰⁸ *Battin v. Taggart*, 17 Howard, 84, 1854; *Kendall v. Winsor*, 21 Howard, 330, 1858.

See Section 91.

should be solved in favor of the patent, for the law does not favor forfeiture.¹⁰⁹

¹⁰⁹ *Pitts v. Hall*, 2 Blatch. 238, 1851; *McCormick v. Seymour*, 2 Blatch. 256, 1851; *Birdsall v. McDonald*, 1 Bann. & Ard. 165, 1874; *Comstock v. Sandusky Seat Co.*, 3 Bann. & Ard. 188, 1878; *Anderson v. Eiler*, 46 F. R. 779, 1891; *Crown Cork & Seal Co. v.*

Aluminum Stopper Co., 108 F. R. 850, 1901; *Victor Talking Machine Co. v. Duplex Phonograph Co.*, 177 F. R. 248, 1909; *Interurban Ry. & Terminal Co. v. Westinghouse Electric & Mfg. Co.*, 186 F. R. 166, 1911.

See Section 88.

CHAPTER VI

APPLICATIONS

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§ 109. AN application for a patent consists of the following transactions: The deposit in the Patent Office of a written petition to the Commissioner of Patents; the like deposit of a written specification of the invention; the making of an oath; the payment of the Patent Office fee; and in some cases the deposit of a drawing; and in some cases the deposit of a model; and in some other cases the deposit of specimens.¹ Applications and proceedings on applications are primarily governed by the provisions of the Revised Statutes. Where those provisions do not cover a particular point, that point is governed by the rules of the Patent Office.² Every such rule, unless it is inconsistent with law, is as authoritative as the Revised Statutes themselves.³

§ 110. The petition is a communication, signed by the applicant and addressed to the Commissioner of Patents, stating the name, present nationality, residence, and present post office address of the petitioner; and requesting the grant of a patent for the invention therein designated by name, and by a reference to the specification for a full disclosure thereof.⁴ The petition must be the petition of the inventor, and not of an assignee of the inventor, though it may properly request that the patent, when

¹ Revised Statutes, Sections 4888, 4889, 4890, 4891, 4892, 4893, 4933; Rules of Practice of the United States Patent Office, revised Jan. 1, 1916, Rules 30, 56, 57, 58, 59.

² Revised Statutes, Section 483.

³ *United States v. Commissioner of Patents*, 22 O. G. 1365, 1882; *United States v. Commissioner of Patents*, 104 O. G. 856, 1903; *Steinmetz v. Allen*, 192 U. S. 543, 1904.

⁴ Patent Office Rules 33, 86.

granted, shall be granted to an assignee.⁵ If, however, the inventor becomes insane or dies before executing a petition, the petition may be made and signed by his guardian, conservator, or representative in trust for his estate, in case of his insanity;⁶ or by his executor or administrator in case of his death.⁷ And if the inventor was not domiciled in the United States, at the time of his death, the executor or administrator, duly authorized under the law of any foreign country to administer upon his estate, and whose authority is proved by a certificate of a diplomatic or consular officer of the United States, may make and sign the petition.⁸

§ 111. The specification properly consists of six parts.⁹ 1. The preamble. 2. A general statement of the nature and object of the invention. 3. A brief description of the drawings, if drawings are made. 4. A detailed description of the invention. 5. The claim or claims. 6. The signature of the applicant. Prior to the amendment of Section 4888 of the Revised Statutes in 1915 two witnesses were required, but that requirement was dispensed with by the Act of March 3, 1915, amending that section.¹⁰

§ 112. The preamble states the name, present nationality, residence, and present post office address, of the applicant; and where the applicant is acting as representative of an insane or deceased inventor, the preamble states his name, and his nationality and residence at the time of his making the invention, and states also that the ap-

⁵ Revised Statutes, Section 4895.

⁶ Revised Statutes, Section 4896, as amended, 35 Statutes, 246.

⁷ Revised Statutes, Section 4896, and as amended Feb. 28, 1899, in 30 Statutes at Large,

Ch. 227, and as amended May 23, 1908, 35 Stat. 245.

⁸ Revised Statutes, Section 4896, as amended, 35 Statutes, 246.

⁹ Patent Office Rule 39.

¹⁰ Act Mar. 3, 1915, Chap. 94, Section 1, 38 Statutes, 958.

plicant is acting in his capacity as guardian, conservator, representative in trust, executor, or administrator, as the case may be. The preamble also states the title of the invention, in order to connect it by name, with the same title in the petition.

§ 113. The general statement of the nature and object of the invention is a convenient mode of introducing the detailed description. Every such statement should be free from any particularity or limitation which, if imported, by implication, into one or more of the claims, might operate to reduce the area covered by the patent, to territory more narrow than the state of the prior art required.

§ 114. The description of the drawings states what each figure is, but does not state the details of the figures; those details being passed over in that description, to be attended to in the detailed description of the invention.

§ 115. The detailed description of the invention must be full enough, and clear enough, and concise enough, and exact enough, to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make and use the invention, if it is a machine or a manufacture, or to compound the invention, if it is a composition of matter, or to perform the invention, if it is a process,¹¹ or to identify the invention, if it is a design. If the description falls below this standard, the patent, if granted, will be void.¹² But this standard may be reached, in the case of a design, by a reference to the drawing or photograph¹³ annexed to the specification. In the statute

¹¹ Revised Statutes, Section 4888; *Bradford v. Expanded Metal Co.*, 146 F. R. 984, 1906.

¹² *O'Reilly v. Morse*, 15 Howard, 62, 1853.

¹³ *Dobson v. Dornan*, 118 U. S. 14, 1885; *Anderson v. Saint*, 46 F. R. 760, 1891.

See Section 174.

by which this standard is established, the phrase "any person skilled in the art or science" includes persons of ordinary and fair information and skill in the relevant art or science; and that phrase is not confined to the most eminent scientists, or to the most competent experts, in that science or art.¹⁴

The description, in a case of a manufacture, and particularly in a case of a machine, must make constant reference to the drawings, by means of reference letters or reference numerals, incorporated in the description, and placed upon the face of the drawings.¹⁵ Numerals are every way better than letters for this purpose, and are preferred by the Patent Office.¹⁶ They are unlimited in number; instead of being only twenty-six. They are distinguishable from each other in sound; instead of being often indistinguishable, when separately pronounced, as several pairs of the letters of the alphabet are. They are always alike; instead of being printed sometimes as Roman letters and sometimes as Italics, and in either event, sometimes as small letters, and sometimes as capitals.

The statute also says that in case of a machine, the applicant shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions.¹⁷ These provisions must be read in the light of their avowed object. That object is identification. The first provision cannot mean that the inventor must infallibly explain the law of nature which makes his machine work; for if it means that, neither Morse nor Bell complied with it when describing the telegraph or the telephone,¹⁸ and, indeed, neither

¹⁴ *Tannage Patent Co. v. Zahn*,
66 F. R. 989, 1895.

¹⁵ Patent Office Rule 38.

¹⁶ Patent Office Rule 38.

¹⁷ Revised Statutes, Section
4888.

¹⁸ *Emerson Co. v. Nimocks*, 99
F. R. 739, 1900; *National Meter*

Morse nor Bell nor any man could have done so. The second provision cannot mean that every inventor must infallibly judge which of several forms of his machine will eventually be found to work best, for if it means that, it requires what is often impossible: requires the inventor to foresee the ultimate effects of new and comparatively untried causes. The first provision means that the essential distinctive characteristic of the machine shall be explained;¹⁹ and the second provision means that the inventor shall state the mode which he contemplates to be the best.²⁰ Inasmuch as the validity of a patent depends on the sufficiency of the description, the subject of this section is treated with more detail in the chapter on letters patent, the seventh of this book. Enough has been outlined in this connection, to show what kinds of statements those descriptions need to contain.

§ 116. The claim or claims constitute a necessary part of every specification. The statutory requirement in this regard is, that the applicant "shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention."²¹ The practice of the Patent Office has always been to require the claim or claims to be made in that part of the specification which immediately precedes the signatures.

It is a practice of some solicitors of patents to write claims in vague phraseology, with an idea that vagueness is elasticity, and that elasticity is excellence. They stretch their claims to catch infringers; and are apt to stretch them

Co. *v.* Thomson Meter Co., 106 F. R. 538, 1900.

¹⁹ National Meter Co. *v.* Thomson Meter Co., 106 F. R. 538, 1900.

²⁰ Carver *v.* Mfg. Co., 2 Story,

432, 1843; Page *v.* Ferry, 1 Fisher, 309, 1857; Vrooman *v.* Penhallow, 179 F. R. 296, 1910.

²¹ Revised Statutes, Section 4888.

to the breaking point, by making them vague and elastic enough to cover inventions in the prior art, and to be invalidated thereby.²² It is a practice of some solicitors, to multiply claims, with variant language. Thus they hope to hit every competitor, with one claim or another; or to divert them all from competition, by a multiplicity of appearances. But the courts have frequently expressed their disapprobation of multiplying claims unnecessarily,²³ and such multiplication is dangerous to the validity of patents.²⁴

It is a proper practice to make a generic claim and also a specific claim, in an application for a patent on a generic invention, even where only one species is described in the specification.²⁵ In such a case, if the inventor's understanding that his invention is primary, turns out to be true, both claims will be valid. But if some invention is afterward discovered in the prior art, which relegates the patent to a secondary place, the specific claim may stand and be valid, though the generic claim is too broad to be maintained.

§ 117. In a case where the description sets forth an entire machine, the applicant may lawfully make a claim co-extensive with the description, if the machine as a whole possesses novelty. But such a claim ought seldom to be the only one in a patent; because, for reasons stated in the chapter on infringement, it can, in most cases, be readily evaded. The proper practice is to fix upon the new parts, or new combinations, which the described machine con-

²² *Bracewell v. Passaic Print Works*, 107 F. R. 473, 1901.

²³ *Westinghouse Air-Brake Co. v. New York Air-Brake Co.*, 112 F. R. 431, 1901.

²⁴ *Carlton v. Bokee*, 17 Wallace, 463, 1873.

²⁵ *Hill v. Hodge*, 12 App. D. C. 530, 1898; *J. L. Owens Co. v. Twin City Separator Co.*, 168 F. R. 259, 1909; *Ryder v. Townsend*, 188 F. R. 792, 1911; *Zittlosen Mfg. Co. v. Boss*, 219 F. R. 887, 1914.

tains, and to make a separate claim for each of those parts, and for each of those combinations.²⁶

But one patent or claim having been granted to an inventor, upon a particular part or combination, as performing particular functions, no valid claim or patent can be afterward granted to him, on the same part or combination, as performing a part only of the functions called for by the claim of the first patent.²⁷ And it is advisable to take out all patents, on the same day, on different combinations of parts, some of which are in each of the different combinations. To secure a particular part of a machine, a claim must specify that part; and to secure a particular combination of some of the parts of a machine, a claim must specify all of those parts, and the description must explain their joint mode of operation, and must state their joint function.²⁸

And a part or a combination may be claimed separately, though it cannot do useful work separately from the residue of the machine or apparatus of which it constitutes a part.²⁹ Otherwise an infringer might take the most important part of an invention, and by changing the method of adapting it to its environment, might avoid

²⁶ Gill *v.* Wells, 22 Wallace, 24, 1874; Adams *v.* Jones, 1 Fisher, 530, 1859; National Malleable Casting Co. *v.* American Steel Foundries, 182 F. R. 626, 1910.

²⁷ Miller *v.* Eagle Co., 151 U. S. 199, 1894.

²⁸ Parks *v.* Booth, 102 U. S. 102, 1880; Forbush *v.* Cook, 2 Fisher, 669, 1857.

²⁹ Hancock Inspirator Co. *v.* Jenks, 21 F. R. 915, 1884; Rapid Service Store Ry. Co. *v.* Taylor, 43 F. R. 251, 1887; Roberts *v.* Nail

Co., 53 F. R. 920, 1892; Holloway *v.* Dow, 54 F. R. 516, 1893; Brammer *v.* Schroeder, 106 F. R. 929, 1901; Thompson-Houston Electric Co. *v.* Black River Traction Co., 135 F. R. 759, 1905; Kenney Mfg. Co. *v.* J. L. Mott Iron Works, 137 F. R. 431, 1905; Clark Blake & Razor Co. *v.* Gillette Safety Razor Co., 194 F. R. 421, 1912; National Malleable Castings Co. *v.* American Steel Foundries, 182 F. R. 626, 1910.

any charge of infringement. The invention of a needle with an eye near the point, is the one essential element of all sewing machines. But the possible mechanisms for operating such a needle are many, and if its inventor had been obliged to make his own mechanism a part of every claim in which his needle was an element, his patent would have been destitute of value to him; ³⁰ though his invention was one of the most valuable in the history of mankind.

It is not necessary, however, that a claim specify all the various means shown in the specification and drawings for connecting the various parts of the combination, as it is to be interpreted to include such connections of the several parts as are necessary to make them operative. ^{30^a}

§ 117*a*. A part of a machine when claimed alone, may be specified by the use of its name in the claim, where no other part of the machine has a similar name; but where the use of a name alone, is not sufficiently specific to show what part of the machine is referred to, that object can be accomplished by mentioning, in the claim, the reference letter or numeral, which is used to indicate that part in the description and in the drawings. Such a use of a reference letter or numeral does not necessarily confine the claim to a part having all the characteristics of the part which, in the drawings, is indicated by the letter or numeral; ^{30^b} because a claim which expressly covers a particular device, impliedly covers any equivalent of that device; and other devices will be held to be equivalent

³⁰ *Deering v. Winona Harvester Works*, 155 U. S. 302, 1894; *Chambers-Bering-Quinlan Co. v. Faries*, 75 F. R. 663, 1896.

^{30^a} *Duncan v. Stockham*, 204 F. R. 781, 1912; *Jones v. Evans*, 215 F. R. 586, 1914.

^{30^b} *Campbell Printing-Press Co. v. Marden*, 64 F. R. 785, 1894; *National Hollow Brake-Beam Co. v. Interchangeable Brake-Beam Co.*, 106 F. R. 715, 1901.

or not equivalent, by means of certain tests, which are explained in the chapter on infringement, and which are quite foreign to the question whether a particular device is designated in a claim by a reference letter or numeral, or by a name alone, or in some other way.

It is true that where the particular characteristics of the parts of the combination shown in the drawings of a patent, are all that differentiate it from the prior art; and where those parts are specified in an amended claim by reference letters or numerals, in pursuance of a rejection by the Patent Office of a prior claim which was broad enough to cover the prior art; the amended claim is limited to a combination of parts having those particular characteristics; for if not so restricted, the effect would be to make the claim co-extensive with what the Patent Office rejected.³¹ But the same thing is true, in an otherwise similar case, where the parts of the combination are specified, in an amended claim, by names alone, or in any other way.³² The breadth or the narrowness of a claim as the case may be, does not depend upon any artificial rule of interpretation;³³ and to narrow a broad invention by reference letters or numerals alone, would be to frame and enforce such a rule.

Where some of the parts of a combination operate therein to give motion to other parts, which do the final work of the combination, it is proper to specify the former by the use of such terms as "means," "mechanism," or "devices" for giving that motion,³⁴ except when these

³¹ *Knapp v. Morss*, 150 U. S. 228, 1893; *Lehigh Valley R. R. Co. v. Kearney*, 158 U. S. 469, 1895.

³² *McCormick Harvesting Mach. Co. v. C. Aultman & Co.*, 69 F. R. 393, 1895.

³³ *Topliff v. Topliff*, 145 U. S. 171, 1892.

³⁴ *Brush Electric Co. v. Ft. Wayne Electric Light Co.*, 40 F. R. 833, 1889; *Brush Electric Co. v. Western Electric Co.*, 43

terms are applied to an element or part which constitutes the essence of the invention. If they are used under such circumstances the claim will be regarded as functional.³⁵ But such general language will not include all means, mechanism, or devices which can perform that function, but only those which are shown in the patent, and their equivalents.³⁶ And in this case also, the question whether other means, mechanism, or devices are equivalents of those shown in the patent, will be determined by the established rules on that subject, rather than by any apparent precision or elasticity of the language used in the claims to designate the parts involved in the inquiry.

§ 118. In cases where the description sets forth a manufacture, there ought to be a separate claim for each of its patentable features, or at least for the article without any dispensable feature; for if there is but one claim, and if all those features are covered by it, then those persons who manage to dispense with even the least of them, incur no liability by making, using, or selling articles which possess all the others.³⁷

§ 119. In cases where the description relates to a composition of matter, the claim should cover that composition in its entirety, and should, either expressly, or

F. R. 537, 1890; *Brush Electric Co. v. Electric Imp. Co.*, 52 F. R. 975, 1892.

³⁵ *Davis Sewing Machine Co. v. New Departure Mfg. Co.*, 217 F. R. 775, 1914.

³⁶ *Dudley E. Jones Co. v. Munger Mfg. Co.*, 49 F. R. 64, 1891; *Williams v. Steam Gauge & Lantern Co.*, 47 F. R. 323, 1891; *Colts Patent Firearms Mfg. Co.*

v. Wesson, 127 F. R. 333, 1903; *American Can Co. v. Hickmott Asparagus Co.*, 142 F. R. 141, 1905; *Union Match Co. v. Diamond Match Co.*, 162 F. R. 148, 1908; *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U. S. 405, 1908.

³⁷ *Prouty v. Ruggles*, 16 Peters, 336, 1842.

by reference to the description, specify the respective proportions which the different ingredients bear to each other.³⁸ But where some of the described ingredients may be dispensed with, the applicant, if he states that fact in the description, may have a separate claim for a composition of matter composed only of the residue; or he may have a single claim covering the indispensable ingredients, whether with or without the others.³⁹

§ 120. In cases where the description relates to a process, the claim should cover all the necessary occurrences in that process, and cover no more. If it covers less it will be void for want of utility; and if it covers more, it can be evaded by persons who omit any one which is unnecessary, when using the others.

§ 120*a*. In cases where the description and its accompanying drawing or photograph represent a design, the claim may identify its subject by a reference to that drawing or photograph.⁴⁰ But where a claim for a design ends with the words "substantially as shown" that claim refers to the description as well as to the drawing.⁴¹ And a design patent may contain a claim for the entire design, with other claims for such of the parts of the design as are independently patentable.⁴² But several unconnected ornaments cannot lawfully be aggregated and claimed together in one claim.⁴³

§ 121. The signatures of the applicant must embody

³⁸ *Tyler v. Boston*, 7 Wallace, 327, 1868; *Panzl v. Battle Island Paper Co.*, 138 F. R. 48, 1905.

³⁹ *Rubber Co. v. Goodyear*, 9 Wallace, 788, 1869.

⁴⁰ *Dobson v. Dornan*, 118 U. S. 14, 1885.

See Section 174.

⁴¹ *Whittall v. Lowell Mfg. Co.*, 79 F. R. 789, 1897.

⁴² *Dobson v. Hartford Carpet Co.*, 114 U. S. 446, 1885; *Britton v. White Mfg. Co.*, 61 F. R. 95, 1894.

⁴³ *Dukes v. Bauerle*, 41 F. R. 781, 1890.

the full name and must be legibly written.⁴⁴ Witnesses to the drawing are not required since the Act of March 3, 1915, amending Section 4889 of the Revised Statutes went into effect.⁴⁵ The grammatical construction of the prior statutory provisions, relevant to signatures, seems to indicate that the document signed by the applicant, and not the signature of that applicant, is the thing which is to be attested by the two witnesses. In cases where language of similar character has been used in statutes which prescribe the mode of attesting wills, it has been decided to be immaterial, whether the witnesses sign before or sign after the execution of the document;⁴⁶ but where such statutes have provided for attesting the signatures rather than the will, it is the law that the document is void if the witnesses sign before the testator.⁴⁷ It was the practice of the Patent Office when witnesses were required, to regard the attestation as being attestation of the signatures, and, accordingly, to require two witnesses for each signature, in cases of joint applications for joint letters patent. The same two witnesses could indeed attest all the signatures; but where one witness attested the signature of one joint inventor, and another witness attested the signature of the other, of two joint inventors, the Patent Office held the attestation to be insufficient. It has been held that, where one of the witnesses has signed the drawing with the names of the inventors and has also signed the name of the attorney in fact, there is a presumption that he had authority to do so, and that as it did not appear that the Commissioner was misled on the merits, or that there was any fraud or

⁴⁴ Patent Office Rule 40.

⁴⁵ Act Mar. 3, 1915, Chap. 94, Sec. 1, 38 Statutes at Large, 958.

⁴⁶ *O'Brien v. Gallagher*, 25 Conn. 229, 1856.

⁴⁷ Wharton on Evidence, Section 888.

intent to deceive, such facts did not operate to defeat the patent.⁴⁸

§ 122. The oath is not required by the statute to be in writing, nor to be recorded. It may be taken anywhere in the United States, before any person authorized by law to administer oaths at that place; or, when the applicant resides in a foreign country, it may be taken before any minister, chargé 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, and whose authority may be proved by a certificate of a diplomatic or consular officer of the United States.⁴⁹

Recital in the letters patent, that the required oath was made by the applicant, is, in the absence of fraud, conclusive evidence of that fact.⁵⁰ The presence, in the files of the Patent Office, of a paper purporting to be the oath in a given case, but void for lack of a jurat, or for some other fault, is a harmless circumstance.⁵¹ In such a case the law presumes that the oath recited in the letters patent was made orally, or was embodied in some other paper. It is presumed that the Commissioner will never issue a patent till he is satisfied that the applicant has somehow made

⁴⁸ *Hallock v. Babcock*, 121 F. R. 226, 1903; *Patterson v. United States*, 202 F. R. 208, 1913.

⁴⁹ Revised Statutes, Section 4892, as amended in 32 Statutes at Large, Part 1, p. 1225, Ch. 1019, Section 2.

⁵⁰ *Seymour v. Osborne*, 11 Wallace, 516, 1870; *Wayne Mfg. Co.*

v. Coffield Motor Washer Co., 227 F. R. 987, 1915.

⁵¹ *Crompton v. Belknap Mills*, 3 Fisher, 536, 1869; *De Florez v. Reynolds*, 14 Blatch. 506, 1878; *Hoe v. Kahler*, 12 F. R. 111, 1882; *Hancock Inspirator Co. v. Jenks*, 21 F. R. 914, 1884; *Empire Cream Separator Co. v. Sears, Roebuck & Co.*, 157 F. R. 238, 1907.

oath to the facts to which the statute requires him to swear. When the Commissioner is so satisfied, and recites the fact in the letters patent, all inquiry on the subject is foreclosed, except in cases of actual fraud.⁵² Rule 47 of the Patent Office provides, however, that the oath or affirmation is to be attested in all cases by the proper official seal of the officer before whom it is taken. That implies that the Commissioner requires the oath to be put into writing. If, however, he were to waive that requirement in a given case, and were to content himself with an oral oath, and were to recite in the patent that the required oath was made, the law would still have been complied with.

§ 123. The statute requires an applicant to make oath to the statement that he does verily believe himself to be the first inventor of the invention for which he solicits a patent, and to state of what country he is a citizen.⁵³ In the expression "described *and* claimed" found in the form of oath prescribed by the Patent Office (Rule 46) the word "and" is construed as a disjunctive, and accordingly the oath applies to what is described and also to what is claimed, and is not limited merely to what is both described and claimed.⁵⁴ The Patent Office rule requires that the statement mentioned shall also be made in the oath; and that the applicant shall also state in the oath, where he resides; and that the invention has not been patented to himself, or to any other person with his consent or knowledge, in any country, more than two years prior to his application, or on an application filed in any

⁵² Wayne Mfg. Co. *v.* Coffield Motor Washer Co., 227 F. R. 987, 1915.

⁵³ Revised Statutes, Section 4892, as amended in 32 Statutes

at Large, Part 1, Ch. 1019, Section 2.

⁵⁴ Crompton & Knowles Loom Works *v.* Stafford Co., 205 F. R. 925, 1913.

foreign country, by any person in privity with him, more than twelve months prior to his application; and that, to the best of his knowledge and belief, the invention has not been in public use or on sale in the United States, nor described in any printed publication or patent in any country, for more than two years prior to his application in this country.⁵⁵

The Patent Office rule also requires certain other statements to be made in oaths, in certain special cases.⁵⁵

The statute of 1836, which was in force till the approval of the Act of 1870, required the applicant to make oath or affirmation of what country he was a citizen,⁵⁶ whereas the Act of 1870, and the Revised Statutes, require only his statement on that subject. The old law governs all applications made before July 8th, 1870; and under it Justice GRIER decided, for certain reasons which have not existed since 1870, that where an applicant mentioned a wrong country in his oath, that error rendered his patent void, even though it arose from an erroneous opinion relevant to what constituted citizenship of the United States.⁵⁷ But under the statute of 1870, re-enacted in the Revised Statutes, such an error does not invalidate a patent.⁵⁸

When an application for a patent is made by an executor or administrator of a deceased inventor, the statute directs the oath to be so varied in form that it can be made by him.⁵⁹ Whether, in such a case, it is necessary for the applicant to swear that he believes that the deceased be-

⁵⁵ Patent Office Rule 46.

⁵⁸ *Tonduer v. Chambers*, 37

⁵⁶ 5 Statutes at Large, Ch. 357, Section 6, p. 119.

F. R. 337, 1889.

⁵⁷ *Child v. Adams*, 1 Fisher, 193, 1854.

⁵⁹ Revised Statutes, Section 4896, as amended in Act May 23, 1908, 35 Stat. 245.

lieved himself to be the first inventor, or whether it is necessary for the applicant to swear that he believes that the deceased was in fact the first inventor of the invention, is an unsettled question. If the first is the true view, then an executor may obtain, without perjury, a patent for an invention which he may know to have been previously used in the United States. If the second is the true view, then an executor may be unable to obtain, without perjury, a patent for an invention never before known or used in this country, and not previously patented or described in any printed publication, in this or any foreign country, and not known or believed by its inventor, to have been previously known or used anywhere in the world. In the first of these contingencies, a wrong may result to the public, and in the last, a wrong may result to the beneficiaries of the deceased.

§ 124. An affirmation in judicial form may always be substituted for any oath required by any United States statute.⁶⁰ Nor is this rule confined, as it is in the statutes of some of the States, to cases where the affiant informs the magistrate that he has scruples of conscience against taking an oath.

§ 125. The Patent Office fee, due with the application for a patent for a process, machine, manufacture, or composition of matter, is fifteen dollars, and a final fee of twenty dollars is payable after such a patent has been allowed and before it is issued. The fees for patents for designs, vary with the length of the terms of the patents applied for. For such a patent for three years and six months, the fee is ten dollars: for such a patent for seven years, the fee is fifteen dollars: for such a patent for fourteen years, the fee is thirty dollars.⁶¹ Fees for design

⁶⁰ Revised Statutes, Section 1.

⁶¹ Revised Statutes, Section 4934.

patents are required to be paid in advance.⁶² The final fee, above mentioned, must be paid within six months after the patent is allowed, and notice thereof is sent to the applicant or his agent; and the patent must issue within three months after the fee is paid; and if that fee is not paid within the six months, the statute provides that the patent shall be withheld.⁶³ The Commissioner of Patents has no jurisdiction to do what the statute forbids. Therefore if he were to issue a patent on an application, the final fee for which was not paid till more than six months after the patent was allowed, he would be acting without authority, and the patent would, for that reason, be void. At common law, a month is a lunar, not a calendar month.⁶⁴ Many of the States have reversed this definition by statute, and though Congress has never done so, the Supreme Court of the United States has reached that good result by judicial interpretation; and the word "month" wherever it occurs in the patent laws, must now be taken to mean a calendar and not a lunar month.⁶⁵

§ 126. Drawings are required by the statute to be furnished by applicants for patents, in all cases wherein the invention admits of representation by drawings.⁶⁶ The statutory requirement relevant to the character of such drawings, is merely that they shall be signed by the applicant or by his attorney in fact. The Patent Office rules require, in addition, that drawings must show every feature of the invention covered by the claims; and when the invention consists of an improvement on an old machine, must exhibit, in one or more views, the invention itself,

⁶² Patent Office Rule 190.

⁶³ Revised Statutes, Section 4885, as amended by Act May 23, 1908, 35 Stat. 246.

⁶⁴ Blackstone, Book 2, Ch. 9.

⁶⁵ *Guaranty Trust Co. v. Railroad Co.*, 139 U. S. 145, 1891.

⁶⁶ Revised Statutes, Section 4889.

disconnected from the old structure, and also, in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.⁶⁷ Those rules also describe numerous other characteristics for drawings,⁶⁸ which must be carefully followed, in order to secure favorable action from the Patent Office.

To be as useful as possible, all drawings for letters patent ought to show the true positions and proportions of the parts of the devices which they purport to delineate so far as necessary to show the invention; but it is not necessary that they be accurate enough to be used as working drawings, from which to construct specimens of those inventions.⁶⁹

Drawings in applications filed prior to July 8, 1870, and after July 4, 1836, were required to have "written references."⁷⁰ The object of such references was to connect the various parts of the drawings with the corresponding parts of the specification; but it was a sufficient compliance with that statute, where those references were made on the drawings, though not made in the specifications.⁷¹ The present statute says nothing about any references, or other means of connecting drawings with specifications; but the Patent Office rules require that they shall be connected by figures adjacent to the different views, and by letters or numerals adjacent to the different parts of the drawings, and by incorporating those figures and letters or numerals in the descriptive part of the specification.⁷²

⁶⁷ Patent Office Rule 50.

⁶⁸ Patent Office Rule 52.

⁶⁹ *American Hide and Leather Splitting Machine Co. v. Machine Co.*, 4 Fisher, 284, 1870; *Royer v. Coupe*, 29 F. R. 369, 1886; *Wold v. Thayer & Chandler*, 148 F. R. 227, 1906; *Manhattan Book Cas-*

ing Mach. Co. v. E. C. Fuller Co., 204 F. R. 286, 1913.

⁷⁰ 5 Statutes at Large, Ch. 357, Section 6, p. 119.

⁷¹ *Emerson v. Hogg*, 2 Blatch. 1, 1845.

⁷² Patent Office Rule 38.

§ 127. A model of the invention is required by the statute to be furnished by the applicant, in all cases wherein the invention admits of representation by model, provided the Commissioner requires a model.⁷³ This proviso was not in the statute of 1836, but it was inserted in that of 1870, in order to enable the Commissioner to dispense with models, in all cases where their utility is inferior in value to their cost, and to the room they would occupy in the Patent Office. Under the operation of the proviso, models are at present called for by the Commissioner in very few of the cases which admit of representation thereby.

§ 128. Specimens of compositions of matter, and of the ingredients thereof, are required by the statute to be furnished by applicants for patents for such compositions of matter, in all cases where the Commissioner calls for such specimens.⁷⁴ He always does call for at least a specimen of the composition, put up in proper form to be preserved, unless that composition is in its nature perishable.⁷⁵

§ 129. An application for a patent dates from its filing in the Patent Office, and not from the day of its execution by the applicant, nor from the day of the deposit of a model in the Patent Office, nor from the day of the deposit of anything there less than the full application,⁷⁶ but where an application is divided by filing a new one for part of its subject, the new one will date from the date of the old one.⁷⁷ In the absence of other evidence, the date of the application for a particular patent, is taken to be identical

⁷³ Revised Statutes, Section 4891; Patent Office Rule 56.

⁷⁴ Revised Statutes, Section 4890.

⁷⁵ Patent Office Rule 62.

⁷⁶ *Draper v. Wattles*, 3 Bann. & Ard. 618, 1878; *Henry v. Frances-*

town Soap Stone Stove Co., 5 Bann. & Ard. 108, 1880; *Campbell v. New York*, 35 F. R. 504, 1888.

⁷⁷ *Smith & Griggs Mfg. Co. v. Sprague*, 123 U. S. 250, 1887; *H. J. Heinz Co. v. Cohn*, 207 F. R. 547, 1913.

with the date of the letters patent itself.⁷⁸ Letters patent, and printed certified Patent Office copies of letters patent, not old enough to have expired, always have upon them, in the space under the title, a memorandum that the application therefor was filed on a particular specified day. But no such memorandum is evidence of the fact it recites, unless admitted for the purpose without objection.⁷⁹ It is not evidence at common law, nor in pursuance of any statute. That section of the Revised Statutes⁸⁰ which gives evidential character to certain certified copies, does not include any such memorandum, because it is no part of the letters patent upon which it is placed, and because it is not a copy of any record, book, paper, or drawing belonging to the Patent Office. It is an indication of what some such record, book, or paper appears to show, but it is not evidence of its own accuracy, nor is it covered by the certificate attached to the document upon which it is placed. Even where the application date is regularly proven by competent evidence, the proof of date must be supplemented by proof of the condition of the application at that date, at any rate if the patent was issued after the date of issuance of the patent in suit and was not pleaded.⁸¹

§ 129a. A register of attorneys is kept in the Patent Office, of all persons who are entitled to represent applicants before the Patent Office, in the presentation and prosecution of applications for patents.⁸² No person whose

⁷⁸ *Worley v. Tobacco Co.*, 104 U. S. 342, 1881; *Fay v. Mason*, 120 F. R. 511, 1903.

⁷⁹ *Drewsen v. Hartje Paper Co.*, 131 F. R. 734, 1904; *Twentieth Century Motor Car & Supply Co. v. Holcomb Co.*, 220 F. R. 669, 1915.

⁸⁰ Revised Statutes, Section 892; see Section 506.

⁸¹ *Roth v. Harris*, 168 F. R. 279, 1909; *Sundh Electric Co. v. Interborough Rapid Transit Co.*, 198 F. R. 94, 1912.

⁸² Patent Office Rule 17.

name is not on that register, is permitted to prosecute such an application, except on an invention which he himself has made, or which has been assigned to him.⁸³ Any attorney at law in good standing in any court of record, anywhere in the United States or any Territory thereof, will, upon his written request, be admitted to that register, when he furnishes a certificate of the clerk of such court, duly authenticated under the seal of the court, that he is an attorney in good standing therein. And any person, not an attorney at law, will likewise be admitted, upon his written application, when he files proof to the satisfaction of the Commissioner of Patents, that he is a person of good moral character and good repute, and that he is competent to render valuable services in assisting applicants, in the presentation and prosecution of applications before the Patent Office.⁸⁴

Any person may be expelled from the Patent Office register, when he is shown to be incompetent or disreputable, or to be guilty of gross misconduct.⁸⁵ Such a showing cannot be made *ex parte*; but only at a hearing before the Commissioner of Patents, on charges of which the accused person has had notice, and to which he is given an opportunity to reply, by evidence and argument, in person and by an attorney.⁸⁶ No appeal lies from any action of the Commissioner of Patents on such charges;⁸⁷ but that action, if adverse to the accused, must be approved by the Secretary of the Interior before it is enforced.⁸⁸ That approval may be given by an indorsement upon the recorded judg-

⁸³ Patent Office Rule 17; 23 Statutes at Large, Ch. 98, Section 5.

⁸⁴ Patent Office Rule 17.

⁸⁵ Revised Statutes, Section 487, and 23 Statutes at Large, Ch. 98, Section 5.

⁸⁶ Rule 9 of the Interior Department.

⁸⁷ *Weddeburn v. Bliss*, 12 App. D. C. 500, 1898.

⁸⁸ Revised Statutes, Section 487.

ment of the Commissioner, and without any hearing before the Secretary himself.⁸⁹

§ 130. Those transactions which constitute an original application for a patent, have thus far constituted the subjects explained in this chapter. While such an application is pending in the Patent Office, the Commissioner of Patents has no authority to furnish a copy of any paper which belongs to it, to anyone, except the applicant, or his attorney or agent. And no Patent Office official has any authority to give to any person any information about any pending application; except so far as the rules of the Patent Office authorize the giving of certain limited information specified therein, to those who make or who represent an interfering application.⁹⁰

When an application is made by any person, it becomes the duty of the Commissioner to cause an examination thereof, and of the invention covered thereby. If upon such examination, it appears that the applicant is justly entitled to a patent under the law, it is the duty of the Commissioner to issue one to him for that invention.⁹¹ The statute does not prescribe that the Commissioner shall cause this examination to be made by any particular subordinate, and he may overrule the decision of any subordinate to whom he may have committed the matter.⁹²

The examination may extend not only to the novelty of the invention covered by the application, but also to any other question upon which its patentability may depend. In examining any question of fact in that subject, the Patent Office officials are not confined to technical evi-

⁸⁹ *Weddeburn v. Bliss*, 12 App. D. C. 500, 1898.

⁹⁰ *United States v. The Commissioner of Patents*, 54 O. G. 267, 1890.

⁹¹ Revised Statutes, Sections 4893, 4886.

⁹² *Hull v. Commissioner of Patents*, 7 O. G. 559, 1875; S O. G. 46, 1875.

dence, but may base their judgments upon any books, publications or records which they think proper.⁹³ But they should not take any notice of any statement which may be made, relevant to the question of patentability of any pending application, by any person not in privity therewith; except so far as they may consult with each other on such questions. When such a statement is received in writing by the Commissioner of Patents, or any other Patent Office official, it may properly be returned to the sender as impertinent. Citizens have no right to intervene in such cases.⁹⁴

§ 131. Whenever, after an examination, any application for a patent is rejected, it is the duty of the Commissioner to notify the applicant thereof, giving him the reasons for such rejection, together with such information and references, as may be useful in judging of the propriety of prosecuting the application, or of altering the specification; and if, after receiving such a notice, the applicant persists in his request for a patent, with or without altering his specification, it thereupon becomes the duty of the Commissioner to cause a re-examination of the case.⁹⁵ Every applicant who has been twice required to divide his application under Rule 41 of the Patent Office is entitled to an appeal to the examiners-in-chief.⁹⁶ Prior to the revision of the Patent Office Rules of January 1, 1916, one requirement of division was sufficient to entitle the applicant to such an appeal.

§ 132. If, without amending his specification, the applicant persists in his request for a patent, and if the application is again rejected by the primary examiner, to whom

⁹³ *Drawbaugh v. Seymour*, 77 O. G. 318, 1896.

⁹⁴ *United States v. Allen*, 101 O. G. 1133, 1902.

⁹⁵ Revised Statutes, Section 4903; Patent Office Rule 65.

⁹⁶ Patent Office Rule 133; *Steinmetz v. Allen*, 192 U. S. 543, 1904.

the Commissioner referred the case, then the applicant may appeal to the board of examiners-in-chief;⁹⁷ and if unsuccessful there, he may appeal to the Commissioner.⁹⁸ If the Examiner refused to forward the appeal and the Commissioner refused to compel him to do so, the proper remedy is to apply to the Court of Appeals of the District of Columbia for a writ of mandamus to compel him to do so, as appeal does not lie in such case.⁹⁹ Such an appeal may be heard by the Commissioner, or by the Assistant Commissioner, or the First Assistant Commissioner, under assignment by the Commissioner to that duty.¹⁰⁰ If an appeal is thus heard by the Assistant Commissioner, no appeal from his decision lies to the Commissioner. And no decision of any Commissioner or any Assistant Commissioner of Patents, can be reconsidered and set aside by any successor, except for fraud, clerical error apparent on the face of the record, or newly discovered evidence, presented under circumstances which would justify a new trial in an action at law.¹⁰¹

And all appeals must be heard on the case as submitted to the primary examiner.¹⁰² No appeal, therefore, should be taken until the application is in such a condition that the patent will issue, if the decision of the primary examiner is reversed.¹⁰³ If that decision is reversed by the board of examiners-in-chief, the primary examiner can require no amendment,¹⁰⁴ but must pass the case for

⁹⁷ Revised Statutes, Section 4909.

⁹⁸ Revised Statutes, Section 4910.

⁹⁹ *Ex Parte Frasch*, 192 U. S. 566, 1904.

¹⁰⁰ *United States v. Duell*, 95 O. G. 1049, 1901, Act July 16, 1914, c. 141, Sec. 1, 38 Statutes, 491.

¹⁰¹ *In re Hoeveler & McTighe*, 21 D. C. Rep. 107, 1892.

¹⁰² *Hammond's Appeal*, 2 O. G. 57, 1872.

¹⁰³ *Mewes' Appeal*, 2 O. G. 617, 1872.

¹⁰⁴ *Brunner's Appeal*, 1 O. G. 303, 1872.

issue. If the board affirms the decision of the primary examiner, the Commissioner will not reverse the board on any question of fact, unless its decision was clearly against the weight of evidence.¹⁰⁵ If the Commissioner affirms the decision of the board, because the patent ought not, in his judgment, to issue, he need assign but one reason for that opinion. The applicant cannot demand of him that he pass upon any other question.¹⁰⁶ And the Commissioner may, at any time before the issue of a patent, reverse his own or any other favorable Patent Office action thereon,¹⁰⁷ except that of a predecessor of himself, or of a predecessor of the Assistant Commissioner,¹⁰⁸ and may thereupon reject the application.

In *Lowry v. Allen*¹⁰⁹ it is held that Rule 124 of the Patent Office providing that no appeal will be permitted from a decision rendered upon motion for dissolution affirming the patentability of a claim or the applicant's right to make the same is not in violation of Sections 482, 4904, 4910, 4911 of the Revised Statutes as those statutes provide only for appeals on questions of priority of invention and appeals on other questions are left by Section 483 to the regulation of the Patent Office.¹⁰⁹

When the Primary Examiner refused to transmit an appeal to the examiners-in-chief the Commissioner in a proper case is charged with the duty of compelling him to do so.¹¹⁰

¹⁰⁵ *Hazelip v. Richardson*, 10 O. G. 747, 1876.

¹⁰⁶ *Commissioner of Patents v. Whiteley*, 4 Wallace, 532, 1866.

¹⁰⁷ *United States v. Butterworth*, 3 Mackey, 233, 1884.

¹⁰⁸ *In re Hoeveler & McTighe*, 21 D. C. Rep. 107, 1892.

¹⁰⁹ *Lowry v. Allen*, 203 U. S. 476, 1906.

¹¹⁰ *Steinmetz v. Allen*, 192 U. S. 543, 1904.

§ 133. When the Commissioner of Patents, or the Assistant Commissioner, finally rejects an application for a patent, the applicant may appeal to the Court of Appeals of the District of Columbia,¹¹¹ but not to the Secretary of the Interior;¹¹² and if the Commissioner refuses to allow that appeal, he may be compelled to do so, by a writ of mandamus, granted by that court, upon the petition of the applicant.¹¹³ No appeal lies to that court from a rejection of an amendment; but only from final rejections of specifications as originally filed, or as amended by leave of the Patent Office;¹¹⁴ nor from any decision requiring a division of an application;¹¹⁵ mandamus to the Commissioner is the proper remedy to compel an appeal in the patent office in a proper case;¹¹⁶ nor from any denial of a rehearing;¹¹⁷ nor from any rejection of a second application, of the same applicant, for a patent on the same subject, as that of an application previously rejected.¹¹⁸ Such an appeal must be taken within the time provided for it by the rules of the court.¹¹⁹ To sum up appeals to the Court of Appeals of the District of Columbia from the Commissioner of Patents is limited to two classes of decisions, namely, "a final rejection of an application for a patent, and a final award of priority to one of the parties in an interference case."^{119a} In appeals in interference

¹¹¹ 27 Statutes at Large, Ch. 74, Section 9, p. 436; Revised Statutes, Section 4911; Revised Statutes relating to the District of Columbia, Section 780.

¹¹² *Butterworth v. Hoe*, 112 U. S. 50, 1884.

¹¹³ *Commissioner of Patents v. Whiteley*, 4 Wallace, 533, 1866.

¹¹⁴ *In re Chinnoek*, 21 D. C. Rep. 594, 1893.

¹¹⁵ *In re Frasch*, 20 App. D. C.

301, 1902; see *Ex Parte Frasch*, 192 U. S. 566, 1904.

¹¹⁶ U. S. *ex rel. Steinmetz v. Allen*, 192 U. S. 543, 1904.

¹¹⁷ *In re Messenger*, 12 App. D. C. 536, 1898.

¹¹⁸ *In re Barratt*, 14 App. D. C. 255, 1899.

¹¹⁹ *In re Hien*, 166 U. S. 432, 1897.

^{119a} *In re Fullagar*, 32 App. D. C. 222.

cases the court will not pass on the patentability of the alleged invention.^{119b}

Where an appeal is taken to the Court of Appeals of the District of Columbia, the applicant is required to give notice thereof to the Commissioner, and to file in the Patent Office, within such time as the Commissioner shall appoint, his reasons for the appeal, specifically set forth in writing.¹²⁰

The court before hearing the appeal, gives notice to the Commissioner of the time and place thereof, and the Commissioner is required, thereupon, to give like notice to all persons who appear to be interested in the case. The appellant is required to lay before the court, at the hearing, certified copies of all the papers in the case, and the Commissioner is required to furnish the court with a full written statement of the grounds of his decision; and at the request of any party interested, or of the court, the Commissioner and the examiners may be examined under oath, in explanation of the principles of the thing for which a patent is demanded.¹²¹

None of the papers which go from the applicant, or from the Commissioner, to the court on an appeal, are kept secret in the court;¹²² though the papers of which they are copies, and all the other papers in the case, are kept concealed from the public in the Patent Office, until the case is finally disposed of there, after the court has rendered its decision.

The court hears the case on the papers which were before the Commissioner, and confines its revision of the Commissioner's decision, to the points set forth in the

^{119b} *Schupphaus v. Stevens*, 95 O. G. 1452.

¹²⁰ Revised Statutes, Section 4912.

¹²¹ Revised Statutes, Section 4913.

¹²² *In re Drawbaugh*, 66 O. G. 1451, 1894.

appellant's reasons of appeal. The court will not review any point of Patent Office practice, unless some substantial right was affected, and there was an abuse of discretion, involved in what was done in the Patent Office, in respect thereto.¹²³ Where all those who passed upon an application in the Patent Office, reached the same conclusion on the questions involved therein, the appellant must make out a very clear case of error, in order to obtain a reversal of the decision from which he appealed.¹²⁴ Having decided the questions involved, the court gives the Commissioner a certificate of its proceedings and decision, which, being entered of record in the Patent Office, governs the further proceedings in the case. No such decision, however, precludes any person from contesting the validity of any patent issued in pursuance thereof, in any court wherein that validity may be called in question.¹²⁵ And no such decision, if adverse to the applicant, deprives the Commissioner of jurisdiction to grant a patent for the same invention, on a later and proper application of the same inventor.¹²⁶

§ 134. Whenever a patent or a reissue is refused by the Commissioner of Patents, or by the Court of Appeals of the District of Columbia,¹²⁷ on appeal from the Commissioner, the applicant may file a bill in equity in any United States court having or acquiring jurisdiction of the parties.¹²⁸ The only way in which any United States Dis-

¹²³ *In re Frasch*, 20 App. D. C. 301, 1902.

¹²⁴ *In re Beswick*, 16 App. D. C. 350, 1900; *Howard v. Hey*, 18 App. D. C. 142, 1901; *Ries v. Kirkegaard*, 30 App. D. C. 199; *Onderdonk v. Parker*, 31 App. D. C. 214.

¹²⁵ Revised Statutes, Section

4914; *Fry v. Quinlan*, 13 Blatch. 205, 1875.

¹²⁶ *United States v. Colgate*, 32 F. R. 624, 1884.

¹²⁷ *Prindle v. Brown*, 155 F. R. 531, 1907.

¹²⁸ Revised Statutes, Section 4915, and Section 629, ¶ 9; *Bernardin v. Northall*, 78 O. G. 1742,

trict Court can acquire jurisdiction of the Commissioner, is by his voluntary appearance therein and submission thereto,¹²⁹ but the Supreme Court of the District of Columbia has jurisdiction over him, for the purposes of this law, by virtue of his official residence in Washington, in that District.¹³⁰ The complainant in such a bill should be the inventor-applicant, or, in case of an assignment of the invention, he should be the assignee, because the latter is considered to be an applicant within the meaning of the law on this subject.¹³¹ If there is no opposing party, a copy of the bill is required to be served on the Commissioner; but the Secretary of the Interior is not a proper party to such a bill.¹³² And the Commissioner is not a proper party,¹³³ where there is a party whose interests are those which are adverse to the interests of the complainant;¹³⁴ and in that case the bill may be filed in any District Court of the United States for the judicial district or division wherein the defendant can be served with process regardless of his place of residence;¹³⁵ or in the Supreme Court of the District of Columbia, if that party is an inhabitant of that District.¹³⁶ In either case,

1897, *Ingersoll v. Holt*, 104 F. R. 682, 1900; *McKnight v. Metal Volatilization Co.*, 128 F. R. 51, 1904; *Dover v. Greenwood*, 143 F. R. 136, 1905.

¹²⁹ *Illingworth v. Atha*, 42 F. R. 144, 1890.

¹³⁰ *Butterworth v. Hill*, 114 U. S. 129, 1885.

¹³¹ *Gay v. Cornell*, 1 Blatch. 508, 1849; *Smith v. Thompson*, 177 F. R. 721, 1910. *Contra*, *Wende v. Horine*, 191 F. R. 620, 1911.

¹³² *Kirk v. Commissioner of Patents*, 37 O. G. 451, 1886.

¹³³ *Mergenthaler Co. v. Seymour*, 66 O. G. 1311, 1894.

¹³⁴ *Graham v. Teter*, 25 F. R. 555, 1885.

¹³⁵ *Thoma v. Perri*, 205 F. R. 632, 1913. *Contra*, *Arbetter Felling Machine Co. v. Lewis Blind Stitch Machine Co.*, 230 F. R. 992, 1915, holding that the suit can be brought only in the district of which the defendant is an inhabitant.

¹³⁶ 24 Statutes at Large, Ch. 373, p. 552.

the jurisdiction is unaffected by the fact that the complainant is an inhabitant of the same jurisdiction.¹³⁷

One to whom the patent has been awarded after interference proceedings is, of course, a proper party defendant, and this is so at any time before the patent has actually issued, even though the successful contestant has assigned the application.¹³⁸ The reason given for this ruling is that under Section 4895 of the Revised Statutes the Commissioner has full discretion as to whether the patent shall issue to the applicant or his assignee.

Where either class of the conditions mentioned are fulfilled, the court has jurisdiction to adjudge that the applicant is entitled to receive a patent for his invention, as specified in his final claims, or any part thereof, as the facts in the case may appear to be, but not as specified in any claim which the applicant relinquished in the Patent Office, or in any new claim which he never presented there.¹³⁹ And such an adjudication, if made, authorizes the Commissioner to issue such a patent, on the applicant's filing in the Patent Office a copy of the adjudication, and otherwise complying with the requirements of the law;¹⁴⁰ and it then becomes the duty of the Commissioner to issue the patent.¹⁴¹ But no court has any jurisdiction to restrain the Commissioner from issuing a patent to the defendant, in any such case as those treated in this section.¹⁴²

¹³⁷ *Bernardin v. Northall*, 78 O. G. 1742, 1897.

¹³⁸ *Thoma v. Perri*, 205 F. R. 632, 1913.

¹³⁹ *Durham v. Seymour*, 71 O. G. 601, 1895.

¹⁴⁰ Revised Statutes, Section 4915.

¹⁴¹ *Butterworth v. Hoe*, 112

U. S. 62, 1884; *Vermont Farm Machine Co. v. Marble*, 20 F. R. 118, 1884.

¹⁴² *Whipple v. Miner*, 15 F. R. 117, 1883; *Illingworth v. Atha*, 42 F. R. 141, 1890; *Richards v. Meissner*, 158 F. R. 109, 1907; *Richards v. Meissner*, 162 F. R. 485, 1908.

In order to decide the issues of such a bill in equity as is treated in this section, the court, where the bill is pending, will take testimony, and any other admissible evidence, according to the course of courts of equity; and will also consider whatever was before the Patent Office in the proceedings which resulted in the refusal to grant a patent; and, if the case has been before the Court of Appeals of the District of Columbia, will also consider the proceedings which took place in that tribunal.¹⁴³ The proceeding, however, is not revisory of the Patent Office proceeding, but is an original suit in equity and testimony taken in an interference proceeding, although between the same parties, is incompetent, except as permitted by the rules regulating the admission of secondary evidence.¹⁴⁴ The burden is on the complainant to prove the truth of his bill, by evidence that is clear and conclusive¹⁴⁵ even though the defendant default.¹⁴⁶ But although such a suit is an original one, it may not be resorted to as a concurrent remedy with an appeal to the Court of Appeals of the District of Columbia in any case where such an appeal lies; because, where that remedy exists, it must be exhausted before the ultimate redress of a bill in equity can be invoked.¹⁴⁷ It has been said, however, that the burden of

¹⁴³ *Butterworth v. Hoe*, 112 U. S. 61, 1884; *Gandy v. Marble*, 122 U. S. 439, 1886.

¹⁴⁴ *Benardin v. Northall*, 78 O. G. 1742, 1897; *Wheaton v. Kendall*, 85 F. R. 671, 1898; *Dover v. Greenwood*, 154 F. R. 854, 1907; *Dover v. Greenwood* (containing discussion), 177 F. R. 946, 1910; *Appert v. Brownsville Plate Glass Co.*, 144 F. R. 115, 1904; *Hansen v. Slick*, 216 F. R. 164, 1914.

¹⁴⁵ *Durham v. Seymour*, 71 O. G. 604, 1895; *Standard Cartridge Co. v. Peters Cartridge Co.*, 77 F. R. 630, 1896; *Uggersoll v. Holt*, 104 F. R. 682, 1900; *Gillette v. Sindelbach*, 146 F. R. 758, 1906; *Western Electric Co. v. Fowler*, 177 F. R. 224, 1910.

¹⁴⁶ *Davis v. Garrett*, 152 F. R. 723, 1907.

¹⁴⁷ *Kirk v. Commissioner of Patents*, 37 O. G. 451, 1886.

proof is strongly on the plaintiff by reason of the decisions of the Court of Appeals.¹⁴⁸

Where the Commissioner withholds a patent by virtue of his general, supervisory authority, the remedy now under consideration is the only one to which the applicant can resort, for no appeal lies to the Court of Appeals of the District of Columbia, nor can any writ of mandamus be granted by that tribunal, to compel the Commissioner to issue a patent in such a case,¹⁴⁹ or in any case where the law submits to his discretion, the question involved in his decision.¹⁵⁰

In previous editions of this book it has been stated that where a patent is refused because of an adverse decision of an interference, and where an applicant files a bill in equity to procure a patent, on the ground that the decision of the question of priority in the interference was wrong, the court will dismiss the bill if it finds the alleged invention to have been not patentable to either of the parties in the interference, regardless of any question of priority between those parties, for which proposition the case of *Hill v. Wooster*¹⁵¹ was cited. It has, since the Fourth Edition of this book was issued, been held that *Hill v. Wooster* did stand for the proposition above stated and that in an action brought under Section 4915 of the Revised Statutes, not only priority between the patents involved in the interference may be determined but also patentability.¹⁵²

¹⁴⁸ *Richards v. Meissner*, 158 F. R. 109, 1907; *Laas v. Scott*, 161 F. R. 122, 1908; *Richards v. Meissner*, 163 F. R. 957, 1908; *Greenwood v. Dover* (discussing authorities), 194 F. R. 90, 1911.

¹⁴⁹ *Hull v. Commissioner of Patents*, 7 O. G. 559, 1875; 8 O. G. 46, 1875.

¹⁵⁰ *Ex rel. Bigelow*, 2 McArthur, 30, 1875.

¹⁵¹ *Hill v. Wooster*, 132 U. S. 693, 1890.

¹⁵² *Davis v. Garrett*, 152 F. R. 723, 1907; *Hansen v. Slick*, 216 F. R. 164, 1914. *Contra* *Richards v. Meissner*, 163 F. R. 957, 1908.

The remedy delineated in this section must be invoked within one year after the last official action on the application, unless the complainant satisfies the court in which it is invoked, that the longer delay was unavoidable.¹⁵³

In an action of the kind under discussion it has been held that acquisition pending suit of the issued patent in interference by the adverse party does not cause the suit to abate.¹⁵⁴

§ 135. The right to amend applications for patents is one of great value and frequent exercise, but it has never been expressly established by any statute. No statute prior to that of 1836 even mentioned the subject, and that statute only provided that whenever it appeared to the Commissioner, that one or more of the claims of an application were inadmissible for want of novelty, or that the description was defective and insufficient, he should notify the applicant thereof, and should furnish him with such information as might be useful in judging of the propriety of altering his specification, so as to exclude that part of the subject-matter found not to be new.¹⁵⁵ No change relevant to this point was made in the statute till 1870, when, in the place of the foregoing provision, it was enacted that whenever any claim was rejected, for any reason whatever, the Commissioner should notify the applicant thereof, and should furnish him with such information as might be useful in judging of the propriety of altering his specification.¹⁵⁶ The present statute

¹⁵³ *Gandy v. Marble*, 122 U. S. 439, 1886; Revised Statutes, Section 4894; *Westinghouse Electric & Mfg. Co. v. Ohio Brass Co.*, 186 F. R. 518, 1911.

¹⁵⁴ *Schnertz Wire-Glass Co. v. Pittsburgh Plate Glass Co.*, 168

F. R. 73, 1909; *Schnertz Wire-Glass Co. v. Western Glass Co.*, 178 F. R. 973, 1909.

¹⁵⁵ 5 Statutes at Large, Ch. 357; Section 7, p. 120.

¹⁵⁶ 16 Statutes at Large, Ch. 230, Section 41, p. 204.

on the subject is substantially identical with that of 1870.¹⁵⁷

There is no apparent material difference, at this point, between any of the three statutes, unless the provision in that of 1836, relevant to the nature of the amendment contemplated by that section, constitutes a limitation not found in either of the others. The two later statutes provide that the Commissioner shall furnish the applicant with such information as may be useful in judging of the propriety of altering his specification. The earlier statute adds to that provision the words: "to embrace only that part of the invention or discovery which is new." All three of the statutes recognize the right of an applicant to alter his specification, after rejection of any claim therein. They differ from each other only in regard to the kind of information which they require the Commissioner to furnish the applicant, to guide him in the exercise of that right. Neither of them furnishes the foundation of that right, nor limits that right to cases where the application has been rejected. They all provide a proceeding for such cases, but neither of them negatives the existence of such a right in other cases.

§ 136. The real foundation of the right to amend applications for patents, is found in Section 4888 of the Revised Statutes, a section substantially identical with Section 26 of the Patent Act of 1870, and with the second sentence of Section 6 of the Patent Act of 1836, and with the middle part of Section 3 of the Patent Act of 1793. Ever since 1793, one or another of these four enactments has been in force, and has provided, in substance, that before any inventor shall receive a patent for his invention, he shall file in the Patent Office a full, clear, and exact written description of that invention. Ever since 1836, one or another

¹⁵⁷ Revised Statutes, Section 4903.

of the three statutes first mentioned has been in force, and has additionally provided that before any inventor shall receive a patent, he shall particularly point out and claim the part or combination which he claims as his invention. Now when a statute enacts that a thing shall be done before a particular event can occur, it implies that it can be done prior to such an event. An inventor may therefore do those things before he receives a patent. If he fails in his first attempt to furnish a proper and adequate description, or to furnish proper and adequate claims, he may try again, and, if necessary, still again and again. If he finally succeeds in both, the Commissioner acquires jurisdiction to grant him a patent, provided all the other requirements of the law are also complied with. The statute does not attend to the details of this matter. It only provides that at some time before a patent is issued, a proper description and a proper claim shall be filed in the Patent Office. To what extent these things must be done at first, and to what extent and under what circumstances they may be done by way of amendment of the original papers, are questions which are to be determined in the light of the decisions of the courts, made under general judicial authority; and of the rules of the Patent Office, made under Section 483 of the Revised Statutes. To ascertain, therefore, what may, and what may not, be done by way of amendments of applications, the true recourse is to those decisions and those rules.

§ 137. The applicant may amend before or after the first rejection, and he may amend as often as the examiner presents any new references or reasons for rejection; but after such action on all the claims as entitles the applicant to an appeal to the board of examiners-in-chief, no amendment is allowed, unless the applicant convinces the examiner or the Commissioner, that there was a sufficient

excuse for the delay in presenting it.¹⁵⁸ Amendments not affecting the merits may be made after the patent is allowed, and even after the final fee is paid, provided those amendments are approved first by the examiner, and then by the Commissioner.¹⁵⁹

§ 138. It was formerly held, that whenever an inventor filed an application for a patent, he was regarded as applying for such a patent as would cover every patentable thing represented in the specification, drawing or model of that application.¹⁶⁰ If, therefore, his claims as first submitted to the Commissioner did not cover every such thing, he was allowed to amend them to whatever extent was necessary to make them do so, or he was allowed to add other claims to accomplish that purpose. But the law of the subject has more lately been laid down on stricter lines.

The general rule is that no amended or new claim can be allowed, unless it is for the "same invention" as the original application.¹⁶¹ It has been decided that this quoted phrase is not confined in its meaning to whatever invention was actually claimed by the inventor in his original application, and that claims may be broadened, while applications are pending.¹⁶² And now the Supreme Court itself, has held that where the original specification and drawings of an application, suggested the claims which were finally made, those claims were properly made in amendment of the original application.¹⁶³ Inasmuch as

¹⁵⁸ Patent Office Rule 68.

¹⁵⁹ Patent Office Rule 78.

¹⁶⁰ *Singer v. Braunsdorf*, 7 Blatch. 532, 1870.

¹⁶¹ *Railway Co. v. Sayles*, 97 U. S. 554, 1878; *Eagleton Mfg. Co. v. West Mfg. Co.*, 111 U. S. 490, 1884; *Beach v. Box-Machine*

Co., 63 F. R. 604, 1894; *Michigan Central R. R. Co. v. Car-Heating Co.*, 67 F. R. 126, 1895.

¹⁶² *Rocker Spring Co. v. Thomas*, 68 F. R. 200, 1895.

¹⁶³ *Hobbs v. Beach*, 180 U. S. 397, 1901; *Kirchberger v. Am. Acetylene Burner Co.*, 128 F. R. 599, 1904.

it has also been decided, that a drawing may be amended in the light of the specification, even to the extent of inserting in it, the distinguishing characteristic of the invention, when that was accidentally omitted from the original drawing;¹⁶⁴ Judge WHEELER appears to have been right in holding, that the claims of an application may be amended into conformity with whatever inventions were described in the original specification.¹⁶⁵

Some decisions have held, however, that matter may be introduced by way of amendment even though the matter introduced would create another and different invention than that originally described, provided a new or "supplemental" oath is filed setting forth that the new matter is part of the original invention.¹⁶⁶ A supplemental oath is not, however, necessary to cover claims additional to those originally filed, where the additional claims are within the invention as originally disclosed.¹⁶⁷

¹⁶⁴ Consolidated Brake-Shoe Co. v. Detroit S. & S. Co., 59 F. R. 903, 1894.

¹⁶⁵ John R. Williams Co. v. Miller, Du Brul & Peters Mfg. Co., 107 F. R. 292, 1901; Cleveland Foundry Co. v. Detroit Vapor Stove Co., 131 F. R. 853, 1904; Keasby & Mattison Co. v. Carey Mfg. Co., 139 F. R. 571, 1905; Cutter Hammer Mfg. Co. v. Union Electric Mfg. Co., 147 F. R. 266, 1906; Mine & Smelter Supply Co. v. Braeckel Concentrator Co., 197 F. R. 897, 1912 (discussing the subject and authorities); Boyce v. Stewart-Warner Speedometer Corporation, 220 F. R. 118, 1914; Proud-fit Loose Leaf Co. v. Kalamazoo

Loose Leaf Binder Co., 230 F. R. 120, 1915. See the very doubtful qualification of this rule in Kirchner v. American Acetylene Burner Co., 128 F. R. 599, 1904.

¹⁶⁶ Am. Lava Co. v. Steward, 155 F. R. 731, 1907; General Electric Co. v. Morgan-Gardner Electric Co., 159 F. R. 951, 1907; Ney Mfg. Co. v. G. A. Swineford Co., 211 F. R. 469, 1913. See Steward v. American Lava Co., 215 U. S. 161, 1909.

¹⁶⁷ General Electric Co. v. Morgan-Gardner Electric Co., 167 F. R. 52, 1908; American Steel Foundries v. Wolff Truck Frame Co. (discussing the question), 189 F. R. 601, 1911.

§ 139. An applicant must amend his specification and drawings, whenever such amendment is required to correct inaccuracy or unnecessary prolixity therein, or to secure correspondence between the claims and the other parts of the specification and the drawings.¹⁶⁸ So also, unless the original drawings conform to certain standards of artistic excellence set forth in the rules, the applicant must furnish amended drawings which do conform to those requirements.¹⁶⁹

§ 140. An interference is a judicial proceeding carried on in the Patent Office, for the purpose of determining the question of priority between two or more parties, each of which is seeking a patent for the same invention; or between two or more parties, at least one of which is seeking a patent for an invention already covered by a patent which has not yet expired.¹⁷⁰ The proceedings in interferences are governed by an elaborate code of Patent Office rules, which are as binding as the law itself,¹⁷¹ and to which the practitioner, in such cases, will necessarily resort for detailed information.¹⁷² It is unnecessary to explain those rules in this text-book, but it is expedient to set down in this connection the relevant rules of law, which rest directly upon the statutes and decisions for their sanction.

§ 141. There is no limit to the number of interferences to which an application may be subjected; and if a patent is issued without going through every such proceeding,

¹⁶⁸ Patent Office Rule 71.

¹⁶⁹ Patent Office Rules 49 to 55.

¹⁷⁰ Revised Statutes, Section 4904; Patent Office Rule 93; *United States v. Commissioner of Patents*, 7 O. G. 603, 1875; *Hisey v. Peters*, 71 O. G. 893, 1895;

Bernardin v. Seymour, 10 App. D. C. 308, 1897.

¹⁷¹ *Arnold v. Bishop*, 1 *McArthur's Patent Cases*, 31, 1841; *United States v. Marble*, 2 *Mackey*, 12, 1882.

¹⁷² Patent Office Rules 93 to 132, and 146 to 150.

previously ordered by the Commissioner, that patent will be void.¹⁷³ The ordinary rules of evidence, which are applied in United States equity courts, are used in interference cases.¹⁷⁴ These include the rules which relate to dispensing with evidence of facts of public notoriety.¹⁷⁵ The doctrines of estoppel also apply in these contests, in the same manner in which they apply in other litigious proceedings.¹⁷⁶

Every witness who is not a party to the interference, is protected, by a statute, from being compelled to disclose any secret invention made or owned by himself;¹⁷⁷ but that statute does not allow a party to an interference to refuse to answer any question relevant to the invention in interference.¹⁷⁸

Any question of invention, or utility which the Commissioner may find in a case in interference, should be decided by him, before he decides the question of priority in the interference.¹⁷⁹ But evidence that some other person preceded all the parties to an interference, in making the invention in interference, is inadmissible.¹⁸⁰

The first applicant in interference is the senior party in the proceeding, even where a patent has been somehow issued to a later applicant; and the first applicant has a *prima facie* case of priority, which entitles him to a decision in his favor, unless it is overcome by a proper weight of evidence for a junior party.¹⁸¹ A preponderance of evi-

¹⁷³ Potter v. Dixon, 2 Fisher, 381, 1863.

¹⁷⁴ Berry v. Stockwell, 9 O. G. 404, 1876; Neilson v. Bradshaw, 16 App. D. C. 95, 1900.

¹⁷⁵ Anson v. Woodbury, 12 O. G. 1, 1877.

¹⁷⁶ Berry v. Stockwell, 9 O. G. 404, 1876.

¹⁷⁷ Revised Statutes, Section 4908.

¹⁷⁸ Dorman v. Keefer, 49 F. R. 462, 1892.

¹⁷⁹ Oliver v. Felbel, 20 App. D. C. 262, 1902.

¹⁸⁰ Foster v. Antisdell, 14 App. D. C. 552, 1899.

¹⁸¹ Hunter v. Stikeman, 13 App.

dence is enough for that purpose;¹⁸² except where the senior party has already received a patent on the invention in interference, in which case the evidence for the junior party must be strong enough to remove all reasonable doubt.¹⁸³

§ 141*a*. The decision of an interference, depends on dates of conception, drawing, model, disclosure, practice, and application for a patent; and sometimes on the presence or absence of laches.

A conception of an invention occurs, when a person definitely thinks out its theoretical character, mode of operation, and function. But the date of that conception cannot be fully proved by the oral testimony of the conceiver.¹⁸⁴ Where the conception occurred in a foreign country, it receives a conventional date, contemporaneous with its communication to some one in the United States.¹⁸⁵ A drawing of an invention is admissible in evidence in an interference; if it is explained well enough to leave no doubt of what it represents. A model of an invention has the same standing as a drawing in this respect. A disclosure of an invention, consists in making it known to another person, well enough to preserve its plan for the benefit of others, if the inventor were to die without doing anything further.¹⁸⁶

D. C. 219, 1898; *Esty v. Newton*, 14 App. D. C. 52, 1899; *Miehle v. Read*, 18 App. D. C. 128, 1901.

¹⁸² *Wurts v. Harrington*, 79 O. G. 337, 1897.

¹⁸³ *Neilson v. Bradshaw*, 16 App. D. C. 92, 1900; *Kelly v. Fynn*, 16 App. D. C. 573, 1900; *Reichenbach v. Kelley*, 17 App. D. C. 333, 1901; *Locke v. Boeh*, 17 App. D. C. 83, 1900; *Fefel v.*

Stocker, 17 App. D. C. 317, 1900; *Sharer v. McHenry*, 19 App. D. C. 158, 1901.

¹⁸⁴ *Mergenthaler v. Scudder*, 11 App. D. C. 278, 1897; *Petric v. De Schweinitz*, 19 App. D. C. 389, 1902.

¹⁸⁵ *Harris v. Stern and Lotz*, 105 O. G. 747, 1903.

¹⁸⁶ *Eastman v. Houston*, 95 O. G. 2066, 1901.

A process is reduced to practice, when it is successfully performed. A machine is reduced to practice, when it is constructed, assembled, and adjusted ready for trial or use.¹⁸⁷ A manufacture is reduced to practice, when it is completely manufactured. A composition of matter is reduced to practice, when it is completely composed. A design is reduced to practice, when it is embodied in the thing or picture in which it consists. A reduction to practice, in order to be credited to a party in an interference, must have been performed by that party, or by his agent at his instance.¹⁸⁸

§ 141b. An application for a patent is equivalent to a reduction to practice, in interferences; and such an application is often designated as a "constructive reduction to practice." To be entitled to that standing, an application need not be free from need for amendment; ¹⁸⁹ provided it shows the invention in interference, when properly amended.¹⁹⁰ In the absence of other evidence, an invention in interference takes date from the date of filing the application in interference.¹⁹¹ Other evidence, which may carry the date of invention back beyond the date of the application in interference, may consist of proof of either of the following facts:

The same invention was described in an earlier application of the same applicant; ¹⁹² provided that application has not been abandoned.¹⁹³ That earlier application may

¹⁸⁷ *Mason v. Hepburn*, 13 App. D. C. 86, 1898; *Hunter v. Stikeman*, 13 App. D. C. 218, 1898; *Lindemeyr v. Hoffman*, 18 App. D. C. 1, 1901; *Roe v. Hanson*, 19 App. D. C. 564, 1902.

¹⁸⁸ *Hunter v. Stikeman*, 13 App. D. C. 226, 1898.

¹⁸⁹ *Croskey v. Atterbury*, 76 O. G. 165, 1896.

¹⁹⁰ *Hulett v. Long*, 15 App. D. C. 284, 1899.

¹⁹¹ *McCormick v. Cleal*, 12 App. D. C. 337, 1898.

¹⁹² *Cain v. Park*, 14 App. D. C. 42, 1899.

¹⁹³ *Carty v. Kellogg*, 7 App.

have been the original application for the original patent, where an application for a reissue is in interference.¹⁹⁴

The same invention was the subject of an application for a patent in some foreign country, which affords similar privileges to citizens of the United States; provided the application in this country, was filed within twelve months, in case of a process, machine, manufacture, or composition of matter, or within four months, in case of a design, from the earliest date at which any such foreign application was filed.¹⁹⁵

The invention was reduced to practice, before the application in interference, or before the application for the patent in interference, as the case may be, was filed in the Patent Office; ¹⁹⁶ provided the invention was not concealed, after it was reduced to practice, until after it was patented to the other party in interference.¹⁹⁷

The invention was conceived, before the application in interference, or the application for the patent in interference, as the case may be, was filed in the Patent Office;¹⁹⁸ provided the conceiver, if a junior applicant, is not justly chargeable with laches, intervening after the earliest date to which the senior applicant is entitled, and before the date of his own reduction to practice, or his own application, as the case may be.¹⁹⁹

D. C. 547, 1896; *Ostergren v. Tripler*, 17 App. D. C. 561, 1901.

¹⁹⁴ *Austin v. Johnson*, 18 App. D. C. 83, 1901.

¹⁹⁵ 32 Statutes at Large, Part 1, p. 1225, Ch. 1019, Section 1.

¹⁹⁶ *Wurts v. Harrington*, 10 App. D. C. 149, 1897.

¹⁹⁷ *Mason v. Hepburn*, 13 App. D. C. 95, 1898; *Thomson v. Weston*, 19 App. D. C. 380, 1903.

¹⁹⁸ *Reed v. Cutter*, 1 Story, 598, 1841; *McCormick Mach. Co. v. Minneapolis Harvester Works*, 42 F. R. 154, 1890.

¹⁹⁹ *Marvel v. Decker*, 13 App. D. C. 562, 1898; *Griffen v. Swenson*, 15 App. D. C. 135, 1899; *Jackson v. Getz*, 16 App. D. C. 344, 1900; *Austin v. Johnson*, 95 O. G. 2685, 1901; *Miehle v. Read*, 96 O. G. 426, 1901; *Stapleton v.*

Each party in an interference is entitled to invoke the date of his application as the date of his invention; and he is also entitled to invoke, as the date of his invention, the date of the earliest of the events, which the facts of the case permit him to invoke, among those which are precisely defined in the last four paragraphs, respectively.

§ 141c. The facts defined in the last of those four paragraphs sometimes include the presence or absence of laches, after the earliest date to which a senior applicant is entitled, and before the date of the junior applicant's reduction to practice, or the date of his application for a patent, as the case may be. Any considerable delay during that time, constitutes laches; unless it is accounted for by facts which exclude the theory of neglect. The fact that the junior applicant was diligently at work on some other invention or worthy enterprise, during that time, does not exclude the theory of neglect.²⁰⁰ Indeed, nothing but impossibility can be relied on to prevent delay, during the time in view, from being held to constitute such laches, as will deprive a junior applicant of the date of his conception as the date of his invention.

But laches is not chargeable to the junior party to an interference, on account of any delay which occurred before the earliest date to which the other party is entitled;²⁰¹ nor on account of any mere delay which occurred after his reduction to practice and before his application;²⁰² nor on account of any delay which occurred after his application was filed in the Patent Office. And laches is not charge-

Kinney, 96 O. G. 1432, 1901;

Wyman *v.* Donnelly, 104 O. G. 310, 1903.

²⁰⁰ Croskey *v.* Atterbury, 9 App. D. C. 208, 1896; Stapleton *v.* Kinney, 18 App. D. C. 394, 1901.

²⁰¹ Yates *v.* Huson, 8 App. D. C. 93, 1896.

²⁰² Wurts *v.* Harrington, 79 O. G. 338, 1897; Loomis *v.* Hauser, 99 O. G. 1172, 1902; Oliver *v.* Felbel, 20 App. D. C. 262, 1902.

able to the senior applicant in interference on account of any delay whatever.

Dates of drawing, model, and disclosure, are significant in interferences, only as they help to prove the dates of conception; or relate to the question of laches of the junior applicant, after his conception, and before his application or reduction to practice.

The question of priorities as between interfering patents and interfering inventions is so thoroughly discussed in the cases of *Laas v. Scott*,²⁰³ and *Automatic Weighing Machine Co. v. Pneumatic Scale Corporation*²⁰⁴ that the reader is referred to these cases as a complete exposition of the entire law on the subject.

§ 141*d*. And any party aggrieved by a decision of the Commissioner of Patents, in any interference case, may appeal therefrom to the Court of Appeals of the District of Columbia.²⁰⁵ The statute which provides for such appeals, is constitutional, for the decisions appealed from, are judicial.²⁰⁶ Such an appeal is confined to the final decision of the Commissioner on the question of priority;²⁰⁷ except where the court finds that there is no interference to be decided.²⁰⁸ Where all the tribunals, which passed on a particular interference in the Patent Office, reached the same conclusion thereon; the court will reverse that con-

²⁰³ *Laas v. Scott*, 161 F. R. 122, 1908.

²⁰⁴ *Automatic Weighing Machine Co. v. Pneumatic Scale Corporation*, 166 F. R. 288, 1909.

²⁰⁵ 27 Statutes at Large, Ch. 74, Section 9, p. 436.

²⁰⁶ *United States v. Duell*, 172 U. S. 576, 1899.

²⁰⁷ *Westinghouse v. Duncan*, 66

O. G. 1010, 1894; *Hisey v. Peters*, 71 O. G. 893, 1895; *Dodge v. Fowler*, 11 App. D. C. 592, 1897; *Hill v. Hodge*, 12 App. D. C. 528, 1898; *Hulett v. Long*, 89 O. G. 1141, 1899; *Newton v. Woodward*, 16 App. D. C. 572, 1900; *Schupphaus v. Stevens*, 17 App. D. C. 555, 1901.

²⁰⁸ *Bechman v. Wood*, 89 O. G. 2459, 1899.

clusion, only in case a very clear error is found therein.²⁰⁹ Even after the Court of Appeals has decided an interference; the Commissioner may consider any question of non-patentability in the subject of the interference, and may still refuse a patent to the successful interferor, on the ground of want of patentability to any person.²¹⁰

§ 142. No decision of the Commissioner of Patents,²¹¹ or the Courts of Appeals of the District of Columbia,²¹² in any interference case, is pleadable as *res judicata* in any action in any court;²¹³ but such a decision will be followed by all the courts, unless it is shown to be wrong, by evidence which puts the point beyond a reasonable doubt.²¹⁴ Where such a decision is made between two or more applications, a patent is granted to the inventor decided to be first, and no patent is granted to either of the others. If it is made between an application and a patent, and is made in favor of the application, the Commissioner will grant a patent thereon, but he cannot recall the patent

²⁰⁹ Glenn *v.* Adams, 12 App. D. C. 175, 1898; McBerty *v.* Cook, 16 App. D. C. 136, 1900.

²¹⁰ Hill *v.* Hodge, 12 App. D. C. 528, 1898.

²¹¹ Union Paper Bag Machine Co. *v.* Crane, 1 Bann. & Ard. 494, 1874; Gloucester Isinglass Co. *v.* Brooks, 19 F. R. 427, 1884; Hubel *v.* Tucker, 24 F. R. 701, 1885; Kirk *v.* Du Bois, 33 F. R. 252, 1887; John R. Williams Co. *v.* Du Brul & Peters Mfg. Co., 107 F. R. 293, 1901; Davis & Roesch T. C. Co. *v.* National Steam Specialty Co., 164 F. R. 191, 1908; Turner Brass Works *v.* Appliance Mfg. Co., 164 F. R. 195, 1908;

Roth *v.* Harris, 168 F. R. 279, 1909.

²¹² Bernardin *v.* Northall, 78 O. G. 1742, 1897.

²¹³ Eck *v.* Kutz, 132 F. R. 758, 1904; Computing Scale Co. *v.* Standard Computing Scale Co., 195 F. R. 508, 1912.

²¹⁴ Morgan *v.* Daniells, 153 U. S. 123, 1894; Hisey *v.* Peters, 71 O. G. 894, 1895; Standard Cartridge Co. *v.* Peters Cartridge Co., 77 F. R. 630, 1896; R. Thomas & Sons Co. *v.* Electric Porcelain & Mfg. Co., 111 F. R. 929, 1901; Roth *v.* Harris, 168 F. R. 279, 1909.

already issued. In such a case, the rival inventors may litigate their interference controversy anew, on the equity side of any United States District Court which has or can acquire jurisdiction of the parties.²¹⁵ That kind of litigation constitutes the subject of the chapter on interfering patents; the thirteenth chapter of this book. Or the question of priority between the two inventors may be litigated afresh in any infringement suit, brought by one of them against the other. If, in such a case as that under present consideration, it had happened that the successful applicant had filed his application before the interfering patent was granted, that patent would not have been granted at all, unless the Patent Office decision on the interference had been reversed by some higher authority. In that event, the successful applicant would not have been liable to any interference suit, nor any infringement suit, brought against him by his rival; for his rival would, in that event, have no patent upon which to base a suit of either of those kinds. For this reason, as well as for others, every inventor who desires to secure a patent for an invention, should make his application therefor soon after making that invention. This is the more urgent since the abolition of caveats as stated in the next section, as the inventor is now deprived of that means of preventing the issuance of an interfering patent.

§ 143. Caveats have since the publication of the Fourth Edition of this book been abolished²¹⁶ and are now of little more than academic interest, but for the sake of completeness the discussion of the subject is retained in this edition. "A caveat is a document in which an inventor states the function, and the distinguishing characteristics, of the invention to which it refers, and prays protection for his

²¹⁵ Revised Statutes, Section 4918.

²¹⁶ Act of January 25, 1910, 36 Statutes, 813, Chap. 414.

right thereto, until he shall have matured that invention. A caveat remains in force only one year; and while it is in force, its only statutory function is to prevent the issuing of any patent to another, for the same invention, until after the caveator has notice of the interfering application, and has thus had an opportunity to file an application himself, and so delay the issuing of a patent to his competitor until an interference proceeding in the Patent Office shall have decided the question of priority.²¹⁷ If an invention is fully described in a caveat, then that caveat will constitute evidence showing that invention to have been made at least as early as the caveat was filed. This, however, is an incidental and not a statutory function of such a document, and it cannot be performed by any caveat which is not complete enough in its description to enable a skillful mechanic, without inventing anything himself, to construct a specimen of the invention to which the caveat refers. But even where a caveat does not reach that standard, it constitutes evidence that the invention had reached the stage of development shown in the caveat, at the time the caveat was executed.²¹⁸

“Omission to file a caveat does not impair the ultimate rights of an inventor,²¹⁹ and omission to consider a caveat does not invalidate a patent granted to another in pursuance of the oversight.²²⁰

“But whether an immature invention is provisionally protected by a caveat or not, it should not be made the subject of an application for a patent until it reaches

²¹⁷ Revised Statutes, Section 4902; 32 Statutes at Large, p. 1225, Ch. 1019, Section 4; *Bell v. Daniels*, 1 Fisher, 372, 1858.

²¹⁸ *Jones v. Wetherell*, 1 McArthur's Patent Cases, 413, 1855.

²¹⁹ *Heath v. Hildreth*, 1 McArthur's Patent Cases, 25, 1841.

²²⁰ *Cochrane v. Waterman*, 1 McArthur's Patent Cases, 59, 1844.

maturity; for it has happened in the past, and may happen hereafter, that a patent, granted on an application based on an immature invention, is not strong enough or broad enough to give any valuable exclusive right, while being significant enough to weaken or to narrow the operation of any subsequent patent granted to the same inventor, on a mature invention, in the same department of the useful arts."

§ 144. No appeal lies from any decision of the Court of Appeals of the District of Columbia, on an appeal to that tribunal from the Commissioner of Patents.²²¹ But an appeal does lie from any decision of any United States District Court, or of the Supreme Court of the District of Columbia, on any bill in equity which may be filed to compel the issuance of a patent, after an unsuccessful appeal to the Court of Appeals of the District of Columbia, from the rejection of an application by the Commissioner of Patents. Where such a bill is filed and adjudicated in some District Court of the United States, an appeal lies from its decision to the Circuit Court of Appeals of the circuit to which that District Court belongs.²²² And where such a bill is filed and adjudicated in the Supreme Court of the District of Columbia, an appeal lies to the Court of Appeals of the District of Columbia.²²³ But no appeal lies in such a case, from the latter tribunal to the Supreme Court of the United States.²²⁴

§ 145. An application for a patent may be abandoned. That abandonment may be actual, or it may be constructive. The facts which constitute an actual abandonment of an application, may also constitute an actual abandon-

²²¹ *Rousseau v. Brown*, 104 O. G. 1122, 1903; *Judic. Code*, 250, 251.

²²² *Judicial Code*, Section 128.

²²³ 27 Statutes at Large, Ch. 74, Section 7, p. 435.

²²⁴ *Durham v. Seymour*, 161 U. S. 235, 1896; *Frasch v. Moore*, 211 U. S. 1, 1908; *Johnson v. Mueser*, 212 U. S. 283, 1909; *Judicial Code Sections* 250, 251.

ment of the invention covered thereby; and a constructive abandonment of an application, may or may not work a constructive abandonment of the invention.²²⁵

Actual abandonment of an application does not always follow from the fact that the applicant withdrew it from the Patent Office. If, when withdrawing it, he intended to file a new application for the same invention, and accordingly does so, the two are held to constitute one continuous application within the meaning of the law.²²⁶ This doctrine applies, even if the new application is not filed till long after the old one was withdrawn, provided there was no laches chargeable to the applicant on account of the delay.²²⁷ When the two applications are continuous the two years' public use or sale which may avoid the patent must be reckoned from the presentation of the first application, and not from the filing of subsequent applications or amendments.²²⁸ When, however, the first application is abandoned, a contrary rule prevails.²²⁹

But this principle is not to be construed as holding that a subsequent patent for an invention described but not claimed in an earlier patent to the same patentee may be a continuation of the former.²³⁰

And where an application covers two inventions, one of

²²⁵ *Hayes Young Tie Plate Co. v. St. Louis Transit Co.*, 137 F. R. 80, 1905.

²²⁶ *Godfrey v. Eames*, 1 Wallace, 317, 1863; *International Crown Co. v. Richmond*, 30 F. R. 779, 1886; *Dederick v. Fox*, 56 F. R. 715, 1892; *Clark Blade & Razor Co. v. Gillette Safety Razor Co.*, 194 F. R. 421, 1912.

²²⁷ *Howes v. McNeal*, 3 Bann. & Ard. 376, 1878.

²²⁸ *Hayes-Young, etc., Co. v.*

St. Louis Transit Co., 137 F. R. 80, 1905; *Victor Talking Machine Co. v. Am. Graphophone Co.*, 145 F. R. 350, 1906; *Corrington v. Westinghouse Air Brake Co.*, 178 F. R. 711, 1910.

²²⁹ *Hayes-Young, etc., Co. v. St. Louis Transit Co.*, 137 F. R. 80, 1905.

²³⁰ *Model Bottling Machinery Co. v. Anheuser-Busch Brewing Ass'n*, 190 F. R. 573, 1911.

which is withdrawn therefrom by division, and made the subject of a divisional application; that new application relates back to the original application from which it was carved, and is not chargeable with any diminution of significance, on account of the transaction.²³¹

Nor does actual abandonment of an application necessarily follow from the fact that it was rejected by the Patent Office, and then allowed to lie dormant by the applicant. If, in such a case, the applicant always expected to secure a patent, either on the original application or on another, and if, without laches, he made and prosecuted another application for the same invention, and secured a patent thereon; the two applications are considered, in the eye of the law, to be one.²³²

Laches, if it intervenes, between a withdrawn or rejected application and a new application covering the same invention, will, however, be fatal to any claim of continuity.²³³ It will constitute evidence that the first application was actually abandoned, and equally good evidence of the actual abandonment of the invention itself.²³⁴

Where an inventor makes two original applications for a patent, and afterward withdraws one of them; he does not thereby abandon the invention described therein.²³⁵

§ 146. Constructive abandonment of an application occurs whenever one year intervenes between the filing of the application and its being made complete enough to en-

²³¹ *Stirling Co. v. St. Louis Brewing Ass'n*, 79 F. R. 80, 1897.

²³² *Smith v. Dental Vulcanite Co.*, 93 U. S. 500, 1876; *Blandy v. Griffith*, 3 Fisher, 617, 1869; *Graham v. McCormick*, 5 Bann. & Ard. 244, 1880; *Ligowski Clay-*

Pigeon Co. v. Clay-Bird Co., 34 F. R. 334, 1887.

²³³ *Bevin v. Bell Co.*, 9 Blatch. 61, 1871; *Weston v. White*, 13 Blatch. 452, 1876.

²³⁴ *Planing Machine Co. v. Keith*, 101 U. S. 484, 1879.

²³⁵ *Edison v. American Mutoscope Co.*, 110 F. R. 662, 1901.

title it to examination, according to the rules of the Patent Office; and such an abandonment also occurs if the applicant allows one year to pass without regularly prosecuting his application, after any particular action is taken thereon by the Patent Office, and notified to him; provided, in either case, the Commissioner of Patents is not convinced that the delay was unavoidable.²³⁶ If he is so convinced he may condone the delay by granting a patent; and if he grants a patent, his decision on the point is conclusive.²³⁷

So, also, constructive abandonment of his application occurs when an applicant fails to pay the final fee within six months from the time at which a patent is allowed, and notice of such allowance is sent to him or to his agent.²³⁸

The period of time, no matter how long, consumed by an applicant in the prosecution of his application, cannot, however, be construed as an abandonment either of his invention or of his application, nor can it work to his prejudice provided he complies with the regulations of the Patent Office in regard to the limitations of time of taking such action in respect to his application as may be required.²³⁹ Such a record does not, however, improve the chances of the patent before the courts, especially where the art has made extensive progress while the application was pending in the Patent Office.²⁴⁰

§ 147. Constructive abandonment of an application

²³⁶ Revised Statutes, Section 4894; as amended in 29 Statutes at Large, Ch. 391, Section 4; *Kirk v. Commissioner of Patents*, 37 O. G. 451, 1885; *Ex parte Messenger*, 78 O. G. 1903, 1897.

²³⁷ *M'Millin v. Barclay*, 5 Fisher, 199, 1871; *contra*, holding the decision merely presumptively correct, *Hayes-Young, etc., Co.*

v. St. Louis Transit Co., 137 F. R. 80, 1905.

²³⁸ Revised Statutes, Section 4885, as amended 35 Stat. 246.

²³⁹ *Columbia Motor Car Co. v. C. A. Duerr & Co.*, 184 F. R. 893, 1911.

See Section 92.

²⁴⁰ *Hestonville M. & F. Pas-*

will work constructive abandonment of the invention covered thereby, where the abandonment of the application arose from either of the causes stated in the first paragraph of Section 146; if no new application is filed soon enough to independently avoid the statute relevant to public use or sale more than two years before application for a patent;²⁴¹ and probably, also soon enough to independently avoid those causes of constructive abandonment of inventions, which are stated in Section 104*a* of this book.

But constructive abandonment of an application, arising out of the cause stated in the last paragraph of Section 146, will not put into operation the statute relevant to public use or sale more than two years before application;²⁴² and probably will not put into operation, either of those causes of constructive abandonment of inventions, to which Section 104*a* of this book is devoted.

§ 148. Patents are authorized by law, only on compliance with the statutory prerequisites to their issue. The Commissioner has therefore no jurisdiction to grant any patent, except where all those prerequisites have been substantially performed. If he inadvertently grants a patent in any other case, he exceeds his jurisdiction, and it is therefore open to every person who is sued as an infringer of that patent, to successfully defend against such an action, by pleading and proving the particular fault or omission with which the applicant was chargeable.²⁴³

senger Ry. Co. v. McDuffee, 185 F. R. 788, 1910.

²⁴¹ *Lindsay v. Stein*, 10 F. R. 913, 1882; *Western Electric Co. v. Sperry Electric Co.*, 58 F. R. 191, 1893; *Lay v. Indianapolis Brush & Broom Mfg. Co.*, 120 F. R. 836, 1903.

²⁴² *Ligowski Clay-Pigeon Co. v. American Clay-Bird Co.*, 34 F. R. 328, 1888.

²⁴³ *Grant v. Raymond*, 6 Peters, 218, 1832; *Parks v. Booth*, 102 U. S. 101, 1880; *Ransom v. New York*, 1 Fisher, 257, 1856.

See Section 440.

CHAPTER VII

LETTERS PATENT

149. No exclusive right to inventions at common law.
- 149*a*. Exclusive possession by secrecy.
150. Constitutional exclusive right to inventions in the United States.
151. Patents are property.
152. Dignity of property in patents.
- 152*a*. Continuation of the same subject.
153. Patents are not odious monopolies.
155. Patent rights are beyond State interference.
156. Patent rights are not subject to common-law executions, but may be subjected to creditors' bills in equity.
157. Patent rights are as exclusive of the government, as they are of any citizen.
158. Patents do not cover specimens purchased of the inventor, or made with his knowledge and consent, before application therefor.
159. The foregoing rule has no application to patents for processes.
160. Territorial scope of United States patents.
161. Operation of United States patents on the decks of ships.
162. Duration of patents.
163. Duration of United States patents for inventions first patented in a foreign country, according to the statute of 1870.
170. Beginning of the terms of United States patents.
171. To whom letters patent are granted by the government.
172. Letters patent as documents.
173. The specification.
174. The description.
175. The description.
176. The claim or claims.
177. The claim or claims.
- 177*a*. Generic claims and specific claims.
178. Particularity in descriptions and claims, are conditions precedent to validity.
179. Questions of sufficiency of particularity of descriptions and claims, are questions of fact, and not of law.

180. Plurality of inventions in a single letters patent.
- 180*a*. Double patenting.
181. Construction of letters patent.
182. Claims to be construed in the light of descriptions.
- 182*a*. Construction of claims which employ reference letters or numerals.
183. Construction of functional claims.
184. Claims construed in the light of the prior state of the same art.
- 184*a*. The prior state of other arts.
185. Proper liberality of construction.
- 185*a*. Breadth of construction as governed by extent of use of patent.
186. Proper strictness of construction.
- 186*a*. Construction in the light of acquiescence on part of owner of patent.
187. Construction in the light of application papers.
- 187*a*. Patent Office limitations.
188. Construction in the light of contemporaneous statutes.
189. Questions of construction are questions of law, and not of fact.
190. Letters patent presumed to be for same invention as the application therefor.
191. Letters patent are constructive notice of their contents to every person.
- 191*a*. Taxation of patents.

§ 149. No inventor has any special right to his invention at common law.¹ This is not a virtue in that law. It is an imperfection; an omission. That omission is due to the fact that the common law came into being in the middle ages, and in England. New and useful inventions were seldom produced in those ages, and most of those which were produced, were produced in Italy or on the continent of Europe. There was little or no occasion or opportunity in England, for the creation or recognition of any exclusive, or otherwise paramount, customary right in inventions. Even in those countries where new and useful things were more frequently invented, their

¹ *Brown v. Duchesne*, 19 Howard, 195, 1856; *Dable Grain Shovel Co. v. Flint*, 137 U. S. 41,

1890; *Brill v. St. Louis Car Co.*, 80 F. R. 910, 1897.

inventors were oftener persecuted as heretics than rewarded as benefactors. Despotic kings were wont, in many countries, to confer monopolies upon their favorites, regardless of any meritorious right to the things monopolized; and it sometimes happened, in England and elsewhere, that, in pursuance of this practice, a monopoly of an invention was granted to its true inventor. Such a grant, however, was always a matter of kingly grace, and never a matter of legal right. In the reign of James the First, the English parliament limited this exercise of royal prerogative to cases of inventions, and thus laid the foundation of the patent laws of England. The limiting statute did not purport to confer upon inventors, any inchoate right which they might perfect and make absolute by proceeding in any manner pointed out by law. It recognized the power of the king to secure to any inventor, an exclusive right to his invention, if his royal pleasure prompted him so to do.² But the exercise of that power was so infrequent for more than a century, that Blackstone, in his Commentaries on the Laws of England, devoted but one sentence to the branch pertaining to patents for inventions.

§ 149a. Some inventors sometimes attempt to reap reward for their inventions by means of secrecy, instead of by means of patents. Such attempts are legitimate; but they are not applicable to designs, and are seldom applicable to machines or manufactures. Where an invention consists in a process, secrecy may be applicable, if it can be maintained; and it may also be applicable in the case of a composition of matter, where the ingredients thereof are not apt to be ascertained by analysis of the resulting product. But inventors can seldom practice their inventions, on a profitable scale, without any as-

² *McKeever v. United States*, 14 Court of Claims, 417, 1878.

sistance from other persons; and such assistance can seldom be rendered, without an adequate knowledge of the invention in which it is employed. For these reasons secrecy is liable to be lost by betrayal; and betrayal is a risk that inventors can seldom afford to take. Where an inventor does take that risk, and does incur betrayal of his secret invention, he naturally hopes to get some remedy in some court. To that end, he may begin an action at law for damages, for breach of the express or the implied contract, which was broken by the betrayal. But that remedy is valueless, where the betrayer has no property upon which to levy an execution. An action in equity, to restrain the betrayer from all further betrayal of the unpatented secret, would probably be entertained; but it would probably be ineffective to prevent the secret from becoming generally known among competitors. And no action at law or in equity, could be maintained against a competitor, for practicing a betrayed invention, unless he was a party to the betrayal.

§ 150. In the United States of America, the superior right of an inventor to his invention has a far better foundation than could be furnished by the prerogative of any king. That foundation is the consent of the people of the United States: a consent primarily expressed in the Federal Constitution, and elaborately defined in the Federal Statutes. The Constitution was established as the supreme law of the United States, on the twenty-first day of June, 1788. It conferred power upon Congress to promote the progress of the useful arts, by securing, for limited times, to inventors, the exclusive right to their respective inventions.³ In exercise of that power, Congress, on the tenth day of April, 1790, enacted the first Federal statute on the subject; and provided therein that

³ Article 1, Section 8.

the exclusive right in contemplation, should be secured to the respective inventors, by means of a written grant from the United States, to be named letters patent.⁴ It is the office of this chapter to explain the nature, the extent, and the duration of the right secured by such a document; to outline the general form and necessary characteristics of such a document itself; and to set forth the rules by which such documents are properly construed.

§ 151. Patent rights are property,⁵ and the very essence of the rights conferred by the patent is the exclusion of others from its use.⁶ The owner of a patent is both legally and equitably entitled to the same protection for that property, that the owner of any other species of property may enjoy;⁷ and he cannot be constitutionally deprived of that property without due process of law.⁸ Due process of law includes the constitutional judgments and decrees of courts; but it does not include any act of Congress, or of any other legislature.⁹ Patent rights, once vested, are therefore incapable of being divested by act

⁴ 1 Statutes at Large, Ch. 7, p. 109.

⁵ *Brown v. Duchesne*, 19 Howard, 195, 1856; *Seymour v. Osborne*, 11 Wallace, 533, 1870; *Consolidated Fruit Jar Co. v. Wright*, 94 U. S. 96, 1876; *Cammer v. Newton*, 94 U. S. 226, 1876; *James v. Campbell*, 104 U. S. 357, 1881; *Marsh v. Nichols*, 128 U. S. 612, 1888; *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U. S. 405, 1908.

See Section 290 as to their status under the Bankruptcy Act.

⁶ *Continental Paper Bag Co. v.*

Eastern Paper Bag Co., 210 U. S. 405, 1908; *Herman v. Youngstown Car Mfg. Co.*, 191 F. R. 579, 1911.

⁷ *McCormick Machine Co. v. Aultman*, 169 U. S. 609, 1898; *Thomson v. Citizens' National Bank*, 53 F. R. 252, 1892; *Westinghouse Air-Brake Co. v. Chicago Brake & Mfg. Co.*, 85 F. R. 795, 1898.

⁸ Fifth Amendment to the Constitution.

⁹ *Barron v. Baltimore*, 7 Peters, 247, 1833; *Kent's Commentaries*, Lecture 24, p. 13; *Taylor v. Porter*, 4 Hill (N. Y.), 147, 1843.

of Congress,¹⁰ except of course by the exercise of the power of eminent domain.¹¹ Nor can Congress do indirectly, that which it is forbidden to do with directness. It cannot destroy nor seriously impair the value of a patent right, under the guise of altering or repealing the existing remedies applicable to its enforcement, any more than it can so treat any other kind of property.¹²

The question of just what considerations determine the situs of a patent right has apparently not yet been directly passed upon or otherwise clearly stated. On this point, however, reference may be had to the cases cited in the note.¹³

§ 152. The right of property which an inventor has in his invention, is excelled, in point of dignity, by no other property right whatever. It is equalled, in point of dignity, only by the rights which authors have in their copyrighted books. The inventor is not the pampered favorite or beneficiary of the government, or of the nation. The benefits which he confers, are greater than those which he receives. He does not cringe at the feet of power, nor secure from authority an unbought privilege. He walks everywhere erect, and scatters abroad the knowledge which he created. He confers upon mankind a new means of lessening toil, or of increasing comfort; and what he gives cannot be destroyed by use, nor lost by misfortune. It is henceforth an indestructible heritage of posterity. On the other hand, he receives from the government, nothing which cost the government or the people a dollar

¹⁰ *McClurg v. Kingsland*, 1 Howard, 202, 1843.

¹¹ See Sections 157 and 391.

¹² *Green v. Biddle*, 8 Wheaton, 75, 1823; *Bronson v. Kinzie*, 1 Howard, 317, 1843.

¹³ *Non-Magnetic Watch Co. v. Association*, 44 F. R. 6, 1890; *Standard Gas Power Co. v. Standard Gas Power Co.*, 224 F. R. 990, 1915.

or a sacrifice. He receives nothing but a contract, which provides that for a limited time he may exclusively enjoy his own. Compared with those who acquire property by devise or inheritance; compared with those who acquire by gift or marriage; compared with those who acquire property by profits on sales, or by interest on money; the man who acquires property in inventions, by creating things unknown before, occupies a position of superior dignity. Even the man who creates value by manual labor, though he rises in dignity above the heir, the donee, the merchant, and the money-lender, falls in dignity below the author and the inventor. The inventor of the reaper is entitled to greater honor than his father who used the grain cradle; and the inventor of the grain cradle is entitled to greater honor than his ancestors, who, for a hundred generations, had used the sickle. Side by side stand the inventor and the author. Their labor is the most dignified and the most honorable of all labor; and the resulting property is most perfectly theirs.

FRANCIS BACON gave the weight of his opinion, to views somewhat similar to the foregoing. The following is a translation of one of his Latin paragraphs:

“The introduction of great inventions appears one of the most distinguished of human actions, and the ancients so considered it; for they assigned divine honors to the authors of inventions, but only heroic honors to those who displayed civil merit; such as the founders of cities and empires, legislators, the deliverers of their country from lasting misfortunes, the quellers of tyrants, and the like. And if any one rightly compare them, he will find the judgment of antiquity to be correct; for the benefits derived from inventions may extend to mankind in general, but civil benefits to particular lands alone; the latter, moreover, last but for a time the former forever. Civil refor-

mation seldom is carried on without violence and confusion, while inventions are a blessing and a benefit without injuring or afflicting any.”¹⁴

§ 152a. Section 152 of this book is the same in all its editions. During the twenty years which have passed since the first edition, that section has occasionally been quoted in the speeches of statesmen and advocates, when they were eulogizing the patent laws of the United States. Many years before he wrote his *Novum Organum*, FRANCIS BACON, in the preface to his *Treatise on Interpreting Nature*, wrote a paragraph which may have been influential toward causing the parliament to establish the patent laws of England, in the celebrated statute of James the First. The following is a copy of that paragraph:

“Now among all the benefits that could be conferred upon mankind, I discovered none so great as the discovery of new arts for the bettering of human life. For I saw that among the rude people of early times, inventors and discoverers were reckoned as gods. It was seen that the works of founders of States, lawgivers, tyrant-destroyers, and heroes cover but narrow spaces, and endure but for a time; while the work of the inventor, though of less pomp, is felt everywhere, and lasts forever.”

Some Federal judges also, in recent years, have written sentences similar, in spirit, to the paragraphs of FRANCIS BACON.

Thus Judge BUFFINGTON: “While the motive and reward of the inventor is monetary, his work, measured by beneficent results, may arise to the dignity of the humane.”¹⁵ And thus Judge BRAWLEY: “The protection and hope of profit, held out by our patent laws, inspires

¹⁴ *Novum Organum*, Book 1, Section CXXIX.

¹⁵ *Brislin v. Carnegie Steel Co.*, 118 F. R. 589, 1902.

that stimulating energy which leads to experiment, invention, and all the resulting benefits.”¹⁶ And thus Judge GROSSCUP: “Inventive genius has given to mankind most of its present material civilization. The magnificent flower of civilization, everywhere surrounding us, has opened from germs that were fructified from the brains of inventors.”¹⁷

§ 153. “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 inventors of new and useful improvements, for the purpose of securing to them, 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.” Such is the accepted doctrine as formulated by Justice CLIFFORD when speaking for the Supreme Court.¹⁸ The same ideas were more concisely expressed in an earlier case by Justice DANIEL.¹⁹ Speaking of the inventor’s exclusive right, he said: “This was at once the equivalent given by the public for benefits bestowed by the genius and meditations and skill of individuals, and the incen-

¹⁶ *Crown Cork & Seal Co. v. Aluminum Stopper Co.*, 108 F. R. 870, 1901.

¹⁷ *Westinghouse Air-Brake Co. v. Chicago Brake & Mfg. Co.*, 85 F. R. 794, 1898.

¹⁸ *Seymour v. Osborne*, 11 Wallace, 533, 1870.

See Section 151.

¹⁹ *Kendall v. Winsor*, 21 Howard, 322, 1858.

tive to further efforts for the same important objects." Writing an opinion of the Supreme Court, and referring to the doctrine of patents, Justice MILLER said: "It is no longer a scarcely recognized principle, struggling for a foothold, but it is an organized system, with well-settled rules, supporting itself at once by its utility, and by the wealth which it creates and commands."²⁰ These opinions of the Supreme Court agree, therefore, in holding, with all fair and thoughtful men, that patent rights are not hurtful monopolies, but are rights of property at once dignified, honorable, and strong.

§ 155. It was said in previous editions of this book that no State has any power to make any law "interfering with" the sale of any patent right, and a number of state court decisions were cited which sustained the proposition as thus stated.²¹ This question has since come before the Supreme Court in two cases wherein was involved the validity of a statute of Kansas which provided that no person should sell any patent right without first filing in the office of the District Court of the County duly authenticated copies of the letters patent and making oath that the letters are genuine and have not been revoked or annulled, and that the seller had full authority to transfer them. The Supreme Court overruled the previous cases above referred to and also some cases in the lower Federal Courts to the same effect, and held the Statute valid on the ground that it was a reasonable regulation to protect

²⁰ *Merrill v. Yeomans*, 94 U. S. 573, 1876.

²¹ *Ex parte Robinson*, 2 Bissell, 313, 1870; *Hollida v. Hunt*, 70 Ill. 110, 1873; *Helm v. First National Bank*, 43 Ind. 167, 1873; *Hascall v. Whitman*, 19 Me. 102, 1873; *Crittenden v. White*, 23 Minn. 24,

1876; *Cranson v. Smith*, 37 Mich. 310, 1877; *Tennessee v. Butler*, 71 Tenn. 222, 1879; *Wilch v. Phelps*, 14 Neb. 134, 1883; *Castle v. Hutchinson*, 25 F. R. 394, 1885; *Commonwealth v. Petty*, 96 Ky. 452, 1895; *Ball v. Coker*, 168 F. R. 304, 1909.

the citizens of the State from fraud.²² The court said in one of those cases, *Allen v. Riley*:

“The act must be a reasonable and fair exercise of the power of the State for the purpose of checking a well-known evil and to prevent, so far as possible, fraud and imposition in regard to the sales of rights under patents. Possibly Congress might enact a statute which would take away from the States any power to legislate upon the subject, but it has not as yet done so. It has simply provided that every patent, or interest therein, shall be assignable in writing, leaving to the various States the power to provide for the safeguarding of the interests of those dealing with the assumed owner of a patent, or his assignee. To deal with that subject has been the purpose of the acts passed by the various States, among them that of the State of Kansas, and we think that it was within the powers of the State to enact such statute. The expense of filing copies of the patent and the making of affidavits in the various counties of the State in which the owner of the rights desired to deal with them is not so great in our judgment as to be regarded as oppressive or unreasonable, and we fail to find any other part of the act which may be so regarded. Some fair latitude must be allowed the States in the exercise of their powers on this subject. It will not do to tie them up so carefully that they cannot move, unless the idea is that the States have positively no power whatever on the subject. This we do not believe, at any rate in the absence of Congressional legislation. The mere provision in the Federal statute for an assignment and its record as against subsequent purchasers, etc., is not such legislation as takes away the rights of the States to legislate on the subject

²² *Allen v. Riley*, 203 U. S. 347, *Carl*, 203 U. S. 358, 1906; *Ozan* 1906; also, *John Woods & Sons v. Co. v. Union*, 207 U. S. 251, 1907.

themselves in a manner neither inconsistent with nor opposed to the Federal statute. We think the judgment is right, and it is affirmed.”

Every State has power to regulate the making, the selling and the using of the things covered by any patent, to the same extent that it lawfully regulates the making, selling, and using of unpatented things. Things covered by patents are as much subject to the law of common carriers, the revenue laws, and the police powers, of a State or municipality, as any other things. Where a patented invention is used by the owner of the patent which covers it, or by a licensee under that patent, in a public business, like the telephone business, for example; that user may be compelled, by writ of mandamus, to impartially serve all those who properly request such service to be furnished to them.²³ Nor does a patent on a sewing-machine, for example, exempt the patentee from any State tax on the machines he may make, use or sell within the boundaries of that State.²⁴ And a patent for a dynamite powder, or for a deadly poison, or for an explosive oil, does not oust nor affect the power of local authorities to prescribe the place and manner of the manufacture, storage and sale of those dangerous substances.^{24a} Neither does a patent on a medicine, authorize the patentee to prescribe or administer that medicine, without conforming to the medical practice laws of the State,

²³ *Ohio v. Bell Telephone Co.*, 36 Ohio State Reports, 296, 1880; *Missouri v. Bell Telephone Co.*, 24 American Law Register, 573, 1885; *Nebraska v. Nebraska Telephone Co.*, 24 American Law Register, 262, 1885; *Bell Telephone Co. v. Pennsylvania*, 7 Eastern Reporter, 672, 1886;

Telegraph Co. v. Telephone Co., 91 Vt. 243, 1888; *Delaware Telephone Co. v. Delaware*, 50 F. R. 677, 1892.

²⁴ *Weber v. Virginia*, 103 U. S. 347, 1880.

^{24a} *Patterson v. Kentucky*, 97 U. S. 505, 1878.

in which he undertakes thus to practice his invention.²⁵ Nor does a patent on a process or a machine, which may be used in some kind of gambling, protect the patentee against prosecution under State laws, for thus using his invention.²⁶

The reason why a State has complete power of regulation over the sale of a patented thing, and is restricted in its power of regulation over the sale of the patent covering that thing, is explainable as follows. A patentee has two kinds of rights in his invention. He has a right to make, use, and sell specimens of the invented thing; and he has a right to prevent all other persons from doing either of those acts. The first of these rights is wholly independent of the patent laws; while the second exists by virtue of those laws alone.²⁷ A patentee therefore holds the first of these rights subject not only to the police powers, but to the taxing powers, of the State, and to the law regulating common carriers; while the second, being the creature of the laws of Congress, is wholly beyond State control or interference, by anti-trust laws,²⁸ or otherwise except in the exercise of the police powers of the State.

§ 156. Patent rights, being, as they are, intangible property, cannot be seized and sold under the authority of any writ of *fiery facias*, or other common-law execution.²⁹ They may, however, be reached by a creditor's bill in

²⁵ *Jordan v. Dayton*, 4 Ohio, 295, 1831.

²⁶ *Vannini v. Paine*, 1 Har. (Del.) 65; *Heaton-Peninsular Button-Fastener Co. v. Eureka Specialty Co.*, 77 F. R. 294, 1896.

²⁷ *Bloomer v. McQuewan*, 14 Howard, 539, 1852; *United States v. Bell Telephone Co.*, 167 U. S.

238, 1897; *Jewett v. Atwood Suspender Co.*, 100 F. R. 647, 1900; *Victor Talking Mach. Co. v. The Fair*, 123 F. R. 426, 1903.

²⁸ *Columbia Wire Co. v. Freeman Wire Co.*, 71 F. R. 306, 1895.

²⁹ *Stevens v. Cady*, 14 Howard, 528, 1852; *Stevens v. Gladding*, 17 Howard, 447, 1854.

equity,³⁰ and thus be applied to the payment of the debts of the owners; the same as trust property, choses in action, or stock of a debtor in a corporation, may be reached and applied. A court of equity may, in pursuance of its powers in such cases, decree that the debtor patentee pay the judgment upon which the bill is based, or, in default thereof, that his patent right be sold under the direction of the court, and an assignment thereof be executed by him, and, in default of his executing such an assignment, that some suitable person be appointed trustee to execute the same in his place,³¹ or that the master in chancery of the court shall perform that function.³²

§ 157. Previous editions of this book stated that patent rights are exclusive, not only of citizens and residents of the United States, but also of the government itself, and of its agents; that the government has no more right than any private citizen, to make, use, or sell a patented invention, without the license of the patentee;³³ and that when the government grants letters patent for an invention, it confers upon the patentee an exclusive property therein, which cannot be appropriated or used by the government itself, without just compensation, any more than land which has been patented to a private purchaser can, without compensation, be appropriated or used by the government.³⁴ These statements were

³⁰ *Newton v. Buck*, 72 F. R. 780, 1896.

³¹ *Ager v. Murray*, 105 U. S. 126, 1881; *Underfeed Stoker Co. v. American Ship Windlass Co.*, 165 F. R. 65, 1908; *Ball v. Coker*, 168 F. R. 304, 1909.

³² *Wilson v. Fire Alarm Co.*, 52 O. G. 901, 1890.

³³ *United States v. Burns*, 12

Wallace, 252, 1870; *Cammeyer v. Newton*, 94 U. S. 234, 1876; *Solomons v. United States*, 137 U. S. 346, 1890; *Belknap v. Schild*, 161 U. S. 16, 1896; see sections 392 and 393.

See *Harley v. U. S.*, 198 U. S. 234, 1905.

³⁴ *James v. Campbell*, 104 U. S. 356, 1881; *United States v.*

correct when made and are correct now, but in 1910 Congress passed an act providing for compensation for the appropriation of patent rights, as follows:

“That whenever an invention described in and covered by a patent of the United States shall hereafter be used by the United States without license of the owner thereof or lawful right to use the same, such owner may recover a reasonable compensation for such use by suit in the Court of Claims: *Provided, however,* That said Court of Claims shall not entertain a suit or reward compensation under the provisions of this Act where the claim for compensation is based on the use by the United States of any article heretofore owned, leased, used by, or in the possession of the United States: *Provided further,* That in any such suit the United States may avail itself of any and all defenses, general or special, which might be pleaded by a defendant in an action for infringement, as set forth in Title Sixty of the Revised Statutes, or otherwise: *And provided further,* That the benefits of this Act shall not inure to any patentee, who, when he makes such claim is in the employment or service of the Government of the United States; or the assignee of any such patentee; nor shall this Act apply to any device discovered or invented by such employee during the time of his employment or service.”³⁵

This Statute is held by the Supreme Court in *Crozier v. Krupp*³⁶ to be an authorization to appropriate under the law of eminent domain a license to use the invention of any United States patent. The court recognizes the doctrine held before the passage of the Act that an inventor was entitled to sue in the Court of Claims to recover a license

Palmer, 128 U. S. 271, 1888; *International Postal Supply Co. v. Bruce*, 114 F. R. 511, 1902.

³⁵ 36 Statutes, 851, Chap. 423, Laws 1910.

³⁶ *Crozier v. Krupp*, 224 U. S. 290, 1912; see sections 392 and 393.

fee for the use of his patent when the use was by virtue of a contract between the inventor and the government,³⁷ and holds that the act extends this right to an inventor whose invention has been used by the government, without his consent,—in other words, when the government has committed a tort in so doing. As to the right to an injunction against an officer of the government to enjoin him from using the invention for the benefit of the government the court said:

“ . . . in view of the subject-matter of the controversy and the right of the United States to exert the power of eminent domain as to that subject, at most and in any event the injunction could rightfully only have been made to operate until the United States had appropriated the right to use the patented inventions, and as that event has happened the injunction, if granted, would no longer have operative force. It follows that the decree of the Court of Appeals must be reversed with directions to that court to affirm the decree of the Supreme Court of the District of Columbia dismissing the bill, without prejudice however to the right of the defendant here, who was the complainant below, to proceed in the Court of Claims in accordance with the provisions of the act of 1910.”

It may accordingly be considered to be the law that an officer of the Government cannot be sued in such a case as the above. The doctrine has however, been carried still further in the case of *Marconi Wireless Telegraph Co. v. Simon*,^{37a} where it was held that one who contracts to supply to the government articles that, if supplied to a private party, would be an infringement, is immune from

³⁷ *Crozier v. Krupp*, 224 U. S. 290, 1912; *United States v. Anciens Etablissements*, 224 U. S. 309, 1912.

^{37a} *Marconi Wireless Telegraph Co. v. Simon*, 227 F. R. 906, 1915 (affirmed 231 F. R. 1021).

injunction. It was said in the opinion that the contractor in such case was supplying goods to a lawful licensee. This holding should not, however, necessarily preclude a recovery from the contractor of damages and profits, although it has been held that it does so;³⁸ and on the assumption that the contractor was not an infringer because the government was not one and that, as said in the cases cited in the last reference, the contractor is supplying goods to a lawful licensee, the holding would seem to be correct. On the contrary, however, it does not appeal to our sense of justice that a third party without the consent of the patentee, should be permitted to retain to himself profits which he has acquired by carrying out his contract with the government when he would not be permitted to retain them had he been carrying out the contract with a private party or had been using the patent for his own benefit. It is obvious, however, that if the outcome of a contract with the government to supply the latter with patented articles was likely to be a suit by the patentee for the recovery of damages and profits, the operation of the statute would be considerably hampered.

§ 158. As provided by the Revised Statutes no patent right covers any use or sale of any specimen of the patented thing which was purchased of the inventor, or made by another with his knowledge and consent, before his application for a patent therefor.³⁹

An application of the rule of the Statute is made

³⁸ *Marconi Wireless Telegraph Co. v. Simon* (D. C.), 227 F. R. 906, 1915 (affirmed 231 F. R. 1021); also *International Curtis, etc., Co. v. William Cramp & Sons etc., Co.*, 202 F. R. 932, 1912; *International Curtis, etc., Co. v.*

William Cramp & Sons etc., Co., 232 F. R. 166, 1916.

³⁹ Revised Statutes, Section 4899; *Wade v. Metcalf*, 129 U. S. 202, 1889; *Dable Grain Shovel Co. v. Flint*, 137 U. S. 41, 1890.

where, while an application is pending the applicant submits to the Federal Government plans of his device with the purpose of procuring the Government to advertise for open bids. In such case, the contract of the successful bidder being legal when made, and made with the consent of the patentee, no injunction will issue even after the issuance of the patent.⁴⁰ Nor will any action for damages lie on behalf of a patentee against one who has wilfully by obstructive tactics as by filing an interference caused issuance of the patent to be delayed.⁴¹ Where another than the inventor, surreptitiously obtains knowledge of an invention, and, without the consent of the inventor, makes a specimen of the invented thing before any patent thereon is applied for, that specimen is covered by a patent for that invention, as truly and as fully as it would be if it had been made by an infringer after the date of that patent.

The word "person" in the statute referring to those who obtain rights to the subsequently patented article is to be interpreted literally and is not confined merely to those in privity with the inventor by virtue of a purchase or series of purchases, as for instance when the patented article has become affixed to realty by the operation of a state law.^{41a}

Where another than the first inventor, re-invents and constructs a specimen of an invention, before any patent is applied for thereon, and does so without any knowledge of the inventor, or of his doings, and without the knowledge or consent of the inventor himself, he cannot invoke

⁴⁰ *Sub-Target Gun Co. v. Hollifield Target Practice Rod Co.*, 175 F. R. 119, 1910.

⁴¹ *B. F. Avery & Sons v. J. I.*

Case Plow Works, 174 F. R. 147, 1909.

^{41a} *Federal Construction Co. v. Park Improvement Co.*, 166 F. R. 128, 1908.

the rule stated at the beginning of this section; because knowledge and consent of the inventor is an express element in the statute which supports that rule. But it is probable that the specific thing, so constructed, is taken out of the operation of a patent afterward applied for, by the direct action of the fifth amendment to the Constitution of the United States. That amendment provides that no person shall be deprived of property without due process of law. Things independently re-invented and innocently made, before the first inventor applied for a patent thereon, are the lawful property of him who thus made them. To deprive him of the right to use and to sell those things, would be to lessen or to destroy their value, and thus to deprive him of property rights. If such an act is ever done at the suit of the first inventor, after he gets his patent, it will be done by virtue of that patent. Now, a patent is the creature of a statute. No statute is "due process of law,"⁴² and no patent can be "due process of law" unless a creature can be greater than its creator: unless a statute can authorize a contract to accomplish, upon the rights of third parties, a result which the statute itself is forbidden to accomplish. If this reasoning and this conclusion are correct, it will not follow therefrom, that such a re-inventor may construct any specimen of the invention after the first inventor has obtained a patent thereon. To deprive a re-inventor of such a privilege, is not to deprive him of property, for no re-inventor has any property right in an invention which he was the second in the United States to make, any more than he would have if he had learned of that invention from a newspaper or from a book.

§ 159. The rule stated at the head of the last section

⁴² *Barron v. Baltimore*, 7 Peters, 247, 1833; *Taylor v. Porter*, 4 Hill (N. Y.), 147, 1843.

does not apply to any process patent. Section 4899 of the Revised Statutes, treats only of machines or other patentable articles, and confers exemption from the operation of patents upon nothing but specific things. Now, a process is neither an article nor a thing. It is a series of acts. It is therefore outside the language of the law on this subject. It is also outside the reason of that law. That reason is as follows: Where another than the first inventor of a particular tangible thing, buys from the inventor a specimen of that thing, or makes such a specimen with his consent, or re-invents and makes such a specimen independently of the first inventor, that specimen ought to be exempt from any patent afterward applied for by the first inventor; because, if it is not so exempt, it will become worthless in the hands of one who honestly expended of his substance to procure it, and who procured it without violating any patent or any law. Processes are not subjects of these considerations. A process cannot be purchased. The right to practice a patented process can indeed be purchased; but the right to practice an unpatented process, while it remains unpatented, cannot be the subject of a sale, because that right belongs to every one without any purchase. So also, if an inventor of a process consents that another person may practice that process, before the inventor applies for a patent, that fact furnishes no reason why that person should be allowed to practice that process, against the will of that inventor, after the date of his patent. To deprive such a person of such a privilege, is not to deprive him of the use of a thing. It is only to deprive him of the privilege of repeating a series of acts. These considerations apply also to cases where a re-inventor produces and practices a process, after its production by the first inventor, and before any application is made for a patent thereon, and without any

knowledge of the first inventor or his doings. Such a re-inventor has no more natural right to practice that process, after a patent is granted to the first inventor, than any other person has. He has no such right growing out of the fact that he was a re-inventor, because the patent laws do not reward re-inventors, and because patents to first inventors are exclusive of re-inventors, as well as of other persons. He has no such right growing out of rights of property, because to deprive him of the privilege of repeating the process is not to deprive him of the use of any tangible property, and because he has no tangible property in the process itself.

§ 160. Every United States patent is in general co-extensive, in point of the territory it covers, with the territory covered by the jurisdiction of the United States.⁴³ Every such patent, therefore, covers the use of the patented thing in or under the tide-waters of the United States; and that, too, even in cases where the government has granted, to others than the patentee, the exclusive right to do, at a particular place, the particular thing which the patented invention is adapted to accomplish.⁴⁴ In the case just cited, the complainant had a patent on a certain submarine telegraph cable; and the defendant had a grant from Congress, giving it the sole right, for fourteen years, to lay, construct, land, maintain, and operate telegraphic cables in and over the waters, reefs, islands, shores, and lands over which the United States have jurisdiction, from the shores of Florida to the Island of Cuba. Under these circumstances, Justice BLATCHFORD decided that the defendant acquired, by its grant, no right to use the patented cables of the complainant; and he intimated that the complainant acquired by

⁴³ Revised Statutes, Section 4884. See Section 706*a*.

⁴⁴ *Colgate v. Ocean Telegraph Co.*, 17 Blatch. 310, 1879.

this patent, no right to use his cables between Florida and Cuba. His Honor supported this intimation by saying that no patent confers upon its owner any right to make or use his invention in the house of another; and he supported his decision by saying that the fact just mentioned does not confer upon another than the patentee any right to make or use the invention of the latter in the house of the former.

§ 161. No United States patent right extends to the mere use of the patented invention on any foreign ship while temporarily in a harbor of the United States for the purposes of commerce; though such a right would be infringed by making or selling the patented article on board any foreign vessel while in either of our ports.⁴⁵ United States patent rights extend to the decks of United States ships, even when those ships are on the high seas, as fully as they extend to the solid earth of the United States.⁴⁶

§ 162. The regular duration of a United States patent for a process, machine, manufacture, or composition of matter, is seventeen years from the date of issue. Section 4884 of the Revised Statutes provides that every patent shall grant to the patentee, his heirs or assigns, for the term of seventeen years, the exclusive right to make, use, and vend the invention covered thereby. The phrase "every patent" is not to be understood in its literal signification. It means every patent, the duration of which is not otherwise prescribed by statute. In the latter category, design patents fall. Such patents are grantable for fourteen years, or for seven years, or for three years and six months, as the applicant may in his application elect.⁴⁷

⁴⁵ *Brown v. Duchesne*, 19 Howard, 196, 1856.

⁴⁶ *Gardner v. Howe*, 2 Cliff. 464, 1865.

⁴⁷ Revised Statutes, Section 4931.

In the same category, also, fall some patents, which were granted for inventions for which their owners had previously obtained one or more foreign patents.

§ 163. "Every patent granted for an invention which has previously been patented in a foreign country, shall be so limited as to expire at the same time with the foreign patent, or, if there be more than one, at the same time with the one having the shortest term, and in no case shall it be in force more than seventeen years."⁴⁸

This law applies to certain patents which were granted after July 8, 1870, on applications which were filed before January 1, 1898; but it does not apply to any patent granted on an application filed on or after that date for the reason that in the amendment of Section 4887 of the Revised Statutes by the Act of March 3, 1897, in effect January 1, 1898,⁴⁹ the provision above quoted was omitted. On September 14, 1902, however, the Treaty of Brussels of December 14, 1900, went into effect, whereby it was provided as follows:

"Art. 4 *bis*. Patents applied for in the different contracting States by persons admitted to the benefit of the convention under the terms of articles 2 and 3 shall be independent of the patents obtained for the same invention in the other States adherents or non-adherents to the Union.

"This provision shall apply to patents existing at the time of its going into effect.

"The same rule applies, in the case of adhesion of new States, to patents already existing on both sides at the time of the adhesion."

The question came up in a number of cases the decisions

⁴⁸ 16 Statutes at Large, Ch. 230, Section 25, p. 201; Revised Statutes, Section 4887.

⁴⁹ 29 Statutes at Large, p. 694, Ch. 391, Sections 3 and 8.

of which are cited in the note ⁵⁰ as to whether or not the quoted provision of the Treaty superseded Section 4887 regarding the term of domestic patents. In *Cameron Septic Tank Co. v. Knoxville* ⁵¹ it was finally decided that they did not, as Article 4 *bis* of the Treaty above quoted was not self-executing and it was not made effective by the Act of March 3, 1903.⁵²

And this law applies only to cases wherein the foreign patent was taken out by the United States patentee; or with his knowledge and consent by some other person; ⁵³ or by some person in privity with him.⁵⁴

This law applies to a case where a foreign patent was granted before the granting of the corresponding United States patent, even if the foreign patent was made a secret one at the request of the applicant therefor; ⁵⁵ but it does not apply to a case where a foreign patent was dated before the granting of the corresponding United States patent, but not sealed or published until afterward; ⁵⁶ though it does apply to a case where the United

⁵⁰ *United Shoe Machinery Co. v. Duplessis Shoe Machinery Co.*, 148 F. R. 31, 1906; *United Shoe Machinery Co. v. Duplessis Shoe Machinery Co.*, 155 F. R. 842, 1907; *Hennebique Construction Co. v. Myers*, 172 F. R. 869, 1909; *Malignani v. Jasper Marsh Consol. etc., Co.*, 180 F. R. 442, 1910; *Commercial Acetylene Co. v. Searchlight Gas Co.*, 197 F. R. 908, 1912; *Commercial Acetylene Co. v. Schroeder*, 203 F. R. 276, 1913; *Merrell-Soule Co. v. Powdered Milk Co.*, 215 F. R. 922, 1914.

⁵¹ *Cameron Septic Tank Co. v.*

Knoxville, 227 U. S. 39, 1913.

⁵² 32 Statutes, 1225, Chap. 1019.

⁵³ *Hobbs v. Beach*, 180 U. S. 397, 1901; *John R. Williams Co. v. Miller, Du Brul & Peters Mfg. Co.*, 108 F. R. 968, 1901.

⁵⁴ *John R. Williams Co. v. Miller, Du Brul & Peters Mfg. Co.*, 115 F. R. 526, 1902.

⁵⁵ *Gramme Electrical Co. v. Electric Co.*, 17 F. R. 838, 1883.

⁵⁶ *Gold & Stock Telegraph Co. v. Telegram Co.*, 23 F. R. 340, 1885; *Emmerson v. Lippert*, 31 F. R. 911, 1887; *Seibert Oil Co. v. Powell Co.*, 35 F. R. 591, 1888;

States patent was granted after the foreign patent was sealed, upon an application filed before that event.⁵⁷

And this law does not apply to a case where the invention, claimed in the United States patent, was not claimed, but only described, in the prior foreign patent;⁵⁸ and it does not apply to a case where the foreign patent never became operative, on account of non-compliance with some condition of the law under which it was issued;⁵⁹ though it does apply to a case where the foreign patent granted an exclusive right to make, but granted no exclusive right to use or sell, the invention covered by the United States patent.⁶⁰

And finally, this law applies to such claims of a United States patent as correspond with any invention described in the prior foreign patent, even where some of its claims do not thus correspond.⁶¹

In a case to which this law applies, the United States patent will not expire with the first term of the foreign patent, if the foreign patent was, or hereafter shall be, extended before the expiration of its first term, in pursuance of a statute which was in force when the United States patent was applied for and when it was issued,

Holmes Alarm Tel. Co., *v.* Telephone Co., 42 F. R. 228, 1890; American Bell Telephone Co. *v.* Cushman, 57 F. R. 843, 1893; Edison Electric Light Co. *v.* Waring Electric Co., 59 F. R. 364, 1894; Waring Electric Co. *v.* Edison Electric Light Co., 69 F. R. 645, 1894.

⁵⁷ Bate Refrigerating Co. *v.* Sulzberger, 157 U. S. 1, 1895; Bate Refrigerating Co. *v.* Gillett, 13 F. R. 553, 1882; Gramme Electrical Co. *v.* Electric Co., 17 F. R.

838, 1883; Edison Electric Light Co. *v.* United States Electric Lighting Co., 35 F. R. 135, 1888.

⁵⁸ Westinghouse Electric & Mfg. Co. *v.* Stanley Instrument Co., 138 F. R. 823, 1905.

⁵⁹ Societe Anonyme, etc., *v.* General Electric Co., 97 F. R. 605, 1899.

⁶⁰ Atlas Glass Co. *v.* Simonds Mfg. Co., 102 F. R. 643, 1900.

⁶¹ Western Electric Co. *v.* Citizens' Telephone Co., 106 F. R. 218, 1901.

and which conferred an absolute right to such an extension, and if the extension or extensions of the foreign patent cover a continuous space of time.⁶² And it has been decided in several Circuit Courts, that the United States patent will not expire with the first term of the foreign patent, if the foreign patent might have been extended before the expiration of its first term, in pursuance of a statute which was in force when the United States patent was applied for and when it was issued, and which conferred an absolute right to such an extension, whether the foreign patent was actually extended or not.⁶³ But the contrary of this proposition has been held by another Circuit Court.⁶⁴ It has also been decided on the Circuit, that where the patentee has no absolute right to an extension of the first term of his foreign patent, no such extension has any effect upon the duration of his United States patent.⁶⁵

The termination of a foreign patent, prior to its appointed end, because of an omission of the patentee to do what the foreign laws require in order to keep it in force, has no effect upon the duration of a corresponding United States patent.⁶⁶ Nor will any such effect result from the expiration of a prior foreign patent, on account of the expiration of a patent of another foreign country on the same invention.⁶⁷ Where the corresponding foreign

⁶² *Bate Refrigerating Co. v. Hammond*, 129 U. S. 151, 1889.

⁶³ *Consolidated Roller-Mill Co. v. Walker*, 43 F. R. 581, 1890; *Pohl v. Heyman*, 58 F. R. 568, 1893.

⁶⁴ *Bonsack Mach. Co. v. Smith*, 70 F. R. 395, 1895.

⁶⁵ *Henry v. Tool Co.*, 3 Bann. & Ard. 501, 1878.

⁶⁶ *Pohl v. Anchor Brewing Co.*, 134 U. S. 381, 1890; *Holmes Protective Co. v. Alarm Co.*, 21 F. R. 458, 1884; *Paillard v. Bruno*, 29 F. R. 864, 1886; *Victor Talking Mach. Co. v. Hoschke*, 158 F. R. 309, 1907 (Canadian Patent); *Leeds & Catlin v. Victor Talking Mach. Co.*, 213 U. S. 301, 1909.

⁶⁷ *Edison Electric Light Co. v.*

patent terminated before the United States patent for the same invention was applied for, the latter is void *ab initio*;⁶⁸ though where the foreign patent terminated while the application for the corresponding United States patent was pending in the Patent Office, the latter patent is not thus void, but is limited by the foreign patent, the same that it would have been limited, if it had been issued the same day that it was applied for.⁶⁹ And a repeal *ab initio*, of a foreign patent which would otherwise limit the duration of a corresponding United States patent, restores the latter to its full term of seventeen years.⁷⁰

It is not necessary to the validity of a United States patent granted for an invention which was previously patented in a foreign country, that it shall appear on its face to be so limited as to expire at the same time with the foreign patent which limits its life.⁷¹ The statute is satisfied when the courts decline to enforce it after the expiration of that foreign patent, whether or not it appears on its face to be so limited.⁷²

And the duration of a patent should never be limited because of the expiration of a foreign patent, if there is any doubt about the invention covered by the two patents being substantially the same.⁷³ But differences of

Perkins Electric Lamp Co., 42 F. R. 327, 1890.

⁶⁸ Huber *v.* Nelson Mfg. Co., 148 U. S. 275, 1893.

⁶⁹ Welsbach Light Co. *v.* Apollo Incandescent Gaslight Co., 96 F. R. 335, 1899.

⁷⁰ Bate Refrigerating Co. *v.* Gillett, 20 F. R. 192, 1884.

⁷¹ Telephone Cases, 126 U. S. 572, 1888; Bate Refrigerating

Co. *v.* Hammond, 129 U. S. 151, 1889.

⁷² New American File Co. *v.* Nicholson File Co., 8 F. R. 816, 1881; Canan *v.* Mfg. Co., 23 F. R. 185, 1885.

⁷³ Brush Electric Co. *v.* Julien Electric Co., 41 F. R. 696, 1890; Brush Electric Co. *v.* Accumulator Co., 47 F. R. 52, 1891; Aquarama Co. *v.* Old Mill Co., 124 F. R. 229, 1903.

description or of details, do not necessarily involve differences of invention; ⁷⁴ and the true test of identity consists in ascertaining and deciding whether the practice of what is described in the foreign patent, would constitute an infringement of the United States patent.⁷⁵ In other words, the court "must look through the mere form of phraseology and determine what was the essence of the invention of the foreign patent."⁷⁶

A foreign patent for an apparatus for performing a method is not for the same invention as a domestic patent for performing the method.⁷⁷ Stated more broadly, where dependent and related inventions are covered by a United States patent, as, for example, an invention of a machine combined with an invention of a process, a foreign patent for either invention does not affect the other.⁷⁸ And to go still further such claims as cover inventions patented in the foreign patent will expire with the foreign patent, while the remaining claims will remain in force till the expiration of the United States patent.^{78a}

The law set forth in this section applies to no patent which was originally granted prior to July 8, 1870; and applies to no reissue of any patent which was originally

⁷⁴ *Siemens v. Sellers*, 123 U. S. 283, 1887; *Commercial Mfg. Co. v. Fairbank Co.*, 135 U. S. 192, 1890; *Thomson-Houston Electric Co. v. McLean*, 153 F. R. 883, 1907.

⁷⁵ *Commercial Mfg. Co. v. Fairbank Co.*, 135 U. S. 194, 1890; *Accumulator Co. v. Julien Electric Co.*, 57 F. R. 609, 1893.

⁷⁶ *Commercial Acetylene Co. v. Searchlight Gas Co.*, 188 F. R. 85, 1911.

⁷⁷ *Acme Acetylene Appliance*

Co. v. Commercial Acetylene Co., 192 F. R. 321, 1911.

See *Leeds & Catlin v. Victor Talking Machine Co.*, 213 U. S. 301, 1909.

⁷⁸ *Leeds & Catlin v. Victor Talking Machine Co.*, 213 U. S. 301, 1909; *Fireball Gas Co. v. Commercial Acetylene Co.*, 239 U. S. 156, 1915.

^{78a} *Leeds & Catlin v. Victor Talking Machine Co.*, 213 U. S. 301, 1909.

granted before that date, even though the reissue itself was granted after that date;⁷⁹ and applies to no patent, the original application for which was filed after 1897.

§ 170. The terms of all United States patents begin at their respective dates.⁸⁰ These dates cannot be later than nine months after the day on which the respective applications are allowed.⁸¹ Subject to that limitation, patents are dated and issued on the fourth Tuesday after the Patent Office receives the final fees therefor, respectively; except where those fees are received on Friday, Saturday, or Monday, and in those cases the patents are dated and issued on the fifth Tuesday thereafter.⁸²

The former provision that "every patent shall bear date as of a day not later than six months from which it was passed and allowed and notice thereof was sent to the applicant or his agent" was, however, directory merely; and so when, as was customary with the Patent Office when an excess of work had accumulated, the patent was re-allowed and issued on a later date, it will not be held void for that reason.⁸³

§ 171. The grantee of the government, in cases of letters patent for inventions, may be any person who is the inventor;⁸⁴ or may be his assignee;⁸⁵ or an assignee of an assignee;⁸⁶ or an assignee who has assigned the invention;⁸⁷

⁷⁹ *Badische Anilin & Soda Fabrik v. Hamilton Mfg. Co.*, 3 Bann. & Ard. 235, 1878.

⁸⁰ *Rein v. Clayton*, 37 F. R. 355, 1889.

⁸¹ Revised Statutes, Section 4885, as amended 35 Stat. 246.

⁸² Patent Office Rule 167.

⁸³ *Western Electric Co. v. North Electric Co.*, 135 F. R. 79, 1905.

⁸⁴ Revised Statutes, Section 4886.

⁸⁵ Revised Statutes, Section 4895.

⁸⁶ *Selden v. Gas Burner Co.*, 19 Blatch. 544, 1881; *Elliott-Fisher Co. v. Underwood Typewriter Co.*, 176 F. R. 372, 1909.

⁸⁷ *Consolidated Electric Light Co. v. Edison Electric Light Co.*, 25 F. R. 719, 1885; *Consolidated*

or a guardian or conservator of an insane inventor, or the representative in trust of his estate;⁸⁸ or if an inventor dies before any patent is granted for his invention, the right to obtain the patent devolves on his executor or administrator, in trust for the heirs at law of the deceased, in case he shall have died intestate; or if he shall have left a will disposing of the invention, then in trust for his devisees.⁸⁹ In this last case the patent may be granted to the executor by his proper personal name, without any declaration that he takes in his representative capacity;⁹⁰ and the same thing is equally true in cases where the patent is granted to an administrator. The assignee to which a patent is granted may be a corporation, as well as a natural person; and may be a partnership as well as a plurality of persons.⁹¹

Where an inventor applies for a patent to be issued to himself, and then dies before any patent is granted; the patent may be granted in his name as patentee, and will be valid notwithstanding his prior death; and the title thereto will vest in his executor or administrator, if there is any, whoever he may be; and if there is no executor or administrator, the title will ultimately vest in the heirs or legatees of the inventor, whoever they may be.⁹²

Where an inventor assigns his invention before making an application for a patent, and then makes such an appli-

Electric Light Co. v. McKeesport Light Co., 34 F. R. 335, 1888.

⁸⁸ 30 Statutes at Large, p. 915, Ch. 227.

⁸⁹ Revised Statutes, Section 4896; as amended by Act of Feb. 28, 1899, and by Act of May 23, 1908.

⁹⁰ *Stimpson v. Rogers*, 4 Blatch. 336, 1879; *Northwestern Fire Ex-*

tinguisher Co. v. Philadelphia Extinguisher Co., 1 Bann. & Ard. 177, 1874.

⁹¹ *Fruit-Cleaning Co. v. Fresno Home Packing Co.*, 94 F. R. 849, 1899.

⁹² *De La Vergne Machine Co. v. Featherstone*, 147 U. S. 211, 1893.

cation, coupled with a request that the patent be granted to the assignee, and accompanied with an entry of the assignment on the records of the Patent Office, and then dies before any patent is granted; there appears to be no reason why the patent should not be granted to the assignee, though the statute literally provides that in all cases where the inventor dies before the patent is granted, the right to the patent devolves on his executor or administrator in trust for his heirs or devisees.⁹² But this statute must receive a reasonable construction, and it is not reasonable to hold that the death of an inventor, who has sold and assigned his inchoate right to a patent, should operate to divest his assignee of that right, and devolve it upon another person, in trust for still another party. Nor is there any propriety, in such a case, in granting the patent to the executor or administrator, on the theory that he will take as trustee for the assignee. The assignee requires no trustee, for his inchoate title is a legal, and not a merely equitable one;⁹³ and the executor or administrator, if he takes at all, must take as trustee for the heirs or devisees of the inventor.

Where an inventor assigns his invention and dies before making any application for a patent, a difficulty arises for which the statute affords no clear solution. In such a case, it is provided that the application must be made and sworn to by the executor or administrator, for an assignee cannot apply for a patent except on the oath of the inventor himself.⁹⁴ It is also provided, that where an executor or administrator applies for a patent, he must take that patent, if granted, in trust for the heirs or devisees

⁹² Revised Statutes, Section 4896, as amended by Act May 23, 1908, 35 Stat. 245.

⁹³ *Hendrie v. Sayles*, 98 U. S. 549, 1878. See Section 274.

⁹⁴ Revised Statutes, Sections 4895, 4896, Act May 23, 1908.

of the inventor.⁹⁵ Now under these circumstances, the law must do one of three things. It must ignore this last provision, and hold that the executor or administrator takes in trust for the assignee; or it must impose a trust upon a trust, by holding that the executor or administrator takes in trust for the heirs or devisees, and they take in trust for the assignee; or it must deprive the assignee of his right altogether. The first alternative flies in the face of the statute, and the third flies in the face of justice. The second is consistent with conscience, and can probably be adopted and enforced by courts of equity.

§ 172. Letters patent are documents consisting of the grant and the specification; and where drawings form a part of the application, they also form a part of the letters patent, and will be examined to ascertain the true meaning of the terms used in describing the invention.⁹⁶ The grant is a paper, issued in the name of the United States, under the seal of the Patent Office, and signed by the Commissioner of Patents.⁹⁷ It contains a short title of the invention, and purports to grant to the patentee, his heirs or assigns, for the term of seventeen years, the exclusive right to make, use, and vend the invention, throughout the United States and the territories thereof; and it refers to the specification, for the particulars of the invention covered by the grant,⁹⁸ and each of the three rights granted by letters patent is a separate substantive right.⁹⁹

⁹⁵ Revised Statutes, Section 4896, as amended 35 Stat. 245.

⁹⁶ *Steiner & Voegtly Hardware Co. v. Tabor Sash Co.*, 178 F. R. 831, 1910.

⁹⁷ Revised Statutes, Section 4883, as amended April 11, 1902,

in 32 Statutes at Large, Pt. 1, Ch. 417, p. 95.

⁹⁸ Revised Statutes, Sections 4883, 4884.

⁹⁹ *Adams v. Burke*, 17 Wall. 453, 1873; *Tuttle v. Matthews*, 28 F. R. 98, 1886.

Letters patent are valid where the grant is signed by an Acting Commissioner of Patents; and letters patent, so signed, are admissible in evidence without any pleading or proof of his title to his office. Courts take judicial notice of the persons who preside over the departments or bureaus of the government, whether permanently or temporarily; and the production of their commissions is not necessary to support their official acts.¹⁰⁰ So also, since July 11, 1890, the Assistant Commissioner of Patents has had jurisdiction to sign the grants of letters patent for inventions, whenever the Commissioner has assigned him to perform that function.¹⁰¹

A misnomer of the patentee, in a grant, does not invalidate the patent, if he can be identified by means of any description which the letters patent may contain.¹⁰² If the letters patent contains no means for correcting the misnomer, it may be corrected by the proper officers of the government, whenever those officers become convinced of the mistake.¹⁰³

But regularly executed letters patent cannot be altered in character by the Commissioner of Patents, except after a surrender, and by means of a reissue, and any such alteration otherwise made, is void for want of jurisdiction in the Commissioner to make it.¹⁰⁴ But where an alteration has been actually made by the Commissioner of Patents, at the request of the patentee, and where some party has relied upon the validity of that alteration, to the extent of embarking in business because of it, the patentee may

¹⁰⁰ *York & Maryland Line Railroad Co. v. Winans*, 17 Howard, 30, 1854.

¹⁰¹ *United States v. Duell*, 95 O. G. 1052, 1901.

¹⁰² *Northwestern Fire Extinguisher Co. v. Philadelphia Extinguisher Co.*

v. Philadelphia Extinguisher Co., 1 Bann. & Ard. 177, 1874.

¹⁰³ *Bell v. Hearne*, 19 Howard, 262, 1856.

¹⁰⁴ *Edison Electric Light Co. v.*

be estopped from denying that validity, as against that particular party.¹⁰⁵

§ 173. The word "specification," whenever it is used in the statute without the word "claim," covers both the claim and the description; and whenever it is used with the word "claim," it covers the description only.¹⁰⁶ The first is its more general meaning, and to avoid confusion it is never used in any other sense in this book. The proper characteristics of specifications are herein explained by explaining the proper characteristics of descriptions and claims, which are the component parts of specifications.

§ 174. The description of the invention, which forms a part of every specification, is required to set forth that invention, and the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make and use the same; and in case of a machine, the description is required to explain the principle thereof, and the mode of applying that principle which the inventor believes to be the best.¹⁰⁷ Where the essence of the invention is the location, form, size or any other characteristic of the means employed, the patent must distinctly specify the peculiarities which characterize the invention.¹⁰⁸ The pointing out of a form, composition or construction of a mechanical element in accordance with the statute when those characteristics are not essential to the combination

U. S. Electric Lighting Co., 52
F. R. 312, 1892.

¹⁰⁵ Edison Electric Light Co. v.
Buckeye Electric Co., 59 F. R.
699, 1894.

¹⁰⁶ Wilson v. Coon, 18 Blatch.
532, 1880.

¹⁰⁷ Revised Statutes, Section
4888; Continental Paper Bag
Co. v. Eastern Paper Bag Co.,
210 U. S. 405, 1908.

¹⁰⁸ Am. Lava Co. v. Steward,
155 F. R. 731, 1907.

or improvement is not a limitation and does not deprive the inventor of his full right to equivalents or preclude him from claiming other modes of application.¹⁰⁹ Where the patent is an improvement on a prior patent which is referred to in the improvement patent, the latter should be read in connection with the former.¹¹⁰ The phrase "any person skilled in the art or science" is not confined to the most eminent scientists, nor the most able experts in that science or art; but it also indicates persons whose skill may stop short of the highest excellence.¹¹¹

It is not necessary that the description should be intelligible to every intelligent man, nor to every skillful mechanic. If it can be understood by those who possess full knowledge of the prior inventions in the same department of art or science, it is full, clear, concise, and exact enough to comply with the statute.¹¹² In explaining this point of law, Justice BRADLEY, in the first cited decision, used a particularly felicitous illustration. His Honor said: "When an astronomer reports that a comet is to be seen with the telescope, in the constellation of Auriga, in so many degrees of declination, and so many hours and minutes of right ascension, it is all Greek to the unskilled in science; but other astronomers will instantly direct their telescopes to the very point in the heavens where the stranger has made his entrance into our system. They understand the language of their brother scientist. If a mechanical engineer invents an improvement on any of the appendages of a steam-engine, such as the valve-

¹⁰⁹ *J. L. Owens Co. v. Twin City Separator Co.*, 168 F. R. 259, 1909.

¹¹⁰ *Los Alamitos Sugar Co. v. Carroll*, 173 F. R. 280, 1909.

¹¹¹ *Tannage Patent Co. v. Zahn*, 66 F. R. 989, 1895.

¹¹² *Loom Co. v. Higgins*, 105

U. S. 580, 1881; *Celluloid Mfg. Co. v. Russell*, 37 F. R. 679, 1889;

Lalace & Grosjean Mfg. Co. v. Haberman Mfg. Co., 55 F. R.

296, 1893; *Weston Electrical Instrument Co. v. Stevens*, 119 F. R.

184, 1902.

gear, the condenser, the steam-chest, the walking-beam, the parallel motion, or what not, he is not obliged, in order to make himself understood, to describe the engine, nor the particular appendage to which the improvement refers, nor its mode of connection with the principal machine. These are already familiar to others skilled in that kind of machinery. He may begin at the point where his invention begins, and describe what he has made that is new, and what it replaces of the old.”

These observations are particularly applicable to descriptions of machinery; but they also suggest the true principles on which to judge of the sufficiency of descriptions of processes, manufactures, and compositions of matter.¹¹³

A patent for a process, must not only distinguish its new elements from the old elements with which they are employed, but also must describe the new elements so definitely, as to furnish a clear chart for their practical introduction into the art to which the process pertains.¹¹⁴ If there is enough in the patent to indicate to those skilled in the art a mechanism whereby the process may be carried out, it is sufficient even though no specific mechanism is described.¹¹⁵ The patentee is not, of course, confined to the particular apparatus which he describes as a means of carrying out his process.¹¹⁶ In a case of an article of manufacture, where proportion is important to operativeness, the proper proportions may be indicated in any way that is substantially correct, and need not be stated mathematically.¹¹⁷ And where proportions must vary with circumstances, such a description is sufficient, if it states the proportions proper under ordinary circum-

¹¹³ *Seabury v. Am Ende*, 152 U. S. 567, 1894.

¹¹⁴ *Cerealine Mfg. Co. v. Bates*, 101 F. R. 280, 1900.

¹¹⁵ *Expanded Metal Co. v.*

Bradford, 214 U. S. 366, 1909.

¹¹⁶ *Moore Filter Co. v. Tonopah-Belmont Development Co.*, 201 F. R. 532, 1912.

¹¹⁷ *Edison Electric Light Co. v.*

stances, and points out the direction in which they must be varied when circumstances are changed.¹¹⁵ In a case of a composition of matter, the description of a patent should state the component parts thereof, and the proportions in which they are to be mixed or combined, and should do this with clearness and precision, and should not leave the public to ascertain any such fact by experiment.¹¹⁹

A patent for a design must conform to the same standards¹²⁰ but a verbal description is not necessary if the drawing is sufficiently clear.¹²¹ It is held, however, that where there is a sufficient written specification the patentee is entitled to enjoin the making of articles which "contain the dominant features of the design," as specified in the description. In other words, where there is no written description the patentee is limited to the precise article shown in the drawing, but the scope of the claim may be broadened if the dominant features of the design are specified in a written description.¹²²

§ 175. An inventor need not explain in his description, or know in point of fact, what laws of nature those are which cause his invention to work;¹²³ nor is a patent

U. S. Electric Lighting Co., 52 F. R. 309, 1892.

¹¹⁸ Consolidated Valve Co. v. Valve Co., 113 U. S. 177, 1884.

¹¹⁹ Wood v. Underhill, 5 Howard, 1, 1847; Tyler v. Boston, 7 Wallace, 327, 1868; Matheson v. Campbell, 69 F. R. 603, 1895; Burke Electric Co. v. Independent Pneumatic Tool Co., 232 F. R. 145, 1916.

¹²⁰ James E. Tompkins Co. v. New York Woven Wire Mattress Co., 159 F. R. 133, 1907.

¹²¹ Cheney Bros. v. Weinreb & Weinreb, 185 F. R. 531, 1910; National Casket Co. v. New York

& Brooklyn Casket Co., 185 F. R. 533, 1911; Ashley v. Samuel C. Tatum Co., 186 F. R. 339, 1911; Phoenix Knitting Works v. Louer Bros., 194 F. R. 700, 1910; Bush & Lane Piano Co. v. Becker Bros., 209 F. R. 233, 1913.

Contra, Phoenix Knitting Works v. Rich, 194 F. R. 708, 1911.

¹²² Ashley v. Weeks-Numan Co., 220 F. R. 899, 1915.

¹²³ St. Louis Stamping Co. v. Quinby, 4 Bann. & Ard. 195, 1879; Haffcke v. Clark, 46 F. R. 770, 1891; Dixon-Woods Co. v. Pfeifer, 55 F. R. 395, 1893; Hemolin Co. v. Harway etc.,

void on the ground that the principle of the invention is not fully understood; or if understood by anyone, not understood alike by all,¹²⁴ and was not understood correctly by the inventor himself,¹²⁵ or that all its advantages and possibilities were not understood by or known to the inventor.¹²⁶ Neither is any description insufficient in the eye of the law, on account of any mere errors it may be found to contain, where those errors would at once be detected and their remedies be known, by any person skilled in the art, when making specimens of the invention set forth, or when practicing that invention, if that invention is a process;¹²⁷ nor where such errors consist in mistaken statements of immaterial facts;¹²⁸ nor where

Mfg. Co., 138 F. R. 54, 1905; *Van Epps v. United Box Board & Paper Co.*, 143 F. R. 869, 1906; *Commercial Acetylene Co. v. Avery Portable Light Co.*, 166 F. R. 907, 1909; *Diamond Rubber Co. v. Consolidated Tire Co.*, 220 U. S. 428, 1911; *Toch v. Zibell Damp Resisting Paint Co.*, 233 F. R. 993, 1916.

¹²⁴ *Knickerbocker Co. v. Rogers*, 61 F. R. 297, 1894; *National Meter Co. v. Thomson Meter Co.*, 106 F. R. 538, 1900.

¹²⁵ *United States Mitis Co. v. Carnegie Steel Co.*, 89 F. R. 346, 1898; *Emerson Co. v. Nimocks*, 99 F. R. 739, 1900; *Cleveland Foundry Co. v. Detroit Vapor Stove Co.*, 131 F. R. 853, 1904; (process) *U. S. Mitis Co. v. Midvale Steel Co.*, 135 F. R. 103, 1904; *Hemolin Co. v. Harway etc., Mfg. Co.*, 138 F. R. 54, 1905;

Malignani v. Jasper Marsh, etc., Co., 180 F. R. 442, 1910.

¹²⁶ *Westmoreland Specialty Co. v. Hogan*, 167 F. R. 327, 1909; *Morgan Engineering Co. v. Alliance Mach. Co.*, 176 F. R. 100, 1909; *Mead-Morrison Mfg. Co. v. Exeter Machine Works*, 225 F. R. 489, 1915; *Wayne Mfg. Co. v. Coffield Motor Co.*, 227 F. R. 987, 1915; *Kellog Switchboard Co. v. Dean Electric Co.*, 182 F. R. 991, 1910.

See Section 180.

¹²⁷ *Singer v. Walmsley*, 1 Fisher, 559, 1860; *Kendrick v. Emmons*, 2 Bann. & Ard. 210, 1875; *Matheson v. Campbell*, 78 F. R. 910, 1897; *Brunswick-Balke-Collender Co. v. Backus, etc., Co.*, 153 F. R. 288, 1907.

¹²⁸ *Maryland Hominy Co. v. Dorr*, 46 F. R. 776, 1891; *Electric Smelting & Aluminum Co. v.*

such errors relate to the degree of efficiency of the invention; ¹²⁹ nor where they consist in deficient description of the functions of some parts of a machine.¹³⁰ Nor need a description state every use to which the described and claimed invention is applicable, in order to cover every such use.¹³¹ Neither is it necessary in a description in a patent for a process, to set forth all the modes in which that process may be performed, nor all the kinds of apparatus which may be used in performing it, in order to cover that process with the patent. It is enough to describe one particular mode and one particular apparatus by means of which the process may be performed with at least some beneficial result.¹³² Nor is a description fatally defective merely because it omits to mention something which contributes only to the degree of benefit, provided the invention will work beneficially without it.¹³³

But the omission of anything absolutely material to the utility of the invention described, is a fatal defect in a description,¹³⁴ unless that omission would naturally be

Carborundum Co., 102 F. R. 620, 1900.

¹²⁹ Michaels v. Roessler, 34 F. R. 325, 1888.

¹³⁰ McCormick Harvesting Mach. Co. v. Aultman, 69 F. R. 378, 1895.

¹³¹ Pike v. Potter, 3 Fisher, 55, 1859; Williams Patent Crusher Co. v. St. Louis Pulverizer Co., 104 F. R. 799, 1900; Sanitary Fireproofing, etc., Co. v. Sprickhoff, 139 F. R. 801, 1905; Kuhlman Electric Co. v. General Electric Co., 147 F. R. 709, 1906; General Electric Co. v. Bullock Electric Mfg. Co., 152 F. R. 427,

1907; Warren S. P. Co. v. Balke & Knowles S. P. Works, 163 F. R. 263, 1908; Forest City Foundry & Mfg. Co. v. Barnard, 176 F. R. 561, 1910; O'Brien-Worthen Co. v. Stempel, 209 F. R. 847, 1913; Kennicott Co. v. Holt Ice & Cold Storage Co., 230 F. R. 157, 1915.

¹³² Tilghman v. Proctor, 102 U. S. 728, 1880; Pittsburgh Reduction Co. v. Cowles Co., 55 F. R. 316, 1893; Rapid Service Store Co. v. Taylor, 43 F. R. 251, 1890.

¹³³ Sewall v. Jones, 91 U. S. 185, 1875.

¹³⁴ Carr v. Rice, 1 Fisher, 204,

supplied by any person skilled in the art when making the invention, if it be a thing, or when using it, if it be a process. Accordingly, it has been held that where one element of a new combination covered by a patent must have a certain form in order to operate in that combination, and where another form of that element is known to persons skilled in the art, a description is insufficient which merely states that such old element is a part of the combination, without saying or showing which of its known forms is applicable to the case.¹³⁵ As was said in an important case of recent date, "A patent is granted for solving a problem, not for stating one. Its description must explain the invention itself, the manner of making it, and the mode of putting it in practice. In the absence of knowledge on these points, the invention is not available to the public without further experiments and further exercise of inventive skill."¹³⁶ On the other hand, no excess of description is injurious to the validity of a patent, unless the redundant matter was introduced with fraudulent intention.¹³⁷

§ 176. The claim or claims of a specification are necessarily inserted in order to conform to the statutory requirement that the patentee shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention.¹³⁸ A distinct and formal claim is necessary to ascertain the scope of a patented invention,¹³⁹ and a patent grants no exclusive right, except to what is thus distinctly claimed.¹⁴⁰ To use

1856; *Stirling Co. v. Rust Boiler Co.*, 144 F. R. 849, 1906.

¹³⁵ *Schneider v. Thill*, 5 Bann. & Ard. 565, 1880.

¹³⁶ *Columbia Motor Car Co. v. C. A. Duerr & Co.*, 184 F. R. 893, 1911.

¹³⁷ *Sewall v. Jones*, 91 U. S. 186, 1875.

¹³⁸ Revised Statutes, Section 4888.

¹³⁹ *Grant v. Walter*, 148 U. S. 554, 1893.

¹⁴⁰ *McClain v. Ortmyer*, 141

the words of the Supreme Court, "the claims measure the invention."¹⁴¹

A claim covers and secures a process, a machine, a manufacture, a composition of matter, or a design, and never, the function or result of either.¹⁴² A claim may cover the entire process, machine, manufacture, or composition of matter, which is set forth in the description, or it may cover such parts, or such sub-processes, or such combinations, as are new and useful inventions; and the specification may contain a claim for the whole, and other claims for separate parts, and still other claims for separate sub-processes or combinations.¹⁴³ And the subject of a claim needs not to be operative alone,¹⁴⁴ for utility is justly ascribed to things which have their use in co-operating with other things to perform a useful work. But in order to be sustained, each claim must be able to withstand the tests of invention, of novelty, and of utility, which are stated in the second, third, and fourth chapters of this book, respectively.

Since all inventions, devices and improvements disclosed by the specification and not covered by a claim

U. S. 424, 1891; Ashton Valve Co. v. Muffler Co., 8 U. S. App. 226, 1893; United States Peg Wood Co. v. B. F. Sturtevant Co., 122 F. R. 472, 1903.

¹⁴¹ Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U. S. 405, 1908.

¹⁴² Corning v. Burden, 15 Howard, 252, 1853; O'Reilly v. Morse, 15 Howard, 62, 1853; Carver v. Hyde, 16 Peters, 513, 1842; Le Roy v. Tatham, 14 Howard, 156, 1852.

¹⁴³ Railroad Co. v. Dubois, 12 Wallace, 47, 1870; National Machine Co. v. Thom, 25 F. R. 500, 1885.

¹⁴⁴ Deering v. Winona Harvester Works, 155 U. S. 302, 1894; Hancock Inspirator Co. v. Jenks, 21 F. R. 915, 1884; Rapid Service Store Co. v. Taylor, 43 F. R. 251, 1890; Roberts v. Nail Co., 53 F. R. 920, 1892; Holloway v. Dow, 54 F. R. 516, 1893; Chambers-Bering-Quinlan Co. v. Faries, 75 F. R. 663, 1896.

are dedicated to the public,¹⁴⁵ all claims are required to be definite, so that the public may know what they are prohibited from doing during the existence of the patent, and what they are to have at the end of the term, as a consideration for the grant.¹⁴⁶ The necessary degree of particularity in claims may be reached in various modes. Where the invention is an entire machine, the claim is sufficient if it is clearly co-extensive with the machine; and where the invention is a part of a machine or manufacture, that part must be clearly indicated in the claim which covers it.¹⁴⁷ Claims for combinations of a plurality of the described devices, but less than all of them, should use the word "combination," and should state the devices of which it is composed.¹⁴⁸ But though this degree of obvious certainty is highly desirable in a combination claim, it is not absolutely necessary to the validity of such an one; for a claim may declare that it covers so much of the described mechanism as effects a particular specified result, without specifying those parts themselves. In such a case it is a question of fact to be determined in court, if necessary, which parts those are which effect that result and are therefore covered by the claim.¹⁴⁹ So, also, two or more claims in substance may sometimes be combined in one claim in form.¹⁵⁰ This may be accomplished in different ways, and among others by inserting in the claim the words "with or without" before the name or other designation of one or more

¹⁴⁵ *O. H. Jewell Filter Co. v. Jackson*, 140 F. R. 340, 1905.

See Section 186.

¹⁴⁶ *Brooks v. Fiske*, 15 Howard, 212, 1853; *Buffington's Iron Bldg. Co. v. Eustis*, 65 F. R. 807, 1895.

¹⁴⁷ *Seymour v. Osborne*, 11 Wallace, 516, 1870.

¹⁴⁸ *Brown Mfg. Co. v. Bradley Mfg. Co.*, 51 F. R. 226, 1892.

¹⁴⁹ *Silsby v. Foote*, 14 Howard, 218, 1852; *Fay v. Cordesman*, 109 U. S. 420, 1883; *Hoe v. Knap*, 27 F. R. 208, 1886.

¹⁵⁰ *Telephone Cases*, 126 U. S. 537, 1888.

of the enumerated parts of the process, machine, combination, manufacture, or composition of matter covered by that claim.¹⁵¹ The claim of the Charles Goodyear rubber patent had this characteristic. It was a claim for vulcanized India rubber, whether with or without other ingredients, chemically altered by the application of heat, substantially as described.¹⁵²

A process and its product, though they may be secured by separate claims in one patent,¹⁵³ cannot be covered by one claim.¹⁵⁴ "A new product having definite characteristics by which it may be identified and which distinguish it apart from the process by which it was produced may be properly described by such characteristics and when so claimed and described the claims are not limited to the process."¹⁵⁵ The same court which made the statement above quoted also said: "It is also a well-recognized rule that, although a product has definite characteristics by which it may be identified apart from the process, still if in a claim for the product it is not so described but is set forth in the terms of the process, nothing can be held to infringe the claim which is not made by the process" citing *Cochrane v. Badische Anilin & Soda Fabrik*.^{155a}

¹⁵¹ *Tuck v. Bramhill*, 6 Blatch. 95, 1868.

¹⁵² *Rubber Co. v. Goodyear*, 9 Wallace, 795, 1869.

¹⁵³ *Kirchberger v. American Acetylene Burner Co.*, 128 F. R. 599, 1904; *Sanitas Nut Food Co. v. Voight*, 139 F. R. 551, 1905; *Downes v. Teter-Heany Development Co.*, 150 F. R. 122, 1907; *Pressed Prism Plate Glass Co. v. Continuous Glass Press Co.*, 150 F. R. 355, 1907; *Asbestos Shingle, etc., Co. v. H. W. Johns-Mansville*

Co., 184 F. R. 620, 1910; *Hide-It Leather Co. v. Fiber Products Co.*, 226 F. R. 34, 1915.

See *Steinmetz v. Allen*, 192 U. S. 543, 1904, and compare present Patent Office Rule 41 with the previous rule.

¹⁵⁴ *Durand v. Schulze*, 61 F. R. 820, 1894.

¹⁵⁵ *Maurer v. Dickerson*, 113 F. R. 870, 1901; *Hide-It Leather Co. v. Fiber Products Co.*, 226 F. R. 34, 1915.

^{155a} *Cochrane v. Badische Anilin*

It is not easy to deduce the correct rule of law which is discussed in the foregoing paragraph. The leading case in the Supreme Court on the subject appears to be *Plummer v. Sargent*.^{155b} The patent in that case contained claims both for a process of bronzing iron and for the bronzed iron itself. The claim for the product was as follows: "What I claim and desire to secure by letters patent is the new manufacture hereinabove described consisting of iron ornamented in imitation of bronze by the application of oil and heat, substantially as described." Because the product claim called for iron ornamented "by the application of oil and heat," no bronzed iron would infringe which was not made by that process even though the product was of the composition theretofore unknown and which possessed all the qualities to give it the character of an invention. The court, however, said: "Although there are two patents, one for a process and the other for a product, there is in effect but one invention; and it may be assumed that the new article of manufacture called Tucker Bronze is a product which results from the use of the process described in the patent and not one which may be produced in any other way so that whatever likeness may appear between the product of the process described in the patent and the article made by the defendants their identity is not established, unless it is shown that they are made by the same process." As is pointed out in *Lamb Knit Goods Co. v. Lamb Glove Co.*^{155c} a patent which discloses an invention of a new product is valid, provided it discloses a method of making the product and will be infringed by a similar product

& Soda Fabrik, 111 U. S. 293,
1884.

^{155b} *Plummer v. Sargent*, 120
U. S. 442, 1897.

^{155c} *Lamb Knit Goods Co. v.
Lamb Glove Co.*, 120 F. R. 267,
1902.

even though the latter be made by some other method than that described in the patent. It is likewise true as is pointed out in *Sanitas Nut Food Co. v. Voight*,^{155d} that a patent which discloses and claims an invention of a process is not invalid because the process results in the production of an old and well-known product. It is therefore not apparent why the case of *Plummer v. Sargent* has been cited on the broad proposition that a patent which contains a claim for a product and a claim for a process of making the product is not infringed by a product which answers the product claim, but which is not made in infringement of the process claimed.^{155e} Difficulty in identifying the products should not be permitted to cause to be created a rule of law which prevents a patentee from securing his full rights to his invention of a product.

Nor is any claim limited to any name it employs to designate anything to which it refers, where that name is not accurately representative of the thing which appears, in the description of the patent, to be designated thereby.¹⁵⁶ But where an invention consists of an article, made of a specific material; the claim must specify that material, and will be void if it generalizes, by words which cover

^{155d} *Sanitas Nut Food Co. v. Voight*, 139 F. R. 551, 1905.

^{155e} See *Accumulator Co. v. Julien Electric Co.*, 57 F. R. 605, 1893; *Carl L. Jensen Co. v. Clay*, 59 F. R. 290, 1893; *Oval Wood Dish Co. v. Dandy Creek, etc., Mfg. Co.*, 60 F. R. 285, 1894; *Palmer Pneumatic Tire Co. v. Lozier*, 90 F. R. 732, 1898; *Chadeloid Chemical Co. v. F. W. Thurston Co.*, 200 F. R. 685, 1915; but see *Downes v. Teter-Heany De-*

velopment Co., 150 F. R. 122, 1907, where the court appears to have given great weight to the fact that the product claims ended with the words "substantially as described" and therefore inferred that these words meant that the product described was necessarily the result of the method described and claimed in the patent.

¹⁵⁶ *Stetson v. Herreshoff Mfg. Co.*, 113 F. R. 952, 1902.

materials useless for the purpose, as well as the specific material described in the patent.¹⁵⁷

§ 177. Letters patent may be valid as to one or more claims while being invalid as to one or more other claims in the same specifications.¹⁵⁸ In contemplation of law each claim of a patent is considered as setting forth a complete and independent invention,¹⁵⁹ and so where a patent contains two claims which are alike, except that the narrower one of them calls for an unpatentable addition to what is called for by the other, the narrower claim is void.¹⁶⁰ But two claims which may appear to be alike will, if practicable, be construed to differ rather than agree, because there is a presumption that no applicant will do so useless and inexpedient an act as to repeat a claim.¹⁶¹

Letters patent which contain a needless multiplication of nebulous claims, calculated to mislead the public, are void for that reason, if for no other.¹⁶² But a patent is

¹⁵⁷ Consolidated Electric Light Co. *v.* McKeesport Light Co., 159 U. S. 465, 1895.

¹⁵⁸ Russell *v.* Place, 94 U. S. 606, 1876.

¹⁵⁹ Railroad Supply Co. *v.* Hart Steel Co., 222 F. R. 261, 1915; Vencer Machinery Co. *v.* Grand Rapids Chair Co., 227 F. R. 419, 1915; Leeds & Catlin *v.* Victor Talking Machine Co., 213 U. S. 301, 1909; Kennicott Co. *v.* Holt Ice & Cold Storage Co., 230 F. R. 157, 1915.

¹⁶⁰ Featherstone *v.* Cycle Co., 53 F. R. 116, 1892; Packard *v.* Lacing-Stud Co., 70 F. R. 68, 1895; Consolidated Car Heating Co. *v.* American Electric Heating Co., 82 F. R. 994, 1897.

¹⁶¹ Campbell Printing-Press Co. *v.* Marden, 64 F. R. 784, 1894; National Cash Register Co. *v.* American Cash Register Co., 53 F. R. 370, 1892; Lamson Consolidated Store Service Co. *v.* Hillman, 123 F. R. 419, 1903; Ryder *v.* Schlichter, 126 F. R. 487, 1903; Boyer *v.* Keller Tool Co., 127 F. R. 130, 1904; Bullock Electric Mfg. Co. *v.* Crocker-Wheeler Co., 141 F. R. 101, 1905; Wm. B. Scaife & Sons Co. *v.* Falls City Woolen Mills, 209 F. R. 210, 1913; Automatic Recording Safe Co. *v.* Burns Co., 231 F. R. 985, 1916.

¹⁶² Carlton *v.* Bokee, 17 Wallace, 463, 1873.

not void merely because it contains a plurality of claims, each of which covers the same thing, and covers nothing else, where there is no evidence that the plural claims were made with intention to mislead.¹⁶³ In the absence of such evidence, the surplus claims may be dismissed from consideration as redundant.¹⁶⁴

If all the claims of a particular patent are void, either for want of particularity or for want of invention, novelty, or utility, or for any other reason or reasons, that patent is also void, even though one or more valid claims might have been made and allowed on the basis of the descriptive part of the specification.¹⁶⁵

And any claim which is broader than the described invention, is void; even where that invention is valuable, and could have supported a valuable claim.¹⁶⁶

§ 177*a*. Inventions like animals, are divisible into classes; and their classes are divisible into orders; and their orders are divisible into genuses; and their genuses are divisible into species; and their species are divisible into varieties. Every invention belongs to a variety; whether it was the first invention in that variety or not. In either case it belongs to a species; whether or not it was the first representative of that species. In either case it belongs to a genus; whether it was, or was not, the first invention in that genus. In either case it belongs to an order; whether it was the first invention in that order, or was preceded therein, by some other. And in either case it belongs to a class; whether or not it stands at the head of the class to which it belongs.

¹⁶³ *Tompkins v. Gage*, 5 Blatch. 270, 1861.

¹⁶⁴ *Hillborn v. Hale & Kilburn Mfg. Co.*, 69 F. R. 961, 1895.

¹⁶⁵ *Wisner v. Grant*, 5 Bann. & Ard. 215, 1880.

¹⁶⁶ *Edison v. American Mutoscope Co.*, 114 F. R. 934, 1902; *State Bank of Chicago v. Hillmans*, 180 F. R. 732, 1910.

Very few patents are still in force which stand at the heads of their classes, or even at the heads of the orders which they were the first to represent. But some patents are still living at the heads of their genuses; and many are still living at the heads of their species; and very many more at the heads of their varieties. A patent which stands at the head of its genus, must also stand at the head of every species in that genus. Such a patent may properly have a generic claim, and it may also have one specific claim. Logically, it might have a specific claim for each species which it describes; but the Patent Office properly requires a separate application for a separate patent, for each species which the inventor will secure to himself; while allowing him to insert his proper generic claim in whichever of those applications he selects for that honor. So also the Patent Office will properly allow a claim on a variety of an invention, in the same patent with a broader claim for a species, and a still broader claim for a genus; provided that variety belongs to the particular species which is covered by the specific claim.

§ 178. The statutory requirements relevant to particularity in the descriptions and claims of letters patent, are conditions precedent to the authority of the Commissioner of Patents to issue such documents;¹⁶⁷ and if such a document is issued, the description or claims in which do not conform to these requirements, then that document is void.¹⁶⁸ But where the inventions, which are covered by part of the claims of a patent, are sufficiently described, those claims may be valid, though other claims in the same patent are void for want of sufficient description.¹⁶⁹

¹⁶⁷ *Seymour v. Osborne*, 11 Wallace, 516, 1870.

¹⁶⁸ *O'Reilly v. Morse*, 15 How-

ard, 62, 1853; *Ames v. Howard*, 1 Sumner, 482, 1833.

¹⁶⁹ *Bene v. Jeantet*, 129 U. S. 683, 1888.

Such invalidity does not depend on the intention of the inventor, but is a legal inference from his failure to give to his description and claims the statutory particularity.¹⁷⁰ It is a question of jurisdiction in the Commissioner of Patents; not a question of fraudulent intent in the delinquent patentee. The Commissioner is authorized to issue letters patent only on adequate specifications. If he issues them on inadequate specifications, their invalidity cannot be removed by showing that the inadequacy arose from ignorance and not from fraud. This point of law is not shaken by the fact that Section 4920 of the Revised Statutes, in providing for special defences to patent suits, under the general issue in pleading, provides that among such defences the defendant may prove "that for the purpose of deceiving the public, the description filed by the patentee in the Patent Office was made to contain less than the whole truth relative to the invention or discovery, or more than is necessary to produce the desired effect." The defences provided for in Section 4920 are not all the defences that may be interposed in infringement cases. They are merely the defences that may be interposed under the general issue. The defence of insufficient specification, as well as any other legal defence, may be interposed by a special plea,¹⁷¹ or under the Equity Rules promulgated in 1912 by special matter in the answer.

§ 179. It is a question of fact for a jury in an action at law, or for a chancellor in an action in equity, to determine whether the specification, including the claim, of a patent conforms to the statutory requirements relevant to particularity.¹⁷² That question is, in both

¹⁷⁰ *Grant v. Raymond*, 6 Peters, 218, 1832.

¹⁷¹ *Reckendorfer v. Faber*, 92 U. S. 347, 1875.

¹⁷² *Battin v. Taggert*, 17 Howard, 74, 1854.

tribunals, a question of evidence, and not a question of construction.¹⁷³

§ 180. A patent which describes, and separately claims, two or more related inventions, is not void on that account;¹⁷¹ but if a patent were to be granted for two or more unrelated inventions, it might be held, for that reason, to be invalid,¹⁷⁵ though no patent has ever yet been held void for containing and claiming more than one invention.

Prior to the Supreme Court decision of *Steinmetz v. Allen*,¹⁷⁶ Patent Office Rule 41 provided among other things that claims for a machine could not be combined in a single application either with claims for the product of the machine or with claims for the process carried out by the machine. The Supreme Court, however, in the *Steinmetz* case held that the Patent Office could not arbitrarily create such a rule, since it was a question of fact in each case as to whether or not the invention of the machine was so related to the invention of the process, or was so independent of it that the two inventions should or should not be combined in one application. The court based its view that related inventions could be combined in one application on its construction of Section 4886 of the Revised Statutes. Rule 41 has since been amended and the provisions above noted removed.

On the other hand, two or more related patents may lawfully be granted for different parts of one extensive machine.¹⁷⁷ In such cases it is proper to describe the

¹⁷³ *Fisk, Clark & Flagg v. Hollander, MacArthur & Mackay*, 355, 1883.

¹⁷⁴ *Hogg v. Emerson*, 11 Howard, 587, 1850; *Steinmetz v. Allen*, 192 U. S. 543, 1904.

¹⁷⁵ *Wilkins Shoe Button Fas-*

tener Co. v. Webb, 89 F. R. 989, 1898.

¹⁷⁶ *Steinmetz v. Allen*, 192 U. S. 543, 1904.

See Section 183.

¹⁷⁷ *Graham v. McCormick*, 11 F. R. 859, 1880; *Graham v. Mfg.*

whole machine in each of the specifications, and to picture the whole machine in each set of drawings, thus causing the separate letters patent to differ from each other only in their claims.¹⁷⁸ A plurality of patents cannot, however, be granted for different uses of the same invention.¹⁷⁹ Indeed, all the uses of an invention are covered and secured by a single letters patent for that invention.¹⁸⁰

This principle, however, applies only when the property or function is inherent in the invention or is described or claimed therein, but where such property or function is not inherent in the invention and is not described or claimed, and especially where other properties or functions are described as essential, it is significant proof that the undescribed property is not a part of the invention.¹⁸¹

Co., 11 F. R. 138, 1880; Thomson-Houston Electric Co. v. Elmira & H. Ry. Co., 71 F. R. 405, 1896.

¹⁷⁸ M'Millin v. Rees, 5 Bann. & Ard. 269, 1880; Ide v. Trorlicht, Duncker & Renard Carpet Co., 115 F. R. 145, 1902; Anderson v. Collins, 122 F. R. 458, 1903; Century Electric Co. v. Westinghouse Electric & Mfg. Co., 191 F. R. 350, 1911.

¹⁷⁹ McComb v. Brodie, 1 Woods, 153, 1871; Thomson-Houston Electric Co. v. Elmira & H. Ry. Co., 71 F. R. 406, 1896.

¹⁸⁰ Roberts v. Ryer, 91 U. S. 157, 1875; Western Electric Co. v. La Rue, 139 U. S. 606, 1891; Potts v. Creager, 155 U. S. 606, 1893; Ligowski Clay-Pigeon Co. v. Clay-Bird Co., 34 F. R. 331, 1888; Thompson v. Gildersleeve, 34 F. R. 45, 1888; Stegner v.

Blake, 36 F. R. 183, 1888; Thompson v. Donnell Mfg. Co., 40 F. R. 383, 1889; Steiner Extinguisher Co. v. Adrian, 52 F. R. 733, 1892; New Departure Bell Co. v. Mfg. Co., 64 F. R. 862, 1894; Wright & Colton Wire-Cloth Co. v. Wire-Cloth Co., 67 F. R. 792, 1895; National Hollow Brake-Beam Co. v. Interchangeable Brake-Beam Co., 106 F. R. 709, 1901; Dowagiac Mfg. Co. v. Superior Drill Co., 115 F. R. 886, 1902; Jackson Fence Co. v. Peerless Wire Fence Co., 228 F. R. 691, 1915 (see Section 175, *ante*); Gear v. Fairmount Electric & Mfg. Co., 231 F. R. 728, 1916; Acme Truck & Tool Co. v. Meredith, 183 F. R. 124, 1910.

See Section 175.

¹⁸¹ Electric Storage Battery Co. v. Gould Storage Battery Co., 158

§ 180*a*. Only one valid original patent can be granted to an inventor on one invention; and if a plurality of such patents are thus granted, all except the first are void.¹⁸² Where a plurality of similar or approximating original patents have been granted to an inventor, the question of the identity or the non-identity of the inventions may therefore arise; and when such a question arises, it must be determined by the application of the relevant rule of law. The rule for ascertaining whether a reissue patent is for "the same invention" within the meaning of the reissue statute, is not applicable to determining the question of identity between two original patents; because a reissue patent is held to be for "the same invention," within that meaning, where that invention was described in the original patent, and appears therein to have been intended to be secured thereby, whether it was thus secured or not;¹⁸³ and because a man does not have two original patents for the same invention, unless each of those patents purports to secure to him a monopoly of that invention. And no monopoly of any invention is secured to any patentee, by any patent, otherwise than by a claim in that patent, which is co-extensive with that invention.¹⁸⁴ Therefore the rule for ascertaining the iden-

F. R. 610, 1907; *O'Brien-Worthen Co. v. Stempel*, 209 F. R. 847, 1913.

See Section 364.

¹⁸² *Suffolk Co. v. Hayden*, 3 Wallace, 315, 1865; *Miller v. Eagle Co.*, 151 U. S. 197, 1894.

¹⁸³ *Parker & Whipple Co. v. Yale Clock Co.*, 123 U. S. 99, 1887; *Freeman v. Asmus*, 145 U. S. 240, 1892; *Corbin Lock*

Co. v. Eagle Lock Co., 150 U. S. 42, 1893.

¹⁸⁴ *M'Millin v. Rees*, 5 Bann. & Ard. 269, 1880; *Delaware Coal & Ice Co. v. Packard*, 5 Bann. & Ard. 296, 1880; *Blades v. Rand*, 27 F. R. 97, 1886; *Roemer v. Peddie*, 27 F. R. 702, 1886; *Allison v. Brooklyn Bridge*, 29 F. R. 517, 1886; *McBride v. Plow Co.*, 44 F. R. 77, 1890; *Maddock v. Coxon*, 45 F. R. 579, 1891.

tity or the non-identity of the invention or inventions of a plurality of resembling original patents granted to one inventor, is the same as the rule for ascertaining the identity or non-identity of the invention or inventions of a plurality of resembling original patents granted to a plurality of inventors. And that rule consists in comparing the claims of the patents in question, and finding identity or non-identity of invention, according as those claims are found to be co-extensive or not co-extensive.¹⁸⁵

Claims are co-extensive which cover the same combination, of the same number, of the same parts, with the same features; though the functions which are mentioned in the claims are not co-extensive.¹⁸⁶ That was held to be the character of the respective claims of two patents to the same inventor, in the case of *Miller v. Eagle Co.*;¹⁸⁷ and therefore the second of those patents was held to have been granted for the same invention as the first, and to be void. But two claims are not co-extensive, which specify different combinations of parts of a process, machine, or manufacture, even where some of those parts

¹⁸⁵ *Gold & Silver Ore Co. v. Disintegrating Ore Co.*, 6 Blatch. 311, 1869; *Morris v. Kempshall Mfg. Co.*, 20 F. R. 121, 1884; *Pentlarge v. New York Bushing Co.*, 20 F. R. 314, 1884; *Nathan Mfg. Co. v. Craig*, 49 F. R. 370, 1892; *Dederick v. Fox*, 56 F. R. 718, 1893; *Stonemetz Mach. Co. v. Brown Mach. Co.*, 57 F. R. 605, 1893; *Ryan v. Newark Spring Mattress Co.*, 96 F. R. 103, 1899; *Tesla Electric Co. v. Scott*, 97 F. R. 598, 1899.

¹⁸⁶ *Miller v. Eagle Co.*, 151 U. S.

189, 1894; *Thomson-Houston Electric Co. v. Hoosick Ry. Co.*, 82 F. R. 466, 1897; *Thomson-Houston Electric Co. v. Union Ry. Co.*, 86 F. R. 636, 1898; *Thomson-Houston Electric Co. v. Jeffrey Mfg. Co.*, 101 F. R. 121, 1900.

¹⁸⁷ *Thomson-Houston Electric Co. v. Elmira & H. Ry. Co.*, 71 F. R. 406, 1896; *Thomson-Houston Electric Co. v. Ohio Brass Co.*, 80 F. R. 728, 1897; *Western Electric Co. v. Home Telephone Co.*, 85 F. R. 657, 1898.

are in each of the combinations;¹⁸⁸ because the claim which specifies fewest of those parts, may be infringed by what will not infringe any claim specifying more of those parts.¹⁸⁹ That was held to be the character of the respective claims of two patents to the same inventor, in the case of *Suffolk Co. v. Hayden*; and therefore the second of those patents was held to have been granted for another invention than the first, and to be valid. And two claims are not co-extensive, where one of them specifies all the features of any or all of the parts of its subject, while the other omits one of those features;¹⁹⁰ because the latter may be infringed by processes or mechanisms which lack that feature, while the former cannot.¹⁹¹ Of course a later application which specifies

¹⁸⁸ *Suffolk Co. v. Hayden*, 3 Wallace, 315, 1865; *Wheeler v. McCormick*, 11 Blatch. 334, 1873; *Graham v. McCormick*, 5 Bann. & Ard. 244, 1880; *Graham v. Crawford Mfg. Co.*, 11 F. R. 138, 1880; *National Mach. Co. v. Wheeler & Wilson Mfg. Co.*, 72 F. R. 199, 1896; *Allington & Curtis Mfg. Co. v. Glor*, 83 F. R. 1014, 1897; *Allington & Curtis Mfg. Co. v. Globe Co.*, 89 F. R. 865, 1898; *Palmer v. John E. Brown Mfg. Co.*, 92 F. R. 929, 1899; *Ryan v. Newark Spring Mattress Co.*, 96 F. R. 103, 1899; *Dayton Fan & Motor Co. v. Westinghouse Electric & Mfg. Co.*, 118 F. R. 563, 1902.

¹⁸⁹ *Vance v. Campbell*, 1 Black, 430, 1861; *Eames v. Godfrey*, 1 Wallace, 78, 1863; *Case v. Brown*, 2 Wallace, 320, 1864; *Dunbar v.*

Myers, 94 U. S. 187, 1876; *Fuller v. Yentzer*, 94 U. S. 297, 1876; *Fay v. Cordesman*, 109 U. S. 420, 1883; *Rowell v. Lindsay*, 113 U. S. 102, 1884; *Sargent v. Lock Co.*, 114 U. S. 86, 1884; *Shepard v. Carrigan*, 116 U. S. 597, 1885; *Yale Lock Co. v. Sargent*, 117 U. S. 378, 1885; *Derby v. Thompson*, 146 U. S. 482, 1892; *Weatherhead v. Coupe*, 147 U. S. 335, 1893; *Dobson v. Cubley*, 149 U. S. 120, 1893.

¹⁹⁰ *Ryan v. Newark Spring Mattress Co.*, 96 F. R. 103, 1899.

¹⁹¹ *Prouty v. Ruggles*, 16 Peters, 341, 1842; *Sharp v. Reissner*, 119 U. S. 636, 1886; *McClain v. Ort-mayer*, 141 U. S. 425, 1891; *Wright v. Yuengling*, 155 U. S. 52, 1894; *Black Diamond Coal Co. v. Excelsior Co.*, 156 U. S. 617, 1895.

broad claims which cover the specific invention of an earlier application is void to the extent of the broad claims.¹⁹²

Where a plurality of approximating original patents have been granted to an inventor; and where the question of identity of subject has been decided in the negative, or must evidently be so decided; the question may arise whether the ascertained difference between the two subjects is a patentable difference.¹⁹³ In investigating that question, the patent which was applied for last, even if granted first, will be treated as the junior patent; since the dates of the applications, and not the dates of the patents, control in determining the legal effect to be given to two patents issued at different dates, to the same inventor, and the order in which they are to be considered.¹⁹⁴

§ 181. To construe letters patent, is to determine precisely what inventions they cover and secure. Nothing described in letters patent, is secured thereby, unless it is covered by a claim,¹⁹⁵ and no element not mentioned in a claim can be read into it even though the element appears in the specification.¹⁹⁶ And a claim which is clearly

¹⁹² *Otis Elevator Co. v. Portland Co.*, 127 F. R. 557.

¹⁹³ *Reynolds v. Standard Paint Co.*, 68 F. R. 487, 1895; *Russell v. Kern*, 72 O. G. 590, 1895.

¹⁹⁴ *Barbed Wire Patent*, 143 U. S. 281, 1892.

¹⁹⁵ *Railroad Co. v. Mellon*, 104 U. S. 118, 1881; *M'Millin v. Rees*, 5 Bann. & Ard. 269, 1880; *Delaware Coal & Ice Co. v. Packard*, 5 Bann. & Ard. 296, 1880; *Blades v. Rand*, 27 F. R. 97, 1886; *Roemer*

v. Peddie, 27 F. R. 702, 1886; *Allison v. Brooklyn Bridge*, 29 F. R. 517, 1886; *McBride v. Plow Co.*, 44 F. R. 77, 1890; *Maddock v. Coxon*, 45 F. R. 579, 1891; *Thomson-Houston Electric Co. v. Elmira & H. Ry. Co.*, 71 F. R. 404, 1896; *Monroe v. McGreer*, 81 F. R. 956, 1897.

¹⁹⁶ *Duncan v. Cincinnati Butchers' Supply Co.*, 171 F. R. 656, 1909.

narrower than the invention which it was designed to cover, cannot be broadened by construction to correspond with that invention.¹⁹⁷ Nor can a claim, which is broader than the state of the art will allow to the invention described, be narrowed by a construction out of harmony with its language.¹⁹⁸ A newly discovered method of use for a machine cannot be availed of to affect the construction of a claim when the patent on its face gives no indication of such method.¹⁹⁹ The construction of letters patent depends therefore upon the construction of their respective claims;²⁰⁰ and the established rules by means of which claims are properly construed may constitute the next subject of discussion.

§ 182. The phrase "substantially as described," or its equivalent, when such a phrase occurs in a claim, throws the investigator back to the description for means of construction;²⁰¹ and that phrase is always implied in claims wherein it is not expressed.²⁰² The words "substantially

¹⁹⁷ *Smith v. Macbeth*, 67 F. R. 140, 1895; *New Home Sewing Machine Co. v. Singer Mfg. Co.*, 68 F. R. 226, 1895; *United States Glass Co. v. Atlas Glass Co.*, 88 F. R. 500, 1898; *Computing Scale Co. v. Keystone Store-Service Co.*, 88 F. R. 791, 1898; *Hardison v. Brinkman*, 156 F. R. 962, 1907.

¹⁹⁸ *Edison v. American Mutoscope Co.*, 114 F. R. 934, 1902.

¹⁹⁹ *U. S. Peg-Wood Co. v. B. F. Sturtevant Co.*, 125 F. R. 378, 1903.

²⁰⁰ *Maddock v. Coxon*, 45 F. R. 579, 1891.

²⁰¹ *Seymour v. Osborne*, 11 Wallace, 516, 1870; *Corn-Planter*

Patent, 23 Wallace, 181, 1874; *Telephone Cases*, 126 U. S. 537, 1887; *Consolidated Roller Mill Co. v. Walker*, 138 U. S. 133, 1891; *Westinghouse v. Boyden Power Brake Co.*, 170 U. S. 558, 1898; *U. S. Consolidated Seeded Raisin Co. v. Selma Fruit Co.*, 195 F. R. 264, 1912.

²⁰² *Matthews v. Schoneberger*, 4 F. R. 635, 1880; *Westinghouse v. Air Brake Co.*, 2 Bann. & Ard. 57, 1875; *Olds v. Brown*, 41 F. R. 704, 1890; *Foos Mfg. Co. v. Thresher Co.*, 44 F. R. 599, 1891; *Bundy Mfg. Co. v. Columbian Co.*, 59 F. R. 294, 1894; *O. H. Jewell Filter Co. v. Jackson*, 140 F. R.

as specified" mean substantially as specified in regard to the particular matter which is the subject of the claim;²⁰³ and the same rule applies with the same force to the words "substantially as described."²⁰⁴ But neither

340, 1905; *National Tube Co. v. Mark*, 216 F. R. 507, 1914.

Some courts have, contrary to the statement in the text, given a special significance to this phrase to the extent of introducing a qualification into an element of a claim, resulting in so narrowing the claim that the claim is saved from invalidity. *Sanders v. Hancock*, 128 F. R. 424, 1904. Other courts have even gone to the extent of reading into a claim a complete new element if necessary to make the claim operative. *Wellman v. Midland Steel Co.*, 106 F. R. 226, 1901; *McCaslin v. Link Belt Mach. Co.*, 139 F. R. 393, 1905. In *American Can Co. v. Hickmott Asparagus Co.*, 142 F. R. 141, 1905, it is stated that these words "refer to the whole claim and impart nothing into it not already there, either to narrow it, so as to escape anticipation or to broaden it, so as to establish infringement." But the Supreme Court has said in *Singer Mfg. Co. v. Cramer*, 192 U. S. 265, in regard to the words "substantially as specified" as late as the year nineteen hundred and four:

"And this view is supported by the claim in question. It con-

tains words of limitation. It is recited therein that the combination is to be 'substantially as specified,' that is, as described in the specification and shown in the drawings." And again:

"To prevent a broadening of the scope of the invention beyond its fair import, in the light of the circumstances surrounding the issuance of the patent, the words of limitation contained in the claim must be given due effect, and, giving them such effect, the statement in the first claim of the elements entering into the combination must be construed to refer to elements in combination having substantially the form and construction substantially as described in the specification and shown in the drawing."

²⁰³ *Lake Shore R. R. Co. v. Car Brake Shoe Co.*, 110 U. S. 235, 1883; *Page Fence Co. v. Land*, 49 F. R. 943, 1891; *Edison Electric Light Co. v. U. S. Electric Lighting Co.*, 52 F. R. 309, 1892; *McKay & Copeland Lasting Machine Co. v. Claffin*, 58 F. R. 354, 1893; *Reece Button-Hole Mach. Co. v. Globe Mach. Co.*, 61 F. R. 961, 1894; *Diamond Drill & Mach. Co. v. Kelly Bros.*, 120 F. R. 293, 1903.

²⁰⁴ *Paul Boynton Co. v. Morris*

of those phrases will import into a claim any unessential feature of the subject thereof; ²⁰⁵ nor even a detail, which was said to be best in the specification, but was afterward found to be useless.²⁰⁶ The implication of such a phrase, where it is not expressed, follows from the rule that while descriptions are considered in this connection only for the purpose of construing claims,²⁰⁷ a claim should always be construed in the light of the description;²⁰⁸ and the certainty of that implication indicates the propriety of omitting, for the sake of brevity, all such phrases from claims. An uncommon word in a claim is to be construed in the light of the description, rather than in the light of the dictionary;²⁰⁹ because the patentee presumably

Chute Co., 87 F. R. 227, 1898; Carnegie Steel Co. *v.* Brislin, 124 F. R. 213, 1903; Lowrie *v.* Meldrum Co., 124 F. R. 761, 1903; Brill *v.* North Jersey St. Ry. Co., 124 F. R. 778, 1903; General Electric Co. *v.* International Specialty Co., 126 F. R. 755, 1903; Superior Hay Stacker Mfg. Co. *v.* Dain Mfg. Co., 208 F. R. 549, 1913; O. H. Jewell Filter Co. *v.* Jackson, 140 F. R. 340, 1905.

²⁰⁵ Campbell Printing-Press Co. *v.* Marden, 64 F. R. 786, 1894; Temple Pump Co. *v.* Mfg. Co., 30 F. R. 442, 1887; Edison Electric Light Co. *v.* U. S. Electric Lighting Co., 52 F. R. 309, 1892; Pacific Cable Ry. Co. *v.* Butte City Ry. Co., 55 F. R. 763, 1893.

²⁰⁶ American Dunlop Tire Co. *v.* Erie Rubber Co., 66 F. R. 558, 1895.

²⁰⁷ Pitts *v.* Wemple, 1 Bissell, 87, 1855.

²⁰⁸ Smith *v.* Dental Vulcanite Co., 93 U. S. 493, 1876; Howe Machine Co. *v.* National Needle Co., 134 U. S. 395, 1890; Pacific Cable Railway Co. *v.* Butte City Ry. Co., 58 F. R. 423, 1893; Mossberg *v.* Nutter, 135 F. R. 95, 1905. Robins Conveying Belt Co. *v.* Am. Road Mach. Co., 145 F. R. 923, 1906; 1900 Washer Co. *v.* Cramer, 169 F. R. 629, 1909; Fowler & Wolfe Mfg. Co. *v.* National Radiator Co., 172 F. R. 661, 1909; Houser *v.* Starr, 203 F. R. 264, 1913; Diamond Patent Co. *v.* S. E. Carr Co., 217 F. R. 400, 1914; O. H. Jewell Filter Co. *v.* Jackson, 140 F. R. 340, 1905.

²⁰⁹ Standard Paint Co. *v.* Bird, 65 F. R. 510, 1894; Blair *v.* Jeannetter-McKee Glass Works, 161 F. R. 355, 1908.

knew the description, and may not have known the dictionary; and because the reader of a patent may reasonably be expected to consult the description, before he consults the dictionary, when engaged in trying to learn the meaning of one of its claims. The claims whenever possible are to be construed so as to cover the real invention as found in the specification and drawings, and this is particularly so in the case of a meritorious invention.²¹⁰

The phrase "for the purpose set forth" is never implied in a claim, because an inventor is entitled to the exclusive use of his invention for all purposes, whether he sets them all forth in his specification or not.²¹¹ And such a phrase ought never to be expressed in a claim, because it cannot impart validity to a claim otherwise void,²¹² and because it may enable persons to avoid infringement, who would otherwise infringe.²¹³

The phrase "in mechanism" is used in many claims, with a purpose to limit the claim in which it is used, to

²¹⁰ See Sections 185, 186. *Mossberg v. Nutter*, 135 F. R. 95, 1905; *Stirling Co. v. Standard Snuff Co.*, 137 F. R. 94, 1905; *Columbia Wire Co. v. Kokomo Steel & Wire Co.*, 143 F. R. 116, 1905; *Maunula v. Sunell*, 155 F. R. 535, 1907; *O. H. Jewel Filter Co. v. Jackson*, 140 F. R. 340, 1905; *Electric Candy Machine Co. v. Morris*, 156 F. R. 972, 1905; *Bossert Electric Construction Co. v. Pratt Chuck Co.*, 179 F. R. 385, 1910; *Malignani v. Jasper Marsh, etc., Co.*, 180 F. R. 442, 1910; *Kryptok Co. v. Stead Lens Co.*, 207 F. R. 85, 1913;

Thacher v. Transit Const. Co., 234 F. R. 640, 1916.

²¹¹ *Roberts v. Ryer*, 91 U. S. 157, 1875; *Muller v. Lodge & Davis Mach. Tool Co.*, 77 F. R. 627, 1896; *National Hollow Brake Beam Co. v. Interchangeable Brake-Beam Co.*, 106 F. R. 709, 1901; *Dowagiac Mfg. Co. v. Superior Drill Co.*, 115 F. R. 886, 1902.

See Sections 175 and 180.

²¹² *Crescent Brewing Co. v. Gotfried*, 127 U. S. 168, 1888.

²¹³ *Keystone Bridge Co. v. Iron Co.*, 95 U. S. 278, 1877.

the subject of that claim where that subject is employed as a part of a particular mechanism. Such a limitation is effective to exclude later employment of the subject of the claim in other mechanism, and thus to negative infringement; but such a limitation is not effective to exclude earlier employment of the subject of the claim in other mechanism, and thus to avert negation of novelty.²¹⁴ Novelty depends on character, and not on environment; but infringement is made to depend on environment by a patentee himself, where he limits his claim to the employment of his invention as part of a particular mechanism.

The drawings attached to letters patent may be referred to for explanation of anything which the description leaves obscure,²¹⁵ but not to supply a total omission of description,²¹⁶ or to contradict any plain statement therein.²¹⁷

And neither drawings nor descriptions can enlarge claims.²¹⁸ Claims may be narrowed by limitations in the description,²¹⁹ and also by importation by construction of described elements which are necessary to invention

²¹⁴ *Frederick R. Stearns & Co. v. Russell*, 85 F. R. 224, 1898.

²¹⁵ *Hogg v. Emerson*, 11 Howard, 587, 1850.

²¹⁶ *Gunn v. Savage*, 30 F. R. 369, 1887; *Wilkin v. Covel*, 46 F. R. 926, 1891; *Windle v. Parks, etc., Mach. Co.*, 134 F. R. 381, 1904.

²¹⁷ *Elgin Butter Tub Co. v. Creamery Package Mfg. Co.*, 80 F. R. 294, 1897.

²¹⁸ *Railroad Co. v. Mellon*, 104 U. S. 112, 1881; *White v. Dunbar*, 119 U. S. 51, 1886; *Howe Machine*

Co. v. National Needle Co., 134 U. S. 394, 1890; *McClain v. Ort-mayer*, 141 U. S. 419, 1891; *Cincinnati Ry. Supply Co. v. Am. Hoist, etc., Co.*, 143 F. R. 322, 1905; *National Enameling & Stamping Co. v. New England Enameling Co.*, 151 F. R. 19, 1906.

²¹⁹ *Sargent v. Lock Co.*, 114 U. S. 86, 1884; *Crawford v. Hey-singer*, 123 U. S. 606, 1887; *McClain v. Ort-mayer*, 141 U. S. 419, 1891.

or novelty as well as operativeness;²²⁰ or are necessary to operativeness alone;²²¹ but not such as are necessary only to invention or novelty.²²²

§ 182*a*. Reference letters or numerals, when used in a claim to indicate, or help indicate, a part or combination covered thereby, do not limit that claim to the specific mechanism shown in the patent; unless the claim must be thus limited by the prior state of the art.²²³ But where the novelty of a part or combination, shown in the drawings of a patent, resides entirely in all its particular characteristics, and where that part or combination is specified in a claim by reference letters or numerals, that claim is limited to a part or combination having those particular characteristics; for if not thus restricted, the claim would be void for want of novelty.²²⁴ But the same rule applies, in an otherwise similar case, for the same reason, where the part or combination, covered by a claim, is indicated therein in some other way than by reference letters or numerals. A rule which would give, to a reference letter

²²⁰ *Hartshorn v. Barrel Co.*, 119 U. S. 679, 1886; *Consolidated Roller-Mill Co. v. Walker*, 138 U. S. 132, 1891.

²²¹ *Thomson-Houston Electric Co. v. Union Ry. Co.*, 86 F. R. 637, 1898; *Canda v. Michigan Malleable Iron Co.*, 124 F. R. 486, 1903.

²²² *McCarty v. Lehigh Valley Railroad Co.*, 160 U. S. 116, 1895; *Metallic Extraction Co. v. Brown*, 110 F. R. 665, 1901.

²²³ *Campbell Printing-Press Co. v. Marden*, 64 F. R. 785, 1894; *McCormick Harvesting Mach. Co. v. Aultman & Co.*, 69 F. R.

393, 1895; *Muller v. Lodge & Davis Mach. Tool Co.*, 77 F. R. 629, 1896; *Bonnette Arc Lawn Sprinkler Co. v. Koehler*, 82 F. R. 431, 1897; *Ross-Moyer Mfg. Co. v. Randall*, 104 F. R. 359, 1900; *Electric Candy Machine Co. v. Morris*, 156 F. R. 972, 1905; *Brunswick-Balke-Collender Co. v. Rosatto*, 159 F. R. 729, 1908; *Curry v. Union Electric Welding Co.*, 230 F. R. 422, 1916.

²²⁴ *Knapp v. Morss*, 150 U. S. 228, 1893; *Lehigh Valley Railroad Co. v. Kearney*, 158 U. S. 469, 1895; *Schaum v. Riehl*, 124 F. R. 320, 1903.

or numeral in a claim, a more narrowing effect than is called for by the prior state of the art, would be an artificial rule of interpretation; but the object of the patent law is to secure to inventors what they have invented, and that object is not to be defeated by the application of any such rule.²²⁵

The foregoing principles, however, should not be confused with the rule that every part specifically referred to by a letter is deemed material according to the well known doctrine, and where for instance an element is described as a "vessel A, A', C, C,'" the vessel must possess the characteristics A, A' and C, C,' or their equivalents.²²⁶

§ 183. Claims which are functional in form; that is to say, claims which literally purport to cover a result rather than a process or a thing, are properly construed to cover only the process or the thing which produces that result, for otherwise such claims would be void.²²⁷ And a claim which literally purports to cover a process performed by machinery, is properly construed to cover the machinery itself, and not any process performed thereby.²²⁸ It has, however, been held that if a process claim be combined with a claim for a machine the process must be

²²⁵ *Topliff v. Topliff*, 145 U. S. 171, 1892.

²²⁶ *Empire Cream Separator Co. v. Electric Candy Machine Co.*, 166 F. R. 764, 1909.

²²⁷ *Fuller v. Yentzer*, 94 U. S. 288, 1876; *Westinghouse v. Boyden Power Brake Co.*, 170 U. S. 557, 1898; *Parham v. Machine Co.*, 4 Fisher, 468, 1871; *Hitchcock v. Tremaine*, 4 Fisher, 508, 1871; *Coes v. Collins Co.*, 9 F. R.

905, 1882; *Henderson v. Stove Co.*, 2 Bann. & Ard. 608, 1877; *Palmer v. Gatling Gun Co.*, 8 F. R. 513, 1881; *Columbus Watch Co. v. Robbins*, 64 F. R. 395, 1894; *Continental Automobile Co. v. A. G. Spalding & Bros.*, 177 F. R. 693, 1910.

²²⁸ *Smith & Egge Mfg. Co. v. Bridgeport Chain Co.*, 46 F. R. 395, 1891.

capable of being carried out by other means than the machine of the patent and such means must be known, otherwise the process claim will be regarded as a claim for the function of the machine and hence invalid.²²⁹ Where a claim ascribes a function, to any of the things which it specifies, that ascription is a limitation of that claim.²³⁰ And where a claim defines its subject by reference to the character which results from making it by a particular process, that claim is limited to the article as thus produced.²³¹

So also a claim for an article of manufacture, which designates its distinguishing thing by naming the material of which it is made, but which uses a generic name for that purpose; will be limited by construction, to the specific material specified in the description.²³²

§ 184. The prior state of the art, to which an invention belongs, must be considered in construing any claim for that invention,²³³ although the art may have been advanced to that stage, by a prior invention of the same inventor.²³⁴ The leading cases on this subject are McCor-

²²⁹ *Am. Lava Co. v. Steward*, 155 F. R. 731, 1907.

See Section 180.

²³⁰ *Masseth v. Larkin*, 111 F. R. 409, 1901.

²³¹ *Expanded Metal Co. v. Board of Education*, 103 F. R. 286, 1900.

²³² *Consolidated Electric Lighting Co. v. McKeesport Light Co.*, 159 U. S. 465, 1895; *American Sulphite Pulp Co. v. Howland Falls Pulp Co.*, 70 F. R. 989, 1895.

²³³ *Carlton v. Bokee*, 17 Wallace, 463, 1873; *Washing-Machine*

Co. v. Tool Co., 20 Wallace, 342, 1873; *Florsheim v. Schilling*, 137 U. S. 71, 1890; *The Roller Mill Patent*, 156 U. S. 269, 1895; *Dederick v. Seigmund*, 51 F. R. 235, 1892; *Brush Electric Co. v. Electric Imp. Co.*, 52 F. R. 972, 1892; *Boston Lasting Mach. Co. v. Woodward*, 53 F. R. 481, 1893; *Stirrat v. Excelsior Mfg. Co.*, 61 F. R. 981, 1894; *Simplex Railway Appliance Co. v. Wands*, 115 F. R. 521, 1902.

²³⁴ *Celluloid Mfg. Co. v. Cellonite Mfg. Co.*, 42 F. R. 906, 1890.

mick *v.* Talcott,²³⁵ and *Railway Co. v. Sayles*,²³⁶ and *Morley Machine Co. v. Lancaster*,²³⁷ and *Kokomo Fence Machine Co. v. Kitselman*.²³⁸

The doctrine of the McCormick case is as follows: The original inventor of a machine will have a right to treat as infringers all who make machines operating on the same principle, and performing the same functions, by analogous means, or equivalent combinations; even though the infringing machine be an improvement on the original, and patentable as such. But if the invention claimed, be itself but an improvement on a known machine, by a mere change of form or combination of parts, the patentee cannot treat another as an infringer, who has improved the original machine, by use of a different form or combination, performing the same functions. The inventor of the first improvement cannot invoke the doctrine of equivalents to suppress any other improvement which is not a mere colorable invasion of the first.

The doctrine of the Sayles case is as follows: If one inventor, in a particular art, precedes all the rest, and strikes out something which underlies all that they produce, he subjects them to tribute. But if the advance toward the thing desired is gradual, so that no one can claim the complete whole, then each inventor is entitled to the specific form of device which he produced, and every other inventor is entitled to his own specific form, so long as it differs from those of his competitors and does not include theirs.

The doctrine of the Morley case is as follows: Where

²³⁵ McCormick *v.* Talcott, 20 Howard, 402, 1857.

²³⁶ Railway Co. *v.* Sayles, 97 U. S. 554, 1878.

²³⁷ Morley Machine Co. *v.* Lancaster, 129 U. S. 273, 1889.

²³⁸ Kokomo Fence Machine Co. *v.* Kitselman, 189 U. S. 8, 1903.

an invention is primary, any subsequent improvement which employs substantially the same means, to accomplish the same result, is within the scope of a proper patent on the primary invention, although the subsequent contrivance may contain valuable improvements; but secondary patents must be more narrowly construed than primary patents.

The doctrine of the Kokomo case is as follows: A patent which is the first to give to the world, an invention for doing a particular part of the world's work, is a primary patent, and is entitled to have a broad construction; but a patent which is not thus primary, is limited to the identical means, and mode of operation which it describes.

The meaning of these four cases seems to be that every inventor is entitled to claim whatever he was the first to invent. If A. B. is the first to invent mechanism to perform a particular work, and if his mechanism is substantially incorporated into subsequent machines which do that work, then A. B. is entitled to such a construction of his patent as will be infringed by those later machines; but if C. D. is a mere improver on A. B.'s machine, C. D. is not entitled to such a construction of his patent, as will cover the machines of still later inventors, who have improved on A. B.'s machine in a substantially different manner. It follows from these doctrines that C. D.'s patent must be construed in the light of A. B.'s machine, and indeed of every other similar and older structure; which is the same thing as saying that every patent must be construed in the light of the state of the art, at the time the invention it covers was produced.

The state of a particular art, at the time of a particular invention, includes whatever inventions, belonging to that art, had been already invented and used in the United States, or patented, or described in any printed publica-