a better illustration of the use of one equivalent for another. In other respects his structure is almost the exact counterpart of curlers made years before.

It is said that he was the first to use a plate-spring bent upon itself and a mandrel made of steel rod, and it is argued that their use involved invention sufficient to sustain the patent. This proposition is unfounded both in fact and in law. The answer is fourfold. First. The specification says that the rod may be "drawn, rolled or otherwise formed." The claim says nothing whatever on the subject. It is broad enough to cover any mandrel no matter Second. There was no invention in substituting how constructed. a drawn rod for a cast rod, both performing precisely the same function. Third. Thompson was not the first to use a drawn rod for a curling iron. In 1885 Hinde and Bown, both Englishmen, made curlers of steel wire. Fourth. As already seen there was no invention in the substitution of a flat spring for a round spring. but Thompson was not the first to use a flat spring. The prior art shows many instances where flat springs have been employed in similar tools to perform identically the same function. If I had a particle of doubt upon this subject the patent should have the benefit of it. but I have not.

The hill is dismissed.

CONSOLIDATED BUNGING APPARATUS CO. v. METROPOLITAN BREWING CO.

(Circuit Court of Appeals, Second Circuit. January 12, 1894.)

No. 49.

1. PATENTS-LIMITATION OF CLAIM.

Where "a mechanical fit valve" is one of the elements of a combination claim, the mere fact that one of the drawings and its description show a fit valve having a knife-edge bearing does not confine the claim to that form of fit valve, when there is no other reference, either in the claims or specifications, to a knife-edge bearing. 46 Fed. 288, reversed. Consolidated, etc., Co. v. Woerle, 29 Fed. 449, disapproved.

2. Same.

In a claim covering an automatic relief apparatus for beer barrels, consisting of a fit valve in combination with a surrounding water chamber, and water therein to prevent fouling of the valve, the water cannot be considered as a separate element, and the combination consists of the two elements,—a fit valve, and a water chamber surrounding the same.

8. Same—Anticipation.

A patent for a mechanical combination is anticipated by a prior device containing the same elements, although the inventor of the latter did not describe or appreciate the advantage of using the combination in the way pointed out in the patent.

4. Same—Valve for Beer Barrels.

The Zwietusch & Heitmann patent, No. 222,975, for an automatic pressure-relief apparatus for beer vessels, was anticipated by the Schaefer patent, No. 218,040. 46 Fed. 288, reversed.

Appeal from a final decree of the circuit court, eastern district of New York, affirming the validity of letters patent No. 222,975,

issued December 23, 1879, (application filed December 7, 1878,) to Zwietusch & Heitmann for improvement in automatic pressure-relief apparatus for beer vessels.

Edward N. Dickerson, for appellant. Ephraim Banning, for appellee.

Before WALLACE, LACOMBE, and SHIPMAN, Circuit Judges.

LACOMBE, Circuit Judge. In the manufacture of beer it is desirable that the pressure generated within the cask by the process of fermentation should be relieved before it accumulates to such an extent as to burst the cask. This is accomplished by the use of a vent bung, or bunging apparatus, provided with a valve arranged to resist such pressure up to a certain point, and then automatically to open and allow the gas to escape. Various forms of safety valve have been invented and used for this purpose. While beer is in the fermenting stage, hop tar and other sticky substances are expelled from the cask, and this, of course, makes it desirable that the apparatus be so constructed as to provide against injurious effects from sticking or fouling of the valve. The inventors in their specification state that the object of their invention is-

"To provide an automatic pressure-relief valve, adapted to be used on fermenting casks containing beer and like material, which will not foul, and whereby the automatic action of the valve is made more certain; and our invention consists—First, in a pressure-relief apparatus provided with a mechanical fit valve surrounded by a body of water; and, secondly, in a pressure-relief apparatus having a body of water interposed between the pressure generator and a mechanical fit valve in the line of the escaping gas, and through which it passes."

Thus, as the specification states, the inventors "surround the valves with a liquid medium, preferably water, whereby the hop tar is diluted, so as not to stick the valves." The water chamber or chambers are, as complainants contend, the distinguishing feature of the patent,—the water chamber above the valve seat being the subject of the first claim; that below the valve seat, the subject of the second claim. Infringement of the first claim only is charged. That claim reads as follows:

"(1) In an automatic pressure-relief apparatus, a mechanical fit valve, in combination with a surrounding chamber, K, for containing water to prevent the valve fouling, for the purpose set forth."

The chamber, K, is so located that water placed therein will be above the valve seat. This patent was before the circuit court, northern district of Illinois, in Consolidated, etc., Co. v. Woerle, 29 Fed. 449, which construed this first claim as for a combination of the particular kind of mechanical fit valve known as a "Knife-Edge Bearing Valve," with the water chambers. The circuit judge, in the suit at bar, apparently followed this construction, for, in a brief reference to the evidence, he says no one "invented or used the combination of the knife-edge mechanical fit valve with the surrounding water chamber of this claim, prior to its invention by these patentees."

There are, as complainant's expert himself testifies, many different kinds of mechanical fit valves; the definition of that term being given by him as "a valve which fits its seat so as to close tightly by contact, and does not depend upon any liquid to form a tight joint." The drawings annexed to the specification show two modifications of the patented device. Of these the one is described as follows, (so much of the description as does not refer to the valve and its action being omitted:)

"T is a tap to enter the cask; * * N. a T-pipe joint, having inserted in the lower end a depending pipe, P, [which, with an elbow,] enters a bulb, O. * * * Screwed into the upper end of the bulb is a short pipe, R, having a broad threaded flange, S, which serves as a support or base for the mechanism of the relief valve proper. A broad groove in flange, S, immediately surrounding the upper end of pipe, R, contains a rubber packing, a, which forms the seat of a valve, B, having its stem made in a cross shape and having a knife-edge bearing. Surrounding the base of the valve is a cylindrical guide, slotted so as to make a series of posts, * * * and outside of this guide lies a rubber or other annulus, b, as a packing for the lower end of a glass cylinder, H. * * * On the upper end of the valve stem is placed any desirable weight, g, to set the valve at any given pressure," etc.

The modified device is thus described:

"X is a tap; * * * a prolongation of the tap pipe, p, enters some distance into a chamber, R, formed by a metallic cylinder, 5. This cylinder has a diaphragm, 6, corresponding in construction to flange, S, in Fig. 2, and from this diaphragm depends a pipe, 7, which passes," etc.

In the last-quoted description there is no reference to a valve "stem made in a cross shape and having a knife-edge bearing," nor do the drawings therein referred to show such a structure.

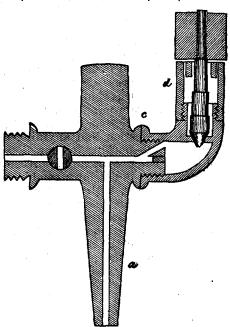
Except for the italicized phrase quoted in the first of these descriptions, there is no reference whatever in the specification to a knife-edge bearing valve. Nowhere is there pointed out any advantage arising from the use of that particular form of mechanical There is no suggestion that anything depends upon the bearing being of this shape,—nothing to show that such a construction was regarded by the patentee as an improvement, to be covered by his patent; and the claim is not for a combination with a knifeedge bearing valve, but for one with a mechanical fit valve, which term, as has been shown, covers many other bearings besides the This case is, in these respects, similar to Delemater v. Heath, (decided by this court October 17, 1893,) 7 C. C. A. 279, 58 Fed. 414, and a construction of the first claim which will confine it to knife-edge bearing valves cannot be sustained.

The knife-edge bearing being thus disposed of, the next question to be settled is whether this first claim covers a combination of three elements, or of two. Is it for (1) a mechanical fit valve, (2) a water chamber surrounding the valve seat, and (3) water in such chamber: or, for (1) a mechanical fit valve, and (2) a chamber adapted to contain a body of water surrounding the valve seat, without special regard to whether water be actually used in such chamber or not? Before answering this question a brief reference to the state of the art is desirable. Several varieties of vent bungs and bunging apparatus have been put in evidence, and considerable testimony given

as to the manner in which they were used, with the customary con-It is unnecessary, however, to refer to the entire flict as to dates. body of proof. A single alleged anticipation will be sufficient for the purpose of this decision. The apparatus used by defendant is made by the Schaefer Safety Valve Company, of which John C. Schaefer is vice president, under a patent (No. 318,040) for safety valve for beer casks, taken out by him in 1885. It presents the combination of a mechanical fit valve with a chamber, surrounding the Schaefer has valve seat, for containing water or other lubricant. for many years been experimenting with vent bungs, or safety valves for beer casks, manufacturing, and selling them. In 1872 he was manufacturing a safety faucet, which is described in a publication known as "Der Amerikanische Bier Brauer," issue of June 1, 1872. The evidence abundantly shows that such faucets were made, sold, and used, and one of them is an exhibit in the case. It contains the combination of a mechanical fit valve with a chamber above and surrounding the valve seat. The annexed cut illustrates the apparatus better than a written description would:

DEFENDANT'S EXHIBIT.

Schaefer Valve, American Bier Brauer, 1872, as Made up to 1874.



Whether this form of safety valve was used, with water introduced above the valve seat, prior to the date of complainant's invention, is a matter of contention between the parties; but, whatever uncertainty there may be as to the date, the evidence leaves no doubt that it is capable of such use. Witnesses, who themselves repeatedly in-

troduced water into the chamber, have so testified, and actual experiment with the exhibit before this court shows that when the valve is closed, even though the stem, S, be unweighted, and water is poured into the apertures, x, x, in the top of the screw cap, d, it will remain for an indefinite time within the chamber, W. festly, therefore, if the first claim of the patent is for a combination of two elements,-viz. the mechanical fit valve and the chamber adapted to contain water,—it is anticipated by this Schaefer valve It is no doubt true that the chamber in the Schaefer valve of 1872 was not intentionally contrived for the express purpose of It is highly improbable that, had Schaefer appreholding water. ciated the importance of introducing water, he would have neglected to refer to such mode of use, either in the description he gave to the publisher of the Bier Brauer, or in a subsequent patent which he took out in 1879 for a modified form of a similar combination. with whatever intent the chamber above the valve seat was constructed, once it was combined with the other parts, there was formed a complete combination of mechanical fit valve and chamber adapted for containing water.—a mechanical combination in no way altered by the manner in which such combination is used. the complainant's assignors,—assuming, for the purposes of the argument, that they were the first to intelligently appreciate the importance of lubricating the valve seat, and that there was any invention involved therein,—pointed out to the world that such valves were less liable to foul, and that their automatic action would be more certain when kept constantly lubricated, what they discovered was not a new combination, but a new method or process of using an existing one. So far as they devised new apparatus for introducing the water and keeping it in situ, they might obtain a patent for such new apparatus; but the difficulty with the first claim now under consideration is that it is not restricted to such new apparatus It is broad enough to cover the very Schaefer valve of 1872, with its simple combination of a mechanical fit valve and a chamber, in which the lubricant may be contained, above the valve seat. thus construed, the claim is too broad, and cannot be sustained. And, in our opinion, it cannot be construed as a claim of three ele-The apparatus is the same apparatus, whether water is used in it or not. The method of use does not change it, and an inventor who employs a new process of using it does not thereby invent a new apparatus. Upon the construction contended for by complainant, the manufacturer and seller of the apparatus would not infringe, in the absence of an understanding and intent that water shall be supplied by another, as neither puts water in the chamber. The only relief the patentee could obtain would be against the user who did avail himself of the process of lubricating the valve when in action. Whether or not the complainant's assignors were the first to discover and disclose to the world the desirability of keeping the safety valves of beer casks constantly lubricated above the valve seat, they made no claim, and, so far as the record shows, took out no patent for that process. Their patent for an apparatus must be

construed as a patent for the mechanical combination, irrespective of its method of use, and, as the only mechanical combination pointed out in the first claim was old, such claim cannot be sustained.

The decree of the circuit court is reversed, and cause remanded,

with instructions to dismiss the bill, with costs of both courts.

BRICKILL et al. v. MAYOR, ETC., OF BALTIMORE.¹ (Circuit Court of Appeals, Fourth Circuit. February 7, 1894.) No. 56.

1. PATENTS—INFRINGEMENT—DAMAGES—ABSENCE OF LICENSE FEE.

Where there is no evidence to show that any license fee has ever been paid or demanded, the jury, in estimating the damages, should consider the utility and advantage to the defendant of the use of the patented device, as compared with any other means of obtaining similar results whose use was open to it, and may compare the cost of using the one to the cost and saving in the use of the other.

2. Trial—Instructions—Damages.

After correctly instructing as to the evidence to be considered in estimating damages, it is proper to refuse instructions which characterize certain parts of such evidence as "important," "material," and "controlling."

In Error to the Circuit Court of the United States for the District of Maryland.

At Law. Action by William A. Brickill, Peter M. Kafer, James M. De Lacey, James E. Dunn, Rosina W. Da Cumba, and Edward Van Orden against the mayor and city council of Baltimore, for infringement of letters patent issued to William A. Brickill. Judgment of the court below affirmed.

For opinions delivered below upon demurrer to the declaration, and also on demurrer to a plea of the statute of limitations, see 50 Fed. 274, and 52 Fed. 737.

Raphael J. Moses, Jr., for plaintiffs in error. Thomas G. Hayes, for defendants in error.

Before GOFF, Circuit Judge, and SEYMOUR and SIMONTON, District Judges.

GOFF, Circuit Judge. This was an action at law for the infringement of letters patent issued to William A. Brickill August 18, 1868, for "improvement in feed-water heaters for steam fire engines." The cause was tried before a jury, and a verdict rendered February 18, 1893, for the plaintiffs, for two cents damages. Plaintiffs moved for a new trial, which the court refused, and entered judgment for the damages so found and the costs. The case comes to this court on writ of error to the circuit court of the United States for the district of Maryland. Plaintiffs in error insist that the court below erred in refusing to give to the jury

¹ Rehearing denied, February 17, 1894.