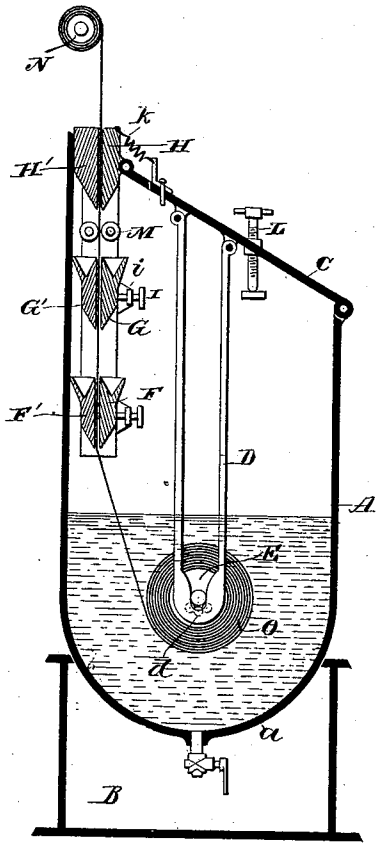
(No Model.)

I. SHERCK & J. BATIG, Jr.

APPARATUS FOR COATING PAPER, &c., WITH WAX.

No. 349,531. Patented Sept. 21, 1886.



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UNITED STATES PATENT OFFICE.

ISAAC SHERCK AND JOSEPH BATIG, JR., OF FREMONT, OHIO, ASSIGNORS TO THEMSELVES, AND GEORGE E. RAYMOND, OF CHICAGO, ILLINOIS.

APPARATUS FOR COATING PAPER, &c., WITH WAX.

SPECIFICATION forming part of Letters Patent No. 349,531, dated September 21, 1886.

Application filed June 28, 1886. Serial No. 206,530. (No model.)

To all whom it may concern:

Be it known that we, ISAAC SHERCK and JOSEPH BATIG, Jr., of Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Apparatus for Coating Paper or other Material with Wax; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to an improvement in devices or apparatus for coating paper or other material with wax.

The object is to provide means for coating or saturating paper or other material with wax, a roll or bunch at a time, and finishing the surface of the paper or other material before it leaves the tank of wax in which it is coated or saturated.

A further object is to provide a coating device or apparatus which may be readily removed from one place to another without any derangement of its parts, and which may be readily handled by one or two workmen, thus adapting it to use in the smaller class of establishments where wax-paper is used.

With these ends in view our invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

The accompanying drawing is a view of the device or apparatus in vertical section.

A represents a tank, preferably provided with a rounded bottom, *a*, to which heat is applied either from a fire-box, B, located beneath the tank, or by a chamber for superheated steam, or steam or hot-air radiators. One side of the tank A, which for convenience we will term the "back" side, is higher than the opposite or front side, and to the lower or front side a cover, C, is hinged. Depending from the under face of the cover, and centrally located at or near each end of the cover, are hangers D, the lower ends of which are adapted to extend below the surface of the wax in the tank, and are provided with ball-bearings *d*. A roller or rod, E, is adapted to be removably secured within the tank, with its ends resting in the bearings *d*. One or more sets of strippers or smoothers, preferably three, designated by the letters F F', G G', and H H', are secured in order one above the other at the back side of the tank and within it. The rearmost strippers or smoothers, F', G', and H', are secured rigidly in position, while the front members of each pair are rendered adjustable, as follows: The strippers or smoothers F and G are conveniently suspended in a swing frame or frames, and set-screws I, working in stationary bearings *i* at the ends of the tank, are adapted to impinge against the ends of the said strippers or of the frame in which they are secured, and force them toward their opposite members. They might, however, be regulated by passing the set-screws I through their ends or the ends of their supporting-frames and into perforations formed in the stationary members. The uppermost set of strippers or smoothers, H H', are located at the top of the tank, and the adjustable member H of this pair is hinged to the edge of the cover C. A spiral spring, *k*—one end of which is attached to the top of the member and the other to the cover—tends to hold the lower edge of the member H in contact with its opposite. The stripper or smoother H is, however, rendered further adjustable by the screw or screws L, which serve to swing the cover on its hinge, and thereby force the said stripper H bodily toward or away from its opposite. A pair of rolls, M, located beneath the strippers or smoothers H, tend to draw the paper or other material through the sets of strippers or smoothers F F' and G G', and a reel, N, located above the tank, serves to draw the same through between the strippers or smoothers H H'. A roll of paper or other material, O, is placed on the roller or rod E, and the latter is placed in its position in the hangers D. One end of the paper is then passed up between the sets of strippers or smoothers F F', G G', and H H', and the cover closed, thereby plunging the roll O beneath the surface of the wax. Heat is then applied and the wax incorporated into the paper. The paper is then drawn upwardly beneath the different sets of strippers and wound on the reel.

To prevent the wax stripped from the paper from falling back again into contact with

the paper, the upper edges of the strippers are made trough-shaped and their lower edges beveled. Thus any drippings which may fall from the strippers will be caught in the troughs and conducted to one end of the tank, and thence back into the tank.

The tank is provided at its bottom with a faucet for drawing off the melted wax when it is desired to clean the tank or for other purposes.

It will be observed that the waxing apparatus constructed as above described is very simple and compact, the whole process being accomplished within a tank, which may be made of any desired dimensions to suit the demands, and may be removed from place to place without disturbing its parts.

The method herein described forms no part of our present invention, the same being the subject-matter of a separate application filed June 19, 1886.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of our invention; hence we do not wish to limit ourselves strictly to the construction herein set forth; but we are aware that it is not broadly new to immerse a quantity of paper in melted wax, and also that it is old to carry a strip of paper under a roller submerged in melted wax and from thence between scrapers located outside of the tank containing the melted wax, and hence we make no claim, broadly, to such constructions.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In apparatus for waxing paper, a portable tank adapted to hold the melted wax, and provided with devices for submerging and stripping or smoothing the paper, said devices being located within the tank, substantially as set forth.

2. The combination, with the wax-holding tank and means for applying heat thereto, of a roller or rod adapted to hold a roll or bunch of paper beneath the surface of the wax and in a condition to be readily unwound and strippers or smoothers located within the tank for finishing the paper, substantially as set forth.

3. The combination, with the tank and the sets of strippers or smoothers located therein, of the swing-cover and the paper-holding hangers attached thereto, substantially as set forth.

4. The combination, with the tank and the adjustable paper-holding roller or rod, of the adjustable strippers or smoothers located within the tank and the drawing-rolls, substantially as set forth.

5. The combination, with the tank and its swing-cover, of the spring-actuated stripper or smoother hinged thereto, substantially as set forth.

6. The combination, with the tank, the paper-holder, and the means for drawing the paper between strippers or smoothers, of the cover, the strippers or smoothers hinged thereto, and the screws or their equivalent for adjusting the cover, substantially as set forth.

7. The combination, with the tank, the paper-holding roller or rod, and means for drawing the paper from the holding roller or rod, of the strippers or smoothers having trough-shaped upper edges and beveled lower edges, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

ISAAC SHERCK.
JOSEPH BATIG, JR.

Witnesses:
MORRIS E. TYLER,
EDWARD C. GAST.