COTTER *v.* NEW HAVEN COPPER CO. and others.

(*Circuit Court, D. Connecticut.* August 7, 1882.)

PATENTS FOR INVENTIONS—PROCESS—NOT AN INFRINGEMENT.

Where defendants' process is not the patented process, but omits a patented step, and in its stead includes one which the patentee intended to avoid, it is not an infringement.

John S. Beach, George Harding, and *Charles E. Mitchell,* for plaintiff.

Benjamin F. Thurston and *Charles R. Ingersoll,* for defendants.

SHIPMAN, D. J. This is a bill in equity to restrain the defendants from the alleged infringement of reissued letters patent, dated October 16, 1877, to Andrew O'Neil, assignor to Samuel A. Cotter, for an improvement in preparing sheet copper for boilers and other vessels. The original patent was granted to Mr. O'Neil, as inventor, on April 6, 1869.

Prior to the date of the original patent, tinned sheet copper for the manufacture of culinary utensils was furnished to the coppersmith in the form of a soft sheet of copper tinned on one side, and the copper side discolored by the action of the heat and acids employed in the tinning process. This soft, porous, flexible sheet was then made dense and hard by tedious and expensive hand hammering, or "planishing," as it was called, which consisted of hammering the sheet upon an anvil with hammers of a curved surface to make the sheet dense, and then with hammers of a plane surface to smooth and brighten it. Tinned copper had been also sometimes cold rolled, or passed through polished rolls, whereby the sheet was made more dense, but the form in which the coppersmith generally received the sheet for manufacture into utensils was the one which has been described. Sometimes the discoloration was attempted to be removed by the use of acid.

Mr. O'Neil, in 1867, received letters patent for a tinned copper sheet prepared in this way. A varnish, made after a prescribed formula, was applied with a brush to the copper side of the tinned sheets in the rough state "without subjecting them to any acid bath, scouring, planishing, or any other chemical or mechanical preparation." The varnished sheets, when dry, "were passed through highly-polished rolls of steel or case-hardened or chilled iron." In 1869 the original of the reissue which is now in suit was granted to Mr. O'Neil. The specification describes the invention as follows:

"The object of my invention is to prepare for market tinned copper sheets, with smooth and uniform and permanently-lustrous surfaces, without artificial coloring. Sheets of tinned copper, as now usually prepared for pot bodies, acquire a discolored, stained, and mottled appearance by the oxygenating agency of the heat and acids employed in the process of tinning; and to these causes of disfigurement there is often added that arising from the overflow of the tin itself onto the copper side. This disfigurement is now sought to be removed by acids, which, in turn, 'cut' the tin and initiate rust, and by tedious and costly mechanical abrasion, which consumes much time and material. In consequence of the above, it is frequently necessary to retin the interior of the vessels after they are made up, which reproduces the evils above alluded to. To the above evils there is commonly added that of unevenness of tinned surface, due to hand planishing or striping, the tin being found to wear rapidly away from the ridges or eminences."

After describing the benefits of his invention, the patentee says:

"My process is as follows: I provide copper sheets, of the precise size required to compose the body of the wash-boiler or other desired vessel, and, having tinned them by the usual or any approved process, I pass them through highly-polished, chilled or steel rolls, and cold roll the sheets. Then they are placed upon an endless apron or carrier, and passed beneath a rotary polishing wheel or buffer, to produce a high gloss, or they may be polished by any other approved or preferred mode. I prepare two quarts of dammar varnish, one quart of turpentine, one quart of alcohol, to make one gallon of the transparent enamel. Then lay the sheets, with the bright sides up, on a steam table, which is kept at a moderate temperature to warm the sheets. Then I apply the transparent enameling with a soft, flat brush, and, when dry, the sheets are ready for market."

The claims were as follows:

"(1) I claim a bright cold-rolled tinned sheet of copper, as explained. (2) I claim a transparent enameled, bright tinned, cold-rolled sheet copper. (3) As a new article of manufacture, the polished and enameled tinned copper sheet, produced by the process substantially as herein described, for the manufacture of wash-boilers and other culinary vessels."

The first claim was for a tinned sheet of copper made "hard, even, and lustrous" by cold rolling, and bright by polishing upon a buffer or by any other approved mode, but not by scouring or scrubbing with acid, for this was one of the evils which the patentee wished to avoid. The order in which cold rolling and the removal of discoloration by polishing was done was immaterial. It was not for an enameled sheet. That was included in the second claim.

This invention, which consisted in subjecting the sheet to cold rolling, whereby the surface was made dense and glossy, and to polishing, whereby the discoloration was removed, and, if need be, to an additional enameling process, was received with great favor, went

into extensive use, entirely superseded hand planishing, and was very useful.

In 1877 the reissue which is now in suit was obtained. In the specification the patentee says that "in some instances the sheet had been passed through rollers before my invention;" but in consequence of the acids employed in preparing the sheet for tinning, and the heat in the tinning operation, the copper surface became dark and mottled. He described his invention as follows:

"To render the sheet of copper of a handsome color and a more merchantable appearance, and of superior stiffness and elasticity, so that it is less liable to dent or bruise than heretofore, I employ two operations. One is the planishing or consolidating of the sheet, for which highly-polished chilled or steel rollers may be used. By this operation the copper is rendered dense or hard, and the coating of tin is smoothed and unified. The other is a cleaning or polishing operation to remove the discoloration, scale, or foreign substance from the copper surface of the sheet. This is done by a rotary polishing wheel or buffer, or by any other approved or preferable mode. The copper thus produced presents a clean, bright surface of copper on one side, and a uniform surface of tin on the other side, and the sheet is hard and dense. In order to prevent atmospheric action on the surface of the copper it is preferable to employ a dammar varnish, thinned out with turpentine and alcohol, in about equal proportions, and mixed with about the same quantity of dammar varnish, and this is applied to the copper side of the sheet, when it has been warmed upon a steam table or otherwise. This varnish dries rapidly, and the sheet metal is ready for the market."

The claims are as follows:

"(1) As a new article of manufacture, the tinned sheet copper herein described, the same having a bright or polished copper surface, and the whole being cold rolled, as and for the purpose described; (2) the improvement in the manufacture of tinned sheet copper, consisting in tinning one surface, cleaning or brightening the other surface, and subjecting the sheet, while cold, to pressure between rollers, substantially as set forth; (3) the sheet of tinned copper prepared by cleaning and rolling, and protected by a varnish upon the copper surface, as and for the purpose set forth."

The first claim is identical with the first claim of the original. It is not for a tinned sheet, cold rolled, and having a bright copper surface, made such by the use of acids, but having a surface made bright or polished by the wheel, or by any approved mode of polishing. The second claim is for the process of manufacturing described in both original and reissue, not including the varnishing; but it is not to be construed as including any mere "cleaning" of the surface, although the word "cleaning" is introduced both into the description and the claim. To include in the patented process cleaning by acid,

or by scouring with acid and sand, would be an undue expansion of the original patent.

In 1876 Thomas James obtained a patent for an improvement in the manufacture of tinned sheet copper, under which the defendants now make the article which is said to be an infringement. After the sheet is tinned, the discoloration is removed by the use of diluted acid, or by scrubbing with acid and sand. The sheet is then washed in pure water, and after it is dry is cold rolled between bright chilled rolls, two sheets having been placed together, with their tinned surfaces in contact. By this process the discoloration is removed by the application of acid, and then the surface is polished by the chilled rolls. By the O'Neil process the surface is polished and made glossy by the rolls, and the discoloration is removed by the buffer, or other approved polishing method.

The defendant's process is not the patented process. It omits a patented step, and in its stead includes one which the patentee intended to avoid. There is no infringement, and the bill is dismissed.

Execution—Property in Public Use Exempt.

CITY OF NEW ORLEANS *v.* MORRIS and others, U. S. Sup. Ct., Oct. Term, 1881. Appeal from the circuit court of the United States for the district of Louisiana. The substance of the bill is that defendants, having several judgments on the law side of the circuit court, had caused executions, issued on these judgments, to be levied upon shares of the stock of the New Orleans Water-works Company, and the marshal had advertised them for sale and was about to sell them to the highest bidder; that prior to March 31, 1877, the city was the sole and absolute owner of the water-works now owned and held by the corporation known as the New Orleans Water-works Company; that on that day the legislature enacted a law creating that corporation with a capital of $2,000,000. Of this sum the corporation, as soon as organized, was to "issue to the city of New Orleans stock to the amount of $606,600, full paid and not subject to assessments, and in addition thereto one similar share for every $100 dollars of water-works bonds the city had taken up heretofore and extinguished by payment, exchange, or otherwise; and that the residue of said capital stock shall be reserved for the benefit of all holders of water-works bonds, to the extent of the amount now outstanding, who may elect to avail themselves of the provisions of this act." The bonds here referred to were those issued by the city, while sole owner of the water-works, in aid of their construction and extension. The seventh section of this act reads as follows: "Be it further enacted, that the stock owned by the city of New Orleans in said water-works company shall not be liable to seizure for the debts of said city." Under the statute, and especially under the seventh section, the city