

CHICAGO SUGAR-REFINING CO. v. CHARLES POPE GLUCOSE
CO. et al.

(Circuit Court, N. D. Illinois. February 8, 1897.)

PATENTS FOR INVENTION—EXTENT OF CLAIM—CORN SEPARATOR.

Letters patent Nos. 247,152 and 247,153, issued September 20, 1881, to A. Behr, for a process of treating corn in the manufacture of starch, and for an apparatus used in such treatment, are void for want of novelty, because the improvement over the previous state of the art consists in the peculiar conformation of the tank in which the corn is treated, and in the relative proportions of corn and water used, for neither of which elements do the patents contain any claim of invention.

Suit by the Chicago Sugar-Refining Company against the Charles Pope Glucose Company and others for the alleged infringement of two patents.

Offield, Towle & Linthicum, for complainant.
Coburn & Strong, for defendants.

GROSSCUP, District Judge. The bill is to restrain infringement of two letters patent numbered, respectively, 247,152 and 247,153, issued to A. Behr, September 20, 1881, the first for a process of treating corn in the manufacture of starch, glucose, and other products therefrom, and the second for an apparatus for treating corn in the same kind of manufacture. The defendants deny the validity of the patents, and also deny infringement.

Each kernel of corn contains within itself a little germ rich in corn oil, and the object of the process and the apparatus, described in the letters patent, is to separate these germs from the balance of the kernel. The germs are used for oil products, and the remainder of the kernel for starch, glucose, and similar products. The treatment described requires that the corn should be first soaked, and then crushed while moist, resulting in the kernel's being broken up and the germs remaining intact. In this condition, the crushed corn, when intermingled with water, naturally divides into three parts: First, the germs, which, being lighter than the liquid, float on the top; second, the hulls and matter adherent thereto, which, being heavier than the liquid, tend to sink; third, the mealy parts of the corn mixed with the water, which largely constitutes the liquid, and is called "starch-milk." The liquid or starch milk contained in the tank is maintained at a density of from 10° to 12° Baumé, that density being found best adapted to the purpose that the germs should float and that the hulls should sink. When the partially crushed corn comes first into contact with the starch milk in the tank, there are many germs still adhering to the hulls, resulting in the former being drawn towards the bottom by the heavier weight of the latter. To dislodge these, so that they may rise, and the hulls may fall, the lower stratum of material in the tank is kept in a condition of agitation by means of paddles or fans. When operating with perfection, the germs floating on the surface are carried off by the over-

flow of starch milk through an aperture onto a vibrating sieve, through the meshes of which the starch milk falls, and is brought back into the tank, while the germs are carried off to a separate place, the hulls being mechanically removed through an aperture in the bottom of the tank. The process is a continuous one. The claim of the process patent is as follows:

"The process of treating corn in the manufacture of starch, glucose, and other products therefrom, herein described, which consists in mixing with corn, which has been softened and crushed, sufficient water to form a mixture of such density that the germs of the corn will tend to separate from the hulls and other heavier portions and rise to the surface of the mixture, and in mechanically stirring such mixture in a separating tank or compartment provided at the top with a suitable chute, and thereby causing the germs and pieces of germs to be carried off in a surface current caused to overflow through the chute by the influx of crushed corn and water into the separating tank, and in removing the hulls and adherent matter from the lower stratum of the mixture by mechanical means, the materials removed from the separating tank being, respectively, screened in the usual manner, and the purified mixture of the mealy parts of the corn and water being collected in a suitable reservoir."

I am convinced that this method of separating the germs from the hulls and starch milk is, in practical effectiveness, a considerable advance upon anything that preceded it. The difficulties of the complainant's case are not in any question of utilities.

The art of making the separation, to which complainant's patent relates, is not a new one. Prior to this patent the germs of corn were separated from the other parts through methods wherein the corn was first boiled and crushed, and then introduced into a separating tank, the results being brought about largely by the operation of specific gravity. In the prior art it was pointed out that the maintenance of the starch milk at 10° or 12° Baumé was essential to the best conditions, and means of agitation of the starch milk similar to complainant's patent were employed. It is clear to me that Dr. Behr's success over his predecessors is not in having pointed out any new method of treatment, but in having hit upon: first, a tank, whose peculiar conformation is best adapted to the results wished; second, the particular relative proportions employed in the introduction of the crushed corn and water. Were the conformation of the tank to be changed, or the proportion of corn to water at the instant of its introduction into the tank to be altered, the complainant's treatment could not be made continuous, nor more effective than previous methods. The difficulty with the complainant's patent is that it does not point out this peculiar conformation of tank, nor the proper relative proportions of water and crushed corn, nor does it make any claim of invention in these particulars. In the absence of such a claim, it must be held that the process in these respects is old, or has been given to the public. In this view of the case, it is not necessary to state what would have been my views had the claims of the patents specifically covered these particulars, for it follows that the art in all other respects being old, and no invention being claimed for these features which, in my judgment, constitute the improvement, the complainant's claim must fall.

The same difficulty arises in patent 247,153 for the apparatus. There is, in my judgment, no quality of invention described in claim 1:

"A separating tank or compartment provided with a stirrer, and having a chute or opening in its wall for fixing the direction of the overflow from the separating compartment, in combination with an inclined vibrating sieve for screening the germs carried off in the overflow, and a trough or reservoir for receiving the starch milk which drains through the meshes of such sieve, and means for mechanically removing from the lower stratum of the mixture in the separating tank the heavier portion of the corn, consisting of the hulls and matter adherent thereto, substantially as described."

In the absence of the assumption that the separating tank therein described, in its peculiar conformation adapted to the purpose, is new, there would be no patentable invention; but the claim as stated does not lay claim to such feature, and is therefore, under the holdings of the supreme court, to be regarded as old, or dedicated to the public. For these reasons the finding must be for the defendants.

WESTERN ELECTRIC CO. v. WESTERN TEL. CONST. CO. et al.

(Circuit Court, N. D. Illinois. April 12, 1897.)

PATENTS FOR INVENTIONS—INFRINGEMENT—TELEPHONE SWITCHES.

Letters patent No. 215,837, issued May 27, 1879, to H. L. Roosevelt, for an improvement in telephone switches, whereby the receiver is suspended by a cord attached to a spring, so that taking up the receiver changes the circuit, so as to ring the call bell at the other end of the line until the person at the other end takes up his receiver, and so that dropping the first receiver again after using the telephone automatically transfers the call bell again into the circuit, are not infringed by a device patented by T. A. Watson, in which the receiver hangs from a forked hook, to which it has to be restored after using the telephone in order to transfer the call bell again into the circuit.

Suit by the Western Electric Company against the Western Telephone Construction Company and others to restrain the alleged infringement of a patent.

Barton & Brown, for complainant.

S. S. Stout, for defendants.

GROSSCUP, District Judge. The bill is to restrain infringement of letters patent No. 215,837, dated May 27, 1879, issued to Hilburn L. Roosevelt. The defendants deny infringement, and also challenge the validity of the patent.

The patent is for an improvement in telephone switches, and its purpose is compactly stated in the following, from the specifications:

"It is a matter of considerable importance in connection with several telegraphic transmitting instruments, more especially telephones, that the operation of the transmitting instrument should automatically signal to the receiving instrument at the other end of the line the fact that a message is about to be transmitted, whereby the receiving operator is enabled to prepare himself for the reception of such message. This is especially true where the transmitting operator is not, of necessity, a skilled person in the electrical