

Before GRESHAM and WOODS, Circuit Judges, and BUNN, District Judge.

PER CURIAM. The decree appealed from is affirmed upon the grounds stated in the opinion of the court below, reported in 48 Fed. Rep. 722.

SERATED FUEL CO. v. WOODBURY GLASS CO. SAME v. COX & SONS CO. et al. SAME v. COHANSEY GLASS MANUF'G CO.

(Circuit Court, D. New Jersey. January 31, 1893.)

1. PATENTS FOR INVENTIONS—COMBINATION—ANTICIPATION.

Letters patent No. 397,336, issued February 5, 1889, to James H. Bullard, for an apparatus for burning hydrocarbon fuels, in which the oil-supply pipe and the air-supply pipe are capable of independent regulation so as to vary the character of the flame to meet the requirements of different kinds of work, were not anticipated by letters patent No. 365,789, granted to the same inventor, July 5, 1887, in which the oil and air supply were not capable of independent regulation; nor was there anything in the prior state of the art, including the earlier Bullard patent, to invalidate this combination, though all the particular elements entering into it were old.

2. SAME.

The fact that the apparatus covered by the 1889 patent permits of the supply of oil and air to a great number of furnaces from one fuel tank, and a single air compressor governed by one regulator, is not to be left out of view in considering the validity of the patent because this feature is not referred to in the specifications, and may not originally have been perceived by the inventor. *Roberts v. Ryer*, 91 U. S. 157, followed.

In Equity. These were three suits brought by the Aerated Fuel Company against the Woodbury Glass Company, the Cox & Sons Company and others, and the Cohansey Glass Manufacturing Company, respectively, for infringement of a patent. Decrees in each case for complainant.

Briesen & Knauth, for complainant.

Francis T. Chambers, for defendants.

ACHESON, Circuit Judge. Each of these three suits is upon letters patent No. 397,336, to James H. Bullard, dated February 5, 1889. The patented invention, the specification represents, relates to an "apparatus for securing the burning of hydrocarbon fuels and the regulating thereof." The apparatus illustrated and described comprises a burner, which, as shown, is arranged within a glass furnace, two distinct pipes running to and connected with the burner,—one an oil-supply pipe leading from a liquid-fuel receptacle; the other an air-supply pipe leading from an air-compressing machine,—and a regulator for automatically controlling the compressor, and maintaining the compressed air as fed to the burner at a uniform pressure. The specification states:

"A cock is provided both in the air and oil supply pipes, as seen at h and j, respectively, whereby a normal or desirable proportional issue of air and oil to the burner is secured under their proper operations."

The patent has a single claim, which is as follows:

"An apparatus for securing and regulating the combustion of liquid fuel in glass-melting and analogous furnaces, consisting of a burner, a liquid-fuel tank, a pipe connecting said fuel tank and burner, an air compressor having a steam pipe for conveying steam thereto for driving the same, provided with a valve, a pipe connecting said air compressor and said burner, a regulator connected to and actuated by the pressure in said air pipe, and a connection between a movable part of said regulator and said steam valve, whereby the feeding of steam to said air compressor is regulated, and a consequent regulation of the air pressure to the burner is secured, substantially as and for the purpose described."

There is here no contest as to infringement. It is conceded by the defendants' counsel, and must be under the uncontradicted proofs, that, if the patent is valid, the defendants, respectively, infringe the claim. As then, admittedly, the only question for the court is whether the plaintiff's patent is valid, we might perhaps avoid any reference to the construction to be given to the claim. But it may be well here to say that we do not accept the suggestion that the words, "whereby the feeding of steam to said air compressor is regulated, and a consequent regulation of the air pressure to the burner is secured," define the function of the entire combination. That reading would be too narrow. The quoted clause expresses the specific function of the particular constituent with which it stands immediately connected, while the opening words of the claim—"An apparatus for securing and regulating the combustion of liquid fuel in glass-melting and analogous furnaces"—indicate the purpose of the combination as a whole.

The validity of the plaintiff's patent is denied upon the grounds—First, that the entire combination claimed was anticipated by letters patent No. 365,789, granted to said Bullard on July 5, 1887; and, secondly, that in view of the previous state of the art, including what was shown in Bullard's earlier patent, no patentable invention is disclosed or claimed by the patent in suit. Now, the earlier Bullard patent cited is, indeed, for improvements in furnaces for burning hydrocarbon fuels, and certainly it does exhibit many of the constituents of the combination here in question, including an air compressor and an automatic regulator. But we cannot assent to the defendants' proposition that the two Bullard patents show, respectively, exactly the same combination of working parts. There are, we think, essential differences between the two devices in construction, operation, and results. In the 1887 apparatus the air pipe from the air compressor does not, as in the later construction, run to and connect with the burner, but leads to and communicates with an air space in the upper part of the liquid-fuel tank, and, by the air pressure thus applied, oil for the burner is forced into and through a tube which extends from near the bottom of the tank, up to and through an exterior tube secured to the top of the tank, while at the same time air is forced from the air space in the tank up through an annular air passage between said inner and exterior tubes. The latter tube is provided at its outer end with a screw cap having a small central perforation through which the mingled liquid fuel and air are ejected, in proportions regu-

lated by screwing the cap in or out. Thus, it will be perceived that in the apparatus of 1887 the supply of oil to the burner depends altogether upon the pressure of the air, whereas under the patent in suit the oil supply and the air supply are entirely independent of each other. Then the apparatus of 1887 is so organized that, with respect to the oil and air supplies, it is not capable of independent regulation. Thus, the flow of oil cannot be reduced without increasing the flow of air, and so vice versa. This proved to be a most serious defect, for, as a result, the power to vary the character of the flame to meet the necessities of the work in hand was very much limited. But the two supply pipes in the apparatus of 1889, being entirely separate, and drawing their contents from distinct sources, are capable of independent regulation, so that the quantities of oil and air can be controlled independently of each other, and thereby such varying character of flame produced as is required. Undoubtedly, the regulation by means of cocks of the flow of fluids through pipes was old. Many of the prior patents in evidence show cocks employed to perform this function. Indeed, they are obvious and implied devices for the purpose. But here the point is this: that Bullard's 1887 apparatus did not admit of the independent control of the flow of oil and air by cocks, or by any other means. Therein it was radically defective.

Again, Bullard's 1889 apparatus has another important capability not to be found in that of 1887. By the earlier apparatus it was impossible to supply more than one furnace from the same fuel tank; but the 1889 construction permits of the supply of oil and air to a great number of furnaces from one fuel tank, and a single air compressor governed by one regulator. Nor is this great advantage incident to Bullard's later patented apparatus to be left out of view because it is not referred to in the specification, or even may not originally have been perceived by the inventor. *Roberts v. Ryer*, 91 U. S. 157.

Once more, it appears that in actual practice the Bullard apparatus of 1887 was a failure, and this chiefly because its construction and mode of operation precluded the independent regulation of the oil and air. In fact, the use of the 1887 apparatus has been abandoned. Furthermore, the evidence shows that the machines which were constructed in accordance with the earlier patent have been replaced by others made under the 1889 patent, and that these latter machines have given entire satisfaction. Upon the whole case, then, we feel quite justified in holding that the plaintiff's patent was not anticipated by Bullard's earlier apparatus. *Consolidated Safety-Valve Co. v. Crosby, etc., Valve Co.*, 113 U. S. 157, 179, 5 Sup. Ct. Rep. 513; *The Barbed Wire Patent*, 143 U. S. 275, 12 Sup. Ct. Rep. 443.

We do not feel called upon to discuss at length the features of the numerous other patents of prior dates set up by the defendants. Avoiding particularity, we content ourselves with saying that while they show that the several elements here employed are in themselves old, yet none of them discloses the combination of the patent in suit. Finally, not only does the presumption of patent-

ability arising from the grant of the patent stand unshaken, but there is affirmative proof of the patentable novelty and utility of the combination. A decree in favor of the plaintiff will be entered in each of the cases.

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VIRGINIA HOME INS. CO. v. SUNDBERG.

(Circuit Court, S. D. New York. February 6, 1893.)

1. ADMIRALTY—PLEADING.

The libelant is entitled to an admission or denial of each distinct and separate averment in his libel separately and distinctly, and an answer is insufficient which admits some of the averments of the libel, but concludes: "He denies the other allegations of the fourth article, as therein alleged, and refers to the allegations of the eighth article of the answer;" such eighth article being a narrative somewhat different from the libelant's.

2. SAME.

An averment in the answer to a libel that the persons for whose benefit this action is prosecuted "had full notice and knowledge of and participated in the prosecution" of a former action, does not sufficiently advise the libelant whether evidence of some specific written notice in addition to a general knowledge is to be introduced, but such defect may be cured by amendment.

3. SAME.

A pleader who sets forth a detailed narrative of the movements of his own vessel cannot be required to add thereto averments as to other matters of detail upon which his adversary may wish to have specific averments, but as to which it does not appear that he has knowledge sufficient to enable him to set them forth, nor that he intends to rely upon them at the trial.

In Admiralty. Libel by the Virginia Home Insurance Company against John P. Sundberg. Reargument on exceptions to the answer.

Geo. A. Black, for plaintiff.

Goodrich, Deady & Goodrich, for defendant.

LACOMBE, Circuit Judge. Upon more careful consideration of the points urged upon the reargument, I am led to the conclusion that in some respects I erred in my former decision.<sup>1</sup> The fifth article of the answer is an answer to the fourth article of the libel. It admits specifically, separately, and distinctly some of the averments therein contained, and concludes as follows: "He denies the other allegations of the fourth article, as therein alleged, and refers to the allegations of the eighth article of the answer." Such eighth article is a narrative of events in some respects like the libelant's, in some differing therefrom. Except for the denial above quoted, the following allegations of fact in the fourth article of the libel are neither admitted nor denied, nor is there a denial as to them of knowledge or information sufficient to form a belief: (1) That the Newport passed out to sea "through the Swash channel" in part; (2) that she so passed in

<sup>1</sup>No opinion was then filed.