

13FED.CAS.—52

Case No. 7,410.

JOHNSON v. ROOT.

{2 Cliff. 637.}¹

Circuit Court, D. Massachusetts.

1861.

PATENTS—PRESUMPTIVE EVIDENCE—OPERATION OF CAVEAT—ANTICIPATION AND INFRINGEMENT—ABANDONMENT—SEWING MACHINES.

- [1. A patent, together with the application therefor, affords prima facie evidence that the patentee was the original and first inventor of the improvement at the date of the application. This presumption, however, extends no further back than the date of that application, and is not a conclusive one, but may be controlled by other evidence.]
- [2. The operation of a caveat is limited by the act of July 4, 1836 (5 Stat. 117), to one year, and it is not competent for courts or juries to extend it further; and if during that period the inventor does nothing to mature and perfect what he described in the caveat, and only files his application after several years, he cannot, by virtue of the caveat, carry back his invention beyond the date of his application.]
- [3. In passing upon questions of anticipation and infringement, similarities or differences are not to be determined by the names of things or by apparent similarities or differences in form or shape; but rather the machines or their several devices must be examined in the light of what they do, or what office or function they perform, and how they perform it. Hence they must be considered as substantially the same, when they perform substantially the same function or office, in the same way, and to produce the same result; and as substantially different when they perform different duties, or in a different way, or produce a different result.]
- [4. Where an inventor lays the parts of his machine aside as something incomplete, and requiring more thought and experiment, never intending to restore them in the form of an operative machine without material modifications or alterations, and then does nothing more towards perfecting his invention for over four years, this is sufficient to warrant the jury in finding that he had abandoned it to the public, unless there is some fair and reasonable excuse for his delay.]
- [5. The Johnson patents (original No. 10,597, and reissue No. 355), for an improvement in sewing machines, construed as to the third claim, by the court; and the same found by the jury to be valid, and infringed by defendant.]

{This was an action of trespass on the case by William H. Johnson against James E. Root, for the infringement of letters patent No. 10,597, granted to plaintiff March 7, 1854, and reissued February 26, 1856 (No. 355), for an improvement in sewing machines. Defendant pleaded the general issue, and filed certain specifications of defense, denying that the machine sold by him infringed the plaintiff's patent, or that plaintiff was the original and first inventor of anything embodied in defendant's machine. Upon trial the jury disagreed (Case No. 7,411), and the cause is now tried the second time.]

CLIFFORD, Circuit Justice (charging jury). According to the uniform practice in this court, it now becomes my duty to direct your attention to the nature of the controversy between these parties as exhibited in the pleadings, and to give you such instructions in matters of law as seem to me to be applicable to the evidence in the case. You are the

JOHNSON v. ROOT.

judges of the credibility of the witnesses and of the force and effect of the testimony; and it is exclusively within your province, under the instructions of the court, to determine all questions of fact involved in the issue. But it is the province of the court to determine all questions of law, and it is your imperative duty in such matters to follow the instructions of the court. Unless the rule were so, it would never appear on what principles of law the jury proceeded in finding their verdict. Every verdict, in contemplation of law, is founded upon the facts of the case as ascertained by the jury, and the law applicable to that state of the case as determined by the court. Under our jurisprudence, the action of the

jury in finding the facts cannot be revised in any appellate tribunal; but very ample provision is made for the correction of any error committed by the court. Such correction may be accomplished in several modes, but the most effectual one is that by bill of exceptions and writ of error to the supreme court of the United States, to revise the rulings and instructions of the court below. That proceeding, however, is based upon the legal presumption that the jury followed the instructions of the circuit judge; and that the error in the instructions of the circuit judge caused the error in the finding of the jury. Now, if it were competent for the jury to depart from the instructions of the court, then no such presumption would arise; and if not, then it could not appear that the error in the instructions caused the error in the finding of the jury, and consequently it would be unsafe to reverse the judgment on that account, which would leave the complaining party without any adequate remedy. Throughout your deliberations, therefore, you will be guided by the rule, that it is your province to ascertain the facts of the case, under the instructions of the court, and that it is the duty of the court to determine all questions of law applicable to the evidence. With these remarks I will proceed to direct your attention to the nature of the controversy.

This is an action of trespass on the case, for an alleged infringement of a supposed new and useful improvement in sewing-machines, secured to the plaintiff by certain letters patent. Among other things, the plaintiff alleges that he was the original and first inventor of the improvement, and that letters-patent for the same were issued to him on the 7th of March, 1854. By recurring to the declaration, however, it will be observed that the letters-patent first issued were subsequently surrendered and cancelled, and that a new patent, on an amended specification issued to him on the 26th of February, 1856, to continue for the term of fourteen years, from the 7th of March, 1854 (which was the date of the original patent). The plaintiff also alleges that the defendant, on the 4th of March, 1856, and at divers other times, before and afterwards, during the term of the patent, and before the purchase of the writ, did unlawfully and wrongfully and without the consent and license of the plaintiff, make, use, and vend to others to be used, his said improvement.

Without further reference to the declaration, it will be sufficient to say that the suit is founded upon the reissued patent of the 26th of February, 1856, and that the writ is dated on the 28th of April of the same year. Of course, the plaintiff can only recover for such infringement of his patent, if any, as the evidence shows the defendant committed within the period embraced between those dates. But there is no controversy on that point, for it is admitted by the defendant that he sold the machine given in evidence by the plaintiff, as his machine, within that period, and if it is not claimed by the plaintiff that the evidence shows that the defendant sold any other.

As an answer to the declaration, the defendant pleads that he is not guilty, and has filed certain written notices in the case, setting up two general grounds of defence, to

JOHNSON v. ROOT.

which more particular reference will hereafter be made. To maintain the issue on his part, the plaintiff, amongst other things, introduced the reissued letters-patent described in the declaration. That patent as reissued, bears date on the 26th of February, 1856, and is the one on which the suit is founded. At a later stage of the trial, the plaintiff introduced a model of the patented machine, as furnished to the patent office, which is the one constantly denominated during the trial as "the plaintiff's machine." His patent is accompanied by the specification and drawings, and you are instructed that it is prima facie evidence that the plaintiff is the original and first inventor of what he has described therein as his invention. Your attention, however, will be chiefly directed to the third claim in the specification, because it is that claim only which the plaintiff alleges that the defendant has infringed.

Omitting the first and second claim as comparatively unimportant in this investigation, it reads as follows:—"What I claim as my invention and desire to secure by letters-patent is, 3d. The feeding of the material to be sewn by means of a vibrating piercing instrument, whether said instrument be the needle itself, or an independent instrument, in the immediate vicinity thereof, substantially as herein described."

The plaintiff also introduced the machine, which he alleges the defendant sold, and which he claims to be a violation of the exclusive right secured to the plaintiff by his reissued letters-patent, and the defendant admits that he sold that machine at the time and place alleged in the declaration, but he denies that the machine, as sold, infringes the third claim of the plaintiff's reissued patent; and he also denies that the plaintiff is the original and first inventor of anything that is embodied in his (the defendant's) machine.

These remarks will be sufficient to enable you to understand the foundation of the plaintiff's suit, and the two general grounds of defence set up by the defendant. Two principal questions are presented, which it is your province to determine from the evidence in the case under the instructions of the court, and you will adopt such order in considering them as you may think proper. But in view of the peculiar nature

of the controversy, and the complicated character of the evidence, it is not possible for me to give you a clear statement of the rules of law by which you are to be governed in the performance of your duty, except by pursuing the order of investigation usually adopted in cases of this description.

One of the questions is, whether the plaintiff is the original and first inventor of what he has described in the specification contained in his reissued letters-patent so far as respects the third claim of the patent; and the other is, whether the defendant's machine, as sold by him, and given in evidence by plaintiff, infringes that claim of the patent, when properly construed and understood according to its legal effect.

In considering those questions, and weighing the evidence bearing upon each of these points, it becomes necessary that you should know and carefully observe what the plaintiff's invention is, as he has described it in his patent, specification and drawings, so far as respects that claim. That question it is the duty of the court to determine as a question of law, arising upon the construction of the patent, including, of course, the specifications and drawings accompanying the same. Pursuant to that duty, I instruct you that the third claim of the plaintiff's patent is for his described means of feeding the cloth or other material to be sewed in a sewing-machine. Feeding the cloth or material to be sewed in a sewing-machine may be understood as signifying such a regular, progressive advance of the material as shall space the stitches of the seam regularly, so that they will be of equal length; and the third claim is for the described means to effect that end. It is not for the result attained, but for the means he has invented of attaining it substantially as described in the specification. Detached passages of the specification, if separately considered, might lead to a different conclusion, but the different parts of the instrument must be compared with each other and considered as a whole, and when so construed it leaves no doubt in the mind of the court that the claim must be limited to the means of feeding the material to be sewed in a sewing-machine, substantially as described in the specification and illustrated by the drawings.

It is insisted by the plaintiff that this part of his invention consists in applying power by which the material is fed directly to the cloth or other material to be sewed, and at or near the point where the stitches are being formed; and it is undoubtedly true that the feeding instrument in the modes of operation described in the specification, is to be applied directly to the material to be fed, and when the vibrating piercing instrument for feeding is the needle itself, it is applied to the material at the point where the stitch is being formed, for the specification states that the descent of the needle perforates the cloth and by the action of the described devices the pressure of the holder upon it is relieved, permitting the vibration of the needle to move forward the cloth, a sufficient distance for the succeeding perforation, the described spring acting through the holder as the needle-bar rises, so as to keep the cloth from slipping when the needle descends, and again perforates it.

JOHNSON v. ROOT.

Beyond a question, therefore, the vibration of the needle during its first perforation, as stated in the specification, feeds forward the cloth and permits the needle in its second descent to have the proper position, and during the second descent of the needle, the cloth is fed forward as before, the needle making another hole, or again perforating the cloth as it again descends. These considerations lead necessarily to the conclusion that by the true construction of the patent the feeding action of the machine is performed by the operation of sewing; the vibrating movement of the guide B, and with it the needle-bar, causing the material to be moved forward after it is perforated by the needle, the holder relaxing for that purpose.

Another feeding and perforating arrangement is also suggested in the specification, which as there stated is designed to be used for making the holes in leather and other heavy work, while the needle preceding the awl (as stated in the specification) forms the seam. And upon that subject you are instructed that when an independent instrument in the immediate vicinity of the needle, is used for feeding, it has the same mode of operation as the needle has when used separately in perforating the cloth for sewing, but the needle forms the seam. When an independent instrument in the immediate vicinity of the needle is used for feeding, it is applied directly to the material to be fed, and near the point where the stitches are being formed. But whether the vibrating piercing instrument used be the needle, or an independent instrument in the immediate vicinity of the needle, the third claim of the plaintiff's patent is not for an abstract idea or principle; nor for every means of applying power directly to the cloth at or near the point where the stitches are being formed, for the purpose of feeding it in a sewing-machine, in contradistinction to applying power for that purpose to a plate, clamp, or bar, to which the cloth is attached. On the contrary, it is, as before stated, for such means of applying power to the cloth for the purpose of feeding it in a sewing-machine, as the inventor has substantially described in the specification of his patent.

For the same reason the claim of the patent under consideration is not for the

use of every vibrating piercing instrument in feeding the material to be sewed in a sewing-machine, but only for such a vibrating piercing or perforating instrument as he has described in his specification,—nor is the claim for every use in feeding cloth of such a piercing instrument as he has therein described (for the instrument, to wit: the needle is old, and the plaintiff cannot without more, patent its use for feeding). He can only patent substantially such means or mode of using it as he has described in his specification; and such means or mode of using it as he has described in his specification, he might patent if he was the original and first inventor of the improvement: and by the true construction of the claim it must be limited to his described means of feeding the cloth in a sewing-machine. He describes his means in his specification, and then in legal effect claims the feeding of the cloth or material to be sewed by those means,—substantially, as described in his specification. Undoubtedly the vibrating piercing instrument, whether it be the needle itself or an independent instrument in the immediate vicinity of the needle, constitutes the described feeding instrument to move forward the cloth. It is contended by the plaintiff that those feeding instruments are different and distinct from the instruments or devices described by the patentee for holding the cloth or material to be sewed. They are certainly different from the devices constituting the holding arrangement: for the specification states in effect that the material to be sewed is placed upon the table under the point of the needle, and cloth-holder, which is raised by a stud to admit the “thickness,” and the claim is for the feeding of the material to be sewn by means of a vibrating piercing instrument substantially as herein described, evidently referring back to the specification. With this explanation you are instructed that there is included in the claim as part of the mode of operation, not only the vibrating piercing instrument substantially as described, but also whatever parts necessarily act in connection therewith to feed the material to be sewed in a sewing-machine, so far as any function they may perform modifies the action of the feeding instrument. Whatever means are described which are necessary to the control of the cloth to enable the vibrating piercing instrument to perform the function of feeding, and which modify the action of the feeding instrument, are, to the extent they modify it, to be considered and to be deemed parts of the described invention which the plaintiff has claimed.

In this connection you are also instructed that the feeding of the material claimed in the patent as the result to be attained by this part of his invention, is not to be understood to mean every advance of the material, regular or irregular, equal or unequal, but such regular and progressive advance as is essential to the useful action of a sewing-machine, and which the means described in the plaintiff’s specification were designed and adapted to effect; and whatever parts in the plaintiff’s specification necessarily act in connection with the vibrating piercing instrument in causing or enabling it thus regularly and progressively to advance the material, and without which the action of the vibrating piercing instrument

JOHNSON v. ROOT.

either would not advance the material at all or would advance it so irregularly as to be useless in a sewing-machine, must be deemed essential parts included in the claim to the extent that they modify the action of the vibrating piercing instrument. No one probably would fail to see that in order to feed the material so as to obtain the described result, there must be a table or some equivalent mechanical device to keep the cloth in position, so that it will resist the thrust of the piercing instrument while it is making the perforation and after the pressure of the holder upon it is relieved to permit the needle as it vibrates to move-forward the cloth a sufficient distance for the succeeding perforation. For reasons equally obvious it may be assumed that the vertical bar or holder when held down upon the cloth by the spring, is quite necessary to the proper operation of the feeding arrangement, and upon this subject you are instructed that the surface below the material (called the table) which supports the cloth when it is pressed by the vertical bar or holder so as to keep the cloth from slipping as the needle descends and perforates it, and also the "cloth-holder," which exerts its pressure for that purpose, thus causing the material to be regularly spaced (the said means of supporting and holding the material being such that the same can be freely moved by the operator so as to change the direction of the seam at will as the same is advanced) are included in the claim as necessary to the plaintiff's mode of operation in feeding the material to be sewn, so far as the functions performed by them modify the action of the feeding instrument; but in no other respect can they be regarded as included in the feeding apparatus. Guided by these principles as to the construction of the patent, you will proceed to the consideration of the merits of the controversy, and I shall direct your attention in the first place to the question whether the plaintiff was or was not the original and first inventor of what he has described in his specification as his invention so far as respects the third claim of the patent Whether he was so or not is a question of fact for your determination under the instructions of the court. Your attention has already been drawn to the fact that the reissued letters-patent are in evidence in the case, but you should bear in mind in this connection that the plaintiff has also introduced the original letters-patent and the application on which

the patent was granted. That application was filed on the 31st of March, 1853; and you are instructed that the reissued and original letters-patent, together with the application for the original patent, afford prima facie evidence that the plaintiff was the original and first inventor of the improvement in question at the date of the application for the original patent. That presumption, however, extends no further back than the date of that application, and is not a conclusive one, but may be controlled by other evidence. To administer justice to the parties it is necessary that you should fully understand and carefully consider the precise positions which the parties respectively assume in this branch of the case.

It is insisted by the plaintiff that the feeding apparatus described by him in the specification of his reissued patent, and set forth in the third claim as the feeding of the material to be sewed by means of a vibrating piercing instrument, whether said instrument be the needle itself or an independent instrument in the immediate vicinity of the needle, substantially as described, was invented by him and reduced to practice in the form of an operative sewing-machine as early as the 27th of October, 1848, and that the same invention, so far as respects the means of feeding, the material to be sewed in a sewing-machine, was subsequently embodied in his original letters-patent of the 7th of March, 1854, and is now embodied in the reissued letters-patent on which the present suit is founded. On the part of the defendant, every element of that proposition is denied. He denies that the plaintiff made the invention in question so far as respects the described feeding apparatus at so early a period, or at any other time prior to the date of the application for his original letters-patent; or if he did that he ever as matter of law or in fact reduced it to practice in the form of an operative sewing-machine, prior to the date of that application: and finally, he insists on this branch of the case, that what the plaintiff has embodied in the reissued patent is not the same invention as that described in the caveat, and embodied in the old red machine, but in point of fact is a substantially different invention, so far as respects the described feeding apparatus, and was designed and is adapted to effect the feeding of the material to be sewed in a sewing-machine by substantially different means and by a mode of operation substantially different. Whatever the plaintiff may have invented prior to his application for his patent, is of no consequence in this controversy, unless it appears that the same or some substantial and material part of the same which is new and useful is embodied in his reissued letters-patent, because it is for the infringement of that patent only that the defendant is sued in this case. When I speak of the patent, you will of course understand that I refer to the third claim of the patent, because it is only that claim that the plaintiff charges the defendant with having infringed. It becomes necessary for you to inquire and determine what, if anything, the plaintiff did invent and reduce to practice in the form of an operative sewing-machine, so far as respects the feeding apparatus, prior to the date of his application for the patent; and if anything, whether the same or a substantial and material part of the same is embodied in the reissued letters-

JOHNSON v. ROOT.

patent, as construed and defined by the court. Although he invented a new and useful apparatus for feeding the material to be sewed in a sewing-machine, prior to the date of his application for his original patent, still, if no substantial and material part of the same which is new and useful is embodied in his reissued letters-patent, he cannot rightfully claim for the purposes of this suit, that his invention extends further back than the date of his application for the reissued patent. Differences merely in the form of the machinery or of the devices in the plaintiff's patented apparatus for feeding the material in a sewing-machine, as compared with that exhibited in the old red machine, will not authorize you to find that the former is a new invention as compared with the latter, even though the differences may amount to an improvement, if the old red machine in point of fact was an operative sewing-machine and reduced to practice as assumed by the plaintiff. But if the patented apparatus accomplished a substantially different result by substantially different means, and in a mode of operation substantially different, then there is nothing new and useful in common between the two machines. And if not, then the plaintiff cannot carry back the date of his patented invention to any period prior to the time he filed his application for the original patent. Among other things, it is suggested by the counsel of the plaintiff that the holder used in the old red machine, if the machine be tipped down on its side, will perform, for the purpose of feeding the material, both the function of the table and the presser foot; and that in substance and effect, the old red machine becomes and is the same in principle and in the mode of operation as the patented machine, so far as respects his feeding apparatus. Four experts have been examined in the case, and no one I believe has testified that the machine as constructed was designed to operate in that position. Upon that subject I instruct you that if it would require invention to break up the machine and reconstruct it in that form, and put it into successful operation in that position, the suggestion of the plaintiff is entitled to no weight whatever; but if it would not require invention to make the proposed change in the position of the parts in order to make an operative sewing-machine, in that new position, and to reconstruct it for the purpose, then you will give the suggestion such weight as you may think it deserves, bearing in mind that the plaintiff

himself has testified that it was never used in that way.

In this connection you will also take into consideration the S. C. Blodgett patent and machine, and all the evidence in the case respecting the same. On the part of the defendant, it is insisted that the Blodgett invention is prior in date to that of the plaintiff, even supposing that the plaintiff can carry back his invention to the time when he constructed the old red machine, and that the two machines, if the latter be turned down upon its side, are substantially the same. Every element of that proposition, however, is denied by the plaintiff, and evidence has been introduced on both sides bearing on the matter. Assuming the theory of the defendant to be correct, then the Blodgett machine would supersede the old red machine to the extent of the suggested change in the position of the working parts of the machine. Unless the witness Blodgett is mistaken, or unworthy of credit, it would seem that his invention was made before the old red machine was constructed by the plaintiff; but the question is one of fact, exclusively within your province, and as the question has been fully argued on both sides, I do not think it necessary to remark further upon the evidence. If the Blodgett invention was not made before the old red machine was constructed and reduced to practice in an operative machine, then the suggestion of the defendant is entitled to no weight; but if it was, then you will proceed to compare the two machines in connection with all the other evidence bearing upon the question, and give it such weight as you think it deserves. But suppose there is something in common between the old red machine and the patented machine of the plaintiff, still the defendant contends that the plaintiff cannot carry back the date of his invention to any period prior to the time he filed his application for the original patent.

To show that the feeding apparatus described in the specification of his reissued letters-patent was invented by him and reduced to practice in the form of an operative sewing-machine as early as the 27th of October, 1848, or certainly as early as the 7th of November of the same year, the plaintiff relies upon the old red machine, together with the parol testimony respecting the invention, and the caveat filed in the patent office, which is also in evidence in the case. Among other witnesses, the plaintiff himself was examined on the point. Reference will be made to certain portions of his testimony, not with any intention of entering into the details of the evidence, but for the purpose of fixing certain dates, and to present a general view of what the plaintiff did prior to his application for the original patent, which issued on the 7th of March, 1854. Irrespective of this statement (if in any respect it is incorrect), it will be your duty to weigh the whole evidence, and to apply the rules of law you receive from the court, to the true state of the facts as you find it from all the evidence in the case. He first constructed and used two needles to carry the thread, putting them into wooden handles, and sewing in the manner described by him in the early part of his testimony. Those wooden needle-holders, he stated, were made in June or July, 1847, and were occasionally used by him till some

JOHNSON v. ROOT.

time in July of the following year. His first step towards constructing a sewing-machine was to prepare some patterns for needle bars, which was done in July, 1848. Needle bars were made from those patterns by his directions, and they are in evidence in the case. Afterwards he arranged them in a frame and got some gearings made, but they were not of a character to answer his purpose, as he stated, except as a basis of calculation for another set of patterns. Without entering into details, it will be sufficient to say that the frame as stated by the witness was a temporary one, and he did not attempt to sew in the machine. Having made his calculations, he constructed or caused to be constructed a new set of patterns and sketches, and employed a machinist to make another set of needle-holders and apparatus for a machine. They were accordingly made in August, 1848, and the plaintiff, after they were completed, took them, together with the shafting and gearing which he had provided, to a cabinetmaker, and employed him to make the frame. That machine had, as the witness stated, what has been called a wooden holder, like the one first introduced by the plaintiff, and he says he did enough sewing with the machine to satisfy himself that it "was going to be a good practical thing." Something like a week or ten days elapsed before he did anything more to perfect the machinery. Intending to reconstruct the machine more thoroughly with a view to apply for a patent, he took the needle-holders out of the frame and carried them back to the machinist, in order to have another set made, with certain alterations and additions.

After the needle-holders were complete and the shafting and gearing had been somewhat Improved, he then had a new frame made for his machine and put the whole in working order, using for that purpose the third set of needle-holders. As constructed, the machine had but one arrangement on the sides to receive a ratchet clamp. About the same time he also had a ratchet clamp made which he introduced in evidence; but as it was not completed and the arrangement to receive it was not finished, it could not be used. Certain other differences between this machine and the one previously constructed are also mentioned by the witness, which need not be recapitulated, as you will remember the whole testimony, and give it such weight as you may think it to deserve. Castings were also made by the

plaintiff for a rotary clamp-holder, but they proved to be too heavy and were never finished, so that the only device to hold the cloth ever used by him before he went to Washington, was the holder (or one like it) which has been designated during the trial as the "wooden holder." Short pieces of canvas and padding were sewed, by the plaintiff, in the machine before he left for Washington, and the witness states that he sometimes sewed the length of the piece and then around the edge and back again in various forms. According to the statement of the witness, he commenced to construct the machinery, or the patterns for the same, in July, 1848, and put the last machine in working order a short time before he started for Washington. He left for Washington on the 27th or 28th of October, 1848, carrying the machine with him as far as the city of New York. When he arrived at New York he found it necessary to forward the machine from there by the merchandise train, and it was somewhat injured on the route. In this connection you will recollect that he did not carry with him either the "wooden holder," which he had used in the machine before he started, or the castings for the rotary clamp; but he did carry with him the patterns by which the castings for the latter had been made. Avoiding unnecessary details as much as possible, it will be sufficient to say that after he arrived in Washington he employed a solicitor of patents, and soon learned that some parts of his invention had been anticipated by others, and that his model was too large and would not be received at the patent office on account of its size. He arrived in Washington several days before the machine came to hand; and during that period he constructed or caused to be constructed a rotary clamp. It was made of mahogany; and after the machine arrived, he repaired the machine and fitted in the rotary clamp for the first time. Up to that period of time he had never used any other than the stationary holder, because only one of the necessary arrangements for the ratchet clamp had been completed. After fitting the rotary clamp, he operated the machine in the presence of his patent solicitor. When he found that he could not patent his machine, he decided, under the advice of his solicitor of patents, to file a caveat, which is in evidence in the case. While he was there his solicitor also prepared a paper which has been given in evidence, and which the plaintiff in his testimony designated as a petition and oath for an application for a patent.

As stated by the plaintiff, it was signed and sworn to by him, and left with his solicitor, who, it seems, never presented it to the patent office during his lifetime, and it has remained among his papers until a recent period. On looking at the paper you will see that it contains no description of the invention or of its mode of operation, and is unaccompanied by any drawing, but what is more, it was never filed in the patent office, and, therefore, cannot be regarded as an application for a patent, within the meaning of the patent law. His caveat was duly executed and filed on the 7th of November, 1848, and was accompanied by a drawing to illustrate the invention. Having executed those papers and filed the caveat, he took the machine out of the frame, put it in a trunk which he

purchased for the purpose, and on the same afternoon left Washington to return to his home. All those parts of the machine remained in the trunk in his house at New Hartford until he removed to Granville, when he put them into a box, and with the exception of some few parts which he used on other machines, they remained in the box until the first part of January, 1853. During the period from the 7th of November, 1848, to the last of December, 1852, or the first part of January, 1853, he did nothing to perfect any needle-feed apparatus for feeding the material to be sewed in a sewing-machine. Taking his statement as true, he commenced soon after he returned from Washington to make the preparatory investigation to accomplish what is called the Grover & Baker stitch; and in November or December, 1848, he made a model. On the 17th of November, 1848, he wrote to his solicitor of patents the letter which has sometimes during the trial erroneously been designated as a second caveat. In that letter he stated, among other things, that "the needles cross each other and catch the thread from each needle, in the same manner as they do when both pass through the cloth, the object being to have all the looping on one side, and on the other side, leave but one thread, the same as in common back-stitching by hand. The only disadvantage (if it may be called a disadvantage) in this arrangement of the needles will be in the necessity of moving the wheel on which the work is placed by means of a feeder, as I had designed to move the bar, which is very easily done." Looking at the form of the paper, it is obvious that it is not a caveat, and by the true construction of the language employed it is equally clear that it was not designed as such by the writer. On the contrary, it is precisely what it purports to be, a letter from the plaintiff to his solicitor, and the filing of it in the patent office did not give it the force and effect of a caveat, within the meaning of the patent law.

Some time in January, 1849, if the court understood the witness correctly, the plaintiff sent a rough model of this invention described in that letter to his patent solicitor in Washington, and he states that it remained there in the possession of his solicitor till October or November, 1852. Little or nothing was done by him after that towards constructing any model or machine, except to make some patterns, till June or July,

1852. He then went to Springfield and had some gearings, castings, shaftings, &c., made for a sewing-machine, and afterwards went to Granville, and employed one Joel Hall to help him make the machine. That machine was completed in September, 1852, and the plaintiff carried it to Washington in the course of the same month and filed an application in the patent office, with a view to patent the invention. You will bear in mind that this model was for the same invention substantially as that previously sent to his patent solicitor. Both parties concede that these were models of what is called the Grover and Baker stitch, and the rotary clamp.

Grover and Baker, on the 11th of February, 1851, had patented the same stitch, and had an application pending, or afterwards presented one for a reissue of their patent. An interference was declared by the patent office, and notice was given to Grover and Baker. Whereupon the witness Potter went to see the plaintiff to ascertain the nature of his claim, and, if possible, to adjust the controversy. They first met, as you will recollect, at Hartford, and there the plaintiff saw and examined the Grover and Baker machine. Failing to adjust the matter at that time, for reasons that need not be stated, they agreed upon a second interview; and accordingly they met at the office of Mr. Bates, in Westfield, in this state. Prior to these interviews the plaintiff had conveyed one half of the invention to Mr. Goodwin, so that it was necessary that he should be a party to the arrangement, if any should be made. At the first interview at Mr. Bates's office, they agreed upon a second interview at the same place, and accordingly it was had, and Mr. Goodwin was then present and became a party to the written agreement, which, together with the assignment and bond from the plaintiff to Goodwin, is in evidence in the case. After some two or three days' conference, the parties came to an understanding, which was reduced to writing, and the papers were left in the hands of Mr. Bates. Pursuant to that agreement and the arrangement between the parties, the plaintiff's specification was divided, and the patent for the stitch, and perhaps the needles, was taken out in the name of Mr. Bates, and subsequently on the payment of the consideration agreed therefor, was assigned to Mr. Potter, who had acted throughout for the company, of which he was president. By virtue of that transaction, and of the assignment of the patent by Bates, which was subsequently made, the plaintiff parted with all his interest in so much of his invention as was included in the patent to Bates. That patent was granted on the 22d of February, 1853, and on the 12th of April in the same year, a patent was issued to the plaintiff, for the rotary clamp.

As the plaintiff states, he began to make some drawings for a needle-feed about the 3d of January, 1853. He had the frame to the old red machine made as now exhibited in the spring of 1853. It seems the cams have been changed, and I think the needles are not the same. Most of the machinery, as the witness states, is the same that was brought back

JOHNSON v. ROOT.

from Washington in a trunk, and which had been kept either in the trunk or in a box, as before explained.

He had used the crank and one pulley in getting up one of the models he sent to Washington, and the rotary clamp is a new one, and, as I understand the testimony, the fly-wheel was used in another model. On cross-examination the witness stated that he completed the model for the needle-feed so as to take it out of the shop on the 17th of February, 1853. His application for a patent was filed on the 31st of March, of the same year, and on the 7th of March, 1854, the patent issued. To account for the delay from the 7th of November, 1848, when he started from Washington on his return home to the 3d of January, 1853, when he commenced to get up his model for the invention, originally patented on the 7th of March, 1854, the plaintiff has introduced testimony tending to show that during a part or all that time he was in poor health, and that he was somewhat embarrassed in his circumstances. On the other hand, the defendant has introduced testimony tending to show that his general health was not seriously impaired, and that his pecuniary circumstances were such that he was able to purchase a farm worth some \$1,500, and had nearly or quite the usual amount of stock on the farm.

Having referred in very general terms to what he did in relation to the machine which he carried to Washington, from the time he commenced to construct it to the time he filed his application for the original patent, I will proceed to state certain rules of law, by which you will be guided in this branch of the case, beginning with the caveat. Two provisions upon the subject of a caveat are to be found in the patent act of July 4, 1836 [5 Stat. 117]. By the eighth section of that act, it is provided, among other things, that "whenever the applicant shall request it, the patent shall take date from the time of filing of the specification and drawings, not, however, exceeding six months prior to the actual issuing of the patent. And on like request, and the payment of the duty herein required by any applicant (which is \$30), his specification and drawings shall be filed in the secret archives of the office, until he shall furnish the model, and the patent be issued, not exceeding the term of one year, the applicant being entitled to notice of interfering applications." Reference is made to that provision simply for the purpose of remarking that the caveat in this case was not filed under that section, and I do not think it necessary to give you any instructions upon the subject. But there is another provision in the twelfth section

of same act (and it is under that provision that the caveat in this case was filed). Omitting such parts of the section as have no application to this case, it provides in effect that any citizen of the United States who shall have invented any machine, or improvement thereof, and shall desire further time to mature the same, may, on paying to the credit of the treasury the sum of \$20, file in the patent office a caveat setting forth the design and purpose thereof, and the principal and distinguishing characteristics, and praying protection of his right, till he shall have matured his invention; and such caveat shall he filed in the confidential archives of the office, and preserved in secrecy; and if application shall be made by any other person within one year from the time of filing such caveat, for any invention with which it may in any respect interfere, it shall be the duty of the commissioner to deposit the description, specification, drawings, and model in the confidential archives of the office, and to give notice, by mail, to the person filing the caveat, of such application.

Nothing can be more certain than that the protection authorized to be secured by that act is limited to one year from the time of filing the caveat, and I instruct you that after the expiration of one year from the 7th of November, 1848, the caveat filed by the plaintiff in this case ceased to have any legal operation to protect his right, if any he had to his supposed invention. A caveat is allowed with a view to enable the caveator to mature his invention, and the act of congress gives him one year for that purpose, and it is not competent for courts or juries, by virtue of such a proceeding, to enlarge or extend it any further.

It becomes my duty also to give you one other instruction upon this subject, based upon the circumstances of the case.

If you find from the evidence that the plaintiff did nothing to mature what he described or suggested in his caveat, his means of feeding the material to be sewed in a sewing-machine, from the 7th of November, 1848, to the last of December, 1852, then he cannot by virtue of the caveat carry back the date of his patented invention for feeding such material to any period before the date of his application for the original patent.

I am requested by the defendant to instruct you that the method of feeding claimed in the plaintiff's patent is not contained in his caveat, but I do not think it necessary to give that instruction, because there is no evidence in the case, as I understand it, to show that the plaintiff did anything to reconstruct his machine or to mature the needle-feed from the time when he filed his caveat until he commenced to construct the model for his patented machine; and if this is so, then you would not be authorized to give any effect to the caveat, as such, to carry back his invention described in the patent, to a period prior to the date of the application on which the patent was granted.

Irrespective of the caveat, it is insisted by the plaintiff that he may show and that the evidence in the case proves, that he invented the feeding apparatus described in the spec-

JOHNSON v. ROOT.

ification of his reissued letters-patent as early as the 27th of October, 1848, or certainly as early as the 7th of November of the same year, and that he reduced the same to practice in the form of an operative sewing-machine. That proposition is wholly denied by the defendant, and he insists: 1st. That the plaintiff did not make any such invention in 1848 as is described in the reissued letters-patent; 2d. If he did, that he did not reduce it to practice in the form of an operative sewing-machine. Whether he made such an invention as is described in the specification of his reissued letters-patent in 1848, and if he did, whether he reduced it to practice or not in the form of an operative sewing-machine, are questions of fact to be determined by you, from all the evidence in the case.

If you find that he did not make any such invention in 1848, or if he did, that he did not reduce it to practice in the form of an operative sewing-machine, then you are not authorized to find that his patented invention takes date prior to the time when he filed his application for the original patent, as it is not pretended that the model sent to the patent office in 1852 was an operative machine for practical use. Should you find for the plaintiff on both of the points under the preceding instruction, you will then proceed to examine the three patents of A. B. Wilson, with the drawings and models and machines made under the same, which are in evidence in the case. To avoid all danger of confusion, I will only refer to three patents.

One to A. B. Wilson was issued November 12, 1850, the application for which was filed March 18, 1850. Another also to A. B. Wilson was issued August 12, 1851, the application for which was filed July 8, 1851. The third was issued to Wheeler, Wilson, Warren, & Woodruff, assignees of A. B. Wilson, on the 15th June, 1852, the application having been filed on the 7th of February, 1852.

Certain other patents were also introduced by the defendant in the same connection, which he insists are substantially a continuation of the inventions described in the original patents issued to Wilson. For the present, however, I wish to direct your attention only to such as were issued to A. B. Wilson or his assignees prior to the application filed by the plaintiff for his original letters-patent. On this branch of the case you will inquire and determine from the whole evidence bearing upon the point, whether the feeding apparatus described in the Wilson patents, or either of them, or in the patented machines, or either of them, made under the patents, and given in evidence, are substantially the same or substantially different from the feeding apparatus, described in the plaintiff's

specification in his reissued letters-patent. Whether Wilson's invention is substantially the same or substantially different from the plaintiff's patent is a question of fact for your determination, under the instructions of the court.

In determining that question you are not to determine about similarities or differences by the names of things, but are to look to the machines or their several devices or elements in the light of what they do, or what office or function they perform, and how they perform it, and to find that a thing is substantially the same as another, if it performs substantially the same function or office in the same way, to obtain the same result; and that things are substantially different when they perform different duties, or in a different way, or produce a different result. For the same reason you are not to judge about similarities or differences merely because things are apparently the same, or apparently different in shape or form, but the true test of similarity or difference in making the comparison, is the same in regard to shape or form as in regard to names, and in both cases you must look at the mode of operation, or the way the parts work, and at the result, as well as at the means by which the result is attained. In all your inquiries about the mode of operation of either machine, you are to inquire about and consider more particularly those portions of a given part which really do the work, so as not to attach too much importance to the other portions of the same part which are only used as a convenient method of constructing the entire part under consideration. You will regard the substantial equivalent of a thing as being the same as the thing itself, so that if two machines do the same work, in substantially the same way, and accomplish substantially the same result they are the same; and so if parts of the two machines do the same work, in substantially the same way, and accomplish substantially the same result, those parts are the same, although they may differ in name, form, or shape; but in both cases, if the two things perform different work, or in a way substantially different, or do not accomplish substantially the same result, then they are substantially different.

Slight differences in degree, if properly understood, cannot be regarded as of weight in determining a question of substantial similarity or substantial difference. One thing may be a little longer or a little shorter than another, or it may work a little better or a little worse, and yet the two things may be substantially the same. But that principle must be applied with great care where, as in this case, the devices are minute mechanism. Should you find that the invention of Wilson, so far as respects the feeding apparatus, is not substantially the same as that described in the plaintiff's patent, then I instruct you that so far as respects the defence set up by the defendant under the Wilson patents, and those of a date subsequent to the plaintiff's application, the inquiry whether the plaintiff's invention takes date prior to the applications for his original patent is wholly immaterial in this case, because Wilson's invention, if it be substantially different from the plaintiff's patent cannot anticipate or supersede it.

JOHNSON v. ROOT.

But if you find that Wilson's invention, so far as regards the feeding apparatus described in the three patents under consideration, or in either of them, is substantially the same as the plaintiff's patented invention, you will then proceed to inquire, and determine from the evidence, when Wilson made his invention and reduced it to practice in the form of an operative machine, bearing in mind in respect to each of his patents in the case, that the patent (together with the application) is prima facie evidence that he was the original and first inventor of the improvement therein described, at the time when his application was filed in the patent office. You will also proceed to inquire and determine from the evidence, whether A. B. Wilson or his assigns did or did not construct machines under his first three patents, and sell the machines in the market for practical use, as sewing-machines, between the 8th of November, 1849, when the plaintiff's caveat ceased to have any legal effect for the protection of his right and the 31st of March, 1853, when the application for his original patent was filed in the patent office.

A. B. Wilson, as he states, commenced to make a sewing-machine in February, 1849, at Pittsfield, in this state, and completed it about the 1st of April in the same year. When asked what he did with the machine, he stated that he sewed with it at various times, and made garments, and he afterwards gave the names of the persons for whom the garments were made. Several other witnesses testify that they knew he was at work getting up the sewing-machine, and saw it operated; and if the witnesses are to be believed, it sewed both straight and crooked seams, and sewed well. One witness, Lyman G. Burnell, testified that he made and assisted in making the needles and some of the screws for the machine, and another, W. D. Axtell, stated that after he had seen the machine operate he wrote a notice of it for publication. It appearing that the witness himself set the types at the printing-office, he was allowed to refer to the journal to refresh his recollection as to the time when he saw the machine and wrote the article for publication, and he states that he wrote the article and published it on the 18th of April, 1849. While living at Pittsfield, Wilson subsequently commenced a model of the machine, but he did not complete it until he changed his residence. In May, 1849, he went to North Adams in this state, carrying with him the machine and the model which was still unfinished, and while living there, he took the metallic parts

of the machine off of the wooden plate on which the machinery was placed, and used some of the parts for other machines; but he still has in his possession or control the needle-arm and thread-spring. Something had been done to the model before he left Pittsfield, and he completed it as he states at North Adams, in the summer of 1851. After it was completed, he sent it to his patent solicitors in New York, but if I understood the witness correctly he afterwards procured it again from them, and it was used at a certain trial, and he is not now able to state from his own knowledge where it is or whether it is in existence or not. He built another machine at North Adams in October, 1849, which as the witness states is fairly represented by the machine marked Z, given in evidence by the defendant, and called the "Adams brass-machine." Most of the metallic parts, as the witness states, are the identical ones which belonged to that machine, and that statement appears to be confirmed in certain particulars by the statement of Joseph N. Chapin, Joseph H. Adams, Willard N. Ray, and perhaps by one or two other witnesses who saw it operate. Parts of the machine, as Wilson states, were used by him in building another machine, but he affirms that the residue are the same as those exhibited in what has been called the "Bright machine."

As I understood the witness, he next made one or two iron machines which were completed before he made the patent office model, but you will recollect his testimony for yourselves, as I shall not attempt to give the exact language of the witness. He made the patent office model also at North Adams in February, 1850, and he states that it was made like one of the iron machines. Pursuing the subject in the order of time, the next machine constructed by Wilson is the one he made for his wife. Passing over what he stated about his going to New York and Philadelphia and Washington, you will recollect his statement that he returned to North Adams on the 25th of April, 1850. He completed the model for the patent office a short time before he went to Washington, and on his return he commenced the machine called "Mrs. Wilson's machine," and completed it in July of the same year. According to his testimony it operated well, and he states that he used it for an exhibiting machine in North Adams, and that his wife afterwards used it as a family machine for making garments for himself and others. She used it as a family machine, as I understood the witness, after they went to New York in November or December, 1850. It was the first nipper-feed machine made by Wilson, and he states that his wife used it in Watertown after he went there to reside. He went there himself in February, 1851, but his wife did not return from New York until the following month. And he also states that she brought the machine with her to Watertown, and while there used it for making garments for himself and others, and continued to use it to do her sewing until he got the machines with the four-motions' feed. Inquiry was made of the witness whether the machine is now in the same condition as it was when his wife used it in November or December, 1850. To that inquiry he answered in effect that it had been for

JOHNSON v. ROOT.

years in his garret before he brought it to Boston for this trial and had become somewhat rusty, and that at the suggestion of Mr. Potter he had it cleaned up since he came here, but he states that there has not been any alteration in it other than cleaning it.

Joseph N. Chapin stated that this machine was finished in July, 1850; that he saw it operate in North Adams, and that it worked well; and he also states that he saw it operate in other places; that he saw Mrs. Wilson use it in making pantaloons, in New York, during the fall of 1850. It was also seen in North Adams by the witness, Joseph H. Adams, who states that he saw Wilson sew some pieces of cloth with it, and, as far as he could ascertain, it worked well. Chester F. Scott also states that he saw it at Watertown, in 1851, and saw Mrs. Wilson sewing with it, and he sewed with it himself at the office of the company. When asked what he saw Mrs. Wilson sew on it, he stated that it was a dress, or something of that kind, and he stated that it was a practical machine. Testimony has also been introduced by the plaintiff for the purpose of impairing the credit of A. B. Wilson as a witness. Ansel H. Barnum testifies that he worked for Warren, Wheeler, & Woodruff, during the fall of 1849, in the same shop where Wilson worked. He worked in three different rooms of the shop, and one of them (the upper one) was the room where Wilson worked, and the witness states that, although he was well acquainted with Mrs. Wilson, he never saw that machine, and he also states that Mrs. Wilson and Mrs. Cowan once came to the shop and got a nipper-feed machine, and one of them said that they were going to do some sewing. Charles R. Chult commenced to work in that shop on the 18th of March, 1851, and worked there about six months. He saw Mrs. Wilson occasionally, and was at her house, and never saw this machine, but he states that he had no opportunity to know whether or not she had it in her possession or use. William H. Hays commenced work there about the 20th of March, 1851, and worked there until the 12th of September, 1852. He says he never saw this machine, but he says he was not acquainted with Mrs. Wilson, and had little or no opportunity to see the machine. Frank Caffrey went into the employment of Warren, Wheeler, and Woodruff

the 1st of April, 1851, and stayed there until the fall of the same year; was sometimes in Mr. and Mrs. A. B. Wilson's room, and never saw this machine, or any other in her possession. Wilson worked for Ezra Ingraham in 1849. They had a conversation about the machine that Wilson commenced in Pittsfield, but they had no conversation about this machine. One of the experts called by the plaintiff, Mr. Hibbard, has expressed the opinion that this machine is one, of very recent origin, and that he is unable to find in it such indications as he would expect to find, even if it had been used for one day.

Of course you will examine the machine, and weigh the opinion thus expressed, in connection with the positive testimony of Wilson, who states that he made it, and of the other witnesses who saw it at different places, and saw Mrs. Wilson using it, and of the person who operated it himself at the office of the company. Fraud is never to be presumed, and certainly not when the charge carries with it the imputation of an attempt to corrupt the fountains of justice by imposition and perjury; but the question is one of fact, and is en-tirely within your province. Warren, Wheeler, & Woodruff constructed some five hundred of the nipper-feed machines under a contract, and Wilson states that the first one was made in February, 1851.

C. F. Scott sewed with all of these, except three or four, and he says they worked well; and the same witness says they continued to construct these machines till October or November, 1851. Seventy-five were made before the witness J. N. Chapin left in May, 1851. Nearly two hundred of the number, as the witness George H. Chittenden states, were sold at the office in New York City where he was employed to sell the nipper-feed machines from the latter part of the year 1850 to September on October, 1852, and he says they operated well for that time. Besides those sold in the office, he knew of the sale of one hundred and fifty more, in the latter part of the year 1852. Defendant's witnesses represent, I believe, that the whole of the contract machines were either sold or delivered from the manufactory after they were built. On the other hand, one of the plaintiff's witnesses states that some fifty or seventy-five of the contract machines were remaining in the factory when he left in 1852. These machines were what the defendant has designated as his third form of feed, but the labels put on the machines are not evidence for your consideration. His third form of feed in the Wilson machine is what has been called the gunbarrel machine with the rotary hook. The witness Wilson commenced to build it in 1850, and completed it on the 5th of January, 1851. After that he commenced his fourth form of feed in May of the same year, but he did not apply for the patent till the 8th of July, and it was granted on the 12th of August of that year (1851). A. H. Burnham, one of the plaintiff's witnesses, states that in May or June, 1851, he saw a pocket machine which Wilson had of this description, and he says it was a completed machine and "did run." His fifth form was a four-motion feed with two teeth side by side feeding each side of the needle, but a feed with one tooth was soon substituted. Six machines with one tooth

JOHNSON v. ROOT.

were made in the spring or early part of the summer of 1851, but all save one were soon altered to two teeth, one forward of the other. Both Scott and Wilson, I believe, state that the one-tooth machine fed goods tolerably well, but did not advance the material to be sewed with sufficient force. That patent was applied for on the 7th of February, 1852, and was issued on the 15th of June of the same year. The machine numbered nineteen is the next machine to which your attention is invited, which is called by the defendant the sixth form of feed. It has two teeth, one forward of the other, and is a four-motion feed. Two of the defendant's witnesses, Chester F. Scott and A. B. Wilson, state that it was made in the spring of 1851, shortly after the four-motion feed machine, with one tooth, and the former says that from one to two hundred machines of that description were made. He sewed with them all, and he states that they operated well, and that they were all taken from the shop, though he cannot say of his own knowledge that they were sold. When asked respecting the machine numbered twenty, which is also in the case, he said he first saw the machine in that exact form in 1851, remarking, however, in the same connection, that while the pattern was the same, the upper parts were different, that there was a difference in the pressure-foot, but adding that the pressure-foot was got up the last of the year 1851 or the first of 1852. Another witness for the defendant, G. H. Chittenden, stated that the change in the pressure-foot from that numbered nineteen to that numbered twenty, was made, as he thinks, in July, 1852; and he also states that in the fall of 1851 he became familiar with the fact that machines with four-motion feed were being manufactured. They were introduced, one at a time at first, and so, perhaps, up to the middle of June, 1852. O. F. Winchester got his first machine in the latter part of 1851, and used it for a year on trial, and then got ten more. H. Griswold got three machines in the summer of 1852; and Joseph H. Murry states that some twenty-three hundred were manufactured with two points before they added more points to the feeding instrument. In this connection you will bear in mind that the patent of A. B. Wilson, of the 12th of November, 1850, has been reissued. One of the reissued letters-patent

is dated the 22d of January, 1856, and the other is dated the 19th of December, 1856. The patent to A. B. Wilson, of the 12th of August, 1832, was also re-issued to the Wheeler and Wilson Manufacturing Company, as assignees of A. B. Wilson, on the 28th of February, 1860; and the patent granted to W. P. N. Fitzgerald, as assignee of A. B. Wilson, is the one under which the defendant alleges the machine sold by him was made and sold.

These several patents have been admitted as tending to show that the first three inventions of Wilson are still under the protection of subsisting patents, and that they have not become the property of the public. One of the objections taken to the admissibility of those which bear date subsequent to the date of the writ, was waived by the plaintiff, and, therefore, they were admitted, and are in evidence in the case.

The defendant has also introduced the patent to Grover and Baker, dated June 22, 1852, together with the disclaimer accompanying the same, which is dated the 11th of December, 1854. These last-mentioned patents, together with certain explanatory statements of the witness Potter respecting the same, were admitted as tending to show that the claim of Wilson to the four-motion feed in his application for his patent of June 15, 1852, was withdrawn by mistake on the part of Nathaniel Warren, as to the date of the invention, which had been made by Wilson. Whether the evidence admitted in the case is or is not sufficient to satisfy you of that fact, is a matter for your determination; and these last-named patents were also admitted as tending to show, in connection with certain conveyances and assignments, or licenses, that the interest in the Wilson inventions was passed to, and vested in, the Wheeler and Wilson Manufacturing Company, to the extent described in these conveyances, assignments, or licenses, given in evidence in the case.

Considering the course of the arguments on the one side and the other, it will be sufficient for me to refer to the title papers, without any further remarks upon the subject. They are as follows:—Assignment of A. B. Wilson to Nathaniel Wheeler and Orlando B. Potter, dated February 1, 1856, conveying reissued patent No. 346, dated June 22, 1856. Declaration of trust of patent No. 346, for the benefit of the Wheeler and Wilson Manufacturing Company and the Grover and Baker Sewing-Machine Company. Assignment from Alanson Warren, George P. Woodruff, Nathaniel Wheeler, and A. B. Wilson to the Wheeler and Wilson Manufacturing Company of two letters-patent, one granted to them as assignees of Allen B. Wilson, and one assigned to them, but granted to Allen B. Wilson; said, letters-patent being No. 8,296, granted August 12, 1851; and No. 9,041, granted June 15, 1852, said assignment being dated October 5, 1853. Assignment from William P. N. Fitzgerald to the Wheeler and Wilson Manufacturing Company of letters-patent, No. 12,116, dated December 19, 1854, granted to him as assignee of A. B. Wilson, assignment dated December 27, 1854. License from W. O. Grover, William E. Baker,

JOHNSON v. ROOT.

and O. B. Potter to Nathaniel Wheeler, A. B. Wilson, Alanson Warren, and George P. Woodruff, under patent, No. 9,053, granted to Grover and Baker, June 22, 1852, license dated July 1, 1852.

Should you find, under the preceding instructions, either that the plaintiff did not invent the needle-feed exhibited in the old red machine, and reduce the same to practice in the form of an operative machine in 1848, or if he did, that the patented invention of the plaintiff, described in the specification of his reissued patent, as construed by the court does not embody the same, or a substantial and material part of the same, which was new and useful, or that the feeding apparatus described in the original Wilson patents is substantially different from the feeding apparatus described in the specification of the plaintiff's reissued letters-patent as thus construed, then you will have no occasion to consider the evidence on this branch of the case; for if the plaintiff did not make such an invention and reduce it to practice in the form of an operative machine in 1848, then he cannot carry back the date of his patented invention to any period prior to the time he filed his application for his original patent; and if the feeding apparatus described in each and every of the three original Wilson patents are substantially different from that of the plaintiff's patented invention, then the inquiry whether the plaintiff can or cannot carry back the date of his invention to a period before the application for his original patent was filed, is not involved in the issue between these parties, as it is not pretended by the defendant that the Blodgett machine is of a character to supersede the old red machine when the latter is used in the position in which it was evidently constructed and designed by the patentee to operate. On the other hand, if you find for the plaintiff on the first two points under the instructions of the court, but also find that one or all of the original Wilson patents, so far as respects the feeding apparatus therein described, and embodied in a practical machine or machines, is substantially the same as that of the plaintiff's patented invention, you will then proceed to the inquiries already suggested as arising out of the evidence on this branch of the case.

Although the plaintiff constructed a machine in 1848 (of which the old red machine is a true representation), and operated it in sewing pieces of canvas and padding, as

stated in his testimony, and carried it to Washington and filed his caveat; still, it is insisted by the defendant that the plaintiff cannot, under all the circumstances of this case, carry back his invention to any period prior to the time when he commenced to make the model of his patented machine. Upon that subject, I instruct you, that if you find that the plaintiff invented the needle-feed, which is in the old red machine, in 1848, embodying the same in a machine of which the old red is a true representation (excluding the rotary clamp), and operated it with the stationary holder, as he has described in his testimony, and carried it to Washington, leaving the stationary holder at home, and there constructed and fitted in the rotary clamp, and operated it there, as he has stated in his testimony; and on the 7th of November, 1848, filed his caveat in the patent office, still, if you also find that the plaintiff, on the same day that he filed the caveat, took the machinery out of its frame in Washington, and brought the parts home, leaving the frame there, and laid them aside as something incomplete and requiring more thought and experiment, before he restored the invention, in the form of an operative machine, although not with a definite intention of abandoning what he had accomplished, yet not with any determinate intention of resuming the same, but really for the purpose of preserving the parts, to be used by him or not as he might thereafter determine, and suffered his caveat to expire, and did nothing to restore the invention in the form of an operative machine, or to mature the needle-feed from the time he left Washington to the last of December, 1852, when he commenced to make a model with a view to apply for his patent, and, in the mean time, A. B. Wilson, without knowledge of what the plaintiff had accomplished, invented the same thing, and reduced the same to practice in the form of an operative machine, filed his application for a patent after the plaintiff's caveat had expired, and then obtained letters-patent for the same, and that A. B. Wilson, or his assigns, manufactured machines under that patent for practical use as sewing-machines, containing the same feed, and that the machines so manufactured were sold in the market, and went into practical use before the plaintiff commenced to restore his invention, or to make his model with a view of obtaining his original patent; then I instruct you that if the defendant's machine was made under the Wilson patent, and the defendant sold the same by the authority of Wilson or his assigns, the plaintiff cannot carry back his invention to any period prior to the time he commenced to make the model for his original patent, provided you also find that the Wilson patent embodies the same needle-feed as that of the plaintiff's patented invention.

All three of the patents granted to Wilson, namely, the patent of the 12th of November, 1850, the patent of the 12th of August, 1851, and the patent of the 15th of June, 1852, were issued prior to the plaintiff's application for his original patent; but you must apply the preceding instruction to each of these patents, and to the machines made under them separately, each being considered separately from the others, because the instruction embraces several elements, all of which must concur if you find for the defendant.

JOHNSON v. ROOT.

If you find for the defendant under the preceding instruction, as explained, then, the plaintiff cannot carry back his invention to any period prior to the time he filed his application for his original patent, and your verdict should be for the defendant. But if, under that instruction and all the instructions which preceded it, you shall find for the plaintiff, then you will proceed to the consideration of another ground of defence set up by the defendant on this branch of the case.

Suppose the plaintiff did invent the needle-feed embodied in the old red machine in 1848, and reduced the same to practice in that form, to the extent stated in his evidence, still, it is insisted by the defendant that he afterwards deserted and abandoned what he then accomplished, and having wholly neglected to do anything to restore the machine or to mature any needle-feed in a sewing-machine, from the 7th of November, 1848, to the last of December, 1852, or the 1st of January, 1853, he cannot, under the circumstances of this case, carry back his invention to any period prior to the time of his application for the original patent, or certainly, not to any period prior to the time when he commenced to make his model for the patent office.

Whether the plaintiff deserted and abandoned what he had accomplished, so far as the needle-feed is embodied in the old red machine, is a question of fact for your determination from all the evidence in the case, under the instructions of the court. If you find that the plaintiff, after having taken the machinery out of the frame in Washington and brought it home, leaving the frame there, laid the machinery aside as something incomplete and requiring more thought and experiment, and never intending to reconstruct the machine or to restore the needle-feed in the form of an operative sewing-machine, without material modifications or alterations, but only to preserve the parts to be used in other inventions as circumstances might arise, then I instruct you that you would be fully warranted in finding that he deserted and abandoned the invention so far as respects the needle-feed, provided you also find that he did nothing to restore the needle-feed in the form of an operative machine from the 7th of November, 1848, to the last of December, 1852, or the 1st of January, 1853. On the

other hand, if you find from the evidence, that the invention, so far as relates to the feeding apparatus, was completed and had been reduced to practice in the form of an operative machine, and the parts were boxed up after he returned from Washington, and laid aside without any intention of abandoning the invention, but with the intention of constructing a new frame, and restoring the invention in the form of an operative machine, which should include the needle-feed, and of applying for a patent, and the neglect and delay to resume the undertaking and carry such intention into effect is fairly and reasonably accounted for by the evidence in the case, then you are not authorized to find that the plaintiff deserted or abandoned what he had then invented and reduced to practice in the form of an operative machine. Whatever evidence there is in the case to account for the long delay to resume the undertaking and restore the invention in the form of an operative machine, and take the necessary steps to apply for a patent, is for your consideration; but I am not aware of any except the testimony introduced as to the state of his health and the condition of his pecuniary affairs, and that testimony is somewhat conflicting. While I cannot say as a matter of law, that this testimony is wholly irrelevant or immaterial (and therefore it is for your consideration), still I regard it as my duty to say that I think it is entitled to very little weight. Where an inventor has completed his invention and reduced it to practice in the form of an operative machine, and while in the exercise of reasonable vigilance to construct his model with a view to apply for a patent, he should be arrested in his efforts either by sickness or want of means to carry out his intentions, such evidence would deserve much consideration in a question like the present; and the suggestion would apply with equal, if not greater force, in the case of an individual who was using his best endeavors to mature and complete what he had really conceived, but had not fully reduced to practice in the form of an operative sewing-machine. Nothing of that kind, however, is suggested in this case, and obviously for the reason that the plaintiff cannot carry back the date of his invention to any period prior to his application for his reissued patent unless it appears that his invention was completed and reduced to practice in the form of an operative machine. In determining the questions arising under the last three instructions, you will also take into consideration all that occurred at Washington at the time he constructed the rotary clamp and filed the caveat, also the fact stated by himself, that he took the machinery out of the frame, leaving the frame there, and that he laid the parts aside in his trunk after he returned home, and when he moved to Granville that he boxed them up, suffering his caveat to expire, and did nothing to reconstruct his machine or to restore the needle-feed in the form of an operative machine until the last of December, 1852, or the 1st of January, 1853. You will also take into consideration all the evidence tending to show that while he did nothing to restore his machine to a condition which would enable him to apply for a patent, that he gave his time and attention (or a part of the same) to the completion of another invention embodying a different in-

JOHNSON v. ROOT.

strumentality for feeding. And you will also take into consideration the testimony of the witness Potter, as to what occurred at Hartford when he examined the Grover and Baker machine, and also the testimony of Mr. Bates as to what occurred in the interviews between Mr. Potter and the plaintiff at his office. If you find that the plaintiff deserted and abandoned what he had accomplished in the old red machine, and that Wilson in the mean time invented the same thing and reduced his invention to practice in the form of an operative machine and took out his patent, then the plaintiff cannot carry back his patented invention to any period prior to the application for his original patent, and your verdict should be for the defendant.

After a careful consideration of the evidence, however, if you should find for the plaintiff under each of the preceding instructions, then you will proceed to the second general ground of defence set up by the defendant.

The charge in the declaration in effect is, that the defendant's machine infringes the plaintiff's reissued letters-patent; and that is a question which you are to determine from all the evidence in the case, under the instructions of the court. But unless you find that the plaintiff is the original and first inventor of the needle-feed described in the specification of his reissued letters-patent, you will have no occasion to consider the question of infringement.

On the question of infringement, the burden of proof is on the plaintiff to show to your satisfaction that the defendant's machine (which it is admitted he sold as the agent of the Wheeler and Wilson Manufacturing Company) does infringe the third claim of the plaintiff's reissued patent, as construed and defined by the court. Whether the defendant's machine does infringe that claim or not, is a question of fact for your determination from all the evidence in the case, under the instructions of the court. Instructions have already been given you on another branch of the case, prescribing certain general rules of law by which you are to be governed in comparing one machine or device with another, to enable you to determine whether, in legal contemplation, the two machines or devices are substantially the same or substantially different; and those instructions are equally applicable to the present question in respect to the defendant's machine

and the plaintiff's patented invention. But considering the nature of this inquiry, I think it necessary to give you some more specific instructions by which you will be governed in applying those general rules of law to the question under consideration. In determining that question you will find it necessary to keep constantly in view the instructions of the court as to the construction of the plaintiff's patent, else you will be liable to fall into error. By the true construction of the plaintiff's patent, the third claim is for his described means of feeding the cloth or other material to be sewed in a sewing-machine. What those means are, the instructions already given will enable you to understand with clearness and certainty, and if the defendant in his machine uses substantially the same means of feeding, in a way substantially the same, and they accomplish substantially the same result, then I instruct you that the defendant's machine infringes the plaintiff's patent, and your verdict should be for the plaintiff. But if you find that the defendant in his machine used substantially different means, or the means do substantially different work, and in a way and mode of operation substantially different, then I instruct you that the defendant's machine does not infringe the third claim of the plaintiff's patent, although it accomplishes substantially the same result, and your verdict should be for the defendant. His patent is not for a result, but for the means as substantially described in his specification for accomplishing that result, and to guard against mistake, I repeat that the claim is not for every means of applying power directly to the cloth, at or near the point where the stitches are being formed, for the purpose of feeding it in a sewing-machine in contradistinction to applying the power for that purpose to a plate, clamp, or bar; because if it were so, it would be a patent for an abstract idea or principle, and therefore would be invalid, but it is for such means of applying power to the cloth for the purpose of feeding it in a sewing-machine, as the plaintiff has substantially described in the specification of his reissued letters-patent, and if the defendant in his machine uses substantially the same means to accomplish that purpose, in substantially the same way, then his machine infringes the plaintiff's patent; but if the defendant in his machine uses substantially different means for that purpose, or the means do substantially different work, and in a way and mode of operation substantially different, then the machine does not infringe the plaintiff's patent. Applying the same rule of interpretation to the claim of his patent in another aspect, and it is obvious that the claim is not for the use of every vibrating piercing instrument in feeding material to be sewed in a sewing-machine, because no one can patent motion merely as contradistinguished from the means by which the motion is effected. But it is necessary to go further, and consider the subject in still another aspect. No one can patent an instrument which is old within the meaning of the patent law; and it is conceded that the needle and the awl described in the specification of the plaintiff's patent are old, and consequently it follows that the claim of the patent is not for every use of these instruments in feeding the cloth to be sewed in a sewing-machine, because these respective instruments, being old within the

JOHNSON v. ROOT.

meaning of the patent law, the plaintiff could not, without more, patent them. He could only patent such means or mode of using them as he has substantially described in the specification of his reissued patent; and if the defendant in his machine uses substantially the same means, and in substantially the same way, to accomplish substantially the same result, then his machine infringes the third claim of the plaintiff's patent; but if the defendant in his machine uses substantially different means, or in a way or mode of operation substantially different, then his machine does not infringe the third claim of the plaintiff's patent. In determining whether the means and mode of operation in the plaintiff's patented invention are substantially the same or substantially different from those in the defendant's machine, you must bear in mind the instructions of the court already given, that there are included in the third claim of the plaintiff's patent, as part of the mode of operation, not only the vibrating piercing instrument, but also whatever parts necessarily act in connection therewith to feed the material to be sewed in a sewing-machine, so far as any function they perform modifies the action of the feeding instrument, and consequently whatever means are therein described which are necessary to the control of the cloth, to enable the vibrating piercing instrument to perform the function of feeding, and which modify the action of the feeding instrument, to the extent they modify it, are to be deemed parts of his described invention which the plaintiff has claimed; and the same remarks with the same qualifications, apply to the surface below the material to be sewed (called the table) which supports the cloth when it is pressed by the vertical bar or holder, so as to keep the cloth from slipping as the needle descends and perforates it; and also to the cloth-holder which exerts its pressure for that purpose, as more fully explained in the instructions already given.

For the purposes of this trial you will take it to be law, that the instructions given to you upon this subject are correct. No matter if different opinions may have been expressed by the witnesses or by counsel. Trial by jury, though an inestimable right, is not a trial without a court, and is not so regarded in the constitution of the United States or the laws of congress. Matters of

fact belong exclusively to the jury, but the court must determine questions of law, subject to exceptions, else it would fail to perform its duty and the law of the case could never be revised. Sometimes the court in trials of this description invites the attention of the jury to the characteristics of the invention and patented machine of the plaintiff and the machine of the defendant, and also attempts to classify the evidence introduced in the case on the one side and the other, but that duty has been performed with so much thoroughness by the counsel of the parties, that the court will omit it on the present occasion.

Witnesses, as a general rule, are required to testify to facts only, and are not allowed to give their opinions, but where the question at issue relates to a particular art, science, or profession, persons possessing peculiar qualifications, and skilled in that particular art, science, or profession are uniformly regarded as exceptions. Such witnesses are usually denominated experts, and their opinions are admissible in the case for the court and for the jury.

Two witnesses on each side have been examined as experts in this case, and in the course of the examination, the characteristics of all the machines given in evidence have been pointed out by them and explained. It would be difficult, if not impossible, for the court to add anything by way of explanation, without repeating what has already been several times rehearsed. Like all other evidence in the case, the opinions of the experts are for your Consideration, and it is a matter within your province to determine what weight you will give to their testimony.

Much time has been spent in this trial, and it is very desirable that the controversy should now be settled upon correct principles of law, and the evidence in the case. Both parties appear to regard the matter in dispute as one of great importance, and I think you ought to give it a very deliberate consideration and use your best endeavors to agree upon a verdict.

Should you find for the defendant, under the instructions of the court, you will have no occasion to consider the question of damages; and, if I understand the views of the plaintiff, in case of your finding in his favor, he only claims nominal damages, and he can recover compensation for the sale of one machine only. Under the circumstances of the case, I do not think it necessary to remark further on this subject, except to say that in general the claim for damages in cases of this description is no test of the importance of the controversy. Parties coming into this court, as in all other similar tribunals, have a right to expect that justice will be administered according to law and the evidence, and it is the duty, both of the court and jury, to fulfil their just expectations in this behalf.

[The jury returned a verdict for the plaintiff for \$500, which was subsequently set aside, and a new trial granted. See Case No. 7,409.]

¹ [Reported by William Henry Clifford, Esq., and here reprinted by permission.]