stances, to put this unfavorable construction on the conduct of the defendant and the person who makes his tubes. The complainant, even upon a preliminary hearing, had full opportunity to apply to the circuit court for leave to examine Brewer and compel a disclosure, but it did not see fit to take this course.

While, if this court were now called upon as an original question to announce a conclusion upon the weight of the evidence and the significance to be attached to the silence of the defendant and his witnesses in respect to the process by which his tubes are made, we might decide that there was sufficient evidence of infringement, we cannot say that the action of the court below in holding otherwise exceeded the limits of a sound judicial discretion. As we base our conclusion upon the issue of infringement, the prior decision of this court, and of other courts in other states, upon the same patent, upon applications for preliminary injunctions therein, are of no importance, because they did not present the same facts. The question for the court upon this hearing is whether the court below exceeded the limits of a sound judicial discretion in refusing an injunction to the complainant. We may answer this question in the affirmative, without deciding that, had the court entered an order for the injunction, that order should be reversed. The function of the court of appeals, in hearings like this, is such that it may properly affirm an order refusing a preliminary injunction in one case and an order granting it in another on substantially the same evidence, because it is easy to conceive a case presenting upon a preliminary hearing such an evenly balanced controversy that the court above would affirm the action of the court below, whether one way or the other, when that action involves the exercise, not of exact judicial judgment, but merely judicial discretion. The patent at bar has been before this court in the case of Blount v. Societe, 6 U. S. App. 335, 3 C. C. A. 455, and 53 Fed. 98. In that case the circuit court for the Southern district of Ohio had granted an injunction against the defendant, who had been the intimate and confidential agent and officer of the complainant company, and who, it was shown to the satisfaction of the circuit court, was making filters like those described in the patent. This court, after considering the record before the circuit court, held that, in the granting of the order of injunction, the sound legal discretion of the circuit court had not been improvidently exercised. In this case, upon the same patent, but upon different evidence as to the infringement, we hold that the action of the court below in refusing to grant an injunction was within the limits of its sound legal discretion. It is to be hoped that the patent and the evidence in this case will now come up for final hearing and the controversies arising on it be finally ad-The order of the circuit court is affirmed. judicated.

SOLVAY PROCESS CO. v. MICHIGAN ALKALI CO. et al. (Circuit Court of Appeals, Sixth Circuit. November 28, 1898.) No. 588.

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^{1.} PATENTS-INVENTION-ADAPTING DEVICE TO USE IN NEW ART. The adapting of a well-known device to the same use in a different art is not patentable.

2. SAME-APPARATUS FOR COOLING SALINE SOLUTIONS.

The Cogswell patent, No. 362,938, for an apparatus for cooling saline solutions, which consists of a series of connected transverse pipes passed through the Solvay column used in the manufacture of carbonate of soda, and through which cold water is circulated, is but the application to such column of a well-known method of cooling liquids, which does not involve patentable invention, and which was anticipated in the particular art for the same purpose in the Gerstenhofer apparatus for the manufacture of sodium carbonate, patented in 1881, and in Wigg's English patent, issued in 1882.

Appeal from the Circuit Court of the United States for the Eastern District of Michigan.

This was a bill in equity to restrain the infringement of a patent. Plaintiff, the Solvay Process Company, is the owner, by assignment, of a patent issued to William B. Cogswell, May 17, 1887 (No. 362,938), for the purpose of cooling saline solutions. The defendants attack the validity of the patent. The purpose described in the specifications of the patent is applicable to the absorber or bicarbonate column used by Ernest Solvay, and described in the specifications for a patent issued to him March 4, 1873, for an improvement in the process and apparatus for the manufacture of carbonate of soda. Fig. 1 of that patent, which is given on next page, sufficiently shows the structure of the column. Solvay said in the specifications: "Into this absorber I place a number of plates, perforated with small holes, so as to divide the gas as much and so often as practicable, and also a number of plates provided with one or a few large holes, which will just allow the liquor and gas to pass without permitting the fresh liquor entering the absorber to mix with the nearly-saturated liquor at the bottom of the ab-sorber. The perforated plates I prefer to make of the shape of globular segments, and to provide them with projections or teeth round their circumference, the openings between the said teeth allowing the liquor and gas to pass, when the small holes may be partially stopped up. The above-mentioned plates may be cast as part of the apparatus, or be separate pieces, or be supported therein by any convenient means. This absorber is always kept nearly full of liquor, while the carbonic acid obtained from any convenient source, but by preference from a limekiln, is forced-say by means of an air pump-in at the bottom of the absorber through The carbonic acid gas should enter under a pipe. a pressure exceeding the pressure of the column of liquor which the gas has to pass through. By these means the gas is brought into very intimate contact with a high column of liquor moving in an opposite direction, and is at the same time made to expand, and to do a considerable amount of mechanical work, in consequence whereof it absorbs an amount of heat sufficient to prevent all heating of the liquor in the apparatus, otherwise produced by the absorption of the carbonic acid, and which I have found very difficult to prevent by any other means." The liquor referred to in



the patent is a solution of salt and ammonia which, after uniting with carbonic acid gas, produces by two chemical reactions crystals of bicarbonate of soda.



The drawings, specifications, and claims of the patent in suit are as follows:

"Apparatus for Cooling Saline Solutions. "Specification Forming Part of Letters Patent No. 362,938, Dated May 17, 1887. "Application filed July 20, 1885. Serial No. 172,146.

"(No Model.)

"To All Whom It May Concern: Be it known that I, William B. Cogswell, of Syracuse, in the county of Onondaga, state of New York, a citizen of the United States, have invented certain new and useful improvements in bicarbonate columns, of which the following is a specification, reference being had to the accompanying drawings, in which Fig. 1 is a longitudinal vertical section of one of the horizontal segments of the column; Fig. 2, a top plan view of same, showing sections of construction at the ends of the piping system; Fig. 3, a plan view of the inner face of the pipe-heads; Fig. 4, an elevation of the column. My invention relates to the manufacture of bicarbonates, and it consists in the construction of the apparatus, and not in the chemical portion of the process. My object is to partially cool the liquid contents of the column, or reduce their temperature, so that they leave the column cooler than by the ordinary process, where tubular columns are used without any cooling attachments. It consists in the use of internal or partly internal and partly external cooling pipes, with the exterior internal surface of which the hot liquid comes into contact, and which pipes are kept as cool as possible by maintaining a flow of cold water through them, or by any other equivalent means. I construct my column as follows: A represents a section of the column, tubular in form, and provided with flanges, which are secured to the preceding and following sections in any ordinary manner, as the column is built up of successive superimposed sections until the desired height is reached. B, B, are rectangular nozzles, formed integral with the body of the column. opening outward and into the interior of the section, the openings being usually rectangular in form. These nozzles are located opposite to each other upon the periphery of the section, and usually in the same horizontal plane. C. C. are the flue sheets, perforated, as at a, to receive the flue pipes, D. D.