

## CAMPBELL v. MAYOR, ETC., OF NEW YORK.

*(Circuit Court, S. D. New York. September 4, 1891.)*

## 1. PATENTS FOR INVENTIONS—VALIDITY—PRIOR USE.

Where an inventor experiments in good faith and with reasonable diligence to perfect his invention, and within two years after its completion applies for a patent, his patent will not be defeated by the fact that another constructed and sold a form of the invention, without his knowledge, during the time of the experiments, and before its completion, though more than two years before the application.

## 2. SAME—RELIEF-VALVE IN FIRE-ENGINE PUMPS.

Letters patent No. 43,920, granted May 24, 1864, to James Knibbs, for a relief-valve in steam fire-engine pumps, are valid.

## In Equity.

*Marcus P. Norton, Horace G. Wood, and Harvey D. Hadlock, for orator.*  
*Frederic H. Betts and Samuel R. Betts, for defendants.*

WHEELER, J. This suit is brought upon patent No. 43,920, granted May 24, 1864, on an application filed May 13, 1864, to James Knibbs, assignor, for a relief-valve in steam fire-engine pumps. It was heard in 1881, and the patent was sustained notwithstanding evidence that the Amoskeag Manufacturing Company of Manchester, N. H., had constructed and sold engines containing the invention more than two years before the application for the patent, because one was made to contain it at the request of the inventor for experiment, and the others were made to contain it and sold without his consent and allowance. 20 Blatchf. 67, 9 Fed. Rep. 500. After the decision in *Andrews v. Hovey*, 123 U. S. 267, 8 Sup. Ct. Rep. 101, and 124 U. S. 694, 8 Sup. Ct. Rep. 676, that the consent and allowance of the inventor was not necessary to defeat a patent by prior construction and use of the invention by others, the defendant moved for a rehearing, on which the patent was for this cause held to be invalid. 35 Fed. Rep. 504. After that, on motion of the orator, the proofs were opened as to use of the invention by the Amoskeag Manufacturing Company prior to the application for the patent. 36 Fed. Rep. 260. And after this leave was granted for an amendment of the answer, and for evidence as to the construction of relief-valves on the feed-pumps of the United States naval steamship Powhatan in 1852, and on the steamship Knoxville in 1854, and use of them afterwards. Much evidence has been taken upon these issues, and the cause has now been heard on these questions upon all the proofs. The proofs show clearly that the feed-pumps of the Powhatan did have an automatic relief-valve, working against a weight on an outside tube, for the return of the excess of water not needed by the boilers from the discharge to the supply side of the pumps; and that the feed-pumps of the Knoxville had such a valve within the pumps, working against a spring, for the same purpose. If the patent was only for the process of returning any excess of water from the discharge to

the suction sides of such force-pumps, it would, probably, be defeated by these, and perhaps other, prior devices. But the second claim of the patent is for the connecting of the discharge or force side of steam fire or other engine pumps with the suction or supply side thereof by means of the tube and regulating valve, or any equivalent therefor, and for the purposes described and set forth. It is the mechanism described for the purpose described—which is the return by this mechanism or its equivalent of the excessive water on restriction of the discharge in a steam fire-engine from the discharge to the suction side of the pump—that is patented. The pumps of the steam fire-engines to which this invention was applied have a piston working in a barrel in a cylindrical shell between valves at the heads of the shell, which is divided in its interior by a partition each way from the barrel, separating it into suction and discharge sides. The relief-valve of the feed-pumps of the Powhatan engines could not be put upon, nor those of the feed-pumps of the Knoxville engines into, these pumps without material changes in their structure; and neither the weighted valve of the one nor the spring valve of the other would be adequate to the great and sudden variations in delivery and pressure required of steam fire-engines in actual use. A hand-valve, or one which could be worked by hand beyond what would be done by automatic devices, was required. Knibbs' invention was greater than merely putting these valves to a new use for an analogous purpose. It is not the same as the putting the car-truck under the locomotive was in *Pennsylvania R. Co. v. Locomotive Truck Co.*, 110 U. S. 490, 4 Sup. Ct. Rep. 220. It was changing the form and mode of operation of the devices, and adjusting them to new conditions of a use, although analogous, for a new purpose, quite different from that of the steady working of a feed-pump by connection with the engine against the constant and not much varying pressure of the boiler. In view of the changes to be wrought out to meet these new conditions and requirements, the valves of these feed-pumps do not appear to deprive Knibbs' invention, which is admittedly of great utility, of patentable novelty.

The Amoskeag Manufacturing Company built the steam fire-engine Arba Reade for the city of Troy, and delivered it there in March, 1860. Knibbs was foreman having it in charge. He put this invention, in a rather crude form and make, on the outside of that engine. It worked well, but he thought he could improve it. The city wanted another engine, to be called the J. C. Osgood. At his request the authorities consented that the invention should be built into it for further experiment. In July, 1861, the agent and superintendent of that company were at Troy, negotiating for building it, and were shown the invention. Some one suggested that the valve might be made to work through the shell of the pump to a seat on an opening in a recess to one side of a part of the partition between the suction and discharge sides of the pump, so that the water could be pumped round and round through that opening. They agreed to build the engine in that way. On their

return to Manchester they found agents of the city of Hartford there after a steam fire-engine. They built and delivered one—the Phoenix—in November, 1861. They delivered the Osgood to Troy in January, 1862; the Atlantic to Lawrence, in March; and the Governor Hill to Concord, in April, 1862; and all went into use before the application for the patent. Much evidence has been taken as to whether these engines other than the Osgood contained this invention when built. The Phoenix, built first, has been produced in court. The shell of the pump, piston-barrel, and partition between suction and discharge sides, are cast in one piece. A recess of a part of the partition to one side, with an opening and valve-seat in the wall of the recess, are in it, and must have been cast with the shell. A valve works through the shell to the seat, and it contains the invention as patented. The engine went back to the builder's works in 1865 for extensive repairs, and the orator insists that this shell was put in then, or has been since. A specification of the parts to be put into the engine was written in the books of the company before it was built. In it is: "Main pumps to be all of brass, with the connection between the pump and boiler." This invention allowed steam to be kept up in the boiler without throwing water from the pump. This connection could have been nothing but this relief valve in the pump to take pressure from the boiler. Patterns on castings were numbered consecutively, and definitions of the numbers kept in a book. Among them was 16,110, a "valve to connect top and bottom of main pump" of the Phoenix. The pattern of this valve is produced, with the number upon it. The pump was to stand upright. The water was to be drawn and forced through valves in the heads at the top and bottom of the main pump; and this valve would, in a sense, connect the top and bottom of that pump. The engine when made was to be drawn by hand. It was changed to be drawn by horses in 1864. A photograph was taken of it, with the hand rigging on it, which shows the relief-valve handle upon it distinctly. The repairs in 1865 were all charged for by items in the company's books, and no charge, nor room for any, of a new pump-shell is found among them. The oral evidence as to whether the valve was there when the engine was built is conflicting; the preponderance of it is, however, that it was. In view of the whole, no reasonable or fair doubt but that it was is left. Many insinuations have been made in the record against, and much hard criticism by some counsel in argument upon, the conduct of the superintendent of the Amoskeag Manufacturing Company in respect to the evidence as to this engine, but without apparent just foundation. Upon the proofs the invention has lately been in the Atlantic in the same form as in the Phoenix, and doubtless was put there when the engine was made. Whether it was in the Governor Hill rests almost wholly on oral proof, and is, perhaps, reasonably doubtful. Whether it was in more than one of these engines does not, however, seem to be material. *Egbert v. Lippmann*, 104 U. S. 333; *Hall v. MacNeale*, 107 U. S. 90, 2 Sup. Ct. Rep. 73.

The evidence also satisfactorily shows that when Knibbs first put his invention onto the Arba Reade it worked well, but he thought he could improve it; that he soon applied to a solicitor with reference to obtaining a patent for it, who advised him to perfect it as well as he could first; that it worked well in the Osgood, and he again applied to his solicitor, who further advised him to make it as perfect as he could on the Arba Reade; that he altered it on the engine by making the passage larger, and the valve partly automatic, in February, 1863; that he was satisfied that this was the best form, and again applied to his solicitor, who had a model and drawings made, and made the application for the patent; that this last form was not mentioned in the application because his solicitor thought the specification and claims as drawn would cover all forms; that he did not in fact abandon his invention to the public, but, in view of the small number of fire-engines in use anywhere then, and as the Arba Reade and the Osgood were the only ones within his reach to which he could apply it for experiment, he used due diligence in perfecting it; that when the agent and superintendent of the Amoskeag Manufacturing Company met the agents of Hartford they made it known to them, and agreed to put it into the Phoenix; that the superintendent soon after that went again to Troy, to further settle the details of the Osgood, and saw Knibbs, but did not make known to him, nor to any one there, that they had agreed to put it into the Phoenix, made it known to others, or intended to use it otherwise than to put it into the Osgood; that he did not make it known otherwise than by applying it to and using it on the Arba Reade, and having it put into and used in the Osgood, and did not know of any use of it by the Amoskeag Manufacturing Company or otherwise than on the Arba Reade and Osgood till after his application for the patent; and that the infringing engines have partly automatic valves, such as he finally used on the Arba Reade. Putting the invention into the Osgood in the form used there, and testing it, was an important step in its progress. The Phoenix was built before the Osgood, and delivered to Hartford and put into use before Knibbs had seen the Osgood, or had any chance to observe its working. That he at once observed how it worked is shown by the defendant's witness Collins; and that he then commenced making patterns and a valve for his improvement on the Arba Reade, and applied it as soon as he could get that engine off duty for that purpose, is shown by his own cross-examination. The Atlantic and the Governor Hill and others, which may have contained the invention two years before the application for the patent, were all built, delivered, and put into use either while he was waiting for and observing the working of the invention in the Osgood, or while he was making the patterns and valve for putting the improvement on the Arba Reade, or while he was waiting to get the Arba Reade off duty for putting them on; and the infringing engines have the opening through the partition between the discharge and suction sides of their pumps and the valve-seats of the Osgood, as well as the partly automatic and partly hand valve of the Arba Reade.

Thus the construction, sale, and use of engines relied upon to defeat the patent were all had while the invention, as infringed, was being made, and before it was completed. That the patent covers the whole invention, although it does not specify the form of it put into the Osgood, or last put upon the Arba Reade, is not questioned. That the construction of the Phoenix and Atlantic embodied the invention as patented is equally clear.

If mere constructing, selling, and using more than two years before the application for the patent what would have been an anticipation, if made before the invention would defeat a patent, then the construction, delivery, and use of the Phoenix and Atlantic, or either, would defeat this patent. Exactly who suggested an opening in a recess of the partition between the discharge and suction sides of the pump for a seat to the valve in the Osgood is not clear; and whether it would work well, or, with the valve, be an obstruction, was doubtful; but, if any of those who put it into the Phoenix did and had got a patent for it, the provision of the act of 1836, that a patent surreptitiously or unjustly obtained "for that which was in fact invented or discovered by another, who was using reasonable diligence in adapting and perfecting the same," might be defeated by pleading and proving these facts, was in force; and it could have been defeated by pleading and proving what Knibbs was doing, and the invention would have been left to him. 5 St. p. 117, § 15. Construction, sale, and use without a patent would not seem to have greater force than a patent which would cover them, unless made to so have by positive statute. However that may be, this provision shows that an inventor following up his invention has an inchoate right to it protected by law. Putting this invention into the Phoenix and Atlantic and other engines, if any, at that time, was an unlawful, and therefore an unjust, invasion of this right in Knibbs. This might defeat the right to use these specific engines under the first clause of section 7 of the act of 1839, (5 St. p. 353.) *Kendall v. Winsor*, 21 How. 322. Some of the construction and use there was more than two years prior to the application, and would seem, if lawful, to have been adequate to defeat the patent under the second clause of that section. *Andrews v. Hovey*, 123 U. S. 267, 8 Sup. Ct. Rep. 101, 124 U. S. 694, 8 Sup. Ct. Rep. 676. "Such purchase, sale, and prior use," to defeat a patent under the second clause of that section, seems to be, and in that case seems to be held to be, that which the purchaser or constructor could be held to possess the right to under the first clause. If this right should fail as against, the patent would appear to be saved for, the inventor. The taking of this invention by the Amoskeag Manufacturing Company and putting it into the Phoenix, Atlantic, and other engines, if any, in this case did not involve procuring any breach of an express agreement for secrecy, as that in *Kendall v. Winsor* did, but only a breach of trust and confidence, not wicked, and probably not thought to be wrong. Knibbs does not appear to have had any reason to expect that company would put it into any engine but the Osgood, and was not informed that they

had time long after the time in question. The agent and superintendent appear not to have thought that he had any right which they were invading. But the intent in invasion would not give the right invaded, nor take it away if it existed. If Knibbs had abandoned his invention by procuring it to be put into the Osgood, it would have been gone; but, as he did not, it remained. The policy of the patent law appears to have always been held to be to protect inventors in the perfection of their inventions. When the statutes gave a right to a patent only for what was not known or used before the application, the knowledge and use of the inventor in completing and testing his invention was held to be saved by implication out of what would defeat the patent. *Pennock v. Dialogue*, 2 Pet. 1. The court said, by Mr. Justice STORY, that—

“The main object was ‘to promote the progress of science and useful arts,’ and this could be done best by giving the public at large a right to make, construct, use, and vend the thing invented at as early a period as possible, having a due regard to the rights of the inventor.”

And:

“In respect to a use by piracy, it is not clear that any such fraudulent use is within the intent of the statute, and upon general principles it might well be held excluded.”

In *Elizabeth v. Pavement Co.*, 97 U. S. 126, the invention was in use in public six years before the application. The patent was upheld because the use was by the inventor, in good faith, to perfect his invention. In *Egbert v. Lippmann*, 15 Blatchf. 295, Judge BLATCHFORD said the policy of the act of 1839 was “that the inventor must apply for his patent within two years after his invention is in such a condition that he can apply for a patent for it.” In *Manufacturing Co. v. Sprague*, 123 U. S. 249, 8 Sup. Ct. Rep. 122, the invention was in use in public, partly for experiment and partly for profit, four years before the application. The court said:

“The thing implied as excepted out of the prohibition of the statute is a use which may be properly characterized as substantially for the purpose of experiment. When the substantial use is not for that purpose, but is otherwise public, and for more than two years prior to the application, it comes within the prohibition.”

In *Andrews v. Hovey* the invention was completed and used in public by the inventor before the use by others that defeated the patent, which was much more than two years before the application. In the opinion (123 U. S. 267, 8 Sup. Ct. Rep. 101) the court, by Mr. Justice BLATCHFORD, repeated the observation in *Egbert v. Lippmann*, before quoted, and added, in respect to the act of 1839:

“Its object was to require the inventor to see to it that he filed his application within two years from the completion of his invention.”

And in 124 U. S. 694, 8 Sup. Ct. Rep. 676, said:

“It may well be that a fraudulent, surreptitious, and piratical purchase or construction or use of an invention prior to the application for the patent

would not affect the rights of the patentee under either clause of the seventh section."

Knibbs carried forward his invention by three principal experiments: The construction of it according to his first conception of it on the Arba Reade; the putting it into the Osgood; and the putting the completed invention upon the Arba Reade. He did not own a steam fire-engine, and could not well, if possibly, have one made for himself; and he had to make his experiments with those which the city of Troy had and had made, and do so when he could. They came clearly within the requirements laid down in *Manufacturing Co. v. Sprague*, and in *Andrews v. Hovey*. His inchoate right to his invention was followed up by the application for the patent within two years from its completion. Whether the construction, sale, and use by others of what would be an infringement of the patent, before the completion of the invention, and more than two years before the application, rightfully and without breach of confidence of the inventor, would defeat the patent, does not appear to have been decided by the supreme court in *Andrews v. Hovey*, nor in any other case cited or observed. Much less has that court decided that such construction, sale, or use against the right and in violation of the confidence of an inventor using due diligence about completing his invention would defeat the patent; but rather to the contrary, in *Pennock v. Dialogue* and *Kendall v. Winsor* as quoted and not dissented from in *Andrews v. Hovey*. The strongest argument against this patent in this view seems to be that Knibbs could have applied for substantially such a patent as he got within two years from the sale and use of these engines containing the relief-valve, which would have covered that valve and the alleged infringement; and that whatever could be so applied for within two years from sale and use, and was not, became unpatentable. The seventh section of the act of 1839 did not declare that a patent which covered anything made or bought within two years before it was applied for should be invalid; nor expressly that any sale or use should invalidate a patent if more than two years before the application; nor impliedly that it should, unless the thing made or sold should cover the invention, which would be the whole invention covered by the patent. In *Draper v. Wattles*, 3 Ban. & A. 618, the inventor had made and sold what "was not the completed and most perfect form of his invention," more than two years before his application. This was set up against the patent. Of that defense Judge LOWELL said:

"The sale or use, to defeat the patent, must have been of the thing patented; and we are of opinion that, in order to defeat the patent, it is not enough to prove that the inventor has sold an earlier and less perfect article,—that is, less perfect in the sense of the patent law,—even if the thing sold would be within the claim of the patent."

The court further found support for the plaintiff from the fact that the defendant there made, as the defendant here uses, the completed article. The extent to which the construction must include the invention would be the same whether done by the inventor or by others.

On the whole, the weight of reason and authority seems to be against depriving an inventor, using due diligence by experiment about perfecting his invention, of a patent for it because of construction and sale of a form of it by another, without his knowledge, during the time of the experiments, and before its completion, although more than two years before his application for a patent; especially when the other obtains knowledge of it from being intrusted with it by the inventor merely for the construction of one of his own experiments for him; and more especially when the infringement contains a part not made till within two years before the application.

Several motions founded on objections to evidence and otherwise have been brought along to the hearing, none of which appear to be well founded, and all of which are overruled. Upon the case as it now stands, the orator and those standing in his right appear to be entitled to the same decree that was entered before it was opened; and, as the accounting to that time was saved when it was opened, to have that proceed. Let a decree be entered confirming the former decree, and that the accounting proceed.

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NATHAN MANUF'G Co. *et al.* v. CRAIG *et al.*

(Circuit Court, D. Massachusetts. September 13, 1889.)

1. PATENTS FOR INVENTIONS—ACTION FOR INFRINGEMENT—DEMURRER.

A complaint for the infringement of letters patent, which does not show that the invention was not in public use or on sale for more than two years prior to the application for patent, is insufficient on demurrer. *Blessing v. Copper-Works*, 34 Fed. Rep. 753, followed.

2. SAME—OWNERSHIP OF INFRINGING PATENT.

A complaint for the infringement of letters patent, which does not disclose that defendants are the owners of the alleged interfering patent, is insufficient on special demurrer.

3. SAME—PRIORITY OF INVENTION.

Rev. St. U. S. § 4918, provides that, "whenever there are interfering patents, any person interested in any one of them, or in the working of the invention claimed under either of them, may have relief against the interfering patentee, and all parties interested under him, by suit in equity against the owners of the interfering patent; and the court, on notice to adverse parties, and other due proceedings had according to the course of equity, may adjudge and declare either of the patents void; in whole or in part." *Held*, that in an action under this statute the only question to be determined is the priority of invention.

In Equity.

Bill by Nathan Manufacturing Company and others against Warren H. Craig and others, for an infringement of a patent. Defendants filed the following demurrer:

"These defendants, by protestation, not confessing all or any of the matters and things in the complainants' amended bill of complaint contained to be true in such manner and form as the same is therein set forth and alleged, do demur to said bill, and for causes of demurrer show that the complainants