

§ 245. Every patent stands upon its subject-matter, and accordingly the question of infringement depends upon the use of that which is covered by the patent. A patent may be for a new combination, whether the particular parts or things constituting that combination be new or old. But where the patent is for a combination, and not for several and distinct improvements, it is no infringement to use any of the parts or things which go to make up the combination, if the combination itself be not used.¹

§ 246. But on the other hand, where the patent is for several distinct improvements or things, and does not stand upon the combination of such things, then the use of any one of them will be an infringement.² But in order to succeed in an action for the infringement of any one of such improvements, it was formerly necessary with us, as in England, that the whole of the improvements claimed as such should be new; and if the novelty of any one of them failed, though it might not be the one used by the defendant, the action could not be sustained.

puts the case of welding them by *fixed dies* instead of *rollers*. See also *Kneass v. Schuylkill Bank*, 4 Wash. 9; *Crane v. Price*, Webs. Pat. Cas. 409; Webster on the Subject-matter, &c. 26, n. t. 30; 1 Webs. Pat. Cas. 95.

In these cases the principle is necessarily involved, and in some of them distinctly announced, that any change in the instruments employed, by which a new result is produced, or an old result produced in a more economical and beneficial manner, is the subject of a patent. It is an invention of a *new* thing, under the patent law. The same test is proposed by Mr. Webster, in his very able dissertation on the Subject-matter of Patents, page 27. He says, in substance, that the question is, whether the change be colorable and formal, or substantial and essential; that is, whether it be such as would of itself support a patent. The jury must find whether what is new is essential, or useless, and a colorable evasion; whether, by reason of the change, the thing has acquired a new and distinct character.

¹ *Barrett v. Hall*, 1 Mas. 447. See the observations of Mr. Justice Story, cited from this case, *ante*, p. 82; *Evans v. Eaton*, 1 Peters, C. C. R. 343.

² *Moody v. Fisk*, 2 Mas. 115.

The reason for this was, not that the right of the patentee would not have been infringed, if he had had a valid patent, but that his patent was void, on account of a partial failure of the whole consideration on which it was granted; the consideration on which a patent was granted being the novelty of all the things represented to be new, regarded as an entirety; and the consideration being entire, if it failed in part, it failed as to the whole. The government was, in such a case, deceived in its grant; the whole patent was therefore inoperative, and no action could be maintained upon it.¹

¹ In *Moody v. Fisk*, 2 Mas. 112, 115, Mr. Justice Story hinted at this doctrine, when he said that, "In such a case, the patent goes for the whole of the improvements, and if each be new and be claimed distinctly in the patent, there does not seem to be any good reason why the party who pirates any part of the invention should not be liable in damages." The subsequent cases in England, of *Hill v. Thompson*, 8 Taunt. 382; 2 B. Moore, 433; *Webs. Pat. Cas.* 239; *Brunton v. Hawkes*, 4 B. & Ald. 541; and *Morgan v. Seaward*, 2 M. & W. 544; *Webs.* 187; have fully established this doctrine. In the last of these cases, Mr. Baron Parke, delivering the judgment of the court, said, "This brings me to the question whether this patent, which suggests that certain inventions are improvements, is avoided if there be one which is not so; and upon the authorities we feel obliged to hold that the patent is void, upon the ground of fraud on the crown, without entering into the question whether the utility of each and every part of the invention is essential to a patent, where such utility is not suggested in the patent itself as the ground of the grant. That a false suggestion of the grantee avoids an ordinary grant of lands and tenements from the crown, is a maxim of the common law, and such a grant is void, not against the crown merely, but in a suit against a third person. It is on the same principle that a patent for two or more inventions, when one is not new, is void altogether, as was held in *Hill v. Thompson*, 2 Moore, 424, 8 Taunt. 375, and *Brunton v. Hawkes*, 4 B. & Ald. 542; for, although the statute invalidates a patent for want of novelty, and consequently, by force of the statute the patent would be void so far as related to that which was old, yet the principle on which the patent has been held to be void altogether is, that the consideration for the grant is the novelty of all, and the consideration failing, or, in other words, the crown being deceived in its grant, the patent is void, and no action maintainable upon it. We cannot help seeing, on the face of this patent, as set out in the record, that an improvement in steam engines

§ 247. The statute of July 4, 1836, § 15, recognizes this doctrine, by establishing as a defence that the patentee was not the first inventor of the thing patented, "or of a substantial and material part thereof claimed as new." But a more recent statute has provided that the patent shall be deemed good and valid for so much of the invention or discovery as shall be truly and *bonâ fide* the invention or discovery of the patentee, if it is a material and substantial part of the thing patented, and is definitely distinguishable from the other parts which the patentee had no right to claim, notwithstanding the specification may be too broad, if it was so made by mistake, accident or inadvertence, and without any wilful default or intent to defraud or mislead the public."¹ This leaves the former doctrine, by which a failure of novelty in any part vitiated the whole patent, still applicable to cases where the claim was made too broad, wilfully and knowingly, or with intent to defraud or deceive the public.

§ 248. The effect of a failure, in point of utility of one or more of several parts or things claimed as distinct inventions, is held in England to be the same as a failure in point of novelty. If any thing claimed as essential turn out to be useless, the patent is voidable, provided it was known to the patentee, at the time of enrolling his specification, to be useless, because he misleads the public by representing it to be useful ;

is suggested by the patentee, and is part of the consideration for the grant ; and we must reluctantly hold that the patent is void, for the falsity of that suggestion. In the case of *Lewis v. Marling*, (10 B. & C. 22 ; 5 M. & Ry. 66,) this view of the case, that the patent was void for a false suggestion, does not appear by the report to have been pressed on the attention of the court, or been considered by it. The decision went upon the ground that the brush was not an essential part of the machine, and that want of utility did not vitiate the patent ; and, besides, the improvement by the introduction of the brush is not recited in the patent itself as one of the subjects of it, which may make a difference. We are, therefore, of opinion, that the defendants are entitled to our judgment on the third issue." See, also, the elaborate judgments in *Brunton v. Hawkes*.

¹ Act of 1837, § 9.

but if it was subsequently discovered not to be useful, material, or necessary, it forms no ground of objection to the patent.¹ A patent for an entire machine or other subject which is, taken altogether, useful, though a part or parts may be useless, will be valid, provided there is no false suggestion.² So, too, a finding of the jury, that the invention is useful on the whole, but fails or is not useful in some cases, is not a ground of nonsuit.³

¹ *Lewis v. Marling*, 10 B. & C. 22; 4 Car. & P. 57; Webs. Pat. Cas. 493.

² *Morgan v. Seaward*, Webs. Pat. Cas. 197.

³ *Haworth v. Hardcastle*, Webs. Pat. Cas. 480, 483. In this case, Sir N. C. Tindal, C. J. said, "The motion for entering a nonsuit was grounded on two points; first, that the jury had, by their special finding, negatived the usefulness of the invention to the full extent of what the patent and specification had held out to the public; secondly, that the patentee had claimed in his specification the invention of the rails or staves over which the cloths were hung, or, at all events, the placing them in a tier at the upper part of the drying room. As to the finding of the jury, it was in these words: "The jury find the invention is new and useful upon the whole; and that the specification is sufficient for a mechanic, properly instructed, to make a machine, and that there has been an infringement of the patent; but they also find that the machine is not useful in some cases for taking off goods. The specification must be admitted, as it appears to us, to describe the invention to be adapted to perform the operation of removing the calicoes and other cloths from off the rails or staves after they have been sufficiently dried. But we think we are not warranted in drawing so strict a conclusion from this finding of the jury as to hold that they have intended to negative, or that they have thereby negatived, that the machine was useful in the generality of the cases which occur for that purpose. After stating that the machine was useful on the whole, the expression that 'in some cases it is not useful to take up the cloths,' appears to us to lead rather to the inference that in the generality of cases it is found useful. And if the jury think it useful in the general, because some cases occur in which it does not answer, we think it would be much too strong a conclusion to hold the patent void. How many cases occur, what proportion they bear to those in which the machine is useful, whether the instances in which it is found not to answer are to be referred to the species of cloth hung out, to the mode of dressing the cloths, to the thickness of them, or to any other cause distinct and different from the defective structure or want of power in the machine, this finding of the jury gives us no information whatever. Upon such a finding, therefore, in a case where the jury have given their general verdict for the

But these cases are entirely distinguished from those where the purpose wholly fails, and the invention described does not accomplish the effect that is claimed for it. On a patent of this description, of course no action whatever can be maintained.¹

§ 249. The principles of our law would apparently lead to the same conclusions upon this subject ; for although it is not material, whether the subject-matter of a patent is more or less useful, it must possess some utility ; and if the subject-matter consists of several things, all included in one patent, but claimed as the distinct inventions of the patentee, a failure of any one of them, in point of utility, must vitiate the patent, if it was represented to be useful, when it was known not to be so, for the same reasons which are applicable in England. Our statute, moreover, has expressly provided, as one of the defences to an action on a patent, “ that it contains more than is necessary to produce the described effect,” when such addition “ shall fully appear to have been made for the purpose of deceiving the public ;” that is to say, when it appears that the patentee was aware that he was introducing something not useful, material, or necessary, at the time of preparing his specification.²

§ 250. The rule of damages for the infringement of a patent is

plaintiff, we think that we should act with great hazard and precipitation, if we were to hold that the plaintiff ought to be nonsuited upon the ground that his machine was altogether useless for one of the purposes described in his specification.”

¹ *Manton v. Parker*, Dav. Pat. Cas. 327. This was a patent for “ a hammer on an improved construction, for the locks of all kinds of fowling-pieces and small arms ;” and a material part of the invention consisted in a means of letting out the air from the barrel and causing a communication between the powder in the pan and in the barrel, without, at the same time, letting out the powder. The witnesses for the defendant having proved that the powder passed through the same hole as the air, the plaintiff was nonsuited.

² Act of July 4, 1836, § 15.

provided by statute in the following terms : “ that, whenever in any action for damages for using or selling the thing whereof the exclusive right is secured by any patent heretofore granted, or which shall hereafter be granted, a verdict shall be rendered for the plaintiff in such action, it shall be in the power of the court to render judgment for any sum above the amount found by such verdict as the actual damages sustained by the plaintiff, not exceeding three times the amount thereof, according to the circumstances of the case.”¹ By the terms “ actual damages, sustained by the plaintiff,” are meant such damages as he can actually prove, and has in fact sustained, as contra-distinguished from mere imaginary or vindictive damages, which are sometimes given in personal torts.² These damages will be trebled by the court, according to the statute.³

§ 251. In estimating the “ actual damage,” the rule is, in cases of infringement by an actual use of the plaintiff’s invention — as by making and using a patented machine — to give the value of such use during the time of the illegal user, that is to say, the amount of profits actually received by the defendant.⁴ To this, it seems there should also be added all the losses to which the plaintiff has been subjected by the piracy.⁵

¹ Act of July 4, 1836, § 14.

² *Whittemore v. Cutter*, 1 Gallis. 429. It seems, however, that if the defendant is sued a second time for an infringement, exemplary damages may be given. *Alden v. Dewey*, 1 Story’s R. 336, 339.

³ *Lowell v. Lewis*, 1 Mas. 184, 185; *Gray v. James*, Peters’s C. C. R. 394.

⁴ *Lowell v. Lewis*, 1 Mas. 184, 185; *Whittemore v. Cutter*, 1 Gallis. 429.

⁵ In *Earle v. Sawyer*, 4 Mas. 1, 12, Mr. Justice Story said : “ But I wish to say a few words in relation to the point of law, which the objection suggests, and which is founded upon the decision of this court, in the case of *Whittemore v. Cutter*, (1 Gallis. R. 479.) To that decision, as founded in just principle, I still adhere, although, I confess, with subdued confidence, since, I have reason to believe, that it has not met the entire concurrence of other and abler judicial minds. It has been maintained, by some learned

§ 252. But where merely the making of a patented machine

persons, that the price of the invented machine is a proper measure of damages, in cases where there has been a piracy by making and using the machine, because, in such cases, the verdict for the plaintiff entitles the defendant to use the machine subsequently, and, in short, transfers the right to him in the fullest manner, and, in the same way, that a recovery in trover or trespass, for a machine, by operation of law, transfers the right to such machine to the trespasser, for he has paid for it. If I thought such was the legal operation of a verdict for the plaintiff, in an action for making and using a machine, no objection could very forcibly occur to my mind against the rule. But my difficulty lies here. The patent act gives to the inventor the exclusive right of making and using his invention during the period of fourteen years. But this construction of the law enables any person to acquire that right, by a forced sale, against the patentee, and compels him to sell, as to persons or places, when it may interfere essentially with his permanent interest, and involve him in the breach of prior contracts. Thus, the right would not remain exclusive; but the very attempt to enforce it would involve the patentee in the necessity of parting with it. The rule itself, too, has no merit from its universality of application. How could it apply, when the patentee had never sold the right to any one? How, when the value of the right depended upon the circumstance of the right being confined to a few persons? Where would be the justice of its application, if the invention were of enormous value and profit, if confined to one or two persons, and of very small value if used by the public at large, for the result of the principle would be, that all the public might purchase and use it by a forced judicial sale. On the other hand, cases may occur, where the wrong done to the patentee may very far exceed the price, which he would be willing to take for a limited use by a limited number of persons. These, among others, are difficulties which press on my mind against the adoption of the rule; and where the declaration goes for a user during a limited period, and afterwards the party sues for a user during another and subsequent period. I am unable to perceive, how a verdict and judgment in the former case is a legal bar to a recovery in the second action. The piracy is not the same, nor is the gravamen the same. If, indeed, the plaintiff, at the trial, consents that the defendant shall have the full benefit of the machine forever, upon the ground of receiving the full price in damages, and the defendant is content with this arrangement, there may be no solid objection to it in such a case. But I do not yet perceive how the court can force the defendant to purchase, any more than the plaintiff to sell, the patent right, for the whole period it has to run. The defendant may be an innocent violator of the plaintiff's right; or he may have ceased to use, or to have employment for such a machine. There are other objections alluded to in the case in 1 Gal-
lis. R. 434.

is proved, as no actual damages have been sustained, nominal damages only should be given.¹

§ 253. Where patented articles (cast-iron water wheels) were manufactured by the defendants on an order given by a third person, and the order was partially executed before the defendants had notice of the patent, and two wheels only were cast

Struck with similar difficulties, in establishing any general rule to govern cases upon patents, some learned judges have refused to lay down any particular rule of damages, and have left the jury at large to estimate the actual damages, according to the circumstances of each particular case. I rather incline to believe this to be the true course. There is a great difference between laying down a special and limited rule, as a true measure of damages, and leaving the subject entirely open, upon the proofs in the cause, for the consideration of the jury. The price of the machine, the nature, actual state and extent of the use of the plaintiff's invention, and the particular losses, to which he may have been subjected by the piracy, are all proper ingredients to be weighed by the jury in estimating the damages, *valere quantum valcant.*"

See also the observations of Lord Justice Clerk Hope, in the *Househill Company v. Neilson*, cited *Webs. Pat. Cas. 697, note*. In *Pierson v. The Eagle Screw Company*, 3 Story's R. 410, Mr. Justice Story again said: "But, upon the question of damages, I would, upon this occasion, state, (what I have often ruled before,) that if the plaintiff has established the validity of his patent, and that the defendants have violated it, he is entitled to such reasonable damages as shall vindicate his right, and reimburse him for all such expenditures as have been necessarily incurred by him beyond what the taxable costs will repay, in order to establish that right. It might otherwise happen, that he would go out of court with a verdict in his favor, and yet have received no compensation for the loss and wrong sustained by him. Indeed, he might be ruined by a succession of suits, in each of which he might, notwithstanding, be the successful party, so far as the verdict and judgment should go. My understanding of the law is, that the jury are at liberty, in the exercise of a sound discretion, if they see fit, (I do not say that they are positively and absolutely bound under all circumstances) to give the plaintiff such damages, not in their nature vindictive, as shall compensate the plaintiff fully for all his actual losses and injuries occasioned by the violation of the patent by the defendants."

¹ *Whittemore v. Cutter, ut supra.*

after notice, it was held that nominal damages only were proper.¹

§ 254. It was formerly doubted, whether the jury were at liberty to allow, as part of the actual damage, the counsel fees and expenses of witnesses beyond the taxable costs, incurred by the plaintiff in vindicating his right. But it is now the established rule and practice to allow them.²

§ 255. As to the time of the acts complained of as amounting to an infringement, it is obvious that the patent cannot be infringed by any thing done when the patent did not exist; and therefore it is no infringement to make or use a machine subsequently patented, or otherwise to practise the invention which is afterwards made the subject of a patent, before the patent is obtained. But when a patent is granted, the right in the subject-matter relates back to the time of the invention, so that the party who has practised the invention between the time of the discovery and the issuing of the patent, must cease to do so. Any acts of infringement done after the issuing of the patent will be ground for the recovery of damages, although the previous acts were done at a time when it was uncertain whether there would be any patent issued.³ The same is true of acts done in violation of a patent which is surrendered and renewed on account of defects in the specification. If a party erect and put in use a patented machine during the existence of a defec-

¹ *Bryce v. Dorr*, 3 McLean, 582.

² *Boston Manuf. Co. v. Fiske*, 2 Mason, 119, 120. In England, damages at law are generally only nominal. *Lewis v. Marling*, Webs. Pat. Cas. 493, n. The plaintiff is not entitled to damages in a second action as of right. *Minter v. Mower*, *Ibid.* 138. Damages should consist of profits and compensation for the infraction of the right. *The Househill Company v. Neilson*, *Ibid.* 697. *Seem*, that acts done in reliance on a former verdict against a patent are evidence in reduction of damages. *Arkwright v. Nightingale*, *Ibid.* 61.

³ *Evans v. Weiss*, 2 Wash. 342; *Dixon v. Moyer*, 4 Wash. 68.

tive patent which is afterwards surrendered, it will be an infringement of the new and renewed patent, if he continues the use of such machine after the renewal; and it seems that no notice of the renewal is necessary; and if it is, that knowledge of the original patent will be notice of the renewed patent granted in continuation of it, according to the provisions and principles of law.¹

§ 256. A patentee may recover damages for an infringement during the time which intervened between the destruction of the patent office by fire, in 1836, and the restoration of the records under the act of March 3, 1837.²

¹ *Ames v. Howard*, 1 Sumner, 482, 488. In this case Mr. Justice Story said, "The next objection is, that in point of law the plaintiff is not entitled, without some previous notice or claim, to maintain this action under his patent against the defendants, for continuing the use of the machines erected and put in use by them before the patent issued. This objection cannot prevail. I am by no means prepared to say, that any notice is, in cases of this sort, ever necessary to any party, who is actually using a machine in violation of the patent right. But it is very clear, that in this case enough was established in evidence to show, that the defendants had the most ample knowledge of the original patent taken out by the plaintiff in 1822, and of which the present is only a continuation, being grounded upon a surrender of the first for mere defects in the original specification. Whoever erects or uses a patented machine, does it at his peril. He takes upon himself all the chances of its being originally valid; or of its being afterwards made so by a surrender of it, and the grant of a new patent, which may cure any defects, and is grantable according to the principles of law. That this new patent was so grantable is clear, as well from the decision of the supreme court in *Grant v. Raymond*, (6 Peters R. 218,) as from the Act of Congress of the 3d of July, 1833, ch. 162. There is no pretence to say, that the defendants were *bonâ fide* purchasers without any knowledge or notice of any adverse claim of the plaintiff under this original patent; and the damages were by the court expressly limited to damages which accrued to the plaintiff by the use of the machine after the new patent was granted to the plaintiff."

² *Hogg v. Emerson*, 6 How. 437.

NOTE. The following discussion is extracted from Mr. Webster's short Treatise on the Subject-Matter of Patents.

The Principle of an Invention.

The use of the term "principle," in reference to the subject-matter of letters patent, has given rise to so much discussion, that some remarks upon it may not form an improper conclusion to this part of the subject. It is said, most truly, that there cannot be a patent for a principle; that a principle must be embodied and applied so as to afford some result of practical utility in the arts and manufactures of the country, and that under such circumstances a principle may be the subject of a patent.¹ In a certain sense, indeed, a principle so embodied and applied may be considered as the subject of a patent, but it is that embodiment and application which is in reality the subject-matter of the patent. The principle so embodied and applied, and the principle of such embodiment and application, that is to say, the principle of the invention, are essentially distinct; the former being a truth of exact science, or a law of natural science, or a rule of practice; the latter, the practice founded upon such truth, law, or rule. The want of a due appreciation of this distinction was the foundation of much of the discussion which occurred in the proceedings on Watt's patent, but the distinction was fully recognised and adopted by Mr. Justice Buller, in the following passage:²

"There is one short observation arising on this part of the case, which seems to me to be unanswerable, and that is, that if the principle alone be the foundation of the patent, it cannot possibly stand, with that knowledge and discovery which the world were in possession of before. The effect, the power, and the operation of steam were known long before the date of

¹ The fair mode of looking at a patent and the specification is to inquire what is the spirit of the invention, or the principle, and this must be embodied in some mode or method, because it is admitted on all hands you cannot take out a patent for a principle. But although the law says undoubtedly, and correctly enough, that you cannot take out a patent for a principle, that is, for a barren principle, when you have clothed it with a form, and given it body and substance, in which the principle may live and produce the benefit which you claim to result from it, why, then, in many cases, (and it is a consolation to every just and honest feeling one has on the subject of invention,) although you cannot have a patent for a principle in substance, you can have a patent for the spirit of your invention, for if any other person comes and clothes the spirit of your invention with a different body, and puts that principle in use in any other shape or fashion, it is always a question for a jury, whether, however different in appearance, in shape, in form, in method — whether the article or the practice, if it be matter connected with the arts and manufactures, be or be not substantially an adaptation of the principle, applied with the same view to answer the same end, and merely imitated in substance whatever difference there may be in point of form. See *per* Sir F. Pollock, Pat. Rep. 145. See also in proceedings on Neilson's patent, *Ibid.* 342.

² 2 H. Bl. 485, 486. See also *Webs. on Pat.* 2 n. d.

this patent ; all machines which are worked by steam are worked by the same principle. The principle was known before, and therefore, if the principle alone be the foundation of the patent, though the addition may be a great improvement, (as it certainly is,) yet the patent must be void *ab initio*. But then it was said, that though an idea or principle alone would not support the patent, yet that an idea reduced into practice, or a practical application of a principle, was a good foundation for a principle, was a good foundation of a patent, and was the present case. The mere application or mode of using a thing was admitted in the reply not to be a sufficient ground ; for on the court putting the question, whether, if a man, by science, were to devise the means of making a double use of a thing known before, he could have a patent for that, it was rightly and candidly admitted that he could not.¹ The method and the mode of doing a thing are the same, and I think it impossible to support a patent for a method only, without having carried it into effect, and produced some new substance.”

“ But here it is necessary to inquire, what is meant by a principle reduced into practice. It can only mean a practice founded on principle, and that practice is the thing done or made, or in other words, the manufacture which is invented.” The assertion, then, that there cannot be a patent for a principle, amounts, in effect, to nothing more than an assertion that a truth of exact, or a law of natural science, or a rule of practice, is not any manner of manufacture ; the discovery and enunciation of such truth, law, or rule, may be a valuable addition to our knowledge, but it cannot be described as the working or making of some manner of new manufacture, which working or making is the only discovery and invention which by law can be the subject-matter of letters-patent.

The term “ principle ” admitting of the above-mentioned varieties of construction and interpretation, according to the circumstances under which it is used, it becomes important to advert to certain other distinctions existing in the nature of the principles which are to be embodied and applied, so as to constitute invention, which may be the subject of letters patent. Those principles which may be defined and classified as truths of exact science, or laws of natural science, are in their nature essentially distinct from those which may be defined as rules of practice ; the former having, so to speak, an independent and original existence,² the latter being derived and originating altogether with man, and as such of necessity partaking in some degree of the character of invention. Further, the truths of exact or mathematical science differ from the laws of natural science in this : that the former are founded on definition, the latter on observation and experiment ; and both

¹ As to the cases of new application, which may be properly described as a double use, and which cannot be the subject-matter of letters patent, see Pat. Rep. 208, n. f.

² See the observations of Mr. Baron Alderson on the subject, Pat. Rep. 342, and *post*.

differ from the class of principles which have been described as rules of practice.

The instrument known by the name of Hadley's quadrant or sextant, furnishes a good illustration of the embodying and application of a truth of exact science, and of a law of natural science, namely, of certain propositions of geometry for the measurement of angles, and of the laws of light when incident on, and reflected by, plane surfaces inclined to each other. The principle of this invention was the arranging and combining inclined reflecting surfaces, and certain radii and arcs of a circle, so as to give effect to such truths and laws for the measurement of the angular distance of objects; the principle then of this invention is a rule whereby those truths of exact science and laws of natural science become embodied.¹ In the same manner, Dollond's invention² of the achromatic object-glass, was founded on certain truths of exact science, respecting curved surfaces and the laws of light, when refracted by those surfaces; the combining of a convex lens of crown glass, and a concave lens of flint glass, of proper curvatures, was the rule of practice by which these object-glasses were made.

The principle of Clegg's invention of a gas-meter partakes, to a certain extent, both of a law of natural science and of a rule of practice. The laws of natural science, respecting the motion of a solid immersed in a fluid, are applied in conjunction with certain rules of practice for the admission and emission of gas, and the opening and closing of certain orifices for that purpose, and the result was an apparatus for measuring the quantity of gas supplied.³

The oscillation of the pendulum takes place according to the laws of falling bodies, and the vibration of the balance, according to the laws of elasticity of bodies; these principles are embodied in our ordinary clocks and watches. The laws of latent heat, of the rapid evaporation of liquids in vacuo, of the union of certain substances, chemically, in definite proportions, and of electricity, have given rise to a great variety of useful inventions, in which these laws respectively are embodied. Such truths, laws, or principles, having an existence anterior to, and independent of, the operations of man, cannot of themselves be the subject of letters-patent; but when they have been embodied or applied in practice to a particular purpose, then the invention to which they give rise is properly described, as founded on those laws, and the principle of the invention is the practice whereby those laws are enabled to produce useful effects. Thus, the inventions of Watt were

¹ The beautiful toy, called the Kaleidoscope, depends, in like manner, on the laws of the reflection of light, incident on, and reflected by two planed mirrors, inclined at a small angle to each other; the objects and the eye being situated between the mirrors, in such a position that each object gave a number of images on the circumference of a circle.

² See specification of this invention, Pat. Rep. 43.

³ See specification and description of the invention, Pat. Rep. 103, and *post*.

applications of the laws of the elasticity and of the latent heat of steam; and a great variety of other instances might be adduced in which well-known principles¹ are, so to speak, embodied and clothed, or connected with a material form, for some particular and specified purpose, in the arts and manufactures, and so as to be in a condition to act and to produce effects.

Such being the import of the term principle, as applied to inventions founded on the truths of exact science, and laws of natural science, it remains to consider the use of that term, with reference to those cases where no truth of exact science, or law of natural science is embodied, but where the arrangements and rules of practice are not referable immediately, if at all, to such truths or laws, but to certain rules of practice. The cases placed in the first and third classes, will illustrate inventions founded simply on a rule of practice, in contradistinction to inventions founded on a truth of exact, or a law of natural science. Thus the principle of Arkwright's invention was the use and arrangement of certain known things, in a particular manner, for spinning cotton.² The principle of Huddart's invention, was the compressing the yarns, and drawing them through a tube.³ The principle of Juge's⁴ for an expanding table, was the cutting the table across, and making the parts to diverge from the centre, and withdrawing the sections, and filling up the openings, by leaves or suitable pieces. The principle of Galloway's improvements in machinery, for propelling vessels,⁵ was the arrangements of parts, for giving different positions to the float-boards, during the revolution of the paddle-wheel; and the principle of the invention under his second patent,⁶ was the arrangement of float-boards, in a fixed

¹ It is of considerable importance, that the meaning of the term principle, when applied in the strictest sense, should be distinctly understood. For this purpose, it may be well to add a few illustrations of the truths of exact science, and of the laws of physical or natural science. All propositions founded on definitions, and to which, by reason of their being so founded, the term "demonstration" is applicable, are truths of exact science; as the well-known propositions of geometry, that in a right-angled triangle, the square of the hypotenuse is equal to the sum of the squares of the opposite sides; that the angle of the centre of a circle, is double the angle at the circumference; or that similar triangles are to each other in the duplicate ratio of their homologous sides. The truths or laws of natural science differ from the preceding in this, that they are not founded on definition, or capable of demonstration in the strict sense of the term — they are rules derived from observation, and describing what will take place under particular circumstances. Thus we speak of the laws of falling bodies, that is, the rules respecting their motions: of the laws of the atmosphere, of light, of electricity, all which are merely rules derived from observation; we learn by experience that such phenomena, under certain circumstances, will present themselves, and one state of things being supposed, we are able to anticipate and predict the following.

² See Pat. Rep. 56.

³ Ibid. 85.

⁴ Ibid. 143.

⁵ See in *Morgan v. Seaward*, Pat. Rep.

⁶ See in *Galloway v. Bleaden*, 15 Rep. Arts, N. S. and Pat. Rep.

position, according to an assigned law or rule. In all such cases, the principle of the invention is the particular arrangement, combination, composition, or application, according to the rule of operation and construction, by which the working or making of the manufacture, the subject of the letters-patent, is to be carried out in practice. The cases placed under the third class serve to illustrate those inventions, the principle of which may be said to be founded simply on a rule of practice, and not on any truth of exact, or law of natural science. In many of the cases under the third class, the principle of the invention is the application or adaptation of some known property or quality of a substance; as in Forsyth's patent,¹ where the principle of the invention was the application of detonating powder in discharging artillery; and in Hall's, the application of the flame of gas to singing lace.² Thus, in every class of cases, the dictum of *Buller, J.*,³ that a principle reduced to practice, and a practice founded on principle, are really the same thing, is fully supported.⁴

An important practical question arises, with reference to many of the cases which have been placed under the second and third class,⁵ as to the extent to which the inventor can appropriate to himself the application of the truth of exact science, or the law of natural science, or the rule of practice constituting the peculiar feature of his invention. In respect of the truths of exact science, or laws of natural science, independent of their application, no invention which is the subject of letters-patent, or special property, so to speak, can exist. The question then arises, to what extent may such truth or law, by reason of its application, be appropriated, and the answer is, to the extent of all other applications which a jury shall consider as a piracy of the former. It is impossible to lay down any general rules on this point; the subject does not admit of being so dealt with, and it should always be borne in mind, with reference to the law of patents, that each case must be judged of by its peculiar circumstances. The following observations by Mr. Baron Alderson, in the recent proceedings in Neilson's patent,⁶ are deserving of peculiar attention, and exhibit in a clear manner the difficulties of the case: — "I take the distinction between a patent for a principle, and a patent which can be supported, is, that you must have an embodiment of the prin-

¹ Pat. Rep. 97.

² Ibid.

³ Ante.

⁴ If any further observations were necessary in support of the preceding, it might be remarked that the phrases "the principle of my invention consists in," or "my invention consists in," naturally suggest themselves in many cases indifferently, as synonymous expressions, in describing an invention, thus showing that, substantially and practically, there is no difference in these phrases.

⁵ Webs on Pat. 11, 18.

⁶ See report of this case, Pat. Rep. 342.

inciple, in some practical mode, described in the specification, of carrying the principle into actual effect, and then you take out your patent, not for the principle, but for the mode of carrying the principle into effect. In Watt's patent, which comes the nearest to the present of any you can suggest, the real invention of Watt was, that he discovered that, by condensing steam in a separate vessel, a great saving of fuel would be effected, by keeping the steam cylinder as hot as possible, and applying the cooling process to the separate vessel, and keeping it as cool as possible, whereas before, the steam was condensed in the same vessel; but then Mr. Watt carried that practically into effect, by describing a mode which would effect the object. The difficulty which presses on my mind here, is, that this party has taken out a patent, in substance like Watt's, for a principle — that is, the application of hot air to furnaces — but he has not practically described any mode of carrying it into effect. If he had, perhaps he might have covered all other modes as being a variation. It is very difficult to see what is a patent for a principle, and for a principle embodied in a machine, because a patent can only be for a principle embodied in a machine. You cannot take out a patent for a principle. I have always thought that the real test was this: that, in order to discover whether it is a good or a bad patent, you should consider that what you cannot take out a patent for, must be considered to have been invented *pro bono publico*, that is to say, the principle must be considered as having had an anterior existence before the patent.¹ Now supposing, in Watt's case, it had been known that, to condense in a separate vessel, was a mode of saving fuel, then Watt certainly would have taken out a patent for carrying into effect that principle by a particular machine; but then his patent would have been for a machine; and if I invented a better machine for carrying out the principle, I do not infringe his patent, unless my machine is a colorable imitation. But you must embody the principle in the machine, and you stop all possible improvements, because you infringe the principle, which you have no right to do; it is the principle of the machine. It is very difficult for a jury to distinguish that, but it is the most essential thing possible. Now here, supposing it had been known that hot air applied to a furnace was a great improvement on cold air, and that this person had taken out his patent, and this patent was a patent for the application of a well-known thing — the hot air to furnaces — then he takes out a patent for applying it, by means of an intermediate reservoir between the blast-furnace and the bellows; then surely anybody else may apply the same principle, provided he does not do it by a reservoir intermediately between the blast-

¹ The following observation of the same learned judge is important, with reference to this question: — “You see you do not interfere with any benefit which the inventor has, if he knows of no particular mode of carrying his principle into effect. You do not interfere with any benefit which he ever had, if he never had a practical mode of carrying it into effect.” Printed Case, 4to. p. 198.

furnace and the bellows — and the question for a jury is, whether or not a long spiral pipe is a reservoir — if it be not a reservoir, or a colorable imitation of a reservoir, it is no infringement.”

The same learned judge, in another case, the proceedings on Jupe's patent,¹ remarked, with reference to Clegg's gas meter,² as follows: “There never was a more instructive case than that. I remember very well the argument put by the lord chief baron, who led that case for the plaintiff, and succeeded. There never were two things to the eye more different than the plaintiff's invention, and what the defendant had done in contravention of his patent right. The plaintiff's invention was different in form — different in construction; it agreed with it only in one thing — and that was by moving in the water a certain point was made to open, either before or after, so as to shut up another, and the gas was made to pass through this opening — passing through it, it was made to revolve it. The scientific men, all of them, said, the moment a practical scientific man has got that principle in his head, he can multiply without end the forms in which that principle can be made to operate. The difficulty which will press on you, and to which your attention will be called in the present case, is this; you cannot take out a patent for a principle — you may take out a patent for a principle, coupled with the mode of carrying the principle into effect, provided you have not only discovered the principle, but invented some mode of carrying it into effect. But then you must start with having invented some mode of carrying the principle into effect; if you have done that, then you are entitled to protect yourself from all other modes of carrying the same principle into effect, that being treated by the jury as piracy of your original invention. But then the difficulty which will press on you here is, that on the evidence there does not appear to have been any mode of carrying the principle into effect at all invented by you.”

The attention of this learned judge having been called, in the recent proceedings on Neilson's patent, to his former remark, his lordship observed that he should more correctly have said “that you take out a patent for a mode of carrying a principle into effect.” But the peculiar circumstances of Jupe's patent do not seem to require any such qualification, nor was any such made in speaking of the analogous case of Clegg's invention. The occasion appears fully to explain the introduction to that qualification. In the proceedings on Neilson's patent, the learned judge was speaking of those philosophical principles which are the common property of all; in the proceedings on Jupe's patent, he was speaking of the principle of the particular invention, which was the cutting a table into four segments or sections, and causing them to diverge, and filling up the intermediate spaces so as to consti-

¹ Jupe v. Pratt, Pat. Rep. 146.

² Pat. Rep. 103.

tute an expanding table, and which in its very terms implies that which is the subject of a patent.¹

Questions of this nature are difficult to deal with in the abstract, but the same difficulty does not present itself in the practical form in which the question generally arises, namely, in a contest between two inventors in an action for an infringement. In such cases the question is, whether a mode subsequently invented and adopted is a substantial and independent invention, or only a colorable variation, and borrowed from the previous invention. In the determination of this question, the character of the original invention, the merit to be attributed to its author, the means by which the principle is carried out, the object of its application, and the end attained, the success and utility of the prior invention, and the comparative merits of the two inventions, are all elements for the consideration of the jury. The well-known truths of exact science, and the laws of natural science, and the properties and qualities of matter are the common property of all ; the applications or adaptations of such to the various wants of man, constitute inventions which are the subject of letters-patent. But there are general truths, laws, properties, and qualities, not yet discovered ; the person who discovers any such, and also applies and adapts them, is an author of a much higher order and more distinguished merit than he who applies and adapts what is already known. The property, however, which such a one can in law acquire by reason of such discovery and application, does not differ in extent from that of the preceding class. But in deciding the practical question of infringement by a subsequent invention, a very different estimation is necessarily made of the two ; he who applies and adapts knowledge before in the common stock, is *primâ facie* entitled to less consideration than he who brings into the common stock the knowledge which he applies.² In such cases, however, it is essential that the principle should be given to the world, and also further, that the means should be fully described, and that the means, as described, should be sufficient for the purpose. It not unfrequently happens that the principle is kept back, and certain arrangements, only without any general rule, are given to the world ; if this be from ignorance, the invention is merely a fortunate accident, and the merit is comparatively small, and little advantage is conferred on the public ; if from design, then, though the merit may be great, the inventor does not comply with what the law requires, and moreover fails to secure his invention to the extent which he otherwise might.

¹ See Webs. on Pat. 17. It was a question in this case, whether the specification claimed any thing in respect of the means by which the divergence was to be effected ; that is, any thing beyond the mere cutting the table into four sections, which should be made to diverge, and filled up as above described in the text. See Pat. Rep. 56.

² This consideration, however, is again controlled by the benefit which may have been conferred on the public ; that is, by the utility of the invention.

The discovery of truths of exact science, or of laws of natural science, is an event of rare occurrence, and within the opportunities and powers of few; but fresh applications of such truths and laws are of constant occurrence, and exercise the powers of a large class of individuals.¹

But the principal source of inventions consists in the application of the known qualities of known substances. With respect to many of these the question arises, to what extent is the use or application of those substances appropriated by the inventor. This question was raised in the recent proceedings on Walton's patent² for improvements in cards. It had occurred to Mr. Walton that the bed in which the teeth are set requires a certain degree of elasticity and flexibility, so as to allow of the teeth yielding to any obstacle with which they meet in the operation of carding. This idea having suggested itself, the giving that elasticity and flexibility to the backs of cards, by means of caoutchouc or Indian rubber, would naturally occur to a person acquainted with the properties of that substance, and a patent was taken out for improvements in the manufacture of cards, the invention consisting in giving to the backs elasticity, derived from caoutchouc or Indian rubber. The discovery of the want of the quality of elasticity in the backs of cards, must be regarded as the important feature in this case, and it was remarked by one of the learned judges in the course of the argument, that the claim in Walton's specification was more limited than necessary; it might have been for giving the property of elasticity to the backs of cards, that not having been done before, from whatever source that elasticity is derived, and in whatever manner contributed. Such a claim, however, would, in the opinion of Mr. Baron Alderson, have amounted to a claim for a principle. In the proceedings on Neilson's case, that learned judge said, "If you claim every shape, you claim a principle. There is no difference between a principle to be carried into effect in any way you will, and claiming the principle itself. You must claim some specific mode of doing it. Then the rest is a question for the jury."³

The above remark is strictly applicable to the case now under consideration; in Neilson's case, the suggested claim was of hot air, to furnaces how-

¹ The following illustration of the discovery of two laws of physics in recent times, and of the practical application of those laws, is mentioned by Mr. Carpmael in his work on the law of patents. Dr. Faraday discovered that carbonic acid gas, under a pressure of several atmospheres, assumed a liquid form. Sir H. Davy discovered that, on the application of heat to this liquid, vapor of great expansive force was produced, which was readily condensed by contact with cold surfaces, and he was led to observe, that these properties might, probably, at no very distant period, be rendered available for working machinery. Sir M. J. Brunel subsequently invented an engine, worked by the elastic force of the vapor of condensed carbonic acid gas, by alternately bringing heat and cold to act by a peculiar arrangement for this purpose.

² Walton v. Potter, 1 Scott's N. R. 90, and Pat. Rep.

³ See in Neilson v. Harford, Pat. Rep. 355.

ever applied ; in Walton's case the suggested claim was of elasticity to the backs of cards from whatever source derived. The decision of the court of exchequer in Neilson's case, is an express authority that a claim of the kind last mentioned would be a claim for a principle. The court said, "It is very difficult to distinguish it from the specification of a patent for a principle, and that at first created in the minds of some of the court much difficulty ; but after full consideration we think that the plaintiff does not merely claim a principle, but a machine embodying a principle, and a very valuable one too. We think the case must be considered as if, the principle being well known, the plaintiff had first invented a mode of applying it by a mechanical apparatus to furnaces ; and his invention then consists in this, by interposing a receptacle for heated air between the blowing apparatus and the furnace. In this receptacle he directs the air to be heated by the application of heat externally to the receptacle, and thus he accomplishes the object of applying the blast, which was before of cold air, in a heated state, to the furnace.¹ It may, however, be asked, to what does this amount, but to an illustration of the manner in which the proviso in the letters-patent is to be complied with ; namely, that the inventor shall particularly describe and ascertain the nature of his invention, and in what manner the same is to be performed. The mere announcement of the idea that a furnace should be blown with hot instead of cold air, would not in itself be the subject of letters-patent, nor would it be a compliance with the proviso as to the specification. And in the course of the argument in Neilson's case, the Lord Chief Baron observed, "Suppose it was a patent in these words : 'A patent for an invention, by which air shall be heated before it enters the furnace. I do not claim a patent either for the material or the shape ; but the air must pass through a process of heating before it enters the furnace.'² And again, "I suppose, in making the specification, he considered that it was proper to propose some mechanical illustration of his principle. But suppose he had said this : My invention, then, consists in the application of heated air to the furnace, by means of any of the methods by which air is now heated, or any other method, allowing air so heated to pass through a tube or aperture to the furnace. Probably he apprehended, that if he stated specifically any form of heating air he might then have infringed on some other patent ; therefore, supposing he had said simply, My invention consists in the application of heated air by making the air pass through a heating process, before it arrives at the furnace, but I do not intend to describe the form of the receptacle ; I leave that to the local circumstances and judgment of the parties to deal with such matter, stating only that the hotter you get the air the better."³

¹ Neilson v. Harford, Pat. Rep. 371.

² Printed case, 4to. 181.

³ Ibid. 185, 186.

It is impossible to read these observations of the learned Chief Baron, except as a judgment that a claim to the application of hot air, in whatever manner applied, might be a good claim. And in connection with this, it is material to observe that Neilson was the first to discover the advantage resulting from the use of hot air; since so far as blast furnaces were concerned, it was generally believed that cold air was more advantageous than hot, and expensive contrivances were resorted to for keeping the blast cold, the generally observed fact of the furnaces doing better in winter than in summer, being referred to the circumstance of the air being colder; the real cause being that the air contains much less vapor in winter than in summer.

In the preceding cases of Clegg's, Jupe's, and Neilson's inventions, it must be observed that the inventor was also the discoverer of the principle, or leading feature of the invention, and this creates a material distinction between this and the other class of cases of common occurrence, in which the party is not the discoverer of the principle, but, the principle being well known, he is the inventor of its application. To a certain extent the invention in Clegg's case comes within this class; the law of natural science on which it partly rests, namely, that of the motion of a solid of less specific gravity than the fluid in which it rests, being well known. The principle of the invention, however, is more extensive than this, since it includes the alternate filling and discharging of a vessel of gas, as the remark of Mr. Baron *Alderson*, above cited, clearly shows; on the whole, therefore, in that case, the party was the discoverer of a principle as well as the inventor of the means. But several cases have occurred, in which the principle being well known, and the quality and use of the subject notorious, invention has existed in respect thereof. In these cases, inasmuch as no exclusive privileges can exist in respect of the law, property, or quality, it becomes necessary to consider the object with which, the means by which, and the end for which, the application takes place.

The proceedings on Kneller's patent¹ furnish an illustration of cases of this kind. The invention was an application of the well known law of physics, that the evaporation of a liquid is promoted by a current of air; for instance, that if the air be calm, the evaporation from the surface of water goes on slowly, compared to the evaporation which takes place when the surface is acted on by a brisk breeze, the fact being, that the evaporation is obstructed according to Dalton's views, partly by the mechanical obstructions of the particles of air, but principally by the superincumbent atmosphere of vapor; in proportion, then, as the latter is removed by the motion of the air, evaporation goes on more rapidly. The extension or modification of this general principle, by forcing air into the lower part of a liquid, for the purpose of thereby occasioning an increased evaporation, was made the sub-

¹ *Hullett v. Hague*, 2 B & Ald. 370.

ject of experiments, which were communicated to the Royal Society in 1755, and published in their transactions.¹

In 1822, a patent was granted to Knight and Kirk, for "a process for the more rapid crystallization, and for the evaporation of fluids at comparatively low temperatures by a peculiar mechanical application of air." The specification, having stated the general inconveniences of applying heat to fluids, described the invention to consist in propelling a quantity of heated air into the lower part of the vessel containing the liquor, and causing such heated air to pass through the whole body of the liquor, in finely divided streams, by the means of perforated pipes, coiled, or otherwise shaped and accommodated to the nature or form of the vessel through which the air from the blowing apparatus should be forced into the liquid. This invention was not brought into use, and appears to have failed altogether. In 1828, Kneller had a patent for "certain improvements in evaporating sugar, which improvements are also applicable to other purposes;" the specification declared the invention to consist in forcing, by means of bellows, or other blowing apparatus, atmospheric, or any other air, either hot or cold, through the liquid or solution subjected to evaporation, by means of pipes, whose extremities reach nearly to the upper or interior area of the bottom of the pan or boiler containing such liquid or solution.

In an action for the infringement of Kneller's patent,² it was urged on the part of the defendant, that Kneller claimed as an original invention, that which was but an improvement on a prior patent; but Lord *Tenterden*, C. J., and the court, sustained the patent, being of opinion that the methods described in the two specifications were essentially distinct. In applying the above decision, it must be observed that the prior invention had failed and been abandoned; at all events, it was not in use. Had the former invention succeeded, but little doubt can be entertained that in a contest between the two patents, the latter would have been held to be an infringement on the former; for it must be observed, that the object with which, and the end for which, the air was introduced, were the same in the two cases, and the variations in the means were such as would obviously suggest themselves to any mechanic, who set himself about devising different means of introducing the air. And in further confirmation of this remark, it may be observed, that in Neilson's case, though the object was the same, the detail of the means by which the result was obtained was very different, and the result attained immeasurably superior.

The uncertainty in which the preceding decisions would appear to leave the question, to what extent a principle may be secured, is more apparent than real, and no case has occurred in which letters-patent have been held to

¹ See an account of the great benefit of blowing showers of fresh air up through distilling liquors, in the *Phil. Trans.* Vol. xlv. p. 312.

² *Hullett v. Hague*, 2 B. & Ald. 370.

be vitiated by reason of the generality of the claim. Questions of this kind can only be decided on the special facts of each case. It has been suggested,¹ that from the result of the cases it would appear that the courts are guilty of the apparent absurdity of saying, "You cannot have a patent for a principle *eo nomine*, but if you come before us in modest guise, disclaiming any right to a principle, then, if you have really invented one, we will take care individually to protect you in the exclusive enjoyment of it." But this apparent discrepancy vanishes if the distinction above suggested respecting the use of the terms be adopted. A principle *eo nomine* is but the enunciation of a proposition or fact; the principle of the invention is the embodiment of that proposition or fact in a practical form, and as such, may in some cases be insured to the inventor in its fullest extent.

¹ See 6 Jur. 330. See also in the same work, p. 433, a notice of a case (*Arnott v. Perry*) which seems to illustrate and confirm some of the preceding remarks.

CHAPTER II.

OF THE REMEDY FOR AN INFRINGEMENT BY ACTION AT LAW.

§ 257. THE Act of Congress of July 4, 1836, c. 357, § 14, provides that damages may be recovered for an infringement by "an action on the case"; a remedy which exists equally at common law, for the violation of the right secured by letters-patent.¹

§ 258. I. *Parties.* The statute also provides that the action shall be brought in the name or names of the person or persons interested, whether as patentee, assignees, or as grantees of the exclusive right within and throughout a specified part of the United States."²

§ 259. Formerly, the grantee for a particular district could not bring an action on the patent in his own name.³ But the statute has made him a party interested in the patent, and consequently in his own district, he may sue in his own name.⁴

¹ Bull. N. P. 76.

² Act of July 4, 1836, c. 357, § 14. It seems that no previous notice or claim of a right to the exclusive use of an invention is necessary to enable a patentee to maintain an action for an alleged violation of his patent right. *Ames v. Howard*, 1 Sumner, 482.

³ *Tyler v. Tuel*, 6 Cranch, 324.

⁴ Such a suit may be maintained although the plaintiff is the grantee of a right to use only a limited number of the patented machines in the particular

§ 260. Where the patentee has assigned his whole interest, either before or after the patent was taken out, the action can only be brought in the name of the assignee;¹ but where the assignment is of an undivided part of the interest, the action should be brought in the joint names of the patentee and the assignee, as representing the whole interest.² If the assignment has not been made, but has been merely agreed to be made, the action should be in the name of the patentee, the assignee not having the interest until the assignment has been made and recorded.³ But it may be recorded at any time after the suit is brought and before trial.⁴ An action for an infringement may be maintained against a corporation.⁵

§ 261. The Supreme Court of the United States have held that a covenant by a patentee, made prior to the law authorizing extensions, that the covenantee should have the benefit of any improvement in the machinery, or alteration or renewal of the patent, did not include the extension by an administrator under the act of 1836; that it must be construed to include only renewals obtained upon the surrender of a patent on account of a defective specification, and, therefore, that a plaintiff who claimed under an assignment from the administrator could maintain a suit against a person who claimed under the covenant.⁶

§ 262. II. *The Declaration.* The declaration in an action

district, provided it is an exclusive right, and it may be maintained against the patentee himself. *Wilson v. Rousseau*, 4 Howard, 646.

¹ *Herbert v. Adams*, 4 Mas. 15.

² *Whittemore v. Cutter*, 1 Gallis. 429, 430. An assignee of the exclusive right to use a certain number of machines in a certain district, may join his assignor with him in a bill for an injunction. *Woodworth v. Wilson*, 4 How. 712.

³ *Park v. Little*, 3 Wash. 196.

⁴ *Pitts v. Whitman*, 2 Story's R. 609, 614.

⁵ *Kneass v. The Schuylkill Bank*, 4 Wash. 106.

⁶ *Wilson v. Rousseau*, 4 Howard, 646.

for the infringement of a patent, should show a title in the plaintiff, with convenient certainty; and should set forth all the matters which are of the essence. Without these allegations, the plaintiff fails to show a right in point of law to ask the court for judgment in his favor. The several parts of the declaration may here be considered, in the order in which they occur in pleading.

§ 263. The declaration should commence with a recital that the plaintiff was "the original and first inventor" of the subject-matter, the making, using, or vending of which is complained of. This averment is necessary, notwithstanding the letters-patent, afterwards referred to, recite that the plaintiff has alleged that he was the original and first inventor, because it must appear affirmatively, in point of fact, at the trial, that he was so, and the letters-patent can only be resorted to as *prima facie* evidence of the fact. There must, therefore, be a distinct allegation of the fact, as one of the things essential to the plaintiff's title.¹

§ 264. For the same reason, the declaration goes on to aver that the subject-matter was "new and useful," "not known or used before the plaintiff's invention or discovery," and "not at the time of his application for a patent in public use or on sale with his consent or allowance."

§ 265. Whether it is necessary to aver the citizenship of the patentee has never been determined. In practice it is generally done, and it is safer to do so, than to omit an averment which might on demurrer be held to be essential.² But it is absolutely

¹ The plaintiff must affirm the performance of all acts on which his title depends. *Gray v. James, Peters*, C. C. R. 476.

² Mr. Phillips suggests that the necessity for this averment will depend on the construction to be given to the 15th section of the act of 1836, by which, if the patentee be an alien, the defendant is permitted to show that the

necessary to aver that the plaintiff, being the original and first inventor, obtained letters-patent for his invention, in due form of law, under the seal of the patent office, signed by the Secretary of State, and countersigned by the Commissioner of Patents.¹

§ 266. The substance of the grant should then be set forth ; that is to say, that the letters-patent secured to the plaintiff, his heirs, administrators, &c., for the term of fourteen years, the full and exclusive right of practising the invention ; which should be described briefly, as it is set forth in the letters-patent, of which profert should be made.² Where the declaration describes the plaintiff's invention in the words of the patent, it

patentee has " failed and neglected for the space of eighteen months from the date of the patent to put and continue on sale to the public, on reasonable terms, the invention or discovery." Phillips on Patents, p. 520, *note*. This clause in the statute can scarcely be considered as imposing a burthen of proof of citizenship on the plaintiff. It authorizes the defendant to avail himself of the fact that the plaintiff is an alien, by showing that the plaintiff has omitted to do certain acts ; but is any thing more to be inferred from the clause than this, that if the defendant means to show the omission, he must first show that the plaintiff is an alien ? I agree, however, with the learned author that to aver the citizenship is the safest course.

¹ Formerly, patents bore the attestation of the President of the United States ; and it was held to be necessary to aver that the letters had been so tested, and that the patent had actually issued, or been delivered ; otherwise, the declaration would be bad on demurrer. Cutting and others, Ex'ors. v. Myers, 4 Wash. 220. For the same reason, the averment is now necessary that the letters were duly tested by the public officers whose duty it is to sign and countersign them ; and the mode of averring the delivery, now usually practised, is to declare that the plaintiff on such a day, " did obtain " them. But it is not necessary to aver that the preliminary steps to obtain a patent were taken, because if the declaration aver that the patent was granted in the form prescribed by law, the court, upon demurrer, will presume that every thing was rightly done to obtain it. Fulton's Ex'ors. v. Myers.

² Chit. Pl. vol. 2. Profert of the letters-patent, in the declaration, makes them and the specification, when produced, a part of the declaration, and so gives all the certainty, as to the invention and improvement patented, required by law. Pitts v. Whitman, 2 Story's R. 609, 614.

is not necessary, that the description, as stated in the specification, should be set forth. If the defendant require the specification in his defence, he may have it placed in the record by praying over of it.¹

§ 267. The declaration is concluded by an averment of the value of the patent right and of the breach by the defendant, and the damages sustained by the plaintiff.²

§ 268. If the plaintiff sues in the character of assignee of the patent, he must set forth both the patentee's title and his own, and should aver that the assignments were duly recorded in the patent office. If the declaration omit to state that the assignments were recorded, the omission will be cured by verdict, if the general terms of the declaration are otherwise sufficient to have authorized the admission of proof of the recording at the trial; upon the general principle, that, after verdict, all the facts necessary to have been proved to enable the jury to find a verdict for the plaintiff, will be presumed to have been proved, if the general terms of the declaration would have let them in.³

¹ *Gray v. James*, Peters's C. C. R. 476.

² See the Precedents in the Appendix.

³ *Dobson v. Campbell*, 1 Sumner, 319, 326, Story, J. "We are of opinion that the motion in arrest of judgment ought to be overruled. We accede to the doctrine stated at the bar, that a defective title cannot, after verdict, support a judgment; and, therefore, it constitutes a good ground for arresting the judgment. But the present is not such a case; but is merely the case of a good title defectively set forth. The defect complained of, is the omission to state, that the assignments, on which the plaintiff's title is founded, were duly recorded in the office of the department of state, which is made essential to pass the title of the original patentee, by the fourth section of the Patent Act of the 21st of February, 1793, ch. 55. The general principle of law is, that, where a matter is so essentially necessary to be proved, to establish the plaintiff's right to recovery, that the jury could not be presumed to have found a verdict for him, unless it had been proved at the trial, there the omission to state that matter in express terms, in the declaration, is cured by the verdict, if the general terms of the declaration are otherwise sufficient to comprehend it. This was the doctrine of Lord Ellen-

§ 269. At the trial, proof may be given of the recording of an assignment, either before or after the action was brought.¹

§ 270. III. *Pleadings and Defences.* — The fifteenth section of the Act of 1836 provides that the defendant, in any action for the infringement of a patent, shall be permitted to plead the general issue, and to give the statute and any special matter in evidence, of which notice in writing may have been given to the plaintiff or his attorney, thirty days before trial, tending to prove that the description and specification of the patent does not contain the whole truth relative to the invention or discovery, or that it contains more than is necessary to produce the described effect ; which concealment or addition shall fully appear to have been made for the purpose of deceiving the public ; or that the patentee was not the original and first inventor or discoverer of the thing patented, or of a substantial and material part thereof claimed as new, or that it has been described in some public work anterior to the supposed discovery by the patentee, or had been in public use, or on sale, with his consent or allowance, before his application for a patent, or that he had surreptitiously or unjustly obtained a patent for that which was in fact invented or discovered by another, who was

borough, in *Jackson v. Pesked*, (1 M. & Selw. R. 234) ; and it is very elaborately expounded, by Mr. Sergeant Williams, in his learned note to 1 Saunders R. 228, a. The other authorities, cited on behalf of the plaintiff, are to the same effect. Now, it seems to us, that taking the whole declaration together, (however inartificially drawn,) the plaintiff sets up a title to the patent right by assignment, and an enjoyment and use of the right under that title, and that he has been injured in that right, under that title, by the piracy of the defendant. This cannot be true, nor could a verdict for the plaintiff have been found by the jury, if the deeds of assignment had not been duly recorded ; for, unless that was done, nothing could pass by the deeds. The cases of *Hitchins v. Stevens*, (2 Shower R. 233,) and *McMurdo v. Smith*, (7 T. R. 518,) cited at the bar, seem to us very strongly in point. So is *France v. Fringer*, Cro. Jac. 44.”

¹ *Pitts v. Whitman*, 2 Story, 609. Of course, therefore, it is not necessary to aver that the assignment was recorded within three months. *Ibid.*

using reasonable diligence in adapting and perfecting the same ; or that the patentee, if an alien at the time the patent was granted, had failed and neglected for the space of eighteen months from the date of the patent, to put and continue on sale to the public, on reasonable terms, the invention or discovery for which the patent issued ; in either of which cases, judgment is to be rendered for the defendant, with costs.

§ 271. The object of this provision was to enable the defendant to give certain special matters in evidence under the plea of the general issue. It seems to have been generally supposed, at a very early period in the history of our legislation, that under a plea of the general issue, the defendant could not be allowed to attack the validity of the patent, and that that plea only put in issue the question of infringement.¹ Accordingly, the Act of 1792 § 6, enumerated certain special defences, which it declared the defendant "shall be permitted" to give in evidence under the general issue, by first giving notice thereof to the plaintiff. The Supreme Court of the United States construed the provision as intended to relieve the defendant from what were supposed to be the difficulties of pleading, by allowing him to give in evidence, under the plea of not guilty, certain matters affecting the patent, providing, at the same time, for the security of the plaintiff against surprise, by requiring notice to be given of the special matter to be relied on. This notice was substituted for a special plea.² The court also declared that the defendant was not obliged to pursue this course. He might

¹ But it was not so in England. Until the Act 5 and 6, Wm. IV., c. 83, § 5, the usual plea was *not guilty*, which, putting in issue the whole of the declaration, forced the plaintiff to support the grant in all its parts, and gave to the defendant the greatest latitude for evidence; but now the defendant must plead all the defences, and must also deliver in a list of the objections on which he intends to rely at the trial. Godson on Patents, 238, 2d ed.

² *Evans v. Eaton*, 3 Wheat. 454; *Evans v. Kremer*, Peters's C. C. R. 215. See also the elaborate note on the patent law in the Appendix to 3 Wheat. note II. (written by Mr. Justice Story.)

plead specially, in which case the plea would be the only notice the defendant could claim; or he might plead the general issue, in which case he must give notice of the special matter on which he relied.¹

§ 272. The fifteenth section of the Act of 1836 is taken, with some additional defences, from the sixth section of the Act of 1793, and has the same object in view. It differs from

¹ *Evans v. Eaton*, 3 Wheat. 454, 503. In this case, Mr. Chief Justice Marshall said: "The sixth section of the Act appears to be drawn on the idea, that the defendant would not be at liberty to contest the validity of the patent on the general issue. It, therefore, intends to relieve the defendant from the difficulties of pleading, when it allows him to give in evidence matter which does affect the patent. But the notice is directed for the security of the plaintiff, and to protect him against that surprise to which he might be exposed from an unfair use of this privilege. Reasoning, merely, on the words directing this notice, it might be difficult to define, with absolute precision, what it ought to include, and what it might omit. There are, however, circumstances in the act which may have some influence on this point. It has been already observed, that the notice is substituted for a special plea; it is farther to be observed, that it is a substitute to which the defendant is not obliged to resort. The notice is to be given only when it is intended to offer the special matter in evidence on the general issue. The defendant is not obliged to pursue this course. He may still plead specially, and then the plea is the only notice which the plaintiff can claim. If, then, the defendant may give in evidence, on a special plea, the prior use of the machine, at places not specified in his plea, it would seem to follow that he may give in evidence its use at places not specified in his notice. It is not believed that a plea would be defective, which did not state the mills in which the machinery alleged to be previously used was placed.

But there is still another view of this subject, which deserves to be considered. The section which directs this notice, also directs that if the special matter stated in the section be proved, 'judgment shall be rendered for the defendant, with costs, and the patent shall be declared void.' The notice might be intended not only for the information of the plaintiff, but for the purpose of spreading on the record the cause for which the patent was avoided. This object is accomplished by a notice which specifies the particular matter to be proved. The ordinary powers of the court are sufficient to prevent, and will, undoubtedly, be so exercised, as to prevent the patentee from being injured by the surprise."

the former act, by omitting the provision that the patent "shall be declared void," if judgment is rendered for the defendant, and by providing that "when the defendant relies in his defence on the fact of a previous invention, knowledge, or use of the thing patented, he shall state in his notice of special matter the names and places of residence of those whom he intends to prove to have possessed a prior knowledge of the thing, and where the same thing had been used." This provision was added in consequence of the construction given to the former act, to the effect that notice of the places was not necessary to be given.¹ In other respects, the construction given to the Act of 1793, § 6, is applicable to the present law. The defendant is at liberty to plead specially, in which form of pleading he need give no other notice of his defence than the plea itself gives, or he may plead the general issue, and give notice of the special matter on which he relies. The statute does not undertake to enumerate all the defences which may be made to an action on a patent. It provides that when certain facts, which it enumerates, are to be relied on, and the general issue is pleaded, the defendant shall give notice of the facts which he means to put in evidence.² The notice must be strictly construed; if the defendant gives notice that he will prove the prior use of the invention in the United States, he cannot be allowed to offer evidence of its prior use in England.³

§ 273. But it will be useful to make a particular enumeration of the defences that may be made under the general issue, without notice, before we turn our attention to those mentioned in the statute, of which notice must be given, when the general issue is pleaded.

§ 274. The defendant may show, under the general issue,

¹ *Evans v. Eaton*, *ante*, note; *Evans v. Kremer*, Peters's C. C. R. 215.

² *Whittemore v. Cutter*, 1 Gallis. 429, 435; *Grant v. Raymond*, 6 Peters, 218.

³ *Dixon v. Moyer*, 4 Wash. 68.

without notice, that he never did the act complained of, that is, that he has not infringed the patent, or that he was acting under a license or purchase from the plaintiff.¹ He may show that the plaintiff is an alien, not entitled to a patent; or that the plaintiff has not a good title as assignee; or that his patent was not duly issued according to law, in respect of the signatures of the public officers, or of the public seal, &c.²

§ 275. He may also show that the invention is not a patentable subject; that is to say, admitting its novelty, he may show that it is not an "art, machine, manufacture, or composition of matter," in the sense of the statute.³ But the defence that the subject is not patentable on the ground of want of novelty, falls under the statute, and must be specified.

§ 276. In like manner, the defendant may show, under the general issue, without notice, that the invention, though new, fails in point of utility, and is worthless and frivolous.⁴

§ 277. So, too, he may show that there is no specification, or that the specification is so ambiguous and unintelligible that the court cannot determine from it, what the invention is that is intended to be patented. This is a different issue from that pointed out in the statute. If the specification do not describe the invention in clear and exact terms, so as to distinguish it

¹ *Whittemore v. Cutter*, 1 Gallis. 429, 435; 3 Wheaton's R. Appendix, Note II. p. 27.

² *Ibid.* *Kneass v. The Schuylkill Bank*, 4 Wash. 9, 11.

³ That the invention is not a patentable subject, admitting its novelty, is a different issue from any that is named in the 15th section of the statute, and it is one that is necessarily raised by the plea of "*not guilty*," since the declaration necessarily imports that the patentee had invented a patentable subject.

⁴ Want of novelty is one of the defences enumerated in the 15th section, but want of utility is not; but it is a clear bar to the action, upon the terms of the act, as well as upon the general principles of law.

from other inventions, but be so ambiguous and obscure that it cannot be ascertained with reasonable certainty for what the patent is taken, or what it includes, the patent is void for ambiguity; and this is put in issue by the plea of not guilty, because a clear and distinct specification of the invention is essential to the validity of the patent.¹ But if the invention is definitely described in the patent and specification, so as to distinguish it from other inventions before known, there may still exist the defect described in the fifteenth section of the statute, of some concealment or addition made for the purpose of deceiving the public; and when it is intended to show this, under the general issue, notice must be given.

§ 278. We now come to the special defences enumerated in the fifteenth section of the statute. The statute provides that the defendant may, under the general issue, give the statute itself in evidence,² and certain special matters, of which he shall have given notice in writing to the plaintiff or his attorney thirty days before trial.³

¹ 3 Wheat. R. Appendix, note II. p. 27; Phillips on Patents, p. 398; *Kneass v. The Schuylkill Bank*, 4 Wash. 9, 13. In this last case, Mr. Justice Washington intimates that the defendant may show under the general issue, and without notice that the patent is broader than the discovery. But this must now be otherwise; since the 15th section of the Act of 1836 describes one of the issues which require notice, to be that the patentee was not the original and first inventor of the thing patented, *or of a substantial and material part thereof*. This is the issue that the patent is broader than the invention.

² The meaning of the permission to give the statute in evidence is, that the defendant shall be allowed to rely on any matter of law enacted in the statute, without pleading it specially, which must be done when the statute is a private one. The patent act is undoubtedly a public act; but from abundant caution, to prevent the question of the nature of the act from being raised, this provision was inserted. *Kneass v. The Schuylkill Bank*, 4 Wash. 9, 11.

³ No witness can be examined, to prove a prior use of the invention, unless notice of his name and residence has been given. *The Philadelphia and Trenton Railroad Company v. Thompson*, 14 Peters, 448, 459.

§ 279. The first of these special defences is, “that the description and specification filed by the plaintiff, does not contain the whole truth relative to his invention or discovery, or that it contains more than is necessary to produce the described effect; which concealment or addition shall fully appear to have been made for the purpose of deceiving the public.” We have already seen what was the general purpose of Congress in providing that notice should be given, when certain facts were to be offered in evidence; but it is not very easy to define the scope of the issue intended by the above provision, or to distinguish the exact meaning of the statute in this particular. It is clear, however, that this issue, as we have already suggested, is distinguishable from the issue, which presents the naked question whether there is an intelligible description of the invention, which will enable the public to know what it is. It may help us to understand the present provision, if we review the corresponding provision in the former Act, and the decisions made upon it.

§ 280. The corresponding provision in the Act of 1793, § 6, was in the same terms, but that act also provided that when judgment on this issue had been rendered for the defendant, “the patent shall be declared void;” which is omitted in the Act of 1836, § 15. In one of the earliest reported cases in which this clause of the statute of 1793 came under consideration, Mr. Justice Story held that if the invention is definitely described in the patent and specification, so as to distinguish it from other inventions before known, the patent is good, although it does not describe the invention in such full, clear, and exact terms, that a person skilled in the art or science, of which it is a branch, would construct or make the thing, *unless such defective description or concealment was with intent to deceive the public.* The reasoning of the learned judge, in this case, tends to show that he considered the defect or concealment, with intent to deceive the public, to refer to the practicability of practising the invention from the specification; and in a subse-

quent case he seems to consider that the statute intended to alter the common law, and to declare the patent void, only when the concealment or defect was with such an intent. But it is not quite clear, whether he considered that the issue raised by an allegation that the specification would not enable a workman to make the thing described, is, as a defence to the action, not one of the special defences of the statute, and consequently that it is raised by the plea of not guilty, without notice.¹

¹ *Whittemore v. Cutter*, 1 Gallis. 429, 433; *Lowell v. Lewis*, 1 Mas. 182, 187. The reasoning of the learned judge in both these cases was as follows: "Another objection is to the direction, that the oath taken by the inventor, not being conformable to the statute, formed no objection to the recovery in this action. The statute requires that the patentee should swear 'that he is the true inventor or discoverer of the art, machine, or improvement.' The oath taken by Whittemore was, that he was the true *inventor* or *improver* of the machine." The taking of the oath was but a prerequisite to the granting of the patent, and in no degree essential to its validity. It might as well have been contended, that the patent was void, unless the thirty dollars, required by the 11th section of the act, had been previously paid. We approve of the direction of the court on this point, and overrule this objection.

Another objection is to the direction respecting the specification. It was as follows: "That if the jury should be satisfied, that the specification and drawings, filed by the patentee in the office of the Secretary of State, were not made in such full, clear, and exact terms and manner as to distinguish the same from all other things before known, and to enable any person skilled in the art or science, of which it is a branch, or with which it is most nearly connected, to make and use the same, this would not be sufficient to defeat the rights of the plaintiffs to recover in this action, unless the jury were also satisfied, that the specification and drawings were thus materially defective and obscure *by design*, and the concealment made for the purpose of deceiving the public. In this respect our law differed from the law of England, that if the specification and drawings were thus materially defective, it afforded a presumption of a designed concealment, which the jury were to judge of. That in deciding as to the materiality of the deficiencies in the specification and drawings, it was not sufficient evidence to disprove the materiality, that, by studiously examining such specification and drawings, a man of extraordinary genius might be able to construct the machine, by inventing parts, and by trying experiments. The object of the law was, to prevent the expenditure of time and money in trying experiments, and to obtain such exact directions, that, if properly followed, a man

§ 281. In a subsequent case, the Supreme Court of the United States decided that in order to justify a judgment declaring a

of reasonable skill in the particular branch of the art or science might construct the machine, and if, from the deficiencies, it was impracticable for such a man to construct it, the deficiencies were material." In order fully to understand the objection to this direction, it is necessary to advert to the third section of the Act of 1793, which specifies the requisites to be complied with in procuring a patent, and the sixth section of the same act, which states certain defences, of which the defendant may avail himself to defeat the action, and to avoid the patent. The third section, among other things, requires the party applying for a patent, to deliver a written description of his invention, and of the manner of using, or process of compounding the same, in such full, clear, and exact terms, as to distinguish the same from all other things before known, and to enable any person skilled in the art or science of which it is a branch, or with which it is most intimately connected, to make, compound, and use the same; and in the case of any machine, he shall fully explain the principle, and the several modes, in which he has contemplated the application of that principle, or character, by which it may be distinguished from other inventions. The sixth section provides, among other things, that the defendant may give in his defence, that the specification filed by the plaintiff does not contain the whole truth relative to his discovery, or that it contains more than is necessary to produce the described effect, *which concealment or addition shall fully appear to have been made for the purpose of deceiving the public.*

It is very clear, that the sixth section does not enumerate all the defences, of which the defendant may legally avail himself: for he may clearly give in evidence, that he never did the act attributed to him, that the patentee is an alien not entitled under the act, or that he has a license or authority from the patentee. It is, therefore, argued, that if the specification be materially defective, or obscurely or so loosely worded, that a skilful workman in that particular art could not construct the machine, it is a good defence against the action, although no intentional deception has been practised. And this is beyond all question the doctrine of the common law; and it is founded in good reason; for the monopoly is granted upon the express condition, that the party shall make a full and explicit disclosure, so as to enable the public, at the expiration of his patent, to make and use the invention or improvement in as ample and beneficial a manner, as the patentee himself. If, therefore, it be so obscure, loose, and imperfect, that this cannot be done, it is defrauding the public of all the consideration upon which the monopoly is granted. (Buller, N. P. 77; Turner v. Winter, 1 T. R. 602.) And the motion of the party, whether innocent or otherwise, becomes immaterial, because the public mischief remains the same.

patent void, the defect or concealment must appear to have been made for the purpose of deceiving the public; but if the

It is said, that the law is the same in the United States, notwithstanding the wording of the sixth section, for there is a great distinction between a concealment of material parts, and a defective and ambiguous description of all the parts; and that, in the latter case, although there may be no intentional concealment, yet the patent may be avoided for uncertainty as to the subject-matter of it. There is considerable force in the distinction at first view; and yet, upon more close examination, it will be difficult to support it. What is a defective description, but a concealment of some parts, necessary to be known in order to present a complete view of the mechanism? In the present case the material defects were stated, among other things, to consist in a want of a specific description of the dimensions of the component parts, and of the shapes and position of the various knobs. Were these a concealment of material parts, or a defective and ambiguous disclosure of them? Could the legislature have intended to pronounce, that the concealment of a material spring should not, unless made with design to deceive the public, avoid the patent, and yet that an obscure description of the same spring should at all events avoid it? It would be somewhat hazardous to attempt to sustain such a proposition.

It was probably with a view to guard the public against the injury arising from defective specifications, that the statute requires the letters-patent to be examined by the Attorney-general, and certified to be in conformity to the law, before the great seal is affixed to them. In point of practice this must unavoidably be a very insufficient security, and the policy of the provision, that has changed the common law, may be very doubtful. This, however, is a consideration proper before another tribunal. We must administer the law as we find it. And, without going at large into this point, we think that the manifest intention of the legislature was, not to allow any defect or concealment in a specification to avoid the patent, unless it arose from an intention to deceive the public. There is no ground, therefore, on which we can support this objection." 1 Gallis. 433.

"An objection of a more general cast (and which might more properly have been considered at the outset of the cause, as it is levelled at the sufficiency of the patent itself,) is, that the specification is expressed in such obscure and inaccurate terms, that it does not either definitely state in what the invention consists, or describe the mode of constructing the machine so as to enable skilful persons to make one. I accede at once to the doctrine of the authority, which has been cited, (*M'Farlane v. Price*, 1 Starkie's R. 192,) that the patentee is bound to describe, in full and exact terms, in what his invention consists; and, if it be an improvement only upon an existing machine, he should distinguish what is new and what is old in his specifica-

defendant merely seeks to defend himself, he may do so by showing that the patentee has failed in any of the pre-requisites

tion, so that it may clearly appear for what the patent is granted. The reason of this principle of law will be manifest on the slightest examination. A patent is grantable only for a new and useful invention; and unless it be distinctly stated, in what that invention specifically consists, it is impossible to say, whether it ought to be patented or not; and it is equally difficult to know whether the public infringe upon or violate the exclusive right secured by the patent. The patentee is clearly not entitled to include in his patent the exclusive use of any machinery already known; and if he does, his patent will be broader than his invention, and consequently void. If, therefore, the description in the patent mixes up the old and the new, and does not distinctly ascertain for which, in particular, the patent is claimed, it must be void; since, if it covers the whole, it covers too much, and if not intended to cover the whole, it is impossible for the court to say what, in particular, is covered as the new invention. The language of the patent act itself is decisive on this point. It requires (§ 3) that the inventor shall deliver a written description of his invention, "in such full, clear, and exact terms, as to distinguish the same from all other things before known; and in the case of any machine, he shall fully explain the principle, and the several modes, in which he has contemplated the application of that principle or character, by which it may be distinguished from other inventions."

It is, however, sufficient, if what is claimed as new appear with reasonable certainty on the face of the patent, either expressly or by necessary implication. But it ought to appear with reasonable certainty, for it is not to be left to minute references and conjectures, from what was previously known or unknown; since the question is not, what was before known, but what the patentee claims *as new*; and he may, in fact, claim as new and patentable, what has been long used by the public. Whether the invention itself be thus specifically described with reasonable certainty, is a question of law upon the construction of the terms of the patent, of which the specification is a part; and on examining this patent I at present incline to the opinion, that it is sufficiently described, in what the patented invention consists.

A question nearly allied to the foregoing, is, whether (supposing the invention itself be truly and definitely described in the patent) the specification is in such full, clear, and exact terms, as not only to distinguish the same from all things before known, but "to enable any person skilled in the art or science, of which it is a branch, or with which it is most nearly connected, to make, compound, and use the same." This is another requisite of the statute, (§ 3,) and it is founded upon the best reasons. The law confers an exclusive patent right on the inventor of any thing new and use-

on which the authority to issue a patent depends. This decision made the evidence of fraudulent intent requisite only in the particular case and for the particular purpose of having the patent declared void.¹

ful, as an encouragement and reward for his ingenuity, and for the expense and labor attending the invention. But this monopoly is granted for a limited term only, at the expiration of which the invention becomes the property of the public. Unless, therefore, such a specification was made, as would at all events enable other persons, of competent skill, to construct similar machines, the advantage to the public, which the act contemplates, would be entirely lost, and its principal object would be defeated. It is not necessary, however, that the specification should contain an explanation, level with the capacities of every person (which would, perhaps, be impossible); but, in the language of the act, it should be expressed in such full, clear, and exact terms, that a person skilled in the art or science, of which it is a branch, would be enabled to construct the patented invention. By the common law, if any thing material to the construction of the thing invented, be omitted, or concealed, in the specification, or more be inserted or added, than is necessary to produce the required effect, the patent is void. This doctrine of the common law our patent act has (whether wisely, admits of very serious doubts,) materially altered; for it does not avoid the patent in such case, unless the "concealment or addition shall fully appear to have been made for the purpose of deceiving the public." (§6.) Yet, certainly, the public may be as seriously injured by a materially defective specification resulting from mere accident, as if it resulted from a fraudulent design. Our law, however, is as I have stated; and the question here is, and it is a question of fact, whether the specification be so clear and full, that a pump-maker of ordinary skill, could, from the terms of the specification, be able to construct one upon the plan of Mr. Perkins." 1 Mas. 187.

¹ *Grant v. Raymond*, 6 Peters, 218, 246. Mr. C. J. Marshall, delivering the judgment of the court in this case, said, "Courts did not, at first, perhaps, distinguish clearly between a defence which would authorize a verdict and judgment in favor of the defendant in the particular action, leaving the plaintiff free to use his patent, and to bring other suits for its infringement; and one which, if successful, would require the court to enter a judgment not only for the defendant in the particular case, but one which declares the patent to be void. This distinction is now well settled.

If the party is content with defending himself, he may either plead specially, or plead the general issue, and give the notice required by the sixth section of any special matter he means to use at the trial. If he shows

§ 282. Now the statute of 1836 omits the provision that the patent shall be declared void, when judgment is rendered for

that the patentee has failed in any of those pre-requisites on which the authority to issue the patent is made to depend, his defence is complete. He is entitled to the verdict of the jury and the judgment of the court. But if, not content with defending himself, he seeks to annul the patent, he must proceed in precise conformity to the sixth section. If he depends on evidence, "tending to prove that the specification filed by the plaintiff does not contain the whole truth relative to his discovery, or that it contains more than is necessary to produce the described effect," it may avail him so far as respects himself, but will not justify a judgment declaring the patent void, unless such "concealment or addition shall fully appear to have been made for the purpose of deceiving the public;" which purpose must be found by the jury to justify a judgment of *vacatur* by the court. The defendant is permitted to proceed according to the sixth section, but is not prohibited from proceeding in the usual manner, so far as respects his defence; except that special matter may not be given in evidence on the general issue unaccompanied by the notice which the sixth section requires. The sixth section is not understood to control the third. The evidence of fraudulent intent is required only in the particular case, and for the particular purpose stated in the sixth section.

This instruction was material if the verdict ought to have been for the defendants, provided the allegations of the plea were sustained, and if such verdict would have supported a judgment in their favor, although the defect in the specification might not have arisen from design, and for the purpose of deceiving the public. That such is the law we are entirely satisfied. The third section requires, as preliminary to a patent, a correct specification and description of the thing discovered. This is necessary in order to give the public, after the privilege shall expire, the advantage for which the privilege is allowed and is the foundation of the power to issue the patent. The necessary consequence of the ministerial character in which the secretary acts, is that the performance of the pre-requisites to a patent must be examinable in a suit brought upon it. If the case was of the first impression we should come to this conclusion; but it is understood to be settled.

The act of Parliament concerning monopolies contains an exception on which the grants of patents for inventions have issued in that country. The construction of so much of that exception as connects the specification with the patent, and makes the validity of the latter dependent on the correctness of the former, is applicable, we think, to proceedings under the third section of the American act. The English books are full of cases in which it has been held that a defective specification is a good bar when pleaded to,

the defendant, and it leaves the ground of a concealment or addition in the specification, with intent to deceive the public, simply a defence to the action, of a special nature. There can be no doubt, therefore, that when the defendant proposes to show that the specification contains more or less than a true description of the invention, and that the concealment or addition was made for the purpose of deceiving the public, his plea

or a sufficient defence when given in evidence on the general issue, on an action brought for the infringement of a patent right. They are very well summed up in Godson's Law of Patents, title Specification; and also in the chapter respecting the infringement of patents, also in Holroyd on Patents, where he treats of the specification, its form and requisites. It is deemed unnecessary to go through the cases, because there is no contrariety in them, and because the question is supposed to be substantially settled in this country. *Pennock & Sellers v. Dialogue*, 1 Peters, 1, was not, it is true, a case of defect in the specification or description required by the third section, but one in which the applicant did not bring himself within the provision of the first section, which requires that before a patent shall issue, the petitioner shall allege that he has invented a new and useful art, machine, &c., "*not known or used before the application.*" This pre-requisite of the first section, so far as a failure in it may affect the validity of the patent, is not distinguishable from a failure of the pre-requisites of the third section.

On the trial evidence was given to show that the patentee had permitted his invention to be used before he took out his patent. The court declared its opinion to the jury, that if an inventor makes his discovery public, he abandons the inchoate right to the exclusive use of the invention. "It is possible," added the court, "that the inventor may not have intended to give the benefit of his discovery to the public." But it is not a question of intention, "but of legal inference, resulting from the conduct of the inventor, and affecting the interests of the public. It is for the jury to say whether the evidence brings this case within the principle which has been stated. If it does, the court is of opinion that the plaintiff is not entitled to a verdict."

The jury found a verdict for the defendants, an exception was taken to the opinion, and the judgment was affirmed by this court. This case affirms the principle that a failure on the part of the patentee, in those pre-requisites of the act which authorize a patent, is a bar to a recovery in an action for its infringement; and that the validity of this defence does not depend on the intention of the inventor, but is a legal inference upon his conduct."

must either be special, setting forth the defects and charging the intent, or it must be the general issue, accompanied by notice of the defects in the specification intended to be relied on. But I do not conceive that the statute means to say that no concealment or defect in a specification shall be available as a defence to the action, under the general issue, unless it was made with intent to deceive the public. The statute may be construed as if it read thus: "Whenever the defendant seeks to show that the specification does not contain the whole truth relative to the invention or discovery, or that it contains more than is necessary to produce the described effect, and that such concealment or addition was made for the purpose of deceiving the public, he may plead the general issue, and give such special matter in evidence, provided he shall have given notice," &c. On the other hand, if the defendant relies on a failure in the specification in respect of any of the pre-requisites for issuing a patent, he may show such failure, under a plea of the general issue, without any notice.

§ 283. The next special defence mentioned in the statute is, in substance, that the subject-matter is not new; that is, "that the patentee was not the original and first inventor or discoverer of the thing patented, or of a substantial and material part thereof, claimed as new; or that it had been described in some public work, anterior to the supposed discovery thereof by the patentee."¹

¹ When this defence is relied upon, it will be incumbent on the defendant to show that the invention had been known, used, or described in a public work, *anterior to the supposed discovery of the patentee*. The plaintiff's right in his invention, therefore, relates back to the original discovery, which may be proved by parol, and is not necessarily presumed to have been made on the day when the patent issued; although the infringement must have taken place after the date of the patent. *Dixon v. Moyer*, 4 Wash. 68, 72. The conversations and declarations of a patentee merely affirming that at some former period he had invented a machine, may well be objected to. But his conversations and declarations, stating that he had made an invention, and describing its details, and explaining its operations, are properly deemed an

§ 284. We have seen, in a former chapter of this work, when a party is or is not the original and first inventor of a patented subject ; and also that a failure, in point of novelty, of any substantial and material part of the alleged invention, renders the patent void *pro tanto*. In order to ensure the plaintiff against surprise, whenever this defence is to be resorted to, the same section of the statute requires that the defendant “ shall state, in his notice of special matter, the names and places of residence of those whom he intends to prove to have possessed a prior knowledge of the thing, and where the same had been used.” This provision must be strictly complied with.¹

§ 285. It is also fairly to be inferred, from the requisition, that notice shall be given of “ any special matter ” intended to be offered in evidence “ tending to prove ” the particular defence relied upon, that the notice must describe whether the whole, or a part, and what part of the invention is to be charged with want of novelty, and in what public work or works, the whole, or a part, or what part had been described before the supposed discovery by the patentee. There is no limitation of time within which this defence must be set up.²

§ 286. The stringent effect of this defence has been materially modified, however, by two other provisions. The first is contained in the two provisions which are found at the end of the same fifteenth section of the Act of 1836 ; “ provided that

assertion of his right, at that time, as an inventor, to the extent of the facts and details which he then makes known, although not of their existence at an anterior time. Such declarations, coupled with a description of the nature and objects of the invention, are to be deemed part of the *res gestæ*, and they are legitimate evidence that the invention was then known and claimed by him ; and thus its origin may be fixed, at least, as early as that period. *The Philadelphia and Trenton Railroad Co. v. Thompson*, 14 Peters, 448.

¹ *Ibid.*

² *Evans v. Eaton*, Peters's C. C. R. 322, 348.

whenever it shall satisfactorily appear that the patentee, at the time of making his application for the patent, believed himself to be the first inventor or discoverer of the thing patented, the same shall not be held to be void, on account of the invention or discovery, or any part thereof having been before known or used in any foreign country, it not appearing that the same or any substantial part thereof had before been patented or described in any printed publication; *and, provided also*, that whenever the plaintiff shall fail to sustain his action, on the ground that in his specification of claim is embraced more than that of which he was the first inventor, if it shall appear that the defendant had used or violated any part of the invention justly and truly specified, and claimed as new, it shall be in the power of the court to adjudge and award, as to costs, as may appear to be just and equitable.”

§ 287. The other provision is contained in the Act of March 3, 1837, § 7, 9, in relation to a disclaimer. The seventh section enacts as follows: “That, whenever any patentee shall have, through inadvertence, accident, or mistake, made his specification of claim too broad, claiming more than that of which he was the original or first inventor, some material and substantial part of the thing patented, being truly and justly his own, any such patentee, his administrators, executors, and assigns, whether of the whole or of a sectional interest therein, may make disclaimer of such parts of the thing patented, as the disclaimant shall not claim to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent; which disclaimer shall be in writing, attested by one or more witnesses, and recorded in the patent office, on payment by the person disclaiming in manner as other patent duties are required by law to be paid, of the sum of ten dollars. And such disclaimer shall thereafter be taken and considered as part of the original specification, to the extent of the interest which shall be possessed in the patent or right secured thereby, by the disclaimant, and by those claiming by or under him sub-

sequent to the record thereof. But no such disclaimer shall affect any action pending at the time of its being filed, except so far as may relate to the question of unreasonable neglect or delay in filing the same."

§ 288. The ninth section is as follows: "Be it further enacted, any thing in the fifteenth section of the act to which this is additional to the contrary, notwithstanding, that, whenever by mistake, accident, or inadvertence, and without any wilful default, or intent to defraud or mislead the public, any patentee shall have in his specification claimed to be the original and first inventor or discoverer of any material or substantial part of the thing patented, of which he was not the first and original inventor, and shall have no legal or just right to claim the same, in every such case the patent shall be deemed good and valid for so much of the invention or discovery as shall be truly and *bonâ fide* his own: *Provided*, it shall be a material and substantial part of the thing patented, and be definitely distinguishable from the other parts so claimed without right as aforesaid. And every such patentee, his executors, administrators, and assigns, whether of the whole or a sectional interest therein, shall be entitled to maintain a suit at law or in equity, on such patent for any infringement of such part of the invention or discovery as shall be *bonâ fide* his own as aforesaid, notwithstanding the specification may embrace more than he shall have any legal right to claim. But, in every such case in which a judgment or verdict shall be rendered for the plaintiff, he shall not be entitled to recover costs against the defendant, unless he shall have entered at the patent office, prior to the commencement of the suit, a disclaimer of all that part of the thing patented which was so claimed without right; *Provided, however*, that no person bringing any such suit shall be entitled to the benefit of the provisions contained in this section, who shall have unreasonably neglected or delayed to enter at the patent office a disclaimer as aforesaid." ¹

¹ In *Reed v. Cutter*, 1 Story, 590, 600, Mr. Justice Story said: "In

§ 289. The result of these various enactments is, that for so much of the invention as has been described in some public work anterior to the supposed discovery by the patentee, whether the description was known to him in point of fact, or not,—if it be a substantial and material part of the thing invented, and be claimed as new,—and for so much as had been previously patented, the patent is inoperative. But the mere previous knowledge or use of the thing in a foreign country will not defeat a patent here, issued to an original inventor, provided it had not been previously patented or described in a printed publication.

§ 290. It will be observed, that the same statute uses different phraseology in describing the kind of publication which is to have this effect. In the body of the 15th section of the Act of 1836, it is declared to be a description in “some public work ;” and in the proviso of the same section it is declared to be “any printed publication.” This renders it somewhat doubtful, as to what kind of publication is intended. The phrase “some public work” would seem to point to a class of regular established publications, or to some book publicly printed and circulated, so as to be open to the public ; while the phrase “any printed publication” is broad enough to include any description printed in any form and published or circulated to

respect to another point, stated at the argument, I am of opinion, that a disclaimer, to be effectual for all intents and purposes, under the Act of 1837, ch. 45, (§ 7 and 9) must be filed in the patent office before the suit is brought. If filed during the pendency of the suit, the plaintiff will not be entitled to the benefit thereof in that suit. But if filed before the suit is brought, the plaintiff will be entitled to recover costs in such suit, if he should establish, at the trial, that a part of the invention, not disclaimed, has been infringed by the defendant. Where a disclaimer has been filed, either before or after the suit is brought, the plaintiff will not be entitled to the benefit thereof, if he has unreasonably neglected or delayed to enter the same at the patent office. But such an unreasonable neglect or delay will constitute a good defence and objection to the suit.

any extent and in any manner. Taking the whole section together, however, and looking to the apparent policy of the statute, it is probable that the intention of Congress was, to make it a conclusive presumption that the patentee had seen any printed description of the thing, which had been so printed and published as to be accessible to the public ; but not to adopt that presumption in cases of printed descriptions published and circulated in such a manner as not to be accessible either to the public or to him. If the presumption were adopted in cases of the latter class of publications, an original and meritorious inventor might be defeated of his patent, by showing that the thing had, in a foreign country, been privately described in a printed paper published to a single individual ; which certainly would not be a description in a "public work," although it would be a description in a "printed publication." When it is considered that the statute excepts cases even where the thing had been known or used abroad, provided it had not been patented, or described in any printed publication, it seems reasonable to suppose that the publication intended is one to which the public could have access ; and this construction is fortified by the consideration that the defence enacted in this section, to which the proviso establishes the exception is, that the thing had been described in "some public work."¹

§ 291. If this be so, it would seem to be a question for the

¹ The statute of 1799, §6, used only the phrase "described in some public work," and did not contain the proviso introduced into the act of 1836. Marshall, C. J., in *Evans v. Eaton*, 3 Wheat. 454, 514, commenting on the former statute, said, "It may be that the patentee had no knowledge of this previous use or previous description ; still his patent is void ; *the law supposes he may have known it.*" It is, therefore, by adopting a presumption of knowledge, that the law declares the patent void. But there could be no reason or justice in adopting such a presumption, in cases where the printed description had not come into the possession of the public ; and it is manifest that the former statute did not mean to adopt it in such cases, since it uses only the phrase "public work."

jury, under all the circumstances under which the publication has taken place, to determine whether the description was so printed and published, as to be accessible to the public, where the publication took place. If it was so accessible, the presumption is against the patentee, and his patent will be defeated, notwithstanding he may not have seen it; because the description was already in the possession of the public.

§ 292. What, then, constitutes a "description?" No judicial construction has yet been given to this term. It can scarcely be supposed, however, that a mere suggestion of the possibility of constructing the machine, or other thing, which may have been subsequently patented, is what the statute intends. The reason why the statute adopts the presumption of knowledge, on the part of the subsequent patentee, is, that a knowledge of the thing was already in the possession of the public. It makes knowledge and the means of knowledge on the part of the public the same thing; and acting upon this principle, it holds that the public have acquired nothing from the specification of the patentee, which they did not possess before, and that the patentee has invented nothing, which he, as one of the public, could not have derived from the means of knowledge which the public before possessed.¹ Hence it is, that the production of a prior description, which was in the possession of the public, negatives the title of the patentee as the first inventor. But it follows necessarily, from this view of the principle on which the law proceeds, that the description must be such as to give the public the means of knowledge, or, in other words, must of itself enable the public to practise the invention. It is not necessary that the invention should have been reduced to practice; but unless the description would enable the public, without further invention to put the thing in practice, it cannot be said that a

¹ A man cannot be said to be the inventor of that which has been exposed to public view, and which he might have had access to if he had thought fit." Lord Abinger, C. B. in *Carpenter v. Smith*, Webs. Pat. Cas. 535.

knowledge of that thing is in the possession of the public. Accordingly, it has been laid down by two eminent writers on the patent law, that the description which is to have the effect of defeating a subsequent patent, ought to approach the character, and in some degree to answer the purposes of a specification, by serving as a direction for making, doing, or practising the thing which is the subject of the patent.¹ But mere speculations or suggestions of an experimental kind, not stated in such a way as to serve for a practical direction, are entirely analogous in their character to abortive and unsuccessful experiments in practice. The Marquis of Worcester's Century of Inventions contained many hints and speculations, on which subsequent inventors have acted; but as they were the mere speculations of an ingenious man, not reduced by him to practice, and not so stated, that the statement would answer for a rule of working, without the exercise of invention on the part of the public, they have not been held to have defeated the patents to which they gave rise.²

§ 293. The defendant, therefore, to return to the considera-

¹ Phillips on Patents, p. 175. Mr. Webster (Pat. Cas. 719, note,) says, "But 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, on the authority of the principal case, be an account of a complete and perfect 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. It would appear to be a test not wholly inapplicable to cases of this nature, to inquire whether what is so published would be the subject of letters-patent, because, inasmuch as that which rests only in experiment, suggestion, and speculation, cannot be the subject of letters-patent, it would be unreasonable that what could not be the subject of letters-patent, supposing letters-patent granted in respect thereof, should vitiate letters-patent properly granted."

² See the observations of Lord Abinger, C. B., in *Carpenter v. Smith*, Webs. Pat. Cas. 534.

tion of this defence, — who gives notice of the statute defence of want of novelty, will not be defeated in it, if he proves a material part of the invention to have been known or used before the discovery by the patentee, provided he shows that the specification was made broader than the real discovery of the plaintiff, with “wilful default or intent to defraud or mislead the public.” But if it was made broader than the real discovery, through accident or inadvertence, the patent will still be good, and an action may be maintained for so much of the invention or discovery as is *bonâ fide* the invention or discovery of the patentee, provided it is a material and substantial part of the thing patented, and is definitely distinguishable from the other part which the patentee had no right to claim; unless there has been an unreasonable neglect or delay to file the disclaimer.¹ No cost however, can be recovered in such an action, unless the plaintiff, before bringing his action, has filed in the patent office a disclaimer of all that part of the thing patented which his original specification should not have claimed. If the disclaimer is filed before the action is brought, but the entry of it at the patent office has been unreasonably neglected or delayed, the defence of a want of novelty in any material respect, from whatever cause the defect in the original specification arose, will be admitted as a bar to the action; and the question of unreasonable neglect or delay will be a question of law for the court.

§ 294. Of course a defence which goes to the originality of a material and substantial part of the thing patented, the essence of the plaintiff's invention, as is most frequently the case, will not be affected by these provisions.

¹ It seems that the 9th section was intended to cover inadvertences and mistakes of law, as well as of fact; and, therefore, a claim of an abstract principle would be within its provisions. *Wyeth v. Stone*, 1 Story's R. 273, 295. See further as to Disclaimer, *ante*.

§ 295. Care is to be taken, therefore, in framing this defence. to ascertain, in the first place, whether the whole or only a part of the substance of the thing patented is open to the objection of prior use or knowledge ; and in the second place, whether a disclaimer has been filed. If a disclaimer has been filed in reasonable time, the defence of a want of novelty that goes only to a part of the thing patented, and still leaves a material and substantial part unaffected by the objection, will not be an answer to the action, but will simply prevent the recovery of costs. But a defence which goes to the originality of the whole patent, and leaves nothing new that is material and substantial, and capable of distinction as the subject-matter of the plaintiff's invention, will be an answer to the action, notwithstanding any disclaimer. It is obviously necessary, therefore, to specify in the notice of defence the particular parts of the thing patented which it is intended to attack.¹

§ 296. Another of the statute defences is that the patentee had allowed his invention to become public, before his application for a patent, or, as it is expressed in the statute, that it "had been in public use, or on sale, with the consent or allowance of the patentee before his application for a patent." This provision is intended to embody the defence of an abandonment or dedication to the public of his invention by the patentee, prior to his application for a patent. The question whether a patentee by any and what degree of use of his invention before his application for a patent, could lose his inchoate right in the thing invented, and not be able afterwards to resume it at his pleasure, arose before the statute of 1836 was passed, and the Supreme Court of the United States declared that an inventor might undoubtedly abandon his invention, and surrender or dedicate it to the public ; and that the question

¹ See further an elaborate construction of the 7th and 9th sections, as to a disclaimer, in the opinion of Mr. Justice Story, in the case of *Wyeth v. Stone*, 1 Story's R. 273.

which generally arises is, whether the acts or acquiescence of the party, furnish, in the given case, satisfactory proof of such an abandonment or dedication to the public. The court held that the true construction of the then existing law was, 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 publicly sold for use, before he makes application for a patent; that such a voluntary act, or acquiescence in the public sale or use, is an abandonment of his right; or rather creates a disability to comply with the terms and conditions of the law, on which alone the public officer is authorized to grant a patent.¹ In a more recent case, the same court re-affirmed this construction of the patent laws, and held that the right of an alien patentee was vacated in the same manner by a foreign use or knowledge of his invention, under the then existing statutes.²

§ 297. It was the object of the clause now under consideration to make this defence of a prior abandonment or dedication to the public available under the general issue, upon notice of the facts intended to be proved. By "public use" is meant use in public; that is to say, if the inventor himself makes and sells the thing to be used by others, or it is made by one other person only, with his knowledge and without objection, before his application for a patent, *a fortiori*, if he suffers it to get into general use, it will have been in "public use."³ But where the patentee alone makes the thing for the purposes of experiment and completion, without selling it to be used by others, the term "public use" is not applicable.⁴

§ 298. An important question next arises, as to what will constitute proof of the "consent and allowance" of the

¹ *Pennock v. Dialogue*, 2 Peters, 1.

² *Shaw v. Cooper*, 7 Peters, 292.

³ *Pennock v. Dialogue*; *Shaw v. Cooper*; *Mellus v. Silsbee*, 4 Mas. 108.

⁴ *Shaw v. Cooper*.

patentee to the "public use or sale" of his invention before his application. In the first place, a knowledge of such public use or sale by others, without objection on his part, will go far towards raising the presumption of an acquiescence, and in some cases will be a sufficient proof of it. The question in such cases is as to his consent; and if knowledge of the use of his invention by others is brought home to him, and no exclusive right has been asserted by him against that use, his silence will furnish very strong evidence that he has waived his right.¹ If the evidence shows a long acquiescence, or a very general use, it will be conclusive.²

§ 299. In the second place, although acquiescence cannot be presumed without knowledge, such knowledge may be presumed from the circumstances, and is not always required to be proved by direct evidence.³

§ 300. In the third place, no particular lapse of time is necessary to be shown, after knowledge and acquiescence are established, in order to prove an abandonment or dedication to the public. In one of the cases the invention was made in the year 1804, and suffered to go into general use without any claim of an exclusive right, or any objection, and without receiving any compensation, until the year 1822.⁴ In another case the invention was completed in 1811, and the letters-patent were obtained in 1818; in the interval, a single individual had made and publicly sold large quantities of the thing patented, under an agreement with the inventor as to price.⁵ In a third case, the inventor, who was a foreigner, came to this country in 1817, and might lawfully have applied for a patent in 1819, but did

¹ *Mellus v. Silsbee*, 4 Mas.

² *Ibid*; *Shaw v. Cooper*.

³ *Shaw v. Cooper*, 7 Peters, 292, 321.

⁴ *Mellus v. Silsbee*, 4 Mas.

⁵ *Pennock v. Dialogue*.

not do so until three years afterwards. It appeared that he invented the instrument in 1813 or 1814, and made it known to certain persons in England, by or through whom, contrary to his intention, it was publicly used and sold there.¹ In a fourth case, in England, the patentee had sold the article in the public market four months before the date of the patent.² In all these cases the patentee was held to have abandoned or dedicated to the public his right in the invention.

§ 301. But on the other hand it is a still further question, what constitutes a public use, with the consent or allowance of the patentee? What acts, in other terms, within a longer or shorter period of time, or what permission to use, granted or allowed to several persons, or restricted to a single instance, or what use by the patentee himself, will amount to an abandonment or dedication to the public? Is the intention with which the acts are done, or the use permitted, an element in the question, or is the intention wholly immaterial, provided certain acts are done, or a certain use is permitted? In determining these questions, it is necessary to discriminate between the cases of a use permitted to others, or of a knowledge imparted to others, and the exercise or practice of the invention by the patentee himself.

§ 302. In the case of *Shaw v. Cooper*, already referred to, the Supreme Court of the United States said that the intention of the inventor is not the true ground in these cases; that "whatever may be his intention, if he suffers the invention to get 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."³ The meaning of this obviously is, that no

¹ *Shaw v. Cooper*, 7 Peters, 292.

² *Wood v. Zimmer*, 1 Holt, N. P. C. 60.

³ 7 Peters, 292, 323.

matter what the intention of the patentee was, in imparting to another a knowledge of his invention, if the person or persons to whom he had so imparted it, afterwards, though fraudulently, use the invention in public, and the patentee looks on without objection or assertion of his right, the public will have become possessed of the invention, and the patentee cannot resume his right in it by obtaining a patent. This meaning is apparent from other parts of the opinion in the same case; for the court say, that if the invention has become known to the public through fraudulent means, the patentee should assert his right immediately, and take the necessary steps to legalize it.¹ So,

¹ "Vigilance is necessary to entitle an individual to the privileges secured under the patent law. It is not enough that he should show his right by invention, but he must secure it in the mode required by law. And if the invention, through fraudulent means, shall be made known to the public, he should assert his right immediately, and take the necessary steps to legalize it.

The patent law was designed for the public benefit, as well as for the benefit of inventors. For a valuable invention, the public, on the inventor's complying with certain conditions, give him for a limited time the profits arising from the sale of the thing invented. This holds out an inducement for the exercise of genius and skill in making discoveries which may be useful to society and profitable to the discoverer. But it was not the intention of this law, to take from the public that of which they were fairly in possession.

In the progress of society the range of discoveries in the mechanic arts, in science, and in all things which promote the public convenience, as a matter of course, will be enlarged. This results from the aggregation of mind, and the diversities of talents and pursuits, which exist in every intelligent community. And it would be extremely impolitic to retard or embarrass this advance, by withdrawing from the public any useful invention or art, and making it a subject of private monopoly. Against this consequence, the legislature have carefully guarded in the laws they have passed on the subject. It is undoubtedly just that every discoverer should realize the benefits resulting from his discovery, for the period contemplated by law. But these can only be secured by a substantial compliance with every legal requisite. His exclusive right does not rest alone upon his discovery, but also upon the legal sanctions which have been given to it, and the forms of law with which it has been clothed.

too, it is apparent from the opinion of the same court in *Penock v. Dialogue*, that it is the voluntary acquiescence of the

No matter by what means an invention may be communicated to the public, before the 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 afterwards 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 afterwards be permitted to assert it. On this principle it is, that a discoverer abandons his right, if, before the obtainment 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. Does this impose any thing more than reasonable diligence on the inventor? And would any thing short of this be just to the public? The acquiescence of an inventor in the public use of an invention, can in no case be presumed, when he has no knowledge of such use. But this knowledge may be presumed from the circumstances of the case. This will, in general, be a fact for the jury. And if the inventor do not, immediately after this notice, assert his right, it is such evidence of acquiescence in the public use, as forever afterwards to prevent him from asserting it. After his right shall be perfected by a patent, no presumption arises against it from a subsequent use by the public.

When an inventor applies to the department of state for a patent, he should state the facts truly; and indeed he is required to do so, under the solemn obligations of an oath. If his invention has been carried into public use by fraud; but for a series of months or years, he has taken no steps to assert his right; would not this afford such evidence of acquiescence as to defeat his application, as effectually as if he failed to state that he was the original inventor. And the same evidence which should defeat his application for a patent, would, at any subsequent period, be fatal to his right. The evidence he exhibits to the department of state is not only *ex parte*, but interested; and the questions of fact are left open, to be controverted by any one who shall think proper to contest the right under the patent.

A strict construction of the act, as it regards the public use of an inven-

inventor in the *public use*, and not his voluntarily imparting the knowledge to the person who fraudulently or otherwise uses it in public, that fastens upon him the presumption of a dedication.¹ It is also clear, that when the act or acts of user were by way of experiment, in order to perfect the invention, the inventor does not lose his right.

§ 303. Hence it appears, that the intention with which the inventor did the acts which are relied on as proof of "public use" is material, unless the evidence goes to the extent of showing, that the invention had got beyond the control of the inventor, and he had not taken any steps to prevent its being thus situated. In other words, it may be a material element, in determining whether the presumption of acquiescence in public use arises, to ascertain whether the inventor used the invention himself, or imparted a knowledge of it to others, with or without an intention to limit such use or knowledge, in respect to time, extent, or object.

§ 304. Where a party practises his invention himself, for the purposes of experiment or completion before he takes out a patent, the inference that he intends to surrender his invention to the public does not arise; and consequently a dedication cannot be proved by evidence that shows only experimental practice by the inventor, whether in public or in private.² Indeed,

tion, before it is patented, is not only required by its letter and spirit, but also by sound policy. A term of fourteen years was deemed sufficient for the enjoyment of an exclusive right of an invention by the inventor. But if he may delay an application for his patent, at pleasure; although his invention be carried into public use, he may extend the period beyond what the law intended to give him. A pretence of fraud would afford no adequate security to the public in this respect, as artifice might be used to cover the transaction. The doctrine of presumed acquiescence, where the public use is known, or might be known to the inventor, is the only safe rule which can be adopted on this subject." 7 Peters, 319, 320, 321, 322.

¹ 2 Peters, 1, 23.

² *Wyeth v. Stone*, 1 Story's R. 271, 280. In this case Mr. Justice

it may be stated, as a general test, in cases of a supposed dedication through the using, exercising, or practising the invention by the patentee himself, previous to his application for a patent, that whenever the evidence stops short of proving such a use, exercise, or practice for the purpose of gain, a "public use" will not be proved.¹

Story said, "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."

See also *Ryan v. Goodwin*, 3 Sumner, 518; *Bentley v. Fleming*, 1 Car. & Kirw. 587. This last case shows a strong tendency to limit the effect of use in public, by the intention of the patentee. The patent in question had been obtained for making a card machine; and there was evidence, that about five or six weeks before the letters-patent were obtained, the inventor, one Thornton, had lent the machine to one N., in order that he might try whether it would set the teeth of the cards. There was also evidence that N's room was in a mill, and that men were constantly going backwards and forwards, to and from the said room. It appeared, moreover, that for some weeks before the time at which the machine was lent to N., it had been in complete working condition. On this evidence it was submitted, on the part of the defendant, that the plaintiff was out of court—first, on the ground that the machine had been publicly used in N's room, which was a public room, before the granting of the letters-patent; and on this point the case of *Wood v. Zimmer* was referred to. Cresswell, J. said, "Have you any case that goes that length? The case referred to was the case of an absolute sale; but here there is no evidence that the machine was given to N. for the purpose of giving it publicity. The evidence merely is, that Thornton lent the machine to N. in order that he might discover whether it really was worth while to take out a patent for it or not. I cannot stop the case on that point."

¹ Post, § 305, note.

§ 305. It has been held in England, where the "public use" must be a public use in England, that the making in England of a single pair of wheels, the subject of the patent, under the direction of the patentee, but under an injunction of secrecy, to be sent abroad for a person who intended to take a share in the patent, was not a public use within the realm.¹ But as our

¹ *Morgan v. Seaward*, Webs. Pat. Cas. 189, 193. In this case, Parke, B. said, "The evidence was that before the date of the patent, (which was the 22d of July, 1829,) Curtis, an engineer, made for Morgan two pairs of wheels upon the principle mentioned in the patent at his own factory. Galloway, the patentee, gave the instructions to Curtis under an injunction of secrecy, because he was about to take out a patent. The wheels were completed and put together at Curtis's factory, but not shown or exposed to the view of those who might happen to come there. After remaining a short time, the wheels were taken to pieces, packed up in cases, and shipped in the month of April on board a vessel in the Thames, and sent for the use of the Venice and Trieste Company, of which Morgan was managing director, and which carried on its transactions abroad, but had shareholders in England. Curtis deposed, that "they were sold to the company," without saying by whom, which may mean that they were sold by Curtis to Morgan for the company; and Morgan paid Curtis for them. Morgan and Galloway employed an attorney, who entered a caveat against any patent on the second of March, and afterwards solicited the patent in question, which was granted to Galloway and assigned to Morgan. Upon these facts, the question for us to decide is, whether the jury must have necessarily found for the defendants, or whether they might have found that this invention, at the date of the letters-patent, was new in the legal sense of that word. The words of the statute are, that grants are to be good "of the sole working or making of any manner of new manufactures within this realm, to the first and true inventor or inventors of such manufactures, which others at the time of the making of such letters-patent and grants did not use;" and the proviso in the patent in question, founded on the statute, is, that if the invention be not a new invention as to the public use and exercise thereof in England, the patent should be void. The word "manufacture" in the statute must be construed in one of two ways; it may mean the machine when completed, or the mode of constructing the machine. If it mean the former, undoubtedly there has been no use of the machine, as a machine, in England, either by the patentee himself or any other person; nor indeed any use of the machine in a foreign country before the date of the patent. If the term "manufacture" be construed to be "the mode of constructing the machine," there

law stood before the year 1839, if the inventor sold to any one who might choose to buy, although it was only a single speci-

has been no use or exercise of it in England, in any sense which can be called "public." The wheels were constructed under the direction of the inventor, by an engineer and his servants, with an injunction of secrecy, on the express ground that the inventor was about to take out a patent, and that injunction was observed; and this makes the case, so far, the same as if they had been constructed by the inventor's own hands, in his own private workshop, and no third person had seen them whilst in progress. The operation was disclosed, indeed, to the plaintiff, Morgan, but there is sufficient evidence that Morgan, at that time, was connected with the inventor, and designing to take a share of the patent. A disclosure of the nature of the invention to such a person, under such circumstances, must surely be deemed private and confidential. The only remaining circumstance is, that Morgan paid for the machines, with the privity of Galloway, on behalf of the Venice and Trieste Steam Company, of which he was the managing director; but there was no proof that he had paid more than the price of the machines, as for ordinary work of that description; and the jury would also be well warranted in finding, that he did so with the intention that the machine should be used abroad only, by this company, which, as it carried on its transactions in a foreign country, may be considered as a foreign company; and the question is, whether this solitary transaction, without any gain being proved to be derived thereby to the patentee or to the plaintiff, be a use or exercise in England, of the mode of construction, in any sense which can be deemed a use by others, or a public use, within the meaning of the statute and the patent. We think not. 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. This was laid down in the case of *Wood v. Zimmer* (Holt, N. P. C. 58, and Webs. Pat. Cas. 44, n.) and appears to be founded on reason; for if the inventor could sell his invention, keeping the secret to himself, and when it was likely to be discovered by another take out a patent, he might have, practically, a monopoly for a much longer period than fourteen years. Nor are we prepared to say, that if such a sale was of articles that were only fit for a foreign market, or to be used abroad, it would make any difference; nor that a single instance of such a sale as an article of commerce, to any one who chose to buy, might not be deemed the commencement of such a practice, and the public use of the invention, so as to defeat the patent. But we do not think that the patent is vacated on the ground of the want of novelty, and the previous

men of his invention, and sold for profit on it as an invention, such a sale would be a "public use," and the unlimited nature of the object with which a knowledge of the invention was imparted, would prevent him from resuming his exclusive right by a subsequent patent.¹ It will presently be stated, how far the law has been modified in this respect.

§ 306. Another limitation to the doctrine of presumptive dedication, or public use, with the consent, &c., is found in the case of a piratical user of the invention, by a party to whom the inventor has imparted a knowledge of it in confidence, before he has applied for a patent. Many inventions can be perfected and carried into practice only through the aid of workmen, servants, and other *employées*. We have seen that an inventor may entrust another person, confidentially, with a knowledge of his invention, for certain limited purposes; and if such a person afterwards fraudulently makes public the knowledge so acquired, the authorities seem to be agreed, that the inventor may, if he takes immediate steps to give notice of his exclusive right, obtain a valid patent.² The words of the statute, describing the

public use or exercise of it, by a single instance of a transaction such as this between the parties, connected as Galloway and the plaintiff are, which is not like the case of a sale to any individual of the public who might wish to buy; in which it does not appear that the patentee has sold the article, or is to derive any profit from the construction of his machine, nor that Morgan himself is; and in which the pecuniary payment may be referred merely to an ordinary compensation for the labor and skill of the engineer actually employed in constructing the machine; and the transaction might, upon the evidence, be no more in effect, than that Galloway's own servants had made the wheels; that Morgan had paid them for the labor, and afterwards sent the wheels to be used by his own co-partners abroad. To hold this to be what is usually called a publication of the invention in England, would be to defeat a patent by much slighter circumstances than have yet been permitted to have that effect."

¹ *Ibid.*; *Wood v. Zimmer*, 1 Holt, N. P. C. 60.

² *Pennock v. Dialogue*, 2 Peters, 1; *Shaw v. Cooper*, 7 Peters, 292; *Mellus v. Silsbee*, *Grant v. Raymond*, 6 Peters, 248, 249; *McClurg v. Kingsland*, 1 Howard, 202, 207.

defence now under consideration, make it clear, that, if the invention has come into public use through a breach of confidence, it cannot be said to be in public use "with the consent or allowance" of the patentee; it is only when he has been silent after it has so become public, that the presumption of consent and allowance arises.¹ The Act of 1839, as will appear hereafter, has made this point still more clear. Another instance of a use, which will not expose the patentee to the consequences of this defence, is that suggested on more than one occasion, by Mr. Justice Story, where the use has been permitted to others, for other limited purposes than those of experiment or completion, as from motives of neighborly kindness and the like.² The test that is afforded by the case of *Morgan v. Seaward*, above cited, is applicable here also; namely, that the evidence excludes the supposition that the patentee had put the thing into public use, for the purpose of profit on it, as an invention.³ If a patentee could show clearly that he had allowed to others a limited use of his invention, not for his own profit, but for their accommodation, in a manner consistent with a clear intention to hold the exclusive privilege, and the invention had not got beyond his control, with his apparent acquiescence, he would not be within the mischief of this part of the statute. Of course, mere delay to take out a patent, unaccompanied by public use or sale of the thing, with the consent or allowance of the patentee, before his application, however long may be the interval between the completion of the thing and the application, will have no effect upon the patent.⁴ Mere delay has no other

¹ *Ryan v. Goodwin*, 3 Sumner, 518; *Pierson v. The Eagle Screw Company*, 3 Story's R. 406, 407, 408.

² *Mellus v. Silsbee*, 4 Mas. 111; *Wyeth v. Stone*, 1 Story's R. 280, 281; *Ryan v. Goodwin*, 3 Sumner, 518.

³ Cited *ante*.

⁴ *Ryan v. Goodwin*, 3 Sumner, 519. In the case of *Bentley v. Fleming*, 1 Car. & Kirw. 587, 588, it was contended that, inasmuch as the machine in question was a complete workable machine for a long period before the letters-patent were taken out, it did not form the subject of a patent at all.

importance, than as it tends to show acquiescence in such public use as may have occurred, in the meantime; or to show that the acts of the inventor went beyond a use or permission to use, for the purpose of experiment, or other limited object.

§ 307. It now remains to be stated, how far this defence of a "prior public use or sale with the consent or allowance" of the patentee has been restricted or modified by subsequent legislation. Under this clause of the Act of 1836, a use of the invention by a single person, or a sale of the thing invented to a single person, might, as we have seen, amount to a public use or sale, with the consent or allowance of the patentee. To remedy the inconvenience arising from this operation of the law, the Act of 1839, § 7, provided "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, by 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."

§ 308. This enactment enables a patentee to permit the use of his invention, by individuals, before his application, with more safety than he formerly could. Such use is not to invali-

Cresswell, J. — "A man cannot enjoy his monopoly by procuring a patent, after having had the benefit of the sale of his invention. But you cannot contend, that if a man were to keep his invention shut up in his room for twenty years, that circumstance merely would deprive him of his right to obtain a patent for it."

date the patent, except on proof of abandonment of the invention to the public, or that it had been continued for more than two years prior to the application for a patent. The question arises upon this provision, then, whether the particular purchase, sale, or prior use, may of itself, under some circumstances, furnish proof of abandonment to the public, or whether such an abandonment must be proved by other cases, and by other evidence *dehors* the particular purchase, sale, or prior use, that happens to be in question. The obvious construction of the act is, that a purchase, sale, or prior use, before the application for a patent, shall not invalidate it, *unless* it amounts to an abandonment to the public; a purchase, sale, or prior use, shall not have this effect, *per se*, but if connected with facts which show an abandonment to the public, or if it has been for more than two years prior to the application, it will have this effect.¹ Thus, in the case of *McClurg v. Kingsland*, where the defendants used the invention for four months before the application of the inventor for a patent, such use being in public, with the consent and allowance of the patentee, he being in their employ, and making a part of the apparatus, by which the invention was to be applied, but receiving no compensation for the use of his invention, and not giving any notice to the defendants not to use his invention, until, on a misunderstanding upon another subject, he left their employment; the Supreme Court of the United States said that it would be no strained construction, under such circumstances, to hold that the patent, subsequently obtained, was void; although the decision merely went to the point that the acts of the patentee justified the presumption of a license to the defendants.²

§ 309. The words of the statute which thus authorizes a public use or sale by, or to individuals, prior to the application for a

¹ See the comment of Mr. Justice Story, on this statute, in *Pierson v. The Eagle Screw Company*, 3 Story's R. 402, 405, 407, cited *ante*.

² 1 Howard, 202, 208.

patent, make the subject of such use or sale, "any newly invented machine, manufacture, or composition of matter;" and the purchaser is authorized to use, and vend to others to be used, "the specific machine, manufacture, or composition of matter," without liability to the inventor, &c.; and then the statute declares, that the patent shall still be valid, notwithstanding such prior use or sale, except on proof of the abandonment of "such invention" to the public, &c. It might admit of some doubt, upon this language, whether the invention of a method of manufacture, a process, or an art, or any thing but a machine, a manufacture, or a composition of matter, is within the scope of the provision, and whether the purchaser could do any thing more than use or vend to others to be used the specific thing which he had purchased. But the Supreme Court of the United States have construed the terms "newly invented machine, manufacture, or composition of matter" to mean "the invention patented," whatever it may be; and the words "the specific machine," to refer to the thing as originally invented, of which the right is afterwards secured by a patent; so that according to the precedent afforded by the case in which this construction was adopted, this statute embraces whatever may be the subject-matter of a valid patent, although it may be a process, or method of manufacture, and not a machine, &c.¹

¹ McClurg v. Kingsland, 1 Howard, 202, 209. The court said: "At the trial below and here, the plaintiff's counsel have contended, that this act cannot apply to the present case, inasmuch as the protection it affords to the person who had the prior use, is confined to the specific machine, &c., and does not extend to such use of the invention, or thing patented, if it does not consist of a machine, &c., as contradistinguished from the new mode or manner in which an old machine or its parts operates, so as to produce the desired effect; but we think that the law does not admit of such construction, whether we look at its words or its manifest objects, when taken in connection with former laws, and the decisions of this court in analogous cases.

"The words 'such invention' must be referred back to the preceding part of the sentence, in order to ascertain the subject-matter to which it relates, which is none other than the newly-invented machine, manufacture, or composition of matter constituting the thing patented, otherwise these words

§ 310. The result, therefore, of the different statute provisions and the authorities, is, that this defence of a prior public

become senseless when the invention is not strictly of a machine, &c. Now, in the present case, we find the invention consists solely in the angular direction given to the tube through which the metal is conducted into the cylinder in which the roller is cast. Every part of the machinery is old, the roller itself is no part of the invention, and cannot be the machine, manufacture, or composition of matter contemplated by Congress, nor can the word 'specific' have any practical effect, unless it is applied to the thing patented, whatever it may be, without making a distinction between a machine, &c., and the mode of producing a useful result, by the mere direction given to one of the parts of an old machine. Such a construction is not justified by the language of the law, and would defeat both of its objects. If it does not embrace the case before us, the consequence would be that the use of the invention, under the circumstances in evidence, would, according to the decision in *2 Peters*, 14, 15, invalidate the patent; for if the act operates to save the avoidance of the patent, it must, of consequence, protect the person who uses the invention before the application for a patent. Both objects must be effected, or both must fail, as both parts of the act refer to the same thing, and the same state of things, as affecting the person using the newly-invented machine, or the thing patented, as well as the inventor. Had the words 'invention,' or 'thing patented,' been used instead of machine, &c., there could have been no room for doubt of the application of the act to the present case; and, by referring to the phraseology of the different acts of Congress, denoting the invention, it is apparent that, though there is a difference in the words used, there is none as to their meaning or reference to the same thing. Thus, we find in the fourteenth section of the Act of 1836, relating to suits for using 'the thing whereof the exclusive right is secured by any patent;' in the fifteenth, 'his invention, his discovery, the thing patented.' 'that which was in fact invented or discovered,' 'the invention or discovery for which the patent issued,' 'that of which he was the first inventor.' In the first section of the Act of 1839, 'any patent for any invention, discovery, or improvement,' 'inventions and discoveries;' in the second section, 'the invention;' in the third, 'invention or discovery;' in the fourth, 'patented inventions and improvements;' in the fifth, 'the thing as originally invented.' 2 Story, 2510, 2511, 2546.

"We therefore feel bound to take the words 'newly-invented machine, manufacture, or composition of matter,' and 'such invention,' in the Act of 1839, to mean 'the invention patented,' and the words 'specific machine,' to refer to 'the thing as originally invented,' whereof the right is secured by patent; but not to any newly-invented improvement on a thing once patented.

use or sale, with the consent or allowance of the patentee, can now be made good so as to invalidate a patent, only by showing an abandonment to the public, or that the use or sale dates from a period more than two years before the application for a patent; that such an abandonment will not be proved by the particular act of use or sale alone, but that the act of use or sale may be attended with such circumstances as to amount to an abandonment; and that the abandonment may also be proved by other acts or omissions disconnected with the particular use or sale, which the patentee may have allowed to individuals, and which he can show did not alone amount to an abandonment.¹

§ 311. The next special defence stated in the act of 1836, is, "that the patentee had surreptitiously or unjustly obtained the patent for that which was in fact invented or discovered by another, who was using reasonable diligence in adapting and perfecting the same." This provision was intended to embrace the case of a patent being obtained fraudulently, when the party obtaining it was not the inventor, and also the case of two independent inventors, where the one makes his application before the other, who was the first inventor, and so obtains a patent for that which was previously invented by another.

§ 312. With regard to the first case, of a patent obtained by a person not the inventor, by a fraud on the rights of the real inventor, it is sufficient to observe that such a defence, if made

The use of the invention before an application for a patent must be the specific improvement then invented and used by the person who had purchased, constructed, or used the machine to which the invention is applied; so construed, the objects of the Act of 1839 are accomplished; a different construction would make it necessary to carry into all former laws the same literal exposition of the various terms used to express the same thing, and thereby changing the law according to every change of mere phraseology, make it a labyrinth of inextricable confusion."

¹ As to an abandonment or dedication after the patent has been obtained, see the case *Wyeth v. Stone*, 1 Story's R. 73.

out, would be a complete bar to the action, upon general principles, as well as upon other provisions of the statute. One of the modes in which a patent may be thus surreptitiously obtained, is by obtaining a knowledge of the invention from the public records where the inventor has deposited a description of it. When the real inventor has filed such a description at the patent office, or has obtained a patent, he has given notice to every subsequent applicant for a patent for the same thing, of the fact that he invented it; and although others may not afterwards be able to offer direct evidence that a subsequent patentee had seen and pirated the machine or other thing invented by the former applicant or patentee, yet the jury may infer a piracy from the existence of the former record, of which every subsequent patentee is presumed to have knowledge.¹ As to the case of two independent inventors, one of whom makes an earlier application than another for a patent and succeeds in obtaining it, it will be a good defence to an action upon such a patent, if it can be shown that the same thing was first invented by another, although not actually perfected, provided the first inventor was at the time using reasonable diligence in adapting and perfecting the thing invented.²

¹ *Odiorne v. Winkley*, 2 Gallis. 51, 55. In this case, Mr. Justice Story said, "As to the question, whether the patent was surreptitiously obtained, there is no direct or positive proof, that Reed had ever seen Perkins's machine before he obtained a patent, but there is evidence, from which the jury may legally infer the fact, if they believe that evidence. It is a presumption of law, that when a patent has been obtained, and the specifications and drawings recorded in the patent office, every man who subsequently takes out a patent for a similar machine, has a knowledge of the preceding patent. As in chancery it is a maxim, that every man is presumed to have notice of any fact, upon which he is put upon inquiry by documents within his possession, if such fact could, by ordinary diligence, be discovered upon such inquiry. It is also a presumption of fact, that every man, having within his power the exact means of information, and desirous of securing to himself the benefit of a patent, will ascertain for his own interest, whether any one on the public records has acquired a prior right."

² *Reed v. Cutter*, 1 Story's R. 590, 599. In this case Mr. Justice Story

§ 313. The last defence mentioned in the statute, is, that the

said, "The passage cited from Mr. Phillips's work on Patents, (p. 395,) in the sense in which I understand it, is perfectly accurate. He there expressly states, that the party claiming a patent must be the original and first inventor; and that his right to a patent will not be defeated by proof, that another person had anticipated him in making the invention, unless such person "was using reasonable diligence in adapting and perfecting the same." These latter words are copied from the fifteenth section of the Act of 1836, chapter 357, and constitute a qualification of the preceding language of that section; so that an inventor, who has first actually perfected his invention, will not 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 reasonable diligence in adapting and perfecting the same. And this I take to be clearly law; for he is the first inventor in the sense of the Act, and entitled to a patent for his invention, who has first perfected and adapted the same to use; and until the invention is so perfected and adapted to use, it is not patentable. 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, is not, and indeed cannot be, patentable under our patent acts; since it is utterly impossible, under such circumstances, to comply with the fundamental requisites of those acts. 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. (*Woodcock v. Parker*, 1 Gallis. R. 438.) The clause of the fifteenth section, 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 second 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. But if, as the argument of the learned counsel insists, the text of Mr. Phillips means to affirm, (what, I think, it does not,) that he, who is the original and first inventor of an invention, so perfected and reduced to practice, will be deprived of his right to a patent, in favor of a second and subsequent inventor, simply because the first invention was not then known, or used by other persons than the inventor, or not known or used to such an extent, as to give the public full knowledge of its existence, I cannot agree to the doctrine; for, in my judgment, our Patent Acts justify no such construction."

patentee, being an alien at the time the patent was granted, "had failed and neglected for the space of eighteen months from the date of the patent, to put and continue on sale to the public, on reasonable terms, the invention or discovery, for which the patent issued." The object of this provision was, to prevent foreign inventors from obtaining patents in this country, and afterwards withholding the use of their inventions from the public for an unreasonable length of time.

CHAPTER III.

OF THE REMEDY IN EQUITY TO RESTRAIN INFRINGEMENTS.

§ 314. WE have seen that the common law and the statute both afford a remedy, by an action for damages, for the infringement of patent rights. But this remedy would be wholly inadequate to the protection of such rights, if it were not accompanied and fortified by another remedy, which flows from that great principle of equity jurisprudence, that where there is a legal right, and the nature of the injury to which it is exposed is such that a preventive remedy is indispensable, equity will afford that remedy, by an injunction. The grounds of the equity jurisdiction in cases of patents are, the prevention of irreparable mischiefs, the suppression of a multiplicity of suits and vexatious litigation, and the more complete discovery, from the party guilty of infringement, of the extent of the injury done to the patentee, than can be obtained in an action at law.¹ It does not belong to the purposes of this work, to trace the origin of this branch of equity jurisdiction, nor is it necessary to do so, since the patent laws have expressly adopted in the broadest terms the remedy which it affords, for the protection of patent rights, and have directed the proper courts "to grant injunctions according to the course and principles of courts of equity, to prevent the violation of the rights of any inventor as secured to him by any law of the United States, on such terms and conditions as the said courts may deem reasonable."² All that is requisite, therefore, in the present work, is to develop

¹ 2 Story's Eq. Jurisp. § 930, 931, 932, 933.

² Act of July 4, 1836, c. 357, § 17.

the application of the doctrines and practice of courts of equity to the rights of inventors, in the remedy by injunction.

§ 315. As a preliminary remark, however, we may notice, that the discretion vested in the court by the terms of the statute above cited, to grant injunctions on such terms and conditions as the court may deem reasonable, is in perfect accordance with the principles of equity.¹ This discretion is not a wholly

¹ In *Bacon v. Jones*, 4 Mylne & Cr. 433, 436, Lord Cottenham made the following remarks on the granting of injunctions in cases of patents. "When a party applies for the aid of the court, the application for an injunction is made either during the progress of the suit, or at the hearing; and in both cases, I apprehend, great latitude and discretion are allowed to the court in dealing with the application. When the application is for an interlocutory injunction, several courses are open; the court may at once grant the injunction, simpliciter, without more—a course which, though perfectly competent to the court, is not very likely to be taken where the defendant raises a question as to the validity of the plaintiff's title; or it may follow the more usual, and, as I apprehend, more wholesome practice in such a case, of either granting an injunction, and at the same time directing the plaintiff to proceed to establish his title at law, and suspending the grant of the injunction until the result of the legal investigation has been ascertained, the defendant in the mean time keeping an account. Which of these several courses ought to be taken, must depend entirely upon the discretion of the court, according to the case made.

When the cause comes to a hearing, the court has also a large latitude left to it; and I am far from saying that a case may not arise in which, even at that stage, the court will be of opinion that the injunction may properly be granted without having recourse to a trial at law. The conduct and dealings of the parties, the frame of the pleadings, the nature of the patent right, and of the evidence by which it is established—these and other circumstances may combine to produce such a result; although this is certainly not very likely to happen, and I am not aware of any case in which it has happened. Nevertheless, it is a course unquestionably competent to the court, provided a case be presented which satisfies the mind of the judge, that such a course, if adopted, will do justice between the parties.

Again, the court may, at the hearing, do that which is the more ordinary course; it may retain the bill, giving the plaintiff the opportunity of first establishing his right at law. There still remains a third course, the propriety of which must also depend upon the circumstances of the case, that of at once dismissing the bill."

unregulated discretion, but the clause in which it is expressed is to be considered as affected by the previous direction that the injunction is to be granted according to the course and principles of courts of equity, which are guided by certain well-settled rules; so that the terms and conditions to be imposed in each case will be ascertained, by applying to the circumstances of the case those principles and that course of practice which have been usually followed, and which will admit of a "reasonable" application to the particular facts of the case.

§ 316. I. *The Parties.* The parties entitled to relief in equity against the infringement of a patent are, first, the party or parties interested in the patent. As the remedy in equity is given in order to protect a legal right, and as the statute gives a right of action to the person or persons interested, whether as patentee, assignees, or grantees of the exclusive right for a particular district, it follows that any person holding the legal title, or the right to bring an action, may bring a bill for an injunction.

§ 317. We have seen when the assignee of a patent may sue at law in his own name, and when he should join his assignor. The same rules will govern in equity, in determining who are necessary parties to the bill. If the assignee has the whole interest, he may sue alone; but if he has less than the whole interest, he must join the patentee. If the assignment has not been recorded, the assignee is not substituted to the right and responsibility of the patentee, so as to maintain any suit at law or in equity, founded upon the patent;¹ and where there is a

¹ *Wyeth v. Stone*, 1 Story's R. 273, 295. Story, J. "The objection which I deem fatal, is that the bill states and admits, that the assignment to the plaintiff, Tudor, (made in February, 1832,) has never yet been recorded in the state department, according to the provisions of the Patent Act of 1793, ch. 55, § 4. That act provides, "That it shall be lawful for any inventor, his executor or administrator, to assign the title and interest in the

joint suit by the patentee and the assignee, and a disclaimer has been filed by the patentee, in which the assignee did not join, the disclaimer cannot operate in favor of the complainants in such a bill, or in an action at law.¹

§ 318. There is, however, one distinction between an action at law and a suit in equity, in respect to the parties, and that is the case of an assignment of the exclusive right for a particular district. The grantee of such a right may bring an action at law, within his own district, for an infringement, even against the patentee himself, and consequently he may bring such an action always in his own name.²

said invention at any time ; and the assignee, having recorded the said assignment in the office of the Secretary of State, shall thereafter stand in the place of the original inventor, both as to right and responsibility." It seems a necessary, or, at least, a just inference, from this language, that until the assignee has so recorded the assignment, he is not substituted to the right and responsibility of the patentee, so as to maintain any suit at law or in equity, founded thereon. It is true, that no objection is taken in the pleadings on account of this defect ; but it is spread on the face of the bill, and therefore the court is bound to take notice of it. It is not the case of a title defectively set forth, but of a title defective in itself, and brought before the court with a fatal infirmity, acknowledged to be attached to it. As between the plaintiffs and the defendants, standing upon adverse titles and rights (whatever might be the case between privies in title and right.) Tudor has shown no joint interest sufficient to maintain the present bill ; and therefore it must be dismissed with costs."

¹ *Ibid.* 294.

² "The sixth question certified is as follows : whether the plaintiff, if he be an assignee of an exclusive right to use two of the patented machines within the town of Watervliet, has such an exclusive right as will enable him to maintain an action for an infringement of the patent within the said town ; or whether, to maintain such action, the plaintiff must be possessed, as to that territory, of all the rights of the original patentee. The plaintiff is the grantee of the exclusive right to construct and use, and to vend to others to be used, two of the patented machines within the town of Watervliet, in the county of Albany. The fourteenth section of the patent law authorizes any person, who is a grantee of the exclusive right in a patent within and throughout a specified portion of the United States, to maintain

§ 319. But in equity the patentee may be joined with the assignee of such an exclusive right, if it be a right to use a limited number of the patented machines in a particular district, because the interest of the patentee is not all vested in the grantee, who, although he may prevent the patentee from licensing other persons within the district, cannot obtain for himself the right to use more machines than the original grant authorized, without paying the patentee for such further license. This interest renders the patentee a proper party in such a bill.¹ Different persons, who have infringed a patent independently of each other, cannot be made defendants in the same bill.²

§ 320. II. *The Bill.* — A bill for an injunction to restrain the infringement of a patent, after the address to the court and the statement of the parties, should recite the application for the letters-patent, by the inventor, and the compliance by him with all the pre-requisites for obtaining them, and the issue of the letters, giving the title as it is contained in them, *verbatim*, their attestation by the proper officers, and their delivery to the patentee. Profert of the letters should be made, but it is not necessary to set forth the description of the invention given in the specification.³ It is necessary, however, to state that the plaintiff, after the issuing of the patent, put his invention into use, and is, at the time of filing the bill, in the exclusive pos-

an action in his own name for an infringement of the right. The plaintiff comes within the very terms of the section. Although limited to the use of two machines within the town, the right to use them is exclusive. No other party, not even the patentee, can use a right under the patent within the territory without infringing the grant." *Wilson v. Rousseau*, 4 Howard, 646, 686.

¹ *Woodworth v. Wilson*, 4 Howard, 712. It had been previously held that the grantee for a particular district can maintain a bill for an injunction and account. *Ogle v. Ege*, 4 Wash. 584.

² *Dilly v. Doig*, 2 Ves. Jr. 487.

³ *Kay v. Marshall*, 1 M. & Cr. 373; *Westhead v. Keane*, 1 Beav. 287.

session of it.¹ If the bill is brought upon the title of an assignee, either of the whole or a part of the interest, or of an administrator, or if the patent has been renewed, or extended, or amended by a disclaimer, the facts should be properly set forth, to show the present state of the title and the right for which protection is asked. The bill should further state the infringement complained of, whether it has been actually committed or is threatened, and if the right has been previously established by an action at law, against the same or any other party, or an injunction has been previously obtained against the same or any other party, the fact should be set forth.² These averments are usually followed by a statement that the defendant has been requested to desist from the use of the invention, and to account for the damages which the plaintiff has sustained. Then follows the charge of actual combination by the defendant with others, if the facts require it, and of a conspiracy, if one is intended to be proved, to destroy the plaintiff's exclusive privilege. The prayer of the bill is for a discovery upon oath and particular answers to the interrogatories, which should be pointed at all the previous material averments in the bill, for a general answer to the bill, for a decree that the defendant account for and pay over the gains and profits which have accrued to him from using the invention, for an injunction to restrain the defendant from the further use of the invention, and to compel the delivery or destruction of the machines or other things which he has made, and for further relief. The prayer should close with asking for a writ of injunction, and a subpoena. The bill should be sworn to, by the usual affidavit.

§ 321. It may often be a serious question, whether an original bill filed for an injunction and other relief is affected by a subsequent surrender and renewal of the patent, pending the

¹ *Isaacs v. Cooper*, 4 Wash. 359.

² See the observations of Mr. Justice Story, cited from *Woodworth v. Stone*, post. See also *Orr v. Littlefield*, 1 Woodbury & M. 13.

proceedings. In a case where this had happened, and a temporary injunction had been granted on the original bill, in which the patentee and certain assignees were plaintiffs, and upon the new patent a supplemental bill was filed against the defendant for the continuance of the injunction and other relief, the injunction was ordered to stand continued, as to the new patent, stated in the supplemental bill, until the hearing or farther order. Hence it appears, that when a patent is surrendered and renewed, pending a temporary injunction, a supplemental bill is necessary, in order to continue the injunction as to the new patent.¹

¹ *Woodworth v. Stone*, 3 Story's R. 749, 750. Story, J. — "If the present case had stood merely upon the original bill, it appears to me clear, that the motion to dissolve the injunction granted upon that bill, ought to prevail, because, by the surrender of the patent, upon which that bill is founded, the right to maintain the same would be entirely gone. I agree that it is not in the power of the patentee by a surrender of his patent, to affect the rights of third persons, to whom he has previously, by assignment, passed his interest in the whole or a part of the patent, without the consent of such assignees. But, here, the supplemental bill admits, that the assignees, who are parties to the original and supplemental bill, have consented to such surrender. They have, therefore, adopted it, and it became theirs in the same manner as if it had been their personal act, and done by their authority.

The question, then, is precisely the same, as if the suit were now solely in behalf of the patentee. In order to understand with clearness and accuracy some of the objections to the continuance of the injunction, it may be necessary to state, that the original patent to William Woodworth, (the inventor,) who is since deceased, was granted on the 27th of December, 1828. Subsequently, under the 18th section of the Act of 1836, ch. 357, the Commissioner of Patents, on the 16th of November, 1842, recorded the patent in favor of William W. Woodworth, the administrator of William Woodworth (the inventor) for seven years from the 27th of December, 1849, (to which time the renewed patent extended); and the Commissioner of Patents was directed to make a certificate of such extension in the name of the administrator of William Woodworth, (the inventor,) and to append an authenticated copy thereof to the original letters-patent, whenever the same shall be requested by the said administrator or his assigns. The Commissioner of Patents, accordingly, on the 3d of March, 1845, at the request of the administrator, made such certificate on the original patent. On the 8th of July, 1845, the administrator surrendered the renewed patent granted to

§ 322. III. *The Injunction.* — We have now to state, in the first place, the general principles on which Courts of Equity pro-

him “on account of a defect in the specification.” The surrender was accepted, and a new patent was granted on the same day to the administrator, reciting the preceding facts, and that the surrender was “on account of a defective specification,” and declaring that the new patent was extended for fourteen years from the 27th of December, 1828, “in trust for the heirs at law of the said William Woodworth, (the inventor,) their heirs, administrators or assigns.”

Now, one of the objections taken to the patent is, that it is for the term of fourteen years, and not for the term of seven years, or for two successive terms of seven years. But it appears to me that this objection is not well founded, and stands *inter Apices juris*; for the new patent should be granted for the whole term of fourteen years from the 27th of December, and the legal effect is the same as it would be, if the patent was specifically renewed for two successive terms of seven years. The new patent is granted for the unexpired term only, from the date of the grant, viz., for the unexpired period existing on the 8th of July, 1845, by reference to the original grant in December, 1828. It is also suggested, that the patent ought not to have been in trust for the heirs at law of the said William Woodworth, their heirs, administrators, or assigns. But this is, at most, a mere verbal error, if indeed it has any validity whatsoever; for the new patent will, by operation of law, enure to the sole benefit of the parties, in whose favor the law designed it should operate, and not otherwise. It seems to me that the case is directly within the purview of the 10th and 13th sections of the Act of 1836, ch. 357, taking into consideration their true intent and objects.

Another objection urged against the continuation of the injunction is, that the breach of the patent assigned in the original bill can have no application to the new patent, and there is no ground to suggest, that, since the injunction was granted, there has been any new breach of the old patent, or any breach of the new patent. But it is by no means necessary, that any such new breach should exist. The case is not like that of an action at law for the breach of a patent, to support which it is indispensable to establish a breach before the suit was brought. But in a suit in equity, the doctrine is far otherwise. A bill will lie for an injunction, if the patent right is admitted or has been established, upon well-grounded proof of an apprehended intention of the defendant to violate the patent right. A bill, *quia timet*, is an ordinary remedial process in equity. Now, the injunction already granted (supposing both patents to be for the same invention) is *primâ facie* evidence of an intended violation, if not of an actual violation. And the affidavit of James N. Buffum is very strong and direct evidence to this same effect.

But the most material objection taken is, that the new patent is not for the

ceed in granting, continuing, or dissolving injunctions, in cases of patents. To obtain an injunction, the plaintiff must accom-

same invention, as that which has been surrendered. And, certainly, if this be correct, there is a fatal objection to the prolongation of the injunction. But is the objection well founded in point of fact? It is said, that the present patent is for a combination only, and that the old patent was for a combination and something more, or different. But I apprehend that, upon the face of the present patent, the question is scarcely open for the consideration of the court; and, at all events, certainly not open in this stage of the cause. I have already, in another cause, had occasion to decide, that where the Commissioner of Patents accepts a surrender of an old patent and grants a new one, under the Act of 1836, ch. 357, his decision, being an act expressly confided to him by law, and dependent upon his judgment, is not re-examinable elsewhere; and that the court must take it to be a lawful exercise of his authority, unless it is apparent upon the very face of the patent, that he has exceeded his authority, and there is a clear repugnancy between the old and the new patent, or the new one has been obtained by collusion between the Commissioner and the patentee. Now, upon the face of it, the new patent, in the present case, purports to be for the same invention and none other, that is contained in the old patent. The avowed difference between the new and the old; is, that the specification in the old is defective, and that the defect is intended to be remedied in the new patent. It is upon this very ground, that the old patent was surrendered, and the new patent was granted. The claim in the new patent is not of any new invention; but of the old invention more perfectly described and ascertained. It is manifest that, in the first instance, the Commissioner was the proper judge whether the invention was the same or not, and whether there was any deficit in the specification or not, by inadvertence, accident, or mistake; and consequently he must have decided that the combination of machinery claimed in the old patent was, in substance, the same combination and invention claimed and described in the new. My impression is, that at the former trial of the old patent before me, I held the claim substantially, (although obscurely worded,) to be a claim for the invention of a particular combination of machinery for planing, tonguing, and grooving, and dressing boards, &c.; or in other words, that it was the claim of an invention of a planing machine or planing apparatus such as he had described in his specification.

It appears to me, therefore, that *primâ facie*, and, at all events, in this stage of the cause, it must be taken to be true that the new patent is for the same invention as the old patent; and that the only difference is, not in the invention itself, but in the specification of it. In the old, it was defectively described and claimed. In the new, the defects are intended to be remedied.

pany his application with an affidavit that he then believes himself to be the original and first inventor of the thing patented, for, it is said, although when he obtained his patent he might have very honestly sworn as to his belief of such being the fact, yet circumstances may have subsequently intervened, or information may have been communicated, sufficient to convince him that it was not his own original invention, and that he was under a mistake when he applied for his patent.¹ Such a special affidavit was required by Mr. Justice Washington to be subjoined to a bill.² And it is the usual practice, on moving for an injunction before the answer has been filed, to read such an affidavit, as well as others to the same purport.³

§ 323. In the courts of the United States, notice that an injunction is to be applied for, must be served on the defendant, as no injunction, whether temporary or final, can be granted without reasonable previous notice to the adverse party or his attorneys, of the time and place of moving for the same.⁴

Whether they are effectually remedied is a point not now properly before the court. But as the Commissioner of Patents has granted the new patent as for the same invention as the old, it does not appear to me, that this court is now at liberty to revise his judgment, or to say, that he has been guilty of an excess of authority, at least, (as has been already suggested,) not in this stage of the cause; for that would be for the court of itself to assume to decide many matters of fact, as to the specification, and the combination of machinery in both patents, without any adequate means of knowledge or of guarding itself from gross error. For the purpose of the injunction, if for nothing else, I must take the invention to be the same in both patents, after the Commissioner of Patents has so decided, by granting the new patent.

Upon the whole, therefore, I do order and direct, that the injunction do stand continued, as to the new patent, stated in the supplemental bill, until the hearing or farther order of the court."

¹ *Hill v. Thompson*, 3 Meriv. 622, 624; *Sturz v. De La Rue*, 5 Russ. Ch. R. 322. The same reason exists at the time of the application, although the bill itself was sworn to when filed.

² *Rogers v. Abbott*, 4 Wash. 514; *Ogle v. Eye*, Ibid. 584.

³ See further as to affidavits, *post*, at the end of this chapter.

⁴ Act 2d March, 1793, ch. 22, § 5; *Perry v. Parker*, 1 Woodbury & M. 280, 281.

Injunctions, therefore, are not granted in our courts on *ex parte* applications, in cases of patents, although they may be granted on filing the bill and before answer, on notice to the party to be affected, as well as after answer and upon the hearing.

§ 324. The bill and the application being, then, in proper form, the first thing to be considered is, whether the Court will require the patentee to establish his legal right by an action at law, before it grants the injunction, or whether it will grant the injunction, in the first instance, upon the proof of a legal right, furnished by the bill itself, and the accompanying affidavits. Upon this point, the rule, as it was laid down by Lord Eldon, is, that where a patent has been granted, and there has been an exclusive possession of some duration under it, the court will interpose its injunction, without putting the party previously to establish the validity of his patent by an action. But where the patent is but of yesterday, and, upon an application being made for an injunction, it is endeavored to be shown, in opposition to it, that there is no good specification, or otherwise, that the patent ought not to have been granted, the court will not from its own notions upon the matter in dispute, act upon the presumed validity or invalidity of the patent, without the right having been ascertained by a previous trial, but will send the patentee to law, to establish the validity of his patent in a court of law, before it will grant him the benefit of an injunction.¹

§ 325. The rule thus stated has been followed by our own courts, with further explanations, which extend its application to the particular facts of the cases that have arisen. Thus, Mr. Justice Washington laid down the rule, as follows, that the practice is, to grant an injunction upon the filing of the bill, and before a trial at law, if the bill state a clear right, and verify the same by affidavit. If the bill states an exclusive possession of the invention, or discovery, an injunction is granted, although the court

¹ Hill, v. Thompson, 3 Meriv. 622, 624.

may feel doubts as to the validity of the patent. But if the defects in the patent or specification are so glaring that the court can entertain no doubt as to that point, it would be most unjust to restrain the defendant from using a machine, or other thing, which he may have constructed, probably, at great expense, until a decision at law can be had.¹ Upon another occasion, the same learned judge laid down the general rule in these terms, that where the bill states a clear right to the thing patented, which, together with the alleged infringement, is verified by affidavit, if he has been in possession of it, by having used or sold it in part, or in the whole, the court will grant an injunction, and continue it till the hearing, or further order, without sending the plaintiff to law to try the right. But, if there appeared to be a reasonable doubt, as to the plaintiff's right, or as to the validity of the patent, the court will require the plaintiff to try his title at law, sometimes accompanied with an order to expedite the trial, and will permit him to return for an account, in case the trial at law should be in his favor. Mr. Justice Story, in *Washburn v. Gould*, referred to and adopted the general rule laid down by Lord Eldon, in *Hill v. Thompson*. In this case there had been a trial at law, which resulted in favor of the patentee.² Mr. Justice Woodbury has, in several cases, also acted upon it, with modifications, which will presently be stated.³

§ 326. It appears, therefore, that upon the question of first sending the plaintiff to law to try the validity of his patent, the general rule must be subdivided according to the aspect and position of the case before the court. The cases may be ranged under three different classes. *First*, where there is nothing before the court, as evidence, but the bill and the affidavits in support of it; *second*, where the injunction is asked

¹ *Isaacs v. Cooper*, 4 Wash. 259, 260.

² 3 Story's R. 156, 169.

³ *Orr v. Littlefield*, 1 W. & M. 13; *Woodworth v. Hall*, Ibid. 248; *Hovey v. Stevens*, Ibid. 290.

before the final hearing, and the respondent offers evidence, either in the answer, or by affidavits, affecting the validity of the patent; *third*, where the question comes on upon the hearing, and the full proofs taken in the cause.

§ 327. These different aspects of the cause may now be considered separately, with reference to this question. *First*, where the plaintiff asks for an injunction upon the bill and affidavits, and no opposing evidence is adduced, but the respondent appears and objects. In such cases, the bill and the affidavits must show the issuing of the patent, and an exclusive possession of the right of some duration; and, when these are shown, although the court may feel some doubts, as to the validity of the patent, the injunction will be granted without a previous trial at law; but if the patent contains glaring defects, so that no doubt can be entertained, or the bill is defective in material allegations, the injunction will not be granted, but the plaintiff will be required to try his title at law.¹ Some additional evidence, besides the mere issue of the patent, must be offered; and this evidence will be the fact, that after he had procured his patent, the plaintiff proceeded to put that right into exercise or use for some time, without being disturbed; a circumstance that strengthens the probability that the patent is good, and renders it so likely, as alone often to justify the issue of an injunction in aid of it.² It will also be further additional evidence, in support of the *primâ facie* right to an injunction, that the patentee has successfully prosecuted other persons for violating it.³

¹ *Hill v. Thompson*, 3 Meriv. 622; *Harmer v. Plane*, 14 Ves. 130, 133; *Isaacs v. Cooper*, 4 Wash. 259; *Ogle v. Ege*, Ibid. 584; *Woodworth v. Hall*, 1 Woodbury & M. 248. Length of enjoyment is to be looked to in answer to a theoretical objection to the specification. *Rickford v. Skewes*, Webs. Pat. Cas. 211, 213.

² *Orr v. Littlefield*, 1 Woodb. & M. 13, 16. As to length of possession, see the observations of Mr. Justice Woodbury, cited from this case, *post*.

³ Ibid.

§ 328. *Secondly.* Where the injunction is asked for before the hearing, but opposing evidence is adduced by the respondent against the validity of the patent. In these cases, several elements enter into the rule that is to guide the discretion of the court. How far, and for what length of time there has been an exclusive possession or assertion of the right; how far the respondent has succeeded in raising doubts as to the novelty of the invention, or as to its being a patentable subject, or as to the infringement; and how far a long possession will go to counteract evidence impeaching the validity of the patent — are some of the circumstances to be weighed in determining whether the plaintiff's *primâ facie* right to an injunction has been answered by the respondent, to that extent, that the court will suspend the injunction until the plaintiff has established his right by an action. It seems to be the result of all the authorities that there is a *primâ facie* right to an injunction, without a trial at law, upon certain things being shown, namely, a patent, long possession, and infringement.¹ The question will therefore be, in cases of opposing evidence, where that right has been shown, whether it has been displaced by the respondent.

§ 329. When the presumption in favor of the validity of the patent has been strengthened by evidence of enjoyment and possession undisturbed for several years, and recoveries against other persons for violating it, it will not be sufficient to deprive

¹ In *Neilson v. Thompson*, Webs. Pat. Cas. 277, Sir L. Shadwell, V. C., said: "It seems to me, on these affidavits, that it is sufficiently made out that there has been a use of the patent in this sense, that the right of the patentee to the benefit of the patent has been submitted to where there has been a contest, and it does not at all appear to me that the general way in which the defendants, on their affidavit, state the mode by means of which the plaintiffs succeeded in establishing the patent, is at all an answer to the two cases which are stated in Mr. Blunt's affidavit. Then I have the case of a patent, having been obtained in the year 1828, and actually enjoyed by the patentee for upwards of twelve years. *Primû facie*, I apprehend, that gives a right to the patentee to come into court in a case in which he can show an infringement; and the question is, has there been an infringement?"

the plaintiff of the injunction before a trial at law, for the defendant to read affidavits tending to cast doubts on the originality of the invention, especially if that evidence is answered by what is stronger on the part of the patentee.¹

¹ *Orr v. Littlefield*, 1 Woodb. & M. 13. In this case, Mr. Justice Woodbury said: "It is not enough that a party has taken out a patent, and thus obtained a public grant, and the sanction or opinion of the patent office, in favor of his right, though that opinion, since the laws were passed, requiring some examination into the originality and utility of inventions, possesses more weight. But the complainant must furnish some further evidence of a probable right; and though it need not be conclusive evidence, — else additional hearing on the bill would thus be anticipated and superseded, — yet it must be something stronger than the mere issue, however careful and public, of the patent, conferring an exclusive right; as, in doing that, there is no opposing party, no notice, no long public use, no trial with any one of his rights. The kind of additional evidence is this: If the patentee, after the procurement of his patent, conferring an exclusive right, proceeds to put that right into exercise or use for some years, without its being disturbed, that circumstance strengthens much the probability that the patent is good, and renders it so likely, as alone often to justify the issue of an injunction in aid of it. *Ogle v. Ege*, 4 Wash. C. C. 584; 2 Story's Eq. Jur. 210; *Drew on Injunc.* 222; *Phil. on Pat.* 462. After that, it becomes a question of public policy, no less than private justice, whether such a grant of a right, exercised, and in possession so long, ought not to be protected, until avoided by a full hearing and trial. *Harmer v. Plane*, 14 Ves. 130.

"In this case, the evidence is plenary and uncontradicted, as to the use and sale of this patent, by the inventor and his representative, for several years, publicly and without dispute. Computing from the original grant, the time is over nine years, and since the reissue of the letters-patent it is nearly three. I concur in the opinion delivered by Judge Sprague, in *Orr v. Badger*, that the time to be regarded under this view, is what has elapsed since the original issue or grant. *Law Reporter for February, 1845.* In *Thompson v. Hill*, 3 Meriv. 622, the time was only three years from the first grant. In *Ogle v. Eye*, 4 Wash. C. C. 584, it was but six years. And though, in some cases reported, it had been thirteen, and in others twenty years, (14 Ves. 120,) yet it is believed, that seldom has a court refused an injunction, in applications like this, on account of the shortness of time after the grant, however brief, if long enough to permit articles or machines to be constructed, by the patentee, in conformity to his claim, and to be sold publicly and repeatedly, and they have been so used and sold, under the patent, without dispute. Here the sales were extensive and profitable, from 1836, downwards, and the right, as well as the possession, does not appear to have

§ 330. But when an injunction is asked before the trial and resisted, and doubts are cast on the originality and validity of

been contested till 1842. In *Hill v. Thomson*, 3 Meriv. 622, 624, it is true that the court dissolved an injunction, when only about one year had elapsed since any work had been completed under the patent, and only two years since the specification was filed, the chancellor calling it a patent 'but of yesterday,' but he added that he would not dissolve it, if 'an exclusive possession of some duration' had followed; though an answer had been put in, denying all equity, and doubts existed as to the validity of the patent; and no sales under it were proved in that case. So, though the patent had been issued thirteen years, and the evidence is doubtful, as to *acquiescence* in the possession or use, an injunction may be refused. *Collard v. Allison*, 4 Mylne & Craig. 487. But in the present case, the acquiescence appears to have been for several years universal.

"Another species of evidence, beside the issue of the patent itself, and long use and possession under it, so as to render it probable the patent is good, and to justify an injunction, is the fact that if the patent becomes disputed, the patentee prosecutes for a violation of his rights, and recovers. Same authorities; *Kay v. Marshall*, 1 Mylne & Craig, 373. This goes upon the ground, that he does not sleep over his claims or interests, so as to mislead others, and that, whenever the validity of his claim has been tried, he has sustained it as if good. But such a recovery is not regarded as binding the final rights of the parties in the bill, because the action was not between them; though, when the judgment is rendered without collusion or fraud, it furnishes to the world some strong, as well as public assurance, that the patent is a good one. In this view of the evidence of this character, in the present action, it is not contradicted, nor impaired at all, by the judgments having been given on verdicts and defaults, under agreements. Such judgments, when, as is admitted here, not collusive, are as strong, if not stronger evidence of the patentee's rights, than they would have been, if the claim was so doubtful as to be sent to a jury for decision, rather than to be so little doubtful as to be admitted or agreed to, after being legally examined. Both of these circumstances, therefore, possession and judgments, unite in support of an injunction in the present case.

"The only answer to the motion, as made out on these grounds, is, the evidence offered, by affidavits, on the part of the respondents, tending to cast doubt on the originality of the invention of the patentee. I say, tending to this, because some of the affidavits, at least, do not distinctly show that the persons making them, intended to assert that the whole of any one of the combination of particulars contained in Dr. Orr's claim, in his specification, had been used before his patent issued; because, they are counteracted by other testimony, from the witnesses of the complainants, more explicit and

the patent, if the counterbalancing and fortifying circumstances of long possession, use, or sale to a considerable extent, and

in larger numbers ; and because in this preliminary inquiry, where the evidence is taken, without the presence or cross-examination of the opposite party, it would be unsafe to settle and decide against the validity of the patent, when a full and formal trial of it is not contemplated till further progress is made in the case. All that is required in this stage, is, the presumption before named, that the title is good. This presumption is stronger here than usual, as it arises from the issue of the patent, and an enjoyment and possession of it undisturbed for several years, beside the two recoveries against those charged with violating it.

“ After these, other persons can, to be sure, contest the validity of the patent, when prosecuted either in equity, or at law ; but it is hardly competent for them to deprive the complainant of her right, thus acquired, to an injunction, or, in other words, to be protected in so long a use and possession, till her rights are disproved, after a full hearing ; surely it is not reasonable to permit it when the affidavits of the respondents to invalidate or cast a shade over her right are met by that which is stronger, independent of the long possession, judgments, and presumptions, before mentioned. But another objection has been urged in argument. When an answer to the bill denies all equity in it, the respondents contend that an injunction would be dissolved, and hence it ought not to be imposed, if the respondent denies equity by affidavit. This may be correct, in respect to injunctions termed *common*, as these affidavits and counter-affidavits are inadmissible, Eden, 117, 326 ; yet, in these, the denial must be very positive and clear. Ward v. Van Bockelen, 1 Paige, 100 ; Noble v. Wilson, Ib. 164. But the position cannot be correct in the case of injunctions called *special*, like the present one, and where facts and counter-evidence show the case to be different from what is disclosed in the affidavits, or an answer of the respondents alone. No usage or cases are found where the injunctions are dissolved, as a matter of course, on such answers, if the complainant has adduced auxiliary presumptions in favor of his right, like those in the present instance. On the contrary, the cases are numerous, where the whole is regarded as still within the sound discretion of the court, whether to issue the injunction or refuse it ; or, if issued, to dissolve or retain it. 3 Meriv. 622, 624 ; 2 Johns. Ch. R. 202 ; 3 Sumn. 74 ; Livingston v. Van Iugen, 9 Johns. R. 507, 570 ; Rodgers v. Rodgers, 1 Paige, 426. And where the complainant has made out not merely a grant of the patent, but possession and use, and sale under it, for some time, undisturbed, and beside this, a recovery against other persons using it, the courts have invariably held that such a strong color of title shall not be deprived of the benefit of an injunction, till a full trial on the merits counteracts or annuls it. In several cases, where the

former recoveries under it, do not exist, the injunction will not be allowed before trial.¹

§ 331. If the respondent succeeds in raising doubts both as to the exclusive possession and as to the novelty of what is claimed, and the evidence on these points is conflicting, the injunction will be refused until a trial.²

§ 332. If the question of infringement is doubtful, it must be tried by a jury ; and in a case of this kind, Sir L. Shadwell, V. C., dissolved an injunction, and ordered an action to be brought to try the infringement, the respondents being ordered to keep an account, and to admit the plaintiff's title to the patent.³ The same rule would be applicable to the granting an injunction in the first instance.

equities of the bill were even denied, and in others, where strong doubts were raised, whether the patent could, in the end, be sustained as valid, the courts decided, that injunctions should issue under such circumstances, as have before been stated in favor of the plaintiff, till an answer or final hearing ; or, if before issued, should not be dissolved till the final trial, and then cease, or be made perpetual, as the result might render just. The Chancellor, in *Roberts v. Anderson*, 2 Johns. Ch. R. 202, cites 2 Vesey, 19, and Wyatt's P. R. 236 ; *Boulton v. Bull*, 3 Ves. 140 ; *Universities of Oxford and Cambridge v. Richardson*, 6 Ves. 689, 705 ; *Harmer v. Plane*, 14 Ves. 130 ; and *Hill v. Thompson*, 3 Mer. 622, 624."

There was a case before Sir L. Shadwell, V. C., where a good deal of doubt, as to the originality of the invention, was raised, by the introduction of a former patent and specification, but the plaintiff had enjoyed uninterrupted possession for seven years ; and the infringement being clearly shown, the injunction was granted before trial, and a trial ordered. *Losh v. Hague*, Webs. Pat. Cas. 200. In like manner, Mr. Justice Story held that the affidavit of a single witness, after long possession, and other recoveries on the patent, would not outweigh the oath of the patentee, and the general presumption arising from the grant of the patent. *Woodworth v. Sherman*, 3 Story's R. 171, 172. See also *Orr v. Badger*, 10 Law Reporter, 465.

¹ *Hovey v. Stevens*, 1 Woodb. & M. 290, 303. The patent in this case had been issued less than a month before the infringement complained of.

² *Collard v. Allison*, 4 M. & Cr. 487, 488.

³ *Morgan v. Seaward*, Webs. Pat. Cas. 167.

§ 333. It seems, also, that another element to be considered is, the effect of the injunction on the defendant's business. As the granting of an injunction rests in the discretion of the court exercised upon all the circumstances of the case, and as the object of the injunction is to prevent mischief, it is said that where irreparable mischief would ensue from it to the defendant, it ought not to be granted.¹ But this must be understood as applying to a case where the plaintiff would not be injured by the delay, but would be left in *statu quo* after a trial establishing the validity of his patent; or at least, where the rights of the plaintiff are capable of being fully protected by an account to be kept in the interim; because the object of the court is to preserve to each party the benefit to which he is entitled.²

§ 334. Nor will an injunction be granted, where the plaintiff has permitted the defendant to go on and incur expense under the expectation of receiving a certain sum, if the relations between them are such as to allow of the defendants disputing the plaintiff's right as patentee.³ But it seems that where the defendant is estopped at law from denying the validity of the patent, an injunction will be granted; but if there is a real question to be tried, and a year's rent for the use of the invention is due, the court will order the money to be paid into court, to wait the event of the trial.⁴

§ 335. If the plaintiff shows the necessary possession, and an infringement has actually been committed by the defendant, the injunction will be granted, notwithstanding the defendant admits the infringement and promises not to repeat it.⁵

¹ Neilson v. Thompson, Webs. Pat. Cas. 278, 286.

² *Ibid.*

³ *Ibid.*

⁴ Neilson v. Fothergill, Webs. Pat. Cas. 287, 289, 290. See further as to injunctions against licensees, post.

⁵ Losh v. Hague, Webs. Pat. Cas. 200. Sir L. Shadwell, V. C. — "It

§ 336. Third. The third class of cases is where the question of granting the injunction comes on upon the final hearing; and here, the situation of the parties is entirely different from the state of things on an interlocutory motion. The object of a bill in equity to protect a patent is a perpetual injunction; and this in general can only be granted at the hearing; and if granted at the hearing, it will necessarily be perpetual. Objections raised by the defendant, therefore, to the validity of the patent, at the hearing, require a very different consideration from the court; because the question is, whether the court will give any assistance to a party, who might have applied for an interlocutory hearing, and so have given the defendant an opportunity to have had the legal title investigated, but has not done so. In such cases, where there are no circumstances shown which would have prevented the plaintiff from asking for an injunction in the progress of the cause, it will not only not be granted at the hearing, but the bill will be dismissed with costs, if it has been pending for a long time, and the answer had denied the validity of the patent and the fact of infringement.¹

really seems to me that this is a case in which I must grant the injunction, because, as I understand it, the wheels that the defendant has made are certainly wheels made according to that thing for which, as I understand it, the plaintiff has taken out his patent, — the substance of part of the patent being for making wheels that shall have the spoke and the felloe in parts of the same piece, that is, in other words, the spoke is to be made with an elbow bend, which elbow bend will constitute a part of the felloes. Now it seems to me that there can be no question, but that the wheels complained of as having been made by the defendant, do answer the description of the plaintiff's wheels, and I do not think it enough on a question of injunction, for the defendant to say why he has done the thing complained of, but will not do it again. That is not the point, because if a threat had been used, and the defendant revokes the threat, that I can understand as making the plaintiff satisfied; but if once the thing complained of has been done, I apprehend this court interferes, notwithstanding any promise the defendant may make not to do the same thing again."

¹ Bacon v. Jones, 4 M. & Cr. 433. In this case, Lord Cottenham said, "Generally speaking, a plaintiff who brings his cause to a hearing is expected to bring it on in such a state as will enable the court to adjudicate

§ 337. The next question is, supposing that an injunction is not to be granted *simpliciter*, what course is to be taken. This

upon it, and not in a state in which the only course open is to suspend any adjudication until the party has had an opportunity of establishing his title by proceedings before another tribunal. And I think the court would take a very improper course, if it were to listen to a plaintiff who comes forward at the hearing, and asks to have his title put in a train for investigation, without stating any satisfactory reason why he did not make the application at an earlier stage. When he comes forward upon an interlocutory motion, the court puts the parties in the way of having their legal title investigated and ascertained; but when a plaintiff has neglected to avail himself of the opportunity thus afforded, it becomes a mere question of discretion, how far the court will assist him at the hearing, or whether it will then assist him at all.

If, indeed, any circumstances had occurred to deprive him of that opportunity in the progress of the cause, the question might have been different. But in this case I have not heard any reason suggested why the plain and ordinary course was not taken by the plaintiffs, of previously establishing their right at law. They might have brought their action before filing the bill, or they might, after the bill was on the file, have had their right put in a train for trial. Instead of that, they have allowed the suit to remain perfectly useless to them for the last four years. They knew of the alleged infringement in the month of August, 1835; and from that time till the hearing there was no moment at which they might not, by applying to the court, have had liberty to bring an action to establish their title at law.

It is obvious that such a line of proceeding exposes a defendant to inconveniences which are by no means necessary for the protection of the plaintiff. It is no trifling grievance to have a chancery suit hanging over him for four years, in which, if the court shall so determine at the hearing, he will have to account for all the profits he has been making during the intermediate period. Is a defendant to be subject to this annoyance without any absolute necessity, or even any proportionate advantage to his adversary, and without that adversary being able to show any reason why he did not apply at an earlier time. It appears to me that it would be very injurious to sanction such a practice, more especially when I can find no case in which the court has thought it right to retain a bill, simply for the purpose of enabling a plaintiff to do that which these plaintiffs might have done at any time within the last four years.

It was much more regular and proper that the plaintiffs should have taken steps for putting the legal right in a course of trial. Those steps they have not chosen to take, and it is now impossible to put the defendants in the

part of the subject embraces the cases where the plaintiff will be sent to try his title at law, without an injunction; and the cases where an injunction will be granted, but the plaintiff will be required to establish his patent at law. The plaintiff will be sent to a court of law, to establish the validity of his patent without a previous injunction, if he does not show long possession and exercise of his exclusive right, where the injunction is resisted by evidence which casts doubt on the originality of his invention, or on the question of infringement, or where the patent contains gross and obvious defects.¹

§ 338. With regard to the length of time during which possession and exercise of the exclusive right must be shown, it does not appear that any specific lapse of time has been adopted as a standard; and, indeed, it is manifest that no positive rule can be assumed, applicable to all cases. The general principle is, as we have seen, that the time elapsed between the granting of the patent and the application for an injunction must have been sufficient, to have permitted articles or machines, to be constructed by the patentee in conformity with his claim, and to be sold publicly and repeatedly.² It must also appear, that the thing has in fact

same position in which they would have stood if such a course had been originally adopted.

For these reasons, I am of opinion, that the Master of the Rolls, finding that the evidence in the cause was not such as he could act upon with safety, came, in the exercise of his discretion, to a sound conclusion, when he refused to grant the injunction or retain this bill.

I have purposely abstained from saying any thing as to the legal rights of the parties, because I do not think the case in such a state as to enable me to adjudicate upon it.

The appeal must be dismissed with costs."

¹ *Hovey v. Stevens*, 1 Woodb. & M. 290; *Ogle v. Ege*, 4 Wash. 584; *Collard v. Allison*, 4 M. & C. 488; *Morgan v. Seaward*, Webs. Pat. Cas. 167. By defects is to be understood such as raise doubts as to the merits—that is, the originality or usefulness of the patent, or the patentee's own error in the specification. *Woodworth v. Hall*, 1 Woodb. & M. 400. As to defects arising from the acts of public officers, see *post*.

² See the observations of the court, cited *ante*, from *Orr v. Littlefield*, 1 Woodb. & M. 13, 17.

been sold publicly, if that is the kind of possession relied on;¹ and where the proof of possession consists of former recoveries, or licenses granted to parties who have been sued and have submitted, if it appears doubtful whether such recoveries and submissions were not collusively obtained, the necessary kind of possession will not be made out, and the right will first have to be tried at law.² But it does not impair the effect of such recoveries or submissions, that they were obtained by agreement and without trial, if there was at first a real contest.³

§ 339. Where, however, former use or former recoveries are relied upon, as proof of the possession of the exclusive right, they must have been under the same patent, or under a patent connected in law with that under which the application is made; otherwise it will not appear that they related to the same right.⁴ But under our system of amending specifications, or of surrendering an old patent and taking out a new one on account of informalities, the right in contemplation of law remains the same, after the issue of the new patent, if it is in

¹ *Ibid.* Hovey v. Stevens, 1 W. & M. 290, 303.

² Collard v. Allison, 4 M. & Cr. 487, 488; Kay v. Marshall, 1 M. & Cr. 373; Orr v. Badger, 10 Law Reporter, 465; Orr v. Littlefield, 1 W. & M. 13, 17, 18.

³ Orr v. Littlefield, 1 W. & M. 13, 17, 18; Orr v. Badger, 10 Law Rep. 465. In Neilson v. Thompson, Webs. Pat. Cas. 275, 276, the plaintiff's solicitor proved the preparation and granting of fifty or sixty licenses, and also various infringements by parties who submitted and took a license on proceedings being commenced against them. Sir L. Shadwell, V. C., said, "It seems to me, on these affidavits, that it is sufficiently made out that there has been a use of the patent in this sense, that the right of the patentee to the benefit of the patent has been submitted to where there has been a contest, and it does not at all appear to me that the general way in which the defendants on their affidavit state the mode by means of which the plaintiffs succeeded in establishing the patent is at all an answer to the two cases which are stated in Mr. Blunt's affidavit. Then I have the case of a patent having been obtained in the year 1828, and actually enjoyed by the patentee for upwards of twelve years."

⁴ Hovey v. Stevens, 1 W. & M. 290.

fact for the same invention ; and consequently a former possession under the old patent will be ground for granting an injunction, without a previous trial, under the amended patent.¹ Usually, where an injunction is not granted, but the plaintiff is required to establish his title at law, the defendant will be ordered to keep an account until the question is determined.² It seems, that where both parties claim under patents, the court cannot grant an injunction until the rights have been tried at law.³

§ 339. *a.* The cases where an injunction will be granted, but the plaintiff will be required to establish his patent at law, do not admit of any very precise classification under a distinct rule. The court must exercise its discretion upon the circumstances.⁴

¹ *Orr v. Badger*, 10 Law R. 465.

² See Post, as to the account.

³ This was held in *Baskett v. Cunningham*, 2 Eden's Ch. R. 137, in relation to two conflicting patents for the printing of Bibles ; and it has not been overruled by any subsequent case. Nor can it well be overruled, for where there are two conflicting patents, apparently for the same thing, the grounds of undisturbed possession on which injunctions are granted cannot exist.

⁴ In *Harmer v. Plane*, 14 Ves. 130, 131, Lord Eldon thus explained the grounds on which an injunction should be granted, in cases where there is so much doubt as to require further investigation. "The ground upon which, where doubt is excited in the mind of the court, an injunction is granted, until the legal question can be tried, a ground that was acted upon in the case of *Boulton v. Watt*, (*Boulton v. Bull*, 2 Hen. Black. 453 ; 3 Ves. 140 ; *Hornblower v. Boulton*, 8 Term Rep. 95 ; *Hill v. Thompson*, 3 Mer. 622,) in some cases preceding that, and some that have occurred since, is this : where the crown on behalf of the public grants letters-patent, the grantee, entering into a contract with the crown, the benefit of which contract the public are to have, and the public have permitted a reasonably long and undisputed possession under color of the patent, the court has thought, upon the fact of that possession, proved against the public, that there is less inconvenience in granting the injunction until the legal question can be tried, than in dissolving it at the hazard, that the grant of the crown may in the result prove to have been valid. The question is not really between the parties on the record ; for, unless the injunction is granted, any person might violate the patent ; and the consequence would be that the patentee must be ruined by litigation. In the case of *Boulton and Watt*, therefore, though a case of great doubt, upon which some of the ablest judges in Westminster

If the plaintiff has, by proof of possession and enjoyment, made out a *primâ facie* case for an injunction, it will then be for the court to consider whether the nature of the case entitles the defendant to a farther investigation into the validity of the patent or into the fact of infringement. The defendant will have a right to farther investigation, if he shows that there are any questions of fact or of law, which a court of equity does not ordinarily undertake to settle; and this investigation will generally be ordered to take place in an action at law, although it is competent for the court to direct an issue out of chancery.¹

Hall disagreed, yet upon the ground of the possession by the patentees against all mankind, the injunction was granted, until the question could be tried; and the result of the trial, being in favor of the patent, proved that the conduct of the court in that instance was at least fortunate.

The first of these patents, granted in the 27th year of his present majesty, is expired; and the patent for the improvements was granted in the 34th Geo. III. The agreement, entered into by this defendant, for a license to work under the patentee would not bind the defendant. If the plaintiff could not legally grant that license, there was no consideration; and the question between them, therefore, is entirely open. Still, however, the patentee has had possession against all the world; and if he can maintain its validity by a due performance of the condition as to enrolment of the specification, by dissolving the injunction in the meantime, I should act both against principle and practice; not only enabling this defendant against law to exercise a right in opposition to the patent; but also encouraging all mankind to take the same liberty."

¹ *Harmer v. Plane*, 14 Ves. 130, 131; *Hill v. Thompson*, 3 Meriv. 622, 630; *Wilson v. Tindal*, Webs. Pat. Cas. 730, note. In this case, Lord Langdale, M. R. said, "Having regard to the arguments on the validity of the patent, to the enjoyment of it by the plaintiffs, and to the evidence which appears upon the affidavits which have been made in this case, I am of opinion that the injunction which is applied for ought to be granted.

The question for consideration is, whether any terms ought to be imposed upon the plaintiffs, or whether any other mode of investigating the facts than that which is adopted in the usual course of proceeding in this court ought to be adopted. It is to be observed, that all orders made on applications of this kind, are merely interlocutory orders; they do not bind the right between the parties. The injunction which I have stated it to be my intention to grant, will be an injunction only until further order. It will not be a perpetual injunction; not an injunction to continue during the continu-

§ 340. A denial in the answer, as to the validity of the

ance of the patent. Notwithstanding this order, the defendant may put in his answer, he may displace all the affidavits which have been filed on both sides. The plaintiff and the defendant may respectively proceed to evidence, they may bring their cause on for a hearing, and upon the hearing of the cause, the whole case, the law regarding the patent, and the facts which will appear upon the depositions, will have to be reconsidered, and that reconsideration may, for any thing that can be known to the contrary, justly end in a result different from that which I have come to upon the present occasion.

The defendant having his option to adopt this course of proceeding, has at the bar expressed his desire to have this matter tried at law. If he was left merely to prosecute a *scire facias* for the repeal of the patent, that would be one part of the question which he might in that way try. But there are other questions subsisting between the parties regarding matters of fact, which could not be tried in that way.

Now it has been stated by Lord Cottenham, that he recollected no instance in which the court has not adopted the course of directing the trial of an action; he has stated that to be the result of his experience. I certainly am very reluctant to try my own memory against that, but I should have supposed that there were instances in which that had been done. It is not the right of parties in every case to have an action tried in a court of law, it is a question of convenience, and the court is to exercise a fair discretion. I have no doubt whatever of the competency of this court to grant an injunction *simpliciter*. Neither had Lord Cottenham any doubt of it. But the question is, whether, when there is an opportunity for carrying the matter further, it is not, on the whole, a convenient course of proceeding to have it tried before the tribunal which is most proper for the consideration of the legal question, and by which the facts can be better investigated than they can here. It is not, therefore, upon the ground of any doubt as to the validity of the patent that I make the order which I am about to make, but it is because the nature of the case entitles the defendant to a further investigation in one form or other, and the most convenient and most effective mode appears to me to be that which has been mentioned, namely, by bringing an action in a court of law. Notwithstanding, therefore, the very forcible arguments I have heard upon this subject, I think I must in this case, as has been done in so many other cases, direct the plaintiff to bring an action to try this right, the injunction being granted in the terms of the notice of motion."

In *Russell v. Barnsley*, Webs. Pat. Cas. 472, Sir L. Shadwell, V. C., said that he did not recollect a case where a defendant had stated his wish to try the question at law, that the court had refused to give him the opportunity.

patent, or the fact of infringement, will be sufficient to entitle the defendant to further investigation in an action at law ; but it has been held that, under our system, if the defendant wishes to try the question of originality in an issue out of chancery, he must set out in his answer the names of places and persons where, and by whom the invention had previously been used, because the Act of Congress peremptorily requires notice of these facts, in a trial of this question at law.¹

§ 341. The fact of the pendency of an action against another party has been held not to be a sufficient ground for continuing an injunction, where the novelty of the invention was denied in the answer, without putting the plaintiff to bring an action against the new defendant.²

§ 342. The practice of the court in dissolving, reviving, continuing, or making final injunctions, previously granted, is regulated, in general, by the same rules as the practice of granting them in the first instance. A motion to dissolve an injunction may be made at any time. If made after a trial has been ordered at law, or while an action at law is pending, or while the plaintiff is preparing to bring an action, the decision of the court will be made upon the same principles which governed the granting of the injunction in the first instance ; that is to say, the defendant will not succeed in displacing the plaintiff's *prima facie* right to an injunction, merely by filing an answer, or reading affidavits casting doubts on the validity of the patent, provided the plaintiff is guilty of no unreasonable delay in bringing on the trial ; especially, if the plaintiff adduces auxiliary evidence in favor of his right.³

¹ Orr v. Merrill, 1 Woodb. & M. 376, 378. *Quere*, whether it would not be a sufficient compliance with the statute, if the court, in directing an issue, were to order the defendant to file a notice of the persons and places, before the issue is tried, without its being contained in the bill.

² Russell v. Barnsley, Webs. Pat. Cas. 472.

³ Orr v. Merrill, 1 W. & M. 376 ; Orr v. Littlefield, Ib. 13 ; Orr v.

§ 343. Where the motion to dissolve is made after a trial at law has been had, the court will have to look at the result of that trial, and will be governed by the position in which the plaintiff's right has been left. If the proceedings at law are not in a state to be regarded as final, the court will choose to be informed as to the further questions which remain to be investigated. If a verdict has been rendered for the plaintiff, but a new trial has been, or is to be moved for, and if the court can see that there is a question on which an argument might be addressed to the court of law, which might induce it to grant a new trial, the injunction will not be continued, as a matter of course, but the court will endeavor to leave the parties in a situation that will produce, on the whole, the least inconvenience, having regard to all the circumstances of their respective situations.¹

Badger, 10 Law Rep. 465. In such cases, the injunction should be continued to the next term after that at which the suit at law might be tried to test the title. *Orr v. Merrill*.

¹ *Hill v. Thompson*, 3 Meriv. 622, 628. In this case, the injunction had been dissolved, a trial at law had resulted in a verdict for the plaintiff, who came before the court with a motion to *revive* the injunction. On the part of the defendants, it was stated to be their intention to move for a new trial at law, at the next term, which was as soon as the motion could be made. Lord Eldon said: "In this case, the injunction was first granted upon the strength of the affidavits, which were contradicted, as to their general effect, in the most material points, when it afterwards came before the court upon a motion to dissolve the injunction so obtained. Many topics were then urged on both sides, and fully discussed in argument. It was insisted, on the part of the plaintiff, and the court agreed to that position, that where a person has obtained a patent, and had an exclusive enjoyment under it, the court will give so much credit to his apparent right, as to interpose immediately, by injunction, to restrain the invasion of it, and continue that interposition until the apparent right has been displaced. On the other hand, it was with equal truth stated, that, if a person takes out a patent, as for an invention, and is unable to support it, except upon the ground of some alleged improvement in the mode of applying that which was previously in use, and it so becomes a serious question, both in point of law and of fact, whether the patent is not altogether invalid, then, upon an application to this court for what may be called the extra relief which it affords on a clear

§ 344. Sometimes the court will direct a motion for an injunction to stand over, when none has been granted, until it

primâ facie case, the court will use its discretion; and, if it sees sufficient ground of doubt, will either dissolve the injunction absolutely, or direct an issue, or direct the party applying to bring his action, after the trial of which, either he may apply to revive, if successful, or else the other party may come before the court, and say, I have displaced all his pretensions, and am entitled to have my costs and the expenses I have sustained, by being brought here upon an allegation of right which cannot be supported. And as, in this instance, the court will sometimes add to its more general directions, that the party against whom the application is made, shall keep an account pending the discontinuance of the injunction, in order that, if it shall finally turn out that the plaintiff has a right to the protection he seeks, amends may be made for the injury occasioned by the resistance to his just demands. In his directions to the jury, the judge has stated it as the law on the subject of patents—first, that the invention must be novel; secondly, that it must be useful; and thirdly, that the specification must be intelligible. I will go further, and say, that not only must the invention be novel and useful, and the specification intelligible, but also that the specification must not attempt to cover more than that which, being both matter of actual discovery, and of useful discovery, is the only proper subject for the protection of a patent. And I am compelled to add, that, if a patentee seeks, by specification, any more than he is strictly entitled to, his patent is thereby rendered ineffectual, even to the extent to which he would be otherwise fairly entitled. On the other hand, there may be a valid patent for a new combination of materials, previously in use, for the same purpose, or for a new method of applying such materials. But, in order to its being effectual, the specification must clearly express that it is in respect of such new combination or application, and of that only, and not lay claim to the merit of original invention in the use of materials. If there be a patent both for a machine and for an improvement in the use of it, and it cannot be supported for the machine, although it might for the improvement merely, it is good for nothing altogether, on account of its attempting to cover too much. Now, it is contended, that what is claimed by the present patent is not a novel invention; that the extraction of iron from slags or cinders was previously known and practised; that the use of lime in obstructing ‘cold short’ was likewise known. But to all this it is answered, that the patent is not for the invention of these things, but for such an application of them as is described in the specification. Now, the utility of the discovery, the intelligibility of the description, &c., are all of them matters of fact proper for a jury. But whether or not the patent is defective, in attempting to cover too much, is a question of law, and as such, to be considered in all ways that it is convenient for the pur-

can be ascertained what the result of an application for a new trial is to be ; and where a rule, to show cause why a new trial should not be had, had been granted, an injunction was refused, it not having been allowed before.¹

poses of justice that it should be considered. This specification generally describes the patent to be 'for improvements in the smelting and working of iron ;' and it then goes on to describe the particulars in which the alleged improvements consist, describing various proportions in the combination of materials, and various processes in the adhibition of them. The question of law, upon the whole matter, is, whether this is a specification by which the patentee claims the benefit of the actual discovery of lime as a preventive of 'cold short,' or, whether he claims no more than the invention of that precise combination and those peculiar processes which are described in the specification. And, when I see that this question clearly arises, the only other question which remains is, whether I can be so well satisfied with respect to it as to take it for granted, that no argument can prevail upon a court of law, to let that first question be reconsidered by granting the motion for a new trial. If this be a question of law, I can have no right whatever to take its decision out of the jurisdiction of a court of law, unless I am convinced that a court of law must and will consider the verdict of the jury as final and conclusive. But this only brings it back to the original question ; and I see enough of difficulty and uncertainty in the specification, and enough of apparent repugnance between the specification and the patent itself, to say that it is impossible I can arrive at such a conclusion respecting it, as to be satisfied that there is no ground for granting a new trial. In the order I formerly pronounced was contained a direction, that the defendant should keep an account of iron produced by their working in the manner described in the injunction. If the injunction is to be now revived, the whole of their establishment must be discharged between this and the fourth day of next term, when it is intended to move for a new trial, the result of which may be, that the defendants have a right to continue the works ; to do which, they will then be under the necessity of recommencing all their operations, and making all their preparations and arrangements *de novo*. It appears to me that this would be a much greater inconvenience than any that can result from my refusal, in the present instance, to revive the injunction. My opinion, therefore, is, that this matter must stand over till the fifth day of next term, when I may be informed of the result of the intended application for a new trial ; the account to be taken in the meantime as before."

¹ There is a recent case where an injunction was applied for and refused, and the plaintiff was directed to bring an action, which was tried and a verdict found for the plaintiff. The motion for the injunction was then renewed ;

§ 345. This course of proceeding shows that when a new trial has been or is intended to be applied for, a court of equity will generally leave the parties in the situation in which they stood before the trial. If no injunction had been previously granted, the court will not increase the defendant's burdens by imposing one, as long as the plaintiff's right remains doubtful at law. But if an injunction has been granted and the plaintiff has succeeded at law, it would seem, that the injunction ought not to be dissolved, on the mere suggestion that there is ground for a new trial, unless the court sees what Lord Eldon called "sufficient ground of doubt" of the plaintiff's right; but that the court will exercise its discretion, and if it sees reason for dissolving the injunction, it will direct the defendant to keep an account pending the discontinuance of the injunction, in order that, if it finally turns out that the plaintiff has a valid patent, he may receive amends for the injury occasioned by the resistance to his just demands.¹ After a trial and judgment at law, in favor of the plaintiff, the injunction will be revived or granted as matter of course.² How far the court will undertake to look into the regularity of such a judgment, and to determine, on the suggestion of the defendant, whether there is probable ground for a writ of error, and therefore to suspend the injunc-

but it appeared on affidavit, that a bill of exceptions had been tendered, and that the defendants also intended to move for a new trial. The Lord Chancellor directed the application to stand over until the result of these proceedings should be known. Shortly afterwards a rule *nisi*, for a new trial, was obtained, and then the motion for the injunction was brought on again. The Lord Chancellor said, that under the circumstances in which the case stood at law, a rule to show cause why a new trial should not be had, having been granted — he must consider the legal title of the parties as still undecided; and he therefore refused the application. *Collard v. Allison*, 4 M. & Cr. 487, 490.

¹ See the observations cited *ante*, from *Hill v. Thompson*. See further as to ordering an account, *post*.

² *Neilson v. Harford*, (Cor. Lord Lyndhurst in 1841,) *Webs. Pat. Cas.* 373.

tion, is a question which has not arisen in this country; but it seems that in England, the Lord Chancellor has so far entertained an application of this kind, as to look into the proceedings at law and the grounds of the judgment, and to satisfy himself that no good reason existed for departing from the usual course of reviving the injunction after a judgment in favor of the plaintiff.¹

§ 346. An important part of the remedial process in equity is the account of profits made by the defendant. Sometimes an account is ordered to be kept, in lieu of granting or continuing an injunction, and it is always ordered when the injunction is made perpetual, unless the amount would be very small. The cases in which an account is ordered to be kept either with or without an injunction, during the pendency of an action in which the right is to be tried, proceed upon the principle that the plaintiff may turn out to be entitled to the right, and he is more secure of ample justice if the account of the defendant's profits is kept while he is using the invention, than if it were deferred to be taken at a future time, especially if the defendant is left at liberty to make new contracts.² Such an account will be ordered, if the injunction is dissolved by reason of the irreparable injury it would do to the defendant's business.³

¹ Ibid.

² *Hill v. Thompson*, 3 Meriv. 626, 631; *Crossley v. Derby Gas Light Company*, Webs. Pat. Cas. 119; *Neilson v. Fothergill*, Ibid. 290; *Morgan v. Seaward*, Ibid. 168; *Bacon v. Jones*, 4 M. & Cr. 436.

³ *Neilson v. Thompson*, Webs. Pat. Cas. 278, 285. In this case Lord Cottenham said, "Nothing that took place could preclude the defendants from the right of disputing the plaintiff's right as a patentee, but they have at very considerable expense, erected this machinery, and from that time to the present have been using it, the plaintiff being aware of it, at least from some time in 1839, (the precise day is not stated) and stood by and permitted them to do this. If he is entitled as patentee it would be extremely hard for the court to do any thing to prevent his receiving that which he is entitled to receive, and in expectation of which he permitted the defendants to go on with their works. But on the other hand, it would be extremely hard

§ 347. Sometimes, as a further means of doing justice between the parties, upon the question of infringement, when an action at law is to be tried, the court will order a mutual inspection of the plaintiff's and defendant's works. The object in so doing is to enable the parties, on the trial, to give such evidence as

indeed to tell the defendants that they shall not use the works, which, with the plaintiff's knowledge, they have prepared at a very considerable expense; and as to telling them they may go on with the cold blast instead of the hot blast, I am told that the difference between the use of the one and the other is an expense of nearly double, even if it were possible; at all events they may sustain that loss in the interval until the right is tried. It seems to me that stopping the works, by injunction, under these circumstances, is just inverting the purpose for which an injunction is used. An injunction is used for the purpose of preventing mischief; this would be using the injunction for the purpose of creating mischief, because the plaintiff cannot possibly be injured. All that he asks, all that he demands, all that he ever expects from these defendants is one shilling per ton. He has not a right to say to them, you shall not use this apparatus; he cannot do so after the course of conduct he has adopted; he may no doubt say with success, if he is right, you shall pay me that rent which the others pay, and in the expectation of which I permitted you to erect this machinery. Therefore, in no possible way can the plaintiff be prejudiced; but the prejudice to the defendants must be very great indeed, if they are for a short period prevented from using at their furnaces that apparatus which, with the consent of the plaintiff, they have erected. The object, therefore, is, pending the question, which I do not mean to prejudice one way or the other by any thing I now say, to preserve to the parties the opportunity of trying the question, with the least possible injury to the one party or the other; and I think the injunction would be extremely prejudicial to the defendants, and do no possible good to the plaintiff for the purpose for which it may be used. It may, by operating as a pressure upon the defendants, produce a benefit, but that is not the object of the court; the object of the court is to preserve to each party the benefit he is entitled to, until the question of right is tried, and that may be entirely secured by the defendants undertaking to keep an account, not only for the time to come, but from the time when the connection first commenced, and undertaking to deal with that account in such a way as the court may direct; and if the plaintiff is entitled, the court will have an opportunity of putting the plaintiff precisely in the situation in which he would have stood if the question had not arisen. If it shall turn out that the patent is not valid, the court will deal with it accordingly, and that will, I think, most effectually prevent all prejudice."

will tend to prove or disprove the fact of infringement. For this purpose inspectors or viewers are appointed, under the direction of the court, who are to be admitted as witnesses on the trial at law. If the parties do not agree on the persons to be appointed, the court will appoint them.¹

§ 348. When the validity of the patent is fully established, an account will be ordered of all the profits made by the defendant, to be taken by a master; and if the patent has expired, the account and the injunction will extend to all the articles piratically made during the existence of the patent, though some of them may remain unsold.²

§ 349. An injunction should not be dissolved merely on account of doubts as to the validity of the patent, which arise from objections to the technical form or signature of the letters, or other acts or omissions of the public officers, and not from any neglect or wrong of the patentee.³

¹ *Morgan v. Seaward*, Webs. Pat Cas. 168; *Russell v. Cowley*, Ibid. 457. See these cases for the decrees appointing such inspectors.

² *Crossley v. Beverley*, Webs. Pat. Cas. 119; *Crossley v. Derby Gas Light Company*, Ibid. 119, 120. In this case a very curious difficulty occurred in estimating the "profits." The plaintiff was the owner of a patent for making gas-meters, which the defendants had made, and sold and employed in their works. The profits to be ascertained were the benefits derived from the use of the meters, in enabling the defendants to furnish gas to their customers at a lower rate than they could have done without them, and so to obtain additional profits from an increased consumption. It was a case, therefore, presenting the uncertain elements of profits made by the application of particular means, and a just distribution of those profits to a particular agent employed. The case does not furnish any principles, as it is reported. See 3 Mylne & Cr. 428, 430.

³ *Woodworth v. Hall*, 1 Woodb. & M. 389, 400. In this case, Mr. Justice Woodbury said, "Finally, it is contended that if any doubt exists as to the validity of a patent, as some assuredly does here, as before stated, the injunction should be dissolved. This may, with some qualification as to the matters connected with the subject, be true in granting an injunction, as laid down in 4 Wash. C. C. 584, if the doubt relate to the merits — that is, the

§ 350. Upon the question of granting an injunction against a party who has had the use of the invention by permission or grant of the patentee, the doctrine seems to be this. A party who has had such use of an invention, under a contract for an annual rent, or other estimated rate of payment, may discontinue the payment, and, if he still use the invention, the patentee may sue him for the rent due, or for an infringement. If an action is brought for the rent, and the defendant is not estopped by the terms of his contract from denying the validity of his patent, the plaintiff cannot recover without giving him an opportunity to do so.¹ The same is true under an action for the infringement, if the defendant is not estopped.² Where, therefore, a court of equity does not see that the defendant is estopped from denying the validity of the patent, but that he has a right to resist the patent, it will deal with a

originality or usefulness of a patent, or a patentee's own error in his specification. But, when the objection relates to the technical form or signature of papers connected with the letters, and the doubts arise from acts of public officers, and not any neglect or wrong of the patentee, the position seems to me not sound. More especially should an injunction, once granted, not be disturbed for such doubts, when, as in this case, the term for trial of the merits is near; and the allowing such doubts to prevail, even to the extent of dissolving an injunction, might not merely affect the present patent and present parties, but operate injuriously on all other patents and parties where, for the last ten years, by a cotemporaneous and continued construction of the patent law, chief clerks have, under its authority, signed patents or other important papers as acting commissioner, in the necessary absence of the commissioner, or made mistakes of a clerical character in the form of the letters. In my opinion, so far from its being proper, under such circumstances, to dissolve an injunction for doubts on such technical objections, it is rather the duty of the court, if, as here, mischievous consequences are likely to ensue to others from interfering, and if, as here, legislative measures have been recommended by the public officers, which are pending, to remedy or obviate the possible evil from any public mistakes, not to dissolve an injunction already granted, unless required to do it by imperative principles of law, showing the letters-patent to be clearly void."

¹ *Hayne v. Maltby*, 3 T. R. 438.

² As to estoppel and failure of consideration, see *Bowman v. Taylor*, 2 Ad. & E. 278, and other cases collected in *Webs. Pat. Cas.* 290, note.

defendant who has used under a license or other contract, or under permission, upon the question of injunction, as it deals with other defendants; and, as we have seen, if the bill which prays for an injunction, also shows that rent is due by contract, the court will order the money to be paid into court, to await the result of an action at law.¹

¹ Neilson v. Fothergill, Webs. Pat. Cas. 287, 288. The bill showed that the plaintiffs had called on the defendants for an account of the iron smelted by the use of the invention, in order to ascertain the sum due, and that the defendants had rendered an account in writing of all the iron smelted by them up to the 2d of August, 1839, and duly paid one shilling per ton on the same; that the plaintiff had applied to the defendants for an account of the iron smelted since the 2d day of August, 1839, and for like payments, but the defendants had refused. It appeared that the draft of a license was sent to the defendants, containing amongst others a clause for revoking the license upon the non-payment of the rent, *and that this license was kept*; that the payments were made in conformity to it, and that the plaintiffs, after August, 1839, *revoked the license*. An injunction had been granted, which the defendants now moved to discharge. Lord Cottenham, L. C. — “This case is deprived of those circumstances upon which I acted in the other, namely, the party who claims to be patentee permitting them to incur expense, in the expectation of being permitted to use the furnaces upon the payment of the rent, which is all the plaintiff requires. But here, all that is accounted for, because that was done under a contract, and for two years at least the party has had the benefit of the works which he has so erected, and the patentee has kept his contracts with the defendant; he has not interposed and endeavored to deprive them of the benefit of their expenditure. It is the act of the manufacturer which has put an end to this connection; he has, therefore, exposed himself to any degree of injury that may arise from the expenditure upon these works, and it appears that there is no answer to the claim to this rent from August, 1839, to August, 1840. I shall have to consider, if your client declines to escape from the injunction upon the terms I propose to him, whether the injunction should not go in a case which is deprived of those equitable circumstances which induced me to dissolve it in the others. (Wigram: Your lordship will give me the benefit of the supposition, that, at law, I have a defence if the patent is good for nothing.) If you can show me that there is a real question to try, the money must be paid into court instead of being paid to the parties; but at all events, I do not see how far that year, from August, 1839, to August, 1840, when you went on under the contract without giving notice to determine, you can escape paying it, either

§ 351. It has been held that in a bill in equity for a perpetual injunction, it is a good defence, that prior to the granting of

into court to abide the event of the trial of the question at law, or paying it to the party, if there is no question to try.

Wigram, in reply. Your lordship said you should consider, whether, since August, 1840, we were to be considered as holding adversely, and, therefore, whether liable or not to pay for what was gone by, we were at all events wrong-doers. And then you put me to show, whether I could not in law defend myself for what was said to be due in August, 1840. The principle which I have always understood to govern cases of this sort is this, that, excluding the law of estoppel, if you go into a court of law, and can show a total failure of consideration for the contract, there you may always defend yourself; if, on the other hand, you cannot make out a case of total failure of consideration, you are liable upon your contract, and you may or may not have your cross action. This is the general principle in these cases, subject to the question, whether that which has been done may or may not amount to an estoppel. The whole question in the case of *Bowman v. Taylor*, relied upon for the plaintiff was, whether or not there could be an estoppel by recital, and it was held that there could. In *Hayne v. Maltby*, the question was, whether there was any estoppel, there being no recital of the plaintiff's title, but only an agreement and a covenant to pay, and the court held that there was not. In that case Mr. Justice Ashurst said, the plaintiffs use this patent as a fraud on all mankind, and they state it to be an invention of the patentee, when in truth it was no invention of his. The only right conferred on the defendant by the agreement was that of using this machine, which was no more than that which he in common with every other subject has, without any grant from the plaintiff. That is exactly our case. We say that all mankind have a right to use it, but that some people have taken licenses, supposing it to be the plaintiff's invention. On the money then being paid into court, the injunction should be dissolved.

Lord Cottenham, L. C.: — The case of *Hayne v. Maltby* appears to me to come to this — that although a party has dealt with the patentee and has carried on business, yet that he may stop, and then the party who claims to be patentee cannot recover without giving the other party the opportunity of disputing his right, and that if the defendant successfully dispute his right, that notwithstanding he has been dealing under a contract, it is competent to the defendant so to do. That is exactly coming to the point which I put, whether at law, the party was estopped from disputing the patentee's right, after having once dealt with him as the proprietor of that right: and it appears from the authority of that case, and from the other cases, that from the time of the last payment, if the manufacturer can successfully resist the

the patent, the inventor had allowed the invention to go into public use, without objection; but that it should be clearly established by proof, that such public use was with the knowledge and consent of the inventor.¹ This is the same as one of the statute defences against an action at law, which may all be made, pursuant to the statute, in equity, if the defendant chooses, although the statute has expressly made them defences only in an action at law.

§ 352. If the patentee, after obtaining his patent, dedicates or surrenders it to public use, or acquiesces for a long period in the public use of his invention, without objection, he is not entitled to the aid of a court of equity to protect it; and such acquiescence may amount to complete proof of a dedication or surrender to the public. The ground upon which a court of equity refuses to interfere in such cases, is, that by his own conduct the plaintiff may have led or encouraged the defendant to make use of his invention.²

patent right of the party claiming the rent, that he may do so in answer to an action for the rent for the use of the patent during that year. That being so, I think that, upon the money being paid into court, that is to say, upon the amount of the rent for that year being paid into court, (if required,) and the same undertaking being given to account for the subsequent period, the same order ought to be made in this case as in the others. There must be an undertaking to deal with the amount of that in the same way as before. The great difficulty in this case, which, however, is surmounted in the undertaking, is, that the said suit does not go to that year's rent."

¹ *Wyeth v. Stone*, 1 Story's R. 273.

² *Ibid.* In this case, Mr. Justice Story said, "In the next place, as to Wyeth's supposed abandonment of his invention to the public since he obtained his patent, I agree, that it is quite competent for a patentee at any time, by overt acts or by express dedication, to abandon or surrender to the public for their use, all the rights secured by his patent, if such is his pleasure, clearly and deliberately expressed. So, if for a series of years, the patentee acquiesces without objection, in the known public use by others of his invention, or stands by and encourages such use, such conduct will afford a very strong presumption of such an actual abandonment or surrender.

§ 353. But although it is a principle of equity, that a patentee must not lie by, and by his silence or acquiescence induce

A fortiori, the doctrine will apply to a case, where the patentee has openly encouraged or silently acquiesced in such use by the very defendants, whom he afterwards seeks to prohibit by injunction from any further use; for in this way, he may not only mislead them into expenses, or acts, or contracts, against which they might otherwise have guarded themselves; but his conduct operates as a surprise, if not as a fraud upon them. At all events, if such a defence were not a complete defence at law, in a suit for any infringement of the patent, it would certainly furnish a clear and satisfactory ground why a court of equity should not interfere either to grant an injunction, or to protect the patentee, or to give any other relief. This doctrine is fully recognized in *Rundell v. Murray*, (Jacobs's R. 311, 316,) and *Saunders v. Smith*, (3 Mylne & Craig, 711, 728, 730, 735.) But if there were no authority on the point, I should not have the slightest difficulty in asserting the doctrine, as founded in the very nature and character of the jurisdiction exercised by courts of equity on this and other analogous subjects.

There is certainly very strong evidence in the present case, affirmative of such an abandonment or surrender, or at least of a deliberate acquiescence by the patentee in the public use of his invention by some or all of the defendants, without objection for several years. The patent was obtained in 1829; and no objection was made, and no suit was brought against the defendants for any infringement until 1839, although their use of the invention was, during a very considerable portion of the intermediate period, notorious and constant, and brought home directly to the knowledge of the patentee. Upon this point I need hardly do more than refer to the testimony of Stedman and Barker, who assert such knowledge and acquiescence for a long period, on the part of the patentee, in the use of these ice-cutters by different persons, (and among others by the defendants,) on Fresh Pond, where the patentee himself cut his own ice. It is no just answer to the facts so stated, that until 1839, the business of Wyeth, or rather of his assignee, the plaintiff, Tudor, was altogether limited to shipments in the foreign ice-trade, and that the defendant's business, being confined to the domestic ice-trade, did not interfere practically with his interest under the patent. The violation of the patent was the same, and the acquiescence the same, when the ice was cut by Wyeth's invention, whether the ice was afterwards sold abroad, or sold at home. Nor does it appear, that the defendants have as yet engaged at all in the foreign ice-trade. It is the acquiescence in the known user by the public without objection or qualification, and not the extent of the actual user, which constitutes the ground, upon which courts of equity refuse an injunction in cases of this sort. The acquiescence in

another to go on expending his money and incurring risk, and afterwards, if profit is made, come and claim a share in the profit, without having been exposed to share in the losses ; yet delay to institute his proceedings may be explained by the difficulty of getting evidence of the infringement.¹

§ 354. It has already been stated that in all cases of proceedings in equity to restrain the infringement of patents, in the courts of the United States, the injunction can, at no time, be applied for without notice to the adverse party, giving him an opportunity to oppose it ; and, therefore, the injunction is always *special*.² Where the injunction is applied for before an

the public use, for the domestic trade, of the plaintiff's invention for cutting ice, admits, that the plaintiff no longer claims or insists upon an exclusive right in the domestic trade under the patent ; and then he has no right to ask a court of equity to restrain the public from extending the use to foreign trade, or for foreign purposes. If he means to surrender his exclusive right in a qualified manner, or for a qualified trade, he should at the very time give public notice of the nature and extent of his allowance of the public use, so that all persons may be put upon their guard, and not expose themselves to losses or perils, which they have no means of knowing or averting, during his general silence and acquiescence.

The cases which have been already cited, fully establish the doctrine, that courts of equity constantly refuse injunctions, even where the legal right and title of the party are acknowledged, when his own conduct has led to the very act or application of the defendants, of which he complains, and for which he seeks redress. And this doctrine is applied, not only to the case of the particular conduct of the party towards the persons, with whom the controversy now exists, but also to cases where his conduct with others may influence the court in the exercise of its equitable jurisdiction. (Rundell v. Murray, Jacobs's R. 311, 316 ; Saunders v. Smith, 3 Mylne & Craig, 711, 728, 730, 735.) Under such circumstances, the court will leave the party to assert his rights, and to get what redress he may at law, without giving him any extraordinary aid or assistance of its own."

¹ Crossley v. Derby Gas Light Company, Webs. Pat. Cas. 119, 120. As to what would be reasonable time, in certain circumstances, see Losh v. Hague, Webs. Pat. Cas. 200, 201.

² For the distinction between *common* and *special* injunctions, see 2 Story's Eq. Jurisp. § 892.

answer has been filed, the plaintiff, in addition to the allegations in his bill, must read affidavits to show his title, and the fact of infringement, especially if the defendant appears and offers evidence against the one or the other ; and these affidavits should, in strictness, cover the issuing of the patent, the novelty of the invention, and all other facts necessary to the title.¹ It is believed, however, that in our practice, where the whole title is set out in the bill, which is sworn to, if the defendant does not read affidavits denying the title, it is not usual to read them in support of the title, which is considered as verified by the bill itself. But, if the defendant attacks the title by affidavit, it must be supported by auxiliary proof in addition to the bill, in order to make out the *primâ facie* right to an injunction.

§ 355. In one of the circuit courts of the United States some doubt has been thrown over the question, whether the plaintiff is at liberty to read affidavits in support of his title, after an answer denying it. Mr. Justice McLean has held that on an application for an injunction, after an answer, the plaintiff is not entitled to read affidavits to contradict the answer upon the point of title.² Mr. Justice Woodbury, on the contrary, has held that the plaintiff may show from counter evidence that the case is different from that disclosed in the affidavits, or answer of the defendant, and thus proceed to fortify his right to an injunction.³ I am inclined, after some examination of the point, to think that the latter is the more correct opinion.⁴ It is set-

¹ Daniels Ch. Pr. 1890, 1891, Amer edit. 1846 ; Hindmarch on Patents, 332, and cases cited.

² Brooks v. Bicknell, 3 McLean, 250, 255.

³ Orr v. Littlefield, 1 W. & M. 13, 19. See the observations cited from this case, *ante*.

⁴ If Mr. Justice McLean is to be understood to mean that the plaintiff is not at liberty to read affidavits in support of the novelty of his invention, after an answer denying it, it would seem that the practice and other authorities are opposed to his position. In the case above cited, (Brooks v. Bicknell,) the principal ground of objection to the plaintiff's title, was, that the

tled, in this circuit, by a decision referred to in the note below, by Mr. Justice Story, that the whole question of granting or dis-

patent had been illegally extended; and the opinion does not expressly affirm that the plaintiff may not adduce evidence against the answer, to support the novelty of his invention, although this is implied in the observations of the court. It is, however, clear, that there is a distinction between common and special injunctions on this point. In *Hill v. Thompson*, 3 Meriv. 622, 624, the leading case on the subject of injunctions in patent causes, where Lord Eldon laid down the rules that have since been followed by all judges, an injunction had been obtained until answer, or further order; on the coming in of the answer, the defendants moved to dissolve. The report does not expressly state that the answer denied the validity of the patent, but as this was the only question discussed, it is obvious that the answer must have contained such a denial; and it appears that a variety of affidavits were produced on both sides, tending respectively to impeach, and to assert the validity of the patent, and of the injunction to restrain the breach of it; and amongst them, was an affidavit by the plaintiff on the point of novelty. The same reasons for allowing affidavits of title to be read on a motion for dissolving an injunction, apply to motions for granting it, in the first instance, where the answer has been filed. Now, upon the practice of reading such affidavits on a motion to dissolve, there has been a considerable conflict of decisions. But a distinction was adopted, at a very early period, with regard to injunctions for restraining certain wrongful acts of a special nature, as distinguished from the common injunction for staying proceedings at law. It is the settled practice of the court, in England, to allow affidavits to be read, at certain stages, against the answer, in cases of waste, and of injuries in the nature of waste; but, in cases of waste, they must be confined to the acts of waste, and the title, it is said, must be taken from the answer. *Drewry on Injunc.* 429; *Gibbs v. Cole*, 3 P. Will. 255; *Norway v. Rowe*, 19 Ves. 146, 153; *Smythe v. Smythe*, 1 Swanst. 254, and cases collected in the note. The question is, whether the same rule applies to cases of patents, or, whether they do not stand, in respect to the admission of affidavits on the point of title, upon the reason of the rule which permits affidavits in cases of waste upon the facts of waste. The ground of permitting affidavits to be read on the part of the plaintiff, in cases of waste, is, that the mischief is irreparable; the timber, if cut, cannot be set up again, so that the mischief, if permitted, cannot be retrieved. The same reason exists in cases of partnership, by analogy to waste. *Peacock v. Peacock*, 19 Ves. 49. Does not this reason apply to a denial of the novelty of the plaintiff's invention? Such a denial in the answer, the defendant has a right to make, and to have it tried at law; but if the denial is to be taken as true, on a

solving injunctions, in cases of irreparable mischief, rests in the sound discretion of the court, after answer, as well as before.

motion to grant, or to dissolve an injunction, it may work an irreparable mischief before the plaintiff can establish his right at law ; and yet, this is the consequence of adopting the rule, that, in cases of patents, the title is to be taken from the answer, on motions for an injunction. The court must either assume that the denial in the answer, upon the point of novelty, is true, and, therefore, the plaintiff cannot have an injunction in any case, of however long possession, where the defendant chooses to make this denial ; or it must say, that, however strong the denial in the answer, the plaintiff shall always have his injunction ; or it must look into the evidence on both sides sufficiently to determine whether it is probable that the plaintiff will be able to establish his patent, and grant or withhold the injunction accordingly. The latter was the course taken by Mr. Justice Woodbury, in *Orr v. Littlefield*, where, however, an answer had not been filed, the defendant relying on affidavits ; but the reasoning of the learned judge makes the same course applicable to cases where the equity of the bill is denied by the answer. See the observations of the court, cited *ante*, p. 372. There is a dictum of Lord Langdale, M. R. in *Wilson v. Tindal*, *Webs. Pat. Cas.* 730, (cited *ante*, p. 382) ; that “ notwithstanding this order (the injunction) the defendant may put in his answer, he may displace all the affidavits which have been filed on both sides.” This I conceive to mean merely, that the defendant may show such a case in his answer, as to control the *prima facie* case made by the plaintiff ; and not that the answer necessarily displaces the affidavits before filed. In *Poor v. Carleton*, 3 *Sumner*, 70, 83, Mr. Justice Story reviewed this whole subject, and laid down the broad doctrine that the granting and dissolving injunctions, in cases of irreparable mischief, rests in the sound discretion of the court, whether applied for before, or after answer ; and that affidavits may, after answer, be read by the plaintiff to support the injunction, as well as by the defendant to repel it, although the answer contradicts the substantial facts of the bill, and the affidavits of the plaintiff are in contradiction of the answer.

CHAPTER IV.

EVIDENCE.

§ 356. THE evidence appropriate to the different stages of a patent cause may be divided into (1) the evidence of title, and (2) the evidence upon the point of infringement. Evidence of title relates to the letters-patent, and the plaintiff's interest therein, the novelty and utility of the invention, and the sufficiency of the specification. Evidence of the infringement relates to the identity of the thing made, used, or practised by the defendant, with the invention of the patentee.

§ 357. I. *As to the plaintiff's title.* With regard to the letters-patent, the Statute of 1836, §§ 4, 5, makes a copy under the seal of the patent office and the signature of the commissioner, competent evidence that a patent has been granted by the government for the invention described in the specification annexed. If the patent produced in evidence refers to the description in a former patent, it is necessary to produce and read that former patent, in order to show what the invention is, if it is not made entirely clear and intelligible by the patent on which the action is brought.¹

§ 358. The letters-patent being thus proved to have issued, they are *primâ facie* evidence that the patentee was the first inventor of the thing patented.² The reason upon which this

¹ Lewis v. Davis, 3 C. & P. 502.

² Alden v. Dewey, 1 Story's R. 336; Woodworth v. Sherman, 3 Story's R. 172; Stearns v. Barrett, 1 Mason, 153. It is also held in England, that

is held is, that our statute requires the patentee to make oath that he is the first and true inventor of the thing; and when the patent has issued, supported by this oath, the burthen of proof is cast upon the party who would object, to show that the grant has been improperly obtained by the patentee; because the law presumes, in the first instance, that the patent has been granted upon the proofs which the statute requires to be laid before the officers of the government, and that those proofs were satisfactory.¹

the patent is *primâ facie* evidence on the part of the person claiming the right, that he is so entitled. *Minter v. Wells*, Webs. Pat. Cas. 129.

¹ In the *Philadelphia and Trenton Railroad Company v. Stimpson*, 14 Peters, 458, Mr. Justice Story, delivering the opinion of the Supreme Court of the United States, said, "Now the objection is, that the present patent does not contain any recitals that the prerequisites thus stated in the act have been complied with, viz., that the error in the former patent has arisen by inadvertency, accident, or mistake, and without any fraudulent or deceptive intention; and that without such recitals, as it is the case of a special authority, the patent is a mere nullity and inoperative. We are of opinion that the objection cannot, in point of law, be maintained. The patent was issued under the great seal of the United States, and is signed by the President, and countersigned by the Secretary of State. It is a presumption of law, that all public officers, and especially such high functionaries, perform their proper official duties until the contrary is proved. And where, as in the present case, an act is to be done, a patent granted upon evidence and proofs to be laid before a public officer, upon which he is to decide, the fact that he has done the act or granted the patent, is *primâ facie* evidence that the proofs have been regularly made, and were satisfactory. No other tribunal is at liberty to reëxamine or controvert the sufficiency of such proofs, if laid before him, when the law has made such officer the proper judge of their sufficiency and competency. It is not, then, necessary for the patent to contain any recitals that the prerequisites to the grant of it have been duly complied with, for the law makes the presumption; and if, indeed, it were otherwise, the recitals would not help the case without the auxiliary proof that these prerequisites had been, *de facto*, complied with. This has been the uniform construction, as far as we know, in all our courts of justice upon matters of this sort. Patents for lands, equally with patents for inventions, have been deemed *prima facie* evidence that they were regularly granted, whenever they have been produced under the great seal of the government; without any recitals or proofs that the prerequisites under which they have been issued have been duly

§ 359. When the patentee wishes to strengthen this evidence, either in the opening of his case, or to rebut any evidence offered by the defendant which may have tended to show that he was not the first inventor, he can only call persons who were in the way of hearing of the invention if it had existed before, to testify that they have not heard of it. The proposition which the plaintiff has to establish is, strictly, a negative; he is to prove that the invention did not exist before; and, therefore, as has been said, he must proceed by exhausting the affirmative instances of it, by calling those persons who might have known of it, if it had existed before, but who never have heard of it; and the more those persons, from their acquaintance with the particular trade or manufacture, were in the way of hearing of or meeting with it, the stronger the evidence will be.¹

§ 360. Although this evidence is only general and negative, it is not, on that account, without weight. To illustrate its force, as well as its proper office, we may suppose a case, where the defendant had succeeded in showing that some prior inventor had made experiments in the same line as the patentee, and that this evidence goes so far as to show that that person had probably accomplished the same result as the patentee; but the point is still left in doubt, whether he had actually reached and perfected the invention for which the plaintiff has obtained a patent. The rule of law, in such cases, is, that if the prior efforts of some preceding inventor rested in experiment alone, his experiments, however near they may have been carried to the complete production of the thing, will not prevent a subsequent more successful inventor, who has produced the perfect result at which both may have aimed, from obtaining a valid

observed. In cases of patents, the courts of the United States have gone one step further, and as the patentee is required to make oath that he is the true inventor, before he can obtain a patent, the patent has been deemed *prima facie* evidence that he has made the invention.”

¹ *Cornish v. Keene*, Webs. Pat. Cas. 503; *Galloway v. Bleaden*, Ibid. 526.

patent. The question for the jury will therefore be, in such cases, whether the efforts of the prior inventor rested in experiment alone, without coming to the point of completion, both in the theory and the actual application of the invention. Upon this question, the fact that the invention was never heard of until it was known to have proceeded from the present patentee, is of great weight. If it had been heard of among those persons who make it the business of their lives to know what is going on in the particular trade or art which it concerns, or to know what inventions in all arts or trades are from time to time produced, prior to the time when it was made by the patentee, the presumption would be very strong, that the person who is proved to have made near experiments towards it had actually accomplished the perfect result.¹ Still the evidence would not be conclusive, because the report that such an invention had been made might have arisen from what had been done in the way of experiment alone. But it would be very strong presumptive evidence that the experiments had terminated successfully, if persons who were in the way of hearing of such inventions should testify that they had heard of such an invention having been announced, although they had not seen it. On the other hand, if such persons had not heard of such an invention, the evidence would not show conclusively that the prior experiments rested in experiment alone, but it would have a very strong tendency to establish this conclusion, because there is an irresistible tendency in inventions to become known, as to their results, if not as to their processes, whenever the results are accomplished.²

¹ If such persons had seen the thing, no further inquiry would be necessary, for the proof would be positive that the thing existed before. But the evidence we are here considering relates merely to the fact of such persons having or not heard of the invention, which fact, if shown in the affirmative, of course must be aided by proof of its having been made by somebody, and would not alone be conclusive proof of its actual previous existence.

² The case of *Galloway v. Bleaden*, *Webs. Pat. Cas.* 521, 525, presents a state of facts similar to that which we have supposed in the text. Two

§ 361. There is one other species of evidence, applicable to the issue of novelty, when the question is as to the time when the patentee had completed his invention. It may be necessary for the plaintiff to rebut evidence offered by the defendant as to the invention and use of the same thing by other persons before the date of his patent, and hence it may be important to show the precise time when the invention was completed by the patentee. For this purpose, the patentee may give in evidence his own declarations, as part of the *res gestæ*, describing the nature and objects of the invention, to an extent which has been defined by the Supreme Court of the United States.¹

witnesses conversant with subjects of the description of the patented invention, and who devoted themselves to the knowledge of the inventions made from week to week, testified that they had not before heard of such a discovery previous to the issuing of the plaintiff's patent. The court said this was enough to call on the other side to show affirmatively, that the invention was not new, and that it was for the jury to say whether the evidence as to what had been done by the antecedent experiments or efforts of others, in the way in which it ought to be understood, had brought their minds to that conclusion.

¹ "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. It might take a year to construct a steamboat, after the inventor had completely mastered all the details of his invention, and had fully explained them to all the various artisans whom he might employ to construct the different parts of the machinery. And yet from those very details and explanations, another ingenious mechanic might be able to construct the whole apparatus, and assume to himself the priority of the invention. The conversations and declarations of a patentee, merely affirming that at some former period he invented that particular machine, might well be objected to. But his conversations and declarations, stating that he had made an invention, and describing its details and explaining its operations, are properly to be deemed an assertion of his right, at that time, as an inventor to the extent of the

§ 362. Sometimes the issue of novelty involves the identity or diversity of the thing patented, compared with something before known or used, on which the defendant relies to defeat the patent. The nature of the evidence and the sources from which it is to be drawn, are the same upon this issue as when the question of identity or diversity arises under the issue respecting an infringement; and the consideration of the principles of evidence on both of these issues may here be postponed until we come to the general discussion of the question of identity.

§ 363. The plaintiff must also offer some evidence of the utility of his invention. The degree of utility, as we have seen, is not material; but the invention must be capable of some use, beneficial to society. This is ordinarily proved by the evidence of persons conversant with the subject, who may be called to say whether the thing invented is or is not capable of the use for which it is designed, or whether it is an improvement upon what had been in use before. But it may also be proved by other testimony, which will show that large orders have been given for the article by the public, or that licenses have been taken for the exercise of the right.

§ 364. The plaintiff, in addition to the *primâ facie* evidence of the novelty of his subject-matter, must also offer some proof of the sufficiency of his specification. In other words, he must show, to use the language of the statute, that his specification is "in such full, clear, and exact terms, as to enable any person, skilled in the art or science to which it appertains, to make, con-

facts and details which he then makes known; although not of their existence at an antecedent time. 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." *The Philadelphia and Trenton Railroad Company v. Stimpson*, 14 Peters, 462.

struct, compound, or use" the thing patented. This may be apparent to the jury on the face of the specification itself, from its simplicity and the absence of technical terms and descriptions; but where the invention is at all complicated, or terms of art or science are made use of, requiring the exercise of technical knowledge, to determine whether the specification is sufficient, it is at least advisable, if not necessary, for the plaintiff, in opening his case, to give some evidence that his specification can be applied by those to whom the law supposes it to be addressed. If the sufficiency of the specification is disputed, the plaintiff must go into evidence to sustain it. How much of this evidence may properly be reserved for answer to the defendant's case, and how much should be introduced in the plaintiff's opening, must depend on the circumstances of the trial, although it may be stated, as a general rule, that slight evidence of sufficiency is all that is necessary to be offered at first, in order to make it incumbent on the defendant to falsify the specification.¹

§ 365. The nature and source of the evidence, to show the sufficiency of a specification, present a topic of much interest, under that somewhat difficult branch of the law of evidence which relates to experts. What is the meaning of the statute, when it refers to the ability of persons "skilled in the art or science" to which the invention appertains, "or with which it is most nearly connected," to make, construct, compound, and

¹ It seems to be the rule in England that the plaintiff must open with some evidence of the sufficiency of his specification, unless the defendant admits that it was tried and succeeded. *Turner v. Winter*, Webs. Pat. Cas. 81; 1 T. R. 602; *Cornish v. Keene*, Webs. Pat. Cas. 503. And if a whole class of substances be stated as suitable, the plaintiff must show that each of them will succeed. *Bickford v. Hewes*, Ibid. 218. Under our system of pleading, the same rule should be followed. Although the defendant is obliged to give notice if he intends to rely on the insufficiency of the specification, the plea of not guilty puts the sufficiency of the specification in issue, and the plaintiff must therefore prove it as one of the things necessary to found his action.

use the same? Does it mean to adopt as witnesses those only who have the practical skill of artisans in the art or science, and to make their ability to understand and apply the specification the test of its sufficiency, or does it include that higher class of persons, who, from general scientific knowledge, or from a theoretical acquaintance with the principles of the art or science involved, might be able to teach an artisan or practical workman how to practise the invention? It is apparent that both of these classes of persons may be within the literal meaning of the phrase "skilled in the art or science;" but the question is, whether the law contemplates one only, or both of them, as the proper witnesses to determine the sufficiency of a specification. It seems to me very clear, that the law means to adopt as a general standard of the sufficiency of a specification, the ability of skilful practical workmen to practise the invention from the directions given in the specifications. The standard of acquirement and knowledge may vary with the nature of the subject-matter; but where the invention falls within the province of an art or science, which is practised by a particular class of mechanics, operators, manufacturers, or other workmen, who possess, and whose vocation it is to apply, technical knowledge, in that particular branch of industry, the patent-law refers to their capacity to take the specification and carry out in practice the direction which it contains, without invention or addition of their own.

§ 366. Thus, if the invention be a pump, or of some improvement in pumps, the question will be whether a pump-maker of ordinary skill, could construct one upon the plan given in the specification, from the directions given.¹ If it be a composition of matter, falling within the art of practical chemistry, the question on the specification will be whether its directions are so clear and intelligible, that a practical chemist of ordinary skill could make the compound,

¹ *Lamb v. Lewis*, 1 Mason.

by following out the directions.¹ If it be a process, involving the application of a principle in physics to a particular branch of manufacture, to be carried into effect in a particular manner, the question will be whether the directions if fairly followed out by a competent workman, of the class ordinarily employed to construct an apparatus of that kind, would produce the effect intended.² This seems to be the general rule, applicable to a very large proportion of the inventions which become the subjects of patents; and accordingly it may be stated as a general rule that the proper witnesses to determine on the sufficiency of a specification are practical workmen of ordinary skill, in the particular branch of industry to which the patent relates, because it is to them that the specification is supposed to be addressed.³

¹ *Ryan v. Goodwin*, 3 Sumner, 514.

² *Neilson v. Harford*, Webs. Pat. Cas. 371.

³ *Gibson v. Brand*, Webs. Pat. Cas, 629; *Bickford v. Skewes*, Ibid. 219; *Arkwright v. Nightingale*, Ibid. 61; *Elliott v. Aston*, Ibid. 224; *Huddart v. Grimshaw*, Ibid. 87; *Morgan v. Seaward*, Ibid. 174; *Neilson v. Harford*, Ibid. 371. The following instructive charge, given by Alderson B. to the jury in *Morgan v. Seaward*, contains an elaborate illustration of the law on this point of intelligibility. "I will now begin with the specification. It is the duty of a party who takes out a patent to specify what his invention really is, and although it is the bounden duty of a jury to protect him in the fair exercise of his patent right, it is of great importance to the public, and by law it is absolutely necessary, that the patentee should state in his specification, not only the nature of his invention, but how that invention may be carried into effect. Unless he be required to do that, monopolies would be given for fourteen years to persons who would not on their part do what in justice and in law they ought to do, state fairly to the public what their invention is, in order that other persons may know what is the prohibited ground, and in order that the public may be made acquainted with the means by which the invention is to be carried into effect. That is the fair premium which the patentee pays for the monopoly he receives. The question is, whether Mr. Galloway has in the specification, and which is accompanied by a drawing which you ought to take as part of the specification, described with sufficient clearness and distinctness the nature of his invention, and the mode by which it is to be carried into effect. He has described two inventions, and if either of those inventions is sufficiently specified, the patent fails; for if a person runs the hazard of putting two inventions into one patent, he cannot hold his patent, unless each can be supported as a separate

§ 367. At the same time, there may be another class of wit-

patent. In order to support each, the invention must be useful, and must be described in the specification in such a manner as to lead people clearly to know what the invention is, and how it is to be carried into effect. That doctrine must be applied to each of the two inventions contained in this patent, that is, to the invention of the steam-engine, and the invention of the machinery for propelling vessels.

To begin therefore with the steam-engine. — Has Mr. Galloway sufficiently described it so as to enable any one to know what he has invented, and so as to enable a workman of competent skill to carry the invention into effect? Mr. Justice Buller, in the case of the *King v. Arkwright*, lays down as the criterion that a man to entitle himself to the benefit of a patent of monopoly must disclose his secret and specify his invention in such a way that others of the same trade, who are artists, may be taught to do the thing for which the patent is granted, by following the directions of the specification, without any new invention or addition of their own. That is reasonable and proper, for people in trade ought to be told the manner in which the thing may be done in respect of which the patent is granted. — How? Not by themselves becoming inventors of a method of carrying it into effect, but by following the specification, without making a new invention, or making any addition to the specification. If the invention can only be carried into effect by persons setting themselves a problem to solve, then they who solve the problem become the inventors of the method of solving it, and he who leaves persons to carry out his invention by means of that application of their understanding, does not teach them in his specification that which in order to entitle him to maintain his patent he should teach them, the way of doing the thing, but sets them a problem, which being suggested to persons of skill, they may be able to solve. That is not the way in which a specification ought to be framed. It ought to be framed so as not to call on a person to have recourse to more than those ordinary means of knowledge (not invention) which a workman of competent skill in his art and trade may be presumed to have. You may call upon him to exercise all the actual, existing knowledge common to the trade, but you cannot call upon him to exercise any thing more. You have no right to call upon him to tax his ingenuity or invention. Those are the criteria by which you ought to be governed, and you ought to decide this question according to those criteria. You are to apply those criteria to the case now under consideration, and you should apply them without prejudice, either one way or the other, for it is a fair observation to make, that both parties here stand, so far as this objection is concerned, on a footing of perfect equality. The public, on the one hand, have a right to expect and require that the specification shall be fair, honest, open, and sufficient; and, on the other hand, the

nesses, of much higher character, competent to be examined on

patentee should not be tripped up by captious objections which do not go to the merits of the specification. Now, applying those criteria to the evidence in the cause, if you shall think that this invention has been so specified that any competent engineer, having the ordinary knowledge which competent engineers possess, could carry it into effect by the application of his skill, and the use of his previous knowledge, without any inventions on his part, and that he could do it in the manner described by the specification, and from the information disclosed in the specification, then the specification would be sufficient. If, on the other hand, you think that engineers of ordinary and competent skill would have to set themselves a problem to solve, and would have to solve that problem before they could do it, then the specification would be bad.

“ Further, if a patentee is acquainted with any particular mode by which his invention may be most conveniently carried into effect, he ought to state it in his specification. That was laid down in a case before Lord Mansfield. There the question arose on a patent for steel trusses. It appeared that the patentee, in some parts of his process, used tallow to facilitate the invention for which he had obtained a patent, and in his specification he made no mention of the use of the tallow. The court held the specification to be bad, because, they said, you ought not to put people to find out that tallow is useful in carrying into effect the invention of steel trusses. You ought to tell the public so, if that is the best mode of doing it, for you are bound to make a *bonâ fide* full and candid disclosure. So again in the case of the malt. That was a patent for drying malt, and one of the objections taken was that the patentee did not state in his specification the degree of heat to which the malt should be exposed. The argument there was this. They said, it appeared that the specification was not sufficient, inasmuch as it did not describe the extent of heat to which the malt should be exposed, for it only said, ‘the proper degree of heat and time of exposure will be easily learned by experience, the color of the internal part of the prepared grain affording the best criterion.’ Surely, there it would have been competent to the patentee to say, any person of ordinary skill, in such a business, would be able to judge what color the malt ought to be, and that, by experiment, he would learn what degree of temperature was exhibited at the time when that proper degree of color was obtained; therefore the plaintiff contended that there was enough stated in the specification to enable the public to carry the invention into effect, and that the patent ought to be supported, because skilful maltsters and skilful dryers of malt would easily know where to stop, and what degree of heat was requisite for the purpose. There is no doubt that when a man was told that a certain effect might be produced upon the malt by shaking it and subjecting it to a certain degree of heat, his mind

this point. These are persons who possess a thorough scientific

would be set on float; he would be at work upon it to ascertain what that degree of heat should be, and he would probably find it out. But that is not enough. The specification of a patent must not merely suggest something that will set the mind of an ingenious man at work, but it must actually and plainly set forth what the invention is, and how it is to be carried into effect, so as to save a party the trouble of making experiments and trials. The court in that case said, that a specification that casts upon the public the expense and labor of experiments and trials, is undoubtedly bad. Here, in this case, the defendants take that line of argument; they say that experiments and trials are necessary. If it be said that all these matters will be well or easily known to a person of competent skill (and to such only the patentee may be allowed to address himself) then the invention will not in reality have given any useful or valuable information to the public.

“Now, let us apply the principle of this case to the present, and see whether or not the patentee here has given that full information by the specification and drawing, which, being addressed to persons of competent skill and knowledge, would enable them, from that specification and drawing, to carry the invention into effect. On that subject there is, undoubtedly, contradictory evidence, but you see a specification is addressed to all the world, and therefore all the world, at least those possessed of a competent skill, ought to be able to construct the machine by following that specification. It is not fair to you or to me, if we happen to be less inventive than our neighbors, that we should be prevented from constructing these machines, by reason of the specification not giving a clear exposition of the way in which it is to be done. In the case of the steam-engine, there was put in on the part of the defendants a model, made, as it was said, according to the specification, which model would not work. The model was a copy of the drawing, and would not work, because one part happened to be a little too small, whereas, if it had been a little larger, it would have worked. Now a workman, of ordinary skill, when told to put two things together, so that they should move, would of course, by the ordinary knowledge and skill he possesses, make them of sufficient size to move. There he would have to bring to his assistance his knowledge that the size of the parts is material to the working of the machine. That is within the ordinary knowledge of every workman. He says, ‘I see this will not work because it is too small,’ and then he makes it a little larger, and finds it will work: what is required is, that the specification should be such as to enable a workman of ordinary skill to make the machine; with respect to that, therefore, I do not apprehend you will feel much difficulty, but with respect to the other there is a good deal more difficulty. I will not sum up the evidence upon the subject of the steam-engine, but I will confine myself to the second invention, and

knowledge, of a theoretical nature, of the principles of the art or

see whether that can be carried into effect by means of the specification and the drawings, for it is to that question that the whole is directed. That invention is in two parts: first, he says, it is an improvement on paddle-wheels for propelling vessels, whereby the float-boards or paddles are made to enter and come out of the water at positions the best adapted, as far as experiments have determined the angle, for giving full effect to the power applied. He says, as far as experiments have determined the angle. That clearly speaks of an invention for enabling a party to use paddle-wheels for propelling vessels, which may be adjusted in such a way as that they may enter and come out of the water in angles the best adapted to give effect to the power of the engine, that is to say, at the angle *a*, if that shall be the best position for giving full effect to the power of the engine, or at the angle *b*, if that shall hereafter, by experiment, be determined to be the proper angle. It appears, from his statement here, that the proper angle was a matter of considerable doubt at that time; and, therefore, he does not profess to set down an individual angle as the best, which appears to have been one of the ideas of the defendant, as to the effect of the plaintiff's specification. But he says, I will give you a method of enabling the paddle-wheels to enter and come out of the water, with the position the best adapted for giving full effect to the power of the engine. Then, at the end of the specification, after having described the manner in which it is to be done, he says, that his claim is 'for the mode hereinbefore described of giving the required angle to the paddles,' (that is, any angle which may be required by the person ordering the machinery,) 'by means of the rods *g*, *h*, *i*, *j*, and *k*, the bent stems marked *f*, the disc *a*, and the crank *b*.' Now, I do not think that means he is to give you a machine, the angle of which may now be *a*, and now *b*, but that if you wish to have a machine, the paddles of which shall enter at angle *a*, which you tell him, and go out at angle *b*, which you tell him, he ought to be able to construct a machine which shall answer to your order. That I take to be what the inventor says he has enabled the public to do by means of his specification and plan. He then describes the invention. In fig. 4, you have the shape of the stem, and a particular angle is mentioned, but it is obvious that that is not an angle to which the parties are necessarily to be confined. Then he says, '*g*, *h*, *i*, *j*, and *k*, are connecting rods attached at one of their ends by pins or bolts, *r*, to the bent stems, *f*, of the float-boards, and the other ends of all these rods, excepting *g*, are attached to the disc, *a*, by pins or bolts, *s*, as shown in fig. 5.' The only observation is, that he gives no dimensions; he fixes no points either for the centre of the eccentric, or for the crank to which the eccentric centre is attached; therefore, if those can only be ascertained by experiments subsequently to be made, then the specification is bad. The whole, in some

science to which the patent relates, but who do not, as an habitual

degree, turns upon the length of the rods, and the position of the centre of the eccentric. The principle upon which these parties proceed, and upon which all the inventions in that respect proceed, is, that the wheel, with its spokes, to which the floats are attached, turns round on an axis, and the floats are made to turn by means of an eccentric, and, therefore, the floats bend as the wheel revolves, and they bend, in a particular manner, according as the floats are disposed, and according to the position of the centre of the eccentric, by which they are regulated. They are regulated by means of a fixed bar, which is attached to the centre of the eccentric disc. The others are movable boards, which are attached apparently to the circumference of that same disc, and the whole is made to revolve by the fixed bar being attached to a fixed point of the wheel itself, and, therefore, the revolution of the wheel forcing that fixed point round, turns round the eccentric disc, and with it changes continually the position of all those rods which are affixed to the circumference of that disc, and, according to their being on one or the other side of that disc, they operate on the respective float-boards to which they are attached. All that turns upon the position of the eccentric axis, and the length of the respective rods operating through the medium of this centre upon the respective float-boards; now, the question is, whether, in the absence of any statement, as to the dimensions of these different parts, and of any directions for finding the centre of the eccentric, you think the specification is sufficient or not, and that must be determined by the evidence which has been given by the witnesses on the one side and on the other.

“ Now, gentlemen, you cannot treat the actual picture which is given in the drawing as any guide to the particular angle, or to the particular position of the eccentric; and for this simple reason. If that were the criterion, then the substance of the invention would be the particular angle contained in the particular drawing, and, in order to show an infringement, they ought to have shown that Mr. Seaward's wheel entered the water at the same angle as the angle described by the drawing, and, therefore, in that case, you would be bound to find the first issue for the defendant, namely, that there was no infringement. If, however, you treat the picture or the drawing as only an illustration of the invention, and not as confining the invention to the particular angle there described, then you ought to find in the specification some directions, which should enable you to construct the machine in a new form, or you ought to be satisfied that, without any instructions, a workman of ordinary and competent skill, and knowledge, would be able to do it. Now, I do not think that Mr. Carpmael gives any evidence to that point; but Mr. Brunel says, ‘ I have read the specification, and I think I could construct by it a machine at any required angle without difficulty.’ You see he says, ‘ I think I could construct by it a machine at any required angle with-

occupation, devote themselves to the application of those principles

out difficulty : ' but whether Mr. Brunel could do it or not, is not the point. I dare say, Mr. Brunel, the inventor of the block machinery, could invent any thing of this sort, the moment it was suggested to him, but that is not the criterion. The question is, whether a man of ordinary knowledge and skill, bringing that ordinary knowledge and skill to bear upon the subject, would be able to do it.

"Then the evidence of Mr. Park is much more material. He says, 'I could, without any difficulty, make the machine so that the paddles could enter the water at any angle.' He prepared the models which have been used. Now, the criterion is, whether, at the time when the specification was introduced to the world, Mr. Park would have been able to construct the machine with his ordinary knowledge and skill, without the peculiar knowledge he has since obtained upon the subject, from being employed to make the models for Mr. Morgan, because it would not be at all fair to allow your verdict to be influenced by knowledge so acquired ; but he says, with his ordinary knowledge and skill, he could, without difficulty, construct a wheel, so that the paddles should enter the water at any angle. He says, if the diameter of the wheel is given, which it is fair should be given, and the immersion of the float, and that is also fair to be given, he could do it. Those are reasonable data for him to require, and if with his ordinary skill and knowledge, and without that peculiar knowledge which he has obtained, in consequence of his connection with the plaintiffs, and with this cause, he could do it, that would be evidence on which you would be entitled to place reliance. Then he tells you how he could do it : now, I do think it would have been a vast deal better if the specification had given us the same information, for that is what a specification ought to do.

"The specification ought to contain a full description of the way in which it is to be done. The question really is, whether, upon the whole evidence, you are of opinion that the specification does fairly and fully and properly give to the public that information which the public are entitled to receive, that is to say, whether it tells them, without having recourse to experiments, how to do it, or whether it even tells them what is the course their experiments ought to take — to what point their examinations and experiments should be directed. He says, he could do it with the skill he possesses ; and he has described the manner in which he proposes to do it. He says, 'I have seen this drawing ;' then he produces a drawing, and he says, 'this represents my plan of drawing it. An engineer of competent skill would have no difficulty in doing it.' His doing it himself, I do not consider so material, but he says an engineer of competent skill would have no difficulty in doing it. That is material.

"Then, when that drawing was shown, some of the gentlemen appearing

in the practical exercise of that art, science, or manufacture. Such

on behalf of the defendants drew an angle upon it as the angle of entering, and asked him how that could be done. No doubt his principle would enable him to work out any angle, but there are a set of angles which would cause the centre of the eccentric to go beyond the wheel itself, which, therefore, it is impossible to carry into effect, but those angles are such as would not be required in ordinary practice by any persons. You should discard, on both sides, all exaggerated cases, and look to the substance of the thing. If you think, in substance, that the information, really communicated, would be enough in all ordinary cases, or in such cases as are likely to occur, then that would do; but if it is not a clear statement, and if it does not give such information as will render it unnecessary for parties to make experiments, then the specification would, in that respect, be insufficient. It is most important that patentees should be taught that they are bound to set out fully and fairly what their invention is, for, suppose a person were to make an invention, and get a right of making it for fourteen years, to the exclusion of all other persons, it would be a very great hardship upon the public, if he were to be allowed to state his specification in such a way, that at the expiration of the term of his patent, he might laugh at the public, and say, I have had the benefit of my patent for fourteen years, but you, the public, shall not now carry my invention into effect, for I have not shown you how it is to be done. I have got my secret, and I will keep it.

“ Mr. George Cottam says, ‘ it is a common problem to find a centre from three given points, and a person of ordinary engineering skill ought to be able to do that.’ The question is, whether it ought not to be suggested to him by the specification. that that is the problem to be solved. Then Mr. Curtis says, ‘ I have made wheels on this plan.’ You see he made the two wheels which were sent to the Venice and Trieste Company, but those were made under the direction of Mr. Galloway, the inventor. Now, it somewhat detracts from the weight due to his testimony, not as to his respectability, but as to the value of his evidence to you, that he had received the verbal instructions of Mr. Galloway. It may be, that he could do it, because of his practice under Mr. Galloway; and it must be recollected that people in other places would not have that advantage. He says, he would not have any difficulty in doing it; and he says, ‘ I should not consider my foreman a competent workman unless he were able to make the wheel from the specification and drawings.’ He says, ‘ I could alter the angle by altering the cranks.’ The question is not, whether he could do that, but whether he could alter the angle to a particular angle by altering the cranks in a particular way, that is, whether, having the angle given to him, he could make the alteration that was desired. Then, Mr. Joseph Clement says, he is a mechanic, and did the work of Mr. Babbage’s calculating machine; that he

persons may, without doubt, be examined as to the sufficiency

has seen the model of the steam-engine and paddle-wheels. He speaks of the similarity of the plaintiffs' and defendants' wheels, and says, 'I could make the machine from the specification and drawing. The float ought to enter the water at a tangent to the epicycloid.' That is only his opinion as to the most convenient angle. The real motion of the boat is this. The wheel keeps turning round and round on its own axis; during that time the boat has a progressive motion. The wheel, therefore, has a double motion; therefore every point of the wheel does not move in a circle, but in a cycloid, that being the curve described by the rolling of a circle on a flat surface. He says, it should enter at a tangent, that is, that the angle should be such that it will enter the water perpendicularly, in consequence of the motion of the boat, and of the point of the wheel. He says, in like manner, it ought to go up. That is, probably, a very correct view of the case. He says, 'I should have no difficulty in constructing a float to enter at any angle ordinarily required. A man, properly instructed in mechanics, would have no difficulty in doing it.' That is his evidence, which it is material for you to consider; and he is a mechanic himself.

"Then, Henry Mornay, a young gentleman in Mr. Morgan's employment, where he has been apparently studying the construction of engines, speaks of a circumstance which does appear to me to be material. He says, Mr. Morgan, in practice, makes his rods of different lengths. He must necessarily do so, in order that the floats may follow at the same angle as that at which the driving float enters the water. The problem which Mr. Park solved, is a problem applying to three floats only; but it appears that the other floats will not follow in the same order, unless some adjustment of the rods is made. Now, suppose it was to be desired that the floats should all enter the water at the given or required angle, if one should go in at one angle, and one at another, the operation of the machine would not be uniform; and the specification means that the party constructing a wheel, should be able to make a wheel, the floats of which shall all enter at the same angle, and all go out at the same angle. Now, in order in practice to carry that into effect, if there are more than three floats, something more than Mr. Park's problem would be required; and Mr. Mornay says, actually, that Mr. Morgan, in practice, makes his rods of different lengths, and he must necessarily do that, in order that the floats may follow at the same angle as the driving float enters the water. If so, he should have said in his specification, 'I make my rods of different lengths, in order that the rest of my floats may enter at the same angle; and the way to do that is so and so.' Or, he might have said, 'it may be determined so and so.' But the specification is totally silent on the subject; therefore, a person reading the specification, would never dream that the other floats must be governed by rods

of a specification ; but the question which should be propounded

of unequal length ; and least of all could he ascertain what their lengths should be, until he had made experiments. Therefore, it is contended that the specification does not state, as it should have stated, the proper manner of doing it. He says, if they are made of equal lengths, though the governing rod would be vertical at the time of entering, and three would be so when they arrived at the same spot, by reason of the operation Mr. Park suggests, yet the fourth would not come vertical at the proper point, nor would the fifth, sixth, or seventh. Then they would not accomplish that advantage which professes to be acquired. The patentee ought to state in his specification the precise way of doing it. If it cannot completely be done by following the specification, then a person will not infringe the patent by doing it. If this were an infringement, it would be an infringement to do that perfectly, which, according to the specification, requires something else to be done to make it perfect. If that be correct, you would prevent a man from having a perfect engine. He says, practically speaking, the difference in the length of the rods would not be very material, the difference being small. But the whole question is small, therefore it ought to have been specified ; and if it could not be ascertained fully, it should have been so stated. Now, this is the part to which I was referring, when, in the preliminary observations I addressed to you, I cited the case before Lord Mansfield, on the subject of the introduction of tallow, to enable the machine to work more smoothly. There, it was held, that the use of the tallow ought to have been stated in the specification. This small adjustment of these different lengths may have been made for the purpose of making the machine work more smoothly ; if so, it is just as much necessary that it should be so stated in the specification, as it was that the tallow should be mentioned. The true criterion is this, — has the specification substantially complied with that which the public has a right to require ? Has the patentee communicated to the public the manner of carrying his invention into effect ? If he has, and if he has given to the public all the knowledge he had himself, he has done that which he ought to have done, and which the public has a right to require from him.

“ I will now read the defendant’s evidence, and you will see, whether, upon the whole, there is evidence before you, on which you think you can come to any reasonable conclusion.

“ Now, first of all, Mr. Donkin, a man of considerable experience, is called ; but before I go to his evidence, I will remark, that I have always found that there is a great deal of contradiction in questions of this description ; but that is not to be attributed, in the least degree, to corruption, or to any intention to misrepresent or mislead — people’s opinions vary. They come to state to you not matters of fact, but matters of opinion, and they tell

to them, in cases where there is a recognized class of practical

you, conscientiously, what their opinion really is. You may have a great difference of opinion, among scientific men, on a question relating to science; but though, by their evidence, they contradict one another, they are not influenced by a corrupt desire to misrepresent.

“Now, Mr. Donkin says, ‘On first reading the specification, I thought there was a defect in its not explaining the mode of obtaining the required angle. In my judgment, a workman of ordinary skill would not be able to find out any mode of obtaining the required angle.’ He says, a geometri-
cian might discover the mode of adjusting the three angles, the angle of immersion, the vertical angle, and the angle of emersion; but, in order to discover the mode by which all the paddles may enter at the same angle, another discovery must be made. He says, it requires to be ascertained, by experiment or diagram, whether the adjustment is to be made by altering the bent stem, or by varying the length of the rods, and you have nothing but the drawing to guide you in that respect. He says, he must first ascertain whether he is to produce the effect by altering the centre, or by altering the bent stem, or varying the lengths of the movable rods. What are those but experiments to ascertain how the thing should be done, all of which he ought to have been saved, by its being stated in the specification how to do it. However, that is his evidence; he says, the angle must depend on the dimensions of the several parts of the wheel. Then he goes on to the other parts of the case, and, on his cross-examination, he says, ‘I think a competent workman would be able to do it if he made the previous discovery; but he would not do it unless a careful investigation was gone into.’ He says, ‘few ordinary workmen would be able to get the desired angle; I think my foreman would—I think a person moderately acquainted with geometry might do it, but he must find it out—he could sit down and determine it. If he possessed proper information, he ought to be able to do it. An engineer properly skilled in geometry, ought to be able to find out how the angle was to be determined. If he sat down and referred to his general knowledge, he would find it out.’ Now, the criterion is not, whether he could find it out or not, but, whether he could do it by means of the information contained in this specification and drawing, calling in aid his general knowledge, and those mechanical means with which he may reasonably be expected to be familiar; but if he is to sit down and consider how it is to be done, that is not sufficient. You will judge, whether, or not, the evidence of this witness satisfies you on these points, and whether it makes out the proposition for which the defendants contend.

“Then, Mr. Brunton says, ‘I think a workman of competent skill could not construct a machine, so as to have the floats enter at any particular angle, and leave at a particular angle.’ He says, if the required angle was

workmen, who would be called upon to apply the directions of

different from the drawing, it would be an exceedingly difficult thing, and he is not prepared to say how he could do it. Then, Mr. Hawkins says, 'I do not think a workman of ordinary skill could, from the plan and specification, make a wheel that should enter and quit the water at a different angle from that given in the drawing, unless he possessed considerable ingenuity for inventing the method of doing it.'

"Then, Mr. Peter Barlow says, 'There are not, I think, sufficient data to adjust the angle.' He says, if the length of the stems was given, the difficulty would be very great, but it would have been a guide, and it ought to have been explained. That appears to me to be a very good common sense observation. Then, Mr. John Donkin says, 'I think an ordinary workman would find considerable difficulty in altering a paddle-wheel to suit a particular angle, and I doubt whether he could do it.' On his cross-examination, he says, 'it requires more than a common knowledge of geometry; I think a man moderately acquainted with geometry might do it, but he would have to make experiments, and his first experiments would fail. A skilful engineer would have less difficulty in it, but he ought to be able to find it out.' Then, Mr. Bramah says, 'I think I could discover how to do it.' He has been an engineer many years, and he says, 'I think I could discover it, but I do not know at present how to do it. Yesterday, I attended to the evidence, and this morning I tried to find out how it was to be done, but I could not.' Supposing Mr. Bramah had to make a machine of this kind, is he to sit down and invent a mode of doing it, or ought he not to have such information afforded as would enable him to do it at once by means of the specification? Then, Mr. Francis Bramah says, 'I have examined the specification: I could not make a machine from the specification, the floats of which should enter and leave the water at any required angle. Till I came into court, yesterday, I presumed that the angle given in the drawing was the best angle, that is, that the specification had not only stated how to do it, but had described the best angle.' If so, it would be a specification only for that particular angle. He says, 'I can go as far as I was told, yesterday, but no farther.'

"Now, gentlemen, I have gone through the evidence on both sides, on this point, and the question, upon this part of the case, revolves itself into this: Do the witnesses, on the plaintiff's side, satisfy you that the patentee has, in his specification, given to the public the means of making a machine which shall enter and leave the water at any angle that may be ordered: that is, if a man ordered a machine at an angle likely to be required for entering and going out, and to be vertical at the bottom, could an ordinary workman, with competent skill, execute that order by following the directions given in this specification? If you think he could, then the specifica-

the specification, is, whether a person of that class, of ordinary skill, could practise the invention from these directions. There does not seem to be any authority, which goes the length of saying that a specification in cases of this kind, would be good, if every competent artisan who might be called were to testify that he could not apply the directions successfully, provided a scientific witness, of the other class, were to testify that he could teach or demonstrate to an artisan how to apply them ;¹

tion would be sufficient. If, on the other hand, you think he would not be able to execute the order, unless he sat down and taxed his invention to find out a method of doing that which has not been sufficiently described in the specification, then the specification would be bad. If you think the specification good, then you ought to find for the plaintiffs upon that issue ; if you think the specification bad, then you ought to find for the defendants.”

¹ In *Allen v. Blunt*, 3 Story's R. 717, 748, Mr. Justice Story made use of the following language : “ As to the relative weight of the evidence of persons practically engaged in the trade, employment, or business of the particular branch of mechanics to which the patent right applies, and the evidence of persons who, although not practical artisans, are thoroughly conversant with the subject of mechanics as a science. It appears to me, that the Patent Acts look to both classes of persons, not only as competent, but as peculiarly appropriate witnesses, but for different purposes. Two important points are necessary to support the claim to an invention : First, that it should be substantially new, as, for example, if it be a piece of mechanism, that it should be substantially new in its structure or mode of operation. Secondly, that the specification should express the mode of constructing, compounding, and using the same in such full, clear, and exact terms, ‘ as to enable any person skilled in the art or science, to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same.’ Now, for the latter purpose, a mere artisan skilled in the art with which it is connected, may, in many cases, be an important and satisfactory witness. If, as a mere artisan, he can, from the description in the specification, so make, construct, compound, and use the same, it would be very cogent evidence of the sufficiency of the specification. Still, it is obvious, that, although a mere artisan, who had no scientific knowledge on the subject, and who was unacquainted with the various mechanical or chemical equivalents employed in such cases, might not be able to make and compound the thing patented, from the specification ; yet, a person who was skilled in the very science on which it depended, and with the mechanical and chemical powers and equivalents, might be able to teach and demonstrate to an artisan, how it was to be made or constructed, or compounded or used. *A fortiori*

although proof may be offered of the opinions of scientific witnesses, that a particular means which might be used to carry out the general directions of a specification, would succeed, without showing that that means had actually been tried and had succeeded.¹

§ 368. Whether there is a class of inventions, addressed so entirely to scientific witnesses, as to render their knowledge and skill requisite, in the practical application of the directions, so

he would be enabled so to do, if he combined practical skill with a thorough knowledge of the scientific principles on which it depended." It is not quite clear, upon this passage, whether the learned judge did or did not mean to intimate, that a specification would be good, if a scientific witness could teach an artisan how to make, compound, or use the thing patented, although the artisan could not practise the invention without such aid. The sense in which he seems to oppose the word 'artisan' to that class of persons who are not practical artisans, but who are 'thoroughly conversant with the subject of mechanics as a science,' or are 'skilled in the very science on which the invention depends,' would seem to imply that an obscurity or other defect, in a specification, which would embarrass an artisan, may be cured by a scientific person, whose superior knowledge of the principles of the science, might be used to teach the workman, from the specification; if so, this is not the standard which the same learned judge adopted on other occasions. In *Lowell v. Lewis*, 1 Mas. 190, he instructed the jury, that the question was, whether the specification was so clear and full, that *a pump-maker of ordinary skill*, could, from the terms of the specification, construct a pump on the plan described. Perhaps, however, in the more recent case, he intended only to draw a distinction between mere mechanics, or laborers, in a particular art, manufacture, or trade, and persons conversant with the science on which it depends; and to say that the latter are competent, and often the most satisfactory witnesses, which is certainly obvious. It is scarcely to be presumed, that he meant to say, that where the description in a patent is of a thing, which a particular class of mechanics would be employed to make, the specification would be sufficient, although it could not be carried out by a workman of that class, having ordinary skill, provided it could be understood by a 'person thoroughly conversant with the subject of mechanics as a science.' This, as a general proposition, would confine the practice of many inventions, after the patent had expired, to the latter class of persons, which the patent law does not intend.

¹ *Neilson v. Harford*, Webs. Pat. Cas. 295, 315, 316.

that there cannot be said to be any recognized class of artisans, to whose capacity the directions can be referred, is another question. This must depend on the nature of the invention.

§ 369. Before it can be determined, in any case, what class of persons are to be taken as those, whose ability to apply the directions furnishes the standard of the sufficiency of the specification, it must first be ascertained to what class of persons the specification is presumed to be addressed, as being those who are to carry out the directions. If the inquiry arose after the patent had expired, this class of persons would, in most cases, be readily ascertained, by observing what persons applied themselves to the practice of the invention. But it actually arises, before the patent has expired, and before its dedication to the public enables us to see what persons will undertake to practise the invention. That state of things must, therefore, be anticipated, so far as to ascertain what persons will undertake practically to carry out the directions of the patent, for the purpose for which the invention is designed. The standard, therefore, will vary greatly, according to the nature of the invention. In some cases, the persons who will undertake to practise it will be very numerous, in others, very limited, in point of numbers. In some cases, the qualifications will be very moderate, in others, a very high state of accomplishment, skill, and knowledge, will be requisite. The nature and objects of the invention must be resorted to, to see to what persons the specification is to be presumed to be addressed. If it be a machine destined to a particular use, the workmen whose vocation it is to make similar machines, for similar purposes, will be the persons who would be called upon to make the machine after the patent has expired. If it be a composition of matter, involving the knowledge of practical chemists, such persons will attempt to practise the invention, when they are at liberty to do so. If it be a manufacture of an improved character, the persons whose business it has been to make the old article, will be the persons who will make the new one. In all these and similar

cases, where there is a class of workmen, who are habituated to the practical exercise of the art or science under which the patented invention falls, the specification is to be presumed to be addressed to them; and, although scientific witnesses may be examined, as to the clearness and fulness of the specification, its sufficiency must be referred to the ability of competent practical workmen, of ordinary skill, to understand and apply it. This limitation of the evidence follows, necessarily, from the principle that the specification cannot be supported by the fresh invention and correction of a scientific person. The ordinary knowledge and skill of practical workmen being the standard, where the specification is for the benefit of a particular trade, the evidence cannot be carried so far as to include the degree of skill and knowledge possessed by a scientific person, who could, on a mere hint, invent the thing proposed to be accomplished; although such a witness may be asked, whether a competent workman could attain the object of the patent, by following out the directions.¹

§ 370. But if the invention be of a character entirely novel, embodying an effect never before produced, and which it is not within the province of any particular class of workmen to produce, but which it belongs rather to the province of men possessed of some science to apply, by directing the labors of common artisans, upon principles which such artisans do not commonly understand or undertake to use, then the specification may be presumed to be addressed to men capable of applying those principles, and not to mere artisans, who have previously been employed in the construction of things of the same class which it is the object of the invention to supersede. Thus, in the case of an invention, which consisted in an improvement on paddle-wheels for propelling vessels, by a mode of constructing them, so that the floats might enter and quit the water at any required angle,

¹ *Morgan v. Seaward*, Webs. Pat. Cas. 174; *Neilson v. Harford*, Ibid. 371; *The Househill Co. v. Neilson*, Ibid. 692.

the specification would be addressed to engineers capable of determining what angle was required, and it ought to furnish the rules by which such persons could ascertain the angle, and the mechanical means by which it could be applied in practice.¹ The understanding of such a specification would be somewhat above the range of acquirements belonging to mechanics employed in the manual labor of constructing the machinery, that is to say, the specification would be addressed to competent engineers, of ordinary skill in that profession.²

§ 371. But it should be remembered, that whenever, in a case of this kind, as in all other cases, the persons to whom the specification is to be presumed to be addressed, have been ascertained, a rule becomes applicable, which defines the nature and scope of the evidence that may be offered, to explain the specification. This rule is, that the patentee must not, in framing his specification, call upon the persons to whom it is addressed to exercise more than the actual existing knowledge common to their trade or profession. He has a right to exhaust this knowledge; but if, in order to apply his directions, the members of the trade or profession are required to tax their ingenuity or invention, so that, beyond the exercise of ordinary and competent skill, they would have to solve a problem, or supply something, in the process, by the exercise of the inventive faculty; the specification would be bad.³

§ 372. II. *As to the Infringement.* Upon the question of infringement, the point to be determined is, whether the thing made or used by the defendant is, in the sense of the patent law, identical with the invention of the patentee. This is the same question as that which arises on the issues of novelty, when it is necessary to determine whether the invention of the

¹ *Morgan v. Seaward*, Webs. Pat. Cas. 170; *Ante*, p. 409 *et seq.*

² *Ibid.*

³ *Ibid.*

patentee is the same as some former thing, or different, and therefore entitled to be regarded as a novelty. We may, therefore, here consider the principles of evidence applicable to the inquiry, whether two things are identical in the sense of the patent law.

§ 373. It is obvious that there may be two kinds of evidence applicable to this issue, both of which may be drawn from experts. Whether one thing is like another, is a matter of judgment, to be determined on the evidence of our own senses, or the senses of others. If we rely on the senses of others, the sole testimony which they can bear, is, either as to the matters of fact which constitute the precise differences or resemblances between the two things, or as to matter of opinion, by which they infer that these differences or resemblances do, or do not affect the question of the substantial identity of the two things. Both of these kinds of evidence, however, run so nearly into each other, and the boundaries between them are often so shadowy, that it is sometimes difficult to draw the line between fact and opinion. The actual differences or resemblances between two things are *primâ facie* matters of fact, to be observed by the senses; but, with the act of observing these differences or resemblances, we blend the process of reasoning, by which we determine, for our own satisfaction, what is a real, and what only an apparent difference or resemblance; what constitutes a difference or resemblance, in point of principle; and the result of this process, expressed in the conclusion, that the two things are, or are not identical, is matter of opinion. Between these two branches of evidence, it is exceedingly difficult to draw the line, so as to define the true office of an expert, and to admit all proper evidence of facts and opinions, without leaving to the witness the whole determination of the issue.¹

¹ In *Dixon v. Moyer*, 4 Wash. 68, 71, Mr. Justice Washington said: "In actions of this kind, persons acquainted with the particular art to which the controversy relates are usually examined for the purpose of pointing out and

§ 374. At the same time, it is certain that a boundary exists somewhere. The question whether two things are identical, in the sense of the patent law, is a mixed question of law and fact; and when it is submitted to a jury, it is for the court to instruct them, after the actual differences or resemblances are ascertained, what constitutes, in point of law, a difference or identity.¹ There is, therefore, a most important function to be discharged, if one may so say, by the law itself; for it has to determine, upon all the facts open to the observation of the senses, whether guided by the superior facility for observation enjoyed by experts, or not so assisted, whether, in the sense of the law, there is an identity or a difference. This function is always in danger of being encroached upon, by a loose mode of receiving the testimony of experts, by whom the whole question is often in reality left to be decided.

§ 375. The testimony of persons skilled in the particular subject is undoubtedly admissible, for two purposes; *first*, to point out and explain the points of actual resemblance or difference; *secondly*, to state, as matter of opinion, whether these resemblances or differences are material; whether they are important or unimportant; whether the changes introduced are merely the substitution of one mechanical or chemical equivalent for another, or whether they constitute a real change of structure or composition, affecting the substance of the invention. But when these facts and opinions have been ascertained, the judgment of the jury is to be exercised, upon the whole of the evidence, under the instructions of the court as to what

explaining to the jury the points of resemblance, or of difference, between the thing patented, and that which is the alleged cause of the controversy; and the opinions of such witnesses, in relation to the materiality of apparent differences, are always entitled to great respect. But, after all, the jury must judge for themselves, as well upon the information so given to them, as upon their own view, where the articles, or models of them, are brought into court."

¹ *Barrett v. Hall*, 1 Mas. 447, 470, 471, 472.

constitutes such a change as will in point of law amount to a fresh invention and therefore will not be an infringement.¹

§ 376. The duty of giving this instruction should not be surrendered by the court. A scientific witness may be asked, for instance, whether in his opinion, a particular machine is substantially new in its structure, or mode of operation, or whether it is substantially the same thing as another, with only apparent differences of form and structure. But when the differences or resemblances have been pointed out, and when the view that science takes of their relative importance has been ascertained; when the fact appears of whether a particular change is or is not regarded by mechanics as the substitution of one mechanical equivalent for another, the court must instruct the jury, whether the particular change amounts, in point of law, to a change of what is commonly called the principle of the machine. 'This is a question wholly aside from the function of a witness. The most skilful and scientific mechanic in the world can only say what, in his opinion, are the differences or resemblances between one machine and another, and how far they are regarded by mechanics as material, or substantial. But the question of what constitutes a fresh invention, or what, upon a given state of facts, amounts to a change so great as to support an independent patent for a new thing, is a question of law; and this question is involved in every issue as to the identity of two things, whether it relates to the question of infringement or of prior invention.'²

¹ In *Allen v. Blunt*, 3 Story's R. 742, 748, 749. Mr. Justice Story, discussing the relative value of scientific witnesses and mere artisans, said "The very highest witnesses to ascertain and verify the novelty of an invention, and the novelty or diversity of mechanical apparatus and contrivances, and equivalents, are beyond all question, all other circumstances being equal, scientific mechanics; they are far the most important and useful to guide the judgment and *to enable the jury to draw a safe conclusion, whether the modes of operation are new or old, identical or diverse.*"

² See the instructions of the court in *Walton v. Potter*, Webs. Pat. Cas.

§ 377. The evidence for the defendant, upon the question of novelty, will of course consist of proof, positive in its nature, that the thing patented existed before; and if any credible evidence of this is adduced, it will outweigh all the negative evidence that can be offered by the plaintiff.¹ But whenever the defendant relies on the fact of a previous invention, knowledge, or use of the thing patented, he must give notice of the names and places of residence of the persons who he intends to prove have possessed a prior knowledge or had a prior use of it.²

§ 378. Persons who have used the machine patented are not thereby rendered incompetent as witnesses, on account of interest.³ It has been held that a witness who was patentee in another patent, and had sold to the defendant the right to use the machine, the use of which was complained of as an infringement, was a competent witness, since any verdict that the plaintiff might recover could not be given in evidence by the plaintiff in an action against the witness.⁴ A patentee who has assigned the whole of his interest in the patent, is a competent witness for the assignee in support of it.⁵ A licensee is a competent witness for the patent, in an action for an infringement, for he has no direct pecuniary interest in supporting the patent, but it may be for his advantage that it should not be supported.⁶ Evidence, on the part of the plaintiff, that the per-

585, 586, 587, 589, 591; *Huddart v. Grimshaw*, *Ibid.* 85, 86, 91, 92, 95. See also the examination of certain experts in *Russell v. Cowley*, *Ibid.* 462, before Lord Lyndhurst, in the Exchequer, cited *ante*.

¹ *Manton v. Manton*, *Dav. Pat. Cas.* 250.

² As to the evidence appropriate to the different defences to an action, see *ante*, in the chapter on Actions at Law.

³ *Evans v. Eaton*, 7 *Wheat.* 356; *Evans v. Hettich*, *Ibid.* 453; 2 *Greenl. on Evid.* § 508.

⁴ *Treadwell v. Bladen*, 4 *Wash.* 704.

⁵ *Bloxam v. Elsee*, 1 *C. & P.* 563.

⁶ *Derosne v. Fairie*, *Webs. Pat. Cas.* 154.

sons, of whose prior use of a patented machine the defendant had given evidence, had paid the plaintiff for licenses, ought not to be absolutely rejected, though entitled to very little weight.¹

¹ *Evans v. Eaton*, 3 Wheat. 454.

CHAPTER V.

QUESTIONS OF LAW AND QUESTIONS OF FACT.

§ 379. THE several provinces of the court and the jury, in the trial of patent causes, have already been incidentally alluded to; but it may be proper to give here a summary of the principal questions which constitute matters of fact and matters of law.

§ 380. The question of *novelty* is a question of fact for the jury. It embraces the two questions of whether the plaintiff, or patentee, was the inventor of the thing patented, and whether the thing patented is substantially different from any thing before known. These are questions of fact for the jury upon the evidence.¹ But it is for the court to instruct the jury what constitutes novelty in the sense of the patent law, as well as what amounts to a sufficiency of invention to support a patent. So, also, the question of prior public use is a question of fact.²

§ 381. The question whether the renewed patent is for the same invention as the original patent, is also a question of fact for the jury;³ as is likewise the question whether the invention had been abandoned to the public.⁴

¹ *Whittemore v. Cutter*, 1 Gallis. 478; *Lowell v. Lewis*, 1 Mas. ; *Carver v. Braintree Manuf. Co.* 2 Story's R. 432, 441.

² Ante, § 53, note 3.

³ *Carver v. Braintree Manuf. Company*, 2 Story's R. 432, 441.

⁴ Ante, § 57, note 2.

§ 382. The question of *utility* is a question of fact, under some circumstances, and under other circumstances it may be for the court, without referring it to the jury, to pronounce the patent void. We have seen that a "useful invention," in the sense of our law, is one not injurious or mischievous to society, and not frivolous or insignificant, but capable of use for a purpose from which some advantage can be derived; and that when an invention is useful in this sense, the degree or extent of its usefulness is wholly unimportant. There are, therefore, two modes, in which the utility of an invention may be impeached; first, when it appears, on the face of the letters-patent and specification, that the invention is injurious to the morals or health of society; secondly, when it appears, on the evidence, that the thing invented, although its object may be innocent or useful, is not capable of being used to effect the object proposed.

§ 383. The question whether the invention is useful, in the first sense, is a question whether the patent is void, on the face of it, as being against public policy; or in other words, because the subject-matter disclosed by the patent is not a patentable subject. This is a question of law for the court.¹ But when it does not appear that the invention has any noxious or mischievous tendency, but on the contrary that its object is innocent or salutary, there may be a farther question, whether the means by which the inventor professes to accomplish that object will in practice succeed or fail. It is not essential to the validity of a patent, that the success of the means made use of should be complete, or that the thing invented should supersede any thing else used for the same purpose; because the law looks only to the fact that the invention is capable of some use. Thus, if a machine is useful for some of the cases for which it is intended, although cases may occur in which it does

¹ Langdon *v.* De Groot, Paine's C. C. R. 203; Lowell *v.* Lewis, 1 Mason, 182; Phillips on Patents, p. 432.

not answer, it is still useful, in this sense of the patent law ;¹ but if any thing claimed as an essential part of the invention is useless altogether, the patent is invalid, because there is a total failure in point of usefulness.² These questions, whether the invention is capable of use for the purpose for which it is claimed, and whether any thing claimed as essential is entirely useless, depend upon evidence, and are questions of fact for the jury.³

§ 384. In like manner, the question whether an invention is frivolous or insignificant, is a question of law. If the object proposed to be accomplished is a frivolous or insignificant object, from which no advantage can be derived to the public, it is for the court to pronounce the patent void, as not being for a patentable subject. But if the object proposed is not clearly frivolous and unimportant, but the means by which it is proposed to be accomplished do not succeed in producing the result, the question returns to the usefulness of the means, and this again becomes a question of fact for the jury.

§ 385. The construction of the specification, as to the extent of the claim, belongs to the province of the court. The court must determine, upon the whole instrument, what the claim actually covers, and whether the patent is valid in point of law. The jury are, therefore, to take the construction of the patent, as to the extent of the claim, from the court, and to determine whether any thing that is included in the claim is not new. But if the specification contains terms of art, which require explanation, by means of evidence, it is for the jury to find the meaning of those terms.⁴

¹ *Haworth v. Harcastle*, Webs. Pat. Cas. 480.

² *Lewis v. Marling*, Webs. Pat. Cas. 490, 495.

³ *Haworth v. Harcastle*, *ut sup.* ; *Lewis v. Marling*, *ut sup.* ; *Hill v. Thompson*, 3 Meriv. 630, 632 ; *Lowell v. Lewis*, 1 Mason, 182 ; *Bedford v. Hunt*, *Ibid.* 302.

⁴ Ante, § 123, 124.

§ 386. And here it is very important to ascertain whether there are any principles, which are to guide the court in construing patents, peculiar to these instruments, or whether they are to be construed in all respects like other written instruments, and without the aid of extrinsic evidence. In one sense, a patent is a deed, being a grant of the government under seal; the letters-patent, the specification, and the drawings annexed, being taken together as one instrument. But it often happens that the extent of the claim is not manifest on the face of the specification itself. The question arises, therefore, how is the court to ascertain the precise extent of the claim, as matter of law? The specification is a written instrument, in which the patentee has undertaken to state the invention which he professes to have made, and for which he has obtained letters-patent. In determining the real extent of the claim thus made, it is obvious that the actual invention of the party is a necessary auxiliary to the construction of the language which he has employed in describing it. The thing of which the patentee was the real inventor is what he was entitled to claim, and the question, in all cases requiring construction, will be, whether he has claimed more or less than that thing, or exactly what that thing is. If he has claimed more than his actual invention, that is, more than that of which he was an original and the first inventor, his claim is inoperative, under our law, *pro tanto*. If he has claimed less, his exclusive right is restricted to what he has claimed. If he has claimed the just extent of his actual invention, he is entitled to hold it, in all its length and breadth.

§ 387. There are two sources to which the court is entitled to resort in construing a claim. In the first place, resort may be had to the descriptive parts of the specification, where the patentee has undertaken to state what his invention is; in other words, the court is to inquire what the patentee has said that he had invented. If his statement or description of the invention is clear and explicit, then the language in which he has made his claim, which is generally to be found in a summary statement of

the subject-matter for which he asks a patent, may and should be construed so as to include the actual invention previously set forth, if it can be so construed without violation of principle ;¹ for the general maxim, under which the construction is to be pursued, is, according to the spirit of the modern authorities, *ut res magis valeat quam pereat*.

§ 388. But it may be uncertain upon the terms of the descriptive parts of the specification, if unaided by evidence, what the precise extent of the invention was : and this may happen, without that degree and kind of ambiguity which renders a patent void for uncertainty, or because the directions could not be carried out by a competent workman. For instance, the patentee may state that he employs something which turns out not to be new ; and the question will then be, whether he has so described that thing as to claim it as part of his invention ; — or his invention may be so stated, as to render it doubtful, whether he has invented or discovered the general application of a principle to produce a particular effect, and is, therefore, entitled to claim all the forms in which the same principle can be applied to produce the same effect, or, whether he has only invented or discovered a form of giving effect to a principle the application of which was known before. So, too, on the general description of a machine, or a manufacture, which, as a whole, may be new, it may be uncertain, whether the

¹ See *Russell v. Cowley*, Webs. Pat. Cas. 469, 470 ; *Davoll v. Brown*, 1 Woodbury & M. 53, 59. Where the construction depends, as it generally does, in the first instance, on the terms of the specification, the preamble may sometimes be resorted to, *Winans v. Boston & Providence Railroad*, 2 Story's R. 412 ; sometimes the body of the specification, *Russell v. Cowley*, *ut sup.* 459, 463 ; sometimes the summing up, *Moody v. Fiske*, 2 Mason, 112, 118. Generally, the whole is examined together, unless the summary seems explicitly to exclude the rest of the specification and to require a construction by itself alone. *MacFarlane v. Price*, Webs. Pat. Cas. 74 ; 1 Starkie, 199 ; *The King v. Cutler*, Webs. 76, note ; 1 Starkie, 354 ; *Ames v. Howard*, 1 Sumner, 482, 485. See *Davoll v. Brown*, *ut sup.*

party invented the various parts of which that whole is composed, or only invented the combined whole, as he has produced it; and, if the latter, whether he invented the whole, as it may embrace all the forms and dimensions in which that whole can be produced, or, whether his claim is to be confined to certain forms and dimensions, there being other wholes, of the same general character, of other forms and dimensions, which it does not include.

§ 389. In such cases, the character and scope of the invention can only be ascertained, by attending to what the evidence shows is new or old; to the state of the art; to the fact of whether the principle, which the patentee has employed, had been discovered and applied before, and, therefore, that he could have invented only a new form of the application, or, whether he has invented the application of the principle itself, and, consequently, is entitled, if he has not restricted himself, to claim the same application of the same principle, under other forms or dimensions, or by other means, than those which he has specifically described. The question, whether he has limited himself to particular forms, dimensions, or methods, necessarily involves an inquiry into the substance and essence of his invention. In other words, before it can be ascertained, in doubtful cases, what he has claimed, some attention must be paid to his actual invention, as ascertained on the evidence.

§ 390. To what extent, then, is the court entitled to receive evidence of the actual invention, and how is that evidence to be applied to the construction of the claim? In the progress of a *nisi prius* trial, the state of the art, the surrounding circumstances in which the inventor was placed, the previous existence of some things mentioned or referred to in the patent, will all be likely to be developed on the evidence; and these facts may materially affect the construction to be given to the claim. It has been said, and with great propriety, that, in the exercise of the duty of determining what the claim is, in point of law, the

judge must gather as he goes along ; informing himself upon the evidence, and observing what facts are controverted, and what facts are not controverted, which bear upon the meaning of the claim, in reference to its extent.¹ If the facts material to the construction are not left in doubt on the evidence, the construction will be given to the jury, absolutely ; but, if the evidence requires a finding of facts by the jury, the construction will be given to them conditionally.²

§ 391. Among the facts which will thus exercise an important influence on the extent of the claim, is the previous existence of something mentioned in the specification. If it is manifest on the face of the terms, in which the patentee has described his invention, that he has included something of which he was not the inventor, his patent cannot be allowed to cover it. But it may be doubtful, whether he has so included the thing, which the evidence shows to be old ; and then the degree or extent to which that thing was known before, its great familiarity and constant use for analogous purposes, will be important elements in the question, whether the patentee has claimed it as of his own invention. This consideration has given rise to the rule, that the patentee is to be presumed not to intend to claim things which he must know to be in use ; which is only another application of the broader rule, that a specification should be so read, as, consistently with the fair import of language, will make the claim coextensive with the actual discovery or invention.³

§ 392. A other important consideration will be the state of the art. If, for instance, a patent contemplates the use of certain substances, although it may make use of terms extensive

¹ Per Lord Abinger, C. B., in *Neilson v. Harford*, Webs. Pat. Cas. 350, 351.

² *Ibid.* p. 370.

³ *Haworth v. Harcastle*, Webs. Pat. Cas. 484, 485.

enough to embrace other substances, which, in the progress of the art, have been ascertained to be capable of the same use, but at the time of the patent were not known to be so, or, being known at the time to be capable of the same use, were yet so expensive as not to be expected to be in use for the same purpose, the general terms of the specification will be so interpreted as to include only those substances *ejusdem generis* with the particular substances mentioned, which may reasonably be supposed, on the state of the art, to have been contemplated at the time. This is to be ascertained by evidence.

§ 393. Thus, on a specification describing "An improved Gas apparatus, for the purposes of extracting inflammable gas by heat, from pit coal, or tar, or any other substance from which gas, or gasses capable of being employed for illumination can be extracted by heat;" it appeared that it was known, at the date of the patent, as a philosophical fact, that oil would yield inflammable gas, but that the apparatus described in the specification could not be used advantageously, if at all, for the making of gas from oil; it was answered, that it was a general opinion at the time, that nothing but coal would be cheap enough for purposes of illumination; and the court held that the patentee must be understood to mean things that were in use, and not every thing which would produce gas, but, from being so expensive, was never expected to be in use.¹

§ 394. Sometimes, the construction may rest on facts, which are so referred to as to make a part of the description and to govern it. If these facts are controverted, they are to be left to the jury. But if they are proved, or admitted, the court will take notice of them in giving a legal construction to the instrument. Thus, where the question was, whether, in the specification of an improvement in the machine, known by the name of speeder, double-speeder, or fly-frame, used for roving

¹ Crossley v. Beverley, Webs. Pat. Cas. 106, 107, 108.

cotton, preparatory to spinning, the patentee had confined himself to the use of the bow-flyer, that is, a flyer in "one continuous piece," as part of his new combination; it appeared that the specification thus described the invention: "It will be seen that the flyers, as used by me, and shown at, &c., *are made in one continuous piece, instead of being open at the bottom, as is the case with those generally used in the English fly-frame,* and this, among other reasons, enables me to give the increased velocity above referred to." The patentee then summed up his claim, as follows: "What I claim as new, &c., is the arrangement of the spindles and flyers, in two rows, *in combination with the described arrangement of gearing,*" which he had previously pointed out. Although the language here did not admit of much doubt, as to the kind of flyer intended to be claimed, the court took notice of the admitted or apparent facts, which tended to show that the bow-flyer alone was intended; one of which was, that the bow-flyer alone could be geared, as the patentee had described his flyer to be, in two places, through its bottom; the other form of the open-flyer having no bottom susceptible of being used or geared in that manner.¹

¹ Davoll v. Brown, 1 Wood. & M. 53, 58, 59, 60. In this case, Mr. Justice Woodbury said: "The construction seldom rests on facts to be proved by parol, unless they are so referred to, as to make a part of the description and to govern it; and when it does at all depend on them, and they are proved or admitted, and are without dispute, as here, it is the duty of the court, on these facts, to give the legal construction to the instrument. But, whether the court gave the right construction to the patent in dispute, so far as regards the kind of flyer to be used in it, is a proper question for consideration now; and, if any mistake has occurred in relation to it, in the hurry and suddenness of a trial, it ought to be corrected, and will be most cheerfully. There is no doubt, as to the general principle contended for by the defendant in this case, that a patentee should describe, with reasonable certainty, his invention. Several reasons exist for this. One is, the Act of Congress itself requires, that he 'shall, particularly, specify and point the part, improvement, or combination, which he claims as his own invention.' And another is, that, unless this is done, the public are unable to know whether they violate the patent or not, and are also unable, when the term expires, to make machines correctly, and derive the proper advantages from

§ 395. The sufficiency of the description, to enable compe-

the patent. These principles, however, are not inconsistent with another one, equally well settled, which is, that a liberal construction is to be given to a patent, and inventors sustained, if practicable, without a departure from sound principles. Only thus can ingenuity and perseverance be encouraged to exert themselves, in this way, usefully to the community; and only in this way can we protect intellectual property, the labors of the mind, productions and interests, as much a man's own, and as much the fruit of his honest industry, as the wheat he cultivates, or the flocks he rears. *Grant v. Raymond*, 6 Peters, 218; See also *Ames v. Howard*, 1 Sumn. 482, 485; *Wyeth v. Stone*, 1 Story, 273, 287; *Blanchard v. Sprague*, 2 Story, 164. — The patent laws are not now made to encourage monopolies of what before belonged to others, or to the public, — which is the true idea of a monopoly, — but the design is to encourage genius in advancing the arts, through science and ingenuity, by protecting its productions of what did not before exist, and of what never belonged to another person or the public. — In this case, therefore, the jury were instructed to consider the case under these liberal views, unless the invention, such as the court construed it to be, in point of law, was described with so much clearness and certainty, that other machines could readily be made from it, by mechanics acquainted with the subject.

“Looking to the whole specification and drawing, both the figure and language, could any one doubt that bow-flyers were intended to be used in the new combination which was patented? The figure is only that of a bow-flyer, so is the language. First, the spindles are described as working up and down ‘through the bottom of the flyers, as seen at *a*,’ which is not possible in the case of the open-flyer, as that has no bottom for the spindle to work in.

Again, the specification says, “to the bottom of each flyer a tube is attached, as seen at *b*., figures 1 and 2,” which is impracticable with an open flyer. Again, it says, motion is communicated to the flyer independently, but that is not feasible with the open flyer. And finally, towards the close, in order to remove all possible doubt, the specification adds, “it will be seen, that the flyers, as used by me, and shown at *ii* and *kk*, are made in *one continuous piece*, instead of being open at the bottom, as is the case with those generally used in the English fly-frames.” All know, that the flyer in one continuous piece is the bow-flyer. Besides this, other admitted or apparent facts tended to show that the bow-flyer alone was intended. One great advantage, claimed from the new combination in the patent, was an increased velocity of the spindle. Thus, in the early part of the specification, it is stated, among the advantages of his improvement, that “the machine will bear running at a much higher velocity than the English fly-frame.” And

tent persons to apply the invention, is a question of fact for the jury, on the testimony of experts and the language itself.¹ But it does not follow from this, that the construction of the specification is to be drawn into the province of the jury. Their province is, after having been informed what the specification has said, to determine whether the directions are sufficiently clear

towards the close he says, that it is the use of the flyer in "one continuous piece," that is, the bow-flyer, instead of the open one, as in the English fly-frame, which, "among other reasons, enables me to give the increased velocity above referred to." How could there, then, be any reasonable doubt, that in his patent it was this bow-flyer he intended to use in his new combination?

In truth he not only says so, and could not otherwise obtain one of his principal objects and advantages, but it is manifest from the form of the flyer itself, and was not doubted at the trial, that only the bow-flyer could be geared, as he described his flyer to be, in two places, through its bottom; the other form of the open flyer confessedly having no bottom susceptible of being used, or geared in this manner. . . . There was no fact in doubt about this, to be left to the jury; and there was but one construction as to the kind of flyer intended to be used, that was consistent either with the drawings, or the express language employed, or the chief object of the machine in its increased velocity, or in the practicability of gearing it, in the manner before described by him in two important particulars, or of giving motion to it "independently." It is as clear and decisive on this point as if he had said *the before described* spindles and flyers, because he says the spindles and flyers "with the described arrangement of the gearing," and no other spindles or flyers, but the short spindles and bow-flyers could be geared in the manner before described, through the bottoms of the latter.

Matters like these must be received in a practical manner, and not decided on mere metaphysical distinctions. *Crossley v. Beverley*, 3 Car. & Payne, 513, 514.

Taking with us, also, the settled rules, that specifications must be sustained if they can be fairly, (*Russell v. Cowley*, 1 Crompt. Mees. & Rosc. 864, 866; *Wyeth v. Stone*, 1 Story, 273, 287,) that we should not be astute to avoid inventions, and that it is a question for the court, and not the jury, whether the specification can be read and construed intelligibly in a particular way, (*Whitney v. Emmett*, Baldw. 303, 315; *Blanchard v. Sprague*, 2 Story, 164, 169,) we think the instructions given at the trial in this case were correct, and that no sufficient ground has been shown for a new trial."

¹ *Lowell v. Lewis*, 1 Mason, 190, 191.

and explicit, to enable a competent workman to practise the invention. The information of what the specification has said, is to come from the court ; although it may happen, that in determining the meaning of the specification the aid of the jury will be required to ascertain the meaning of words of art, or the surrounding circumstances, which govern that meaning. When such words of art, or such surrounding circumstances do affect the meaning, the court will instruct the jury that the specification has said so and so, according as they find the meaning of the scientific terms, or the existence of the surrounding circumstances. But if there are no words of art, and no surrounding circumstances, to be ascertained, the court, as we have seen, will instruct the jury what the specification has said ; and then the jury will determine, the specification having said so and so, whether the description is sufficient to enable a competent workman to put the invention in practice.¹

§ 396. There is no positive rule by which it can be determined, in a given case, *a priori*, whether the meaning of words of art, or the bearing of surrounding circumstances, affects the sense of the specification ; or which limits the right of the plaintiff to offer evidence to show that its meaning is so affected. The plaintiff is always entitled to say, that his specification requires the explanation of facts, to determine the extent of his claim and the character of his invention ; and the only course that can be taken is, for the court to receive and watch the evidence, and to apply it to the construction, taking care that it be not allowed to go so far as to supply positive omissions, which would render the specification defective. Within this limit, the construction, which is nothing more than the ascertaining of the

¹ It follows, from the proposition that the court are to declare what the specification has said, that is also a question of law upon the construction of the specification, whether the invention has been specifically described with reasonable certainty. This is a distinct question from the intelligibility of the practical directions, although both may arise upon the same passages. *Ante*, §§ 123, 124, 126, note 2 ; 130, 134, note 3 ; 136, note 1, 2.

meaning of what is written, may always be affected by evidence; which is to be taken into view, although no conflict arises, requiring a finding of the jury, because the court can have no judicial knowledge either of the terms of art, or of the surrounding circumstances, and cannot say, until it has heard the evidence, that the meaning is not to be affected by them.

§ 397. The provinces of the court and the jury, then, are distinct, and upon this particular question of the practicability of the specification, it is of consequence that they should not be confounded. When it is put to a jury to determine whether a specification has so fully and accurately described the invention, that others can practise it from the description, the danger sometimes arises, of their undertaking to determine what the claim is; because the extent and character of the claim itself may depend on the same words, on which they are to decide the intelligibility of the directions, and may thus seem to be inseparably blended with the question of that intelligibility. But in truth these questions are always separable, and care should be taken to separate them. In one aspect, every thing is for the jury, which bears on the question, whether the specification sufficiently describes the mode of carrying the invention into effect; but, on the other hand, the meaning of the very passages on which this question arises, in relation to the prior question of what the specification has said, is for the court, after the facts which bear upon that meaning have been ascertained.

§ 398. The case of *Neilson v. Harford* presents an apt illustration of the nicety and importance of these distinctions. Mr. Neilson invented the application of the hot blast to smelting furnaces, by introducing between the blowing apparatus and the furnace a chamber or receptacle, in which the air was to be heated on its passage, before it entered the furnace. After describing the mode in which this was to be accomplished, his specification said, "The form or shape of the vessel or recepta-

cle [the vessel in which the air was to be heated] is immaterial to the *effect*, and may be adapted to the local circumstances or situation." This direction it was contended was calculated to mislead a workman, because it was not true; it was said, in point of fact, that the size or shape of the heating vessel was immaterial to the "effect" on the air in that vessel; and this, it was argued, was the "effect" concerning which this delusive statement was made in the specification. On the other hand, the plaintiff contended that the meaning of this passage was, that the size and shape of the heating vessel were immaterial to the effect *on the furnace*, and that it was true, in point of fact, that some beneficial effect might be produced on the furnace, whatever the size or shape of the heating vessel might be, provided the temperature of the air be sufficiently raised.

§ 399. The principal question raised upon the pleadings was, whether the directions were calculated to mislead a workman who might be employed to construct such an apparatus, by stating that which was not true. This, it was allowed, was a question for the jury, but before it could be determined, it was necessary to ascertain what the specification had said; since the fact of its having or not having stated what was not true, would depend altogether upon the sense in which the words were to be received. At the trial, the presiding judge construed the word "effect" to mean the effect on the air in the heating vessel; and the jury having found that the size and shape of the heating vessel were material to the extent of beneficial effect produced, a verdict was entered for the defendants.

§ 400. Upon a motion to enter the verdict for the plaintiff, on this issue, founded on the special verdict, which also ascertained that some beneficial result would be produced from any shape of the heating vessel, it was argued with great force and ingenuity, that the question being whether the specification could or could not be carried into effect, which is confessedly a question for the jury, the whole question of the meaning of