

cate to the public, in this country, any knowledge of the invention.⁴

Boulton v. Bull (1795), 2 H. Bl. 470, it was held, as *per* Buller, J.: "The objection to Dollond's patent was, that he was not the inventor of the new method of making object-glasses, but that Dr. Hall had made the same discovery before him. But it was holden that as Dr. Hall had confined it to his closet, and the public were not acquainted with it, Dollond was to be considered as the inventor." 1 Abb. P. C. 9.

That if the invention has been actually practised by others than the inventor, though in private, it is prior use, see *Reed v. Cutter* (1841); 1 Story, 590; 2 Robb, 81.

In *Tennant's Case* (1798), cited 1 Web. 125, n., the same invention had been used in the course of trade, but concealed from the outside world, before the patent. This was held to invalidate the patent.

That sales to any one who wishes to buy indicate prior use, see *Gibson v. Brand* (1841), 1 Web. 627.

⁴ In *Doyle v. Spaulding* (1884), 19 Fed. Rep. 744, Nixon, J. : (746) "After a careful consideration of the provisions of the three sections of the Patent Act which bear upon the subject (sections 4886, 4920, 4923, Rev. St.), we are of the opinion that the use or a knowledge of the use of an invention in a foreign country by persons residing in this country will not defeat a patent which has here been granted to a *bona fide* patentee who, at the time, was ignorant of the existence of the invention or its use abroad." 27 O. G. 300 (301).

That foreign use is not prior use, see *McFarland v. Spencer* (1885), 23 Fed. Rep. 150; 32 O. G. 893; 23 Blatch. 155; *Cornely v. Marckwald* (1883), 17 Fed. Rep. 83; 24 O. G. 498; 21 Blatch.

367; *Worswick Mfg. Co. v. Steiger* (1883), 17 Fed. Rep. 250; *Schillinger v. Greenway Brewing Co.* (1883), 24 O. G. 495; 17 Fed. Rep. 244; *Illingworth v. Spalding* (1881), 9 Fed. Rep. 611; *Adams v. Loft* (1879), 4 Bann. & A. 495; *Rocmer v. Simon* (1877), 95 U. S. 214; 12 O. G. 796; *Rocmer v. Simm* (1874), 5 O. G. 555; *Jones v. Sowall* (1873), 3 O. G. 630; 3 Clifford, 563; 6 Fisher, 342; *Swift v. Whisen* (1867), 2 Bond, 115; 3 Fisher, 343; *Judson v. Cope* (1860), 1 Bond, 327; 1 Fisher, 615; *Hays v. Sulsor* (1859), 1 Bond, 279; 1 Fisher, 532; *Bartholomew v. Sawyer* (1859), 1 Fisher, 516; 4 Blatch. 347; *Furbush v. Cook* (1857), 2 Fisher, 668; *O'Reilly v. Morse* (1853), 15 How. 62; *Parker v. Stiles* (1849), 5 McLean, 44; Opinion Atty. Gen. (1843), 5 Op. At. Gen. 18; *Lewis v. Marling* (1829), 1 Web. 490.

That if the person claiming a patent derived his knowledge of the invention from such prior foreign use, his claim must be denied on the ground that it is not his own invention, see the above cases also.

That under the act of 1793, prior use in any part of the world was a bar, see *Evans v. Eaton* (1818), 3 Wheaton, 454; 1 Robb, 243; *Evans v. Hettick*, (1818), 3 Wash. 408; 1 Robb, 166; *Evans v. Eaton* (1816), 1 Pet. C. C. 322; 1 Robb, 68; *Dawson v. Follen* (1808), 2 Wash. 311; 1 Robb, 9; *Reutgen v. Kanowrs* (1804), 1 Wash. 168; 1 Robb, 1.

That prior use in Scotland is no bar to a patent in England, see *Haworth v. Hardcastle* (1833), 1 Abb. P. C. 485; *contra*, *Brown v. Annandale* (1842), 1 Web. 433; *Roebuck v. Stirling*, (1774), 1 Web. 45, 451, n.; 1 Abb. P. C. 12.

That the phrase "within the realm" in the stat. Jac. I. includes the colo-

§ 321. **Prior Use : Knowledge thence Derived must be in Possession of Public at Date of Later Invention : Lost Arts.**

The point of time at which the earlier invention must be in possession of the public in order to destroy the novelty of the later, is the date of the invention of the later.¹ It is entirely

nies, see *Brown v. Annandale* (1842), 1 Web. 433.

But not if the colony has a separate patent system, see *Rolls v. Isaacs* (1881), L. R. 19 Ch. 268.

That knowledge in this country of use abroad is not prior use and knowledge, see *Doyle v. Spaulding* (1884), 19 Fed. Rep. 744 ; 27 O. G. 300 ; *Illingworth v. Spaulding* (1881), 9 Fed. Rep. 611.

That foreign patents, even after issued two years, do not show prior knowledge in the United States, see *Florence Sewing Mach. Co. v. Grover & Baker Sewing Mach. Co.* (1872), 110 Mass. 70.

§ 321. ¹ That prior use must be prior to the invention of the later art or instrument in order to defeat a patent for it, see *McWilliams Mfg. Co. v. Blundell* (1882), 11 Fed. Rep. 419 ; 22 O. G. 177 ; *Brodie v. Ophir Silver Mining Co.* (1867), 4 Fisher, 137 ; 5 Sawyer, 608 ; *Whitney v. Emmett* (1831), Baldwin, 303 ; 1 Robb, 567 ; *Treadwell v. Bladen* (1827), 4 Wash. 703 ; 1 Robb, 531.

That the date of the invention to which the use must be prior is the date of the embodiment of the idea, or its expression in writing or in drawings, see *Byerly v. Cleveland Linseed Oil Works* (1887), 31 Fed. Rep. 73.

That prior use dates back to the patent covering the invention used, though the patent may not be set up in defence, see *Atlantic Works v. Brady* (1882), 107 U. S. 192 ; 23 O. G. 1330.

Prior use, like prior publication and prior patent, has a bearing upon two requisites of a patentable invention :

(1) The performance of an inventive act by the alleged inventor ; (2) The legal novelty of the invention. In reference to the first, the existence of prior use, or patent, or publication is material only when it precedes the conception of the idea of means by the inventor. In that case he is presumed to have derived his idea from such prior use, etc., and not to have performed an independent inventive act. But if his conception precedes the use, etc., no such presumption exists, and his inventive act may be evidenced in any proper manner. In this phase of the subject the date of his reduction to practice or of his application for a patent is of no importance. In reference to the second, or legal novelty of the invention, prior use, etc., must, in the language of the statute, precede its "invention or discovery." The date of "invention or discovery" is that on which the inventive act was completed and the inventor became able to confer his new art or instrument upon the public. Now an inventor, has completed his inventive act, and is in a position to bestow the invention on the public, only when he has embodied his conception in a practically operative art or instrument. Before this reduction of his idea to practice he has nothing to offer to the public. The idea as it lies in his mind may be fully conceived and comprehended by him, yet it may prove, on embodiment, to be impracticable or already anticipated by others. The law cannot regard it as an invention of which novelty is predicable, until it is in a condition for communication to the public and has either been put to practical tests or in some other manner shows

possible that an art or instrument, once fully known and understood, should be abandoned and so totally forgotten that

its efficiency and value. Upon the question of the legal novelty of the invention, therefore, the date of reduction to practice, or of such exterior expression of the idea of means as demonstrates its character and availability, is the date prior to which the use or publication, etc., must have occurred; and if the art or instrument had then been in prior use or made known through a patent, or a printed publication, the claim of its inventor to a patent must be denied on the ground that his invention was not new.

But though this rule is sound in principle and could be practically applied if uncomplicated with any other rule affecting the rights of the inventor, yet under the American theory that the chief merit of invention resides in the conception of the idea of means, a further qualification becomes necessary. It is our law that an inventive act is an indivisible act, and that where the conceiver of an idea of means uses reasonable diligence in reduction to practice, the whole act relates back to and dates from the time of the conception of the idea, and thus the earliest conceiver, if a diligent reducer, is entitled to a patent for the invention, although between his actual conception and reduction others may have invented, used, described, or patented the same invention. It will be observed that this doctrine bears upon the personality of the patentee, not upon the novelty of the invention itself, and answers the question, Who is entitled to the monopoly? not, Is the invention the subject of a monopoly? As far as the invention itself is concerned it cannot be new to the public if at the time the present inventor was ready to confer it, they were already cognizant of its existence and essential attributes. But when the invention has been placed

before the public subsequently to its conception by the present inventor, and the question is whether he shall be thereby defeated of his monopoly, either in favor of a rival inventor or of the public, the policy of our law awards him the patent on the ground of prior conception, if his diligence in reducing the idea to practice has been reasonable. That this rule introduces an apparent inconsistency into the law is certain, since it departs from the general doctrine as to one patentable requisite in order to preserve our interpretation of another. But as no court would now hesitate to protect the conceiver of an idea against the surreptitious publication of his conception by one to whom he had in confidence imparted it, so with equal justice he may be secured in his rights as first conceiver against rivals who innocently anticipate his bestowal of the invention on the public. Hence though certain decisions (*Webb v. Quintard* (1872), 1 O. G. 525; 9 Blatch. 352; etc.) seem to require that reduction to practice must precede the publication or prior patent in order to render the later patent valid, these should properly be restricted to the pure question of legal novelty alone, and not be considered as determining the exclusive rights of the earliest conceiver though he is the latest patentee. See also §§ 370-391, 963, 1026-1028 and notes *post*.

The rules deducible from these principles may be thus stated: (1) The prior use, publication, or patent must precede the reduction of the idea to practice by the present inventor; (2) If the prior use, etc., precede such reduction, the present inventor may connect his act of reduction with his act of conception by showing that he exercised reasonable diligence in the reduction,

the public are as destitute of any practical and useful knowledge of the subject as if it never had existed; and instances have repeatedly occurred where most valuable and wonderful inventions have thus been completely lost to man. In all such cases, one who re-invents precisely the same art or instrument, and communicates it to the public of his day, confers upon them the same benefit, and is entitled to the same reward, as if the invention never were before produced. Hence, though it may be evident that the same invention now presented to the public has been, at some past time, not only in existence but employed for the same purpose, yet if at the date of the invention of the later it had become a lost art and has thus been truly re-created, the later invention is still new and is not, on that account, deprived of the protection of a patent.²

and thus establish his claim to the patent notwithstanding the possession of the invention by the public before its complete embodiment by him; (3) If the prior use, etc., precede his conception of the idea, his invention is not only not new in any aspect, but he is conclusively presumed not to have performed in reference to it any inventive act.

See § 132 and note, *ante*.

² In *Househill Co. v. Neilson* (1843), 1 Web. 673, Lyndhurst, L. C. : (709) "If it is proved distinctly that a machine of the same kind was in existence, and was in public use, that is, if use or if trials had been made of it in the eye and in the presence of the public, it is not necessary that it should come down to the time when the patent was granted. If it was discontinued, still that is sufficient evidence in support of the prior use so as to invalidate the letters-patent. . . . (710) If it is discontinued, provided it has been once in public use, and the recollection of it has not been altogether lost, if it has been once publicly used, it will be sufficient to invalidate the letters-patent, although the use may be discontinued at the time

when the letters-patent were granted." Again : (717) "It must not be understood that your lordships, in the judgment you are about to pronounce, have given any decision upon this state of facts, namely, if an invention had been formerly used and abandoned many years ago, and the whole thing had been lost sight of. That is a state of facts not now before us. Therefore it must not be understood that we have pronounced any opinion whatever upon that state of things. It is possible that an invention may have existed fifty years ago, and may have been entirely lost sight of, and not known to the public. What the effect of this state of things might be it is not necessary for us to pronounce upon." Lord Brougham : "It becomes like a new discovery."

That an invention once practised and then abandoned and forgotten is a lost art, and is no bar to a subsequent invention and patenting of the same device, see *Taylor v. Wood* (1875), 12 Blatch. 110; 8 O. G. 90; 1 Bann. & A. 270; *Haselden v. Ogden* (1868), 3 Fisher, 378; *Cahoon v. Ring* (1859), 1 Clifford, 592; 1 Fisher, 397; *Rich v. Lippincott* (1853), 2 Fisher, 1.

§ 322. Prior Use: "Lost Art" Defined.

An invention, once in use, is considered as inaccessible to the public when it has been abandoned and forgotten, and can no longer be completely known, by persons skilled in the art to which it belongs, from anything which still remains in the possession of the public.¹ If from the analysis of existing

§ 322. ¹ In *Gayler v. Wilder* (1850), 10 How. 477, Taney, C. J.: (496) "The act of 1836, ch. 357, § 6, authorizes a patent where the party has discovered or invented a new and useful improvement, 'not known or used by others before his discovery or invention.' And the 15th section provides that, if it appears on the trial of an action brought for the infringement of a patent that the patentee 'was not the original and first inventor or discoverer of the thing patented,' the verdict shall be for the defendant. Upon a literal construction of these particular words, the patentee in this case certainly was not the original and first inventor or discoverer, if the Conner safe was the same with his, and preceded his discovery. But we do not think that this construction would carry into effect the intention of the legislature. It is not by detached words and phrases that a statute ought to be expounded. The whole act must be taken together, and a fair interpretation given to it, neither extending or restricting it beyond the legitimate import of its language, and its obvious policy and object. And in the 15th section, after making the provision above-mentioned, there is a further provision, that if it shall appear that the patentee at the time of his application for the patent believed himself to be the first inventor the patent shall not be void on account of the invention or discovery having been known or used in any foreign country, it not appearing that it had been before patented or described in any printed publication. In the case thus provided for, the party who invents is

not, strictly speaking, the first and original inventor. The law assumes that the improvement may have been known and used before his discovery. Yet his patent is valid if he discovered it by the efforts of his own genius, and believed himself to be the original inventor. The clause in question qualifies the words before used, and shows that by knowledge and use the legislature meant knowledge and use existing in a manner accessible to the public. If the foreign invention had been printed or patented, it was already given to the world and open to the people of this country, as well as of others, upon reasonable inquiry. They would, therefore, derive no advantage from the invention here. It would confer no benefit upon the community, and the inventor, therefore, is not considered to be entitled to the reward. But if the foreign discovery is not patented, nor described in any printed publication, it might be known and used in remote places for ages, and the people of this country be unable to profit by it. The means of obtaining knowledge would not be within their reach; and as far as their interest is concerned, it would be the same thing as if the improvement had never been discovered. It is the inventor here that brings it to them, and places it in their possession. And as he does this by the effort of his own genius, the law regards him as the first and original inventor, and protects his patent, although the improvement had in fact been invented before, and used by others. So too, as to the lost arts. It is well-known that centuries ago discoveries were made in

products the processes by which they were produced can be discovered, or if through the effects resulting from the employment of an instrument the essential character of the instrument itself can be determined, the instrument or process is now within the public reach, however long disused or lost to public memory.² But when connecting links like these are

certain arts the fruits of which have come down to us, but the means by which the work was accomplished are at this day unknown. The knowledge has been lost for ages. Yet it would hardly be doubted, if any one now discovered an art thus lost, and it was a useful improvement, that, upon a fair construction of the act of Congress, he would be entitled to a patent. Yet he would not literally be the first and original inventor. But he would be the first to confer on the public the benefit of the invention. He would discover what is unknown, and communicate knowledge which the public had not the means of obtaining without his invention. Upon the same principle and upon the same rule of construction, we think that Fitzgerald must be regarded as the first and original inventor of the safe in question. The case as to this point admits that, although Conner's safe had been kept and used for years, yet no test had been applied to it, and its capacity for resisting heat was not known; there was no evidence to show that any particular value was attached to it after it passed from his possession, or that it was ever afterwards used as a place of security for papers; and it appeared that he himself did not attempt to make another like the one he is supposed to have invented, but used a different one. And upon this state of the evidence, the court put it to the jury to say whether this safe had been finally forgotten or abandoned before Fitzgerald's invention, and whether he was the original inventor of the safe for which he obtained the patent; directing them, if they found these two

facts, that their verdict must be for the plaintiff. We think there is no error in this instruction. For if the Conner safe had passed away from the memory of Conner himself, and of those who had seen it, and the safe itself had disappeared, the knowledge of the improvement was as completely lost as if it had never been discovered. The public could derive no benefit from it until it was discovered by another inventor. And if Fitzgerald made his discovery by his own efforts, without any knowledge of Conner's, he invented an improvement that was then new, and at that time unknown; and it was not the less new and unknown, because Conner's safe was recalled to his memory by the success of Fitzgerald's. . . . And if the jury found the fact to be so, and that Fitzgerald again discovered it, we regard him as standing upon the same ground with the discoverer of a lost art, or an unpatented and unpublished foreign invention, and like him entitled to a patent. For there was no existing and living knowledge of this improvement, or of its former use at the time he made the discovery. And whatever benefit any individual may derive from it in the safety of his papers, he owes entirely to the genius and exertions of Fitzgerald." McLean, J. dissenting, Daniel and Grier, JJ. also.

² As to lost arts, Mr. Webster (1 Web. 720, n.), says in substance this: Suppose an article of manufacture . . . to have been manufactured at a certain period in this country in secret, or if not in secret that the whole knowledge of the art was lost, and some man

wanting, and no industrial skill could reproduce the old invention, its revival by the present inventor must depend wholly on his own creative act and possess all the attributes of a new invention.

§ 323. **Prior Use: Invention Abandoned before Known to Public a Lost Art.**

The length of time for which an invention has been lost, and the degree of public ignorance which may prevail, are of no consequence, provided only that it be actually lost out of the practical knowledge of the public. Thus if an art or instrument has been invented and employed in this country within the present generation and then has been abandoned and forgotten, though its re-invention recalls it to the memory not only of its first inventor but of others who were once familiar with its use, it is a new invention, and is now conferred upon the public as truly as if never known before.¹ Even although the original instrument were not destroyed, but meanwhile has remained disused and unremembered, and since the publication of the later has been recovered and employed, and manifests the same idea of means, it cannot negative the claim of the inventor of the later to have produced a new invention, and to have been the true and only benefactor of the public.²

discovered a mode by which apparently the same article could be produced, could he obtain a patent? The knowledge of the fact of the existence of the article, or its daily use, cannot be the knowledge and use of the art by which it is produced. If the article or its use convey at once the requisite information as to its mode of manufacture, the case is different. What has once been given to the public cannot be resumed; the public being in possession of any species of knowledge, there is no consideration for the exclusive privileges granted by subsequent letters-patent.

§ 323. ¹ That if a machine be the only one, and be destroyed, never given

to the public, and now remembered by the inventor only because reminded of it by the new invention, it was a lost art, and is no bar to a patent, see *Cahoon v. Ring* (1859), 1 Clifford, 592; 1 Fisher, 397.

² That an abandoned and forgotten machine, though still in existence, does not show prior use, see *Hall v. Bird* (1869), 6 Blatch. 438; 3 Fisher, 595.

That the completion of a machine, and testing it, is not prior use if it be afterward taken to pieces and not reconstructed for use till after the patentee's invention is put on the market, see *Fay v. Allen* (1885), 24 Fed. Rep. 804.

§ 324. Prior Use Tested by the Knowledge it Confers on the Public.

It is thus evident that the real test of prior use is the degree of knowledge it confers upon that public to whom the last inventor has communicated his ideas, and from whom he endeavors to obtain his recompense. What knowledge he himself derived from the inventions and experiments of others has reference to another question, not to this. If his examination of their efforts has suggested to him his entire idea, that fact may defeat his claim to any exercise of his inventive faculties, and show that, whether his invention be new or old in reference to the public, he is not entitled to a patent for it as his own.¹ But on the question of the legal novelty of his art or instrument itself, the sources of his personal knowledge are not to be considered. Here his rights stand or fall according to the state of public knowledge; and his invention is a new one to the public, unless, at the date of its creation, it was accessible to them as fully as his inventive act has made it.²

§ 324. ¹ That a prior use, as well as a prior patent or publication, defeats the claim of a patentee for two reasons,— (1) By showing that he is not a true inventor; (2) By showing that the invention is not new, — see *Muntz v. Foster* (1844), 2 Web. 96.

That if, as a matter of fact, the patentee had knowledge of such prior use or publication, he could not have performed the inventive act, see *Stead v. Williams* (1843), 2 Web. 126.

That whether a patentee is chargeable with knowledge of every lost and forgotten machine in the line of his art, and must therefore prove that his invention anticipated all such, is doubted, see *Sinclair v. Backus* (1880), 17 O. G. 1503; 4 Fed. Rep. 539; 5 Bann. & A. 81.

That his knowledge of the invention as in foreign use before his own inven-

tion is a bar, see *Adams v. Loft* (1879), 4 Bann. & A. 495; *Roemer v. Simon* (1877), 95 U. S. 214; 12 O. G. 796; *Roemer v. Simm* (1874), 5 O. G. 555; *Hays v. Sulsor* (1859), 1 Bond, 279; 1 Fisher, 532; *Bartholomew v. Sawyer* (1859), 1 Fisher, 516; 4 Blatch. 347; *Furbush v. Cook* (1857), 2 Fisher, 668; *O'Reilly v. Morse* (1853), 15 How. 62; *Parker v. Stiles* (1849), 5 McLean, 44; *Lewis v. Marling* (1829), 1 Web. 490; 1 Abb. P. C. 417.

That knowledge by the patentee, at the date of his application, that the invention had been made before his own discovery thereof, is a bar, see *Singer v. Walmsley* (1860), 1 Fisher, 558.

² That where prior use has made the same means accessible to the public there can be no novelty in the later invention, see *Holden v. Curtis* (1819), 2 N. H. 61.

SECTION VIII.

OF THE NOVELTY OF INVENTIONS: PRIORITY: PRIOR PUBLICATION.

§ 325. Prior Publication : its Essential Requisites.

The second method recognized by law in which an earlier invention may be made accessible to the public is by Prior Publication.¹ To have this effect the publication must

§ 325. ¹ In *Reeves v. The Keystone Bridge Co.* (1872), 5 Fisher, 456, McKennan, J. : (467) "Section 15 of the patent act of 1836 — and it has been incorporated in the act of 1870 — provides that a patent may be successfully opposed by showing that the thing patented 'had been described in some public work anterior to the supposed discovery thereof by the patentee.' It is obvious that this provision requires, first, a description of the alleged invention ; second, that it shall be contained in a work of a public character and intended for the public ; and third, that this work was made accessible to the public by publication, before the discovery of the invention by the patentee." 1 O. G. 466 (470) ; 9 Phila. 368 (374).

In *Soames's Patent* (1843), 1 Web. 729, Lord Campbell states that publication in a foreign journal, whether known in England or not, may be considered upon the question of the extension of a patent, but that to defeat a patent the publication must have been known in England. In a comment on this *dictum* (1 Web. 719), Mr. Webster says : "The distinction thus made between the legal effect of a publication in an English and in a foreign book would appear to establish this important doctrine, that it is a question for the jury whether such foreign work was known in England at the time the letters-patent were granted ; or the

question would rather appear to be, whether the inventor derived his knowledge from such source, or whether the work was so known that the inventor must be presumed to have derived his knowledge from that source."

In *Stead v. Williams* (1844), 2 Web. 137, Tindal, C. J. : (142) "If the invention has already been made public in England, by a description contained in a work — whether written or printed — which has been publicly circulated, in such case the patentee is not the first and true inventor within the meaning of the statute, whether he has himself borrowed his invention from such publication or not ; because we think the public cannot be precluded from the right of using such information as they were already possessed of at the time the patent was granted. It is obvious that the application of this principle must depend upon the particular circumstances which are brought to bear on each particular case. The existence of a single copy of a work, though printed, brought from a depository where it has long been kept in a state of obscurity, would afford a very different inference from the production of an encyclopædia or other work in general circulation."

Mr. Webster (1 Web. 718, n.) says : "With respect to the legal effect of the publication in a book, — on the principle . . . that knowledge and the means of knowledge on the part of the public are the same, and that the pub-

be: (1) A work of public character, intended for general use; (2) Within reach of the public; (3) Published before the date of the later invention; (4) A description of the same complete and operative art or instrument; and (5) So precise and so particular that any person skilled in the art to which the invention belongs can construct and operate it without experiments and without further exercise of inventive skill. Unless a publication possesses all these characteristics it does not place the invention in the possession of the public, nor defeat the claim of its re-inventor to a patent.

§ 326. Prior Publication: Publication must be a Printed Document Intended for General Use.

A work of public character is such a book or other printed document as is intended and employed for the communication of ideas to persons in general, as distinguished from particular individuals.¹ Private communications, although printed, do not come under this description, whether designed for the use of single persons or of a few restricted groups of persons.² But though the subject of the publication may be highly technical, and therefore interesting only to a single

lic has acquired little or nothing by the specification which it did not possess before, — it has been generally assumed that the production of a book which was in the hands of the public before the date of the patent will negative the title of the patentee as the true and first inventor.”

§ 326. ¹ That a written but unpublished description is not a publication, see *Northwestern Fire Extinguisher Co. v. Philadelphia Fire Extinguisher Co.* (1874), 6 O. G. 34; 1 Bann. & A. 177; 10 Phila. 227.

That a picture or drawing without printed text is not a publication, see *New Process Fermentation Co. v. Koch* (1884), 21 Fed. Rep. 580; 29 O. G. 535; *Reeves v. Keystone Bridge Co.* (1872), 1 O. G. 466; 5 Fisher, 456; 9 Phila. 368; *Judson v. Cope* (1860), 1 Bond, 327; 1 Fisher, 615.

² In *New Process Fermentation Co. v. Koch* (1884), 21 Fed. Rep. 580, Brown, J.: (587) “It has been held generally, and perhaps universally, that business circulars which are sent only to persons engaged or supposed to be engaged in the trade, are not such publications as the law contemplates in § 4886. *Pierson v. Colgate*, 24 O. G. 203; *In re Atterbury*, 9 O. G. 640; *Judson v. Cope*, 1 Fisher, 615; *Reeves v. Keystone Co.*, 5 Fisher, 456; *Seymour v. Osborne*, 11 Wall. 555.” 29 O. G. 535 (538).

That a catalogue showing features of the invention is not a publication, see *Forschner v. Baumgarten* (1886), 26 Fed. Rep. 858; 35 O. G. 137.

See also *Pennock v. Dialogue* (1825), 4 Wash. 538; 1 Robb, 466.

class of individuals, yet if prepared for general circulation in that class, it is a public, not a private work.³ Thus the application for a patent, although printed, unless intended, as in England, as a method of communicating the invention to the world, is not a publication.⁴

§ 327. Prior Publication : Publication must be Put into Circulation.

The publication must not only be intended for the public ; it must also have been placed within their reach. In other words, it must have been actually published in such a manner that any one who chooses may avail himself of the information it contains.¹ It is not necessary that many copies of the

³ That a journal devoted to a special science, printed in German, and deposited in the library of the Patent Office, and in the library of the Institute of Civil Engineers, — a society of 3000 members, — and there accessible to them, and catalogued under the head of "Journals" only, though proved to have been read by but one person, is a sufficient publication, see *United Telephone Co. v. Harrison, Cox-Walker, & Co.* (1882), L. R. 21 Ch. 720.

⁴ That a description in an application for a patent, filed in the Patent Office, is not a publication, see *Northwestern Fire Extinguisher Co. v. Philadelphia Fire Extinguisher Co.* (1874), 6 O. G. 34; 1 Bann. & A. 177; 10 Phila. 227; *Lyman Ventilating and Refrigerator Co. v. Lalor* (1874), 6 O. G. 642; 12 Blatch. 303; 1 Bann. & A. 403; *Corn Planter Patent* (1873), 23 Wall. 181; 6 O. G. 392.

That a printed English provisional specification is a publication when once published, see *Cohn v. U. S. Corset Co.* (1874), 6 O. G. 259; 12 Blatch. 225; 1 Bann. & A. 340.

But not unless full and specific, see *Goff v. Stafford* (1878), 3 Bann. & A. 610; 14 O. G. 748.

That an English specification is not a publication till completed and published, see *Coburn v. Schroeder* (1882),

11 Fed. Rep. 425; 22 O. G. 419; 20 Blatch. 392.

§ 327. ¹ In *Cottier v. Stimson* (1884), 10 Sawyer, 212, Deady, J. : (217) "But something besides printing is required. The statute goes upon the theory that the work has been made accessible to the public, and that the invention has been thereby given to the public, and is no longer patentable by any one. Publication means put into general circulation or on sale where the work is accessible to the public." 20 Fed. Rep. 906 (910).

In *Rumpff v. Köhler* (1882), 23 O. G. 1831, Marble, Com. : (1831) "In all the cases which I have been able to find the word 'patented' has been given its ordinary construction, — that is, *made known*. An invention cannot be considered as *made known* or patented until a complete description of it is given. The testimony, in order to be material, should be such as would prevent the issuance of a patent to another party. Under the section above quoted it is not sufficient that the invention has been known or used in a foreign country; it must have been patented, — that is, *made known*, or it must have been described in some printed publication in such country, in order to make it a bar to the issuance of the patent here."

In *Stead v. Williams* (1844), 2 Web.

work should have been printed, nor that its distribution should have been extensive; for the deposit of a single copy in a library to which the public have or can obtain admission places the work within the reach of all. Nor is it requisite that any person should have read or seen it, since the accessibility of knowledge, and not its actual possession, is all that any inventor can secure. And even though the information be so intermingled with discussions relative to other subjects that it may easily escape attention, and would require some skill and patience to extricate it, the publication will still be sufficient.

§ 328. Prior Publication : Publication must be Put into Circulation before Date of Later Invention.

The publication must precede the date of the invention of the later art or instrument, since otherwise the public could not already be possessed of that which its inventor is now able to bestow.¹ The date of the publication, however, is not

137, Tindal, J. : (143) "The existence of a single copy of a work, though printed, brought from a depository where it has long been kept in a state of obscurity, would afford a very different inference from the production of an encyclopædia or other work in general circulation. The question will be, whether upon the whole evidence there has been such a publication as to make the description a part of the public stock of information."

That a book placed in a bookstore for sale, and sold to several persons, is sufficiently published, see *Lang v. Gisborne* (1862), 31 Beav. 133.

But that a book received at a public library, there mislaid and never catalogued nor made known to the librarian, and, so far as known, never seen by any one except an assistant-librarian, is not thereby made accessible to the public, see *Plimpton v. Spiller* (1877), L. R. 6 Ch. 412; *Plimpton v. Malcolmson* (1876), L. R. 3 Ch. 531.

In *Plimpton v. Spiller* (1877), L. R.

6 Ch. 412, Brett, L. J., stating the doctrine still more emphatically, said : (435) "I cannot agree . . . that it is sufficient to show that the thing has been printed in a book, and that that book has been so placed that it might have been known to the public. It must not only be printed in a book, but that book must be placed in such a position and so used that you may fairly infer or assume that the contents of the book have become known to a sufficient number of people."

§ 328. ¹ In *Ex parte Palmer* (1881), 21 O. G. 1111, Marble, Com. : (1111) "As the statute requires, in order to defeat the grant of a patent, that a publication shall be made before the invention or production of the subject-matter thereof, it does not appear how the previous mechanical patent can have such effect. If the design was invented by the patentée at all it must have been invented before the filing of the application for the mechanical patent in which it is shown, and hence a publication, to be

necessarily the same as that of the printing of the work, nor is it conclusively indicated by any allegation in the work itself.² Its publication is its issue to the public, — a fact the date of which may be established by any evidence sufficient for the purpose; and if the date, so proved, precede the date of the invention in dispute, the latter cannot be a new invention.

§ 329. Prior Publication: Publication must Describe the same Invention.

The invention described in the publication must be identical in all respects with that whose novelty it contradicts.¹

a bar, must have been made before the invention of the mechanism embodying the design.”

In *Bartholomew v. Sawyer* (1859), 4 Blatch. 347, Ingersoll, J. : (352) “It is claimed that the time referred to by the terms ‘having been before known or used in any foreign country’ is the time when the application for the patent was made; and that the terms ‘had been before patented or described in any printed publication’ refer also to the time when such application was made, and not to the time when the original invention or discovery was made. If there be any doubt as to the construction which this proviso should receive, when considered by itself, the true construction of it is free from doubt when it is considered in connection with other sections and with the whole scope of the act. Viewed in such connection, it must be held that the time referred to by the terms above recited is the time when the original invention or discovery of the patentee was made, and not the time when he presented his application to the Commissioner.” 1 Fisher, 516 (521).

But see *Kelleher v. Darling* (1878), 14 O. G. 673; 4 Clifford, 424; 3 Bann. & A. 438.

That the date of the invention described in the publication is presumed

to be that of the publication itself, see *Bates v. Coe* (1878), 98 U. S. 31; 15 O. G. 337.

That the date of the later invention is the date of its reduction to practice, see *Webb v. Quintard* (1872), 1 O. G. 525; 9 Blatch. 352; 5 Fisher, 276.

That the reduction to practice must precede the publication, see *Byerly v. Cleveland Linseed Oil Works* (1887), 31 Fed. Rep. 73; *National Spring Co. v. Union Car Spring Mfg. Co.* (1874), 6 O. G. 224; 12 Blatch. 80; *Webb v. Quintard* (1872), 1 O. G. 525; 9 Blatch. 352; 5 Fisher, 276.

See also § 321 and notes, and § 132 and note, *ante*, and § 334 and notes, *post*.

That the publication need not have taken place two years before the date of the invention, see *Parks v. Booth* (1880), 102 U. S. 96; 17 O. G. 1089.

² That the date of printing is only *prima facie* the date of publication, see *Reeves v. Keystone Bridge Co.* (1872), 5 Fisher, 456; 1 O. G. 466; 9 Phila. 368.

§ 329. ¹ In *Gottfried v. The Phillip Best Brewing Co.* (1877), 17 O. G. 675, Dyer, J. : (681) “In the case of the *Clark Patent Steam and Fire Regulator Co. v. Copeland* (1862), 2 Fisher, 222, it was held that in order to find an invention anticipated in a prior printed publication, it must be found from the evidence that the description embodied

The same idea of means, in the same stage of development, as that which the inventor of the later has embodied, must be thereby communicated to the public. The invention thus described must also have been a complete and operative art or instrument, ready for immediate employment by the public.² And it must be described, not as a mere hypothesis either in method or in possibility, but as an existing fact already known.³

§ 330. Prior Publication: Publication must Fully Communicate the Invention to the Public.

Finally, the description must place the invention in the possession of the public as fully as if the art or instrument itself had been practically and publicly employed.¹ In order to ac-

substantially the same organized mechanism, operating substantially in the same manner as that described in the patent claimed to have been anticipated." 5 Bann. & A. 4 (22).

See also *Cohn v. U. S. Corset Co.* (1874), 12 Blatch. 225; 1 Bann. & A. 340; 6 O. G. 259; *Brooks v. Bicknell* (1843), 3 McLean, 250; 2 Robb, 118.

² In *Seymour v. Osborne* (1870), 11 Wall. 516, Clifford, J. : (555) "Whatever may be the particular circumstances under which the publication takes place, the account published, to be of any effect to support such a defence, must be an account of a complete and operative invention, capable of being put into practical operation."

³ Mr. Webster (1 Web. 719, n.), remarks: "Whatever may be the peculiar circumstances under which the publication takes place, the account so published, to be of any effect in law as a publication, must . . . be an account of a complete and perfected invention, and published as such. If the invention be not described and published as a complete, perfected, and successful invention, but be published as an account of some experiment, or by way of

suggestion and speculation, as something which peradventure might succeed, it is not such an account as will vitiate subsequent letters-patent."

That a prior publication must describe the invention as a practical art or instrument, not as a mere scientific experiment, see *United Nickel Co. v. California Electrical Works* (1885), 25 Fed. Rep. 475.

That a prior publication must do more than describe speculations and suggestions of scientific writers, never practically tested and demonstrated, see *Jensen v. Keasbey* (1885), 24 Fed. Rep. 144; *Celluloid Mfg. Co. v. Chrolithion Collar & Cuff Co.* (1885), 23 Fed. Rep. 397; 31 O. G. 519; 23 Blatch. 205.

§ 330. ¹ In *Cahill v. Brown* (1878), 15 O. G. 697, Clifford, J. : (699) "Inventions patented here cannot be superseded by the mere introduction of a foreign patent or publication, though of prior date, unless the description or drawings contain and exhibit a substantial representation of the patented improvement in such full, clear, and exact terms as to enable any person skilled in the art or science to which it appertains, without the necessity of resorting to experiments, to make, con-

comply with this, it must be so particular and definite that from it alone, without experiment or the exertion of his own inven-

struct, and practise the invention as he would be enabled to do from a prior patent for the same invention." 3 Bann. & A. 580 (587).

In *Seymour v. Osborne* (1870), 11 Wall. 516, Clifford, J. : (555) "Patented inventions cannot be superseded by the mere introduction of a foreign publication of the kind, though of prior date, unless the description and drawings contain and exhibit a substantial representation of the patented improvement, in such full, clear, and exact terms as to enable any person skilled in the art or science to which it appertains to make, construct, and practise the invention to the same practical extent as they would be enabled to do if the information was derived from a prior patent. Mere vague and general representations will not support such a defence, as the knowledge supposed to be derived from the publication must be sufficient to enable those skilled in the art or science to understand the nature and operation of the invention, and to carry it into practical use."

In *Plimpton v. Malcolmson* (1876), L. R. 3 Ch. 531, Jessel, M. R. : (567) "What is required as regards prior description? I should have thought, independently of authority, that no prior description ought to invalidate a patent, unless you could make the thing from the description, — I mean unless a person of ordinary skill in the trade could make it from the description. But it has been alleged that something less will do. As I read the authorities that is not so. The question has been before the House of Lords in the case of *Neilson v. Betts* (L. R. 5 H. L. 1). The judgments of Lord Westbury and Lord Colonsay come to this — that the description in the book must be equivalent to a specification.

. . . Now what is the meaning of it being a sufficient specification? Upon that there has been a very great deal of authority. Judges have stated it in different ways, no doubt, but I do not think there is much difference in substance. In the first place, it is plain that the specification of a patent is not addressed to people who are ignorant of the subject-matter. It is addressed to people who know something about it. But there are various kinds of people who know something about it. If it is a mechanical invention, as this is, you have, first of all, scientific mechanics of the first class, — eminent engineers; then you have scientific mechanics of the second class, — managers of great manufactories, great employers of labor, persons who have studied mechanics — not to the same extent as the first class, the scientific engineers, but still to great extent — for the purpose of conducting manufactories of complicated and unusual machines, and who therefore must have made the subject a matter of very considerable study; and in this class I should include foremen, being men of superior intelligence, who like their masters would be capable of invention, and like the scientific engineers would be able to find out what was meant even from slight hints, and still more from imperfect descriptions, and would be able to supplement, so as to succeed even from a defective description, and even more than that, would be able to correct an erroneous description. That is what I would say of the two first classes, which I will call the scientific classes. The other class consists of the ordinary workman, using that amount of skill and intelligence which is fairly to be expected from him, — not a careless man, but a careful man, though not possessing that

tive skill, any person versed in the art to which it appertains could construct and use it. But this requirement relates only to the precise idea expressed in the invention. If, for example, this should be a manufacture, the method of producing it forms no part of the invention and therefore need not be described.²

great scientific knowledge or power of invention which would enable him by himself, unaided, to supplement a defective description, or correct an erroneous description. Now, as I understand, to be a good specification it must be intelligible to the third class I have mentioned, and that is the result of the law. It will be a bad specification if the first two classes only understand it, and if the third class do not. I do not think, when the cases come to be examined, there is really any difference between the judges on this point. Their language differs, but I do not think the cases differ."

That the description in the publication must so describe the invention that those skilled in the art could construct and practise the invention from the description alone, see *Eames v. Andrews* (1887), 122 U. S. 40; 39 O. G. 1319; *Cary v. Lovell Mfg. Co.* (1887), 31 Fed. Rep. 344; *Adams v. Bellaire Stamping Co.* (1886), 28 Fed. Rep. 360; 36 O. G. 567; *Hood v. Boston Car Spring Co.* (1884), 21 Fed. Rep. 67; *Downton v. Yeager Milling Co.* (1883), 108 U. S. 466; 25 O. G. 697; *Miller v. Pickering* (1883), 16 Phila. 533; 25 O. G. 89; 16 Fed. Rep. 540; *Nathan v. Elevated R. R. Co.* (1880), 5 Bann. & A. 280; 2 Fed. Rep. 225; *Bignall v. Harvey* (1880), 18 O. G. 1275; 18 Blatch. 353; 4 Fed. Rep. 334; *Parks v. Booth* (1880), 102 U. S. 96; 17 O. G. 1089; *Atlantic Giant Powder Co. v. Parker* (1879), 16 O. G. 495; 16 Blatch. 281; *Goff v. Stafford* (1878), 14 O. G. 748; 3 Bann. & A. 610; *Cohn v. U. S. Corset Co.* (1876), 93 U. S. 366; 11 O. G. 457; *Westinghouse v. Gardner*

& *Rawson Air Brake Co.* (1875), 2 Bann. & A. 55; 9 O. G. 538; *McMillin v. Barclay* (1872), 5 Fisher, 189; *Roberts v. Dickey* (1871), 1 O. G. 4; 4 Fisher, 532; 4 Brews. (Pa.) 260; *Seymour v. Osborne* (1870), 11 Wall. 516; *Hays v. Sulsor* (1859), 1 Bond, 279; 1 Fisher, 532; *Parker v. Stiles* (1849), 4 McLean, 44; *Plimpton v. Malcolmson* (1876), L. R. 3 Ch. 531; *Woodcroft's Patent* (1846), 2 Web. 18.

That the description must be sufficient at the time when it is published, not merely in the light of subsequent discoveries, see *Betts v. Neilson* (1868), L. R. 3 Ch. Ap. 429.

That the publication must describe the invention as fully as does the patent to which it is offered as a bar, see *New Process Fermentation Co. v. Koch* (1884), 21 Fed. Rep. 580; 29 O. G. 535; *Downton v. Yeager Milling Co.* (1883), 108 U. S. 466; 25 O. G. 697; *Hills v. Evans* (1862), 6 L. T. N. s. 90.

That an invention can be described by compiling extracts from various books is not enough, — the publication must give by itself a full account of the invention, — see *Van Heyden v. Neustadt* (1880), 42 L. T. N. s. 300.

² That the publication need not describe the method by which the invention is produced, provided the description of the invention itself is sufficient to enable others to make it, see *Cohn v. U. S. Corset Co.* (1876), 93 U. S. 366; 11 O. G. 457.

That the sufficiency of the publication is a question for the jury, see *Adams v. Bellaire Stamping Co.* (1886), 28 Fed. Rep. 360; 36 O. G. 567.

SECTION IX.

OF THE NOVELTY OF INVENTIONS : PRIORITY : PRIOR PATENT.

§ 331. Prior Patent: its Essential Requisites.

The third method in which the knowledge of an invention can be communicated to the public is by the issue of a patent. In effect, this method is merely another form of the second; the idea embodied in the invention being, here as there, exhibited in words and not through any art or instrument in actual operation.¹ Like that, the patent must be: (1) A public document; (2) Accessible to the public; (3) Issued before the date of the later invention; (4) For the same operative means; and (5) Sufficient to place the idea of the inventor fully in the possession of the public. Such differences as exist in the details of the two methods will be made apparent as we proceed in this discussion of the third.

§ 331. ¹ In *Cornish v. Keene* (1835), 1 Web. 501, Tindal, C. J. : (510) "Undoubtedly if you could show under the hand of the plaintiff, or any body's hand, that the secret had been publicly communicated to the world, which was intended to be covered by the subsequent patent, there is an end of that patent; if the world at large had been informed by this specification of the color, fabric, and manufacture which is intended to be effected by the subsequent patent, the subsequent patent must fall to the ground." 2 Abb. P. C. 139 (175).

Mr. Webster, in a note to *Househill Co. v. Neilson*, 1 Web. 718, says: "The specification of a prior patent . . . has always been held sufficient of itself to invalidate subsequent letters-patent for the invention therein described, without any evidence of user." In support of this proposition he refers to *Huddart v.*

Grimshaw, 1 Web. 85, and gives as the reasons underlying it: (1) That knowledge and the means of knowledge are the same thing; (2) That a patent being a public record, the public are bound to take notice of it; (3) That it negatives the claim of the patentee to be the true and first inventor; and (4) That the granting of the patent is conclusive evidence that the invention is complete and available for public use. Not all these reasons are now recognized as valid.

That a prior patent and a prior publication stand on the same ground, see *Webb v. Quintard* (1872), 9 Blatch. 352; 5 Fisher, 276; 1 O. G. 525.

That a prior patent defeats a patent for an invention subsequently made, see *Kelleher v. Darling* (1878), 14 O. G. 673; 4 Clifford, 424; 3 Bann. & A. 438; *Muntz v. Foster* (1844), 2 Web. 96.

§ 332. **Prior Patent: Patent must be a Public Document.**

A patent becomes a public document when duly granted by the state and issued to the patentee. Prior to that event, whatever be the character of the proceedings, it is but a private matter between the government and the inventor, with which the public, as such, have no immediate concern. Thus a mere application although known to many, or printed matter such as notes of evidence, briefs of counsel, or interlocutory decisions of the Patent Office and the courts, however fully they describe the invention or however widely circulated, are no part of the patent, nor can they, unless they fulfil the usual requirements of a printed publication as recited in the last section, be regarded as bestowing the invention on the public.¹ Nor is the patent, although issued to the patentee, a complete public document, in the sense here intended, unless it contains or has annexed to it the specification of the patented invention.² Where, as in this country, the law requires the specification to be made part of the patent, the patent is a public document from the moment of its issue. But if the letters-patent constitute a separate document and the specification is subsequently given to the world, the patent is complete, for the present purpose, only when the publication of the full description has been made.³

§ 332. ¹ That description in a prior specification, the patent not having been issued, is no bar, see *Graham v. McCormick* (1880), 10 Bissell, 39; 11 Fed. Rep. 859; 21 O. G. 1533; 5 Bann. & A. 244; *Barker v. Stowe* (1878), 14 O. G. 559; 15 Blatch. 49; 3 Bann. & A. 337; *Lyman Ventilating & Refrigerator Co. v. Chamberlain* (1876), 10 O. G. 588; 2 Bann. & A. 433; *Corn Planter Patent* (1874), 23 Wall. 181; 6 O. G. 392.

That this is true though the prior specification were filed by the same inventor, see *Graham v. McCormick* (1880), 10 Bissell, 39; 11 Fed. Rep. 859; 21 O. G. 1533; 5 Bann. & A. 244.

² That an English patent is not issued until the complete specification is en-

rolled, see *Ex parte Mann* (1880), 17 O. G. 330.

That an English patent dates from the filing of the specification, see *Lorillard v. Dohan* (1881), 20 O. G. 1587; 20 Blatch. 63; 9 Fed. Rep. 509; *Bell v. Brooks* (1881), 19 O. G. 290; *American Diamond Rock Boring Co. v. Sheldon* (1879), 17 Blatch. 303; *Chambers v. Duncan* (1876), 9 O. G. 741.

That a Canadian patent dates from its date and issue, not from its delivery, see *Bate Refrigerating Co. v. Gillett* (1882), 22 O. G. 1205; 13 Fed. Rep. 553.

³ That a provisional specification in England is not a publication until published, and not then unless it completely describes the invention, see *Co-*

§ 333. **Prior Patent: Patent must be Accessible to the Public.**

Moreover, the patent must have been accessible to the public. This generally occurs as soon as the patent issues to the patentee. But if, for any cause, the patent is kept secret in the archives of the government, as in some foreign countries may be done in certain cases, it has no effect as a prior patent or publication.¹ The same is true as long as any portion of the patent, essential to its integrity, remains concealed; but when once completely published, no matter in how distant a community or how great a period of time must intervene before it can be known in other nations, it is regarded as accessible to all.²

§ 334. **Prior Patent: Patent must be Issued before the Date of the Later Invention.**

In order to anticipate an alleged later invention, the prior patent, like other forms of publication, must be completely issued before the inventor of the later has reduced his own idea to practice.¹ But the duration of the intermediate

burn v. Schroeder (1882), 11 Fed. Rep. 425; 22 O. G. 419; 20 Blatch. 392; Goff v. Stafford (1878), 3 Bann. & A. 610; 14 O. G. 748.

That an English patent becomes complete as a prior patent only when the specifications are filed in the office of the Great Seal, see *Lorillard v. Dohan* (1881), 20 O. G. 1587; 20 Blatch. 63; 9 Fed. Rep. 509; *Smith v. Goodyear Dental Vulcanite Co.* (1876), 93 U. S. 486; 11 O. G. 246; *Howe v. Morton* (1860), 1 Fisher, 586; *Cornish v. Keene* (1836), 1 Web. 513; 2 Abb. P. C. 406.

§ 333. ¹ That a patent, though issued, is no bar while kept secret, see *Schoerken v. Swift & Courtney & Beecher Mfg. Co.* (1881), 19 O. G. 1493; 7 Fed. Rep. 469; 19 Blatch. 209.

² That a foreign patent takes effect as such only from the period of its enrolment, see *Willimantic Linen Co. v. Clark Thread Co* (1879), 4 Bann. & A. 133.

That "patented," in Sec. 4886, means "made known," and this is not true of a British patent until the completed specification is filed, see *Rumpf v. Köhler* (1882), 23 O. G. 1831; *Howe v. Morton* (1860), 1 Fisher, 586.

§ 334. ¹ That the date of the later invention is the date of its reduction to practice, see *National Spring Co. v. Union Car Spring Mfg. Co.* (1874), 6 O. G. 224; 12 Blatch. 80; *Webb v. Quintard* (1872), 1 O. G. 525; 9 Blatch. 352; 5 Fisher, 276.

That the date of the invention described in the prior patent is the date of the patent, see *Rumpf v. Köhler* (1882), 23 O. G. 1831, 1832; *Ex parte Lanfrey* (1881), 20 O. G. 892; *Bell v. Brooks* (1881), 19 O. G. 290; *De Florez v. Reynolds* (1880), 17 O. G. 503; 17 Blatch. 436; 8 Fed. Rep. 434; 5 Bann. & A. 140; *Kelleher v. Darling* (1878), 3 Bann. & A. 438; 4 Clifford, 424; 14 O. G. 673; *Bates v. Coe* (1878), 98 U. S. 31;

period is immaterial. The patent being fully published the invention passes at once into the possession of the public and can no longer be conferred upon them by another. Under the American law, however, the rights of an actual prior conceiver are protected against the public as well as the prior patentee, if he has diligently reduced his own ideas to practice.²

§ 335. **Prior Patent: Patent must Cover the Same Invention.**

Again, the patent must be issued for the same complete and operative means. Unless the alleged earlier invention were an operative art or instrument the patent would not only, in itself, be void, but its descriptions would be merely speculative, and not the statement of existing facts. The patent, also, must relate to an invention of the same intrinsic character, and cover the exact idea of means which the inventor of the later has conceived.¹ Hence, where the same device

15 O. G. 337; *Elizabeth v. Pavement Co.* (1877), 97 U. S. 126; *Cochrane v. Deener* (1876), 94 U. S. 780; 11 O. G. 687; *White v. Allen* (1863), 2 Fisher, 440; 2 Clifford, 224; *Howe v. Morton* (1860), 1 Fisher, 586.

That unless the date of the reduction to practice of the later invention precedes the date of the publication of the alleged prior patent, such patent will be a bar, see *Byerly v. Cleveland Linseed Oil Works* (1887), 31 Fed. Rep. 73; *National Spring Co. v. Union Car Spring Mfg. Co.* (1874), 6 O. G. 224; 12 Blatch. 80; *Webb v. Quintard* (1872), 1 O. G. 525; 9 Blatch. 352; 5 Fisher, 276.

That a prior patent, issued by the United States, does not defeat a patent the application for which was filed before the filing of the application for such prior patent, see *Allen v. City of New York* (1879), 17 O. G. 1281; *Singer v. Braunsdorf* (1870), 7 Blatch. 521.

That a prior patent, in order to defeat a later one, need not have been issued two years before the date of re-

duction to practice by the later patentee, see *Parks v. Booth* (1880), 102 U. S. 96; 17 O. G. 1089.

That in a defence of prior patent the question is whether the plaintiff made his invention before the date of the patent, not before the inventive act of the alleged patentee, see *Tyler v. Crane* (1880), 7 Fed. Rep. 775; 19 O. G. 128.

² That to avoid the effect of an alleged prior patent an inventor may show the date of his conception if he has diligently reduced to practice, see *Bates v. Coe* (1878), 98 U. S. 31; 15 O. G. 337; *Kelleher v. Darling* (1878), 3 Bann. & A. 438; 4 Clifford, 424; 14 O. G. 673.

See §§ 132, 321, 328, and notes, *ante*.

§ 335. ¹ That the prior patent must be for the same invention, see *Cohn v. U. S. Corset Co.* (1874), 12 Blatch. 225; 6 O. G. 259; 1 Bann. & A. 340; *Clark Patent Steam & Fire Regulator Co. v. Copeland* (1862), 2 Fisher, 221; *Brooks v. Bicknell* (1843), 3 McLean, 250; 2 Robb, 118.

That the prior patent must cover the

embodies two distinct ideas of means, but is so patented that only one of these is made accessible to the public through the patent, the same device, as the embodiment of the other, still remains unknown, and when discovered and completed is a new invention.² So when the inventor of the patented invention has included in his art or instrument some act or part, without perceiving its significance, and thus in patenting it fails to specifically describe such part or act, although if his invention had been practically employed such act or part might have become known to the public, his patent does not place it in their reach, nor, if reissued after the later inven-

whole of the invention, not merely a part of it, see *Frearson v. Loe* (1878), L. R. 9 Ch. 48; *Stoner v. Todd* (1875), L. R. 4 Ch. 58. But see *Florsheim v. Schilling* (1886), 26 Fed. Rep. 256; 35 O. G. 1435.

That a prior patent for a device does not defeat a patent for a combination of which such device forms one element, see *McMillin v. Rees* (1880), 17 O. G. 1222; 1 Fed. Rep. 722; 5 Bann. & A. 269.

That several prior patents for the several devices afterward employed as elements of a new combination cannot defeat the patent for such combination, see *Bates v. Coe* (1878), 98 U. S. 31; 15 O. G. 337.

That two separate patents, though taken together they would cover the invention, cannot defeat a patent for it as a whole, see *Munson v. Gilbert & Barker Mfg. Co.* (1878), 3 Bann. & A. 595; 18 O. G. 194.

But that where a prior patent covers a whole, no subsequent patent can be issued for any part which is included in such whole and is so described, see *Stow v. Chicago* (1877), 3 Bann. & A. 83; 8 Bissell, 47.

That where a prior patent describes a class of substances when only certain ones of the class can answer the purposes of the invention, it does not de-

feat a patent for the discovery of the particular substances which will answer, see *Hills v. Gas Light Co.* (1860), 5 H. & N. 312.

That a patent suggesting a result is no bar to a patent for the means by which the result is produced, see *Graham v. Gammon* (1877), 3 Bann. & A. 7; 7 Bissell, 490.

That a prior patent for one means of producing a result does not defeat a patent for a different means of producing the same result, see *Hullett v. Hague* (1831), 2 B. & Ad. 370; 2 Abb. P. C. 453. See also § 90 and notes, *ante*.

² That a prior patent for a design does not defeat a patent for the same substance in the same form as a device, the ideas of means being distinct, see *Collender v. Griffith* (1880), 2 Fed. Rep. 206; 18 O. G. 241; 18 Blatch. 110. This could be true only where the mechanical idea of means was not apparent on the face or from the use of the invention as a design, but was the result of subsequent discovery.

That a prior patent for a manufacture is no bar to a patent to the same inventor for the same matter as a design, unless there has been an abandonment by two years' public use or sale, see *Ex parte Palmer* (1881), 21 O. G. 1111. See also § 360 and notes, *post*.

tion is perfected, can it, as a mere publication by a prior patent, bar the last inventor's right.³ The patent, as it stands at the date of the later invention, must give to the world the same idea, in the same state of completeness, as the later, or the novelty of the later cannot thereby be defeated.

§ 336. **Prior Patent: Patent must Fully Communicate the Invention to the Public.**

The rules which govern the sufficiency of the description in the prior patent are the same as in regard to other forms of publication. It must place the invention in the possession of the public as fully as an examination of the practically operative art or instrument could do.¹ It must describe every essen-

³ That a prior patent not *describing* an invention subsequently patented, but after the issue of the later patent re-issued in such a manner as to embrace it, cannot defeat the later *as a prior patent*, see *Vogler v. Semple* (1877), 11 O. G. 923 ; 7 Bissell, 382 ; 2 Bann. & A. 556.

That no reissue of a prior patent can affect the plaintiff's patent unless the original did so, see *Hitchcock v. Tremaine* (1872), 5 Fisher, 537 ; 1 O. G. 633 ; 9 Blatch. 550.

§ 336. ¹ That the invention described in the patent must be complete and practical, see *Downton v. Yaeger Milling Co.* (1880), 1 Fed. Rep. 199 ; 1 McCrary, 26 ; 17 O. G. 906 ; 5 Bann. & A. 112 ; *Betts v. Menzies* (1857), 3 Jur. N. S. 357. See also §§ 318, 329, and notes, *ante*.

That the prior patent must contain a full and precise description of the entire invention, see *Hammerschlag v. Scamoni* (1881), 20 O. G. 1449 ; *Nathan v. N. Y. Elevated R. R. Co* (1880), 2 Fed. Rep. 225 ; 5 Bann. & A. 280 ; *Parks v. Booth* (1880), 102 U. S. 96 ; 17 O. G. 1089 ; *Atlantic Giant Powder Co. v. Rand* (1879), 4 Bann. & A. 263 ; 16 Blatch. 250 ; 16 O. G. 87 ; *Cahill v. Brown* (1878), 3 Bann. & A. 580 ;

15 O. G. 697 ; *Vogler v. Semple* (1877), 11 O. G. 923 ; 7 Bissell, 382 ; 2 Bann. & A. 556 ; *Cohn v. U. S. Corset Co.* (1876), 93 U. S. 366 ; 11 O. G. 457 ; *Cohn v. U. S. Corset Co.* (1874), 12 Blatch. 225 ; 6 O. G. 259 ; 1 Bann. & A. 340 ; *Woodman v. Stimpson* (1866), 3 Fisher, 98 ; *Cornish v. Keene* (1836), 1 Web. 513 ; 2 Abb. P. C. 406.

That the prior patent must have been sufficient to enable the invention to be practised from it alone, at the date of the patent, not merely in the light of subsequent discoveries, see *Betts v. Neilson* (1868), L. R. 3 Ch. Ap. 429.

That where the invention is a product, the prior patent need not have described the method of producing it, see *Cohn v. U. S. Corset Co.* (1876), 93 U. S. 366 ; 11 O. G. 457 ; *Cohn v. U. S. Corset Co.* (1874), 12 Blatch. 225 ; 6 O. G. 259 ; 1 Bann. & A. 340.

That a prior patent, which varies from the one in question only in matters not requiring inventive skill, may anticipate it, see *Sax v. Taylor Iron Works* (1887), 40 O. G. 118.

That if a prior foreign patent so far suggests the invention that any skilled workman could make it, the anticipation is established, see *United States Bung Mfg. Co. v. Independent Bung*

tial element of the invention so clearly and completely that any person skilled in the art could construct and use it from the directions given in the patent, without experimenting or exerting his inventive powers.

§ 337. **Prior Patent: Patent has the same Effect to Whomsoever Issued.**

To whom the prior patent has been issued is a matter of no consequence. If to a different inventor, the public are indebted to him, not to the present claimant, for the benefits conferred by the invention, and he, if either, is entitled to a patent. If to the present claimant, although the merit of discovery and publication may be his alone, yet having once completed the invention and given it to the world by his prior patent, he cannot re-invent it nor present it as a new invention, nor again justly seek for and obtain such recognition.¹ His former patent has assured him all the compensation which was legally his due, and any effort to prolong the period of

& Bushing Co. (1887), 31 Fed. Rep. 76. See also § 330 and notes, *ante*.

§ 337. ¹ In *Mathews v. Flower* (1885), 25 Fed. Rep. 830, Brown, J. : (830) "If it were true that complainants had previously obtained a patent for the same invention secured to them by the patent in suit, and that this prior patent had expired, it would doubtless be a complete answer to this bill, since a man cannot have two patents for the same invention. *James v. Campbell*, 104 U. S. 356; *Suffolk Co. v. Hayden*, 3 Wall. 315; *Morris v. Huntington*, 1 Paine, 348."

In *James v. Campbell* (1882), 104 U. S. 356, Bradley, J. : (382) "It is hardly necessary to remark that the patentee could not include in a subsequent patent any invention embraced or described in a prior one granted to himself any more than he could an invention embraced or described in a prior patent granted to a third person. Indeed, not so well; because he might

get a patent for an invention before patented to a third person in this country if he could show that he was the first and original inventor, and if he should have an interference declared." 21 O. G. 337 (344).

See also *McMillin v. Rees* (1880), 5 Bann. & A. 269; 1 Fed. Rep. 722; 17 O. G. 1222; *Corn Planter Patent* (1873), 23 Wall. 181; 6 O. G. 392.

That an invention described but not claimed in a former patent to the same inventor may be patented in a later patent unless abandoned, see *Vermont Farm Mach. Co. v. Marble* (1884), 22 Blatch. 32; 19 Fed. Rep. 307; 27 O. G. 621.

That an inventor and patentee of a combination may afterward obtain a patent for a sub-combination unless it has been abandoned, see *Cahn v. Wong Town On* (1884), 9 Sawyer, 630; 27 O. G. 299; 19 Fed. Rep. 424.

See also §§ 352, 460-467, 506, and notes, *post*.

his monopoly by embracing his old discovery in a new patent, whether alone or in connection with improvements, is in vain. A single exception to this latter rule arises where the inventor, having taken out a foreign patent for the same invention, endeavors to secure exclusive rights in this country by applying for a patent within two years after the introduction of his invention into actual use in the United States. The prior foreign patent is in such a case no bar.²

² Rev. Stat., 1874, § 4887.

That a prior foreign patent to the same inventor is not a bar unless there has been two years' public use in this

country under Sec. 4887, Rev. Stat., see *Vogelely v. Noel* (1884), 18 Fed. Rep. 827. See also § 461 and notes, *post*.

CHAPTER IV.

OF THE UTILITY OF INVENTIONS.

§ 338. Utility Essential to Patentability.

In order that an invention may be patentable it must not only be bestowed upon the public by its inventor, but when bestowed it must confer on them a benefit. The invention must therefore be useful as well as new.¹ No recompense can properly be made to one from whom the community re-

§ 338. ¹ In *Morgan v. Seaward* (1837), 1 Web. 187, Parke, B. : (197) "A grant of a monopoly for an invention which is altogether useless may well be considered as 'mischievous to the State, to the hurt of trade, or generally inconvenient,' within the meaning of the statute of Jac. I., which requires, as a condition of the grant, that it should not be so ; for no addition or improvement of such an invention could be made by any one during the continuance of the monopoly, without obliging the person making use of it to purchase the useless invention ; and on a review of the cases, it may be doubted whether the question of utility is anything more than a compendious mode, introduced in comparatively modern times, of deciding the question whether the patent be void under the Statute of Monopolies." 2 Abb. P. C. 419 (431).

In speaking of the common-law patents, before the stat. Jac. I., Webster says : "The utility of the invention is distinctly recognized in all of them as part of the motive or consideration ; but this condition would appear to differ from the others, in admitting of degrees. If an invention be totally useless, the

purposes and object of the grant would fail, and such grant would consequently be void, not only on the ground of false suggestion and failure of consideration, but also on the ground of its being prejudicial, as having a tendency to stop improvement." 1 Web. 8, n.

That utility is necessary, see *Page v. Ferry* (1857), 1 Fisher, 298 ; *Earle v. Sawyer* (1825), 4 Mason, 1 ; 1 Robb, 491 ; *Langdon v. De Groot* (1822), 1 Paine, 203 ; 1 Robb, 433 ; *Lowell v. Lewis* (1817), 1 Mason, 182 ; 1 Robb, 131.

That utility in an improvement will support a patent for the improvement whether the original were useful or not, see *Lewis v. Davis* (1829), 1 Web. 488 ; 1 Abb. P. C. 406.

In *Lewis v. Marling* (1829), 1 Web. 493, it was stated that utility was not required by the stat. Jac. I. ; but that it is essential under that statute as interpreted by the courts, see *Bovill v. Moore* (1816), Dav. P. C. 361 ; 1 Abb. P. C. 231 ; *Manton v. Manton* (1815), Dav. P. C. 333 ; 1 Abb. P. C. 189.

That utility is a question of fact for the jury, see *Losh v. Hague* (1838), 1 Web. 202 ; 2 Abb. P. C. 501.

ceives no consideration; and hence no patent can be granted for a worthless art or instrument, nor, although granted, can it be sustained after the uselessness of the invention is established.

§ 339. Utility Means Industrial Value.

Utility, as predicated of inventions, means industrial value; the capability of being so applied in practical affairs as to prove advantageous in the ordinary pursuits of life, or add to the enjoyment of mankind.¹ But a mere curiosity, a scientific process exciting wonder yet not producing physical results, or any frivolous or trifling article or operation not aiding in the progress nor increasing the possessions of the human race, whatever be its novelty, and whatever skill has been in-

§ 339. ¹In *Rowe v. Blanchard* (1864), 18 Wis. 441, Dixon, J. : (442) "The 'practical uses' to which the invention may be applied, or of which 'it shall be capable,' we understand to be the uses intended by the patentee, and named in the patent. Upon the question of its practicability in this case, there was a conflict of testimony. It was a question to be decided by the jury, under proper instructions from the court. *Park v. Little*, 1 Robb's Cases, 17 (3 Wash. 196.) If it was practically useless, then there was no consideration for the notes. *Dickinson v. Hall*, and *Lester v. Palmer*, *supra*. The defendant's counsel asked the court to give the jury the following instruction, which was refused: 'If you find from the testimony that this harrow is impracticable to be used for the purpose for which it was patented, then the defense of want or failure of consideration is established.' This was error. The instruction should have been given." See also *Parkhurst v. Kinsman* (1849), 1 Blatch. 488.

That an invention is useful if available for one of the purposes proposed by the inventor, though not for others, see *Phillips v. Risser* (1885), 26 Fed. Rep. 308; *Morgan v. Seaward* (1837), 1 Web.

187; 2 Abb. P. C. 419; *Haworth v. Hardcastle* (1834), 2 Abb. P. C. 19.

That utility is absence of frivolity and mischievousness, and utility for some beneficial purpose, see *McComb v. Ernest* (1871), 1 Woods, 195; *Crompton v. Belknap Mills* (1869), 3 Fisher, 536; *Cox v. Griggs* (1861), 1 Bissell, 362; 2 Fisher, 174; *Wintermute v. Redington* (1856), 1 Fisher, 239; *Parker v. Stiles* (1849), 5 McLean, 44; *Dunbar v. Marden* (1842), 13 N. H. 311; *Dickinson v. Hall* (1833), 14 Pick. 217; *Whitney v. Emmett* (1831), Baldwin, 303; 1 Robb, 567; *Kneass v. Schuylkill Bank* (1820), 4 Wash. 9; 1 Robb, 303; *Lowell v. Lewis* (1817), 1 Mason, 182; 1 Robb, 131; *Bedford v. Hunt* (1817), 1 Mason, 302; 1 Robb, 148.

That if a design is attractive it is useful, see *Ex parte Norton* (1882), 22 O. G. 1205.

That in an ornament superior beauty indicates utility, see *Magic Ruffle Co. v. Douglass* (1863), 2 Fisher, 330.

That cheapness is not utility, see *Cornish v. Keene* (1835), 1 Web. 501; 2 Abb. P. C. 139.

That an invention is useful where it increases the salability of an article, see *Newbury v. Fowler* (1886), 28 Fed. Rep. 454; 36 O. G. 817.

volved in its production, does not fall within the class of useful inventions nor become the subject-matter of a patent.

§ 340. Utility Absent if the Invention is Immoral or too Dangerous for Use.

Inventions which accomplish definite practical results may nevertheless possess such attributes as destroy the benefits that otherwise they would bestow upon the public. Inventions whose chief or only value resides in the facilities which they afford to men to perpetrate some wrongful injury either by fraud or violence against each other are thus regarded as destitute of true utility.¹ For the same reason arts or instruments which if completed and in actual use might be of benefit to their employer are sometimes held to be devoid of real utility on account of the great risks incurred in their construction.² The courts, in their consideration of this subject, must necessarily contemplate the entire effects of the invention, as well upon the maker and the operator as upon the consumer; and if the net result to the community at large is not a benefit, the inventor has no claim upon the public.

§ 341. Degree of Utility Immaterial.

When actual utility exists, its degree is unimportant.¹ However slight the advantage which the public have received from

§ 340. ¹ That an invention which is useful only to commit fraud has no patentable utility, see *Klein v. Russell* (1873), 19 Wall. 433.

That an invention which can be used only for immoral purposes is not patentable, see *Dunbar v. Marden* (1842), 13 N. H. 311; *Lowell v. Lewis* (1817), 1 Mason, 182; 1 Robb, 131.

² In *Mitchell v. Tilghman* (1873), 19 Wall. 287, Clifford, J. : (396) "It cannot be held that the invention is useful if it appears that the operator, in using the described means, is constantly exposed to imminent danger, either from the explosive tendency of the substance to be used, or from the liabil-

ity of the vessel to burst which is required to be employed as a means of accomplishing the patented result. . . . as it is quite clear that Congress, in making provision to secure to inventors the exclusive right to their discoveries, never intended to promote any such as were in their nature constantly dangerous to the operator in employing the described means to accomplish the described result." 5 O. G. 299 (305).

§ 341. ¹ In *Morgan v. Seaward*, (1836), 1 Web. 170, Alderson, B. : (172) "It is not for you to consider to what extent the thing is useful. If it is a useful invention, then it is a subject to be protected by patent, and if,

the inventor, it offers a sufficient reason for his compensation; and as he could withhold this slight advantage if he chose, his surrender of it to the public places him on the same plane of merit with every other inventor. Nor is it necessary that this advantage, whether great or small, should flow directly from his art or instrument, considered by itself. For though it is a mere improvement upon pre-existing arts or instruments, or is incapable of serving any purpose except as an integral part or element of some different invention, or embodies an idea of means whose highest value can be realized only by advancing it to a more perfect state of development, it still has an inherent usefulness which satisfies this requirement of the law.²

on the other hand, it is of no use, then it is no subject to be protected by patent. The issue is, whether it is of any use at all."

That the degree of utility is not material, see *Gibbs v. Hoefner* (1884), 22 Blatch. 36; 19 Fed. Rep. 323; *Crouch v. Speer* (1874), 6 O.G. 187; 1 Bann. & A. 145; *Westlake v. Cartter* (1873), 4 O. G. 636; 6 Fisher, 519; *Smith v. O Connor* (1873), 4 O. G. 633; 2 Sawyer, 461; 6 Fisher, 469; *Whitney v. Mowry* (1867), 2 Bond, 45; 3 Fisher, 157; *Hoffheins v. Brandt* (1867), 3 Fisher, 218; *Rowe v. Blanchard* (1864), 18 Wis. 441; *Tilghman v. Werk* (1862), 1 Bond, 511; 2 Fisher, 229; *Vance v. Campbell* (1859), 1 Fisher, 483; *Johnson v. Root* (1858), 1 Fisher, 351; *Bierce v. Stocking* (1858), 11 Gray, 174; *Wintermute v. Redington* (1856), 1 Fisher, 239; *Dunbar v. Marden* (1842), 13 N. H. 311.

That an invention is useful if it is capable of any beneficial use, see *Tod v. Wick Bros.* (1881), 36 Ohio St. 370; *Gillett v. Bate* (1881), 86 N. Y. 87; 10 Abb. N. C. 88,

² In *Wheeler v. The Clipper Mower & Reaper Co.* (1872), 10 Blatch. 181, *Woodruff, J.*: (185) "On the other hand, if it be meant that no device is patentable which has not in itself, apart

from any connection with, or application to, other known devices or instrumentalities, capacity to produce practically useful results, then the proposition is not true. Patents for simple devices, and patents for parts of machines, are almost numberless, of which it may be truly said that it is only by connection with other devices or instrumentalities, to which they are intended to be applied, that they can be made to produce any result whatever. True, the patentee is bound to disclose a mode in which they may be rendered practically useful, and it may be one of many modes, and it may necessarily involve the use of many other known devices which are required in order to the useful result. Patents may be granted for combinations in which some of the parts are old and some are new, and whatever in the several parts is new may be separately secured to the inventor; and yet it may be true that only in the combination described, or in some similar combination, is the new part thus secured to the inventor of any practical use whatever." 2 O. G. 442 (443); 6 Fisher 1 (17).

See also *Williams v. Boston & Albany R. R. Co.* (1879), 17 Blatch. 21; 16 O. G. 906; 4 Bann. & A. 441; *Wells v. Jacques* (1874), 1 Bann. & A. 60;

§ 342. **Utility Actual, not Comparative.**

The existence of utility in an invention is not determined by comparing it with other arts or instruments.¹ It is not essential to its patentability that an invention should supersede or be superior to others theretofore employed for the same purpose; nor is it inconsistent with its usefulness that it should, in its turn, have been displaced by subsequent inventions. It must be useful in itself, in some degree, at the date of its bestowal on the public. This being true, it is a sufficient consideration for the grant of an exclusive right, although the value of that right to the inventor may depend almost entirely on the relative superiority of his invention when compared with others.

5 O. G. 364; *Morgan v. Seaward* (1837), 1 Web. 187; 2 Abb. P. C. 419.

That an invention is useful if capable of such development as to render it practically useful, see *Wheeler v. Clipper Mower & Reaper Co.* (1872), 10 Blatch. 181; 6 Fisher, 1; 2 O. G. 442; *Gray v. James* (1817), 1 Peters C. C. 476; 1 Robb, 140.

That an invention may be useful though susceptible of great improvement, see *Neilson v. Harford* (1841), 1 Web. 295.

That a patent is valid if the invention serves any use though it will not apply to all the uses claimed for it, see *Phillips v. Risser* (1885), 26 Fed. Rep. 308.

§ 342. ¹ In *Cook v. Ernest* (1872), 2 O. G. 89, Woods, J. : (92) "All the law requires as to utility is that the invention shall not be frivolous or dangerous. It does not require any degree of utility. It does not exact that the subject of the patent shall be better than anything invented before or that shall come after. If the invention is useful at all that suffices." 5 Fisher, 396 (405).

In *Roberts v. Ward* (1849), 4 McLean, 565, Per Curiam: (566), "In as-

certaining its usefulness, it is not important that it should be more valuable than other modes of accomplishing the same result; but it must be a practicable method of doing the thing designed, in which its utility will more or less consist." 2 Robb, 746 (748).

That an invention has utility even though it does not excel all other means for the same end, see also *Shaw v. Colwell Lead Co.* (1882), 20 Blatch. 417; 11 Fed. Rep. 711; *Adams v. Lofft* (1879), 4 Bann. & A. 495; *Miller & Peters Mfg. Co. v. Du Brul* (1877), 2 Bann. & A. 618; 12 O. G. 351; *Crouch v. Speer* (1874), 1 Bann. & A. 145; 6 O. G. 187; *Doherty v. Haynes* (1874), 1 Bann. & A. 289; 4 Clifford, 291; 6 O. G. 118; *McComb v. Ernest* (1871), 1 Woods, 195; *Seymour v. Osborne* (1870), 11 Wall. 516; *Rowe v. Blanchard* (1864), 18 Wis. 441; *Wilbur v. Beecher* (1850), 2 Blatch. 132; *Many v. Jagger* (1848), 1 Blatch. 372; *Dunbar v. Marden* (1842), 13 N. H. 311; *Tetley v. Easton* (1852), *Macrory's P. C.* 48.

That utility at date of patent is enough, though the invention be afterward superseded, see *Poppenhusen v. N. Y. Gutta Percha Comb Co.* (1858), 2 Fisher, 62.

§ 343. Utility how Ascertained.

The utility of an invention may be ascertained by an inspection of the art or instrument itself, or of the place it fills in that particular department of human industry to which it belongs. But these do not afford the only, or perhaps the most conclusive, evidence. Where an invention passes into general use, and is sought after and employed by those to satisfy whose needs it was invented, its use and sale supply the strongest proof that the public welfare is advanced by its existence, and that the inventor has conferred substantial benefits upon mankind.¹

§ 344. Utility as Evidence of Inventive Skill: of Novelty.

The utility of an invention is often properly considered by the courts in their investigation of two different topics, with which otherwise it has no connection. First, upon the question whether or not a given art or instrument was produced by the exercise of inventive as distinguished from mechanical skill, the actual utility of the invention may become important. If its utility is very great, as evidenced by its extensive use and sale, and if it satisfies an ancient and well-recognized necessity, it is presumed that if mechanical skill alone could have derived it from any means already known, it would have

§ 343. ¹ That use and sale indicate utility, see *Niles Tool Works v. Betts Mach. Co.* (1886), 27 Fed. Rep. 301; *Goodyear Dental Vulcanite Co. v. Smith* (1874), Holmes, 354; 5 O. G. 585; 1 Bann. & A. 201; *Smith v. Prior* (1873), 2 Sawyer, 461; 6 Fisher, 469; 4 O. G. 633; *Robertson v. Secombe Mfg. Co.* (1873), 6 Fisher, 268; 3 O. G. 412; *Magic Ruffle Co. v. Douglass* (1863), 2 Fisher, 330; *Dunbar v. Marden* (1842), 13 N. H. 311; *Cornish v. Keene* (1835), 1 Web. 501; 2 Abb. P. C. 139.

That the extensive use of the simplest device shows its utility, see *Lorillard v. McDowell* (1877), 13 Phila. 461; 11 O. G. 640; 2 Bann. & A. 531.

That want of public recognition indicates want of utility, see *In re Hughes'*

Patent (1879), L. R. 4 App. 174; *In re Herbert's Patent* (1867), L. R. 1 P. C. 399; 4 Moore P. C. n. s. 300; *In re Allan's Patent* (1867), L. R. 1 P. C. 507; 4 Moore P. C. n. s. 443; *In re Pinkus' Patent* (1848), 12 Jur. 233; *Morgan v. Seaward* (1836), 1 Web. 170.

That it is assumed that a useful invention, when once known, will be in demand, see *In re Simister's Patent* (1842), 1 Web. 721.

That experiment is the only test of utility, and until tested the patent is *prima facie* evidence thereof, see *Case v. Morey* (1818), 1 N. H. 347.

That the value of an invention can often be determined only by its results, see *Roberts v. Dickey* (1872), 1 O. G. 4; 4 Fisher, 532; 4 Brews. (Pa.), 260.

long ago been brought into existence; and, hence, that it could now have originated only in an inventive act.¹ Second, upon the question of novelty, where doubt arises concerning

§ 344. ¹ In *Washburn & Moon Mfg. Co. v. Haish* (1880), 19 O. G. 173, Drummond and Blodgett, J.J.: (175) "In the absence of any other test the courts have seemed to assume that the fact of the acceptance of a new device or combination by the public and putting it into extensive use, was evidence that it was the product of invention; or as one of the counsel for plaintiff expressed it, 'utility is suggestive of originality.'" 4 Fed. Rep. 900 (907).

In *Smith v. Goodyear Dental Vulcanite Co.* (1876), 93 U. S. 486, Strong, J.: (495) "Undoubtedly the results or consequences of a process or manufacture may in some cases be regarded as of importance when the inquiry is whether the process or manufacture exhibits invention, thought, and ingenuity. Webster, on the subject-matter of patents, page 30, says: 'The utility of the change, as ascertained by its consequences, is the real practical test of the sufficiency of an invention; and since the one cannot exist without the other, the existence of the one may be presumed on proof of the existence of the other.' . . . We do not say the single fact that a device has gone into general use, and has displaced other devices which had previously been employed for analogous uses, establishes in all cases that the later device involves a patentable invention. It may, however, always be considered, and when the other facts in the case leave the question in doubt, it is sufficient to turn the scale.'" 11 O. G. 246 (248).

In *Eppinger v. Richey* (1877), 14 Blatch. 307, Shipman, J.: (312) "Without giving to the general use of the invention, as a test of its patentability, any greater importance than the Supreme Court in the case of *Smith v. Goodyear*

Dental Vulcanite Co., 3 Otto, 486, indicate should be given to this circumstance, I am of opinion that the facts in the case fully establish the conclusions: (1) That however simple the change in the method of manufacture apparently may have been, yet it was a change which required invention for its accomplishment; (2) That the improvement resulting from the changed method of manufacture has been so great that the article which is produced is, within the meaning of the patent acts, a new and useful article of manufacture." 12 O. G. 714 (716); 3 Bann. & A. 69 (74).

In *Stanley Works v. Sargent* (1871), 8 Blatch. 344, Shipman, J.: (346) "Utility is not an infallible test of originality. The Patent Law requires a thing to be new as well as useful in order to entitle it to the protection of the statute. To be new in the sense of the act it must be the product of original thought or inventive skill, and not a mere formal or mechanical change of what was old and well known. But the effect produced by a change is often an appropriate, though not a controlling, consideration in determining the character of the change itself." 4 Fisher, 443 (445).

Curtis on Patents, cited with approval in *Roberts v. Dickey* (1871), 1 O. G. 4, by Strong, J., speaking of inventions of recognized utility says: (§ 36) "It is obvious that the results in such cases furnish a complete test of the sufficiency of invention, because the importance of the result shows that, whether actually exercised or not, the possibility of the exercise of thought, design, ingenuity, and skill is not excluded."

Webster on Patents, 30, also cited in the same case, remarks: "Whenever

the identity of two inventions, and whether the apparent diversities between them are formal or substantial, the superior utility of one may be sufficient to remove the doubt. For though the apparent difference be small, the difference in the usefulness of their results may be great enough to demonstrate that, notwithstanding all external similarities, such variations must exist between their modes of operation that the ideas which they embody cannot be the same.² The relation

the utility is proved to exist in any great degree, a sufficiency of invention to support the patent must be presumed."

That utility often indicates patentability, see *Penn. Salt Mfg. Co. v. Thomas* (1871), 8 Phila. 144; 5 Fisher, 148.

That utility is evidence of inventive skill, see *Hill v. Biddle* (1886), 27 Fed. Rep. 560; *Wallace v. Noyes* (1882), 21 Blatch. 83; 23 O. G. 435; 13 Fed. Rep. 172; *Bruce v. Marder* (1882), 22 O. G. 1039; 20 Blatch. 355; 10 Fed. Rep. 750; *Roberts v. Schreiber* (1880), 5 Bann. & A. 491; 18 O. G. 125; 2 Fed. Rep. 855; *Hoe v. Cottrell* (1880), 18 O. G. 59; 17 Blatch. 546; 1 Fed. Rep. 597; 5 Bann. & A. 256; *U. S. Stamping Co. v. King* (1879), 17 Blatch. 55; 17 O. G. 1399; 4 Bann. & A. 469; *Williams v. Rome, Watertown, & Ogdensburgh R. R. Co.* (1878), 15 Blatch. 200; 15 O. G. 653; 3 Bann. & A. 413; *Monce v. Adams* (1874), 12 Blatch. 1; 7 O. G. 177; 1 Bann. & A. 126; *In re Pennock* (1874), 1 MacArthur, 531; 5 O. G. 668; *Smith v. Woodruff* (1874), 4 O. G. 635; 1 MacArthur, 459; 6 Fisher, 476; *Hitchcock v. Tremaine* (1872), 1 O. G. 633; 9 Blatch. 550; 5 Fisher, 537.

That utility does not conclusively indicate the exercise of inventive skill, see *Phillips v. Detroit* (1879), 4 Bann. & A. 347; 17 O. G. 191; *Monce v. Adams* (1874), 7 O. G. 177; 12 Blatch. 1; 1 Bann. & A. 126; *Ex parte Greeley* (1873), 4 O. G. 612; Holmes, 284; 6 Fisher, 575.

See § 113 and notes, *ante*.

² In *Smith v. Nichols* (1872), Holmes, 172, Lowell, J. : (175) "The fact that an article is better and more useful in the trade is evidence of novelty; but if the superiority is attained by the application of known means, in a known way, and to produce a known result, though a better one, the novelty required by the Patent Law is wanting." 2 O. G. 649 (650); 6 Fisher, 61 (64).

In *Judson v. Cope* (1860), 1 Bond, 327, Leavitt, J. : (337) "It will be obvious that where there is doubt upon the question of novelty . . . evidence of the superior performance and utility of the patented improvement would have a direct bearing upon the question of novelty. In other words, if the jury are satisfied that the invention patented produces a result decidedly and clearly different from any which had been produced by the action of any prior [device], and that it was decidedly superior to any other in its operation, it would certainly afford a ground for the presumption that the thing itself had not been known before." 1 Fisher, 615 (624).

In *Many v. Sizer* (1849), 1 Fisher, 17, Sprague, J. : (24) "If the changes made by the defendant have rendered his wheel one of greater utility than the plaintiff's, such utility is evidence that some new principle, or mechanical power, or new mode of operation, producing a new kind of result, has been introduced. And the greater such utility, the stronger is such evidence.

of these two kinds of utility, the actual and the comparative, to these two questions of novelty and inventive skill is often much confused, through failure to regard the real distinctions which obtain between them. But they are utterly dissimilar in character and in effect, as well as in the principles upon which those relations are established; and their real value in affording a solution of these questions is lost whenever those distinctions are ignored.

And if a manifest and very high degree of utility is obtained by such changes, it becomes full proof and conclusive that a new principle, or mechanical power, or new mode of operation, producing a new kind of result, has been introduced. . . . (27) If the effect is a wheel of greater utility, that is evidence tending to show that some new principle, or mechanical power, or mode of operation producing a new kind of result has been introduced; and the higher the degree of utility, the stronger is such evidence. And it may arise to so high a degree as to become conclusive." See also the remarks of Shipman, J., in *Eppinger v. Richey*, 14 Blatch. 307, and in *Stanley Works v. Sargent*, 8 Blatch. 344, cited in note 1, *ante*.

In *Househill Co. v. Neilson* (1843), 1 Web. 673, Hope, J.: (690) "Great utility is one important element in the question of novelty. For if the process is of great, manifest, striking, and immediate utility, that is of the utmost importance to the point. Could this have been previously in public use and exercise without clear and abundant proof?"

That superior utility is not conclusive evidence of novelty, see *Wilson Packing Co. v. Chicago Packing & Provision Co.* (1881), 10 Bissell, 559; 21 O. G. 411; 9 Fed. Rep. 547; *Pitts v.*

Wemple (1855), 2 Fisher, 10; 1 Bissell, 87.

That comparative utility indicates novelty, see *Miller v. Pickering* (1883), 16 Fed. Rep. 540; 25 O. G. 89; *Dunbar v. Albert Field Tack Co.* (1879), 4 Fed. Rep. 543; 4 Bann. & A. 518; *Stilwell & Bierce Mfg. Co. v. Cincinnati Gas Light & Coke Co.* (1875), 1 Bann. & A. 610; 7 O. G. 829; *Birdsall v. McDonald* (1874), 6 O. G. 682; 1 Bann. & A. 165; *Sayles v. Chicago & Northwestern R. R. Co.* (1871), 3 Bissell, 52; 4 Fisher, 584; *Carter v. Baker* (1871), 1 Sawyer, 512; 4 Fisher, 404; *Woodman v. Stimpson* (1866), 3 Fisher, 98; *Singer v. Walmsley* (1860), 1 Fisher, 558; *Howe v. Morton* (1860), 1 Fisher, 586; *Judson v. Moore* (1859), 1 Bond, 285; 1 Fisher, 544; *Morton v. Middleton* (1863), 1 Cr. S. 3d Series, 722.

That superior utility indicates substantial difference and hence novelty, see *Roberts v. Schreiber* (1880), 5 Bann. & A. 491; 18 O. G. 125; 2 Fed. Rep. 855; *Stevens v. Keating* (1847), 2 Web. 181.

That immediate and extensive use of an invention is evidence of its novelty and originality, see *Hitchcock v. Tremaine* (1872), 1 O. G. 633; 9 Blatch. 550; 5 Fisher, 537; *Judson v. Moore* (1859), 1 Bond, 285; 1 Fisher, 544.

See §§ 116-121 and notes, *ante*.

CHAPTER V.

OF ABANDONMENT TO THE PUBLIC.

§ 345. Inventions not Patentable if once Abandoned to the Public.

The fifth and final requisite of a patentable invention is that it must remain under the exclusive control of its inventor until the issue of his letters-patent. The patent is designed to temporarily secure to him the continuance of that dominion over his discovery which without the patent he might still be able to maintain, but which, in consideration of the patent, he permanently surrenders to the public after the period of his patent has expired. But if, before the patent issues, he has voluntarily relinquished this exclusive right, there is not only nothing to protect, but no consideration can now move from him toward the public by which the grant of the patent can be sustained. Here the element of contract between the inventor and the public becomes especially apparent. The patent privilege is not a mere reward bestowed upon the inventor for past services, the payment of a debt of gratitude toward one who has already conferred a benefit upon the state; it is also a purchase by the government, acting on behalf of the whole people, of some new art or instrument, capable of beneficial use, for which it recompenses the inventor by securing to him for a time its sole enjoyment; and when, without this recompense, it has obtained the invention through his voluntary act, so far from recognizing him as entitled to remuneration, it unhesitatingly appropriates his invention to itself, whatever loss and difficulty may result to him.¹ Still, while

§ 345. ¹ That abandonment bars a consolidated *Fruit Jar Co. v. Wright* patent, see *Egbert v. Lippman* (1881), (1876), 94 U. S. 92; *Consolidated* 104 U. S. 333; 21 O. G. 75; *Con- Fruit Jar Co. v. Wright* (1874), 12

the law thus stringently adheres to the fundamental principle on which are based all the relations of the public to the inventor, it liberally interprets in his favor the specific rules that govern the dedication of inventions to the public, as well as all those acts of his from which such dedication might be inferred.²

§ 346. **Three Meanings of "Abandonment:" "Abandoned Experiment;" "Abandoned Inventions;" "Abandonment to the Public."**

The dedication of an invention to the public by the inventor is generally called "abandonment." This word is used in reference to three different acts of an inventor, and in each use has an entirely different meaning. Where one who has endeavored to produce a new invention either fails to develop a complete and practicable idea of means, or having fully conceived the idea neglects to reduce it to practice as an operative art or instrument, and in this state of incompleteness relinquishes his efforts without intending to resume them, he is said (though perhaps improperly) to have abandoned the invention; and that which, had he persevered, might have become a patentable invention, is a mere unsuccessful or abandoned experiment. Again, where an inventor has completed his inventive act, and has produced an operative art or instrument capable of practical employment, but has thrown it aside without communicating it to the public, and has temporarily or permanently forgotten it, the invention

Blatch. 149; 6 O. G. 327; 1 Bann. & A. 320; Wayne v. Holmes (1856), 2 Fisher, 20; 1 Bond, 27; Ransom v. Mayor of New York (1856), 1 Fisher, 252; Wyeth v. Stone (1840), 1 Story, 273; 2 Robb, 23; Whittemore v. Cutter (1813), 1 Gallison, 478; 1 Robb, 40.

That the presumption is always against abandonment, see Graham v. McCormick (1880), 10 Bissell, 39; 11 Fed. Rep. 859; 21 O. G. 1533; 5 Bann. & A. 244.

That an invention once abandoned to the public can never be recalled by the

inventor, see Consolidated Fruit Jar Co. v. Bellaire Stamping Co. (1886), 27 Fed. Rep. 377; 35 O. G. 627; Ransom v. Mayor of New York (1856), 1 Fisher, 252; McCay v. Burr (1847), 6 Pa. St. 147; Whittemore v. Cutter (1813), 1 Gallison, 478; 1 Robb, 40.

² In this chapter only abandonment before the issue of a patent is considered. The dedication of a patented invention to the public does not affect its patentable character or rest on any doctrine peculiar to Patent Law. See §§ 981, 1046, 1114, 1194, 1195, and notes, *post*.

has become a "lost art," and is sometimes spoken of as an abandoned invention. But in the third and only proper sense of the term, "abandonment" is applied solely to cases where the inventor, having fully performed his inventive act, and having embodied his idea in tangible materials ready for immediate public use, freely gives it to the public without intending to claim from them the protection to which he is entitled.¹ The first abandonment is an abandonment of his

§ 846. ¹ In *Consolidated Fruit Jar Co. v. Bellaire Stamping Co.* (1886), 27 Fed. Rep. 377, Sage, J. : (381) "If it appears that the inventor, after perfecting his invention and applying for a patent, and thereby irrevocably committing himself to the proposition that his invention is ripe for introduction to the public, accept the decision rejecting his application, and cast aside his invention as no longer of any value to him, he thereby makes it forever public property, and it is not in his power to take it back and make it again his own." 85 O. G. 627 (629).

In *American Hide and Leather Splitting and Dressing Mach. Co. v. American Tool and Mach. Co.* (1870), Holmes, 503, Shepley, J. : (513) "A person is sometimes said to have abandoned his invention when he gives up the idea, abandons it in the popular sense, relinquishes the intention of perfecting his invention, so that another person may take up the same thing and become the original and first inventor. But that is not the kind of abandonment that is referred to here. There is another kind of abandonment, and that is where a party, having made an invention, allows the public to use it, with his knowledge and consent ; allows it to be incorporated into other machines with his knowledge and consent, and to be used by anybody without objection ; as, for instance, if you should invent a machine, put it into public use and sell it to everybody who chose to buy it, and

if you should attach to that machine another invention of yours, and allow everybody who chose to buy that and use it, without objection on your part, with your consent, with your permission, with your allowance, not for the mere purpose of experiment, but for the purpose of profit and gain, that would be an abandonment of it to the public ; and you could not afterward rightfully, honestly, honorably, legally, take out a patent for that invention." 4 Fisher, 284 (299).

That there can be no abandonment, in the technical sense, unless the invention is complete and operative, see *Locomotive Engine Safety Truck Co. v. Penna. R. R. Co.* (1874), 10 Phila. 252 ; 6 O. G. 927 ; 1 Bann. & A. 470.

That the abandonment of such an invention enures to the benefit of the public, not to that of a subsequent inventor, see *Consolidated Fruit Jar Co. v. Bellaire Stamping Co.* (1886), 27 Fed. Rep. 377 ; 35 O. G. 627 ; *Pickering v. McCullough* (1878), 3 Bann. & A. 279 ; 13 O. G. 818 ; *Shoup v. Henrici* (1876), 2 Bann. & A. 249 ; 9 O. G. 1162 ; *Rich v. Lippincott* (1853), 2 Fisher, 1.

That an abandoned invention cannot be patented unless, having become a "lost art," it is re-invented and again bestowed upon the public, see *Rich v. Lippincott* (1853), 2 Fisher, 1.

Closely akin to the doctrine of abandonment, though relating to the personality of the patentee, not to the patentability of the invention, is the question which

intention to become an inventor; and leaves the field open for subsequent inventors to conceive such new ideas, or such improvements upon his idea, as will complete the invention and enable them to appropriate it to their exclusive use. The second abandonment is an abandonment of his intention to render the invention practically available for any purpose, and thereupon it is regarded as never having been conceived. The third and true form of abandonment is a dedication of the invention to the public, and closes the field forever against not only himself but every subsequent inventor, until the art or instrument shall once more pass from public knowledge and thus become a subject for re-invention.

§ 347. **Abandonment to the Public Depends on Intention.**

A completed invention may be abandoned by its inventor by various methods. In general, any act which places the

arises when the earlier inventor, having completed his inventive act, withholds his invention from the public without himself abandoning or forgetting it. This question may become of practical importance in two cases: (1) Where after a long delay the inventor seeks the protection of a patent as against the public; (2) Where during his delay a later rival inventor applies for or obtains a patent, and the first inventor thereupon endeavors to secure the legal recognition of his own monopoly, on the ground of priority of invention. In the first case it may be regarded as still a doctrine of our law that the mere delay of the inventor does not prejudice his rights, although his delay may have been intended for his own advantage in the secret use of his invention as long as it could be kept secret, and in the prolongation of his exclusive privilege by a patent when the invention could not further be concealed. See § 351 note 2, *post*. A due consideration for the rights of the public might well express itself in applying the rules of estoppel to such an inventor, and meeting his own bad faith with a denial of that legal immunity which is

created for the encouragement of inventors, who honestly attempt to advance the welfare of the public as well as of themselves. See *Sheriff v. A. Fulton's Son* (1882), 12 Fed. Rep. 136; 22 O. G. 87; *Sprague v. Adriance* (1877), 3 Bann. & A. 124; 14 O. G. 308; *U. S. Rifle & Cartridge Co. v. Whitney Arms Co.* (1877), 14 Blatch. 94; 11 O. G. 373; 2 Bann. & A. 493; *Consolidated Fruit Jar Co. v. Wright* (1874), 2 Blatch. 149; 6 O. G. 327; 1 Bann. & A. 320. But in the second case the wilful delay of the first inventor ought not to be thus overlooked. The later rival patentee may justly claim that his own time and efforts have been expended on the faith that any other inventor who had previously made the same invention was dealing honestly with the public, and would, within a reasonable period after its reduction to practice, communicate his invention to the public by applying for a patent. The inclination of the courts, in more recent decisions, is to recognize this claim and to hold that the prior inventor has forfeited his rights in favor of the later, whenever he has unreasonably

invention within reach of the public, if unaccompanied by indications that the inventor claims his rightful privilege, amounts to an abandonment. But in all cases the real question is one of intention; and hence while no one but the inventor can abandon the invention, he can abandon it only by such conduct as clearly denotes the voluntary surrender of his rights.¹ Yet the law recognizes radical differences between the effects of different acts in reference to this matter. From some acts it raises no presumption, but leaves it for a jury to decide whether from them an intention of abandonment appears. From others, on the contrary, it conclusively presumes abandonment, and when these are established it does not permit the inventor to deny that he intended to bestow his invention on the public without reward.

§ 348. Intention to Abandon Presumed from Public Use or Sale.

The act from which alone the law presumes the abandonment of an invention is its public use or sale for more than two years before his application for a patent. While other acts, although they show that the inventor does not intend to exercise at present his exclusive privileges, may still leave something to be done before the public can be considered as in full possession of the invention, the use of the invention by the public

delayed his application for a patent. But this rule must not be confounded with the doctrine of abandonment, in any of its forms. It rests, if it exists at all, on broad principles of equity, which must be applied to each instance as it arises, and it cannot be formulated into more specific details as to time and conduct without danger of causing the injustice which it endeavors to avoid. See § 351, note 2, and §§ 388-390, *post*.

§ 347. ¹ That abandonment is a question of fact, not of law, see *Sprague v. Adriance* (1877), 3 Bann. & A. 124; 14 O. G. 308; *Russell & Erwin Mfg. Co. v. Mallory* (1872), 2 O. G. 495; 10 Blatch. 140; 5 Fisher, 632.

That abandonment is a question of intention, see *Johnsen v. Fässman*

(1872), 2 O. G. 94; 1 Woods, 138; 5 Fisher, 471; *McMillin v. Barclay* (1871), 5 Fisher, 189; 4 Brews. (Pa.) 275; *Kendall v. Winsor* (1858), 21 How. 322; *McCormick v. Seymour* (1851), 2 Blatch. 240.

That the law governing abandonment is that in force at the date of the application, see *Beedle v. Bennett* (1887), 122 U. S. 71; 39 O. G. 1326.

That no one but the inventor himself can abandon his invention to the public, see *Jones v. Sewall* (1873), 3 Clifford, 563; 3 O. G. 630; 6 Fisher, 343.

That one joint inventor cannot abandon the invention to the public, see *Sawyer v. Edison* (1883), 25 O. G. 597.

exhausts all that the inventor can bestow. The law cannot permit him to aver that he intended to retain that which he has thus unequivocally surrendered, or to resume it after it has once become a portion of the common stock of knowledge.¹ It therefore treats as an abandonment, whatever he intended it to be, all public use of his invention, except in cases specially provided for, and which hereafter will be more particularly discussed.

§ 349. **Abandonment by Various Methods.**

In considering the subject of abandonment two topics thus present themselves: (1) Abandonment by conduct from which the jury may infer an intention on the part of the inventor to dedicate his invention to the public; (2) Abandonment by public use or sale.¹ Under these heads we may conveniently arrange the rules established by the legislature and the courts, and best preserve those distinctions without which the doctrine of abandonment cannot be understood.

§ 348. ¹ Though somewhat confused with the question of prior knowledge and use on the part of the public as indicating want of novelty, the English courts have always recognized the doctrine that if the real inventor himself suffered his invention to go into the hands of the public he had thereby lost his right to a patent. Thus in *Househill Co. v. Neilson* (1843), 1 Web. 673, Brougham, J. : (712) "In cases of inventions, the patent right, or monopoly, may be granted by the crown to a person, provided he be, 'the true and first inventor,' and provided also, secondly, that at the time of the grant of the monopoly of the patent, others shall not have used the same. Consequently, observe the result, if either he is proved not to be the true inventor, or if, being the true inventor, nevertheless it be proved that there has been a user at the time of the patent by others; in either the one case or the other the right flies off, the condition does not attach which

condition precedent must have existed in both those particulars, etc."

§ 349. ¹ In *Jones v. Sewall* (1873), 3 Clifford, 563, the court declares that abandonment and public use are two different things. This language can only mean that abandonment and public use are not always the same thing. Abandonment may occur in many other ways than by public use; public use may not in every instance afford evidence of an abandonment. But the rule of law is clear enough that public use for over two years with consent of the inventor always is abandonment; that public use with his consent for less than two years may be accompanied by other circumstances which, taken in connection with the use, prove an abandonment; and that by any conduct and at any time the inventor may evince his intention to abandon his invention to the public, and having done so, loses his right to a patent. 3 O. G. 630; 6 Fisher, 343.

SECTION I.

OF ABANDONMENT INFERRED FROM CONDUCT.

§ 350. **Abandonment by Conduct a Question of Fact.**

Abandonment of an invention may be inferred from any action or omission of the inventor which, in the opinion of the jury, is sufficient to establish it. No precise test, therefore, can be applied; but in view of all the circumstances of the given case, the jury are to say whether the inventor intended to surrender or retain control over his invention. Still, as the same act differs in significance according to its relation in point of time to the application for a patent, it is necessary to consider it in reference to this relation and to separately discuss: (1) Abandonment before application; (2) Abandonment by application; and (3) Abandonment after application.

§ 351. **Abandonment before Application.**

An abandonment before application consists in any conduct of the inventor in regard to his invention which indicates an intention upon his part to dedicate it thenceforth to the public. Such conduct may occur at any time before the application.¹ It may comprise a single instantaneous act, or a long series of acts, or mere neglect to act when action is required. Thus where an invention is completed and fully published to the world by the inventor, and then is thrown aside and neither used nor patented by him; or where in words, written or spoken, he expressly bestows it on the public, disclaiming any right exclusive to himself; or where a public use or sale of the invention, though for less than two years, is accompanied by other circumstances showing that the inventor has relinquished his monopoly therein; in these and similar

§ 351. ¹ In *Elizabeth v. Pavement Co.* (1877), 97 U. S. 126, Bradley, J. : (184) "An abandonment of the invention to the public may be evinced by the conduct of the inventor at any time, even within the two years named in the law."

That abandonment may be inferred from delay or other causes, see *Locomotive Engine Safety Truck Co. v. Penna. R. R. Co.* (1874), 10 Phila. 252; 6 O. G. 927; 1 Bann. & A. 470.

instances it has been decided that the actions or omissions of the inventor were sufficient evidence of an abandonment.² But in all cases of this kind the strict presumption is in favor of the inventor; and no conduct which is not entirely volun-

² In the United States Rifle & Cartridge Co. v. Whitney Arms Co. (1877), 14 Blatch. 94, Shipman, J. : (101) "A person may forfeit his rights as an inventor by 'a wilful or negligent postponement of his claims or by an attempt to withhold the benefit of his improvement from the public until a similar or the same improvement should have been made and introduced by others.' (Kendall v. Winsor, 21 Howard, 322.) If there was no purpose on the part of [the plaintiff's patentee] to withhold his improvement from the public, there was a negligent postponement of his claims until after other inventors had acquired equities which it seems unjust to destroy. The language of Judge Woodruff in Consolidated Fruit Jar Co. v. Wright (12 Blatch. C. C. R. 149) though not necessary to the decision of that case, is just and is pertinent to the facts which are here disclosed: 'If an inventor, without substantial reason or excuse, abandons the use of his invention, and for nine years sleeps on his rights, and in the meantime others, in good faith, employ their industry, skill, and money in producing the same thing, and give the public the benefit thereof, putting it into extensive use and on sale, such a state of facts not only warrants the inference of abandonment by the first inventor, but it also creates, as between him and the others, the same equity as would arise if such others had gone further and taken out a patent. Whether the device be patented or has "gone into use without a patent" should make no difference. (Kendall v. Winsor, 21 How. 322.) This is not because lapse of time, *per se*, deprives an inventor of his right, but because the circumstances giving character to the delay indi-

cate abandonment; and also because the intervening rights of others make it inequitable that he should thereafter be permitted to assert any such exclusive title to the invention.'" 11 O. G. 378 (375); 2 Bann. & A. 403 (500).

That to abandon experiments, destroying the experimental structures, is evidence of an intention to abandon the invention in its then existing state, see Seymour v. Osborne (1870), 11 Wall. 516; Johnson v. Root (1862), 2 Fisher, 291; 2 Clifford, 108.

That where an intention to resume the experiments exists, it is not abandonment, see White v. Allen (1863), 2 Clifford, 224; 2 Fisher, 440.

That delay in applying for a patent after the invention is completed does not, *per se*, indicate an intention to abandon the invention, see Kelleher v. Darling (1878), 3 Bann. & A. 438; 4 Clifford, 424; 14 O. G. 678; Henry v. Frankestown Soapstone Stove Co. (1876), 2 Bann. & A. 221; 9 O. G. 408; Andrews v. Carman (1876), 13 Blatch. 307; 9 O. G. 1011; 2 Bann. & A. 277; Russell & Erwin Mfg. Co. v. Mallory (1872), 2 O. G. 495; 10 Blatch. 140; 5 Fisher, 632; Johnsen v. Fassman (1872), 2 O. G. 94; 1 Woods, 138; 5 Fisher, 471; Wood v. Cleveland Rolling Mill Co. (1871), 4 Fisher, 550; Agawam Co. v. Jordan (1868), 7 Wall. 583; Kendall v. Winsor (1858), 21 How. 322; Bentley v. Fleming (1844), 1 C. & K. 587.

That a delay of solicitors in making application is no abandonment, see Birdsall v. McDonald (1874), 1 Bann. & A. 165; 6 O. G. 682.

That no presumption of abandonment arises from delay in procuring

tary, or can reasonably be regarded as consistent with an honest intention to obtain for his invention the protection offered by the law, is ever taken as proof of an abandonment, or allowed to stand between him and the privilege to which every successful and diligent inventor is entitled.

§ 352. Abandonment by Application.

Abandonment by application occurs when the application for a patent, either taken by itself or in connection with other circumstances, indicates an intention on the part of the inventor to surrender to the public some element or attribute of his invention. An application for a patent embraces, among other things, a document known as a specification, which consists of two parts, — a description of the invention, and a statement pointing out such of its peculiar characteristics as the inventor claims to be exclusively his own. These two parts of the specification do not necessarily agree. Though the inventor has described his entire idea of means with each of its

a patent when the delay is caused by sickness, poverty, or insanity, see *Celluloid Mfg. Co. v. Crofut* (1885), 24 Fed. Rep. 796 ; 33 O. G. 235.

That to delay an application in order to make further experiments is not abandonment, see *Locomotive Engine Safety Truck Co. v. Penna. R. R. Co.* (1874), 10 Phila. 252 ; 1 Bann. & A. 470 ; 6 O. G. 927.

That long delay in applying for a patent, coupled with the sale of devices embracing the invention, is abandonment, see *Craver v. Weyhrich* (1887), 31 Fed. Rep. 607.

That an inventor may abandon his invention by permitting it to go into general use for any lapse of time under circumstances which denote an intention on his part to dedicate it to the public, see *Consolidated Fruit Jar Co. v. Wright* (1874), 6 O. G. 327 ; 12 Blatch. 149 ; 1 Bann. & A. 320.

That no general use will of itself indicate such intention unless it be for more than two years, see *Elizabeth v. Pavement*

Co. (1877), 97 U. S. 126 ; *McMillin v. Barclay* (1872), 5 Fishor, 189 ; 4 Brews. (Pa.) 275 ; *Root v. Ball* (1846), 4 McLean, 177 ; 2 Robb, 513.

That a sale of the invention within two years before the application is not evidence of an intention to abandon, see *McCormick v. Seymour* (1851), 2 Blatch. 240 ; *Pitts v. Hall* (1851), 2 Blatch. 229.

That mere words, unaccompanied by acts or omissions, do not indicate abandonment, see *Pitts v. Hall* (1851), 2 Blatch. 229.

That suggestions to others as to the nature of his invention, or consultations with them in regard to it, do not indicate an intention to abandon it, see *Locomotive Engine Safety Truck Co. v. Pennsylvania R. R. Co.* (1874), 1 Bann. & A. 470 ; 6 O. G. 927 ; 10 Phila. 252 ; *Whitney v. Emmett* (1831), Baldwin, 303 ; 1 Robb, 567.

That forfeiture by abandonment is not favored, see *Emery v. Cavanagh* (1883), 17 Fed. Rep. 242 ; *Pitts v. Hall* (1851), 2 Blatch. 229.

subordinate ideas, he may neglect to claim them with such breadth and detail as he ought; and since his patent is commensurate only with his claim, it may fail to protect the whole invention as he has created and described it. The public in this manner are put in possession of the entire invention, while the exclusive right of the inventor is confined to but a part, and thence arises the question whether the failure of the inventor to claim his whole idea operates as an abandonment of the part unclaimed. Here also the decisive fact is the intention of the inventor, and the presumption is in favor of the maintenance of his exclusive rights.¹ If, therefore, there is

§ 352. ¹ In *Ex parte Derby* (1884), 26 O. G. 1208, Butterworth, Com. : (1209) "It is a well-settled principle that abandonment is not to be presumed. It must be affirmatively established by satisfactory proof. An inventor, if he so elects, may, by express declaration, abandon or dedicate his invention to the public. But in the case at bar there is no evidence that the invention has been abandoned by the expressed intention of the inventor. On the contrary, the reverse appears in the very evidence relied upon to prove abandonment. Has the invention been abandoned by the acts of the inventor? In the case of *Shaw v. Cooper* (7 Peters, 292), the Supreme Court say: 'No matter by what means an invention may be communicated to the public before a patent is obtained, any acquiescence in the public use by the inventor will be an abandonment of his right. If the right were asserted by him who fraudulently obtained it, perhaps no lapse of time could give it validity. But the public stand in an entirely different relation to the inventor. The invention passes into the possession of innocent persons who have no knowledge of the fraud, and at a considerable expense, perhaps, they appropriate it to their own use. The inventor or his agent has full knowledge of these facts, but *fails to assert* his

right. Shall he afterward be permitted to assert it with effect? Is not this such evidence of acquiescence in the public use on his part as justly forfeits his right? If an individual witness a sale and transfer of real estate under certain circumstances, in which he has an equitable lien or interest, and does not make known this interest, he shall not afterward be permitted to assert it. On *this principle* it is that a discoverer abandons his right if before the attainment of his patent his discovery goes into public use. His right would be *secured by giving public notice* that he was the inventor of the thing used, and that he *should apply for a patent.*' And further on in the same decision the following language is employed: 'Whatever may be the intention of the inventor, if he suffers his invention to go into public use *through any means whatsoever*, without an immediate *assertion* of his right, he is not entitled to a patent, nor will a patent obtained under such circumstances protect his right.' In this decision, rendered more than fifty years ago, in the infancy of the patent system of this country, we find a clear and accurate exposition of the principle underlying the doctrine of constructive abandonment. In whatever manner the public gains a knowledge of the invention, the right to the use of this knowledge becomes absolute,

nothing, either in the document itself or in the conduct of the inventor, which proves that he intended in this method to

unless the inventor immediately assert his right. The manner pointed out in the decision for asserting his right is 'by giving *public notice* that he was the inventor of the thing used, and that he *should apply for a patent.*' The facts before the court in *Shaw v. Cooper* were that the invention had been publicly used, and thereby the public had gained a knowledge of it; but the language of the court and the principle upon which the decision rests cover a case where information of the invention was communicated to the public through the medium of a patent. In *The Suffolk Co. v. Hayden* (3 Wall. 815), the point was raised that a description of an invention in a patent and *omission to claim it therein* operated as an abandonment or dedication of it to the public, and for that reason a subsequent patent claiming the said invention was void. The court said: 'But the answer to this ground of defence is that it appeared that Hayden, the patentee, had pending before the Commissioner of Patents an application for the same improvement at the time he described it in the specification of the 17th of March, which was doubtless the reason for not claiming it in this patent. The description in no sense affected this application thus pending before the Commissioner, and while it remained before him repelled any inference of abandonment or dedication from the omission to again claim it.' Here the principle announced in *Shaw v. Cooper, supra*, is again recognized, and applied to the extent called for by the facts; for abandonment or dedication to the public was held not to result from a description of an invention in a patent, even though it was not claimed therein, in case *another application claiming such invention was pending before the Commissioner at the time the*

patent was issued. In other words, the pending application negatived the idea of abandonment of the inventor's right to the invention which was described though not claimed in the patent. In the case of *O'Reilly v. Morse* (15 How. 62) the court said: 'It is said, however, that this alleged improvement is not new, and is embraced in his former specification, and that if some portion of it is new it is not so described as to distinguish the new from the old. . . . All that we think is useful or necessary to say is that after a careful examination of the patents, we think the objection on this ground is not tenable.' In this case, though the point now in controversy was raised, yet the decision seems to have turned on the correctness of the counsel's apprehension of the facts upon which the point was based, and as the court found an error in the statement of the facts it was unnecessary to examine the legal proposition involved. In the case of *Campbell v. James* (21 O. G. 337) the following language is used: 'The same combination of post-marker and blotter was also exhibited in Norton's patent of August 9, 1859. As he did not *then reserve* the process of stamping letters with such an instrument, nor the combination of a post-marker and a blotter, and did not make any 'simultaneous application therefor, he could not afterward obtain a patent for such process and combination, but would be restricted to such particular combination or process as might be exhibited in a new device or apparatus.' " The rule suggested by this decision is, that to secure protection for an invention exhibited but not claimed in a patent, the inventor must at the time of the issuance of the patent signify in his disclaimer an intention to reserve it for a future application, or he must evi-

abandon part of his idea, it is assumed that the discrepancy between the claim and the description arose from ignorance or

dence such intention by filing an application claiming such device prior to the issuance of the patent in which it is shown. The decision of *Campbell v. James* is, therefore, perfectly consistent with the decisions of the Supreme Court before mentioned. Indeed, it referred to the several proceedings recounted in *Shaw v. Cooper*, and *Suffolk Company v. Hayden* as disproving constructive abandonment, and determined the case before the court by reference thereto. In *Singer v. Braunsdorf* (7 Blatch. 521); *Graham v. McCormick* (21 O. G. 1533); *McMillin v. Rees* (17 O. G. 1357); *Hatch v. Moffitt* (15 Fed. Rep. 252), and other Circuit Court decisions, views are expressed which are even more liberal than those announced by the Supreme Court; but it is unnecessary to consider them in the present case. It being determined that the inference of abandonment which might result from a description of an invention in a patent without a technical claim thereto would be repelled by an assertion of right by the inventor to said invention, the question remains as to the extent of the effect of such assertion of right. The answer is that abandonment then becomes a question of fact, to be determined by the circumstances of each particular case. A compliance with the requirements suggested in *Shaw v. Cooper*, and other cases cited, makes a *prima facie* case against the plea of abandonment, and this *prima facie* case can only be overcome by proof. Laches tend to establish abandonment, vigilance in the prosecution of the claim being required both by the letter and policy of the law."

That an omission to claim matter clearly described is abandonment, see *Hill v. Commissioner* (1885), 4 Mackay, 266; *Ex parte Derby* (1884), 26 O. G.

1208; *Swift v. Jenks* (1884), 19 Fed. Rep. 641; 27 O. G. 621; *McKay v. Jackman* (1882), 20 Blatch. 466; 12 Fed. Rep. 615; 22 O. G. 85; *Hayes v. Seton* (1882), 20 Blatch. 484; 12 Fed. Rep. 126; *Brainard v. Crammo* (1882), 20 Blatch. 530; 12 Fed. Rep. 621; 22 O. G. 769; *Sheriff v. A. Fulton's Son* (1882), 12 Fed. Rep. 136; 22 O. G. 87; *Combined Patents Can Co. v. Lloyd* (1882), 11 Fed. Rep. 149; 21 O. G. 713; *Rowell v. Lindsay* (1881), 10 Bissell, 217; 6 Fed. Rep. 290; 19 O. G. 1565; *Miller v. Brass Co.* (1881), 104 U. S. 350; 21 O. G. 201.

That whether such description and failure to claim is an abandonment or not depends upon the right of the inventor, under all the circumstances, to correct the omission by a reissue, see *Battin v. Taggart* (1854), 17 How. 74.

That to describe and not claim, through inadvertence, is not abandonment, see *Railway Register Mfg. Co. v. Broadway & Seventh Ave. R. R. Co.* (1886), 26 Fed. Rep. 522; 34 O. G. 921.

That if the invention is delineated in the drawing of a patent but not described in the specification or claim, and is thus brought to the knowledge of the public, it will be abandoned, see *Ex parte Borden* (1884), 26 O. G. 439.

That though an invention is exhibited by the drawings of a patent, the inventor does not thereby abandon it until after two years' public use, see *Hatch v. Moffitt* (1883), 15 Fed. Rep. 252.

That the description of a process in an application for a machine patent does not abandon the process to the public if the process patent is applied for within two years, see *Eastern Paper Bag Co. v. Standard Paper Bag Co.* (1887), 30 Fed. Rep. 63; 41 O. G. 231.

That an application which describes but does not claim an invention is not

inadvertence, and he is permitted to correct it by procuring a reissue of his patent, based on a new and perfect statement of his claims. But, on the other hand, where either by express words in his specification he has dedicated to the public the unclaimed elements of his invention, or by unreasonable delay in seeking a reissue after the defects in his first application have become apparent, or by such conduct, active or passive, upon his part, as would now render the enforcement of his original rights a fraud upon the rights of others, he has since shown that the omission in his claim was originally intended as an abandonment, he cannot be permitted to resume those rights, and by reissuing his patent now appropriate what he has previously given to the world.

§ 353. Abandonment after Application.

An abandonment after application can take place only when the inventor, having filed his application for a patent, voluntarily withdraws it, and permanently relinquishes the purpose

abandonment as against another application by the same inventor for this invention, if the latter application be filed before the first patent issues, see *Graham v. Geneva L. C. Mfg. Co.* (1880), 11 Fed. Rep. 138; 21 O. G. 1536; *Graham v. McCormick* (1880), 11 Fed. Rep. 859; 10 Bissell, 39; 21 O. G. 1533; 5 Bann. & A. 244.

The foregoing cases afford examples of the conflicting statements of the courts concerning the effect of an omission to claim patentable matter described in the application. The subject is more fully discussed in §§ 464-467, 506, 633-635, 687-692, *post.* As a result derived from an examination of all the cases, interpreted and, as far as possible, reconciled by the general principles of Patent Law, the following conclusions are presented:—

I. The mere failure to claim described matter is never, *per se*, an abandonment.

II. The intentional failure to claim described matter is always abandon-

ment, unless there exists also an intention to secure the unclaimed matter by a subsequent patent; which latter intention may be evidenced (1) by filing another application covering such matter before the issue of the first patent; or (2) by reserving in the first patent a right to secure such matter by a future patent; or (3) by applying for a subsequent patent, covering such matter, within a reasonable time after the issue of the first patent, and before other inventors or the public have acted on the apparent abandonment created by the failure to claim in the first patent.

III. The unintentional failure to claim described matter is never abandonment; but that such failure was intentional will be presumed unless the patentee applies for an amendment by reissue, or for a subsequent patent, within reasonable time after he discovers, or is chargeable with knowledge, that his original patent does not protect his entire invention.

of obtaining legal protection for his invention. That an inventor has power thus to abandon his invention is unquestionable, and it may often happen that after endeavoring to procure a patent and encountering unexpected difficulties he will deem it expedient to forego further trouble and expense, and allow his idea to become public property. But the proof of such abandonment as this must be conclusive.¹ No length of time expended in surmounting obstacles arising in the Patent Office, no number of successive applications rendered necessary by the rejection of others previously filed, no interval of unavoidable delay between one application and another, nor any other action or omission of the inventor which is not manifestly inconsistent with the design to further prosecute his claims, can issue in this species of abandonment.² While in

§ 353. ¹ In *United States Rifle & Cartridge Co. v. Whitney Arms Co.* (1886), 118 U. S. 22, Gray, J. : (24) "There may be an abandonment of an invention to the public, as well after an application has been rejected or withdrawn as before any application is made. Such abandonment may be proved either by express declarations of an intention to abandon, or by conduct inconsistent with any other conclusion. An inventor, whose application for a patent has been rejected, and who, without substantial reason or excuse, omits for many years to take any step to reinstate or renew it, must be held to have acquiesced in its rejection, and to have abandoned any intention of further prosecuting his claim." 35 O. G. 873 (873).

In *American Hide and Leather Splitting and Dressing Mach. Co. v. The American Tool and Machine Co.* (1870), Holmes, 503, Shepley, J. : (513) "The abandonment to the public in the sense in which it is here used need not be two years before the date of the application for the patent; it may be afterward, although the presumption always is against an abandonment to the public by a patentee after he has applied for

his patent. But he can do so; he can do so within two years; he can do so at any time. It is a matter that may be proved, but it is never to be presumed." 4 Fisher, 284 (299). See also *Weston v. White* (1876), 13 Blatch. 447; 2 Bann. & A. 364.

That an abandonment after application must be clearly proved, see *McMillin v. Barclay* (1872), 4 Brews. (Pa.) 275; 5 Fisher, 189.

² For a general discussion of the cases of abandonment after application, see *Colgate v. Western Union Telegraph Co.* (1878), 15 Blatch. 365; 4 Bann. & A. 36; 14 O. G. 943.

That no delays in the Patent Office without fault of the inventor work an abandonment, see *Planing Mach. Co. v. Keith* (1879), 101 U. S. 479; *Henry v. Frankestown Soapstone Stove Co.* (1876), 2 Bann. & A. 221; 9 O. G. 408; *Jones v. Sewall* (1873), 3 Clifford, 563; 3 O. G. 630; 6 Fisher, 343; *Dental Vulcanite Co. v. Wetherbee* (1866), 2 Clifford, 555; 3 Fisher, 87; *Sayles v. Chicago & Northwestern R. R. Co.* (1865), 1 Bissell, 468; 2 Fisher, 523.

That a delay caused by war is not abandonment, see *Knox v. Loweree*

pursuit of his legal rights, according to the measure of his abilities, he cannot be affected by the adverse action either of the government or of the public.³ Only when he gives up the struggle and finally surrenders his exclusive privilege as no longer worth maintaining, is the public so possessed of his invention that his rights in it become incapable of recognition.

(1874), 1 Bann. & A. 589; 6 O. G. 802.

That the mere abandonment of the application is not abandonment of the invention, see *Lindsay v. Stein* (1882), 20 Blatch. 370; 10 Fed. Rep. 907; 21 O. G. 1613; *Clark v. Scott* (1872), 2 O. G. 4; 9 Blatch. 301; 5 Fisher, 245; *Bevin v. East Hampton Bell Co.* (1871), 9 Blatch. 50; 5 Fisher, 23.

That an abandonment of the application during eighteen years has been held to be an abandonment of the invention, see *Marsh v. Commissioner of Patents* (1872), 3 Bissell, 321.

That fifteen years' inaction after withdrawal is abandonment, see *Consolidated Fruit Jar Co. v. Bellaire Stamping Co.* (1886), 27 Fed. Rep. 377; 35 O. G. 627.

That no abandonment of an application can take place except by conduct inconsistent with due diligence in prosecuting the application, see *Ballard v. Pittsburgh* (1882), 12 Fed. Rep. 783; *Singer v. Braunsdorf* (1870), 7 Blatch. 521; *Adams v. Edwards* (1848), 1 Fisher, 1.

That no number of successive applications indicate an intention to abandon, but that, in reference to the question of abandonment, all such are regarded as one application, see *Graham v. McCormick* (1880), 10 Bissell, 39; 11 Fed. Rep. 859; 21 O. G. 1533; 5 Bann. & A. 244; *Graham v. Geneva L. C. Co.* (1880), 11 Fed. Rep. 138; 21 O. G.

1536; *Howes v. McNeal* (1878), 15 Blatch. 103; 15 O. G. 608; 3 Bann. & A. 376; *Howard v. Christy* (1876), 2 Bann. & A. 457; 10 O. G. 981; *Goodyear Dental Vulcanite Co. v. Willis* (1874), 1 Bann. & A. 568; 7 O. G. 41; 1 Flippin, 388; *Howe v. Newton* (1865), 2 Fisher, 531; *Godfrey v. Eames* (1863), 1 Wall. 317.

That between two successive applications the inventor may abandon his intention to procure a patent, and then resuming his intention, file a new and independent application, see *Pelton v. Waters* (1874), 1 Bann. & A. 599; 7 O. G. 425.

See further as to abandonment of the application and its effect on the invention §§ 574-581 and notes, *post*.

³ That a public use and sale of the invention, pending an application, however prolonged, is not abandonment, see *Goodyear Dental Vulcanite Co. v. Smith* (1874), 5 O. G. 585; *Holmes*, 354; 1 Bann. & A. 201; *Smith v. O'Connor* (1873), 4 O. G. 633; 2 Sawyer, 461; 6 Fisher, 469; *Dental Vulcanite Co. v. Wetherbee* (1866), 2 Clifford, 555; 3 Fisher, 87.

That the decision of the Commissioner on a question of abandonment is not conclusive, and the patent may be attacked on that ground, see *United States Rifle & Cartridge Co. v. Whitney Arms Co.* (1886), 118 U. S. 22; 35 O. G. 873.

SECTION II.

OF ABANDONMENT BY PUBLIC USE OR SALE.

§ 354. **Abandonment by Public Use: History of the Doctrine.**

The public use of an invention, with the consent of the inventor, has always been regarded as furnishing conclusive evidence of his intention to abandon it. In its earlier stages the law both in England and in this country was in this respect especially severe. The statute of James I. allowed the grant of letters-patent only for inventions which others, at the date of such letters-patent, did not use; and under this provision the courts held that a single instance of such use by any person other than the inventor, or even by the inventor in a public manner, was sufficient to debar him from a patent. In the United States, the act of 1793 required that the invention should not have been used before the application, and this our courts construed as prohibiting a public use by the consent of the inventor, and decided that his acquiescence in the enjoyment of his invention by the public, whatever might be its duration or extent, was equivalent to an abandonment. So strict a rule was necessarily disadvantageous to inventors and indirectly prejudicial to the public. In 1835 the evil was diminished in Great Britain by an act of Parliament providing for the confirmation of such patents as would otherwise be void by reason of some prior use by others; and in 1852 the 15 and 16 Vict. c. 83 rendered this use a bar only when it occurred before the application. In this country, by the act of 1836, Congress adopted the construction given by the courts to the language of the act of 1793, and also placed the sale of the invention, as an article of traffic, on the same footing with its public use. In 1839 it further relieved inventors by permitting public use and sale of the invention for two years before the application.¹ This provision still continues in our law.

§ 354. ¹ That the date of the application for a patent is the date when such application is filed in the Patent Office, not when the inventor places his case in the hands of his solicitors, see *Graham v. McCormick* (1880), 10 Bissell, 39; 11 Fed. Rep. 859; 21 O. G. 1533; 5 Bann. & A. 244; *Henry v.*

At present, therefore, an abandonment is conclusively presumed against the inventor from the public use or sale of the invention with his consent for more than two years before his application for a patent.² As to what constitutes such public use and sale we shall now inquire, and first, in ref-

Francestown Soapstone Stove Co. (1880), 2 Fed. Rep. 78 ; 17 O. G. 569 ; 5 Bann. & A. 108.

That if on the rejection of one application another is filed, both are regarded as the same application, and the date of the former is that of its successors, see *Graham v. McCormick* (1880), 10 Bissell, 39 ; 11 Fed. Rep. 859 ; 21 O. G. 1533 ; 5 Bann. & A. 244 ; *Graham v. Geneva L. C. Co.* (1880), 11 Fed. Rep. 138 ; 21 O. G. 1536 ; *Howes v. McNeal* (1878), 15 Blatch. 103 ; 15 O. G. 608 ; 3 Bann. & A. 376 ; *Howard v. Christy* (1876), 2 Bann. & A. 457 ; 10 O. G. 981 ; *Goodyear Dental Vulcanite Co. v. Willis* (1874), 1 Bann. & A. 568 ; 7 O. G. 41 ; 1 Flippin, 388 ; *Godfrey v. Eames* (1863), 1 Wall. 317.

That under § 4894 Rev. Stat., if a new application is not filed within two years after a former application is rejected, it does not date from the date of the former, in reference to public use and sale, see *Lindsay v. Stein* (1882), 20 Blatch. 370 ; 10 Fed. Rep. 907 ; 21 O. G. 1613.

That a delay in prosecuting the application for over two years may be condoned if it is unavoidable, and on this point the decision of the Commissioner is final, see *McMillin v. Barclay* (1872), 4 Brews. (Pa.) 275 ; 5 Fisher, 189.

That a reissue application is of the same date as its original, as far as the question of public use or sale is concerned, see *Shaw v. Colwell Lead Co.* (1882), 20 Blatch. 417 ; 11 Fed. Rep. 711.

That no public use or sale after the application, for however long a time,

raises a conclusive presumption of abandonment', see *Goodyear Dental Vulcanite Co. v. Smith* (1874), 5 O. G. 585 ; Holmes, 354 ; 1 Bann. & A. 201 ; *Smith v. O'Connor* (1873), 4 O. G. 633 ; 2 Sawyer, 461 ; 6 Fisher, 469 ; *Dental Vulcanite Co. v. Wetherbee* (1866), 2 Clifford, 555 ; 3 Fisher, 87.

² In *Manning v. Cape Ann Isinglass & Glue Co.* (1879), 4 Bann. & A. 612, Lowell, J.: (613) "It has always been a pre-requisite or condition precedent to the grant of a valid patent that the thing patented shall not have been in use. By the English law, and formerly by ours, a use before the date of the patent, or of the application, destroyed the novelty of the invention. But for the last forty years we have permitted a use not exceeding two years before the application. Obvious reasons of policy and justice require that an inventor should not monopolize what he has neglected to patent for a considerable time, if in the meantime the public have acquired the knowledge of it, whether through him or from an independent source. Before 1870 it was generally understood that two years' use would not destroy the patent unless it was had with the 'consent and allowance' of the inventor. These words are not found in the statute of 1870, nor in the Revised Statutes ; and Judge Blatchford has lately decided that they are no part even of the law of 1839."

That under the act of 1793, use by others than the inventor with his consent was a bar, see *Earl v. Page* (1834), 6 N. H. 477 ; *Pennock v. Dialogue* (1829), 2 Peters, 1 ; 1 Robb, 542 ; Tread-

erence to public use, consider: (1) The nature of the use itself; (2) Its public character; and (3) The consent of the inventor.

§ 355. Experimental Use not Public Use.

That use of an invention from which, if public and consented to by the inventor, abandonment may be presumed, consists in the practical employment of the invention in the ordinary course of trade, as distinguished both from the mere construction of the invention and from its experimental use. To make an instrument is not to use it.¹ A use which is experimental, or is designed to test the capability or merits of an art or instrument, is not a use from which abandonment can be inferred.² Such use assumes that the inventor does

well *v. Bladen* (1827), 4 Wash. 703; 1 Robb, 531; *Pennock v. Dialogue* (1825), 4 Wash. 538; 1 Robb, 466.

That two years' use or sale before the application raises a conclusive presumption of abandonment, see *Andrews v. Hovey* (1887), 123 U. S. 267; 41 O. G. 1162; *Adams & Westlake Mfg. Co. v. Rathbone* (1886), 26 Fed. Rep. 262; *Hutchinson v. Everett* (1885), 26 Fed. Rep. 531; 35 O. G. 1110; *Bates v. Coe* (1878), 98 U. S. 31; 15 O. G. 337; *Elizabeth v. Pavement Co.* (1877), 97 U. S. 126; *McMillin v. Barclay* (1872), 4 Brews. (Pa.) 275; 5 Fisher, 189.

That this presumption cannot be rebutted by any evidence of difficulties with which the inventor was obliged to contend, see *Sisson v. Gilbert* (1871), 5 Fisher, 109 9 Blatch. 185.

That this rule applies to all classes of inventions, including designs, see *Burton v. Town of Greenville* (1880), 18 O. G. 411; 5 Bann. & A. 541; 3 Fed. Rep. 642.

That a defective combination on sale for two years cannot be so reconstructed as to be useful and then patented, unless inventive skill is used and the combination is new, see *Newark Mach. Co. v.*

Hargett (1886), 28 Fed. Rep. 567; 36 O. G. 692.

That the public use and sale of an impracticable machine bars a patent for its component devices, see *Newark Mach. Co. v. Hargett* (1886), 28 Fed. Rep. 567; 36 O. G. 692.

That an assignment of the patent to the user does not prevent the public use from being an abandonment, see *Worley v. Tobacco Co.* (1882), 104 U. S. 340; 21 O. G. 559.

That two years' public use before the first application is necessary to abandonment where several applications are continuous, see *Graham v. McCormick* (1880), 21 O. G. 1533; 10 Bissell, 39; 11 Fed. Rep. 859; 5 Bann. & A. 244.

§ 355. ¹ That the making or construction of an invention, without using or selling it, is not public use, see *Comstock v. Sandusky Seat Co.* (1878), 13 O. G. 230; 8 Bann. & A. 188; *Betts v. Menzies* (1859), 5 Jur. n. s. 1164; *Bramah v. Hardcastle* (1789), Holroyd, 81; 1 Web. 44, n.; 1 Abb. P. C. 51.

² In *Lyman v. Maypole* (1884), 19 Fed. Rep. 735, Blodgett, J.: (736) "The law permits an inventor to con-

not yet regard his own idea of means as perfectly developed, or fears that his embodiment of it is not adapted to its full

struct a machine which he is engaged in studying upon and developing, and place it in friendly hands for the purpose of testing it and ascertaining whether it will perform the functions claimed for it; and if these machines are strictly experiments, made solely with a view to perfect the device, the right of the inventor remains unimpaired; but when an inventor puts his incomplete or experimental device upon the market and sells it, as a manufacturer, more than two years before he applies for his patent, he gives to the public the device in the condition or stage of development in which he sells it." 28 O. G. 810 (811).

In *Sprague v. Smith & Griggs Mfg. Co.* (1882), 12 Fed. Rep. 721, Shipman, J.: (724) "It is perfectly true that a patentee cannot be permitted to use for profit a machine which embodies a perfected invention, for a period of two years or more, and then obtain a valid patent for the old machine by means of the addition of some new improvements which, in the language of Judge Lowell, 'were intended to benefit the patent rather than the machine.' The present case is that of a machine which was imperfect, and which demanded and received the continuous experiments of the inventor to remedy the defects in its organization. It is not true that the inventor cannot safely use for profit such a machine in its imperfect state, lest two years should elapse during the experimental period before the invention is completed and the patent is applied for."

See also *Emery v. Cavanagh* (1883), 17 Fed. Rep. 242; *Graham v. McCormick* (1880), 21 O. G. 1533; 10 Bissell, 39; 11 Fed. Rep. 859; 5 Bann. & A. 244; *Jennings v. Pierce* (1878), 15 Blatch. 42; 3 Bann. & A. 361;

McMillin v. Barclay (1872), 4 Brews. (Pa.) 275; 5 Fisher, 189.

That though the invention upon experiment prove complete, the use may still have been experimental and not public, see *Bentley v. Fleming* (1844), 1 C. & K. 587.

That a continuous use is not experimental use if the subsequent completion of the invention did not add to its patentable character, see *International Tooth Crown Co. v. Richmond* (1887), 39 O. G. 1550; 30 Fed. Rep. 775; 24 Blatch. 223.

That the use of machines, substantially the same, for two years in public, cannot be experimental but is public use, see *Sanders v. Logan* (1861), 2 Fisher, 167.

That a continued use in business without change is not experimental use, see *Manning v. Cape Ann Isinglass & Glue Co.* (1883), 108 U. S. 462; 23 O. G. 2413.

That where an invention is complete and is practically used for a long time in the usual way, it is not experimental use, see *Hall v. MacNeale* (1882), 107 U. S. 90; 23 O. G. 937.

That the effect of public use is not avoided by making non-patentable additions or improvements, see *International Tooth Crown Co. v. Richmond* (1887), 39 O. G. 1550; 30 Fed. Rep. 775; 24 Blatch. 223.

That an experimental use of the apparatus employed in the process more than two years before the application for the process patent is no abandonment of the process, see *Eastern Paper Bag Co. v. Standard Paper Bag Co.* (1887), 30 Fed. Rep. 63; 41 O. G. 231.

That the inaction of the inventor for two years after an experimental use may indicate that he did not regard the in-

expression; and therefore his experimental use of the invention, whether in public or in private, and for however long a time continued, indicates no intention to surrender it to the public, but on the contrary a design to retain entire control over it for the purpose of completely realizing his idea.³ That from a use

vention as complete, see *Beedle v. Bennett* (1887), 122 U. S. 71; 39 O. G. 1326.

That where an invention is made for sale and is sold it is not an experimental use, see *Newark Mach. Co. v. Hargett* (1886), 28 Fed. Rep. 567; 36 O. G. 692.

³ In *Elizabeth v. Pavement Company* (1877), 97 U. S. 126, Bradley, J.: (134) "But in this case it becomes important to inquire what is such a public use as will have the effect referred to. That the use of the pavement in question was public, in one sense, cannot be disputed. But can it be said that the invention was in public use? The use of an invention by the inventor himself, or by any other person under his direction, by way of experiment and in order to bring the invention to perfection, has never been regarded as such a use. *Curtis, Patents*, § 381; *Shaw v. Cooper*, 7 Pet. 292. Now the nature of a street pavement is such that it cannot be experimented upon satisfactorily except on a highway, which is always public. When the subject of invention is a machine, it may be tested and tried in a building, either with or without closed doors. In either case such use is not a public use, within the meaning of the statute, so long as the inventor is engaged, in good faith, in testing its operation. He may see cause to alter it and improve it, or not. His experiments will reveal the fact whether any and what alterations may be necessary. If durability is one of the qualities to be attained, a long period, perhaps years, may be necessary to enable the inventor to discover whether his purpose

is accomplished. And though, during all that period, he may not find that any changes are necessary, yet he may be justly said to be using his machine only by way of experiment; and no one would say that such a use, pursued with a *bona fide* intent of testing the qualities of the machine, would be a public use within the meaning of the statute. So long as he does not voluntarily allow others to make it and use it, and so long as it is not on sale for general use, he keeps the invention under his own control, and does not lose his title to a patent. It would not be necessary, in such a case, that the machine should be put up and used only in the inventor's own shop or premises. He may have it put up and used in the premises of another, and the use may enure to the benefit of the owner of the establishment. Still, if used under the surveillance of the inventor, and for the purpose of enabling him to test the machine, and ascertain whether it will answer the purpose intended, and make such alterations and improvements as experience demonstrates to be necessary, it will still be a mere experimental use and not a public use, within the meaning of the statute. Whilst the supposed machine is in such experimental use, the public may be incidentally deriving a benefit from it. If it be a grist mill, or a carding machine, customers from the surrounding country may enjoy the use of it by having their grain made into flour, or their wool into rolls, and still it will not be in public use within the meaning of the law. But if the inventor allows his machine to be used by other persons generally,

like this benefit accrues indirectly to the public, or some ad-

either with or without compensation, or if it is with his consent put on sale for such use, then it will be in public use and on public sale within the meaning of the law. If now we apply the same principles to this case, the analogy will be seen at once. Nicholson wished to experiment on his pavement. He believed it to be a good thing, but he was not sure, and the only mode in which he could test it was to place a specimen of it in a public roadway. He did this at his own expense, and with the consent of the owners of the road. Durability was one of the qualities to be attained. He wanted to know whether his pavement would stand and whether it would resist decay. Its character for durability could not be ascertained without its being subjected to use for a considerable time. He subjected it to such use in good faith, for the simple purpose of ascertaining whether it was what he claimed it to be. Did he do anything more than the inventor of the supposed machine might do in testing his invention? The public had the incidental use of the pavement, it is true; but was the invention in public use within the meaning of the statute? We think not. The proprietors of the road alone used the invention, and used it at Nicholson's request, by way of experiment. The only way in which they could use it was by allowing the public to pass over the pavement. Had the city of Boston, or other parties used the invention by laying down the pavement in other streets and places, with Nicholson's consent and allowance, then, indeed, the invention itself would have been in public use within the meaning of the law; but this was not the case. Nicholson did not sell it, nor allow others to use or sell it. He did not let it go beyond his control. He did nothing that indicated any intent to do so. He kept it under his own eyes, and

never for a moment abandoned the intent to obtain a patent for it. In this connection it is proper to make another remark. It is not a public knowledge of his invention that precludes the inventor from obtaining a patent for it, but a public use or sale of it. In England, formerly, as well as under our Patent Act of 1793, if an inventor did not keep his invention secret, if a knowledge of it became public before his application for a patent, he could not obtain one. To be patentable, an invention must not have been known or used before the application; but this has not been the law of this country since the passage of the act of 1836, and it has been very much qualified in England. *Lewis v. Marling*, 10 B. & C. 22. Therefore, if it were true that during the whole period in which the pavement was used, the public knew how it was constructed, it would make no difference in the result. It is sometimes said that an inventor acquires an undue advantage over the public by delaying to take out a patent, inasmuch as he thereby preserves the monopoly to himself for a longer period than is allowed by the policy of the law; but this cannot be said with justice when the delay is occasioned by a *bona fide* effort to bring his invention to perfection, or to ascertain whether it will answer the purpose intended. His monopoly only continues for the allotted period in any event; and it is the interest of the public, as well as himself, that the invention should be perfect and properly tested, before a patent is granted for it. Any attempt to use it for a profit and not by way of experiment, for a longer period than two years before the application, would deprive the inventor of his right to a patent." The substance of the doctrine, as thus stated, is this:

Public use is a question of abandonment. The inventor abandons only

vantage is obtained by the inventor, does not change its char-

when he dedicates his invention to the public. As long as he retains control over it he does not dedicate it. By two years' unrestricted public use, etc., he does dedicate and lose control over it.

In *Henry v. Francestown Soapstone Stove Co.* (1876), 9 O. G. 408, Shepley, J. : (409) "The fact of a public use or sale more than two years prior to the application, when clearly proved, is fatal to the patent. But the objection rests upon the principle of forfeiture, and is not to be so favorably regarded as to dispense with the necessity of strict proof. Public use in good faith for experimental purposes, while the inventor is perfecting his invention, and for a reasonable period even before the beginning of the two years of limitation, cannot affect the rights of the inventor." 2 Bann. & A. 221 (223).

In *Whitney v. Emmett* (1831), Baldwin, 303, Baldwin, J. : (310) "A patentee may take a reasonable time to make his specification, drawings, model, to try experiments on the effect and operation of his machinery in order to know whether the thing patented can be produced in the mode specified; he may disclose his secret to those he may wish to consult, or call to his assistance any persons to aid him in making or using his machine, and preparations for procuring his patent. So if the machine is to operate publicly, as in steamboats, a public experiment may be made. . . . In either of these, and in like cases, a disclosure of the secret would not be such previous knowledge, or the use of the invention be such an use, as would impair the patent, etc." 1 Robb, 567 (577).

In re Adamson's Patent (1856), 6 De G., M., & G. 419, the inventor having used his own invention publicly in the course of business before patent, Cranworth, L. C., said : (421) "I think

there has been a clear dedication to the public. Cases may arise in which there may be a doubt as to whether an invention has or has not been made public. In the present instance, however, an invention has been made in the progress of a work, and it has been used publicly by the inventor, not as an invention, but in the carrying on and execution of that work. . . . No doubt an experiment might have been made, and if made *bona fide* only for the purpose of testing the merits of an invention I do not think it would have amounted to a dedication to the public; but where, as in the present case, thousands of persons had the opportunity of seeing the apparatus at work for a period of four months, during the carrying on of the petitioner's contract and in the regular course of the undertaking, it is quite clear that no intention of applying for a patent originally existed; and under such circumstances . . . I must hold that there was a dedication to the public."

That an experimental use may be in public, if necessary, and does not thereby become public use, see *Railway Register Mfg. Co. v. Broadway & Seventh Ave. R. Co.* (1886), 26 Fed. Rep. 522; 34 O. G. 921; *Railway Register Mfg. Co. v. Broadway & Seventh Ave. R. Co.* (1884), 22 Fed. Rep. 655; 30 O. G. 180; *Campbell v. Mayor of New York* (1881), 20 Blatch. 67; 20 O. G. 1817; 9 Fed. Rep. 500; *Andrews v. Cross* (1881), 19 O. G. 1705; 8 Fed. Rep. 269; 19 Blatch. 294; *Graham v. McCormick* (1880), 21 O. G. 1533; 10 Bissell, 39; 11 Fed. Rep. 859; 5 Bann. & A. 244; *Sinclair v. Backus* (1880), 5 Bann. & A. 81; 17 O. G. 1503; 4 Fed. Rep. 539; *Campbell v. James* (1879), 18 O. G. 979; 17 Blatch. 42; 4 Bann. & A. 456; *Draper v. Wattles* (1878), 3 Bann. & A. 618;

actor.⁴ A use clearly experimental, in good faith and for a reasonable time, though it may show that the invention is in fact complete, does not affect the exclusive rights of the inventor or constitute a dedication to the public. Such dedication is inferrible only from a use in the same manner and for the same beneficial purposes as would exist if the invention, being finished, patented, and published to the world, had been recognized and adopted by the public as an operative means for the accomplishment of certain ends.

§ 356. Public Use is such Use as Gives the Public a Knowledge and Control of the Invention.

A public use is not necessarily a use *in* public nor a use *by* the public, as these terms are generally understood. Any use is public by which the invention passes beyond the control of the inventor. The practical employment of the art or instrument by a single person other than the inventor, if under no obligations as to secrecy or to limitations in the mode of use, is public use; and this is true whether the use is open or concealed, if it be in accordance with the customary method of employing such inventions.¹ Even a use by the inventor or

16 O. G. 629; U. S. Rifle & Cartridge Co. v. Whitney Arms Co. (1877), 14 Blatch. 94; 11 O. G. 373; 2 Bann. & A. 493; Birdsall v. McDonald (1874), 1 Bann. & A. 165; 6 O. G. 682; Locomotive Engine Safety Truck Co. v. Pennsylvania R. R. Co. (1874), 1 Bann. & A. 470; 6 O. G. 927; 10 Phila. 252; Jones v. Sewall (1873), 3 O. G. 630; 3 Clifford, 563; 6 Fisher, 343; American Nicholson Pavement Co. v. City of Elizabeth (1873), 6 Fisher, 424; 3 O. G. 522; Sisson v. Gilbert (1871), 5 Fisher, 109; 9 Blatch. 185; Winans v. N. Y. & Harlem R. R. Co. (1855), 4 Fisher, 1; Pitts v. Hall (1851), 2 Blatch. 229; *In re* Newall (1858), 4 C. B. n. s. 269; Honiball v. Bloomer (1854), 2 Web. 199; Bentley v. Fleming (1844), 1 C. & K. 587.

That the same privilege of experimental use, even in public, was recog-

nized before the act of 1839, see *Winans v. Schenectady & Troy R. R. Co.* (1851), 2 Blatch. 279.

⁴ In *Smith & Griggs Mfg. Co. v. Sprague* (1887), 123 U. S. 249, Matthews, J. : (256). "A use by the inventor for the purpose of testing the machine, in order by experiment to devise additional means for perfecting the success of its operation, is admissible; and where, as incident to such use, the product of its operation is disposed of by sale, such profit from its use does not change its character; but where the use is mainly for the purposes of trade and profit, and the experiment is merely incidental to that, the principal and not the incident must give character to the use." 41 O. G. 1037 (1039).

See also cases under note 2, *ante*.

§ 356. ¹ In *Egbert v. Lippman* (1881),

his servants or his fellow-workmen, if in the ordinary course of trade and exposed to the inspection of the public, is held to

104 U. S. 333, Woods, J.: (336) "We observe, in the first place, that to constitute the public use of an invention it is not necessary that more than one of the patented articles should be publicly used. The use of a great number may tend to strengthen the proof, but one well-defined case of such use is just as effectual to annul the patent as many. *McClurg v. Kingsland*, 1 How. 202; *Consolidated Fruit Jar Co. v. Wright*, 94 U. S. 92; *Pitts v. Hall*, 2 Blatchf. 229. For instance, if the inventor of a mower, a printing-press, or a railway-car makes and sells only one of the articles invented by him, and allows the vendee to use it for two years without restriction or limitation, the use is just as public as if he had sold and allowed the use of a great number. We remark, secondly, that whether the use of an invention is public or private does not necessarily depend upon the number of persons to whom its use is known. If an inventor, having made his device, gives or sells it to another, to be used by the donee or vendee without limitation or restriction, or injunction of secrecy, and it is so used, such use is public, even though the use and knowledge of the use may be confined to one person. We say, thirdly, that some inventions are by their very character only capable of being used where they cannot be seen or observed by the public eye. An invention may consist of a lever or spring hidden in the running-gear of a watch, or of a ratchet, shaft, or cog-wheel covered from view in the recesses of a machine for spinning or weaving. Nevertheless, if its inventor sells a machine of which his invention forms a part, and allows it to be used without restriction of any kind, the use is a public one. So, on the other hand, a use necessarily open to public view, if

made in good faith solely to test the qualities of the invention, and for the purposes of experiment, is not a public use within the meaning of the statute. *Elizabeth v. Pavement Company*, 97 U. S. 126; *Shaw v. Cooper*, 7 Pet. 292." 21 O. G. 75 (76). Dissenting opinion by Miller, J., that unless the use is such that the public may have knowledge, it is not public use; that a secret steel in a corset, for example, used for years by the wearer is not publicly used.

In *Perkins v. Nashua Card and Glazed Paper Co.* (1880), 17 O. G. 1285, Lowell, J.: (1286) "The law desires to encourage inventors to make their discoveries known for the improvement of the art, and to discourage an extension of the monopoly beyond the statutory period. For these reasons, and because of the difficulty of ascertaining the amount of knowledge which may have been derived from the exhibition, publication, or use of the invention, it has always been held that when the public have had means of knowledge they have had knowledge of the invention. Thus if a book has been published describing the invention, it is not important that no one has read it. *Stead v. Williams*, 7 M. & G. 818. If a pier has been placed in the bed of a river, or a pipe underground, it is conclusively presumed to be known to all men. It has been intimated that a use in a workshop, where the workmen are pledged to secrecy, may not be a public use. *Kendall v. Winsor*, 21 How. 322; charge of *Curtis, J.*, p. 326; *Bevin v. East Hampton Bell Co.*, 9 Blatch. 50; *Heath v. Smith*, 3 Ellis & B. 255. In the last of these cases it is held that if the invention has been worked in the ordinary way, without an injunction of secrecy, the use is public. In *McClurg v. Kings-*

be a public use, from the facilities which it affords and the inducements which it offers to the public to avail themselves of

land, 1 How. 202, it is said by Mr. Justice Baldwin, *obiter*, that use in a factory is a public use. A use very trifling in amount, or a publication purely technical, or a single sale have often been held to deprive an inventor of his patent, without evidence that any one interested to acquire knowledge of the invention had acquired it. *Henry v. Providence Tool Co.*, 14 O. G. 855; *Egbert v. Lippman*, 14 O. G. 822; *McMillin v. Barclay*, 5 Fisher, 189; *Re Adamson's Patent*, 6 De G., M., & G. 420; *Patterson v. Gas Light Co.*, 3 App. Cas. 239; *Lang v. Gisborne*, 31 Beav. 133. . . . Taking these decisions together, I understand the law to be that actual knowledge of the invention need not have been derived by any one interested to practise it. It is enough that any one or more persons not under a pledge of secrecy saw the invention practised, or even might have seen it if they had used their opportunities, provided it was in fact practised in the ordinary way after being completed. And it must be held either that the workmen and visitors were a part of the public, or that they were persons from whom the public might have acquired the art without a breach of trust." 2 Fed. Rep. 451 (452); 5 Bann. & A. 395 (396).

In *Manning v. Cape Ann Isinglass and Glue Co.* (1879), 4 Bann. & A. 612, Lowell, J.: (614) "Public use means not only a use by the public but a use in public, that is to say, one which is not secret, and therefore one from which, so far as the inventor is concerned, the public may, by any of the chances of life, acquire the knowledge. A remarkable case is that of the lady who wore an improved pair of corsets, given her by the inventor, wore them two years before he applied for a patent upon the article, which was held a public use. *Egbert v.*

Lippman, 14 O. G. 822. In a case like the present, the use of a machine by the inventor himself 'in the ordinary way of the public use of a machine,' which I understand to mean without special secrecy, will be a public use. *Pitts v. Hall*, 2 Blatch. C. C. R. 229, 235; *Bevin v. East Hampton Bell Co.*, 9 Blatch. C. C. R. 50; *McMillin v. Barclay*, 5 Fisher, 189; *Re Adamson's Patent*, 6 De G., M., & G. 420; *Heath v. Smith*, 3 Ellis & B. 256. The non-existence of public use being a condition precedent to the validity of the grant, the intent of the inventor not to abandon the invention, or his reasons for not applying for a patent, though of a most potent character, such as illness, are immaterial. See *Pennock v. Dialogue*, 2 Pet. 1, and the remarks of Marshall, C. J., on that case in *Grant v. Raymond*, 6 Pet. 218, 248; *McClurg v. Kingsland*, 1 How. 202, 208, *per* Baldwin, J.; *Sisson v. Gilbert*, 9 Blatch. C. C. R. 185; *Egbert v. Lippman*, 14 O. G. 822. Evidence that any one has copied the invention which is thus brought, presumptively, to the knowledge of mankind, is not necessary to the success of this defence. Such a fact would often be difficult to prove or disprove, and the use itself, in any of the modes above explained, works a forfeiture, without more."

See also *Whitney v. Emmett* (1831), Baldwin, 303; 1 Robb, 567.

That public use is use in public, not in secret, see *Henry v. Providence Tool Co.* (1878), 14 O. G. 855; 3 Bann. & A. 501; *Adams v. Edwards* (1848), 1 Fisher, 1.

That the use may be public though concealed from view (as in a lock, or safe-walls, etc.), see *Hall v. MacNeale* (1882), 107 U. S. 90; 23 O. G. 937.

That a single instance of use in public is sufficient, see *Clark Pomace*

its advantages.² But a mere temporary use permitted to another as an act of kindness, or a use existing under injunctions of secrecy or subject to the will of the inventor, or the private use of the invention by the inventor or his employees

Holder Co. v. Ferguson (1883), 21 Blatch. 376; 17 Fed. Rep. 79; 24 O. G. 1090; *Egbert v. Lippman* (1881), 104 U. S. 333; 21 O. G. 75; *Worley v. Tobacco Co.* (1881), 104 U. S. 340; 21 O. G. 559; *Henry v. Providence Tool Co.* (1878), 14 O. G. 855; 3 Bann. & A. 501; *Kelleher v. Darling* (1878), 4 Clifford, 424; 14 O. G. 673; 3 Bann. & A. 438; *Boston Elastic Fabrics Co. v. East Hampton Rubber Thread Co.* (1876), 9 O. G. 745; 2 Bann. & A. 268; *Am. H. & L. S. & D. Mach. Co. v. Am. & T. Mach. Co.* (1870), Holmes, 503; 4 Fisher, 284; *McCormick v. Seymour* (1851), 2 Blatch. 240; *Honiball v. Bloomer* (1854), 2 Web. 199.

² In *McMillin v. Barclay* (1871), 5 Fisher, 189, McKennan, J.: (195) "The act of July 4, 1836, forbids the granting of a patent for an invention, which had, at the time of the application therefor, been in public use or on sale, with the consent or allowance of the inventor. - This provision is modified by the act of March 3, 1839, so as to allow such use or sale for two years prior to the application. Different opinions have been entertained as to the kind of use which these acts of Congress contemplate. By some judges they have been held to mean a use in public by persons other than the inventor; and again, others have held that a use in public by the inventor himself, which is not merely experimental, will have the effect of invalidating the patent. In *Ryan v. Goodwin*, 3 Sum. 518, Mr. Justice Story says: 'It is clear by our law, whatever it may be by the law of England, that the public use or sale of an invention, in order to deprive the inventor of his right to a patent, must be a public use or sale by others, with his knowledge and con-

sent, before his application therefor.' But he must be understood to have predicated this of the facts in the case before him, in which only a use by persons other than the inventor was alleged. While the object of the law was to protect the public against the exclusive claim of an inventor who had dedicated his invention to their use, by allowing its practical employment in public, it was at the same time designed to require of him reasonable diligence in applying for his patent. As it is the public use of a completed invention against which this provision of the law is directed, it could scarcely have been intended to authorize such use by the inventor himself, which, if employed by another, with his consent, would work a forfeiture of his right to a patent. His own direct act is just as significant of an intended abandonment of his inchoate right as is that of another with his consent. Indeed, it is difficult to comprehend that a use in public by an inventor himself is not as effectually 'a public use with his consent and allowance,' as where his invention is permissively so employed by another." 4 Brews. (Pa.) 275 (279). See also *Pitts v. Hall* (1851), 2 Blatch. 229.

That use in a factory where the inventor is employed, if open and with his consent, is public use, see *McClurg v. Kingsland* (1843), 1 How. 202; 2 Robb, 105.

That use in a factory by the workmen in view of the customers of the business is public use, see *Smith & Griggs Mfg. Co. v. Sprague* (1887), 123 U. S. 249; 41 O. G. 1037.

That a single use openly by the inventor is public use, see *Jones v. Barker* (1882), 11 Fed. Rep. 597; 22 O. G. 771.

though its results are given to the world, is not a public use, since in each case the circumstances of the use denote that the inventor purposes to keep the art or instrument under his own control.³

§ 357. Public Use not Abandonment unless Consented to by the Inventor.

Until a recent period it seems to have been the uniform doctrine of our courts that the public use of an invention raised no presumption of its abandonment, and constituted no bar to a patent, unless such use had been enjoyed with the consent or allowance of the inventor.¹ In the act of 1836

³ In *Wyeth v. Stone* (1840), 1 Story, 273, Story, J. : (280) "In the next place, as to the supposed public use of Wyeth's machine before his application for a patent. To defeat his right to a patent under such circumstances, it is essential that there should have been a public use of his machine, substantially as it was patented, with his consent. If it was merely used occasionally by himself in trying experiments, or if he allowed only a temporary use thereof by a few persons, as an act of personal accommodation or neighborly kindness, for a short and limited period, that would not take away his right to a patent. To produce such an effect, the public use must be either generally allowed or acquiesced in, or at least be unlimited in time, or extent, or object. On the other hand, if the user were without Wyeth's consent, and adverse to his patent, it was a clear violation of his rights, and could not deprive him of his patent." 2 Robb, 23 (30).

That the use of an article in private is not abandonment, see *Adams v. Edwards* (1848), 1 Fisher, 1.

That unrestricted use by allowance of the inventor with no injunction of secrecy is public use, see *Manning v. Cape Ann Isinglass & Glue Co.* (1883), 108 U. S. 462 ; 23 O. G. 2413.

That a special parol license to build two structures on the inventor's plan, before the patent issues, is not abandonment, see *McCay v. Burr* (1847), 6 Pa. St. 147.

That a license to use before patent is not necessarily an abandonment, see *Slemmer's Appeal* (1868), 58 Pa. St. 155.

§ 357. ¹ Although this doctrine makes its first appearance as a legislative enactment in the act of 1836, it had, from the earliest period, been uniformly recognized as a fundamental principle of our Patent Law. By the act of 1790 patents were permitted only where the invention had not been "before known or used." By the act of 1793 the invention was not patentable if "known or used before the application." In the act of 1800 it was provided that "every patent which shall be obtained pursuant to this act, for any invention, art, or discovery which it shall afterward appear had been known or used previous to such application for a patent, shall be utterly void." The statutes being in this condition, the case of *Pennock v. Dialogue* came before the Supreme Court in 1829 (2 Pet. 1 ; 1 Robb, 542), where the question of prior public use was raised and discussed, the court holding that such

this provision was clearly expressed, but in the modification introduced into the law in 1839, extending the duration of a

use, even under existing statutes, did not defeat the patent, unless it had taken place with the knowledge and consent of the inventor. The court below had charged the jury that "if an inventor makes his discovery public, looks on and permits others freely to use it, without objection or assertion of claim to the invention, of which the public might take notice, he abandons the inchoate right to the exclusive use of the invention to which a patent would have entitled him had it been applied for before such use." After verdict for defendants, on writ of error, Mr. Webster, for the plaintiffs, claimed, *inter alia*, that "the use of an invention, however public, if it be by the permission and under the continual exclusive claim of the inventor, does not take away his right, except after an unreasonable lapse of time, or gross negligence in applying for a patent." Mr. Sargeant, for the defendant, insisted, *inter alia*, that "the inventor, by abstaining from getting a patent, encouraged the public to use the article freely and thus benefited his own manufactory. And he is not at liberty, when this advantage is exhausted, to turn round and endeavor to reach another and a different kind of advantage, by appropriating the use exclusively to himself." But he conceded that "if the invention should be pirated, the use or knowledge obtained by the piracy, or otherwise obtained without the knowledge or consent and without the fault of the inventor," would not bar him from getting a patent. Justice Story, in delivering the opinion of the court, says: (2 Pet. 16; 1 Robb, 558) "The single question, then, is whether the charge of the court was correct in point of law. It has not been and indeed cannot be denied that an in-

ventor may abandon his invention and surrender or dedicate it to the public. This inchoate right, thus once gone, cannot afterwards be resumed at his pleasure; for where gifts are once made to the public in this way, they become absolute. . . . The question which generally arises at trials is a question of fact rather than of law, — whether the acts or acquiescence of the party furnish in the given case satisfactory proof of an abandonment or dedication of the invention to the public." Then stating that the test of abandonment is given by the statutes in the phrases before cited, he continues: (2 Pet. 18; 1 Robb, 561) "What then is the true meaning of the words '*not known or used before the application*'? . . . The words, to have any rational interpretation, must mean not known or used by others before the application. But how known or used? If it were necessary, as it well might be, to employ others to assist in the original structure or use by the inventor himself; or if before his application for a patent his invention should be pirated by another, or used without his consent; it can scarcely be supposed that the legislature had within its contemplation such knowledge or use." Then reviewing the English cases and statute and remarking that the use referred to in them as defeating a patent "has always been understood to be a public use, and not a private or surreptitious use in fraud of the inventor," he proceeds: (2 Pet. 23; 1 Robb, 567) "It is admitted that the subject is not wholly free from difficulties; but upon most deliberate consideration we are all of opinion that the true construction of the act is that the first inventor cannot acquire a good title to a patent if he suffers the thing invented to go into public use, or to be

permitted public use to two years before the application for a patent, that clause was not repeated, nor has it been incor-

publicly sold for use, before he makes application for a patent. His voluntary act or acquiescence in the public sale and use is an abandonment of his right ; or rather creates a disability to comply with the terms and conditions on which alone the Secretary of State is authorized to grant him a patent."

Further, that before the act of 1836 a public use or sale without the knowledge or consent of the inventor could not affect his right to a patent, see *Mellus v. Silsbee* (1825), 4 Mason, 108 ; 1 Robb, 506 ; *Whitney v. Emmett* (1831), Baldwin, 303 ; 1 Robb, 567 ; *Shaw v. Cooper* (1833), 7 Pet. 292 ; 1 Robb, 643.

These doctrines were formulated and sanctioned by the act of 1836, which made the allowance and consent of the inventor an essential element in any public use affecting his title to a patent. Under this act, and that of 1839 (on the interpretation of which the modern departure from the ancient rules is based), numerous decisions have been rendered uniformly announcing the same necessity for knowledge and consent. Among these decisions is *Ryan v. Goodwin* (1839), 3 Sumner, 514, in which Story, J., says : (518) " As to the second point, it is clear by our law, whatever it may be by the law of England, that the public use or sale of an invention, in order to deprive the inventor of his right to a patent, must be a public use or sale by others with his knowledge and consent, before his application therefor. If the use or sale is without such knowledge or consent, or if the use be merely experimental to ascertain the value or utility or success of the invention by putting it in practice, that is not such a use as will deprive the inventor of his title. Our law also requires that the use or sale

should not only be with the knowledge and consent of the inventor, but that it should be before his application for a patent. A sale or use of it with such knowledge or consent, in the intermediate time between the application for a patent and a grant thereof, has no such effect. It furnishes no foundation to presume that the inventor means to abandon his invention to the public ; and does not, because it is not within the words of our act, create any statute disability to assert his right to a patent." 1 Robb, 725 (729).

In *Jones v. Sewall* (1873), 3 Clifford, 563, Clifford, J. : (592) " No one but the inventor is competent to abandon his invention to the public. His acts and declarations, if explicit, are sufficient for the purpose, or he may accomplish the same end by continued acquiescence in the acts of others, of which it appears that he had knowledge ; but the proof of knowledge and acquiescence must be beyond all reasonable doubt, as every presumption is the other way." 6 Fisher, 343 (367) ; 3 O. G. 630 (638).

Further, that the consent of the inventor to the public use is necessary, see *Davis v. Fredericks* (1884), 21 Blatch. 556 ; 19 Fed. Rep. 99 ; *Emery v. Cavanagh* (1883), 17 Fed. Rep. 242 ; *Campbell v. Mayor of New York* (1881), 20 O. G. 1817 ; 20 Blatch. 67 ; 9 Fed. Rep. 500 ; *Andrews v. Cross* (1881), 19 O. G. 1705 ; 8 Fed. Rep. 269 ; 19 Blatch. 294 ; *Campbell v. James* (1879), 18 O. G. 979 ; 17 Blatch. 42 ; 4 Bann. & A. 456 ; *Draper v. Wattles* (1878), 16 O. G. 629 ; 3 Bann. & A. 618 ; *Andrews v. Carman* (1876) 9 O. G. 1011 ; 13 Blatch. 307 ; 2 Bann. & A. 277 ; *Locomotive Engine Safety Truck Co. v. Penna. R. R. Co.* (1874), 10 Phila. 252 ; 1 Bann. & A. 470 ; 6 O. G. 927 ;

porated into any subsequent statute. For this reason our courts have lately seemed inclined to treat the act of 1839 as repealing that provision of the act of 1836, and to consider public use as an abandonment, or a bar to a patent, whether with or without the allowance or consent of the inventor.²

Jones v. Sewall (1873), 3 Clifford, 563 ; 6 Fisher, 343 ; 3 O. G. 630 ; *Russell & Erwin Mfg. Co. v. Mallory* (1872), 10 Blatch. 140 ; 5 Fisher, 632 ; 2 O. G. 495 ; *Allen v. Blunt* (1846), 2 W. & M. 143 ; 2 Robb, 530 ; *Hovey v. Stevens* (1846), 1 W. & M. 290 ; 2 Robb, 479 ; *Pierson v. Eagle Screw Co.* (1844), 3 Story, 402 ; 2 Robb, 268 ; *Wyeth v. Stone* (1840), 1 Story, 273 ; 2 Robb, 23.

Between the passage of the act of 1839 and the year 1883 the Supreme Court had occasion to examine this question in six cases. In two of them, viz., *Elizabeth v. Pavement Co.* (1877), 97 U. S. 126, and *Bates v. Coe* (1878), 98 U. S. 31, it expressly asserted that under the act of 1839 a public use without the consent of the inventor does not affect his rights. In the other four it recognized such consent as necessary to an abandonment by public use ; see *Kendall v. Winsor* (1858), 21 How. 322 ; *Consolidated Fruit Jar Co. v. Wright* (1876), 94 U. S. 92 ; *Worley v. Tobacco Co.* (1881), 104 U. S. 340 ; *Egbert v. Lippman* (1881), 104 U. S. 333.

It is in the face of these decisions, which not merely expound the words of a statute, but declare and apply essential principles of the common law, that a doctrine is now introduced into our patent system which, unless so qualified as to practically make it a mere definition of "knowledge and consent," is inconsistent alike with authority and with the fundamental rules whereby the rights of all parties to contracts and all owners of property have been hitherto controlled.

² The first case of importance in which this view was formally advocated

seems to have been *Egbert v. Lippman* (1878), 15 Blatch. 295, although in earlier cases Clifford, J., notwithstanding his repeated assertions of the usual rule, had said that under the act of 1870 and the Revised Statutes a public use, with or without the consent of the inventor, would defeat his rights if coupled with laches in applying for a patent, — apparently thus confounding the abandonment presumed from public use with that inferrible from actions or omissions of the inventor. In *Egbert v. Lippman*, speaking of the effect of public use as an abandonment under the act of 1839, the court declares : (296) "The seventh section of the act of July 4, 1836 (5 U. S. Stat. at Large, 119), provided that a patent should be issued if it should not appear to the Commissioner of Patents that the invention had been in public use or on sale, with the applicant's consent or allowance, prior to his application for the patent. The fifteenth section of that act provided that, in a suit for infringement the defendant should have judgment if it should be proved that the thing patented had been in public use or on sale, with the consent and allowance of the patentee, before his application for a patent. By the seventh section of the act of March 3, 1839 (5 U. S. Stat. at Large, 354), it was enacted that every person who shall have purchased or constructed any newly invented machine prior to the application by the inventor for a patent, shall be held to possess the right to use, and vend to others to be used, the specific machine so made or purchased, without liability therefor to the inventor, and

This new position harmonizes with the tendency of modern

that 'no patent shall be held to be invalid by reason of such purchase, sale, or use prior to the application for a patent, as aforesaid, except on proof of abandonment of such invention to the public, or that such purchase, sale, or prior use has been for more than two years prior to such application for a patent.' The patent in question was applied for and issued when the act of 1839 was in force. The effect of that act is to require that an inventor shall not permit his invention to be used in public at a period earlier than two years prior to his application for a patent, under the penalty of having his patent rendered void by such use. Consent and allowance by the inventor are not necessary to such invalidity. But, *a fortiori*, consent to a use in public, not followed by an application for a patent within two years afterwards, makes the patent, when granted, invalid. The policy introduced by the act of 1839 is continued in the act of July 8, 1870, and in the Revised Statutes. The 24th section of the act of 1870 (16 U. S. Stat. at Large, 201) provides that a patent may be obtained for an invention if it has not been in public use or on sale for more than two years prior to the application for such patent, unless it is proved to have been abandoned. This provision is embodied in section 4886 of the Revised Statutes. The 61st section of the act of 1870 (*id.* 208), now section 4920 of the Revised Statutes, provides that it shall be a defence to a suit for the infringement of a patent that the thing patented had been in public use or on sale in the United States for more than two years before the application for a patent, or had been abandoned to the public. The policy introduced by the act of 1839 and thus continued is that the inventor must apply for his patent within two years

after his invention is in such condition that he can apply for a patent for it, and that, if he does not apply within such time, but applies after the expiration of such time and obtains a patent, and it appears that his invention was in public use at a time more than two years earlier than the date of his application, his patent will be void, even though such public use was without his knowledge, consent, or allowance, and even though he was in fact the original and first inventor of the thing patented and so in public use. Such public use for such length of time is made equivalent to absolute abandonment." 14 O. G. 822, (822); 3 Bann. & A. 468 (469).

In this opinion occur two sentences which may perhaps be regarded as the fountain out of which the modern doctrine flows, though in endeavoring to sustain it, the courts urge other reasons derived from narrow and technical constructions of the statutes. The learned judge, in speaking of the act of 1839, says: "The effect of that act is to require that an inventor shall not '*permit*' his invention to be used in public at a period earlier than two years prior to his application for a patent, under the penalty of having his patent rendered void by such use. Consent and allowance by the inventor are not necessary to such invalidity." These sentences were *obiter dicta* in the case under consideration, the public use there found having been with the inventor's knowledge and consent, and hence are probably not as carefully framed as otherwise they might have been. But as they stand, they announce the proposition that an inventor, without "consenting to" or "allowing" the use of his invention, may nevertheless "permit" it. To many this would seem a mere play upon words. Webster, Dic. *in loc.* defines "permit" by "allow,"

judicial authority to discourage, as far as possible, any

and discussing the possible shade of difference between the synonymes "to permit, allow, etc.," says: "'To permit' is more positive, denoting a decided assent, either directly or by implication. 'To allow' is more negative, and imports only acquiescence or an abstinence from prevention." See also "allow;" and Worcester, Dic. *in loc.* The learned judge in this case, however, undoubtedly intended to distinguish in some degree between "allowance" and "permission." If he regarded "consent and allowance" as implying some voluntary act or recognition, and "permission" as expressive of failure to prevent or prohibit a known or suspected use of the invention, the distinction, though reversing the exact meaning of the words, may be justified, but was unnecessary, since it has always been held that acquiescence, even though silent, was consent. (See § 358 and notes, *post.*) If by "permission" he intended the failure to prevent unknown, fraudulent, and surreptitious uses, his position was not only a denial of all previous doctrines on the subject, but a declaration that piracy and fraud, though concealed from its victim, and unpreventable by him, may operate to deprive him of his rights and transfer his invention to the public without his knowledge and against his will. If in "permission" he included the absence of interference on the part of the inventor with the unknown use of the invention as the product of a rival's inventive skill, he set aside at once the characteristic principle of our law that the first conceiver of an invention, if guilty of no wilful fault or neglect, is entitled to a patent, whatever success his rivals may have attained either in the creation or the use of the invention, and returned to the English theory, that merit resides alone in publication, at least so far as to re-

gard the prior publication by a rival as a sufficient reason for refusing a patent to the innocent and diligent first inventor. If, as the latter portion of the quoted passage indicates, he endeavored to formulate, and by his construction of the act of 1839 to support, the rule that an inventor must exclude the possibility of a two years' public use of his invention by applying for a patent within that period after he had completed his inventive act, it was the introduction of a doctrine warranted by no former interpretation of the statutes, contradicted by an unbroken current of decisions, and inconsistent with universal principles of reason and justice, unless qualified by excepting from its operation all cases in which the delay arose from circumstances over which the inventor had no control. But whichever of these ideas was present in the mind of the distinguished jurist from whose pen this decision proceeded, the conclusion which he reached, that the patent of the inventor will be invalid if the invention was in public use more than two years before his application, "even though such public use was without his knowledge, consent, or allowance, and even though he was in fact the original and first inventor of the thing patented and so in public use," became the guide to several other courts in subsequent cases, and has at last obtained announcement from the Supreme Court itself.

Thus in *Andrews v. Hovey* (1883), 5 McCrary, 181, Love, J.: (206) "Upon what principle of construction may we attempt to interpolate the significant words 'consent or allowance' into the statute. These words do not appear in the statute. No such condition is expressed as these words imply. The plain, simple, and unqualified provision is that 'no patent

delay of the inventor in applying for a patent after his inven-

shall be held to be invalid by reason of such purchase, sale, or use prior to the application, except on proof of abandonment of such invention to the public, or that such purchase, sale, or prior use has been for more than two years prior to such application for a patent.' Not a word is here used to the effect that such prior use or sale shall be with the 'allowance or consent' of the patentee." 26 O. G. 1011 (1018) ; 16 Fed. Rep. 387 (405).

In *Manning v. Cape Ann Isinglass & Glue Co.* (1883), 108 U. S. 462, Woods, J.: (465) "It is the policy of the patent laws to forbid the issue of a patent for an invention which has been in public use before the application therefor. The statute of 1836, 5 Stat. 117, section 6, did not allow the issue of a patent when the invention had been in public use or on sale for any period, however short, with the consent and allowance of the inventor ; and the statute of 1870, 16 Stat. 201, section 24, Rev. Stat. section 4886, does not allow the issue when the invention had been in public use for more than two years prior to the application, either with or without the consent or allowance of the inventor." 23 O. G. 2413 (2414).

In *Andrews v. Hovey* (1887), 123 U. S. 267, Blatchford, J. : (273) "It is very plain that, under the act of 1836, if the thing patented had been in public use or on sale with the consent or allowance of the applicant for any time, however short, prior to his application, the patent issued to him was invalid. Then came section 7 of the act of 1839, which was intended as an amelioration in favor of the inventor, in this respect, of the strict provisions of the act of 1836. The first clause of that section provides for the protection of a person who, prior to the application for the patent, purchases or constructs a specific machine or

article, and declares that he may use and sell such specific machine or article after the patent is issued, without liability to the patentee. The section does not require, in order to this protection, that the purchase or construction shall have been with the consent or allowance of the person who afterwards obtains the patent and seeks to enforce it against such purchaser or constructor. The words 'consent or allowance' are not found in the provision. The only requirement is that the specific machine or article shall have been purchased or constructed at some time prior to the application for a patent. The second clause of the section then passes to consider the effect upon the validity of the patent 'of such purchase, sale, or use prior to the application' for the patent, and declares that 'no patent shall be held to be invalid by reason of such purchase, sale, or use prior to the application for a patent as aforesaid, except on proof of abandonment of such invention to the public, or that such purchase, sale, or prior use has been for more than two years prior to such application for a patent.' The expression 'such purchase' clearly means the purchase from any person, and not merely from the person who becomes the patentee of the machine or article. The expression 'such sale or use' clearly refers to the use or sale by the person who has purchased or constructed the machine or article, the right to use and sell which is given to him by the first part of the section. That right is given to a person who has constructed the machine or article, as well as to one who has purchased it ; and the plain declaration of the second part of the section is, that where the purchase or construction of the machine or article took place more than two years prior to the application for the patent, or where the use or sale by

tion is complete, but it is not consistent with the theory of

the person who so purchased or constructed the machine or article took place at a time more than two years prior to the application, the patent becomes invalid. It is not possible in any other way to give full effect to the word 'constructed,' in the first part of the section. The word 'purchased,' and the word 'constructed' are used in the same connection, and in connection with the words 'so made or purchased,' which occur afterwards; and the word 'purchased' cannot be limited to a purchase from the applicant for the patent, nor can the word 'constructed' be limited to a construction with the consent and allowance of such applicant, without interpolating into the statute the words 'consent or allowance.' We can find no warrant for doing this. The evident purpose of the section was to fix a period of limitation which should be certain, and require only a calculation of time, and should not depend upon the uncertain question of whether the applicant had consented to or allowed the sale or use. Its object was to require the inventor to see to it that he filed his application within two years from the completion of his invention, so as to cut off all question of the defeat of his patent by a use or sale of it by others more than two years prior to his application, and thus leave open only the question of priority of invention. The evident intention of Congress was to take away the right (which existed under the act of 1836) to obtain a patent after an invention had for a long period of time been in public use without the consent or allowance of the inventor; it limited that period to two years, whether the inventor had or had not consented to or allowed the public use. The right of an inventor to obtain a patent was in this respect narrowed, and the rights of the public as against him were enlarged, by

the act of 1839. The language of section 24 of the act of 1870, now section 4886 of the Revised Statutes, is to the same effect, and carries out the policy inaugurated by the act of 1839. It allows a patent to be granted only for an invention which was not in public use or on sale for more than two years prior to the application for the patent, subject to the defence of abandonment within such two years, which is also the requirement of section 61 of the same act; while section 37 of that act requires that a person, in order to have the right to use and sell, without liability, a specific thing made or purchased prior to the application for the patent, shall have purchased it of the inventor, or constructed it with his knowledge and consent." 41 O. G. 1162 (1164).

The discrepancy between the positions taken in the four cases from which these extracts have been made is somewhat remarkable. In *Egbert v. Lippman* and *Andrews v. Hovey* in the Supreme Court, Judge Blatchford asserts that the object and effect of the act of 1839, and of the corresponding provisions in the act of 1870 and the Revised Statutes, is "to require the inventor to see to it that he filed his application within two years from the completion of his invention so as to cut off all question of the defeat of his patent by a use or sale of it by others more than two years prior to his application." This assumes that the inventor may take two years after his complete reduction to practice to test the availability and commercial value of his invention, and implies that no public use of the invention as the invention of another, though more than two years before his application for a patent, raises a conclusive presumption of abandonment, unless coupled with

dedication to the public, which always involves knowledge and

that period of delay after his own inventive act is finished and he becomes entitled to a patent. But in *Andrews v. Hovey* in the Circuit Court, and in *Manning v. Isinglass & Glue Co.*, the judges ignore this element of delay on the part of the inventor, and declare that the acts under consideration do not "allow the issue [of a patent] when the invention had been in public use for more than two years before the application, either with or without the consent or allowance of the inventor," thus making the two years' use a bar, whether it were fraudulent and surreptitious or under a license, and whether it were the use of the invention as the invention of the present inventor or of his rival, and whether it occurred before or after the first and diligent conceiver of the idea had succeeded in reducing it to practice.

See also *Andrews v. Hovey* (1888), 124 U. S. 694; *Duffy v. Reynolds* (1885), 24 Fed. Rep. 855; 33 O. G. 621; *Kelleher v. Darling* (1878), 14 O. G. 673; 4 Clifford, 424; 3 Bann. & A. 438.

That the public use of the patented device, or a device substantially identical therewith, for more than two years before the application for the patent is a complete bar to the patent, see *Detroit Lubricator Co. v. Lunkenheimer* (1886), 30 Fed. Rep. 190. In this case it seems that the device used was not the work of the patentee or copied from his but invented by another and used as such. The case also treats this two years' use as a defence irrespective of the question of priority of invention, and as resting purely on the statute.

The difficulties attendant upon this position are rendered more striking by the opinion in *Andrews v. Hovey* (1888), 124 U. S. 694, in which a rehearing on the former case, in 123 U. S. 267, was denied.

In considering the arguments of the petitioners and the authorities cited in support of the ancient doctrine, the Supreme Court apparently concede that a piratical or fraudulent use would not defeat a patent, and by stating that the public use in the case at bar was the use of the invention of the patentee, by persons who derived their knowledge of the invention from him through his carelessness or indifference, at least refrain from establishing the rule that a public use by a later conceiver but earlier reducer could invalidate the patent of the first and diligent conceiver. If this be the scope of the view taken by the court, and is to be accepted as the proper rule, then no public use can be a bar unless it is the use of the patentee's invention as distinguished from that of a rival, and is untainted with piracy or fraud; in other words it must be a use which the patentee "permitted." Thus we return to the verbal controversy raised by *Egbert v. Lippman* (1878), 15 Blatch. 295, and are again confronted with the proposition that public use for more than two years before the application defeats a patent, although the inventor does not know of it, nor consent to it, nor allow it, provided he "permits" it. For the further interpretation of this proposition the efforts of both jurists and philologists would seem to be required.

Although the construction of the act of 1839 may be regarded as settled, at least for a time, by these decisions of the Supreme Court, the opposite view may be here presented, as possibly throwing some light upon questions to which this literal construction of the statute is sure to lead.

Prior to the act of 1836 two great principles had become settled features of our Patent Law: First, that no fraudulent, piratical, or surreptitious

consent, nor with the doctrine of estoppel under which the

use of an invention before the application of the inventor for a patent, for however long a period continued, could in any manner affect his rights; Second, that the first conceiver of an idea of means, if diligent in reducing it to practice, was entitled to a patent notwithstanding that a later conceiver and earlier reducer had already completed the invention and given it to the public, either with or without procuring a patent for it to himself. If these principles are departed from the entire character of our law is changed, and it is inconceivable that by the act of 1839 or any subsequent enactment such a change has taken place without manifesting itself at once and unmistakably in the language of the statutes and the utterances of the courts.

The act of 1836 was evidently intended for the benefit of inventors, and was the offspring of a public sentiment in their favor which increased rather than diminished during the ensuing forty years. In less than three years afterward the act of 1839 was passed, every other provision of which was marked by the same liberal spirit toward inventors, and was manifestly designed for the furtherance of their interests. It is not probable, therefore, at the outset, that Congress, while thus enlarging other privileges of inventors, attempted to withdraw the protection which the courts had always given them against the piratical and surreptitious use of their inventions, or to place them at the mercy of rival inventors of whose achievements and actions they were wholly ignorant. But no such conclusion can properly be drawn from the language of this act. The section reads as follows:—

“*And be it further enacted, That every person or corporation who has, or shall have, purchased or constructed any*

newly invented machine, manufacture, or composition of matter, prior to the application of *the inventor or discoverer* for a patent, shall be held to possess the right to use, and vend to others to be used, the specific machine, manufacture, or composition of matter, so made or purchased, without liability therefor to the inventor or any other person interested in such invention; and no patent shall be held to be invalid by reason of *such* purchase, sale, or use prior to the application for a patent *as aforesaid*, except on proof of abandonment of such invention to the public; or that *such* purchase, sale, or prior use has been for more than two years prior to such application for a patent.”

If there is any significance to precise and carefully selected language, the meaning of this section cannot be mistaken. It has reference to a definite transaction between *the inventor* and his purchaser or licensee; and determines the effect which such transaction shall have upon their respective rights. The first clause provides that a purchase or licensed construction of the invention before the application for a patent should empower the purchaser or maker to use or sell it after the patent had been granted. The second clause declares that *such* purchase, use, or sale should not impair the right of the inventor to his patent unless coupled with acts of abandonment, or occurring more than two years before the application was made. There is no reference whatever, either express or implied, to any use of any rival invention, or to the surreptitious use of the inventor's invention. It is a clear and specific extension of the provisions of the act of 1836, conferring upon inventors the additional privilege of putting their inventions into market for two years before applying for a patent, on condition that their purchasers and

public use or sale of his invention could destroy the right of

users shall thereby acquire a perpetual implied license to use and sell the articles so made or purchased. It is true that the phrase "consent and allowance of the inventor" does not occur in the section; but the repetition of the phrase "*such purchase, etc.*," shows beyond peradventure that the purchase is the one referred to in the first clause as made from *the inventor*; and the legislative body that enacted the statute was certainly warranted in presuming that the courts which were to interpret and apply it would recognize the fact that a "*purchase, without the knowledge and consent of the vendor,*" would be impossible.

That this construction of the statute is the true one is shown by its adoption by all contemporary judges. See *McClurg v. Kingsland*, (1843), 1 How. 208, 209; 2 Robb, 105; *Pierson v. Eagle Screw Co.* (1844), 3 Story, 406, 407; 2 Robb, 268; *Hovey v. Stevens* (1846), 1 W. & M. 301; 2 Robb, 490; *Kendall v. Winsor* (1858), 21 How. 330; and MS. cases cited *in loc.* in Law's Dig. Patent Cases, pp. 604-608.

The position taken by Story, J., in *Pierson v. Eagle Screw Co.* is especially clear and forcible. After declaring that the 7th section of the act of 1839 has the meaning and effect here stated, he closes as follows: "Any other construction of these clauses would lead to this extraordinary conclusion, that the inventor would be deprived of the benefit of his invention and his right to a patent without any laches, or misconduct on his own part, by the mere acts of a wrong-doer without his knowledge or against his will; and the exceptions, in a practical sense, would become nullities. But construed as we construe them, they have a plain, appropriate, and satisfactory meaning. This view of the matter is in entire coinci-

dence with the whole theory and enactments of all the other Patent Acts, and with the judicial interpretations which have been constantly put upon them. It has been the uniform doctrine of the courts of the United States that no fraudulent or wrongful use of an invention, and no public use without the consent or knowledge or sanction of the inventor, would deprive him of his right to a patent."

That this construction is correct is evident also from the language used in section 37 of the act of 1870 and section 4899 of the Revised Statutes, in which the first clause of the act of 1839 is perpetuated, viz., "that every person who may have *purchased of the inventor, or with his knowledge and consent may have constructed*, any newly invented or discovered machine or other patentable article . . . shall have the right to use, etc." Compare this legislative interpretation with that given by the Supreme Court in *Andrews v. Hovey*, *ante*, to the words "purchased" and "constructed."

In this connection it may be suggested that the second clause of the act of 1839 might properly be restricted to the transaction described in the first clause, and applied only to cases where the purchase, use, or sale was under the implied license of the inventor; leaving all questions of unlicensed use, whether wrongful or under some rival inventor, to be determined by the general doctrines of abandonment or estoppel, without regard to any specific period of time.

The act of 1870 and the patent provisions in the Revised Statutes of 1874, are a compilation, condensation, and rearrangement of the various acts relating to letters-patent theretofore subsisting, and like all other revisions are to be interpreted, in case of doubt, by

the inventor to a patent only when accompanied by some fault or bad faith of his own.³

referring to the acts from which they were compiled. It is never presumed that such restatements of existing laws are intended to change the rules previously in operation, and unless the language adopted and sanctioned by the legislature positively requires it, no departure from the former doctrine can be permitted. See *U. S. v. Butterworth* (1884), 3 Mackay, 229; 27 O. G. 519. But in the act of 1870 and the Revised Statutes there is no express indication of any variation in the rules which govern the rights of the inventor. In both the 7th section of the act of 1839 is divided, the first clause appearing as § 37 of the act of 1870, and § 4899 of the Revised Statutes, while the second clause, shorn of part of its first member, is inserted in §§ 24 and 61 of the act of 1870, and in §§ 4886 and 4920 of the Revised Statutes. In § 4886, which reproduces § 24 of the act of 1870, it is made a condition precedent to the issue of a patent that the invention of the applicant shall not have been in public use or on sale for more than two years prior to his application. The whole structure of this section shows that the invention used or sold must be the invention of the applicant, not of some other inventor, and though no mention is made of his knowledge or consent as entering into the use or sale, there is certainly nothing to indicate any departure from the ancient doctrine that a surreptitious or piratical use or sale could in no manner prejudice his rights. The provision in § 4920 (or § 61 of 1870), is more destitute of guides to its real meaning, but its language demands no divergence from the interpretation given to it in § 4886, that it refers to the invention as the invention of the patentee, and not as the fruit of the inventive skill of

any rival inventor, and to a use or sale which was not piratical or surreptitious, and therefore must have been known to and acquiesced in by the patentee. Taking the act of 1870 and the revision of 1874 for what they truly are, an attempt to codify and clarify the Patent Laws, and not to change either their fundamental principles or their well established rules, and interpreting them by the originals which they represent, the mist which has been thrown around this subject will speedily be dissipated, and the former and just doctrine will be definitely and authoritatively declared.

³ The evils consequent upon the adoption of this rule, whether they are theoretical or practical, will probably be avoided by the future introduction of such distinctions and qualifications as at the same time preserve the just rights of the inventor and promote the public interest. Sweeping propositions are uniformly dangerous both in reasoning processes and in actual application. Experience usually provides a remedy by curtailing and discriminating until a true and just doctrine is reached, — this mode of development being peculiarly evident in the history of Patent Law. With that future in view, a classification of the cases in which this rule can properly be followed, either wholly or in part, or cannot be observed at all, may serve a useful purpose.

When a defence of public use is urged, the facts will show that the invention used was either (1) the result of the inventive act of the plaintiff's inventor, or (2) had been created by and was employed as the production of some rival inventor. These cases stand on different ground as to this entire question, and must be separately considered.

(1) If the invention used were the

§ 358. Public Use Acquiesced in if Known to the Inventor and not Prohibited.

If the consent of the inventor is essential, neither a fraudulent nor a surreptitious use of the invention raises a presumption of the patentee's inventive skill, and by its use were derived from him, this use must have been either with or without the consent of the inventor. If with his consent, or through any neglect on his part which is morally equivalent to consent, there can be no difficulty, since in this case the old and new rules are identical. But if the use were without his knowledge, he employing proper diligence to know, it was a secret fraud upon his rights, a simple piracy of his invention. No such use can justly deprive him of a patent, or invalidate it when granted, however long such use may be continued. This was the position maintained by our courts before the act of 1836 was passed, and while the law permitted no use by others before the application for a patent; nor is it supposable that any legislature or judicial body will ever take the ground that if a person can steal the knowledge of an invention and put it into public use without the cognizance of the inventor, the theft shall, after two years, redound to the public benefit and leave them in permanent possession of the results of the inventor's skill. The law may well require an inventor to apply for a patent within a prescribed period after his invention is completed, but as it has not done so, the same effect ought not to be indirectly sought by making crime and fraud the means of forcing the inventor to a premature disclosure of his secret.

(2) If the invention used had been created by, and was employed as the production of, some rival inventor, either the rival or the plaintiff's patentee was the first and true inventor. If the rival were the first inventor, no

question of public use arises, the plaintiff's patent being invalid upon other grounds. If the plaintiff's patentee were the first inventor, the public use of the invention must have occurred either before or after he had completed the reduction of his idea to practice. A public use, unknown to the inventor, and before he has perfected his invention, manifestly can have no effect upon his rights. If he were the first conceiver, and were diligent in reduction, no act of his rival could deprive him of a patent in the interest of the rival or of any other individual; and there is no principle of law or ethics which would support the claim that what the rival could not appropriate to himself he could nevertheless dedicate to the public. The fundamental theory of our law that the first conceiver, if a diligent reducer, is to receive a patent, notwithstanding any achievements or successes of a rival, should not be shaken by admitting that a public use by the rival, concealed from the first inventor, can defeat the right of the first inventor to a patent when this effect is not accomplished even by the issue of a previous patent to the rival himself. No other position, in such a case, is tenable but that an unknown public use, which occurred before the plaintiff's patentee had brought the invention to such perfection as would have made it suitable subject-matter for a patent, cannot invalidate or bar the issue of a patent.

But where a public use, though occurring before the plaintiff's patentee completes the invention, is known to him or comes to his knowledge after he has reduced his idea to practice, it may be fairly held that he must act with promptness and make his application for

tion of abandonment. Knowledge, or failure to use accessible means of knowledge which in law is knowledge, is necessary

a patent with reasonable diligence. His inventive act being finished, and his invention ready for a patent, justice to the public requires that he should not allow them to remain uninformed as to his rights after he ascertains that they are liable to be misled by such public use unless he makes his own claim known by applying for a patent. No measure of delay in such cases can be fixed by law. If knowledge exists before his invention is completed, a reasonable time should be allowed him, after completion, to make his application. If knowledge is first obtained after his reduction to practice, a reasonable time after the knowledge is acquired is proper; reasonable time, in either instance, being determined by reference to all the circumstances of the case.

If the public use occurs after the completion of the invention by the plaintiff's patentee, a different rule is justified by legal principle and wise regard for public welfare. Where the first and true inventor, having completed his inventive act, unreasonably delays his application for a patent, and pending such delay a subsequent inventor produces the invention and places it before the world by a public use or sale of more than two years' duration, whether with or without the knowledge of the first inventor, the right of the latter to protect it by a patent is forfeited, and the invention remains forever in the possession of the public. This rule rests upon the principle of equitable estoppel. As a prior inventor, unreasonably withholding his application for a patent, may be estopped to claim the invention as against a subsequent inventor who, in ignorance of the concealed invention of the former, has expended time and inventive skill

in producing the same art or instrument (see § 346, and notes), so if the subsequent inventor, instead of appropriating his invention to his own use, dedicates it to the public, who in good faith and without knowledge of the first inventor's rights apply it to the satisfaction of their wants for a period sufficient to bar the last inventor's claim to a monopoly, the first inventor may be properly regarded as estopped from insisting on his ownership of the invention as against the public, unless his circumstances warranted his long delay. There is here no question of piratical use, for the invention used is that of the subsequent not the prior inventor. There is no invasion of the recognized privileges of a diligent first inventor, for after the invention is complete and patentable, the inventor voluntarily postpones the endeavor to secure it by a patent. The case is one where both the subsequent inventor and the public are innocently misled by such conduct on the part of the first inventor as, in view of common events, he must have known was likely to have that result, and hence he may well be considered to have contemplated such result and indirectly to have abandoned his invention. A suggestion of this position is found in *Pennock v. Dialogue* (1829), 2 Peters, 1, where Story, J., discussing the early doctrine of public use, says: (22, 23) "In respect to a use by piracy, it is not clear that any such fraudulent use is within the intent of the statute; and upon general principles it might well be excluded. In respect to the case of a second invention, it is questionable at least, whether, if by such second invention a public use was already acquired, it could be deemed a case within the protection of the act. If the public were already in possession and common

to consent, and a use successfully concealed from the inventor, to whomsoever else it may be known, imposes upon him no obligation to interfere in order to protect his rights.¹ But

use of an invention, fairly and without fraud, there might be sound reason for presuming that the legislature did not intend to grant an exclusive right to any one to monopolize that which was already common. There would be no *quid pro quo* — no price for the exclusive right or monopoly conferred upon the inventor for fourteen years." This suggestion does not express the entire law on the subject, since it takes no notice of the diligent inventor's rights as against the subsequent inventor and the public. But, assuming the existence of these rights, it fairly discloses the principle that a public possession, once honestly obtained, cannot be defeated unless by a superior claimant who has not wilfully or negligently contributed to place the public in the position from which he now seeks to exclude them. See also to the same effect *Manning v. Cape Ann Isinglass & Glue Co.* (1879), 4 Bann. & A. 612; *United States Rifle & Cartridge Co. v. Whitney Arms Co.* (1877), 14 Blatch. 94; 11 O. G. 373; 2 Bann. & A. 493.

The doctrine of abandonment can be relieved of much, if not of all, of its ambiguity by preserving the radical distinction between abandonment inferred from conduct and abandonment presumed by law. The former is a question of fact, to be determined from the evidence, unaided by legal presumption. The latter is a conclusion which the law draws from specific circumstances, whenever those circumstances are proved to have existed. The difficulties now attending the doctrine seem to have been created mainly by the struggle of the courts to turn the former method of abandonment into the latter, and to raise a conclusive presumption of law from circumstances

which, though they might warrant an inference of abandonment as a matter of fact, were not those specific circumstances which authorize the court to find abandonment as a matter of law. This appears to have been the case in the decisions of Judge Blatchford in *Egbert v. Lippman* and *Andrews v. Hovey*, before cited. The delay of the inventor in applying for a patent for two years after he has completed his invention, and after his invention has gone into public use, either through his own instrumentality or that of other inventors, unless caused by some condition or event over which he had no control and hence without bad faith or laches on his part, may well constitute the basis of an inference that the inventor intended to abandon his invention, although his want of knowledge that the invention was in public use might prevent the court from applying to him the inevitable and un rebuttable presumption of the law. To restore the doctrine to its ancient harmony and intelligibility it is merely necessary to hold, —

I. That the law conclusively presumes abandonment by the inventor only when the invention has been in public use or on sale, as his invention and with his acquiescence, for more than two years before his application for a patent.

II. That abandonment in fact may be inferred from unreasonable delay in patenting the invention, or from any other circumstances which render the inventor chargeable with bad faith toward the public or voluntary negligence in the assertion of his rights.

See §§ 346, 351, and notes, *ante*.

§ 358. ¹ That surreptitious use is no evidence of abandonment, see *Kendall*

from his knowledge or his means of knowledge acquiescence is properly inferred, unless by prohibition or by application for a patent he seasonably endeavors to prevent the public from appropriating the invention;² and though strict proof both of his knowledge and his negligence is required,³ yet, these being once established, his privileges are forfeited if without his interference the term specified elapses after he becomes chargeable with knowledge of the use.⁴

§ 359. Abandonment by Sale.

The same general characteristics must exist in any sale of the invention from which abandonment is to be inferred. The sale must have been in the usual course of business,¹ and

v. Winsor (1858), 21 How. 322; *Pennock v. Dialogue* (1829), 2 Peters, 1; 1 Robb, 542; *Mellus v. Silsbee* (1825), 4 Mason, 108; 1 Robb, 506. See also § 357 and notes, *ante*.

² That acquiescence is consent, see *Kendall v. Winsor* (1858), 21 How. 322; *Mellus v. Silsbee* (1825), 4 Mason, 108; 1 Robb, 506.

That silence in view of known use is acquiescence, see *Sisson v. Gilbert* (1871), 9 Blatch. 185; 5 Fisher, 109.

³ That the presumptions are in favor of the inventor, see *Emery v. Cavanagh* (1883), 17 Fed. Rep. 242; *Graham v. McCormick* (1880), 10 Bissell, 39; 11 Fed. Rep. 859; 21 O. G. 1533; 5 Bann. & A. 244; *Jennings v. Pierce* (1878), 15 Blatch. 42; 3 Bann. & A. 361; *Pitts v. Hall* (1851), 2 Blatch. 229.

⁴ That acquiescence in two years' use defeats a patent, see *Toppan v. National Bank Note Co.* (1861), 4 Blatch. 509; 2 Fisher, 195; *Bell v. Daniels* (1858), 1 Bond, 212; 1 Fisher, 372; *Ransom v. Mayor of New York* (1856), 1 Fisher, 252; *Allen v. Blunt* (1846), 2 W. & M. 121; 2 Robb, 530.

§ 359. ¹ In *Henry v. The Frankestown Soapstone Stove Co.* (1880), 17 O. G. 569, Lowell, J.: (569) "Sales in the usual

course of business, whether absolute or conditional, if they are sales of the patented thing, work a forfeiture. A single sale has this effect as well as a hundred sales." 2 Fed. Rep. 78 (80).

In *Morgan v. Seaward* (1837), 1 Web. 187, Parke, B.: (194) "It must be admitted that if the patentee himself had, before his patent, constructed machines for sale as an article of commerce, for gain to himself, and been in the practice of selling them publicly, that is, to any one of the public who would buy, the invention would not be new at the date of the patent." 2 M. & W. 544 (559); 2 Abb. P. C. 419 (428).

In *Wood v. Zimmer* (1815), 1 Holt, N. P. C. 60, the patentee had sold the article in the public market four months before the date of the patent. Such sale was evidence of the invention having been used and exercised for the purposes of commerce, and not simply for the purpose of experiment. The patent was held invalid. See 1 Web. 44, n.; 1 Abb. P. C. 202.

In *Morgan v. Seaward* (1837), 2 M. & W. 559, one article had been made in secret and exported. It was held not to invalidate the patent. See 1 Web. 44, n.; 1 Web. 187; 2 Abb. P. C. 419.

That actual sale is not necessary, —

the invention must have been regarded by the contracting parties as a complete and operative means, ready for immediate practical employment in the arts.² When such a sale is unconditional, the art or instrument is placed beyond the control of the inventor and irrevocably dedicated to the public; and the same result follows where title is to pass at the option of the purchaser, since here the inventor has no power to resume, at pleasure, his exclusive right.³ A single sale of this kind, of a single article and to a single person, is thus consid-

to offer or expose for sale in the ordinary methods is sufficient, — see *Plimpton v. Winslow* (1883), 14 Fed. Rep. 919; 23 O. G. 1731; *Burton v. Town of Greenville* (1880), 5 Bann. & A. 541; 18 O. G. 411; 3 Fed. Rep. 642; *Hancock v. Somervell* (1851), 39 New L. J. 158.

That to offer for sale, though there is no demand for the article, is enough, see *Losh v. Hague* (1838), 1 Web. 202; 2 Abb. P. C. 501.

That to place the article on sale, if it be used, though no sales take place, is abandonment, see *Plimpton v. Winslow* (1883), 23 O. G. 1731; 14 Fed. Rep. 919.

² That the invention sold must be complete and operative, see *Henry v. Francestown Soapstone Stove Co.* (1880), 17 O. G. 569; 2 Fed. Rep. 78; *Draper v. Wattles* (1878), 16 O. G. 629; 3 Bann. & A. 618; *Am. H. & L. S. & D. Mach. Co. v. Am. T. & Mach. Co.* (1870), Holmes, 503; 4 Fisher, 284; *Winans v. N. Y. & Harlem R. R. Co.* (1855), 4 Fisher, 1.

That the sale of an experimental machine in the market for over two years is abandonment of the machine in its existing state, see *Lyman v. Maypole* (1884), 19 Fed. Rep. 735; 28 O. G. 810. See notes to this case in 19 Fed. Rep. on Abandonment, Experiments, etc.

³ In *Henry v. The Francestown Soapstone Stove Co.* (1880), 2 Fed. Rep. 78, Lowell, J. : (80) "In my opinion the evidence tends to show a sale of the in-

vention. True, some sales were conditional; that is to say, the stoves were to be returned if they were not satisfactory to the buyers; but this does not, without further explanation, prove that they were experimental. It may show that the purchaser had doubts about the article, but does not prove any on the part of the seller. . . . It is very unlikely that a buyer would take what he understood to be an experimental thing; but if he did, the evidence should be unequivocal that a test of the invention was one of the purposes of the seller. This article could be tested by the inventor as well in his own house as in any other place; and when he sold it in its completed form, though with warranty or on condition, he sold it." 17 O. G. 569 (569).

Thus that to sell "on trial," to be kept and paid for if satisfactory to the vendee, is a sufficient sale, see *Kells v. McKenzie* (1881), 20 O. G. 1663; 9 Fed. Rep. 284.

That selling "to see if it will sell," is also sufficient, see *Consolidated Fruit Jar Co. v. Wright* (1874), 6 O. G. 327; 12 Blatch. 149; 1 Bann. & A. 320.

That any sale without limitation is enough, see *Schneider v. Thill* (1880), 5 Bann. & A. 565.

That if the invention is sold embraced in another, without notice, it is abandonment, see *Egbert v. Lippman* (1881), 104 U. S. 333; 21 O. G. 75.

ered as an unmistakable indication of his intention to abandon the invention, unless, within the time required by statute, he counter-indicates it by his application for a patent.⁴ But when the title of the purchaser is by the terms of the agreement made optional with the inventor, or where from the provisions of the contract it is evident that the inventor still retains control of his invention, and can at will recall the privilege he has bestowed, there is no such presumption, but the intent of the inventor is to be discovered, as a fact, from the whole transaction, as in ordinary cases of abandonment.⁵ A sale of the invention by the inventor himself, of course, establishes his knowledge and consent. But where sales have been made by others the rule is the same, both in reason and

⁴ In *Innis v. Oil City Boiler Works* (1885), 22 Fed. Rep. 780, Acheson, J. : (780) "Doubtless a single sale by an inventor, in the ordinary course of business, of a machine embodying his completed invention, more than two years before his application for a patent, will defeat his right thereto, and may be shown in bar of a suit for infringement. And it may well be that such consequence will not be averted by the mere condition in the contract of sale that the purchaser shall have the right to return the machine and take back the price should it fail to work satisfactorily. *Henry v. Frankestown Soapstone Stove Co.*, 17 O. G. 569 ; 2 Fed. Rep. 78. But the proofs here show that the one sale relied on to support the plea was not only characterized by that condition, but was otherwise exceptional. It was made at an under price and without profit to the seller. Moreover, I am persuaded that the sale was made for the purpose of securing a fair test of the invention. . . . (781) Upon the whole evidence it is plain that the transaction was altogether experimental ; therefore the invention was not 'in public use or on sale' within the meaning of the statute. . . . It being once shown that the use was experimental, then, upon

the question of its reasonableness in point of duration, every presumption should be made in favor of the inventor." 30 O. G. 998 (998).

That a single complete sale shows abandonment, if more than two years before application, see *Henry v. Providence Tool Co.* (1878), 14 O. G. 855 ; 3 Bann. & A. 501 ; *Kelleher v. Darling* (1878), 4 Clifford, 424 ; 14 O. G. 673 ; 3 Bann. & A. 438 ; *Am. H. & L. S. & D. Mach. Co. v. Am. T. & Mach. Co.* (1870), Holmes, 503 ; 4 Fisher, 284 ; *McCormick v. Seymour* (1851), 2 Blatch. 240 ; *Honiball v. Bloomer* (1854), 2 Web. 199 ; *Losh v. Hague* (1838), 1 Web. 202 ; 2 Abb. P. C. 501.

⁵ That a sale "on trial," may be for the purpose of testing the invention itself, and if so is not abandonment, see *Graham v. McCormick* (1880), 10 Bissell, 39 ; 11 Fed. Rep. 859 ; 21 O. G. 1538 ; 5 Bann. & A. 244 ; *Graham v. Geneva L. C. Mfg. Co.* (1880), 11 Fed. Rep. 138 ; 21 O. G. 1536 ; *Draper v. Wattles* (1878), 3 Bann. & A. 618 ; 16 O. G. 629.

That a sale on trial though with warranty is not necessarily abandonment, see *Graham v. McCormick* (1880), 21 O. G. 1538 ; 10 Bissell, 39 ; 11 Fed. Rep. 859 ; 5 Bann. & A. 244.

enactment, as in the case of public use. No presumption of law arises that the rights of the inventor are abandoned by such sales, unless after they come within his knowledge he acquiesces in this appropriation of his art or instrument by the public until the time for protecting himself has expired.

§ 360. Public Use or Sale Abandons only the Exact Invention Used or Sold.

The public use or sale of an invention works an abandonment only of the exact invention used or sold.¹ Where the same art or instrument may serve as the embodiment of two distinct ideas of means, it represents two different inventions; and its use or sale as one, the other being yet unrecognized, is no abandonment of it as that other. Thus, for example, an invention patented and used as a design may also serve as the expression of a different idea when employed as a machine or manufacture; and if this idea be of later origin, and have involved the exercise of the inventive faculties, it constitutes a different invention and is entitled to protection, for however long a period the same tangible embodiment has been in public use as a design.² But when the two inventions are the

§ 360. ¹ That the invention used must be the same means now claimed to have been abandoned, see *Graham v. McCormick* (1880), 11 Fed. Rep. 859; 10 Bissell, 39; 21 O. G. 1533; 5 Bann. & A. 244; *Henry v. Francetown Soap-Stone Stove Co.* (1890), 17 O. G. 569; 2 Fed. Rep. 78; *Draper v. Wattles* (1878), 16 O. G. 629; 3 Bann. & A. 618; *Am. H. & L. S. & D. Mach. Co. v. Am. T. & Mach. Co.* (1870), Holmes, 503; 4 Fisher, 284; *Winans v. N. Y. & Harlem R. R. Co.* (1855), 4 Fisher, 1.

² That the same concrete art or instrument may express two entirely distinct ideas of means, and therefore may be two entirely distinct inventions, has been already demonstrated. That if the construction and use of the concrete invention of itself discloses to the world both of these ideas, the fact that it is claimed by its inventor as the expression

of but one does not prevent the public from obtaining full possession of both is evident; and its public use or sale for the prescribed time thus necessarily operates as an abandonment of the one not claimed and patented. But where the concrete art or instrument does not confer upon the public, of itself, both these ideas, but having been employed as the embodiment of one, is afterwards adopted as the expression of the other, which has remained hitherto undisclosed, this subsequent adoption and use is a new gift to the public, and the invention thereby reduced to practice must be entirely unaffected by any previous public use or sale of the concrete invention as the expression of the other. Applying this rule to the case supposed in the text: The same material substance, if receiving a given form, may present a new appearance to the eye and

same in their essential character, whether they are employed in the same manner or for the same general purposes, or are known by the same or different names, or purport to have been created by the same or by another inventor, the public use or sale of one with the acquiescence of the inventor whose abandonment is in question, for the period mentioned in the statutes, destroys the patentability of his entire invention.⁸

thus embody the idea of a design, and may also in that same form accomplish some mechanical purpose and thus embody the idea of a machine or manufacture. The latter idea is not necessarily disclosed by the use of the given form as a design, since its mechanical operation may not be discovered until long after it has gone into common use as an ornament; but when discovered and practically applied it has all the characteristics of a new invention, and is and ought to be patentable as such without any reference to its previous use as a design. This is the view taken in *Collender v. Griffith* (1880), 18 Blatch. 110; 18 O. G. 241. The converse does not follow the same rule, however, for if the form be first employed for mechanical purposes, it necessarily produces its effect upon the eye as an appearance as soon as it is brought into use as a device, and operates as a design as effectually and publicly as it can ever do. The only new idea now possible concerning it is that of protecting it as a design, not of using it as the expression of a design. And hence its public use or sale for two years as a device must be an abandonment of it as a design.

That the public use of an article with a design upon it is an abandonment of of the design, see *Theberath v. Rubber & Celluloid Harness Trimming Co.* (1883), 23 O. G. 1121; 15 Fed. Rep. 246; *Burton v. Town of Greenville* (1880), 5 Bann. & A. 541; 18 O. G. 411; 3 Fed. Rep. 642.

In *McKay v. Dibert* (1881), 19 O. G.

1851; 5 Fed. Rep. 587, the court expressed a doubt whether where an invention embraces a machine, a product, and a process, and the machine alone is patented, the public use and sale of the machine for two years will defeat a subsequent patent for the product or process. This doubt should be solved by an application of the same principle. If the use of the machine *ipso facto* disclosed the product and the process, and thus rendered them accessible to the public, such use and sale would be abandonment; not otherwise.

⁸ That the first inventor cannot obtain a patent when the same art or instrument has been brought into public use for over two years as the invention of a subsequent inventor, see *Loom Co. v. Higgins* (1881), 105 U. S. 580; 21 O. G. 2031; *Cleveland v. Towle* (1869), 3 Fisher, 525.

See, also, §§ 346, 357, and notes, *ante*.

That where the inventor procures a foreign patent before applying in the United States the public use of his invention for more than two years before his application here must, under the act of 1839, have been a general use as distinguished from a use of one or more machines by the inventor, see *Am. H. & L. S. & D. Mach. Co. v. Am. T. & Mach. Co.* (1870), Holmes, 503; 4 Fisher, 284.

That the issue of a prior patent does not show public use, see *Weston v. White* (1876), 13 Blatch. 364; 9 O. G. 1196; 2 Bann. & A. 321.

§ 361. Conclusion: Five Requisites to Patentability.

In concluding this investigation of the requisites to patentability, we may sum up the essential characteristics of a patentable invention in the following propositions:—

I. It must be an idea of means, originating in an exercise of the creative faculties of the human mind, and embodied in some instrument or operation capable of immediate practical employment in the arts.

II. The instrument or operation which results from the embodiment of this idea of means must belong to one of the six species of inventions named in the acts of Congress as entitled to protection by a patent.

III. This instrument or operation must be new to the public at the date of its invention by the patentee.

IV. This instrument or operation must be of such a character that, if communicated to the public, it will confer a practical benefit upon them.

V. This instrument or operation must remain under the control of the inventor at the date of the issue of the patent.

Having these five characteristics an invention becomes patentable. To whom such patent issues will furnish the next subject for discussion.

BOOK II.

OF INVENTORS AND PATENTEES.

BOOK II.

OF INVENTORS AND PATENTEES.

PRELIMINARY ANALYSIS.

§ 362. Patent Privilege Grantable only to Inventors.

THE exclusive public use of an invention can justly be secured by law to no person except its inventor. To his creative faculties alone is due the new idea of means, and to him only can rightfully belong the art or instrument in which that idea is embodied. From him the public have received, or are about to receive, all the benefits conferred upon them by the invention, and solely to him do they therefore owe the recompense which finds expression in the privilege conceded by a patent. This is a fundamental principle, not merely of natural justice, but of positive law. The common law recognized no letters-patent as valid unless the grantee were the inventor of the article or manufacture covered by the grant. The statute of James I., herein declaring and affirming the common law, forbade the issue of such letters to any one except the first and true inventor of the substance or the operation patented; and though the theory prevailing in the English courts as to the nature of the inventive act embraced the enterprise, risks, and expenditures of an importer as well as the originating activities of a creator, the principle was still intact that he who first within the realm possesses the invention and bestows it on the public is alone entitled to be temporarily protected in its ownership, and to enjoy the reward which a service freely rendered to the public properly demands.

§ 263. Patent Privilege Grantable only to Inventors: but to Inventors Irrespective of Age, Sex, or Coverture.

In the United States this principle is expressly formulated both in the Constitution and the acts of Congress. Without a change in the language of the Constitution, no patent could be conferred except upon an inventor, and for his own invention or discovery. The various statutes by which our patent system has been inaugurated and developed have uniformly followed the same rule, and confined their privileges to the true inventor or discoverer of the subject-matter described and claimed in the application for a patent; and our courts, excluding from their theory of the inventive act everything except an exercise of the creative faculties, have constantly refused to recognize in any one but the originator of the idea embodied in the art or manufacture a right either to obtain a patent or to maintain it if obtained. Indeed, so positive and specific is this rule that no agreement of private parties can be effectual against it. No concession, on the part of the real inventor, that some one else is the inventor or the first inventor, can either change the fact or confer upon the latter the right to patent the invention as his own.¹ Even the power of Congress to designate by special act some person as the true inventor, and as such to bestow exclusive privileges upon him, contrary to the fact, has been disputed, and if the question were a new one would now doubtless be emphatically denied.² Subject to this rule any person may become a pat-

§ 363. ¹ In *Hammond v. Pratt* (1879), 16 O. G. 1235, Paine, Com.: (1238) "Parties have no right, by contract, falsely to concede priority of invention. Such a concession confers upon the party in whose favor it is made no right to demand a patent as the first and original inventor, whatever rights it may or may not confer upon him as an equitable assignee. It is still the duty of the Patent Office to grant the patent to the first and original inventor or to his assignee, and not to the party who, in defiance of the facts, is conceded to be the first and original inventor."

See also *Allen v. Gilman* (1872), 2 O. G. 293.

² That a patent can be granted only to a real inventor, see *Slemmer's Appeal* (1868), 58 Pa. St. 155.

That whether an act of Congress can determine that any one is the first inventor, *quere*, see *Evans v. Eaton* (1818), 3 Wheaton, 454, 513; 1 Robb. 243.

That an interference decision in the Patent Office is not binding in the courts, even between the parties, see *Gloucester Isinglass & Glue Co. v. Brooks* (1884), 19 Fed. Rep. 426; *Union Paper Bag Mach. Co. v. Crane* (1874), Holmes,

ontee. An alien stands on the same footing with a citizen, and a married woman with a *feme sole*,—the rights of her husband in the invention and the patent being cognizable only by the laws of the State in which they dwell.³ A single exception exists in the case of an employee of the Patent Office, who is not allowed to apply for or obtain a patent during the term of his employment.⁴

429 ; 6 O. G. 801 ; 1 Bann. & A. 494. See also §§ 613, 1017, 1183, and notes, *post*.

³ That an alien stands on the same footing with a citizen before the Patent Law, see *Thomas v. Reese* (1880), 17 O. G. 195 ; *Ex parte Nagel* (1880), 17 O. G. 198 ; *Lauder v. Crowell* (1879), 16 O. G. 405 ; *Shaw v. Cooper* (1833), 7 Peters, 292 ; 1 Robb, 643.

That a foreign patentee may take out an American patent at any time, unless his invention has been in public use in this country for two years, see *Henry v. Providence Tool Co.* (1878), 3 Bann. & A. 501 ; 14 O. G. 855.

That a married woman may be the grantee of a patent, the rights of her husband in the patent being regulated by local law, see *Fetter v. Newhall* (1883), 17 Fed. Rep. 841 ; 21 Blatch. 445 ; 25 O. G. 502.

That the power of a married woman over her patent rights, as to assignment, etc., depends on the local law, see *Fetter v. Newhall* (1883), 17 Fed. Rep. 841 ; 21 Blatch. 445 ; 25 O. G. 502.

That an infant or ward may be the owner of a patent, see *Fetter v. Newhall* (1883), 17 Fed. Rep. 841 ; 21 Blatch. 445 ; 25 O. G. 502.

That an invention by a slave can be patented neither by him nor by his master, see *Opinion Atty. Gen.* (1858), 9 Op. At. Gen. 171.

⁴ Rev. Stat. 1874, § 480 ; act of 1836, § 2 ; and see *Opinion of Commissioner* (1884), 26 O. G. 637.

This disqualification extends, however, only to the period of his employ-

ment. Thus in *Page v. Holmes Burglar Alarm Telegraph Co.* (1880), 17 Blatch. 484, Blatchford, J. : (507) "The second section of the act of 1836 does not declare that a person taking employment in the Patent Office shall be held to have forfeited, or dedicated to the public thereby, any invention before made by him. It simply prevents him from acquiring an interest in a patent while he remains such employee. But, as soon as his employment ceases, he is in the same position, so far as any effect of the mere fact of his having been in such employment is concerned, as if he had never been in such employment." 1 Fed. Rep. 304 (325) ; 17 O. G. 737 (742).

That a Patent Office employee cannot be an applicant and cannot file an application, see *Com. Dec.* (1884), 26 O. G. 637.

That an employee of the Patent Office may obtain patents for his inventions after he leaves the Office, see *Foote v. Frost* (1878), 14 O. G. 860 ; 3 Bann. & A. 607.

That the Commissioner of Patents, after his term expires, may have a patent for an invention made during his term of office, and the patent will date back to the invention, see *Foote v. Frost* (1878), 3 Bann. & A. 607 ; 14 O. G. 860.

That an employee of the Patent Office, after his employment ceases, may have a patent for inventions made by him before his employment commenced, see *Page v. Holmes Burglar Alarm Telegraph Co.* (1880), 1 Fed. Rep. 304 ; 17 Blatch. 484 ; 17 O. G. 737.

§ 364. Patent Privilege Grantable only when the Inventor has Generated an Idea of Means and Reduced it to Practice.

No one can be an inventor until he has performed a complete inventive act, that is, until he has conceived an idea of means and reduced it to practice in some art, machine, manufacture, composition of matter, or design. Of the nature of this act, of the mode of its performance, and of its result, we have already spoken sufficiently in the preceding pages. All that is there described as involved in the essential character of the inventive act, or as requisite to constitute a patentable invention, must be accomplished before any one can claim the privilege of its exclusive public use. And though in the reduction of his idea to practice the inventor may employ the constructive experience and ability of others, the entire idea itself must owe its origin to the exercise of his own inventive skill, and thus becomes at once the subject and the measure of the patent privilege which he receives.

§ 365. Patent Privilege Grantable to Sole Inventor on his Completion of the Inventive Act.

Where this inventive act has been performed by but a single person, no question meriting discussion is likely to arise. If it appears that the invention is complete, that it involves inventive skill, that it is new and useful, and has not been abandoned to the public, the patent is awarded, as a matter of course, to him who alone claims to have been its inventor. But where two or more persons have performed inventive acts of the same character, or have participated in the same inventive act, difficulties almost insurmountable are sometimes encountered in the endeavor to determine to which of these rival or concurrent claimants the merit and the recompense of the inventive act belong. Out of the controversies thus engendered have grown many special doctrines, which it is the province of these next succeeding chapters to consider.

§ 366. Patent Privilege Grantable to Rival, Co-operative, or Joint Inventors.

It is apparent that where two or more persons have exercised their inventive skill in reference to the same invention

they must occupy toward each other one of three relations: Either (1) they are rival inventors, — that is, each has conceived the entire idea of means independently of the others, and but for their antagonistic claims would be entitled to a patent for the whole invention; or (2) they are co-operating inventors, — that is, each has invented a subordinate feature of the complete art or instrument, which being united with the inventions of the others form the actual invention as known and practised in the arts; or (3) they are joint inventors, — that is, all acting together have developed an idea of means which is the fruit of the joint exercise of their inventive faculties, though no specific severable part thereof can be attributed to any individual of the group. In the first case, as the exclusive use of the invention cannot be secured to more than one of these independent inventors, the law is compelled to determine arbitrarily, yet with due regard to reason and justice, which it will recognize as the true inventor and as the grantee of the patent. In the second case, as each of the inventive acts by which the several subordinate features of the art or instrument have been produced are in themselves complete and distinguishable from the others, the result of each is patentable as an entire invention by the individual who has created it; while the act of union by which these different features have been brought together into one single instrument or operation is in its turn, if originating in inventive rather than constructive skill, a separate invention, whose inventors are permitted to protect it by a separate patent. In the third case, as no inventive act has been performed by either of the individuals, neither can claim and patent the invention or any part of it as exclusively his own; but as all, taken together, have conceived and perfected the invention, they have become jointly entitled to the patent. By these provisions, adapted to each class of cases, the law is able to secure to the true inventor in the first class, and to each of the inventors in the second and third classes, the entire result of his inventive acts, and thus completely to apply the principle on which the patent privilege itself is based.

§ 367. Patent Privilege Grantable to Representatives of Deceased Inventor.

The right of an inventor to protect his invention by a patent is distinct from the privilege created by the patent, although it ceases when a lawful and sufficient patent is obtained. This right is property, and on the death of the inventor becomes part of his estate, and is available to his heirs or devisees, as he may have provided. His executor or administrator is, by statute, clothed with the power to apply for and obtain the patent, in trust for those who may be beneficially interested in the invention; and these personal representatives of the inventor thenceforth occupy the same position toward the invention and the public as the inventor would have done if living.

§ 368. Patent Privilege Grantable to Assignees of Inventor.

The right of the inventor to obtain a patent is also assignable, and when assigned in proper form the assignee is substituted for the original inventor as to all the powers and privileges which accrue to him as the result of his inventive act.¹ Although the act of the inventor is still the meritorious cause for which the patent issues, the assignee is made by statute, under the assignment, the recipient of the entire recompense which the public is able to bestow. The patent may be issued directly to him, and for all future purposes of the invention he is regarded as the true inventor.

§ 368. ¹ That the right of an inventor to obtain a patent is an inchoate right which may be assigned, see *United States Stamping Co. v. Jewett* (1880), 7 Fed. Rep. 869; 18 Blatch. 469; 18 O. G. 1529; *Cammeyer v. Newton* (1876), 94 U. S. 225; 11 O. G. 287; *Hammond v. Mason & Hamlin Organ Co.* (1875), 92 U. S. 724; *Newell v. West* (1875), 13 Blatch. 114; 9 O. G. 1110; 2 Bann. &

A. 113; *Troy Iron & Nail Co. v. Corning* (1852), 14 How. 193; *Gayler v. Wilder* (1850), 10 How. 477; *Rathbone v. Orr* (1850), 5 McLean, 131; *Gay v. Cornell* (1849), 1 Blatch. 506; *Nesmith v. Calvert* (1845), 1 W. & M. 84; 2 Robb, 311.

See also §§ 408-414, 769-772, and notes, *post*.

§ 369. Classes of Inventors and Patentees.

In discussing in detail the various provisions of the law concerning inventors and patentees, we shall thus find our subject naturally falling into five divisions:—

- I. Of rival inventors;
- II. Of co-operating inventors;
- III. Of joint inventors;
- IV. Of personal representatives;
- V. Of assignees;

under each of which the doctrines of the courts and the enactments of Congress in reference thereto will now be considered.

CHAPTER I.

OF RIVAL INVENTORS.

§ 370. Patent Privilege Grantable to the Earliest of Rival Inventors.

Where two or more persons, independently of each other, have performed the same complete inventive act, each is an original inventor, and but for the others would be entitled to the patent. Two patents cannot however be granted for the same invention, because an exclusive privilege cannot subsist in distinct individuals, and also because the issue of one patent exhausts the power of the government to afford protection to the inventor. Hence the law is forced to choose between the rival original inventors, and confer the exclusive privilege upon the one who in reason seems best to deserve it. This it does by providing that the first, or earliest in time, of these original inventors shall be regarded as the only true inventor;¹ his priority of invention rendering it at least doubtful

§ 370. ¹ In *Smith v. Barter* (1875), 7 O. G. 1, Thacher, Com.: (3) "No principle is better established than that the first inventor is he who first reduces the invention to practical form by embodying it in a machine capable of useful operation, modified, it is true, by the proviso that if the first to conceive the invention is second in reduction to practice, his right to the invention shall not be destroyed if he was using due diligence in perfecting it."

In *Agawam Co. v. Jordan* (1868), 7 Wall. 583, Clifford, J.: (602) "The settled rule of law is that whoever first perfects a machine is entitled to the patent, and is the real inventor, although

others may have previously had the idea and made some experiments towards putting it in practice. He is the inventor, and is entitled to the patent, who first brought the machine to perfection and made it capable of useful operation."

That the first producer of the completed invention is the first inventor unless another had earlier conceived the idea and was diligent in reducing it to practice, or had suggested to the first producer the entire idea, see *Hall v. Johnson* (1883), 23 O. G. 2411.

That the inventor who first performs a complete inventive act, not only conceiving the idea of means, but reducing it to practice, is the one *prima facie* en-

whether the inventions of the others can be really new, while his merit, if not greater than the others in itself, is not diminished by their subsequent discoveries.

§ 371. **Earliest Applicant, under English Law, the Earliest Inventor.**

Under the English law this question of priority presented no special difficulties. The date of the patent, or that of the application, has been treated as the date of the invention, and this being a matter of public record was ascertainable by simple inspection. Under this doctrine the first patentee, or applicant for a patent, was held to be the first inventor and alone entitled to the exclusive use of the invention, — a rule entirely consistent with the theory that the chief merit of the inventor consists in giving the invention to the public.

§ 372. **Earliest Performer of Inventive Act, under American Law, the Earliest Inventor.**

In this country, on the other hand, the courts early adopted the view that the exercise of the inventive faculties is as true a ground for public recompense as the act of making known the invention to the world. While, therefore, the publication of the invention is here recognized as an essential part of the consideration for the patent, the courts unhesitatingly go behind it when necessity requires, in order to ascertain which one of several rival publishers is the first and true inventor.

titled to the patent, see *Electric R. R. Signal Co. v. Hall Railroad Signal Co.* (1881), 6 Fed. Rep. 603; *Smith v. Barter* (1875), 7 O. G. 1; *Smith v. Prior* (1873), 2 Sawyer, 461; 4 O. G. 638; 6 Fisher, 469; *Sayles v. Hapgood* (1869), 2 Bissell, 189; 3 Fisher, 632; *Agawam Co. v. Jordan* (1868), 7 Wall. 583; *Whitely v. Swayne* (1868), 7 Wall. 685; *Brodie v. Ophir Silver Mining Co.* (1867), 5 Sawyer, 608; 4 Fisher, 137; *Teese v. Phelps* (1855), 1 McAllister, 48; *Allen v. Hunter* (1855), 6 McLean, 303; *Good-year v. Day* (1852), 2 Wall. Jr. 283; *Lowell v. Lewis* (1817), 1 Mason, 182;

1 Robb, 131; *Woodcock v. Parker* (1813), 1 Gallison, 438; 1 Robb, 37.

That where one patent antedates another for the same invention the later patentee must prove that his inventive act took place before the earlier patent, and then the earlier patentee must prove that his inventive act preceded that of the later patentee, the evidence in all cases being clear and beyond reasonable doubt, see *Thayer v. Hart* (1884), 22 Blatch. 229; 20 Fed. Rep. 693; 28 O. G. 542.

See also § 375 and notes, *post*.

The date of the patent or the application still remains the *prima facie* date of the invention; but when dispute arises the date of the inventive act may be investigated, and priority awarded to him by whom this act was first performed.

§ 373. **Inventive Act a Continuous Act: Begins with Conception of Idea: Ends with Reduction to Practice.**

In this investigation the mental and the physical parts of the inventive act are both regarded. The inventive act begins with the conception of the idea of means; it ends with the embodiment of that idea in a practically operative art or instrument. It is thus in its nature a continuous act; the conception of the idea being sometimes instantaneous, sometimes gradual; the reduction to practice being in one case easy and rapid, in another slow and difficult. Hence it often happens that two independent inventors, performing the same inventive act, move at different rates of progress, owing to differences in their individual circumstances or their constructive skill. Though their conceptions of the idea are simultaneous, one may reduce to practice earlier than the other. Though one precedes the other in conception, the other may yet be the first to produce the complete practical invention. Here new questions present themselves, to be determined, like the former, by the reason and the justice of the law.

§ 374. **Earliest Reducer, if Earliest or Contemporaneous Conceiver, the Earliest Inventor.**

Where one of two rival inventors has reduced the idea to practice before the other has conceived the idea, the former is unquestionably the first and true inventor. Where their conceptions are simultaneous, and one precedes the other in reduction, his earlier completion of the inventive act makes him the first inventor and the proper patentee. Neither of these cases, therefore, requires special discussion. But where the one who first conceives the idea is anticipated in its reduction to practice by another and subsequent originator of the same idea, further discrimination becomes necessary, and an additional test of priority must be applied.

§ 375. Later Reducer, if Earliest Conceiver and Diligent in Reduction, the Earliest Inventor.

The public interest requires that every valuable invention should be perfected and made available for use at the earliest practicable moment. At the same time it is conceded that the really meritorious part of the inventive act is the conception of the idea, and therefore that the first conceiver, though the last reducer, is the actual first inventor.¹ It is the purpose of the law at once to promote the public interest and to do full justice to the first inventor; and inasmuch as the delay in his reduction must result either from his own negligence for which he ought to suffer, or from circumstances beyond his control which ought not to avail others to his injury, the rule has been established that the first conceiver of the idea of means, if diligent in reducing it to practice, is entitled to the patent, even though a subsequent conceiver should first have rendered the invention available for public use. The test of priority in all such cases is thus the diligence of the first conceiver in reducing his idea to practice. If he has been diligent he receives the patent. If he has been negligent the patent is awarded to the first reducer.² In examining the nature of this test, it will be found convenient to consider: —

I. The conception of the idea of means, its date, and evidence; and

II. Diligence in reduction to practice.

§ 375. ¹ That the conceiver, not the embodier, is the inventor, see *Yoder v. Mills* (1885), 26 Fed. Rep. 273; 34 O. G. 1048.

That the inventor who first conceives the idea and puts it into practical operation is entitled to the patent, see *Worswick Mfg. Co. v. City of Buffalo* (1884), 20 Fed. Rep. 126; 27 O. G. 1239.

² That the negligence of the first conceiver gives to the first reducer a prior

right, see *Hubel v. Dick* (1886), 28 Fed. Rep. 132; 36 O. G. 939; *Gill v. Scott* (1883), 23 C. G. 2511.

That a mere conception, not diligently put in practical form, avails nothing against a subsequent conceiver who has perfected the invention and obtained a patent, see *Pennsylvania Diamond Drill Co. v. Simpson* (1886), 29 Fed. Rep. 288.

See also § 370 and notes, *ante*.

SECTION I.

OF THE CONCEPTION OF THE INVENTION.

§ 376. "Conception" Defined.

The conception of the invention consists in the complete performance of the mental part of the inventive act. While this in theory necessarily precedes the physical part or reduction to practice, it in fact also embraces whatever of thought and skill the inventor may have exercised in bringing the invention to that point where reduction to practice can begin. By it inventive genius, so far as it relates to this particular invention, is exhausted; all that remains to be accomplished, in order to perfect the art or instrument, belongs to the department of construction, not creation. It is thus the formation, in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice.

§ 377. Conception must Generate an Idea of Means.

The idea thus conceived is, in the first place, an idea of means; an idea of the application of some force to its appropriate objects in such a manner as to accomplish a desired result.¹ Until an idea of this character is developed there is no conception of an invention. To perceive an existing want; to conceive that in some way it may be supplied; even to discover what attributes an article or operation must possess in order to relieve the want,—neither of these acts results in an idea of means by which the want may be removed. To apprehend the qualities of a given substance, to conclude either from reasoning or observation that it might be usefully applied to a given purpose, falls also short of the conception of an idea of means.² The creative process of the inventor must go far

§ 377. ¹ In *Carver v. Hyde* (1842), 16 Peters, 513, Taney, C. J. : (519) "Now the end to be accomplished is not the subject of a patent. The invention

consists in the new and useful means of obtaining it."

See also §§ 87-90 and notes, *ante*.

² That the mere conception that a

beyond these achievements. It must not only discern the want, the possibility of its supply, and the attributes with which the article or operation that supplies it must be endowed, but it must produce the art or instrument itself ready for application to the removal of the want.³ It must bring into actual contact with its object the force now latent in the given substance, and thus fulfil the purpose whose possibility the inventor as yet only perceives. When the idea has reached this point it is the idea of an invention; before this it is merely an empty speculation, or a fact in nature open to the perception of all mankind.

§ 378. **Conception must Generate an Idea of Practically Operative Means.**

This idea must, in the second place, include every essential attribute of the complete and practical invention. If anything remains to be created or devised in order to enable the instrument or art to perform its functions in the manner proposed by the inventor, his conception of the invention is not finished, nor has he brought into existence any true idea of means. Where the shape, size, material, or location of its various parts, or the nature or arrangement of its component operations, are necessary to its practical accomplishment of the purposes for which it is designed, each of these must be fully developed in, and apprehended by, the mind of the inventor, in a condition adapted to immediate embodiment in the concrete art or instrument. But matters of mere form, as distinguished from matters of substance, constitute no part of this idea. If the performance of its functions by the concrete invention is not dependent on the shape, the size, the

certain substance might be useful in a certain process, but not followed by acts or words expressing the conception, cannot be regarded as the conception of an invention, see *Slade v. Blair* (1880), 17 O. G. 261.

That the conception that something might be done is not the conception of an invention, see *Wicks v. Dubois* (1877), 11 O. G. 244; *Gordon v. Withington* (1876), 9 O. G. 1009.

³ That to discern a want, and to experiment, or cause others to experiment, after means to supply it, but without discovering such means, is not a conception of the invention, see *Bell v. Brooks* (1881), 19 O. G. 290; *Union Paper Collar Co. v. Van Deusen* (1872), 10 Blatch. 109; 2 O. G. 361; 5 Fisher, 597.

See also § 88 and notes, *ante*.

capacity, the proportions, or materials of which it is composed, or on the location or arrangement of its elements, the thought of the inventor may or may not have occupied itself with these. The conception is complete without them; and whatever attention they may have received belongs to the physical and not the mental part of the inventive act.¹

§ 379. Conception must Generate an Idea of Practically Operative Means Ready for Communication to the Public.

This idea must, in the third place, be so definitely and clearly present in the mind of the inventor that he is able to communicate it to the public. A vague and general notion, incapable of exact expression either in acts or words, although it may contain all the essential attributes of an invention, is not such a conception of the invention as confers a benefit upon the world, or adds to the stock even of the inventor's knowledge. It may have originated in his creative faculties, and be in process of development toward a complete conception, but until it has become an object of his contemplation and is understood by him as a separate entity, or a plan of operation capable of being practically carried out, or an image or design able to be reproduced in tangible materials, it cannot be regarded as a mental possession which the inventor can bestow upon mankind.¹ It is not while the cre-

§ 378. ¹ See §§ 78-80, 229-244, 318, and notes, *ante*.

§ 379. ¹ In *Stevens v. Putnam* (1880), 18 O. G. 520, Marble, Com.: (521) "I concur in the statement . . . that the conception of an invention is that 'state or stage of the invention when it is complete in the inventor's mind, but has not yet been reduced to practice or embodied in material form,' as I also do . . . that a mere conception that a desired result can be accomplished is not such a conception as can give date to an invention. The earliest date at which an invention can be said to exist is that time when there was in the mind of the inventor a well-defined idea of something which might rightfully constitute

the subject of a patent. The law is well settled that a mere unembodied principle or discovery is not a subject of a patent, and it must logically follow that the mere mental apprehension of the same is not the conception of an invention. When, however, the principle or discovery is rendered of practical service by its embodiment in material form, there exists something for which a patent can be allowed; and the union in the mind of the inventor of this principle or discovery with the means of its embodiment is conception of the invention. Commissioner Leggett, in the case of *Cameron & Everett v. J. R. Brick* (C. D. 1871, 89), in discussing this subject, used the following language: "The point

ative energies are at work shaping and sharpening the idea of means that the conception of the invention becomes perfect. It is when these energies have ceased to act, when the idea stands before the mental vision of the inventor as clearly as the concrete invention before the eyes of an observer, that the conception is complete and the work of reduction is ready to begin.

§ 380. **Date of Conception is Date of Complete Conception.**

The date of the conception of an invention is the date when this idea of means, including all the essential attributes of the invention, becomes so clearly defined in the mind of the inventor as to be capable of exterior expression. The evidence by which this date is determined, in case of controversy, must be of such a nature as to demonstrate that the conception was complete. Obviously, the mere assertion of the inventor that at a given time this idea was fully present

of time at which invention, in such sense as to merit the protection of law, dates is neither when the first thought of it is conceived nor when the practical working machine is completed, but it is when the thought or conception is practically complete; when it has assumed such shape in the mind that it can be described and illustrated; when the inventor is ready to instruct the mechanic in relation to putting it in working form; when the "embryo" has taken some definite form in the mind and seeks deliverance; and when this is evidenced by such description or illustration as to demonstrate its completeness. It may still need much patience and mechanical skill, and perhaps a long series of experiments, to give the conception birth in a useful working form. The true date of invention is at the point where the work of the inventor ceases and the work of the mechanic begins. Up to that point he was *inventing* but had not *invented*, and he must have *invented* before the law will come to his protection."

That experiment is not conception, but

conception must be matured into readiness for reduction, see *Voelker v. Gray* (1885), 30 O. G. 1091; *Washburn v. Gould* (1844), 3 Story, 122; 2 Robb, 206.

That the conception of an invention does not exist until the idea of means is complete and settled in the mind of the observer and nothing remains to be done but to give it practical embodiment, see *Boyd v. Cherry* (1888), 4 McCrary, 70; *Bell v. Brooks* (1881), 19 O. G. 290; *Pelton v. Waters* (1874), 7 O. G. 425; 1 Bann. & A. 599; *Andrews v. Carman* (1876), 9 O. G. 1011; 13 Blatch. 307; 2 Bann. & A. 277; *Ransom v. Mayor of New York* (1856), 1 Fisher, 252.

That where two persons claim the same invention, each denying it to be joint, and no positive evidence exists in favor of either, the fact that one seems to have understood it better than the other may be taken as proof that he is the real inventor, see *Barker v. Woodruff* (1872), 1 O. G. 253.

See also §§ 79, 80, and notes, *ante*.

to his mental vision, unaccompanied by contemporaneous acts or words indicating its existence, is not such evidence; for though his good faith be unquestioned, it is still doubtful whether his apprehension of the invention was definite enough to have enabled him to reduce it to practice without a further exercise of inventive skill.¹ But any full and accurate description of it either in words or drawings is sufficient, as also is a model if it be an instrument, or even an unsuccessful effort to embody it when the endeavor discloses that the idea was complete although the attempt to represent it may have failed.² In the absence of all other proof, the date of the ap-

§ 380. ¹ In *Farmer v. Brush* (1880), 17 O. G. 150, Paine, Com. : (150) "A conception which is a mere mental abstraction, not connected with acts or words, is not a conception in the sense of the law."

² In *Reeves v. Keystone Bridge Co.* (1872), 5 Fisher, 456, McKennan, J. : (462) "A patentee . . . may show, by sketches and drawings, the date of his inceptive invention, and if he has exercised reasonable diligence in perfecting and adapting it, and in applying for his patent, its protection will be carried back to such date; and in a race of diligence between rival inventors, the one who first perfects an invention, and embodies it in a distinct form, is entitled to priority; but can this be accorded to one who has conceived the idea of an invention, and has sketched it on paper, but has done nothing more in reference to it for a period of five years, as against the patent of an independent though subsequent inventor? . . . (463) It must, therefore, be considered as an established rule that illustrative drawings of conceived ideas do not constitute an invention, and that unless they are followed up by a seasonable observance of the requirements of the patent laws, they can have no effect upon a subsequently granted patent to another." 1 O. G. 466 (468); 9 Phila. 368 (370).

In *Philadelphia & Trenton R. R. Co. v. Stimpson* (1840), 14 Peters, 448, Story, J. : (462) "In many cases of inventions, it is hardly possible in any other manner to ascertain the precise time and exact origin of the particular invention. The invention itself is an intellectual process or operation, and, like all other expressions of thought, can in many cases scarcely be made known, except by speech. The invention may be consummated and perfect, and may be susceptible of complete description in words, a month or even a year before it can be embodied in any visible form, machine, or composition of matter. . . . In short, such conversations and declarations, coupled with a description of the nature and objects of the invention, are to be deemed a part of the *res gestæ*, and legitimate evidence that the invention was then known to and claimed by him; and thus its origin may be fixed at least as early as that period." 2 Robb, 46 (69).

That the complete conception of the idea of an invention may be shown by drawings, see *Loom Co. v. Higgins* (1881), 105 U. S. 580; 21 O. G. 2031; *Kneeland v. Sheriff* (1880), 2 Fed. Rep. 901; 18 O. G. 242; 5 Bann. & A. 482; *Smith v. Edson* (1875), 7 O. G. 827; *Brookfield v. Brooke* (1873), 4 O. G. 81; *Reeves v. Key-*

plication for a patent, if containing such description, is taken as the date of the conception.⁸

§ 381. Conception may be Prior to or Contemporaneous with Reduction.

In many inventions the act of conception is clearly distinct, in point of time, from that of reduction; and in these cases the rules given above are easily applied. In many others the work of conception and reduction goes forward almost simultaneously, so nearly so that no date can be fixed as that before which the conception was complete and after which the reduction to practice was begun. This is true in nearly all inventions which are the result of experiment,—where the inventor, instead of evolving the entire art or instrument out of his own thought, conjectures that such an act or substance will subserve a given purpose, and having tried it, finds that it accomplishes the end. The production of a new means by this method is, equally with the former, an inventive act, but

stone Bridge Co. (1872), 5 Fisher, 456; 1 O. G. 466; 9 Phila. 368.

That verbal declarations and descriptions may show the conception of the invention to have been perfect, see *Sayles v. Hapgood* (1869), 2 Bissell, 189; 3 Fisher, 632.

That a model may show the conception to have been complete, see *Loom Co. v. Higgins* (1881), 105 U. S. 580; 21 O. G. 2031.

That an unsuccessful attempt to reduce to practice may show the idea to be complete, see *Warner v. Anders* (1877), 11 O. G. 109.

That where it is doubtful who first conceived the invention, and neither has reduced it to practice, one who made a working model, demonstrating its practicability, is preferred to the other, who before that had made a sketch of the invention, see *Clark v. Osborn* (1874), 5 O. G. 667.

That neglect to apply for a patent, want of scientific knowledge, failure to put into use, etc., indicate that the

conception was incomplete, see *The Telephone Cases* (1887), 126 U. S. 1; 43 O. G. 377; *American Bell Telephone Co. v. People's Telephone Co.* (1884), 22 Blatch. 531; 22 Fed. Rep. 309; 29 O. G. 1029.

That failure to give an invention to the public when advantage from it could be derived in no other way is evidence that the conception is incomplete, see *Voelker v. Gray* (1885), 30 O. G. 1091.

⁸ That the date of an application for a patent is, in the absence of other proof, evidence of the date of the conception, see *Dane v. Chicago Mfg. Co.* (1872), 2 O. G. 677; 3 Bissell, 380; 6 Fisher, 130. See also § 132 and notes, *ante*, and § 1024 and notes, *post*.

That where two persons are trying to invent, and it is doubtful which first succeeds, the one who first obtains a patent is regarded as first inventor, see *Cox v. Griggs* (1861), 1 Bissell, 362; 2 Fisher, 174.

at no instant before the experiment succeeds can it be said that the conception of the invention exists in the inventor's mind. Until that instant it is mere speculation, at most a probable deduction from facts already known ; and the same act which reduces it to practice gives to the conception its definite and final form. Hence the date of the conception in such cases is the date, not when experiments begin, but when they end ; and the first to bring the art or instrument into successful operation is the first conceiver of the entire invention.¹

§ 382. Conception of Foreign Invention is Contemporaneous with Knowledge or Application in the United States.

The foregoing doctrines relate only to inventions whose original conception has occurred in the United States. Under our law no notice is or can be taken of any inventive act performed abroad until its result is published either in a patent or a printed book. At whatever date, therefore, an unpatented or unpublished foreign invention may have been in fact conceived by its inventor, its conception in the United States takes place only when it becomes an object of intellectual apprehension within the limits of this country.¹ Thus if the inventor, having

§ 381. ¹ In *Union Paper Bag Mach. Co. v. Pultz & Walkley Co.* (1878), 15 Blatch. 160, Shipman, J. : (166) "The patentee has the right to take up the improvement at the point where it was left by his predecessor, and if, by the exercise of his own inventive skill, he is successful in first perfecting and reducing to practice the invention which his predecessor undertook to make, he is entitled to the merit of such improvement, as an original inventor." 15 O. G. 423 (425) ; 3 Bann. & A. 403 (408).

That where an invention is reached by a series of experiments, the one who first succeeds, not the one who first begins, is the first inventor, see *Taylor v. Archer* (1871), 8 Blatch. 315 ; 4 Fisher, 449 ; *Hoffman v. Aronson* (1871), 8 Blatch. 324 ; 4 Fisher, 456 ; *National Filtering Oil Co. v. Arctic Oil Co.* (1871), 8 Blatch. 416 ; 4 Fisher, 514.

§ 382. ¹ In *Thomas v. Reese* (1880), 17 O. G. 195, Paine, Com. : (196) "The law makes no distinction between citizens and foreigners as applicants in the Patent Office. . . . But . . . the law does make a wide distinction between an invention made in the United States and an invention made in a foreign country, by whomsoever made. An invention made in the United States by a foreigner stands on the same footing in the Patent Office of the United States as an invention made in the United States by a citizen. An invention made in a foreign country by a citizen of the United States stands on the same footing in the Patent Office as an invention made in a foreign country by a foreigner. The distinction recognized by the law between an invention made in a foreign country and one made in the United States is this : The single fact that the

completed the mental part of his inventive act abroad, comes into the United States, not having already given his inven-

vention was previously made in the United States, whether by a citizen or a foreigner, is a bar to the grant to any subsequent inventor, whether such subsequent inventor is a citizen or a foreigner, and whether he made the invention in the United States or in a foreign country; but the single fact that the invention was previously made in a foreign country, whether by a citizen of the United States or by a foreigner, is no bar to the grant of a patent to a subsequent inventor, whether such subsequent inventor is a citizen or a foreigner, and whether he made the invention in a foreign country or in the United States. It is provided in section 4886 of the Revised Statutes that a prior foreign patent shall be a bar to the grant of a patent in the United States for the same invention. This is a broad and general provision, and might be fatal to an application by the foreign patentee for an American patent of his own invention. But the next section obviates this difficulty by the provision that a foreign patent shall not, of itself, bar the grant of an American patent to the inventor who is a foreign patentee. This presents the question whether the effect of the two sections is to enable the foreign patentee, in an interference, to carry the date of his invention back of the date of his American application to that of his foreign patent, and to relieve him from the necessity of proving a reduction to practice in the United States or elsewhere, or whether, on the other hand, its effect is merely to relieve him from the statutory bar to the grant, without exempting him from the necessity of proving the importation of a *completed invention* into the United States prior to the filing of his application, in order to carry the date of his invention back of the date of filing such application. These are, I think, still open questions in the Patent Office. . . .

(198) If an inventor, having conceived his invention in a foreign country, comes to the United States to complete it, and with due diligence reduces it to practice in the United States, he may, in an interference, carry back the date of his invention to the day of his arrival in the United States. If, having conceived it and reduced it to practice abroad, he comes to the United States for the purpose of introducing it to public use, or of obtaining a patent in the United States, he may, in an interference, fix the date of his completed invention on the day of his arrival in the United States. If, having conceived it and reduced it to practice abroad, he communicates it to an agent in a foreign country and sends his agent to the United States to obtain letters-patent or to introduce it to public use, he may, in an interference, fix the date of his invention on the day of his agent's arrival in the United States. If, having conceived it and reduced it to practice in a foreign country, he communicates it to an agent in the United States for the purpose of obtaining letters-patent or of introducing it to public use in the United States, he may, in an interference, carry the date of his invention back to the day in which it was fully disclosed to such agent in the United States."

In *Lauder v. Crowell* (1879), 16 O. G. 405, Paine, Com. : (406) "When an application for letters-patent for an invention made in the United States and an application for letters-patent for an unpatented invention made in a foreign country confront each other in the Patent Office, the American invention, if earlier in date, is a bar to the grant of a patent for the foreign invention; but the foreign invention, although first in date, is not a bar to the grant of a patent for the American invention. When two applications for patents for foreign in-

tion to the world, the date of his arrival on our shores is the date recognized by our law as the date of his conception; or if he entrusts his secret to an agent, whom he sends into this country upon business connected with the invention, the conception dates from the moment when the agent comes within our boundaries. Hence when a question of priority arises between inventions, one of which was conceived in the United States, while the other had its origin in a foreign country, the rules by which the date of each is ascertained are very different. In the American invention the date of the conception is carried back to the instant when the inventor can be shown to have first clearly apprehended his idea of means; in the foreign invention, only to the moment when some person to whom the conception was familiar came within the area of the United States. Where both inventive acts have been performed abroad and neither has been patented, the date of the first application in the United States is held to fix the date of first conception; while if one has been patented, the other not, the former has priority; and if both have been patented the date of the first patent is the date of first conception. In all these cases, however, the definition and requisites of the conception remain the same. It is the completion of the mental part of the inventive act, — the entire development of an idea of means, embracing every essential characteristic of the concrete invention, and capable of being at once expressed in some patentable art or instrument.

ventions, not patented abroad, confront each other in the Patent Office, neither of them is an obstacle to the grant of a patent for the other. . . . The applicant first in point of time in this office is entitled to the patent if he is an original inventor, and if, when he made his application, he believed himself to be the first inventor. When two applicants for patents for the same foreign invention, of whom only one is a foreign patentee, are before the Patent Office of the United States, the foreign patent of one of the applicants is a bar to the issue of an American patent to the other, even though he is in fact the prior inventor. When both of two applicants for Ameri-

can patents for foreign inventions are foreign patentees, the applicant whose invention was first patented abroad, if he is an actual inventor, and, when he filed his application, believed himself to be the first inventor, will be entitled to the American patent."

That the date of a foreign invention cannot be earlier than the knowledge of the invention, by samples or otherwise, in the United States, see *Hovey v. Hufeland* (1872), 2 O. G. 493.

That the date of a foreign patented invention is the date of the patent as against an invention made in the United States, see *Chambers v. Duncan* (1876), 10 O. G. 787.

SECTION II.

OF DILIGENCE IN REDUCING TO PRACTICE.

§ 383. Diligence in Reduction Important only when Later Conceiver is Earliest Reducer.

The person who first conceives the invention, in the manner described in the foregoing section, if diligent in reducing it to practice, is entitled to the patent in preference to any subsequent conceiver, although the latter may have been the first to render the invention available for public use.¹ This ques-

§ 383. ¹ In *White v. Allen* (1863), 2 Clifford, 224, Clifford, J. : (230) "Whoever first perfects a machine and makes it capable of useful operation, says Judge Story, is entitled to a patent, and he accordingly held, in *Reed v. Cutter*, 1 Story, 599, that an imperfect and incomplete invention, resting in mere theory, or in intellectual notion, or in uncertain experiments, and not actually reduced to practice and embodied in some distinct machinery, apparatus, manufacture, or composition of matter, was not patentable under the patent laws of the United States. Pursuant to that rule, the same learned judge also held that he is the first inventor, in the sense of the Patent Act, and entitled to a patent for his invention, who has first perfected and adapted the same to use, and that until the invention is so perfected and adapted to use, it is not patentable under the patent laws. *Washburn v. Gould*, 3 Story, 122; *Woodcock v. Parker et al.*, 1 Gall. 438. Taken as a general rule, no doubt is entertained of the correctness of the proposition as stated, but it must be regarded as subject to the qualification that he who invents first shall have the prior right if, as is prescribed in the fifteenth section of the

Patent Act, he is using reasonable diligence in adapting and perfecting the same within the meaning of that provision. . . . (238) Cases undoubtedly occur . . . where an individual employed in inventing, or in making experiments in that behalf, feeling dissatisfied with the result of his efforts, becomes discouraged in prosecuting the investigation, and finally loses all confidence in the prospect of his ultimate success, and under the influence of such discouragements or from a desire to engage in more profitable business, or to pursue a more pressing or favorite undertaking, decides to break up what he has accomplished, and lays the parts aside, not positively intending to abandon the subject, yet wholly uncertain whether he will ever resume it or make any further use of the parts so laid aside. Such cases are doubtless of frequent occurrence, and while they do not show an unconditional abandonment of the undertaking, they do show an indefinite suspension of the same, and an entire uncertainty, during such suspension, whether the interested party will ever furnish the invention to the public. Where an invention is thus voluntarily broken up and laid aside, without any controlling impediment in

tion of diligence in reduction to practice is never raised except in cases where a later inventor has anticipated the earlier

the way of an application for a patent, and under all the other conditions specified in the preceding proposition, and another, in the meantime, invents the same thing, without any knowledge of that which is so suspended, and reduces the same to practice, applies for and takes out his patent, and introduces the patented invention into public use, I am of the opinion that he must be regarded as the original and first inventor of the improvement." 2 Fisher, 440 (446, 453).

In *Reed v. Cutter* (1841), 1 Story, 590, Story, J. : (596) "Under our patent laws no person who is not at once the first, as well as the original, inventor by whom the invention has been perfected and put into actual use, is entitled to a patent. A subsequent inventor, although an original inventor, is not entitled to any patent. If the invention is perfected, and put into actual use by the first and original inventor, it is of no consequence whether the invention is extensively known or used, or whether the knowledge or use thereof is limited to a few persons, or even to the first inventor himself. It is sufficient that he is the first inventor, to entitle him to a patent; and no subsequent inventor has a right to deprive him of the right to use his own prior invention. . . . (599) In a race of diligence between two independent inventors, he who first reduces his invention to a fixed, positive, and practical form, would seem to be entitled to a priority of right to a patent therefor. The clause of the fifteenth section [act of 1836], now under consideration, seems to qualify that right by providing that in such cases he who invents first shall have the prior right, if he is using reasonable diligence in adapting and perfecting the same, although the sec-

ond inventor has, in fact, first perfected the same and reduced the same to practice in a positive form. It thus gives full effect to the well-known maxim, that he has the better right who is prior in point of time, namely, in making the discovery or invention." 2 Robb, 81 (87).

That as against a subsequent conceiver who has first reduced the invention to practice, the first conceiver is entitled to a patent provided he can connect his priority of conception with his own reduction to practice by showing reasonable diligence in his efforts so to reduce the invention to practice, see *Electric R. R. Signal Co. v. Hall R. R. Signal Co.* (1881), 6 Fed. Rep. 603; *Kneeland v. Sheriff* (1880), 2 Fed. Rep. 901; 18 O. G. 242; 5 Bann. & A. 482; *Gardner v. Dudley* (1880), 17 O. G. 801; *Dickson v. Kinsman* (1880), 18 O. G. 1225; *McKenna v. Redden* (1879), 16 O. G. 458; *Ackerman v. Archer* (1879), 15 O. G. 562; *Burgess v. Wetmore* (1879), 16 O. G. 765; *Sprague v. Adriance* (1877), 14 O. G. 308; 3 Bann. & A. 124; *Towers v. Pease* (1877), 13 O. G. 176; *Warner v. Anders* (1877), 11 O. G. 109; *Gross v. Sargent* (1877), 11 O. G. 797; *Lay v. Wiard* (1876), 9 O. G. 349; *Freeborn v. Foye* (1876), 9 O. G. 884; *Palm v. Behel* (1876), 10 O. G. 701; *Crane v. Whitehead* (1875), 7 O. G. 219; *Baldwin v. Bigelow* (1875), 7 O. G. 1011; *Hammond v. Laird* (1874), 7 O. G. 170; *Smith v. Barter* (1874), 7 O. G. 1; *Rees v. Richards* (1874), 7 O. G. 37; *Bradford v. Corbin* (1874), 6 O. G. 223; *Ex parte Carr* (1874), 5 O. G. 30; *In re Edson* (1873), 4 O. G. 500; *Hyatt v. French* (1873), 4 O. G. 609; *Smith v. O'Connor* (1873), 4 O. G. 633; 2 Sawyer, 461; 6 Fisher, 469; *Rice v. Winchester* (1873), 3 O. G. 348; *American*

in the embodiment of the idea of means. A solo inventor may occupy what time he pleases in expressing his conception in tangible materials; still, as from him alone the public must receive the benefit of the invention, to him alone belongs the recompense of the inventor, whatever delays may have occurred in its disclosure. For the same reason, if the first conceiver is also the first reducer, it is from him that the complete invention first proceeds, however slowly it has been developed in his hands; and no subsequent conceiver and reducer of the same invention can claim to have conferred upon the public any new instrument or operation. Thus it is only when the second in conception has preceded an earlier conceiver in the embodiment of the idea and its adaptation to practical use that the diligence of the first conceiver becomes a matter of importance, and by it then his right to a patent for the invention must stand or fall.²

§ 384. Diligence in Reduction Required only of Earliest Conceiver, and of him only when he is the Later Reducer: No "Race of Diligence."

This obligation of diligence has no relation to the subsequent conceiver. From some expressions found in the decisions it might be inferred that upon the second conception a race of diligence began between the two inventors, and that the patent ought to be awarded to the one by whom superior diligence was exercised. But this view would be incorrect.¹

Nicholson Pavement Co. v. Elizabeth Phelps v. Brown (1859), 4 Blatch. (1873), 3 O. G. 522; 6 Fisher, 424; 362; 1 Fisher, 479; Ransom v. Mayor Pattee v. Russell (1873), 3 O. G. 181; of New York (1856), 1 Fisher, 252; Vinton v. Pierce (1873), 3 O. G. 629; Allen v. Blunt (1846), 2 W. & M. 121; Frevert v. Gahr (1873), 3 O. G. 660; 2 Robb, 530.
² That no question arises as to the diligence of an inventor in reducing his invention to practice unless some subsequent inventor has reduced the invention to practice in advance of the prior inventor, see Bering v. Haworth (1878), 14 O. G. 117; Allen v. Gilman (1872), 2 O. G. 293.
¹ In Millward v. Barnes § 384. ¹ In Millward v. Barnes (1877), 11 O. G. 1060, Spear, Com.: (1861) "Respecting the matter of dili-

No matter what degree of diligence he may have manifested, the second conceiver has not even a *prima facie* right to the patent, unless he was the first to reduce to practice; and if he has anticipated the other in reduction it is on this ground, and this only, that his claims are based. The law regards him with no such indulgence as it does the first conceiver. It takes no notice of the difficulties with which he has contended, nor of the efforts which he may have made to confer the benefit of his invention on the public. The fact that he has so conferred it is sufficient in the absence of any prior conception or of reasonable diligence on the part of a prior conceiver; but even this fact avails him nothing if the first conceiver has properly endeavored to complete his own inventive act, and has thus fulfilled the obligation which the law imposes on him. Hence there can be no comparison of diligence as between rival inventors; no "race of diligence" in any sense of a competing effort to attain a prize. While it is true that as soon as the second inventor has developed the idea of means in his own mind it becomes a question of importance whether he will complete its practical embodiment before the first inventor; and while it is also true that the priority of either will depend largely on the respective diligence

gence, as bearing upon the question of priority, I do not regard it as comparative, or, as it is sometimes termed, a 'race of diligence,' where one was first to conceive and the other to reduce to practice. If the second to conceive is the first to reduce to practice, his claim is founded upon that fact, and derives no support whatever from previous efforts; and whether he has been more or less diligent from the time of the conception of his invention to its maturity, he stands in exactly the same position. The fact that, being an original inventor, he did actually first reduce the invention to practice is all that we are to look for, or that he can base his claim to priority upon. Not so, however, with the one first to conceive. He must show affirmatively that he was reasonably diligent

from the time of his conception of the invention until its completion. His diligence is not to be compared with that of his competitor, but must stand as an independent fact. It is for him to show that, under the circumstances, he used reasonable diligence, in order that he may connect the two events, conception and completion, and so establish a superior title to the invention. Diligence is thus made one of the elements necessary to his title as prior inventor, and without it his title would be defective and could not prevail as against one claiming under the title of the first to reduce to practice."

See also *Electric R. R. Signal Co. v. Hall R. R. Signal Co.* (1881), 6 Fed. Rep. 603; *Brookfield v. Brooke* (1878), 4 O. G. 81.

of each ; yet the superior diligence of the second, if it be such, adds nothing to his merit where he first succeeds in the reduction, nor does it aid him where his tangible embodiment has been anticipated by the first inventor, nor does it qualify in any manner the consideration given by the law to the diligence of the first inventor where the second has first accomplished the reduction. Diligence is predicable only of the first conceiver. It is required of him and of him only ; it avails him and him only ; and no delay or expedition, on the part of the later conceiver, furnishes any standard by which the diligence of the former can be estimated, unless so far as it may throw light on the nature of the invention and indicate the actual difficulties with which the first conceiver has been forced to contend.

§ 385. Whether Diligence in Reduction is Required of Earliest Conceiver before Later Conception by Earliest Reducer.

From this erroneous tendency to compare the diligence of rival inventors has arisen another question, upon which no final conclusion seems to have yet been reached, namely, whether the diligence required of the first conceiver covers the whole period between his conception and reduction, or commences only at the date of the conception by the second inventor. Thus, as a race assumes the existence of at least two contestants, it has been stated that the race of diligence does not begin until the date of the second conception, and from this it has been concluded that the obligation to diligence does not exist, on the part of the first conceiver, until the date of the later conception.¹ But, upon principle, this is evidently wrong. The two grounds upon which the right of an inventor to a patent rests are the benefit conferred upon the public by the use of his concrete invention, and the stimulus given to inventive genius by rewarding him who first

§ 385. ¹ In *Packard v. Sandford* (1879), 16 O. G. 1182, Paine, Com. : (1185) "A race of diligence between two inventors never begins until the date of the later conception. The obligation to diligence on the part of the first to conceive does not exist until the

day of the later conception, which cannot give to that obligation a constructive existence relating back to the earlier conception."

To the same effect, see *Farmer v. Brush* (1880), 17 O. G. 150 ; *Lake v. Kempster* (1879), 16 O. G. 1187.

originates a new and valuable idea of means. The first of these grounds is the most important, and in a certain way the second is included in it. When two inventors stand ready to confer the same benefit for the same consideration, and the law, being obliged to choose between them, decides the controversy upon the personal consideration involved in the second ground, and awards the patent to the first conceiver, it can only do so on the theory that justice as well as the public interest require that the first conceiver be rewarded in preference to him who first is ready to bestow the invention on the public. But neither public interest nor justice are promoted by dispensing honors or rewards to an inventor who, having conceived the idea of means, makes no effort to render it practically available until its later conception by another inventor renders him liable to lose his prize. Here is no stimulus to diligence except the fear that without his knowledge some other inventor may enter the same field and attain the same result. Apart from this fear, the rule now controverted offers a recompense for negligence, and tends not only to encourage laxity upon the part of the first conceiver but to deter inventors by the doubt whether their own exertions may not prove profitless upon the discovery that a prior conception, unembodied and which at present no one is endeavoring to embody, may by and by appear and rob them of the fruits of their inventive skill. Justice requires that the public should reward those only who keep faith with it; who apply their creative energies to the promotion of the public good; and who, having generated ideas, reduce them as speedily as possible to practical and beneficial public use. The public interest demands that the first publisher of an invention should receive the recompense of its exclusive use, unless some more meritorious inventor has been hindered by circumstances beyond his control from conferring the invention on the public; and while the law has no occasion to inquire into the diligence of the first publisher, because priority of publication is itself a sufficient ground of merit, yet where this ground is disputed on behalf of a prior conceiver, who has not yet bestowed the invention on the public, the claim of the latter can only be acknowledged when it appears that to the merit of a first con-

ception he has added that of diligent endeavor to complete the inventive act and give his concrete art or instrument to the service of his fellow-men.

§ 386. Diligence in Reduction Preserves the Continuity of the Inventive Act.

That this view of the period during which diligence is necessary is correct is evident from the relation which this diligence establishes between the beginning and the completion of the inventive act. The inventive act is not usually an instantaneous act. The conception of the idea may be in some cases without perceptible duration, but the reduction to practice generally requires considerable periods of time. When the conception of the idea is complete, the inventive act is begun. When the reduction is finished the inventive act is ended. And whatever the interval between them, the first conceiver is permitted to claim the whole act as bearing the date of the conception, as against the subsequent conceiver, provided he connects his conception with his reduction by proof of reasonable diligence in effecting it, thus giving to the whole inventive act a practically and legally continuous character.¹ But it can hardly be regarded as consistent with this theory that the first conceiver, having completed the development of his idea in his own mind, should be at liberty to suspend his operations until some subsequent conceiver has developed the same idea, and then resuming his endeavors

§ 386. ¹ In *Farmer v. Brush* (1880), 17 O. G. 150, Paine, Com.: (150) "The law accords a patent to the first and original inventor. It is the reduction to practice, and not the conception alone, which constitutes completed invention. But suppose that A forms what is known to the law as a conception of the invention, and at a subsequent date reduces it to practice, and that in the meantime B both conceives the invention and reduces it to practice. The question whether A or B is entitled to the patent depends on the further question whether, as between A and B, the invention of A

is to take the date of his conception or the date of his reduction to practice. This question is not explicitly answered by the terms of the statute. But the answer furnished by judicial interpretation of the statute is that if A connects his reduction to practice with his conception by showing due diligence in the prosecution of the invention from the date of his conception to the date of his reduction to practice, his invention takes the former date and he is entitled to the patent, but otherwise it is to be granted to B." In a subsequent portion of this decision, the Commissioner seems to endorse

carry them forward to reduction and claim priority for the entire inventive act on account of his priority of conception. Alike, therefore, upon principle and upon the presumption out of which the rule itself arises, it appears that the diligence required of the first conceiver relates to the entire period between his conception and his reduction, and that in default of this the second conceiver, if the first reducer, is entitled to the patent. And this seems to be the doctrine of most of the decisions of the courts upon this question.²

§ 387. Reasonable Diligence Alone Required.

No general standard, by which diligence can be estimated, has been established by the law, nor, in the nature of things, is such a standard possible. It must be reasonable, under all the circumstances of the particular case in question.¹ The

the doctrine that the diligence is required only from the date of the second conception. Or, possibly, he may intend to distinguish between the diligence necessary to the first conceiver, and the race of diligence which begins with the later conception. The sentences above quoted are, however, a clear statement of the rule as, upon reason and principle, it should be established.

² In *White v. Allen* (1863), 2 Clifford, 224, Clifford, J. : (239) "The Federal courts have everywhere held that an inventor, who has first actually perfected his invention, will not, if he has exercised good faith, be deemed to have surreptitiously or unjustly obtained a patent for that which was in fact first invented by another, unless the latter was at the time using due diligence in adapting and perfecting what he had accomplished; and it was expressly held in *Ransom v. The Mayor of New York*, Law's Dig. App. 72, *per* Hall, J., that if a person does not use due diligence in perfecting his invention after he has conceived the idea, and another conceives the same idea and perfects it, and secures his patent and applies it to

use, the latter will be considered as the original and first inventor, and that a patent granted to the former will be void." 2 Fisher, 440 (454).

In *Ransom v. Mayor of New York* (1856), 1 Fisher, 252, Hall, J. : (272) "If the plaintiffs did not use reasonable diligence to perfect the invention patented, after the idea of it was first conceived, and in the meantime other persons not only conceived the idea but perfected the invention, and practically applied it to public use, before the invention of the plaintiffs had been so far perfected that it could be applied to practical use, the plaintiff's patent is void, because they were not the first and original inventors of the thing patented."

§ 387. ¹ In *Bradford v. Corbin* (1874), 6 O. G. 223, Leggett, Com. : (224) "Different cases have their peculiar facts and incidents, and hence it is impossible to make decisions or enact rules which will form just precedents or sure guides applicable to every subsequent case. The nature of the invention in controversy has often much to do with the conduct of the parties, and while

character of the invention; the health, the means, the liberty of the inventor; his occupation upon kindred or subordinate inventions, — are proper subjects for consideration.² Such reasonable diligence does not involve uninterrupted effort, nor the concentration of his entire energies upon this single enterprise.³ At the same time, no difficulties in reduction will excuse delay unless they have been practically insurmountable, nor will his voluntary pursuit of independent lines of experiment, nor his unwillingness to risk his time and money in a doubtful venture, nor the apparent want of a market for the invention, justify

laches could be safely presumed against the inventor of a simple device or article by reason of long delay in applying for a patent, the presumption would not exist, to that extent at least, if the invention in dispute consisted in an intricate and complicated machine, wherein the first conception falls far short of a completed invention, but long and costly experiments almost invariably beset the path of the inventor."

In *Cox v. Griggs* (1861), 1 Bissell, 362, Drummond, J.: (364) "It is the right and privilege of a party, when an idea enters his mind in the essential form of an invention, — inasmuch as most inventions are the result of experiment, trial, and effort, and few of them are worked out by mere will, — to perfect by experiment and reasonable diligence his original idea, so as not to be deprived of the fruit of his skill and labor by a prior patent, if he is the first inventor. But there must be what we would consider reasonable diligence, looking at all the facts in the case." 2 Fisher, 174 (176).

That whether a prior inventor has used reasonable diligence in reducing his invention to practice is a question to be determined, not by reference to any fixed standard, but in view of all the circumstances of the case, see *Electric R. R. Signal Co. v. Hall R. R. Signal Co.* (1881), 6 Fed. Rep. 603; *McTammany, Jr., v. Needham* (1880), 18 O. G. 1050;

Bering v. Haworth (1878), 14 O. G. 117; *Brookfield v. Brooke* (1873), 4 O. G. 81; *Lay v. Ballard* (1873), 3 O. G. 687; *Chapman v. Candee* (1872), 2 O. G. 245; *Reisinger v. Clark* (1872), 2 O. G. 339.

² In *McTammany, Jr., v. Needham* (1880), 18 O. G. 1050, Marble, Com.: (1051) "Diligence in perfecting an invention is a relative matter, and the law does not require that an inventor who is engaged in developing a number of improvements at the same time should devote all his time and energy to any one at the expense of the others."

That the inventor is engaged in a series of inventions, of which the one in question is a member, is a good excuse for developing the others to the postponement of this, see *Ex parte Carr* (1874), 5 O. G. 30.

That the inventor is in the employ of others to whom his time and labor belongs is a good reason for delays, see *Morse v. Clark* (1872), 1 O. G. 275.

That poverty will excuse delay, see *Cushman v. Parham* (1876), 9 O. G. 1108; *Proctor v. Ackroyd* (1874), 6 O. G. 603; *Webster v. New Brunswick Carpet Co.* (1874), 5 O. G. 522.

That sickness will excuse delays, see *Munger v. Connell* (1872), 1 O. G. 491.

³ That reasonable diligence does not necessitate continuity of effort, see *Chapman v. Candee* (1872), 2 O. G. 245.

That it does not require the devotion

the cessation of his endeavors.⁴ While the law is indulgent to the inventor, and saves him from the consequences of delays which he could not avoid, it gives him no option as to the diligent pursuit of his reduction according to his actual abilities, but holds him strictly to the rule as justice and the public interest require.⁵

§ 388. **Whether Diligence in Applying for a Patent is Required of an Earlier Rival Inventor.**

With this subject of diligence in reducing to practice another has been sometimes associated, to the confusion of both. It may occur that an inventor, having conceived the idea of an invention and embodied it in tangible materials, conceals it from the public until a subsequent inventor conceives it, reduces it to practice, and applies for a patent. In this case, as

of all the inventor's energies to the invention, see *Munger v. Connell* (1872), 1 O. G. 491.

⁴ In *Barnes v. Clinton* (1876), 9 O. G. 1158, Duell, Com.: (1159) "When a man, after making a model, destroys it, leaves the subject, and proceeds to experiment and perfect other devices for producing the same result, does not again recur to the matter, experiment, or in any manner indicate ownership and a desire to perfect the improvement, until, after a lapse of more than two years, he sees another engaged upon the same invention, demonstrating its practical utility and value, the presumption is very strong that such model was an abandoned experiment, or at least that he was culpably negligent in adapting and perfecting the invention."

That the inventor was partially occupied with other inventions is no reason for neglecting the present one, if it was reasonably possible to go on with it, see *Warner v. Anders* (1877), 11 O. G. 109.

That he was unwilling to risk his money upon it, for fear of loss, is no good reason for delay; nor that his em-

ployers would not agree to use it; nor that he was under contract to sell them all his inventions, see *Bradford v. Corbin* (1874), 6 O. G. 223.

⁵ In *Sayles v. Chicago & Northwestern R. R. Co.* (1865), 1 Bissell, 468, Drummond, J.: (471) "The Patent Law looks with indulgence upon the delays which arise from the circumstances of parties who may make an invention, and it is only when the invention is intentionally abandoned or neglected, or the parties show by their acts that they have not done all they can do, that the law declares that they shall not be protected in their inventions." 2 Fisher, 523 (526).

That to overthrow the claims of a patentee on the ground that he is a junior inventor, the earlier conceiver must show entire freedom from laches, all doubts being resolved in favor of the patentee, see *Voelker v. Gray* (1885), 30 O. G. 1091.

That difficulties, when surmountable with reasonable effort, do not excuse delays, see *Barnes v. Clinton* (1876), 9 O. G. 1158.

in those already considered, the second inventor is the first to give the invention to the public, and is *prima facie* entitled to the patent. But, as a matter of fact, the same complete inventive act had been performed by the first inventor before the conception of the idea of the invention by the later. Obviously there can be here no question as to the diligence of the first inventor in reducing to practice, for his reduction was complete and his invention ready for publication and for patent before the second inventor had developed the idea of means. Whether the second invention supersedes the first and gives the patent to the second inventor, or whether the first inventor is still the proper patentee notwithstanding his failure to patent the invention and its subsequent conception and reduction by the second inventor, are questions which have received divers answers from the courts, and upon which opinion is still contradictory.

§ 389. Negligence in Applying for a Patent Neither Makes the Invention a Lost Art nor Abandons it to the Public.

It will relieve these questions of some obscurity to distinguish them from two others which in many respects are similar. When an inventor has completed his invention he may either put it aside, without disclosing it to others, and finally forget it; or he may disclose it to others and suffer it to become so known as to be accessible to the public; or he may, without disclosing it, without definite intention to relinquish it, and without forgetting it, simply neglect to patent it. In the first case, his invention becomes a "lost art," and may be re-invented and patented by any subsequent inventor. In the second, the invention, if not patented within two years from its first use in public, is abandoned to the public, and cannot thereafter be patented by any one. In the third case arises the question now under discussion. By some authorities the invention, under such circumstances, is regarded as a lost art, inasmuch as it is known to none but the inventor, who manifests no disposition to communicate it to the public. By others it is held that reduction to practice is not complete until the invention has been used in public, and hence that, in this case, the inventive act was never

finished but was a mere experiment and therefore no bar to a patent to a subsequent inventor.¹ Others regard the invention as complete and as still the property of the inventor, and declare that since he has not abandoned his invention to the public, the sole right to the patent must remain in him, notwithstanding any subsequent conception and reduction by another.

§ 389. ¹ In *Mallett v. Cogger*, (1879), 16 O. G. 45, Paine, Com. : (46) "If upon the completion and actual use, either in public or in private, of a machine or article of manufacture, the invention embodied therein becomes a successful experiment so as to entitle the inventor to a patent and to defeat the claim of a subsequent inventor without further action or diligence on the part of the first inventor, still the invention does not pass absolutely from the domain of experiment until it has been actually used *in public*. If forgotten *before* or *after* such public use it may be re-invented and patented by a subsequent inventor. If *abandoned before* such public use it is an abandoned experiment and may be patented by a subsequent inventor. If *abandoned after* such public use it cannot be patented by a subsequent inventor, but becomes the property of the public. The same considerations of public policy which permit a subsequent inventor to take a patent for an invention previously completed by reduction to practice and then forgotten, also permit such subsequent inventor to obtain a patent for an invention previously reduced to practice and then abandoned without public knowledge or use. The public has the same interest in securing the benefits of an invention withheld by a prior inventor from public knowledge and use which it has in securing the benefits of a forgotten invention, and therefore, has the same reason for encouraging the discovery of an abandoned invention which it has

for encouraging the reclamation of a forgotten invention. The merit of the second inventor of an abandoned invention is equal to that of the second inventor of a forgotten invention, for he rescues the invention from oblivion and confers its benefits upon the public in one case just as truly as in the other. And so far as the rights of the first inventor are concerned, it is clear that he who abandons his completed invention, without bringing it to public knowledge or use, has no stronger claim to consideration than he whose invention has been forgotten. No statutory provisions interdict the grant of a patent to a subsequent inventor for an invention abandoned without public knowledge or use. An invention reduced to practice by actual use in private and then abandoned, cannot be said to have been known and used by others in this country." In this opinion the question of priority of invention as determining the personality of the patentee is to some extent confounded with that of the patentability of the invention itself, as counter-indicated by prior use and knowledge. This is especially apparent in the latter sentence cited.

That where an earlier inventor has reduced to practice and then laid the invention aside and abandoned it, the invention becomes an abandoned experiment, and another may invent it, but the first cannot then revive his claim, see *Sheridan v. Latus* (1883), 25 O. G. 501.

§ 390. Negligence in Applying for a Patent Does not Affect the Rights of the Inventor except by Estoppel.

That an invention cannot be a lost art while it resides definitely and fully in the memory of the inventor and can at will be reproduced by him and put to practical employment; that reduction to practice is complete as soon as the idea of means has been embodied in tangible materials capable of practical use in the arts, whether actually used in public or not; that no invention is abandoned to the public except by two years' public use or sale or by some act, word, or omission on the part of the inventor unequivocally expressing his intention to bestow the invention on the public without demanding the protection of a patent, — these are propositions which numerous decisions of the courts have placed beyond dispute. The real answer to the question under consideration rests upon a different ground, and one not yet formally recognized in those acts of Congress which constitute the basis of our Patent Law. Upon principle, as we have seen already, the first inventor who discloses the invention is entitled to the patent, unless a prior conceiver of the same idea, who is on that account more meritorious than the later, is in good faith endeavoring to bestow the same invention on the public. Out of this principle grows the rule that such a first conceiver must use reasonable diligence in reducing his idea to practice, in order to entitle him to a patent as against a subsequent conceiver who has first produced the concrete art or instrument. And the same reason exists for requiring an inventor who has first completed the invention to proceed with reasonable diligence to disclose it by applying for a patent, if he desires to claim it as against a subsequent inventor. The force of this reason has led several tribunals to declare that such a rule exists, and to endeavor to sustain it by embracing this case in the similar but not identical cases which we have distinguished from it;¹

§ 390. ¹ In *Hubel v. Dick* (1886), 28 Fed. Rep. 132, Shipman, J.: (140) "The question, therefore, is should the first inventor, who proceeded with reasonable diligence to perfect an important invention, and who produced a successful machine before the junior inven-

tor's patent was issued, lose his right to the fruit of his invention on account of the delay which he exhibited in applying for his patent? That laches merely in applying for a patent, when there were no laches in otherwise perfecting the invention, may compel an inventor

while other courts, unwilling to advance beyond the letter of the law in excluding the first inventor from his customary

to be deprived of his patent, another inventor having meanwhile given the same invention to the public, is probably true. The remarks of Acting Commissioner Duncan in *Monce v. Adams*, 1 O. G. 2, are important and valuable upon this point." 36 O. G. 939 (942).

In *Boyd v. Cherry* (1883), 4 McCrary, 70, McCrary, J.: (77) "If kept secret by the first inventor until the second has discovered it and given it to the public, the latter will be protected, for it is to him that the public is indebted; it is from him that the public has received value; and as no one can impart that which he does not possess, it must appear that the alleged prior inventor was aware not only of his discovery, but also of its utility."

In *Farmer v. Brush* (1880), 17 O. G. 150, Paine, Com.: (151) "If an inventor abandons or forgets his invention before its public use, it may become the property of a subsequent inventor. Abandonment, in the sense in which the term is here used, is the cessation of all effort to furnish the invention for public use. Such abandonment may be voluntary and absolute, as when the invention is deliberately thrown aside with a purpose never to resume it; but it also may occur when the invention is thrown aside, not with a purpose never to resume it, but without any purpose to resume it. If it is merely laid aside temporarily, with an intention to resume it, there is no abandonment. But the question of abandonment in such case is not one of mere mental operation. A mere mental purpose or intention to give the public at some future time the benefit of a completed invention, unaccompanied by any corresponding acts or words, amounts to nothing; and the presumption raised by acts of the party of a purpose to abandon will not be overcome by his testi-

mony that he mentally intended not to abandon it. Such testimony will be construed in connection with the acts of the party; and although it may throw light upon such acts, and, taken in connection with them, may determine their meaning and effect, yet it will not be always decisive when contradictory, rather than explanatory, of such acts. Now a mere delay of two years in the application for a patent is not evidence of abandonment; but neglect to confer the benefits of the invention upon the public, whether it is or is not accompanied by neglect to apply for a patent, is evidence of abandonment. The inventor may voluntarily keep his invention secret as long as he sees fit to do so, provided he applies for a patent before another invents the device. He may abandon or forget his invention, provided he resumes or recalls it before another makes the invention. But his rights do not, in either case, relate back through the intermediate '*vacuum*' to the original invention, so as to give him the benefit of its date as against a rival inventor."

In *Packard v. Sandford* (1879), 16 O. G. 1182, Paine, Com.: (1185) "As between the public and an inventor who reduces his invention to practice in private, there is no obligation of diligence resting on the inventor. It is only when another inventor appears that any such obligation arises. . . . A race of diligence between two inventors never begins until the date of the later conception. The obligation to diligence on the part of the first to conceive does not exist until the day of the later conception, which cannot give to that obligation a constructive existence relating back to the earlier conception. With the reduction to practice, either in public or in private,

privileges, have held that no laches of the inventor, not amounting to abandonment of the invention to the public, can

by the inventor first to conceive, the race of diligence forever ends. The course which the inventor latest to conceive may take after that date does not concern the inventor first to conceive; and the obligation resting upon the first to conceive after that date is not one of diligence as between himself and his competitor. It takes an entirely different form. It is an obligation to the public not to abandon or forget his invention. If he does not fail in that obligation his competitor can have no patent. If he does forget or abandon his invention after reducing it to practice in private and before a public use, his competitor may come in and claim the patent. If he forgets it or abandons it after a public use, his competitor can take no patent, but the forfeiture will enure to the benefit of the public."

In *Monce v. Adams* (1872), 1 O. G. 1, Duncan, Com.: (3) "The section named (section 61, act 1870), saves an existing patent as against a public use limited in point of time as specified; but neither in terms nor inferentially does it extend any guaranty to an inventor against the superior diligence of a competitor entering the field at a later date, unless the first inventor not only reduces his conceptions to practical form but proceeds to put the invention into public use or on sale. If he does this he thereby destroys the right of a subsequent inventor to protection, no matter how diligent he may be; since no man is entitled to a patent for that which, prior to his own invention of it, has gone into public use. But if, uninfluenced by controlling circumstances, he fails to do this, he assumes the risk of incurring all the disabilities that attach to the man who comes out second in a race of diligence. What constitutes a 'race of diligence' — whether

it is ended when the invention is once reduced to practice — is not clearly indicated in the law. The statute employs the phrase 'reasonable diligence in *adapting and perfecting*' the invention. If this be not mere tautology, it must mean something more than merely reducing to practice; it must intend positive action, looking to the introduction of the invention, or at least to giving the world knowledge of it. But whatever be the significance of these particular words, there can be but little doubt that in fact an inventor is to be held to as strict accountability for the time suffered to elapse between the perfecting of his invention and its revelation to the public through the medium of the Patent Office, as for the time consumed in reducing it to practice after the original conception. This question was discussed at length in *Gray v. Hale*, Commissioner's Decisions, May 27, 1871; and the conclusion reached upon the strength of the authorities then cited, to the effect that a wilful or negligent postponement of one's claims may, under some circumstances, work a forfeiture of his right to a patent, even in the actual absence of any intention to relinquish it, or of any public use of the invention known or assented to, has an important bearing upon the present case. The fact that the delay extends over a less period than two years is, in itself, considered an immaterial circumstance. Not even this limited period of exemption is accorded an inventor. The object of the patent law is to multiply inventions with a view, primarily, to the public advantage and to secure their free use at the earliest date; and to this end its policy is to reward that man from whom the public actually derives the benefit received, unless, in fact, another, prior in making

deprive him of the right to a patent against any and all subse-

the invention, is proceeding to give it to the world with no further delay than what is imposed by circumstances beyond his control. If an inventor puts his invention into use or on sale, he causes that the public shall have the free use of it at the end of two years, unless he sooner makes an application for a patent; and in this last event the free use of it devolves upon the public at the end of seventeen years from the date of any patent that may be granted. On the other hand, if an invention, when perfected, may be withheld from use and kept a secret without the risk of forfeiture by reason of its subsequent discovery by another party, such right, for aught of limitation imposed by statute, may continue indefinitely, can be terminated in fact only by the actual introduction of the invention by another for the space of two years. Even the granting of a patent to the subsequent inventor would not defeat it; nothing less than a two years' actual or constructive public use under the patent could avail for this purpose. But such a doctrine would be obnoxious to the whole spirit of the Patent Law, and is contrary to a long line of well-established judicial decisions. It is true, as often announced, that mere delay, no matter how long continued, cannot impair an inventor's right to a patent. It is only when by reason of such delay, another party gains the opportunity to give the invention to the world, and actually becomes the first to do this, that the first inventor's rights pass away."

In *Kendall v. Winsor* (1858), 21 How. 322, Daniel, J.: (327) "It is undeniably true that the limited and temporary monopoly granted to inventors was never designed for their exclusive profit or advantage; the benefit to the public or community at large was another and doubtless the primary ob-

ject in granting and securing that monopoly. This was at once the equivalent given by the public for benefits bestowed by the genius and meditations and skill of individuals, and the incentive to further efforts for the same important objects. The true policy and ends of the patent laws enacted under this government are disclosed in that article of the Constitution, the source of all these laws, viz.: 'to promote the progress of science and the useful arts,' contemplating and necessarily implying their extension, and increasing adaptation to the uses of society. (*Vide* Constitution of the United States, Art. I. Sec. 8, Clause 9.) By correct induction from these truths it follows that the inventor who, designedly and with the view of applying it indefinitely and exclusively for his own profit, withholds his invention from the public, comes not within the policy or objects of the Constitution or acts of Congress. He does not promote, and, if aided in his design, would impede, the progress of science and the useful arts. And with a very bad grace could he appeal for favor or protection to that society which, if he had not injured, he certainly had neither benefited nor intended to benefit. Hence if, during such a concealment, an invention similar to or identical with his own should be made and patented, or brought into use without a patent, the latter could not be inhibited nor restricted upon proof of its identity with a machine previously invented and withheld and concealed by the inventor from the public."

That where an inventor has completed his invention, and reduced it to practice, if he withholds all knowledge of it from the public, neither applying for a patent, nor putting the invention to practical use, and meanwhile another inventor invents, introduces, and pat-

quent inventors.² The former rule may on equitable grounds be regarded as the more correct, since an inventor who, having

obtains it, the former shall be regarded as having forfeited his prior rights, and the subsequent inventor is the proper patentee, see *Ex parte Carr* (1874), 5 O. G. 30; *Pattee v. Russell* (1873), 3 O. G. 181; *Johnson v. Root* (1858), 1 Fisher, 351; *Ransom v. Mayor of New York* (1856), 1 Fisher, 252.

² In *Harnet v. Reese* (1882), 21 O. G. 1875, Marble, Com.: (1876) "Counsel, however, have advanced the proposition that an inventor who has perfected his invention may by his neglect and laches forfeit his right to obtain a patent therefor in favor of a subsequent and independent inventor. This doctrine is, as I believe, foreign to the Patent Law. When a person has reduced an invention or discovery to a fixed, positive, and practical form, and made a full disclosure of its character to others, his right to a patent is complete (*Reed v. Cutter*, 1 Story, 590), and if he foregoes that right no subsequent inventor can comply with the conditions upon which alone a patent can be granted. (*Pickering v. McCullough et al.*, 13 O. G. 818.) If the first and original inventor abandons his invention to the public expressly or tacitly, by neglecting seasonably to assert his exclusive right, he cannot recall that right (*Mellus v. Silsbee*, 4 Mason, 108), and still less can a later inventor appropriate it to himself. (*American Hide Company v. American Tool Company*, 4 Fisher, 284.) Under these circumstances the first invention is not a waif or stray which can be reclaimed at will by its original owner or converted by a subsequent discoverer to his own use. It has passed into the public domain, and the public is already, therefore, in possession of the knowledge of the invention which would form the consideration of the grant of a patent to the second inventor. (Consoli-

dated *Fruit Jar Company v. Wright*, 4 Otto, 92.)"

In *Rice v. Winchester* (1873), 3 O. G. 348, Leggett, Com.: (348) "It has been laid down by the courts in numerous cases . . . that where one has conceived but not perfected an invention, an independent inventor may have a valid patent who has subsequently conceived, perfected, and introduced the invention, unless in the meantime the party first to conceive it was using reasonable diligence in adapting and perfecting it. In this case it is clear that Winchester was first to conceive the invention, but the tribunals named differ as to whether he had completed it or was using reasonable diligence to do so. If Winchester had completed and embodied his invention in practicable form, in which it could unmistakably be communicated to the public, and it was new, then no obstacle but abandonment in fact, or its use in public for more than two years, could deprive him of his right to a patent for it under the statute. But if he had not done this, then, unless he used reasonable diligence in adapting and perfecting it, he might be forestalled by a patent to an independent inventor more diligent than himself."

That the delay of an inventor in patenting his invention, or in bringing it to public use or attention, after once reducing it to practice, offers no opportunity to a subsequent inventor to invent, reduce, and patent it, see also *Shoup v. Henrici* (1876), 11 Phila. 514; 2 Bann. & A. 249; 9 O. G. 1162; *Allen v. Blunt* (1846), 2 W. & M. 121; 2 Robb, 530.

That a delay after reduction, for the purpose of reasonably testing the invention, is permissible, see *Hubel v. Dick* (1886), 28 Fed. Rep. 132; 36 O. G. 939.

perfected his invention, voluntarily conceals it and unreasonably delays his application for a patent, thereby wilfully misleads subsequent and innocent inventors into the belief that the field covered by the invention is still open, and he therefore ought to be estopped from patenting the invention and appropriating its exclusive enjoyment to himself after their honest efforts in the same direction have succeeded.³

³ There seems to be no good reason why the doctrine of estoppel should not be applied in its fullest extent to an inventor who, having completed his invention, voluntarily delays his application for a patent. In the present condition of industrial enterprise he may be fairly chargeable with knowledge that other persons skilled in the art to which his invention appertains have perceived the same want, that they are striving to discover means by which this want may be removed, and that their inventive efforts are very likely to result in the same art or instrument which he already has produced. If under these circumstances he wilfully keeps silent concerning his prior discovery and permits these later inventors to expend their money, time, and energy in endeavors which would be at once abandoned were he to disclose the character of his own invention, he is certainly not entitled, on any principle of justice and fair dealing, to urge against them his superior right after they have completed their inventive acts and diligently attempted to secure the benefit of the invention to themselves and to the public by applying for a patent.

This doctrine would probably have long ago met with universal acceptance had it not been unnecessarily confounded with abandonment of the invention to the public, which rests upon the actual or presumed intention of the inventor to relinquish his exclusive right to the invention in favor of the community at large.

Abandonment and estoppel have, it

is true, an indirect relation to each other. An invention can be dedicated to the public by no one but the true inventor, and of several rival inventors he only can abandon the invention to whom the law would otherwise secure it by a patent. Hence if the prior conceiver, having been diligent in reduction and not estopped, by negligence in applying for a patent, from claiming the invention as against his rival, chooses to secure it by a patent, no act or omission of the rival can dedicate it to the public. But if the prior conceiver has been negligent in reduction, whereby the later conceiver has become in law the first inventor, or if, although the first reducer as well as first conceiver, he has delayed his application for a patent until he is estopped to assert his rights against a later inventor, then the latter may either patent the invention to himself or may abandon it to the public at his pleasure. In this method estoppel may be one step in a series of events which results in the total surrender of the invention to the public.

But apart from this indirect relation, estoppel and abandonment are totally distinct. The former can be predicated only of the person claiming the monopoly in the invention, and rests on equitable grounds in no respect peculiar to Patent Law. The latter can be predicated only of the invention itself and is an expression of the fundamental principle of Patent Law that no monopoly can be created in rights or property that have already passed into the law-

§ 391. Earliest Conceiver not Entitled to Patent until he has Reduced to Practice.

It must not be assumed from this indulgence manifested by the law to the diligent first conceiver that he can claim a patent before his own reduction to practice is complete. A reduction made by the subsequent inventor avails him nothing.¹ It does not constitute a part of his inventive act nor

ful possession and enjoyment of the public. The doctrine of estoppel, as enforced against a negligent inventor in favor of his rival, is thus neither an extension of nor a departure from the principles of Patent Law, but is a rule of universal application which may as appropriately be resorted to in controversies between the antagonistic claimants of an invention as in those which arise in reference to any other class of property.

See further on this subject §§ 346 and notes, and 357 and note 3, *ante*.

§ 391. ¹ In *Ackerman v. Archer* (1879), 15 O. G. 562, Paine, Com. : (562) "The adjudications of the courts and of the Patent Office have established the principle that, as against a patent granted, an applicant claiming to be a prior inventor must either have first so reduced the invention to practice as to demonstrate its capability of use, or have first conceived the invention and with due diligence proceeded to so reduce the same to practice as to demonstrate its capability of use. If the device does not of itself afford evidence of its capability of use, but is of such a nature that proof of actual use, or some other proof *ab extra*, is necessary to demonstrate its capability of use, then the applicant must show that he has put the device to practical use or ascertained its capability of practical use. . . . (563) It is, of course, against the policy of the law to grant a second patent for the same invention, even to a prior inventor, before its capability of practical use has been demonstrated ; but it is also against the policy of the law to grant a second

patent to an applicant claiming to be the prior inventor, even after a patentee has shown the invention to be capable of use, unless that shall have been ascertained and shown by the applicant himself."

In *Burgess v. Wetmore* (1879), 16 O. G. 765, Paine, Com. : (766) "It is not enough in order to entitle an applicant to a patent that some one else has shown the practicability of the invention by reducing it to practice. . . . The law accords the patent to the later applicant, who connects by due diligence a prior conception, not with a reduction to practice by somebody else, but with a reduction to practice by himself or by his agent."

In *Crane v. Whitehead* (1875), 7 O. G. 219, Thacher, Com. : (219) "Now the law, as construed by the courts, gives the right to an invention to him who first reduces it to practical form by embodying it in a machine in use, or at least ready for use, unless a prior inventor is at the time using due diligence in adapting and perfecting the same invention. But before this prior inventor can have any standing in court, he must be able to show that he has also perfected the invention and made it ready for use ; until he has done this he cannot successfully challenge the right of his competitor to the invention which the latter has embodied in operative machinery."

That drawings are not reduction as against subsequent inventors, see *Pennsylvania Diamond Drill Co. v. Simpson* (1886), 29 Fed. Rep. 288 ; *Detroit*

can it serve him as a demonstration that his own idea of means is capable of practical application in the arts. He must have finished his inventive work, and have complied with every legal requirement as fully as if no other laborer but himself were in the field, or he cannot yet be regarded as entitled to the recompense of an inventor.

Lubricator Co. *v.* Renchard (1881), 9 Fed. Rep. 293; *Reeves v. Keystone Bridge Co.* (1872), 5 Fisher, 456; 8 Phila. 368; 1 O. G. 466. See also § 318 and note 2, *ante*.

That the testimony of the prior conceiver does not constitute reduction, see *Pennsylvania Diamond Drill Co. v. Simpson* (1886), 29 Fed. Rep. 288.

CHAPTER II.

OF CO-OPERATING INVENTORS.

§ 392. "Co-operating Inventors" Defined.

An operation or an instrument, as practically known and used in the arts, is often the result of the inventive skill of two or more persons, who have acted together in producing the invention. In such a case, if the idea of means expressed in the concrete invention is single, and has been developed by the united efforts of all the inventors, the invention is a joint invention, and those concerned in it are jointly entitled to the patent. But where the concrete art or instrument embodies more than one idea of means, and each idea is the result of the inventive skill of different persons; or where the principal idea is due to one, while others have supplied such ancillary conceptions as render the invention more available; all the inventors whose creative genius has aided in producing the invention have interests which, as far as practicable, the law will recognize and protect. It is to these we have applied the title of Co-operating Inventors.

§ 393. Suggestions as to Reduction not Co-operative Invention.

The co-operation here described has relation to the mental part of the inventive act alone. In reducing an idea of means to practice, an inventor has a right to avail himself of the constructive skill and ingenuity of others; and the suggestions which he may derive from them, and the improvements which he may adopt in consequence of these suggestions, belong to the embodiment of his invention and not to its essential character. Hence no notice is taken by the law either of these suggestions or their author. They are regarded as part of the service which the inventor bargains for with the con-

structor and for which he pays; and so far as any one can be protected in their exclusive use, they are covered by the patent he obtains.¹

§ 394. Suggestions as to Inseparable and Dependent Ideas of Means not Co-operative Invention.

But as to those suggestions and improvements which owe their origin to the inventive skill of others than the principal inventor, the rule is different. The theory and spirit of the law secures to every one the fruit of his creative efforts, and permits no one except their author to appropriate them to his exclusive use. Practically, however, a strict adherence to this theory and spirit of the law is not always possible. Not every suggestion which involves an exercise of the inventive faculties is a complete idea of means, or even a complete step forward in the development of an existing idea, capable of substantive embodiment and patentable as a separate invention. While it may render the principal idea more useful to the public and more profitable to the inventor, it may be so dependent upon it and inseparable from it as to be inconceivable without it, even as a patentable improvement. Under such circumstances, its suggester has invented nothing which the law is able to protect, or which he himself is able to enjoy. The alternative is presented either to allow it to go unprotected, and open to the use of any one who has a right to the employment of the principal invention, or to treat it as an incident belonging to and following the principal, and thus the property of the principal inventor and covered by his patent. The latter is the rule adopted by the courts, as at once more just and more encouraging to inventors than the former;¹ se-

§ 393. ¹ That suggestions to an inventor do not deprive him of the merit of the invention, unless they impart to him the complete idea of means, see *Watson v. Belfield* (1886), 26 Fed. Rep. 536; 35 O. G. 1112; *Hall v. Johnson* (1883), 23 O. G. 2411; *Slemmers' Appeal* (1868), 58 Pa. St. 155; *Alden v. Dewey* (1840), 1 Story, 336; 2 Robb, 17. See also § 84 and notes, *ante*.

§ 394. ¹ In *Collar Co. v. Van Deusen* (1874), 23 Wall. 530, Clifford, J.: (563) "Where a person has discovered a new and useful principle in a machine, manufacture, or composition of matter, he may employ other persons to assist in carrying out that principle, and if they, in the course of experiments arising from that employment, make discoveries ancillary to the plan and preconceived

curing to the principal inventor all ancillary inventions made by his employees and assistants, whenever these are not sufficiently separable from the principal invention to be patentable by themselves.

design of the employer, such suggested improvements are in general to be regarded as the property of the party who discovered the original principle, and they may be embodied in his patent as part of his invention. Doubt upon that subject cannot be entertained, but persons employed, as much as employers, are entitled to their own independent inventions; and if the suggestions communicated constitute the whole substance of the improvement the rule is otherwise, and the patent, if granted to the employer, is invalid, because the real invention or discovery belongs to the person who made the suggestions." 7 O. G. 919 (923). This case affords a very instructive view of the relations sometimes arising between an inventor and his employees, and of their respective positions before the law. Evans, the assignor of the plaintiffs, was a manufacturer, and claimed to be the inventor, of paper collars. He found great difficulty in making collars of the desired qualities for want of paper possessing certain characteristics, and employed various paper-makers to experiment toward the production of such a paper as he required. As they presented to him, from time to time, the fruits of their experiments, he pointed out to them the particulars in which their papers were still deficient but gave them no information as to the ingredients to be used, or the methods to be employed in arriving at the necessary results. It was held that he was neither the inventor of the paper finally produced, nor of the process by which it was made; that he had merely pointed out an end to be attained, not the means of its attainment, and was not entitled to appropriate the

discoveries of the paper-makers as his own invention.

In *Agawam Co. v. Jordan* (1868), 7 Wall. 583, Clifford, J.: (603) "Persons employed, as much as employers, are entitled to their own independent inventions, but where the employer has conceived the plan of an invention and is engaged in experiments to perfect it, no suggestions from an employee, not amounting to a new method or arrangement which in itself is a complete invention, is sufficient to deprive the employer of the exclusive property in the perfected improvement. But where the suggestions go to make up a complete and perfect machine, embracing the substance of all that is embodied in the patent subsequently issued to the party to whom the suggestions were made, the patent is invalid because the real invention or discovery belonged to another."

To the same point see also *Harrison v. Hogan* (1880), 18 O. G. 921; *Yost v. Powell* (1877), 13 O. G. 122; *Chase v. Witter* (1876), 9 O. G. 593; *De Sanno v. Ritchel* (1876), 9 O. G. 792; *Cogswell v. Burke* (1872), 1 O. G. 380; *Pennock v. Dialogue* (1825), 4 Wash. 538; 1 Robb, 466.

But that an improvement made by a user of the invention without the knowledge of the inventor cannot be claimed by the latter, see *Berdan Fire Arms Mfg. Co. v. Remington* (1873), 3 O. G. 688.

That the inventor of a new device, adopting a suggestion as to the mode of making it, and procuring a patent to himself and the suggester as an assignee of a half-interest, is to be regarded as the true inventor of the device, see *Fraser v. Gates* (1885), 118 Ill. 99.

§ 395. Suggestions of Separable but United Ideas of Means are Co-operative Invention.

Suggestions and improvements which are capable of independent contemplation, either as distinct ideas of means or as separate stages in the development of the same idea, belong, however, to their respective inventors.¹ The fact that, as it stands before the world, the invention is a single art or instrument does not show that it has originated in the inventive skill of a single individual, or that the one who first conceived the general idea which it embodies is alone entitled to the patents which protect it. Each part of which it is composed, as well as the method by which its several parts have been united in the complete invention, may be a separate invention, produced by a different inventor, and protected by a different patent. Thus in a combination, every element may have been produced by a distinct inventor, and the co-operative law under which they are now brought together may have been conceived by still another, while the whole is known in

§ 395. ¹ In *Odiorne v. Winkley* (1814), 2 Gallison, 51, Story, J.: (53), "The original inventor of a machine is exclusively entitled to a patent for it. If another person invent an improvement on such machine, he can entitle himself to a patent for such improvement only, and does not thereby acquire a right to patent and use the original machine; and if he does procure a patent for the whole of such a machine with the improvement, and not for the improvement only, his patent is too broad and therefore void. . . . To illustrate these positions, suppose a watch was first invented by a person so as to mark the *hours* only, and another person added the work to mark the minutes, and a third the seconds, — each of them using the same combinations and mode of operations to mark the hours as the first. In such a case the inventor of the second-hand could not have entitled himself to a patent embracing the inventions of the other parties. Each inventor would undoubtedly be entitled

to his own invention and no more. In the machines before the court there are three great stages in the operation, each producing a given and distinct effect: 1. The cutting of the iron for the nail; 2. The griping of the nail; 3. The heading of the nail. If one person had invented the cutting, a second the griping, and a third the heading, it is clear that neither could entitle himself to a patent for the whole of a machine which embraced the inventions of the other two, and by the same mode of operation produced the same effect; and if he did his patent would be void. Some machines are too simple to be thus separately considered; others again are so complex as to be invented by a succession of improvements, each added to the other." 1 Robb, 52 (55).

See also *Tilghman v. Proctor* (1880), 102 U. S. 707; 19 O. G. 859; *Railway Co. v. Sayles* (1878), 97 U. S. 554; 15 O. G. 243; *Chase v. Witter* (1876), 9 O. G. 593.

practice as but a single manufacture, process, or machine. Or any simple art or instrument may have at first embodied but the generic idea, which has since been developed and enlarged by numerous improvements, until the comparatively perfect invention represents the inventive skill and triumphs of many meritorious inventors. To each of these the law awards his recompense according to his merit, giving to each the exclusive use of the element, the improvement, or the co-operative law he has invented, and protecting, by the letters-patent issued to each, his precise invention and no more.

CHAPTER III.

OF JOINT INVENTORS.

§ 396. "Joint Inventors" Defined.

Where two or more persons, acting jointly, conceive the same idea of means, they are joint inventors and are jointly entitled to the patent. The sphere of their joint labors and success is thus the mental part of the inventive act. That one conceives the idea and another reduces it to practice; that one conceives the principal idea and the other an idea which is ancillary to and inseparable from it; that one conceives one idea and the other a different idea, both of which are united in the concrete invention, — neither of these are joint invention, nor do they give to the inventors the right to become joint patentees. Only where the same single, unitary idea of means is the product of two or more minds, working *pari passu*, and in communication with each other, is the conception truly joint and the result a joint invention.¹

§ 397. Two Modes of Joint Invention: By Community of Mental Effort; By Community of Experiment.

In examining the methods in which joint inventions are created, it will be necessary to recur to the distinction between those inventive acts which are performed by complete mental development of the idea followed by reduction to practice, and those which, proceeding by successive experiments, at the same moment and by the simultaneous operation of the physical and mental faculties, both conceive and embody the

§ 396. ¹ That in a joint invention both must unite in the invention of something essential, see *Slemmer's Appeal* (1868), 58 Pa. St. 155.

That the assignment of a half-interest does not show that the assignor was not the sole inventor, see *Fraser v. Gates* (1885), 118 Ill. 99.

invention. In the first species of inventive acts the joint inventors meet only upon the plane of mental effort, and are not necessarily associated upon that of the physical embodiment; for the idea of means, being once conceived by their joint endeavors, may be left to either or to some third party to be reduced to practice, without changing its character as a joint invention. But in the second class, as the embodiment and conception advance side by side, and the completeness of the one is known to the inventors only from the successful practical application of the other, the concurrence of the inventors in the physical experiments by which the inventive act proceeds is essential to render the result a joint invention.

§ 398. Joint Invention by Community of Mental Effort.

Where the conception is attained by mental effort only, the joint inventive act may present any one of several different phases. It is not necessary that the same idea should occur simultaneously to each. On the contrary, it is immaterial who first conceives any particular theory or plan of the invention, or in what order the development of its subordinate ideas proceeds.¹ Where two or more inventors have agreed that a

§ 398. ¹ In *Worden v. Fisher* (1882), 11 Fed. Rep. 505, Brown, J.: (506) "There can be no doubt that if the circumstances are such as to show that two persons both contributed to an improvement, and such improvement is the result of mutual contributions of the two, they are to be treated as joint inventors, and a joint patent should be taken out. . . . (508) To constitute two persons joint inventors it is not necessary that exactly the same idea should have occurred to each at the same time, and that they should work out together the embodiment of this idea in a perfected machine. Such a coincidence of ideas would scarcely ever occur to two persons at the same time. If an idea is suggested to one, and he even goes so far as to construct a machine embodying this idea, but it is not a completed and working machine, and another person

takes hold of it, and by their joint labors, one suggesting one thing and the other another, a perfect machine is made, a joint patent may properly issue to them. If, upon the other hand, one person invents a distinct part of a machine, and another person invents another distinct and independent part of the same machine, then each should obtain a patent for his own invention." 21 O. G. 1957 (1957, 1958).

In *Gottfried v. Phillip Best Brewing Co.* (1879), 17 O. G. 675, Dyer, J.: (676) "Where a device or combination is claimed to have been the joint invention of two or more parties, and the question arises for determination upon evidence, it must appear that it was the product of their mutual suggestions and joint efforts; for joint invention is the result of the mutual contributions of the parties, and if one suggests an idea in a

result, if it could be achieved, would be desirable, neither as yet having attempted to provide a means, and from this point go forward by mutual consultations and suggestions to devise one, the means devised becomes a joint invention. Or where one of the inventors has already in his mind a general indefinite idea of means, still incomplete and needing further exercise of inventive skill to fit it for a practical embodiment, and then the other, perceiving its deficiencies and the method of correcting them, makes his suggestions which the first accepts, from whence the two advance together to the complete development of the idea; this also is a joint invention. In short, wherever, before the entire conception of the invention by one inventor, another meets him and by his con-

general way and the other falls in with it and by his aid develops it and gives it definite practical embodiment, the two may be considered joint inventors." 5 Bann. & A. 4 (9).

In *Chase v. Chase* (1873), 4 O. G. 4, Leggett, Com.: (5) "The testimony . . . goes to show that Chase probably had a general idea of the invention in his mind before he saw White about it, but nothing more. When they consulted together, White's suggestions were such that they came to a definite agreement how the device ought to be made, and he made it accordingly. This is the ordinary process of joint invention. It is the result of the mutual contributions of the parties. If one suggests an idea in a general way and the other falls in with it, and by his aid develops it and gives it definite practical embodiment, the two may be considered joint inventors."

In *Barrett v. Hall* (1818), 1 Mason, 447, Story, J.: (472) "A joint patent may well be granted upon a joint invention. There is no difficulty in supposing, in point of fact, that a complicated invention may be the gradual result of the combined mental operations of two persons acting together, *pari passu*, in the invention. And if this

be true, then, as neither of them could justly claim to be the sole inventor in such a case, it must follow that the invention is joint, and that they are jointly entitled to a patent." 1 Robb, 207 (233).

That wherever an invention is the result of the joint efforts of two or more inventors, it is a joint invention, see *Thomas v. Weeks* (1827), 2 Paine, 92.

That where one conceives the invention and the other makes a suggestion essential to its success they are joint inventors, see *Consolidated Bunting Apparatus Co. v. Woerle* (1887), 29 Fed. Rep. 449; 38 O. G. 1015.

That where two or more persons make suggestions and an invention results, it is a joint invention, see *Reutgen v. Kanowrs* (1804), 1 Wash. 168; 1 Robb, 1.

That where two work together for a common end which is finally accomplished by their united efforts the invention is joint, see *Sawyer v. Edison* (1883), 25 O. G. 597.

That where a joint invention is a unit, it is immaterial which of the joint inventors conceived the separate parts of it, or in what order, see *Carter v. Perry* (1875), 8 O. G. 518.

sent unites with him in exercising inventive skill upon the development and perfecting of the conception, the product of their joint endeavor is a joint invention.

§ 399. Joint Invention by Community of Experiment.

The same variety is possible in the exterior relations of the joint inventors, where the inventive act consists in the repeated trial of experiments. The exact part which each performs is of no consequence. Nor does it matter that one has been experimenting long in vain, nor even that he may have made some actual advance toward the discovery to which he aspires. It is enough if the experiment which finally succeeds — the one which demonstrates the practicability of accomplishing the end in view, and indicates the means by which it is attainable — has been conducted under their united supervision, and in accordance with ideas and theories to which both have contributed.

§ 400. Date of Conception of Joint Invention.

The date of the conception of a joint invention cannot be earlier than the date at which the joint inventors first united their inventive skill.¹ As the conception can have no existence until it is complete and capable of practical embodiment, and as no joint inventive act is possible where the conception is perfected in the mind of one inventor before the other is united with him, the meeting of the joint inventors upon the basis of a common effort to produce the joint invention marks the remotest period to which the date of the inventive act can be referred. Of course, it does not follow from this fact that the conception was at that time completed. Upon this question the same rule is applicable as in the case of sole inventions, whether the inventive act proceeded by mental efforts only or by a series of experiments.

¹ § 400. That a joint invention cannot be regarded as conceived earlier than the first consultation of the joint inventors, as their individual efforts and con-
ceptions constitute no part of the joint inventive act, see *Dwyer v. Dickey* (1876), 10 O. G. 585.

§ 401. Joint and Several Inventions may be Embodied in the Same Art or Instrument.

Any art or instrument which expresses more than one subordinate idea of means, may embody both a joint and several invention. Two or more inventors, each of whom has produced an elemental means, may unite in the creation of the co-operative law under which they become a combination. Several inventors of the parts of a machine or manufacture, or of the steps of a process, may thus be sole inventors as to each portion of the concrete invention, and joint inventors in regard to it when considered as a whole.¹ For every complete inventive act must stand alone, resulting in its own product, meriting its own recompense, and, theoretically at least, protected by its own patent. And although several of these may be combined to constitute an art or instrument essentially distinct from each and all of its component inventions, the rights of those whose genius thus contributes to the ultimate invention are unchanged, and each remains entitled to protection from the law.

§ 402. Joint Patent must Issue for a Joint Invention.

A patent for a joint invention must be applied for and be issued in the names of all the joint inventors.¹ If one of the inventors should obtain the patent to himself alone, the patent would be void unless his act could be regarded as a simple fraud upon the others, and equity could compel him to hold the patent privilege in trust for them.² If, on the other hand,

§ 401. ¹ That where each of two persons produces independent parts of an entire invention, and they unite and so create the whole, they are joint inventors of the resulting invention, see *Chase v. Chase* (1873), 4 O. G. 4.

§ 402. ¹ That a joint patent should always be issued for a joint invention, see *Thomas v. Weeks* (1827), 2 Paine, 92; *Barrett v. Hall* (1818), 1 Mason, 447; 1 Robb, 207.

That a sole patent for a joint invention is void, see *Carter v. Perry* (1875), 8 O. G. 518; *Tennant's Case* (1802), Dav.

P. C. 429; 1 Web. 125; 1 Abb. P. C. 115.

That a patent for a joint invention cannot issue to one of the inventors, though the other has assigned all interests to him, see *Opinion Atty. Gen.* (1833), 2 Op. At. Gen. 571.

See on the subject of the joint ownership of patents §§ 795-799 and notes, *post*.

² That if one joint inventor obtains the patent to himself it is fraudulent, and he will be treated as a trustee for the others, see *Reutgen v. Kanowrs*

a joint patent is granted for a sole invention, the patent is invalid;⁸ for a patent privilege is indivisible, and being granted

(1804), 1 Wash. 108; 1 Robb, 1; *contra*, Slemmer's Appeal (1808), 58 Pa. St. 155.

That joint patentees are joint owners, not copartners, see *Fraser v. Gates* (1885), 118 Ill. 99; *Pitts v. Hall* (1854), 3 Blatch. 201; *Parkhurst v. Kinsman* (1849), 1 Blatch. 488.

⁸ That a joint patent for a sole invention is void, see *Stewart v. Tenk* (1887), 41 O. G. 1502; *Royer v. Coupe* (1886), 29 Fed. Rep. 358; 39 O. G. 239; *Ransom v. Mayor of New York* (1856), 1 Fisher, 252.

That joint patents for sole inventions and sole patents for joint inventions are alike void, see *Slemmer's Appeal* (1808), 58 Pa. St. 155.

That a joint patent for a sole invention is void, and cannot be validated by the parties or the Patent Office, see *Ex parte Boursaloux, James & Lyon* (1878), 16 O. G. 233.

That an inventor of an original and an inventor of an improvement may take out a new joint patent for the whole if the inventor of the improvement assigns to the other one half of his invention, see *Duke v. Graham* (1884), 19 Fed. Rep. 647.

That a joint patent is *prima facie* evidence of joint invention and must be answered by proof, see *Belle Patent Button Fastener Co. v. Lucas* (1886), 23 Fed. Rep. 871; 37 O. G. 1004.

That neither one of two joint inventors can claim a patent to himself alone, see *Runstetler v. Atkinson* (1883), 23 O. G. 940.

That one joint inventor cannot abandon the invention to the public, see *Sawyer v. Edison* (1883), 25 O. G. 597.

It is a fair question whether the rule which holds that a joint patent for a sole invention and a sole patent for a joint invention are void, is not unnecessarily severe. In the difficulty that

attends the discrimination of the mental operations which result in the conception of an idea of means, it may often happen that two or more co-operating inventors will honestly believe that their inventive act was joint, or two or more joint inventors will suppose that their creative processes were several and independent of each other. In the history of our patent system the cases have probably been very few in which, contrary to the known fact, joint or sole patents have been applied for and obtained; and as wherever a patent issues in either form a patentable invention must have been created and given to the public, and the reward must have been conferred upon at least one person to whose inventive skill the invention was partially or wholly due, justice and public policy would seem to require that the patent should be sustained unless there are controlling reasons to the contrary. In examining this question, as the grant of a joint patent for a sole invention and the grant of a sole patent for a joint invention involve the application of different principles of law, they will be separately considered.

(1.) The issue of a joint patent for a sole invention has been held invalid on the ground that in this case the monopoly is bestowed upon at least one person who is not an inventor and who therefore is not by law entitled to receive it; and since the patent privilege is indivisible and cannot be regarded as conferred upon the meritorious patentee to the exclusion of the other, it cannot properly subsist in either, and hence the entire patent must be void. To thus deprive the real inventor of his recompense, because he has mistakenly united with him in its ownership a person who did not deserve it, is certainly a harsh proceeding, contrary to the spirit of our

to at least one person who is not an inventor, is contrary to law and therefore void. That the error of the patentee,

Patent Law, and not to be adopted unless essential to the preservation of some public or private right.

The parties affected by the creation or destruction of a monopoly are the public upon one side and the true inventor on the other. Where a patentable invention has been produced, its inventor has an indisputable right to a monopoly therein, unless by his own acts or negligence the right is forfeited, and until such forfeiture occurs, or his granted monopoly expires, the public can properly acquire no interest in the invention. The issue of a joint patent for a sole invention thus in no manner prejudices the public right. It neither takes nor withholds from them anything which they are justly or lawfully entitled to enjoy, and where the mistake is *bona fide* on the part of the meritorious applicant there is no ground of forfeiture on which the denial of his exclusive privilege can be sustained. So far, therefore, as the public are concerned, there is no reason why the patent should be treated as invalid, if on any principle of law or equity the grant, as made, can be upheld.

The actual inventor, on the other hand, is in no position to complain that a joint rather than a sole patent has been issued. His concession that the invention was due to the joint efforts of himself and his co-patentee was voluntary, and as far as the circumstances rendered it possible was made with a full knowledge of the facts, and hence no legal injury can result to him from regarding this admission as conclusive. Certainly his rights as sole inventor are not vindicated by declaring the entire patent void, and depriving him of his reward because he has improperly though honestly allowed another to obtain a share therein. Far better would it serve his interests to sustain the patent and permit him to

reap that proportion of his recompense to which he is still entitled, notwithstanding his mistaken relinquishment of the remainder to his co-patentee.

One theory upon which a patent of this character can be supported is that of an assignment of an interest in the invention to the alleged co-inventor before their application for a patent. Such an assignment can be made and an equitable title to the patented invention can be created, either by writing, or by words spoken, or by conduct, where the intention so to do is unequivocally expressed; and the patent, when issued, will vest in the equitable assignee either upon the recording of his written assignment or the decree of a court of equity enforcing the original contract, unless superior rights would be thereby affected. But no more unequivocal manifestation of a design to share the benefits of a patent privilege with another can exist than where the inventor joins the other with him in an application for a patent to both; and though he may so far misconceive the nature of the consideration for the assignment as to suppose it to consist in a more intimate union with himself in the inventive act than the facts will justify, his intention to make the other a joint owner of the patent is as definite and justifiable as in any other case of an assignment. The law which authorizes the issue of a joint patent to an inventor and his assignee where the assignment requests that the patent may be thus granted, and has been recorded before the issue of the patent, is in its spirit and intent, if not in its letter, fully adequate to cover such a transaction as the present and to save the rights of all parties according to the relations they have voluntarily adopted toward each other.

If to this position it is objected that

in this respect, was *bona fide* and without negligence is not regarded as sufficient to protect him from its fatal consequences.

the parties, having described themselves in the application as joint inventors, and having supported this description by the application-oath, cannot be permitted to allege a different relation, the answer is that a *bona fide* mistake in matters of this character ought not to, and generally does not, operate to defeat rights which equitably vest in the parties by whom the mistake is made. Thus where the application-oath is unintentionally omitted, or the applicant, believing that he is the first inventor, so describes himself though the fact be otherwise, or inadvertently misstates the character and scope of his invention, — in these and numerous other instances his honest error works no other harm than to compel him to correct it, where such correction is important to the public. The same indulgence ought not to be denied where the mistake is of such slight consequence to the community, and so easily made, as in the application for a joint patent by parties, the unity or diversity of whose inventive acts can rarely be infallibly determined.

(2.) A sole patent to one of two or more joint inventors is held invalid on the ground that the patentee, having performed merely an indivisible part of the inventive act, is not a true inventor, and therefore not entitled to the patent. But by the grant of such a patent the rights of the public are no otherwise affected than in the case of a joint patent for a sole invention. The only party prejudiced is the co-inventor who has not re-

ceived that share in the monopoly which is his due. The forfeiture of the invention to the public for a *bona fide* and perhaps unavoidable error in this respect is not consistent with the spirit of the law nor with the position taken by the courts in similar cases. Nor is the wrong actually suffered by the excluded co-inventor in any degree redressed by avoiding the whole patent and bestowing the invention unreservedly upon the public.

A proper mode of preserving the rights of all parties in this case is suggested in *Reutgen v. Kanowrs* (1804), 1 Wash. 168, viz. by treating the sole patentee as holding the monopoly in trust for his co-inventors, and compelling him to execute such assignments as will perfect their legal titles. This is the mode resorted to where a patent is obtained by an inventor after he has assigned his interest in the invention, and could with equal propriety be adopted where one co-inventor procures a patent which equitably belongs to others as well as to himself. By this mode the patent will in fact, if not in form, be actually granted to the true inventors, and the rights of all in the monopoly will be equally protected.

See also Commissioner's Report for 1887, *in loc.*, 42 O. G. 612.

That where a joint patent has issued for a sole invention, the sole inventor may file a subsequent application and obtain a patent, see *Kohler v. Kohler* (1888), 43 O. G. 247.

CHAPTER IV.

OF PERSONAL REPRESENTATIVES OF THE INVENTOR.

§ 403. Rights of Deceased Inventor Vest in Heirs or devisees.

The right of an inventor to a patent vests in him at the moment his invention is completed, and can be divested only through a forfeiture resulting from his negligence or through his voluntary abandonment of the invention to the public. His death does not affect it. If he makes any disposition of it in his will, such provision is as valid as one concerning any other class of property. If he dies intestate, the right descends, by statute, to his heirs at law.¹

§ 404. Patents Granted to Representatives of Deceased Inventors.

It is obvious that the Patent Office is not a tribunal by which the adverse claims of heirs and devisees may be decided. It is not practicable there to test the validity of wills, to construe testamentary provisions, or to determine who are proper heirs at law. All such questions must necessarily be left to the local courts within whose jurisdiction they arise.¹ In issuing a patent, therefore, the law contents itself with an examination of the claims which the alleged inventor might have

§ 403. ¹ That the right of an inventor descends to his heirs, and a patent will issue to his personal representative in trust for them, see *Wilson v. Rousseau* (1846), 4 How. 646.

See also as to the rights and duties of Personal Representatives §§ 367, *ante*, and 800-802, *post*.

§ 404. ¹ That the letters of administration issued by a competent court will be presumed to be regular, see *Northwestern Fire Extinguisher Co. v. Phila. Fire Extinguisher Co.* (1874),

10 Phila. 227 ; 6 O. G. 34 ; 1 Bann. & A. 177.

That State laws cannot limit the powers of administrators under the Patent Laws of the United States, see *Brooks v. Jenkins* (1844), 3 McLean, 432.

That an administrator's title to a patent is not derived from the State law, and there is no necessity for local State administration, in order to enable him to assert his rights, see *Goodyear v. Hulihan* (1867), 3 Fisher, 251 ; 2 Hughes, 492.

urged, if living, and finding them well-founded grants the patent to his personal representative, leaving the actual owners of the right to adjust their controversies in the tribunals of the States where they reside.²

² In *Shaw Relief Valve Co. v. City of New Bedford* (1884), 19 Fed. Rep. 753, Lowell, J. : (754) "A question which cannot be thus disposed of, and which has been argued with earnestness, and is pending in at least one other circuit, is whether the complainant's title to an undivided part of one of the patents is sufficient. It seems that this title comes through an administrator of the patentee; and the defendant contends that the grant of a patent, by Rev. St. § 4884, is to the patentee, 'his heirs and assigns,' and that by force of these words a patent descends directly to the heirs, without the intervention of the administrator. This is a new and somewhat surprising proposition. It has never been doubted before that a patent is personal property, which follows the ordinary course, and goes to the executor or administrator in trust for the next of kin. The cases take this for granted, and when any question has been mooted, it has had reference to the due qualification of the executor or administrator, or something of that sort, as in *Rubber Co. v. Goodyear*, 9 Wall. 788. The text-writers treat of patent rights as personal property which goes to the executor. *Norman*, Pat. 145; *Schonler, Ex'rs*, § 200. The defendant argues that the statute of 1870 changed the rule, by omitting the words 'executors and administrators' from what is now section 4884, intending to make a sort of real estate of this incorporeal right. He has not argued that the widow can be endowed of it, but I suppose that will follow. A grant of personal property to a man and his heirs, without further qualification, means to him and his next of kin,

according to the statute of distributions. 4 Kent, Comm. (5th ed.) 587, note *d*, and cases; *Vaux v. Henderson*, 1 Jacob & W. 388, n.; *Gittings v. McDermott*, 2 Mylne & K. 69; *Re Nowton's Trusts*, L. R. 4 Eq. 171; *Re Gryll's Trusts*, L. R. 6 Eq. 589; *Re Steeven's Trusts*, L. R. 15 Eq. 110; *Re Thompson's Trusts*, 9 Ch. Div. 607; *Houghton v. Kendall*, 7 Allen, 72; *Sweet v. Dutton*, 100 Mass. 589. Such a grant is simply a limitation of an estate of inheritance, having no reference one way or the other to the administrator. He takes in trust for the next of kin, because the estate is more than a life estate." 28 O. G. 283 (283).

See also *Bradley v. Dull* (1884), 19 Fed. Rep. 913; 27 O. G. 625; *Hodge v. North Missouri R. R. Co.* (1870), 1 Dillon, 104; 4 Fisher, 161.

That the "legal representative" is the executor or administrator, see *Shaw Relief Valve Co. v. New Bedford* (1884), 19 Fed. Rep. 753; 28 O. G. 283.

That the term "legal representatives" may sometimes include assignees as well as executors, etc., see *Hamilton v. Kingsbury* (1878), 14 O. G. 448; 15 Blatch. 64.

That at the death of a patentee the patent vests in his personal representative, at the domicile of the deceased patentee, who is then the owner of the patent for the whole United States, see *Hodge v. North Missouri R. R. Co.* (1870), 4 Fisher, 161; 1 Dillon, 104.

That a patent does not vest in the heirs or devisees of the patentee's administrator, see *Pelham v. Edelmeyer* (1883), 25 O. G. 292.

§ 405. Representatives of Deceased Inventors Receive Patents in Trust for Heirs or Devisees.

The executor or administrator who thus receives the patent has no personal interest therein, nor does he hold it as a part of the assets of the estate committed to his charge. He is a mere trustee for the true owners, as determined by descent or by the will, and is accountable to them for all the use he makes of, or authority he exercises over, the invention. No words to this effect are necessary in the patent. The fact that, as the personal representative of the inventor, he obtains the patent is enough to charge him with this trust, and render it enforceable, like any other, in a court of equity.¹

§ 406. Authority of Representatives of Deceased Inventors over Patents Granted to them in Trust for Heirs or Devisees.

Such personal representative occupies the same position that his decedent would have done, in reference to all matters arising in the Patent Office concerning the invention. Where the law permits of an extension of the patent, it is his place to apply for and secure it.¹ If a reissue becomes necessary,

§ 405. ¹ In *Stimpson v. Rogers, Smith, & Co.* (1859), 4 Blatch. 333, *Ingersoll, J.*: (336) "The law, when the facts appear that a patentable invention has been made, that the person making it died without taking out a patent, that he made a will and appointed an executor, that such executor, as executor, made an application for a patent for the invention of the testator and not for his own invention, and that the patent for the invention of the testator was granted to the executor, as executor, creates the trust that it is for the use and benefit of those to whom the property in the invention was given by the will."

That a patent in the representative's hands is not personalty belonging to the decedent's estate, but is a franchise held in trust for the heirs, see *Goodyear v. Hullihen* (1867), 3 Fisher, 251; 2 Hughes, 492.

That a patent to an administrator is held by him in trust, but the *cestuis que*

trust need not be named therein, see *Northwestern Fire Extinguisher Co. v. Phila. Fire Extinguisher Co.* (1874), 10 Phila. 227; 6 O. G. 34; 1 Bann. & A. 177.

That Congress can grant a patent to the heirs of an inventor by allowing the Patent Office to issue it after the application has been forfeited by delay, see *Graham v. Johnston* (1884), 21 Fed. Rep. 40.

§ 406. ¹ In *Brooks v. Jenkins* (1844), 3 McLean, 432, *per curiam*: (436) "The question was raised as to the right of the administrator to apply for an extension of the patent in his own name. This point was considered on the motion made for an injunction, and decided in favor of the administrator, in whose name the patent was extended. That decision was not made without hesitancy, and the doubt expressed by Judge Story of its correctness, in the very recent case of *Woodward & Brown v. Gould*, which brought up the same

he must surrender the old patent and obtain the new. By him also disclaimers must be filed, suits for infringement prosecuted, and assignments made;² he alone being known in the Patent Office as the owner of the invention and entitled to enforce or to convey the right to its exclusive use.

§ 407. Applications Pending at Death of Inventor to be Prosecuted by his Representatives.

The same duty which devolves upon a personal representative to apply for and obtain a patent for an invention made by his decedent compels him to prosecute an application made by the inventor, and pending in the Office at his death.¹ Here, as before, the patent issues in the name of the executor or administrator, and the same trust attaches to it in favor of the devisees or heirs at law.

question on the same patent, has somewhat shaken my confidence in the view formerly taken. As the point will be taken before the Supreme Court, I deem it unnecessary now to discuss it at large. My opinion, though shaken, is not changed. On a full discussion in the Supreme Court, I may find reasons to lead me to a different result. But it still seems to me that the renewal of the patent in the name of the administrator is so clearly within the spirit and policy of the act of 1836, it should be sustained. There is nothing that the act requires the patentee to do which may not be done by his administrator, except the oath of the ascertained value of the invention, and of the receipts and expenditures, etc. But these receipts and expenditures may be ascertained by the books of the patentee, or from other evidence. The avowed object of the law, in granting an extension of the patent, is to give an adequate remuneration to the patentee, for 'his time, ingenuity and expense; he having satisfactorily shown to the board that he had not received such a remuneration.' Now, why should this remuneration be withheld from the heirs of a deceased patentee?

If a patentee die after his invention, and before he obtains a patent, his administrator may apply for and obtain it. The same reason and justice require a renewal in behalf of the heirs where the remuneration has been inadequate. It is true the act does not expressly so provide."

See also *Wilson v. Rousseau* (1846), 4 How. 646; *Woodworth v. Hall* (1846), 1 W. & M. 248; 2 Robb, 495.

² That an administrator or executor can assign a patent and give a good title thereto, see *Donoughe v. Hubbard* (1886), 27 Fed. Rep. 742; 35 O. G. 1561; *Bradley v. Dull* (1884), 27 O. G. 625; 19 Fed. Rep. 918.

§ 407. ¹ That if the inventor dies before applying for a patent, his executor or administrator should apply; and if he die after application, the patent should issue to his executor or administrator, see *Rice v. Burt* (1879), 16 O. G. 1050.

That where an inventor dies pending an application for a patent, his representative may file a new application, if the rights of third persons will not be affected thereby, see *Rice v. Burt* (1879), 16 O. G. 1050.

CHAPTER V.

OF ASSIGNEES OF THE INVENTOR.

§ 408. Right to Apply for and Obtain Patent Assignable.

The right of an inventor to a patent is assignable, not only by himself to his immediate assignees, but by these in their turn unlimitedly to others.¹ Any person may be such assignee, even an infant or a married woman, and will hold the right subject to the provisions of the local law.² The capability of this class of property to be assigned, as well as the method and effect of the assignment are, however, under the entire control of the United States and rest upon the language and construction of the acts of Congress.³

§ 408. ¹ In *Selden v. Stockwell Self-Lighting Gas Burner Co.* (1881), 9 Fed. Rep. 390, Blatchford, J. : (396) "The defendant contends that the word 'assignee,' in the statute, means the immediate assignee, and not the ultimate assignee. . . . This is not the proper construction of the statute. The 'assignees' means the assignee in any degree and however remote. By section 4884 the grant is directed to be made to 'the patentee, his heirs or assigns.' This is not limited to the first assignee. So section 4898, in declaring that 'every patent, or any interest therein, shall be assignable,' and that 'the patentee or his assigns' may convey an exclusive right under the patent for the whole or any specified part of the United States, clearly means that an assignee in any degree is an assignee for all purposes. All parts of the statute are to be construed harmoniously in this respect, as there appears to be no good reason for a

contrary construction. It is true that section 4 of the Patent Act of February 21, 1793 (1 St. at Large, 322) used the words 'assignees of assigns to any degree;' but the absence of the words 'to any degree' cannot, in view of all the provisions of the present statute, be regarded as restricting the meaning of the word 'assignee.'" 19 Blatch. 544 (552); 20 O. G. 1377 (1378).

See also *Consolidated Electric Light Co. v. Edison Electric Light Co.* (1885), 23 Blatch. 412; 25 Fed. Rep. 719; 33 O. G. 1597.

That the assignee of two joint inventors becomes thereby the owner of a sole patent afterward issued to one of such joint inventors, see *Kohler v. Kohler* (1888), 43 O. G. 247.

² That a married woman, or an infant, or a ward, may be assignee, see *Fetter v. Newhall* (1883), 17 Fed. Rep. 841; 21 Blatch. 445; 25 O. G. 502.

³ That all rights of assignees rest on

§ 409. Right to Patent Assignable at any Stage of Inventive Act.

This right may be assigned at any stage of the invention. It is not essential that both conception and reduction be complete, and the concrete invention thus be ready for a patent. The idea of means may be developed and its embodiment imperfect or not yet begun; or the idea may still be general and indefinite; or the inventor may have gone no farther than to determine to attempt the creation of a means for the accomplishment of some desirable result; he yet has power to bind the future invention in his hands and make it in advance the property of whomsoever he may choose.¹ And such assignment will be valid, as between the parties to it, though no patent ever issue, whatever rights a subsequent inventor or the public may acquire.²

the statute, see *Suydam v. Day* (1846), 2 Blatch. 20.

The property of an inventor in his patented invention is divisible into (1) The invention, or the right to make, use, and sell the new art or instrument; and (2) The monopoly, or the right to exclude others from such making, use, or sale. The former exists from the moment the inventive act is completed, and may be enjoyed or disposed of by him as he pleases. Before his inventive act is finished no property in the invention can exist, but the proposed inventor may make contracts concerning it which will operate upon it when completed, and create rights in it which can be then enforced. The latter property exists only after the patent creating the monopoly is granted and until then cannot be enjoyed by the inventor or, in any proper sense, assigned to others. But as in the case of the invention he may bind it by contracts which become operative when the patent issues, and which derive their force partly from the doctrines of the common law and partly from the provisions of the statutes relating to the ownership of patents. In this chapter contracts which re-

late to the future ownership of the monopoly are alone considered, and these are called "assignments," in compliance with custom, though strictly they do not differ from any other agreements affecting prospective rights. Contracts concerning the invention only are hereafter discussed (§§ 806-834) under the name of Licenses. Conveyances of the patented invention are treated (§§ 752-805) under their proper title of Assignments. Conveyances of future patents are also referred to in §§ 368, *ante*, and 771, 772, *post*.

§ 409. ¹ That an assignment is good although the invention is not yet perfected, see *Bunker v. Stevens* (1885), 26 Fed. Rep. 245; 36 O. G. 345; *Continental Windmill Co. v. Empire Windmill Co.* (1871), 8 Blatch. 295; 4 Fisher, 428; *Opinion Atty. Gen.* (1859), 9 Op. At. Gen. 403.

That an assignment is good though the invention is not yet patented, see *Hammond v. Mason & Hamlin Organ Co.* (1875), 92 U. S. 724; *Kathbone v. Orr* (1850), 5 McLean, 131.

² That an assignment is good between the parties though no patent ever issues, see *Hammond v. Mason & Hamlin Organ Co.* (1875), 92 U. S. 724.

§ 410. Form of Assignment Immaterial.

No special form of such assignment is required by law. It may be oral or in writing; and if in writing it need not be under seal nor be recorded; and though recorded, the record gives it no additional validity.¹ The intention of the assignor to transfer the patent for the specific invention claimed under the assignment must appear; and in ascertaining this intention, the ordinary rules of construction are applied to the language of the instrument where the assignment is in writing, or the general designs, relations, and circumstances of the parties are considered where the conveyance has been oral.² Whatever expresses this intention is sufficient to create a title to the patent in the assignee.

§ 411. Assignment of Right to Patent Creates Equitable Title to Patent when Granted.

An assignment of the right to a patent is, in effect, a contract to assign the patent when issued, and as such is enforce-

§ 410. ¹ That the assignment of an unpatented invention may be oral as well as written, see *Burr v. De La Vergne* (1886), 102 N. Y. 415.

That the assignment of a future patent need not be recorded, and if recorded derives therefrom no additional validity, see *Wright v. Randel* (1881), 19 Blatch. 495; 21 O. G. 493; 8 Fed. Rep. 591.

That where the assignment requests the Patent Office to issue the patent to the assignee, the assignment must be recorded before the issue of the patent, see § 4895, Rev. Stat.

² That a deed conveying all the inventor's "property and estate whatsoever and wheresoever, of every kind and description" carries his inchoate rights in all unpatented inventions, see *Railroad Co. v. Trimble* (1870), 10 Wall. 367.

That an assignment of one patent "with all modifications, improvements, and re-issues" does not cover a later invention attaining the same end by different means, see *Stebbins Hydraulic*

Elevator Mfg. Co. v. Stebbins (1880), 17 O. G. 1348; 4 Fed. Rep. 445.

That an assignment of an imperfect invention, with all the improvements upon it that the inventor may make, is equitably a conveyance of the perfected results, and thus whoever receives the patent holds it in trust for the assignee, see *Littlefield v. Perry* (1875), 21 Wall. 205; 7 O. G. 964.

That a conveyance of all the inventions which the assignor may hereafter make will cover future inventions, see *Opinion Atty. Gen.* (1859), 9 Op. At. Gen. 403.

That an irrevocable power of attorney to control a patent is equivalent to an assignment, see *Hartshorn v. Day* (1856), 19 How. 211.

That an assignment entitling the assignee to have the patent issued to him must be a formal assignment of a completed invention, and not an agreement to assign future inventions, see *Runstetler v. Atkinson* (1883), 23 O. G. 940.

able in equity.¹ Of itself it creates no legal title to the patent, though when the patent issues and the assignment is recorded the legal title passes to the assignee unless superior rights would thereby be invaded.² Nor does it empower the assignee to take a patent for the invention in his own name, unless a provision granting that authority, and requesting the Patent Office to recognize it, is incorporated in the assignment.³ In the absence of this provision, and until perfected

§ 411. ¹ That an assignment of the patent privilege before the patent issues is a contract to assign the patent when issued, and creates an equitable title to the patent in the assignee, although the patent issue to the inventor, see *Aspinwall Mfg. Co. v. Gill* (1887), 40 O. G. 1133; *United States Stamping Co. v. Jewett* (1880), 7 Fed. Rep. 869; 18 Blatch. 469; 18 O. G. 1529; *Hammond v. Pratt* (1879), 16 O. G. 1235; *Littlefield v. Perry* (1875), 21 Wall. 205; 7 O. G. 964; *Newell v. West* (1875), 13 Blatch. 114; 9 O. G. 1110; 8 O. G. 598; 2 Bann. & A. 113; *Troy Iron & Nail Co. v. Corning* (1852), 14 How. 193; *Gayler v. Wilder* (1850), 10 How. 477.

That the equitable title in the assignee cannot prevail over the legal title of innocent *bona fide* purchasers from the inventor after the patent issues, unless in the assignment it was provided that the patent issue to the assignee, see *Davis Wheel Co. v. Davis Wagon Co.* (1884), 22 Blatch. 221; 20 Fed. Rep. 699; *Wright v. Randel* (1881), 19 Blatch. 495; 21 O. G. 493; 8 Fed. Rep. 591; *Gibson v. Cook* (1850), 2 Blatch. 144.

That an assignment of the entire right, before patent, entitles the assignee to a patent in his own name; but an assignment of a part interest, however large, does not give the assignee any legal claim to the patent, see *Opinion Atty. Gen.* (1859), 9 Op. At. Gen. 403.

That formerly patents could not issue to an inventor and an assignee jointly, but only to an inventor or an assignee

of the whole interest, see *Opinion Atty. Gen.* (1845), 4 Op. At. Gen. 399.

² That if the assignee of a future patent puts his assignment on record after the patent issues, the legal title will vest in him if there are no superior rights, see *U. S. Stamping Co. v. King* (1880), 7 Fed. Rep. 869; 18 Blatch. 469; 18 O. G. 1529.

That an agreement to assign becomes an assignment in fact as soon as the price is paid; and that the title is good in the assignee before the money has been paid, see *Hartshorn v. Day* (1856), 19 How. 211.

³ That an assignment of a future patent is a mere contract and that the patent cannot issue to the assignee unless the assignment so order, see *Hammond v. Pratt* (1879), 16 O. G. 1235.

That a parol assignment of a future patent neither gives the assignee a right to take out a patent in his own name, nor entitles him to be a joint patentee, see *Hammond v. Pratt* (1880), 16 O. G. 1235.

That a patent issuing to the assignee gives him the legal title, see *Perkins v. U. S. Electric Light Co.* (1883), 24 O. G. 204; 21 Blatch. 308; 16 Fed. Rep. 513.

That where an inventor assigns to A, A to B, and B to C, and all assignments are on record before the issue of the patent, if the patent issues to A the title vests at once in C, see *Consolidated Electric Light Co. v. McKeesport Light Co.* (1887), 44 O. G. 110; *Consolidated Electric Light Co. v. Edison*

by the vesting of the legal title, the rights of the assignee in the patent are thus merely equitable. He takes them subject to all prior equities, and, in his hands, they yield to any legal title subsequently acquired from the inventor by innocent *bona fide* assignees.⁴

§ 412. Assignment of Right to Patent does not Cover Extension.

Whether such an assignment covers the right to an extension, where the law concedes that privilege to the inventor, depends upon the character of the assignment.¹ Presumptively it relates only to the original patent, and hence the extension does not pass unless the express words or necessary implications of the contract require it.² But it is competent

Electric Light Co. (1885), 23 Blatch. 412; 25 Fed. Rep. 719; 33 O. G. 1597.

That oversights in the Patent Office cannot affect the title of the real owner of a patent, see Consolidated Electric Light Co. v. Edison Electric Light Co. (1885), 23 Blatch. 412; 25 Fed. Rep. 719; 33 O. G. 1597.

That a court of equity will not aid an inventor to obtain a patent in violation of his own agreements, see Runstetler v. Atkinson (1883), 23 O. G. 940.

⁴ That an assignee takes subject to all the legal consequences of the previous acts of his assignor, such as implied licenses, disclaimers, etc., see Blades v. Rand, McNally, & Co. (1886), 27 Fed. Rep. 93; McClurg v. Kingsland (1843), 1 How. 202; 2 Robb, 105. See also § 789 and notes, *post*.

That a contract to assign vests the right to the patent in the promisee, and his property therein cannot be affected by any subsequent licenses granted by the promisor, see Adams v. Bridgewater Iron Co. (1886), 26 Fed. Rep. 324.

§ 412. ¹ That the right to an extension, where the law allows extensions to be granted, may be assigned, see Prime v. Brandon Mfg. Co. (1879), 16 Blatch. 453; 4 Bann. & A. 379; New-

ell v. West (1875), 13 Blatch. 114; 9 O. G. 1110; 2 Bann. & A. 113; 8 O. G. 598; Gear v. Grosvenor (1873), Holmes, 215; 3 O. G. 380; 6 Fisher, 314; Nicholson Pavement Co. v. Jenkins (1872), 14 Wall. 452; 5 Fisher, 491; 1 O. G. 465; Clum v. Brewer (1855), 2 Curtis, 506; Day v. Candee (1853), 3 Fisher, 9.

² That the extension will not pass under a general assignment of the patent, but must be expressly granted, see Johnson v. Wilcox & Gibbs Sewing Mach. Co. (1886), 23 Blatch. 531; 27 Fed. Rep. 689; Waterman v. Wallace (1875), 13 Blatch. 128; Holmes v. Spaulding (1873), 4 O. G. 581; Gear v. Grosvenor (1873), 6 Fisher, 314; Holmes, 215; 3 O. G. 380; Mowry v. Grand St. & Newtown R. R. Co. (1872), 10 Blatch. 89; 5 Fisher, 586; Wetherill v. Passaic Zinc Co. (1872), 2 O. G. 471; 6 Fisher, 50; 9 Phila. 385; Jenkins v. Nicholson Pavement Co. (1870), 4 Fisher, 201; 1 Abbott U.S. 567; Goodyear v. Hullihen (1867), 3 Fisher, 251; 2 Hughes, 492; Goodyear v. Day (1856), 6 Duer, 154; Gibson v. Cook (1850), 2 Blatch. 144; Phelps v. Comstock (1848), 4 McLean, 353; Wilson v. Rousseau (1846), 4 How. 646; 2 Robb, 372; Brooks v. Bicknell (1845), 4 McLean, 64; Wilson v. Turner (1845), Taney,

for the inventor, if he wishes, to transfer not only the immediate right, but the remoter incidents; and where the language or the circumstances of his conveyance clearly indicate such an intention it will be effective to vest in the assignees all rights which the inventor might himself secure.⁸

278; *Woodworth v. Sherman* (1844), 3 Story, 171; 2 Robb, 257.

⁸ In *Hendric v. Sayles* (1878), 98 U. S. 546, Clifford, J.: (554) "Apt words are required, where the conveyance is of an existing patent, to show that the conveyance includes more than the term specified in the patent; but where the conveyance is of the invention, whether before or after the patent is obtained, the rule is otherwise, unless there is something in the instrument to indicate a different intention, — the rule being that a conveyance of the described invention carries with it all its incidents; and all the well-considered authorities concur that the inchoate right to obtain a renewal or extension of the patent is as much an incident of the invention as the inchoate right to obtain an original patent; and if so, it follows that both are included in the instrument which conveys the described invention without limitation or qualification. *Emmons v. Sladden*, 9 O. G. 354; *Gayler v. Wilder*, 10 How. 477; *Clum v. Brewer*, 2 Curt. C. C. 520; *Cannon v. Bowles*, 2 Bro. C. C. 84."

That an assignment of the entire invention and of all letters-patent that may be granted therefor, before a patent has issued, will carry the extension as well as the original privilege, see *Ruggles v. Eddy* (1872), 10 Blatch. 52; 5 Fisher, 581; *Nicholson Pavement Co. v. Jenkins* (1872), 14 Wall. 452; 1 O. G. 465; 5 Fisher, 491; *Railroad Co. v. Trimble* (1870), 10 Wall. 367; *Clum v. Brewer* (1855), 2 Curtis, 506.

That an assignment of the "invention," merely, does not carry an extension, see *Johnson v. Wilcox & Gibbs*

Sewing Mach. Co. (1886), 27 Fed. Rep. 689; 23 Blatch. 531.

That though an assignment of "said letters-patent" only carries the original privilege, an assignment of all "letters-patent that may be granted," will embrace an extension, see *Ruggles v. Eddy* (1872), 10 Blatch. 52; 5 Fisher, 581.

That an assignment of the "invention" for the "full term for which letters-patent may be granted" carries the extension, see *Gear v. Holmes* (1873), 6 Fisher, 595; *Nicholson Pavement Co. v. Jenkins* (1872), 14 Wall. 452; 1 O. G. 465; 5 Fisher, 491; *Ruggles v. Eddy* (1872), 5 Fisher, 581; *Thayer v. Wales* (1872), 5 Fisher, 448.

That a contract to convey an interest in letters-patent "to the fullest duration he is or may be entitled to" carries extensions, see *Chase v. Walker* (1866), 3 Fisher, 120.

That the conveyance of the patent and "any further patent," etc., carries an extension, see *Chase v. Walker* (1866), 3 Fisher, 120.

That the phrase "said letters-patent" may cover an extension, see *Chase v. Walker* (1866), 3 Fisher, 120.

That the word "renewal" means an extension, see *Pitts v. Hall* (1854), 3 Blatch. 201.

That an assignment of "all rights which may be secured to him from time to time" includes extensions, see *Railroad Co. v. Trimble* (1870), 10 Wall. 367.

That an assignment of "the invention" after patent issued does not carry the extension, see *Waterman v. Wallace* (1875), 13 Blatch. 128.

That an assignment of the entire "interest in letters-patent" for the full

§ 413. Assignment of Right to Patent Binding on Representatives of Deceased Inventor.

The obligations of this contract on the part of the inventor do not cease at his death. The right to the future patent still continues in the assignee, and if the assignment so provides and the invention is completed, the patent will be issued to the assignee upon the application of the personal representatives of the inventor. But where no such authority has been given to the assignee by the assignment, his rights are merely equitable, and can be enforced against the personal representatives of the inventor, by compelling them to procure the patent and perfect the title.¹ Unless the invention is completed before the death of the inventor, there is of course no patentable subject-matter, and the contract fails.

§ 414. Assignment of Right to Patent by Employee to Employer.

An employee may agree to devote his inventive faculties to the service of his employers, and thus confer upon them all the fruits of his inventive skill during the period covered by his contract.¹ But an agreement of this character must be

term for which they may be granted does not carry the extension, see *Gear v. Grosvenor* (1873), Holmes, 215; 6 Fisher, 314; 3 O. G. 380. But see note to this case in Holmes, 215.

That a grant of all the patents the grantor "has or intends to obtain" does not carry extended terms, see *Wetherill v. Passaic Zinc Co.* (1872), 6 Fisher, 50.

That an agreement of an inventor to assign to himself and another does not affect his extension, see *Johnson v. Wilcox & Gibbs Sewing Mach. Co.* (1886), 27 Fed. Rep. 689; 23 Blatch. 531.

For a general discussion of the right to an extension and the respective claims of executors, administrators, and assignees in reference thereto, see *Wilson v. Rousseau* (1845), 1 Blatch. 3; and same case (1846), 4 How. 646; 2 Robb, 372; especially the questions: 1. Whether an executor can have an extension; 2. Whether an extension, on

petition of an executor, enures to his benefit or that of assignees of the inventor; 3. Whether after a sale of the patent by his decedent, the executor can have an extension.

That where an assignee owning an extension assigns all his right, title, and interest, it will carry the extension, see *Ex parte Mason* (1872), 1 O. G. 357.

See also as to the assignment of an extension §§ 770, 779, 844, and notes, *post*.

§ 413. ¹ That an assignment of a future patent having been made by a deceased inventor, his personal representatives should obtain the patent and complete the legal title in the assignee, see *Newell v. West* (1875), 13 Blatch. 114; 9 O. G. 1110; 8 O. G. 598; 2 Bann. & A. 113.

§ 414. ¹ That an employee may assign his inventions to his employer, in advance of making them, and the inventions when made will equitably belong

unequivocal, and cannot be implied from a general bargain for his time and skill and labor, nor is it proved conclusively by the fact that the experiments resulting in the invention were made at the request and the expense of the employers.² But

to the employer, see *Continental Windmill Co. v. Empire Windmill Co.* (1871), 8 Blatch. 295 ; 4 Fisher, 428.

That where an invention has been made by a workman at the expense of his employer, who gave him extra wages on account of his skill as an inventor, the employer *prima facie* has a right to use it, see *Bensley v. Northwestern Horse Nail Co.* (1886), 26 Fed. Rep. 250 ; 36 O. G. 689.

That where an employee using the time and at the expense of the employer makes an invention, the employer may use it, see *Jencks v. Langdon Mills* (1886), 27 Fed. Rep. 622 ; 36 O. G. 347.

That when a workman is hired to invent, the employer will own the inventions which fall within the scope of the contract while the others will belong to the employee, see *Joliet Mfg. Co. v. Dice* (1883), 105 Ill. 649.

That an employee hired to assist an inventor in making improvements and to use his inventive skill for that purpose cannot claim, hold, or transfer to a person having knowledge of such contract, any invention so made against his employer, but the inventions are the property of the employer, and if patented by the employee a bill to compel their conveyance will lie, see *Annin v. Wren* (1887), 44 Hun, 352.

That an agreement between copartners that the firm is to have a joint right in any inventions made by either, is binding, and will cover inventions jointly made by a copartner and a third party at the firm's expense, see *Burr v. De La Vergne* (1886), 102 N. Y. 415.

² In *Hapgood v. Hewitt* (1882), 11 Bissell, 184, Gresham, J. : (186) "Persons are not deprived of their right to their inventions while in the service of

others, unless they have been hired and paid to exercise their inventive faculties for their employers. A contract by which one person agrees to pay a sum of money for the time, labor, and skill of another, for a given period, gives the employer no right to an assignment of a patent that is issued to his employee for an invention made during the period of his employment." 11 Fed. Rep. 422 (424) ; 21 O. G. 1786 (1786).

See also *Hapgood v. Hewitt* (1886), 119 U. S. 226 ; *Hall v. Johnson* (1883), 23 O. G. 2411 ; *Damon v. Eastwick* (1882), 14 Fed. Rep. 40 ; 22 O. G. 1709 ; 15 Phila. 506 ; *Whiting v. Graves* (1878), 13 O. G. 455 ; 3 Bann. & A. 222.

That a workman hired to perfect machinery, and bound to devote his skill and labor to his employer, is not obliged to abstain from taking patents for his inventions in his own name, though they are used by his employer, see *Green v. Willard Improved Barrel Co.* (1876), 1 Mo. App. 202.

That even though an employee is experimenting at the expense and request of his employer, his inventions are still his own, see *Dice v. Joliet Mfg. Co.* (1882), 11 Bradwell (Ill.) 109 ; *Damon v. Eastwick* (1882), 14 Fed. Rep. 40 ; 22 O. G. 1709 ; 15 Phila. 506.

That as between master and servant the inventor is the one who conceives the idea and reduces it to practice, see *Dice v. Joliet Mfg. Co.* (1882), 11 Bradwell (Ill.), 109.

That the making of the models by other servants of the employer does not show that he is the inventor, see *Dice v. Joliet Mfg. Co.* (1882), 11 Bradwell (Ill.), 109.

That a patent granted to one member of a firm is not partnership property,

such an agreement may be evidenced by circumstances ; and the conduct of the employee in permitting his employers to claim and treat the invention as their own may operate as an estoppel to prevent him from denying their asserted rights.³ An agreement of this nature relates only to the period of service, and inventions made prior to that period or after its expiration belong to the employee and are patentable by him alone.⁴

although the firm paid the patent fees and used the invention, see *McWilliams Mfg. Co. v. Blundell* (1882), 22 O. G. 177.

That a partner, merely as such, has no rights in an invention made by his copartner during the existence of the firm, although the invention is an improvement on machinery owned by the firm and is made with the firm means, and in time which by the partnership articles belonged to the firm, see *Burr v. De LaVergne* (1886), 102 N. Y. 415.

³ That where an inventor has allowed his employer or others to deal with his invention as their own, he may be estopped from claiming it, see *National Feather Duster Co. v. Hubbard* (1881), 11 *Bissell*, 76 ; 9 *Fed. Rep.* 558 ; 21 O. G. 635 ; *Dixon v. Moyer* (1821), 4 *Wash.* 68 ; 1 *Robb*, 324.

⁴ That when the term of hiring has expired, inventions thereafter made by the employee belong to himself alone,

or to his subsequent assignees, see *Appleton v. Bacon* (1862), 2 *Black*, 699.

By their contract with a workman his employers may acquire a right either to the ownership or to the use of his inventions. The law does not favor a claim of the employers to the former, and hence requires strict proof that by the agreement the employee intended to convey to them his future patented inventions both as to the invention itself and as to the monopoly created by the patent. On the other hand, a transfer to the employers of the right to use the invention is easily established and will generally be presumed whenever the workman has applied the invention to his employers' business without express contract and without demanding recompense until his term of service has expired. In examining the cases which relate to contracts of this character between masters and servants the distinction here alluded to must be kept in mind.

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END OF VOL. I.

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