

MARCHAND v. EMKEN.¹

Circuit Court, S. D. New York. February 18, 1886.

1. PATENTS FOR INVENTIONS—MANUFACTURE OF HYDROGEN PEROXIDE.

The first claim of letters patent No. 273,569, of March 6, 1883, for an improvement in the manufacture of hydrogen peroxide, is void for want of patentable novelty.

2. SAME—SUBSTITUTION OF MACHINE FOR HAND POWER.

It does not constitute invention to stir, by a well-known and simple mechanical device, a liquid which had before been stirred by hand; and hence the mere substitution of a revolving screw, driven from a power shaft, for paddles operated by hand, for stirring such liquid, is not patentable.

In Equity.

B. F. Lee and *W. H. L. Lee*, for complainant.

Marshall P. Stafford, for defendant.

COXE, J. The complainant is the owner of letters patent No. 273,569, 630 granted March 6, 1883, for an improvement in the manufacture of hydrogen peroxide.

The claim in controversy is as follows:

“(1) The method of making hydrogen peroxide by cooling the acid solution, imparting thereto a continuous movement of rotation, as well in vertical as in horizontal planes,—such, for example, as imparted by a revolving screw in a receptacle,—and adding to said acid solution the binoxide in small quantities, while maintaining the low temperature, and the rotary or eddying movements, substantially as described.”

The defenses are lack of novelty and invention, and non-infringement.

The invention, as stated in the specification, relates to the manufacture of hydrogen peroxide, or oxygenated water, by the addition, of barium, mixed with water, to an acid; and it consists in imparting to the acid a movement of rotation, the time required

for chemical reaction being thereby lessened, while the reaction itself is more complete. To effectuate this purpose the specification describes and the drawing illustrates an apparatus consisting of a caldron surrounded by a jacketing vessel which contains the cooling medium, and an automatic stirrer provided with helicoidal blades, and suspended so as to revolve near the bottom of the kettle. The claim is for this process of making hydrogen peroxide. The application was three times rejected, and was finally allowed by the examiners-in-chief in a qualified form, upon the theory that there was, as to this particular liquid, something magical in the motion imparted by a screw. It is not pretended that the complainant discovered hydrogen peroxide, or the method of adding barium mixed with water, from time to time, to the diluted acid, or the necessity for stirring or agitating the liquid. Neither did he invent the obliquely bladed screw, the hemispherical receptacle, the jacketing vessel, or any part of the apparatus described in the specification. All this was old and well known. The patent itself illustrates how extremely circumscribed was the theater of invention. This is demonstrated by placing side by side two statements taken from the specification, the first describing the prior process, and the second the patented process.

“Heretofore hydrogen peroxide has been made by adding the barium or calcium binocide, mixed with water, to the diluted acid; the binocide being added from time to time in small quantities, the vessel in which the operation is conducted being set in a refrigerating medium, and the liquid being agitated or stirred to facilitate the reaction. The stirring has been performed by hand.”

“The [jacketing] vessel, B, being filled with the cooling medium, the proper quantities of acid and water are placed in the receptacle, A. The screw, C, is put in motion, and the binocide of barium or

calcium, in the state of a more or less thick emulsion or milk, is added in small quantities. The revolving screw imparts a movement of rotation more or less rapid to the liquid, producing eddies therein, and constantly changing the material, and the chemical reaction takes place very regularly and completely.”⁶³¹ If the word “machinery” were substituted for the word “hand” at the end of the first quotation, the description of the old method would answer as well for the new. The question, then, seems to be narrowed down to this: Does it constitute invention to stir by a well known and simple mechanical device what had before been stirred by hand? The complainant desired to manufacture in large quantities what had before been produced chiefly in the laboratory. He knew how hydrogen peroxide had been made,—every step in the formula was familiar. A mixture that needed stirring and a vessel provided with a revolving stirrer were ready at his hand. He put the former into the latter. This was all. The object of agitating the liquid, while making hydrogen peroxide, is to keep the barium, which is three times as heavy as water, suspended in the acid, so that its particles may come in contact with the particles of acid. Whether they come in contact while going round, rising, settling, or remaining stationary an make no difference. Divest the case of the air of mystery with which it is environed, and it seems simple enough. The complainant’s predecessors knew that to keep the barium up in the solution they must stir it. The complainant knew this. Unlike them, however, he manufactured on a scale large enough to make it essential to employ a power shaft. The oar-shaped sticks which formerly went round and round by hand now go round and round by machinery.

Perhaps the clearest statement of the invention, from complainant’s standing-point, is found in the evidence of the witness Hedrick. He says:

“The method set out in the complainant’s patent is based upon reactions well known in the art, and discovered by Thenard. The dilute acid is given a movement which has never before been imparted to it in the manufacture of hydrogen peroxide, and which the patentee claims as new in that art. The liquid is thrown out towards the circumference of the vessel at the bottom, rises at the sides,” returns to the center, and then descends, to be again thrown out at the bottom, while at the same time it is carried round and round.”

Which, being reduced to still simpler language, means that the machine will stir large quantities of the liquid more thoroughly than the hand-worked paddles. He who wishes the sugar and cream which he puts into his coffee to be diffused uniformly through the mixture is quite likely to stir it with a spoon. Should the same individual have occasion to provide coffee for a regiment of soldiers, he might, to save time and labor, place it in a kettle provided with a stirrer like complainant’s, but to found upon such action a claim for a new process of making coffee would probably be thought absurd.

The pretense that the complainant has discovered some occult and wonder-working power in the motion of a screw revolving in the bottom of a tub is not sustained by the proof. Whether the contents of the tub be oxygenated water or soap or lye or tartaric acid, the action will be the same. That rotary, eddying motions in liquid will result from the revolving screw; that the liquid will rise highest at the 632 periphery of the tub, and thus have the tendency, at the top, to fall towards the center,—were well-understood operations of centrifugal force.

As every device, apparatus, formula, law of nature, motion, and ingredient adopted by the complainant was old, the patent must be held invalid, unless it can be said that giving to oxygenated water a well-known

rotary motion springs “from that intuitive faculty of the mind, put forth in the search of new results or new methods, creating what had not before existed, or bringing to light what lay hidden from vision.” No such faculty has been tasked in giving form to this patent. There is here no sufficient foundation upon which to rest a claim which, if construed as broadly as the complainant insists it should be, practically makes all pay tribute who stir the mixture in question by machinery; and by hand also, provided substantially the same movement can be produced by hand stirring,—and this seems to be a disputed question upon the proof. The complainant’s claim to be enrolled upon the list of inventors is based upon propositions too theoretical and visionary for acceptance. He has but caught a bubble from “the advancing wave of improvement.”

As the foregoing considerations must dispose of the cause, it is deemed unnecessary to consider the question of infringement. It would seem, however, in view of the fact that the claim, if upheld at all, must be confined within exceedingly narrow limits, that grave difficulties confront the complainant upon this branch of the case. The defendant uses a tub in which revolves a shaft, set with flat blades, at right angles to the shaft. The only action of the stirrer is to make the liquid go round and round. In order to produce violent agitation, he projects, from a vertical cleat fastened to the side of the tub, two horizontal boards extending nearly to the center. As the shaft revolves, the lower blades pass under the lower board, and the upper blades pass between the boards. It would seem doubtful, at least, whether the motion thus produced is at all analogous to that described in the patent. It is difficult to discover that which the examiners aptly liken to the movement of the smoke ring. It can hardly be said that there is a “ring vortex” in defendant’s tub.

The bill is dismissed.

¹ Reported by Charles C. Linthicum, Esq., of the Chicago bar.

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