

Case No. 2,866. CLARK PATENT STEAM & FIRE REGULATOR CO V. COPELAND.  
[2 Fish. Pat. Cas. 221.]<sup>1</sup>

Circuit Court, S. D. New York.

Feb., 1862.

PATENTS—“SAFETY APPARATUS FOR STEAM BOILERS”—VALIDITY—INVENTION—ANTICIPATION—CONSTRUCTION—DUTY OF COURT.

1. Clark’s patent is for a mechanism, so organized and connected to the boiler of a steam engine or steam generator, that, when properly set to a given pressure in the boiler or generator, it will, automatically and promptly, by force of the pressure in the boiler or generator, open and close the damper, as the pressure in the boiler or generator rises above or falls below the figure at which the mechanism is set. In order to find this invention anticipated in a prior printed publication, the jury must find, from the evidence, that the description embodies substantially the same organized mechanism, operating substantially in the same manner as that described in Clark’s patent.

[Cited in *Gottfried v. Phillip Best Brewing Co.*, Case No. 5,633.]

2. Where a patent is offered in evidence as proof of prior invention, the construction of such patent, as of other written or printed instruments, is a duty which devolves upon the court.

[Cited in *Goff v. Stafford*, Case No. 5,504.]

3. It is a pertinent question, if the mechanism described in the prior patent was substantially the same as the plaintiff’s, organized and capable of operating substantially in the same way, why, during the period of nearly thirty years that it was known to the world, it was not applied to the same use as the plaintiffs?

[Cited in *Gottfried v. Phillip Best Brewing Co.*, Case No. 5,633.]

4. Old instruments, placed in a new and different organization, producing, in such new organization, different results, or the same results, by a new and different mode of operation, do not prevent such newly-organized mechanism from being patentable.

[Cited in *Westinghouse v. Gardner, etc., Air-Brake Co.*, Case No. 17,450.]

5. With regard to the degree of mental labor and inventive skill required in the work of invention, the law has no nice or rigid standard. There must be some inventive skill exercised, but the degree of that skill is not material. It not unfrequently happens, in the progress of the mechanic arts, that the time arrives when the whole atmosphere of inventive thought is quickened with the life of an approaching discovery, that many liens of investigation and experiment, converging for a long time toward the point, almost but not quite, reach it; when, at last, some mind, by a happy thought, supplies some new element, or instrument, or mode of organization, and instantly gives birth to the organized idea.

This was an action on the case [against Charles W. Copeland] tried by Judge SHIPMAN and a jury, to recover damages for the alleged infringement of letters patent [No. 5,254] granted to Timothy Clark August 21, 1847, and extended for seven years from August 21, 1861, for an “improved safety apparatus for steam boilers.”

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The improvement consisted in the employment of a flexible vessel, which is expanded by the pressure of the steam; the outside of the said vessel being connected with the damper or valve which regulates the draught or blast, by a lever or levers controlled by a weight or spring, set to the required pressure of steam, so that when the pressure in the boiler exceeds the required pressure, the weight or spring shall be lifted to close the damper or valve, to check the fire; and when the pressure in the boiler falls below such required pressure, the weight or spring preponderating, shall produce motion in the opposite direction to open the damper or valve, and thereby increase the intensity of the fire.

The effect is to maintain a uniform pressure in the boiler, avoid the wasteful use of fuel, and prevent explosions.

The disclaimer and claim of the patent were as follows:

“I am aware that dampers for steam boilers have been operated by the pressure of the steam, by means of pistons, in various ways; and, therefore, I do not claim the opening and closing of the dampers by the pressure of the steam by means of pistons.

“But what I do claim as my invention, and desire to secure by letters patent, is the application of an elastic vessel, substantially as is herein described, instead of the piston, whereby the friction of the piston is avoided, and the operation on the damper is rendered much more uniform, the whole constructed and operated substantially as herein described.”

Charles M. Keller, for plaintiffs.

George Gifford, for defendant

SHIPMAN, District Judge, charged the jury as follows:

The plaintiffs are the owners of what is termed, in the present controversy, the “Timothy Clark” patent.

The alleged invention secured by the patent was made, according to the testimony of the inventor, in the spring of 1847. The original patent was issued in August of the same year. Owing to some defect or obscurity in the original specification, a very common circumstance, the patent was surrendered, a new specification filed, and the patent reissued. The patent was afterward extended, by the commissioner of patents, for a further term of years.

This suit is brought on the reissued patent; and, although the plaintiffs seek to recover for an infringement, it has been wisely agreed between the parties, that if the jury find a verdict for the plaintiffs, they may find nominal damages only.

The main object of the controversy is to settle the validity of the patent, as it generally is in patent suits, damages being of minor importance. It is always wise, where it can be done, without too great a sacrifice, to relieve the controversy of the embarrassment which often arises in attempting to fix the amount of damages, where the rules to be applied are not very clear, or easy of application. The jury, in this case, then, are relieved from all

perplexity on that subject, and, if they find for the plaintiffs, should assess the damages at six cents.

But the important question for the jury to determine is, is this Timothy Clark patent valid?

Congress has wisely provided by law that inventors shall exclusively enjoy, for a limited season, the fruits of their inventions. To enable them thus to reap the benefits of their inventions, letters patent are issued to them, conferring upon them an exclusive grant, authorizing them alone to manufacture, sell, or practice what they have invented.

Upon such letters patent or grant the present suit is brought.

In order to sustain the suit, the grant must be valid. In other words, the invention described in it must be new and useful, for it is to new and useful inventions alone that the law applies.

A small degree of utility is sufficient to support a patent; and, in the present case, the defendant frankly admits that the patent is useful in some degree, and, therefore, is valid, so far as that question is concerned.

This leaves but two questions for you to dispose of: 1. Was the invention new? 2. Has the defendant infringed? If you find the first question in favor of the plaintiffs, you will, I apprehend, have no difficulty in coming to a correct conclusion on the second; and I shall follow the course pursued by both counsel, and confine my remarks to what I deem the only question which will require much of your attention.

Was the invention described in the plaintiffs' patent new at the time Clark says he invented it—in the spring of 1847?

In order to start correctly on this inquiry, let us first see clearly what is the precise invention described in the plaintiffs' patent; what, in other words, is the true construction of the plaintiffs' patent.

It is the duty of the court to determine this construction.

I charge you, then, gentlemen, that the invention described in the patent is a mechanism, so organized and connected to the boiler of a steam engine or steam generator, that, when properly set to a given pressure in the boiler or generator, it will, automatically and promptly, by force of the pressure in the boiler or generator, open and close the damper, as the pressure in the boiler or generator rises above or falls below the figure at which the mechanism is set.

The practical object of this organized mechanism, in its application to a steam engine, is to regulate and control the steam by uniformly maintaining the pressure at which the steam shall work the engine, at any given power the engineer chooses to fix.

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within the range of his engine, and thus to release the hand and mind of the engineer from the performance of that duty.

This is the invention which the inventor describes in his patent. His patent is prima facie evidence that this invention is new, or, in other words, that he is the first and original inventor of it. The defendant insists that, notwithstanding the patent, the invention is not new. He says that substantially the same organized mechanism existed, and was well known, before Clark's invention, and that it is to be found in the—1. Float regulator. 2. Piston regulator. 3. Brunton's operative thermometer.

As to the float regulator, it is not claimed that it is adapted to high pressure engines, and it is for the jury to say whether they find, in any description of this float regulator before them, the invention of this patentee. That the float regulator was described in books before the invention of Clark was made, of course, there is no doubt. That its description was well known to inventors and engineers for years before the invention of Clark, is equally true. But, in order to affect the validity of Clark's patent, the jury must find, from the evidence, that the description of this float regulator embodies substantially the same organized mechanism, operating substantially in the same manner as that described in Clark's patent.

As to the piston regulator—this is older than Clark's, but the same inquiry arises, and is to be disposed of by the jury: Does this piston regulator embody substantially the same organized mechanism, operating substantially in the same manner as Clark's?

In regard to both the float and piston regulators, the plaintiffs say that it may well be asked, why neither of these old contrivances were in any considerable use, at the time of Clark's invention, and why they have not been since, if they were substantially the same as his.

They claim to have proved that Clark's contrivance possesses great beauty and utility; that it performs, with case and precision, what engineers were desirous of having performed by some mechanism that would dispense with their constant attention; and they insist, that if either the float or piston regulator was substantially like Clark's, it would have possessed substantially the same beauty and utility, and would have come into use. Of the force of this claim of the plaintiffs; when tried by the clear light of the evidence before them, the jury are to judge. If the jury do not find that either the piston or float regulator, as presented to them by the evidence, embodies the invention of Clark, as I have defined that invention, then they will inquire, if the description of Brunton's machine, contained in the printed specification of Brunton sets forth substantially Clark's organized mechanism, as an organized mechanism, operating in substantially the same way? There has been a question raised as to the construction of one portion of Brunton's patent, and as the construction of printed or written instruments is a duty which the law devolves on the court, I will determine its construction upon that point.

The question is, whether the “Brunton’s Operative Thermometer,” as he terms it, is described as to be operated by liquids merely, or by fluids, when understood in the broad sense, as including both liquids and elastic vapors, such as steam and gases?

Brunton’s patent speaks of his machine as having the elastic vessel expanded by fluids, and if the term fluids, as he used it, is to be understood as embracing elastic vapors, then the description includes steam as one of his agents of expansion. But, as I read his patent, he describes his machine or apparatus as to be expanded by liquids only. It does not necessarily follow from this construction that his operative thermometer could not be expanded, and operate by the expansive power of steam. Whether the organized mechanism he described was substantially like Clark’s, and would, like Clark’s, operate substantially in the same manner by the pressure of steam, the jury must determine from all the evidence.

And upon this point, the plaintiffs properly, in their argument, present to the jury the question—If the mechanism described by Brunton was substantially the same as Clark’s, organized and capable of operating substantially in the same way, why, during the period of nearly thirty years that it was known to the world, was it not applied to the same use as Clark’s?

That the elastic vessel in Brunton’s machine was substantially like that of Clark’s, there is no doubt.

This is conceded by the plaintiffs, and is obvious to any one. But this is not of itself sufficient to invalidate the plaintiff’s patent. Old instruments, placed in a new and different organization, producing, in such new organization, different results, or the same results, by a new and different mode of operation, do not prevent such newly organized mechanism from being patentable.

You will then look at Brunton’s description, and see if you find there substantially described the invention of Clark, to wit: a mechanism, so organized and connected to a steam generator, that, when properly set by the engineer or operator, at a given pressure in the boiler or generator, it will, automatically, by force of the pressure in the boiler or generator, open and shut the damper, as the pressure in the boiler or generator rises above or falls below the figure at which the mechanism is set. If you find in Brunton’s patent such a mechanism, so organized, then, of course, Clark’s invention is not new. But, if you do not find such a mechanism, not only substantially the same in its particular parts, but so organized as that, when set in operation, it will produce

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substantially the same results in substantially the same way, then Clark's patent is valid, unless the change made by Clark is so obvious that it required no invention or labor of thought to make that change.

With regard to the degree of mental labor and inventive skill required in the work of invention, the law has no nice or rigid standard. There must be some inventive skill exercised, but the degree of that skill is not material. It not unfrequently happens, in the progress of the mechanic arts, that the time arrives when the whole atmosphere of inventive thought is quickened with the life of an approaching discovery, that many lines of investigation and experiment, converging for a long time toward the point, almost, but not quite, reach it; when, at last, some mind, by a happy thought, supplies some new element, or instrument, or mode of organization, and instantly gives birth to the organized idea.

If this inventor, Timothy Clark, has in this instance, supplied to what was old some new element, instrument, or new organization, and thus produced a better practical result than had been included by the old means, he is entitled to the merit and fruits of his labor.

It is claimed by the defendant, that the hand of the engineer is a better regulator than any automatic machine, and that it is a sufficient answer to the question, why these inventions, to wit: the float, piston, and Brunton's regulators are not in use, and have not attracted more attention from engineers.

Of the force of this you are to judge, in the light of the evidence, of the value of Clark's invention, and in view of the fact that the defendant, himself an engineer, has patented an apparatus having the same object.

If you find Clark's invention new, then the only remaining question is, has the defendant infringed? On this point, I do not apprehend that you will have any difficulty. The mere change in the form of the elastic or flexible vessel, or the material of which it is composed, does not take it out of Clark's invention, if the original mechanism is substantially the same, and operates substantially in the same way.

As I have already remarked, if you find for the plaintiffs, you will assess the damages at six cents only. The plaintiffs then can resort to a court of equity for any further protection of their rights.

The jury found a verdict for the plaintiffs.

<sup>1</sup> [Reported by Samuel S. Fisher, Esq., and here reprinted by permission.]