

PIPER V. BROWN ET AL.

[Holmes, 20; 4 Fish. Pat. Cas. 175.]¹

Circuit Court, D. Massachusetts.

Oct., 1870.²

PATENTS—NEW AND USEFUL ART—METHOD OF
PRESERVING FISH—ANTICIPATION—SINGLE
EXPERIMENTAL USE—CONSTRUCTION.

1. A patent for a method of preserving fish or other articles in a close chamber by means of a freezing mixture having no contact with the atmosphere of the preserving chamber, is a patent for an art.

[Cited in *Central Trust Co. v. Sheffield & B. Coal, Iron & Railway Co.*, 42 Fed. 110.]

2. An inventor or discoverer of a new and useful art may have a valid patent for his invention or discovery, although he is ignorant of the philosophical or abstract principle involved in the practice of the art.
3. In defence to a suit on a patent for a process, it is not sufficient to prove the existence ⁷¹⁹ before the patented invention of an apparatus which could have been used so as to practise the patented process. It must appear affirmatively that such apparatus was actually so used.
4. A single experimental use of an apparatus, Afterwards destroyed, in such way as to involve the practice of a certain process, does not prevent a subsequent original inventor or discoverer of the same process from having a valid patent therefor.
5. A patent is to be construed without reference to previous correspondence with the patent office in relation thereto or rejected applications therefor.

³ [This was a bill in equity filed to restrain the defendants from infringing two letters-patent, one for an “improvement in the method of preserving fish, and other articles,” granted to complainant [Enoch Piper] March 19, 1861 [No. 31,730], and the other for an “improvement in apparatus for preserving animal and vegetable substances,” granted to Him August

5, 1862 [No. 36,107]. The nature of the invention, described in the first patent, consisted “in a method of preserving fish and other articles, by placing them within a chamber, and cooling the latter by means of a freezing mixture, so applied that no communication shall exist between the interior of the preserving chamber and that of the vessels in which the freezing mixture is placed.” The inventor says: “I do not profess to have invented the means of producing Artificial congelation, nor to have discovered the fact that no decay takes place in animal substances so long as they are kept a few degrees below the freezing point of water; but the practical application of these to the art of preserving fish and meats, is a new and very valuable improvement.” He then describes a large preserving box, inclosed in a larger box, the space between the two being filled with charcoal, or other non-conducting material. Through the inner box pass metallic tubes, open at the upper ends, for the introduction of the freezing mixture, provided below with escape pipes for the water or brine; and, after declaring that he does not desire to be understood as confining himself to the use of the specific apparatus described, he claims as follows: “Preserving fish or other articles in a close chamber, by means of a freezing mixture, having no contact with the atmosphere of the preserving chamber, substantially as set forth.” The second patent described an improvement in the apparatus described in the first; but upon the hearing, it was not contended that the apparatus, as improved, had been used by the defendants.]³

Causten Browne, I. J. Cutter, and Jabez S. Holmes, for complainant.

B. R. Curtis and Edward Avery, for defendants.

SHEPLEY, Circuit Judge. The complainant, in his amended bill, avers: First that he invented a certain

improvement in the method of preserving fish and other articles, for which he obtained letters-patent of the United States, dated March 19, 1861. Second, that he afterwards invented "an improvement in apparatus for preserving animal and vegetable substances," for which he obtained letters-patent, dated Aug. 5, 1862. He also alleges that the respondents, without his permission or knowledge, have erected and used at Charlestown a certain apparatus for preserving fish and other articles, containing substantially the invention patented to him by the letters-patent dated March 19, 1861, and also that patented to him by the letters-patent dated Aug. 5, 1862.

The respondents, in their answer, deny that complainant was the original and first inventor either of the method described in his first, or the apparatus described in his second, patent. They also deny any infringement of the patents of complainant, and claim that the apparatus constructed and used by them at Charlestown was substantially different from complainant's inventions, and was constructed under and according to an invention made by Charles F. Pike, and secured to him by letters-patent dated June 12, 1866. They deny that there is in the Charlestown apparatus "any close chamber," but aver that the air of the preserving chamber comes directly in contact with the ice or freezing mixture.

It is unnecessary to go into a minute examination of that portion of the proof in the record which refers to the second patent of the complainant and the apparatus therein described, as complainant does not contend that the apparatus constructed by the respondents is included in the terms of the claims of the patent of Aug. 5, 1862, even if it does embrace the invention therein described.

The patent of March 19, 1861, is not for the apparatus therein described. It is not a patent for any "machine, manufacture, or composition of matter." It

must be sustained, if it be sustained, as a patent for an “art.” The statute term “art,” used as it is in the statute in the sense of the employment of means to a desired end, or the adaptation of powers in the natural world to the uses of life, is perhaps a better term than the word “method” used by the patentee, or the word “process,” the term of description used by the experts. A process *eo nomine* is not made the subject of a patent in the act of congress. An art may require one or more processes or machines in order to produce a certain result or manufacture. *Corning v. Burden*, 15 How. [56 U. S.] 252. It is for the discovery or invention of some practical method or means of producing a beneficial result or effect that a patent is granted, not for the result or effect itself. “Process” or “method,” when used to represent the means of producing a beneficial result, are in law synonymous with “art,” provided the means are not effected by mechanism or mechanical combinations. ⁷²⁰ The term “machine” includes every mechanical device, or combination of mechanical powers and devices, to perform some function and produce a certain effect or result. But when the result or effect is produced by chemical action, or by the application of some element or power of nature, or of one substance to another, such modes, methods, or operations are called processes. *Corning v. Burden*, 15 How. [56 U. S.] 252.

It follows, from the law as expounded by the supreme court of the United States in *Corning v. Burden* [supra] and in *O’Reilly v. Morse*, 15 How. [56 U. S.] 62,—where the true distinction between a principle and a process is clearly defined in the explanations given by the court of the case of *Neilson v. Harford* [unreported],—that where a result or effect is produced by mechanical action, the patent can ordinarily only be for the mechanical appliances or means employed: where the result is attained or effect

produced by chemical action, by the operation or application of some element or power of nature, or of some property in matter, or of one substance to another, then the patent may be for the art, process, or method. It is essential to the validity of the process as an invention, to show how it may be adapted to practical use. In showing this, the inventor may describe mechanical means of applying, or peculiarly shaped vessels for containing, any of the ingredients used in his process or art. But they constitute no part of his invention. Another person may discover new and useful means of applying or using the inventor's process, and be entitled to a patent for that improvement, without the right to use the process. So the inventor himself may discover such new means or invent new appliances, which may be the subjects of a patent to him, separate and apart from his patent for the art itself.

The complainant's bill claims as his invention an "improvement in the method of preserving fish and other articles." The method claimed is described as "a method of preserving fish or other articles, by placing them within a chamber and cooling the latter by means of a freezing mixture, so applied that no communication shall exist between the interior of the preserving chamber and that of the vessels in which the freezing mixture is placed." The patent describes it as "a new and useful method of preserving fish." The claim in the patent is, "preserving fish or other articles in a close chamber by means of a freezing mixture having no contact with the atmosphere of the preserving chamber, substantially as set forth."

Although a different construction is contended for by the respondents, and even the expert examined by the complainant seems to construe the claim and describe the invention in some respects inaccurately, the claim appears to the court to describe clearly, and in language incapable of misconstruction, what is

claimed as the new and useful art or method. It is not that the patentee claims to have discovered the fact that no decay takes place in animal tissues as long as they are kept a few degrees below the freezing-point of water, nor does he claim to have invented any means of producing artificial congelation. The active agent for producing congelation, and the effect of congelation on animal substances, were well known. But he claims that he was the first to discover and reduce to practice an art of producing and continuing this artificial congelation upon animal substances, enclosed in a chamber with non-conducting walls, which chamber was a close chamber; that is, having no communication with the outer or surrounding atmosphere, and so constructed also that no communication shall exist between the interior of the preserving chamber and that of the vessels in which the freezing mixture is placed. This claim is not limited to a method of supplying and renewing the frigorific mixture without exposing the animal substances in the preserving chamber and the atmosphere itself in the preserving chamber to change of temperature from contact with the outer atmosphere, while the active agent of congelation—the frigorific mixture—is being supplied. It proceeds upon the further and broader ground, that an injurious effect upon the animal substances to be preserved results from the presence in the preserving chamber itself of the salt and ice, or other freezing mixture, affecting the atmosphere of the preserving chamber. The patentee proposes to preserve animal substances in an atmosphere not materially affected by the temperature of the external atmosphere surrounding the chamber, because the atmosphere in which the animal substances are placed is confined by non-conducting walls in a close chamber, and, what is more important, in an atmosphere “freezing,” because reduced to a low temperature by contact with the exteriors of the pipes

containing the frigorific mixtures, and “dry,” because free from contact with the freezing mixture itself. His claim is for the method of “preserving fish or other articles in a close chamber by means of a freezing mixture having no contact with the atmosphere of the preserving chamber, substantially as set forth.”

It becomes necessary to determine the date of the complainant’s invention. It clearly appears, from the evidence in the case, that in June, 1858, the complainant devised an apparatus by which the freezing mixture should be kept in such a way as to be separate from the atmosphere of the preserving chamber. The preserving chamber in this apparatus consisted of a hogshead surrounded by a casing of wood, leaving a space of a foot or more between the casing and the hogshead, which was filled with some nonconducting substance. A cast-iron tube of about ten inches in diameter was placed in the centre of each hogshead, fastened to the 721 lower head by a flange, and making a watertight joint between the Iron and wood where it passed through the head of the hogshead, and also a water-tight joint between the lower end of the vertical iron tube and the bottom of the casing. The upper end of the tube projected six inches beyond the cover of the hogshead when the cover was on.

It is not seriously controverted that the complainant devised and constructed this apparatus in June, 1858. Nor can it be successfully urged that it did not in fact separate the air of the preserving chamber from contact with the freezing mixture. It is, however, claimed that Piper at this time had not conceived the idea of any advantage in such separation, apart from the convenience of renewing the supply of the freezing mixtures without admitting the surrounding atmosphere into the preserving chamber. This is equivalent to saying, that, while his contrivance accomplished the result of preserving fish and animal

substances in the mode set forth in his caveat, and subsequently in his specification and claim, a useful result of a new process, he was unacquainted with the philosophy of his discovery. Upon the hypothesis that this were so, that by a series of experiments he had discovered only that this process, applied exactly in the mode described, produced the desired result, and the process was new and the result useful, but that he did not understand why the mixture of salt and ice produced a freezing mixture, or why the effect of contact of that freezing mixture with the atmosphere surrounding the fish to be preserved was injurious; yet if he had discovered the practical mode, and contrived the practical means of accomplishing the result, he might be entitled to a patent for his new and useful art, although ignorant of the philosophical or abstract principle which was involved in the exercise of the art itself. The discovery of the philosophical or abstract principle alone would not have been the subject of a patent. The thing to be patented is not the elementary principle, but the principle applied to some art, machine, manufacture, or composition of matter. *Earle v. Sawyer* [Case No. 4,247].

Applying these principles to the facts in this case, and after a careful consideration of the evidence, we are not satisfied that there is any sufficient proof in the case that any other party had anticipated the complainant's invention. In the months of June and July, 1838, Piper appears to have reduced to practice his invention, by freezing fish and preserving them until the following December, in the apparatus constructed by him in June.

Whitson's apparatus was not constructed and used until the fall of 1800. There is much conflicting testimony in relation to the use by Joseph H. Racey of an apparatus like that described in the complainant's second patent. As the complainant does not in this case rely upon his second patent, it becomes

immaterial to determine whether the apparatus which Racey claims that he constructed in a cellar under Centre Market in New York was constructed, as he claims, in the latter part of 1859, or, as the complainant contends, in 1862. If we were to assume the truth of Racey's statement, that it was built in the latter part of 1859, that is more than a year after Piper's invention of the process described and claimed in his first patent.

John Good obtained a patent, Aug. 17, 1843, which was reissued Sept. 12, 1854, for preserving the bodies of deceased persons in a cold-air chamber, and not allowing the ice to come into immediate contact with the body. The apparatus patented by Good, and used by him, and exhibited in this case, was not designed and intended to prevent any contact of the atmosphere surrounding the body with the freezing mixture or with the ice. It was designed to prevent the ice or freezing mixture from coming in contact with the body itself. But the contact of the atmosphere surrounding the body with the ice or ice and salt in the bottom of the pan was provided for by the perforated false bottom upon which the body rested. This false bottom prevented the contact of the body itself, and secured the contact of the atmosphere surrounding the body with the freezing mixture, when a frigorific mixture was used in the bottom of the pan.

Good's apparatus was capable, however, of being used in a manner different from the use described in his patent, or in the directions given for its use by him to purchasers of his apparatus. By omitting the use of any freezing mixture in the bottom of the pan, and using it only in the receptacle above the preserving chamber in such a manner that the air of the preserving chamber did not come in contact with the ice and salt above, it was capable of a use which involved the practice of the process described in the complainant's first patent.

But this patent being for a process, and not for any apparatus, to deprive the complainant of the benefit of his invention it is not sufficient to show that any previously existing apparatus could have been used to practice the complainant's process. It must appear affirmatively to the satisfaction of the court or jury that it actually was put to such practical use before the date of Piper's invention.

One witness, John Peak, testifies substantially to such a use of the Good apparatus; but he cannot fix the date of his purchase earlier than 1857, and his use of it in any mode until two or three years after he purchased it, and fixes no date of the use of it in this particular mode. The testimony of Swartz, the other witness, is also indefinite as to date, and leaves it, to say the least, uncertain whether he ever reduced the atmosphere in the chamber below the freezing-point of water. This object was not to 722 freeze the body so as to preserve it for any length of time, but only, by partially freezing the surface, to arrest the progress of decomposition and prevent offensive exhalations.

Charles F. Pike, in the course of sundry experiments which he made with refrigerators, appears in one instance to have arranged an apparatus with which the plaintiff's process was once practised; but it was used only once as an experiment, and abandoned, and the parts used for other purposes. As the knowledge of this experiment was not communicated to Piper, and it was a mere experiment thus abandoned, it could be no obstacle to the right of Piper to take out a patent for his process. Cahoon v. Ring [Case No. 2,292].

The process of Benjamin and Grafton, described in their English patent, enrolled July 27, 1842, differs from the complainant's in many of its features, but particularly in this essential feature: that in the Benjamin and Grafton patent there is no description that the freezing mixture contained in the vessels in

the preserving chamber is to be kept free from contact with the atmosphere of the chamber itself.

It is clear that the language of Piper's patent excludes the use of salt and ice in the same chamber with the fish to be preserved. A statement that he contemplated such use appears to have been inserted in his original application for his first patent, and stricken out from the amended specification on which the patent was granted. Such a use formed no part of his invention. In his original application, this use of salt and ice was confined to the box for freezing, and was not made applicable to the chamber for preserving for a length of time the substances previously congealed.

The patent must be construed without reference to the previous correspondence and previously rejected applications, which cannot aid in its construction, especially as the patent issued correctly describes the complainant's invention.

The apparatus, as first used by the defendants at Charlestown, contained a preserving chamber, the air of which had no contact with the freezing mixture, and it was used for the purpose of preserving animal substances by reducing the air in that chamber, by means of the freezing mixture, to a temperature below the freezing-point of water, and in all respects appears to have involved the use of the process patented to the complainant.

The complainant is entitled to an injunction, and to an account, as prayed for in the bill of complaint. The cause is to be referred to a master to ascertain the amount. Let the decree be prepared accordingly. Decree for injunction and account.

[NOTE. For hearing on exceptions to the master's report, see Case No. 11,181. This case was taken by appeal to the supreme court, where the decree of this court was reversed. 91 U. S. 37. For other cases involving this patent, see Piper v. Moon, Case No.

11,182; Piper v. Moon, 91 U. S. 44; Piper v. Brown, Case No. 11,181.]

¹ [Reported by Jabez S. Holmes, Esq., and by Samuel S. Fisher, Esq., and here compiled and reprinted by permission. The syllabus and opinion are taken from Holmes, 20, and the statement from 4 Fish. Pat. Cas. 175.]

² [Reversed in 91 U. S. 37.]

³ [From 4 Fish. Pat. Cas. 175.]

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