NEW PROCESS FERMENTATION CO. *v.* KOCH.

Circuit Court, E. D. Michigan. May 5, 1884.

1. PATENTS FOR INVENTIONS—MACHINE—PROCESS—EXTENT OF USE.

Where a patent clearly shows and describes a machine whose use necessarily involves the production of a certain process, no other person can afterwards patent that process. The first patentee is entitled to his mechanism for every use of which it is capable.

2. SAME—RESULTS OF APPARATUS NOT FORESEEN.

That an inventor, when he perfected his apparatus, did not foresee all its results, will not invalidate a patent, since he is entitled to its use for every purpose to which it is adapted.

3. SAME—FOREIGN PUBLICATIONS—REV. ST. § 4886.

Patented inventions cannot be superseded by the mere introduction of a foreign publication of a similar device, though of prior date, unless the description and drawings contain and exhibit a substantial representation of the patented improvement in such full, clear, and exact terms as to enable any person skilled in the art or science to which it appertains to make, construct, and practice the invention to the same practical extent as they would be enabled to do if the information was derived from a prior patent.

4. SAME—DRAWINGS—DESCRIPTION.

Drawings alone, unaccompanied by letter-press description, will never invalidate a patent.

5. SAME—BUSINESS CIRCULARS.

Business circulars, which are sent only to persons engaged in the trade, are not such publications as the law contemplates in Rev. St. § 4886.

6. SAME—PROCESS FOR MAKING BEER—ANTICIPATION—BARTHOLOMAE PATENT, NO. 215,679—PFAUDLER PATENT.

Letters patent No. 215,679, issued May 20, 1879, to George Bartholomae, as assignee of Leonard Meller and Edmund

Hoffman, of Germany, for an "improvement in processes for making beer," *held* anticipated by patent issued July 2, 1878, to John M. Pfaudler.

In Equity.

This was a bill in equity for an infringement of letters patent No. 215,679, issued May 20, 1879, to George Bartholomae as assignee of Leonard Meller, of Ludwigshafen on the Rhine, and Edmund Hoffman, 581 of Mannheim, Germany, for an "improvement in processes for making beer." This improvement was first patented in France, to Leo Meller & Co., November 30, 1876, and on February 28, 1877, a Belgian patent was issued to the same parties. These two were mechanical and not process patents. In 1877, George Bartholomae, president of the plaintiff corporation, went to Europe, and saw the invention, both the apparatus and process, in Hoffman's brewery at Mannheim. Returning in July of that year, he had a similar apparatus put up in his brewery at Chicago, early in August. He then, by agreement with Meller & Hoffman, applied for and obtained a patent in his own name, April 2, 1878, No. 201,982. Learning that this patent was invalid, he applied for and obtained a new one in the name of Meller & Hoffman, May 20, 1879, which was assigned to himself and is the basis of this suit. The plaintiff derives its title by assignment from Bartholomae, its president.

The patent applies to the last stages in the manufacture of beer, and covers (1) a new process or art intended to *hasten the clarification of the beverage* and its readiness for the market. Claims 1—5. (2) A new process tending to *equalize the fermentation* in a series of casks, giving thereby *more uniform character and effervescence* to the product. Claims 6, 7. (3) Certain mechanical means said to be best adapted in practicing the new art of treatment. Claim 8.

The specifications begin with a short statement of the process of brewing, and detail the disadvantages

which the invention is designed to obviate. It then states that the invention consists in treating the beer at any stage of its manufacture by holding it "in one or more closed casks under automatically controllable carbonic acid gas pressure, generated either from the mild fermentation of the beer, or artificially."

The first, second, third, sixth, and seventh claims only are involved in this suit.

The defense to the first, second, and third claims, which are broadly for the process of preparing beer for the market *by holding it under controllable pressure of carbonic acid gas* when in the krseusen, stage, is want of novelty; and to the sixth and seventh claims, which differ from the others in applying this process to a *series of closed connected vessels* under, automatically controlled pressure of carbonic acid gas, as before described, is the anticipatory device of what is known as the Pfaudler invention, shown and described in the patent to John M. Pfaudler, issued July 2, 1878. This patent is now owned by the Pfaudler Process Fermentation Company, of Rochester, New York, which has assumed the conduct and control of this defense. So that the controversy, although in form a mere infringement suit against the defendant, is really a contest between the plaintiff and the Pfaudler Company.

P. C. Dyrenforth, F. W. Cotzhausen, and *Banning & Banning,* for plaintiff.

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W. W. Leggett and *George H. Lothrop,* for defendant.

BROWN, J. In the view we have taken of this case, it will not be necessary to pass upon the intrinsic validity of the plaintiff's patent as a process patent, or to determine whether the first three of Meller & Hoffman's claims are anticipated by the numerous English and American patents which have been put in evidence. These questions have been argued before

the learned circuit judge for the Seventh circuit, and are now pending before him for decision upon a case arising in the district of Indiana.[1] This case has been argued as if it were solely a controversy between the Meller & Hoffman and the Pfaudler patents, and in this connection we propose to consider it.

Conceding to the fullest extent the doctrine laid down for the guidance of the profession in *Corning* v. *Burden,* 15 How. 267; *Cochrane* v. *Deener,* 94 U. S. 787; and *Tighlman* v. *Proctor,* 102 U. S. 722, that a process may be patented as a "useful art," and that another may invent and patent a machine by which thiB process may be perfected, and that each may be entitled to his patent, and that neither can use the process or machine of the other without a license from him, it cannot be possible that one may not invent a machine designed and effective to carry out a certain process and yet to be treated as infringing a subsequent process patent. In other words: If A. has invented a machine for carrying out a certain process, and has taken out a mechanical patent, he cannot be deprived of the use of such machine by B., who has subsequently taken out a process patent for the manufactured article. The rights of parties cannot be determined by the form in which they have chosen to take out their patents. Indeed, we understand the law to be that, where a patent clearly shows and describes a machine whose use necessarily involves the production of a certain process, no other person can afterwards patent that process. The first patentee is entitled to his mechanism for every use of which it is capable. As said by the supreme court in *Roberts* v. *Ryer,* 91 U. S. 150, 157:

"It is no new invention to use an old machine for a new purpose. The inventor of a machine is entitled to the benefit of all the uses to which it can be put, *no matter whether he had conceived the idea of the use*

or not." See, also, *Stowe* v. *City of Chicago,* 21 O. G. 790.

The sixth and seventh claims of the Meller & Hoffman patent cover the process of holding beer in a series of closely connected vessels under automatically controllable pressure of carbonic acid gas. The only new result secured by these claims over that described in the first three claims is that by connecting a number of casks, in each of which the beer is fermenting, by a tube, the fermentation is equalized, and the beer in all the casks comes out alike, without depending on the judgment of the brewer, as is the case when the casks are bunged separately. No objections are taken to the validity of these 583 two claims, unless they are anticipated by the invention of Pfaudler, as above stated.

We are thus brought to the consideration of the Pfaudler patent. This is an American patent, and describes an apparatus for registering pressure in fermenting vessels very similar to the mechanism employed by the plaintiff, and apparently effecting the same or nearly the same result. In 1872, John M. Pfaudler, of Rochester, New York, a young and not a particularly intelligent German, inexperienced in the art of brewing, and a box-maker and carpenter by trade, Conceived the idea of regulating the pressure in a vessel containing wine. To use his own words:

"I ground up the grapes, put it into open barrels, and waited until the fermentation started into it. This is the first fermentation. And then, after that, I pressed the grapes, ran off the juice, and after that I put it into airtight barrels, to regulate this gas that is caused by this second fermentation, and settled the yeast. And then I went to work and put an apparatus on there—some kind of an apparatus, of a water column and pipe—to settle the yeast, to keep the barrels from bursting and keep them air-tight, and to stop this overflow of the wine or anything."

This was done in his father's cellar in Rochester. The casks were not connected, and the apparatus consisted of a pipe rising from the bung, and then another running down into a vessel containing water. "You could make that pipe or column as high as you wanted it, and the pipe as long as you wanted it; the higher you made the column, and the longer the pipe, the more pressure you could keep back onto the wine or liquor. The more water you put in that column, the more pressure you could keep back." He used two on wine casks and one on a cider cask in 1872. This apparatus he used from 1872 to 1874 without change, but he says he contemplated a change by "connecting the casks/together and putting up a large water column five or six feet high, so as to keep back more pressure, so as to refine it still quicker and better," and to avoid the expense of putting a gauge on every barrel, for by connecting them together, if one of them would ferment faster than the other, it would equalize on all the barrels throughout. In the fall of 1874 he says that he explained to one Mitchell what he was going to do, and that he "wanted to connect the casks all together and use only one water column;" that he told him he was going to work at it at once and he could see it in a few months, and that he showed it to him the next spring. In this he is corroborated by Mitchell, who says that he saw Pfaudler's apparatus on a single cask in 1872 and in 1873; that in 1874 Pfaudler explained to him his connecting apparatus and said it would be the "boss" thing for breweries; and in the spring of 1875 he began to improve his apparatus, showed witness the various parts as he completed them, and finally showed him the completed apparatus in operation. He produced the original device in evidence, described it, and made it an exhibit in the cause. Early in 1876 Pfaudler's father died, and Pfaudler was unable to get money to construct a model and apply for a 584 patent except as he could save up a little at a time. "The

date of his death is fixed at about February 6, 1876, by the production of the receipt of the undertaker, and of the mason who supplied the head-stone placed at his grave. Mr. Mitchell says in this connection that he knows that this apparatus/was used upon connected casks before Pfaudler's father died, which would place it in the autumn of 1875 or early in the following winter. Pfaudler's testimony is also corroborated by that of his brother Caspar, who states that before his father's death he knew that John was using his apparatus in the cellar, and that it was then attached to four barrels, and that he then heard John explain the apparatus to his father. This was nearly two years before the Meller & Hoffman apparatus was put up in the Bartholomae brewery.

In March, 1878, Pfaudler began to buy materials, as fast as he could spare the money, for a model for the patent-office. In May, 1878, he paid Munn & Co. $65 to apply for a patent. This is proven by their receipt. In his testimony he relates how the Pfaudler family saved the money to construct the model and apply for the patent. He and his brother Charles supported the family, and his brother Caspar's earnings were drawn on as lightly as possible to accumulate a fund. But they were obliged to use a part of the money, and it took about two years to save enough to take out the patent. He explained the matter to Munn & Co., signed the application, and supposed everything was right. He swears that he never heard of the use of an apparatus by which the casks were connected as by his own, until the autumn of 1877, when he was told by his brother Caspar that he, Caspar, was helping to put up some piping in the Bar-tholmae brewery; that the beer casks were connected the same as he had connected them in the cellar, "but as to the other parts where the pipes led to, he did not know how that worked." It was boxed up, but at the same time he thought it was for the Same purpose that he intended

to use his for, as near as he could judge. "When told, he stated he didn't care what they had done; that he was going to get his patented as quick as he could move himself about money matters; that after his own patent had been granted he heard from Caspar that the water column and gauge were about the same as his own. After the patent was obtained, his mother mortgaged the house for $500 to furnish money to work with. He claims to have used the water column to work with in 1875, and from the subsquent fall and up to and including 1881. His testimony is also corroborated by that of one Colman, a manufacturer of brass goods, who testifies that Pfaudler came to him in the spring of 1878 to have some work done. At first he wanted two safety-valves made, and shortly after brought in a drawing of a model he wanted to have made. The gauges were made about March 1, 1878, and the drawing was delivered about the same time. An entry on his books shows a charge in connection with this work on March 19th. The drawing and model

made from it are just like the drawing in the Pfaudler patent. The model was completed May 23, 1878. In June he made application for his patent upon this model, and on July 2, 1878, the patent was issued.

It is undeniable that this story is open to grave suspicion. The singular coincidence of Pfaudler's invention with the introduction of the Meller & Hoffman apparatus in Bartholomae's brewery in Rochester; the fact that his brother Caspar had been employed in assisting to put this apparatus in the brewery; that his mother was engaged in cleaning up the office and keeping the beds in order for the men at the same brewery; and the further fact stated by Dr. Frings, one of the experts, that only a man thoroughly conversant with the art of brewing, practically as well as scientifically, could make and apply the Meller & Hoffman process,—seem to render it very improbable that an ignorant young man, not even a brewer by

trade, and apparently destitute of scientific knowledge, could have conceived and carried out a plan which had escaped the attention or baffled the ingenuity of the most experienced brewers for centuries. At the same time, there is no attack upon his credibility, or upon his character, or upon that of his family and his witnesses. It is true, his brother Caspar was employed in putting up the piping in the Bartholomae brewery in Rochester, but this was two years after he claims to have perfected his own invention; and Caspar claims that these pipes ran into a box that was kept locked, so that he could not see what was in it, and he never did see what was in the box. Indeed, none of the men in the brewery knew what was in the box to which the Meller & Hoffman apparatus was connected. Some thought there was an air-pump, and others thought it was a gas-machine. The fact that Pfaudler's mother was employed as a charwoman in the same brewery seems to me of little importance, as she had no opportunity to examine the apparatus, is evidently childish, and was not sworn in the case. If these witnesses are to be believed, it is highly improbable, if not impossible, that Pfaudler could have obtained a knowledge of the Meller & Hoffman process from this brewery, and if fraud had been in contemplation by Pfaudler's friends, it seems to me they would have chosen a very different person to carry it through for them. Under all these circumstances, and in view of the corroboration of some of the incidental portions of his testimony, I do not feel at liberty to cast it aside and to say that it is so improbable that it is unworthy of belief.

It is true that Pfaudler seems to have used his apparatus solely for the fermentation and clarification of wines and cider, or to prevent the bursting of the barrels, and to have had a very faint idea of the important part it was destined to play in the manufacture of fermented liquors; but as it seems to be equally applicable to the manufacture of beer, and

is claimed in the patent to be adapted to that purpose, I see no valid reason why it does not anticipate the patent 586 of Bartholomae, which was issued April 2, 1878, inasmuch as it seems to accomplish the same result. That Pfaudler, when he perfected his apparatus, did not foresee all its results (and herein I coincide with the view taken by the plaintiff) will not invalidate the patent, since he is entitled to use it for every purpose to which it is adapted. Walk. Pat. § 38; *Ex parte Hicks,* 16 O. G. 546.

The same observations will apply to the claim now made by plaintiffs that Meller & Hoffman made a new invention in limiting the use of their apparatus or process to the kraeusen stage of the manufacture. If this or any similar apparatus had been in use at any stage in the process of beer-making, it is certainly no invention to apply it at any prior or subsequent period in the process of manufacture.

But by way of reply to the defense of prior invention by Pfaudler, it is the plaintiff's claim that it was not until long after Meller & Hoffman had sent their printed circulars into this country, and thus published their invention, that Pfaudler ever perfected his device by applying it to connected casks. The position of the plaintiff, in this connection, is that the sending of the circulars into this country, for the purpose of introducing the invention, entitles Meller & Hoffman to protection back to the date of their arrival, which it appears was sometime prior to September 9, 1874. To destroy the validity of this patent, it must be shown that the invention was not patented or described in any printed publication, in this or any foreign country, before the patentee's invention or discovery thereof. Rev. St. § 4886.

The Meller & Hoffman device was patented in France on November 30, 1876, but defendant claims to have perfected his device in 1875, and to have proceeded with due diligence, considering his poverty

and ignorance, to the obtaining of a patent in 1878. Plaintiff, however, says that its invention was first made in Germany, in 1872, and in September, 1874, circulars were sent to this country to persons engaged in the brewing trade, and with the view of introducing the Meller & Hoffman process into use here. It is attempted to carry the date of the plaintiff's invention back to the time when these circulars were received, which was undoubtedly anterior to the time when Pfaudler had perfected his mechanism. But it seems to me there are two objections to these circulars:

First. They do not describe the Meller & Hoffman device with that clearness and certainty which the law requires for an anticipation. Thus, in *Seymour* v. *Osborne,* 11 Wall. 516, 555, it is said that—

"Patented inventions cannot be superseded by the mere introduction of a foreign publication of the kind, though of prior date, unless the description and drawings contain and exhibit a substantial representation of the patented improvement, in such full, clear, and exact terms as to enable any person skilled in the art or science to which it appertains, to make, construct, and practice the invention to the same practical extent as they would be enabled to do if the information was derived from a prior patent. Mere vague and general representations will not support such a defense, as the knowledge supposed to be derived from the publication must be sufficient to enable those 587 skilled in the art or science to understand the nature and operation of the invention, and to carry it into practical use. Whatever may be the particular circumstances under which the publication takes place, the account published, to be of any effect to support such a defense, must be an account of a complete and operative invention capable of being put into practical operation."

So, in the case of *Hills* v. *Evans,* 6 Law T. (N. S.) 90, LORD WEST-BURY observes:

"There is not, I think, any other general answer that can be given to the question than this: that the information as to an alleged invention given by the prior publication must, for the purpose of practical utility, be equal to that given by the subsequent patent. The inverition must be shown to have been before made known. Whatever, therefore, is essential to the invention must be read out of the prior publication. If specific details are necessary for the practical working and real utility of the alleged invention, they must be found substantially in the prior publication. * * * Upon principle, therefore, I conclude that the prior knowledge of an invention, to avoid a patent, must be knowledge equal to that required to be given by a patent, viz., such knowledge as will enable the public to perceive the very discovery, and to carry the invention into practical use."

Now, referring to the second circular, which is much the fuller of the two, Meller says that—

"By this device the beer is transferred immediately from the fermenting tank into the casks, and there placed under pressure of carbonic acid. Heretofore, in all breweries where beer has been bunged at all, each cask was separately bunged, and to prevent the bursting of the cask the moment the beer became ripe, it had to be watched very closely. Now, by my process, a series of casks or even all casks in one cellar are connected among themselves, and with a carbonic acid generator. Thus a supply of carbonic acid is introduced into the beer immediately after the casks are bunged, while afterwards any surplus of said acid generated into the casks is let off into the free air. The brewer is thus enabled to regulate the pressure equally in all casks connected with the apparatus to any desired degree."

This is all there is in the circular by way of specification. It is true that annexed to it there is an incomplete drawing which might possibly, to a skilled

workman, give an idea as to the real construction of the device, but, tested by the definition found in the two cases above cited, it seems to me to fall considerably short of the particularity required in a patent, or in a publication claimed to anticipate a patent. It is stated by Dr. Frings, the expert, as a reason for omitting to describe them fully, that Meller was afraid that somebody might steal his invention. It has been frequently held that drawings alone, unaccompanied by letter-press description, will never invalidate a patent. *In re Atterbury,* 9 O. G. 640; *Judson* v. *Cope,* 1 Fisher, 615; *Reeves* v. *Keystone, etc., Co.* 5 Fisher, 456.

Second. It has been held generally, and perhaps universally, that business circulars which are sent only to persons engaged or supposed to be engaged in the trade, are not such publications as the law contemplates in section 4886. *Pierson* v. *Colgate,* 24 O. G. 203; *In re Atterbury, 9* O. G. 640; *Judson* v. *Cope,* 1 Fisher, 615; *Reeves* v. *Keystone Co.* 5 Fisher 456; *Seymour* v. *Osborne,* 11 Wall. 555.[588] Upon the whole, I have come to the conclusion, I confess with a good deal of hesitation, that Pfaudler is the prior patentee, and that plaintiff's bill must be dismissed.

[1] See *New Process Fermentation Co.* v. *Maus,* 20 FED. REP. 725.