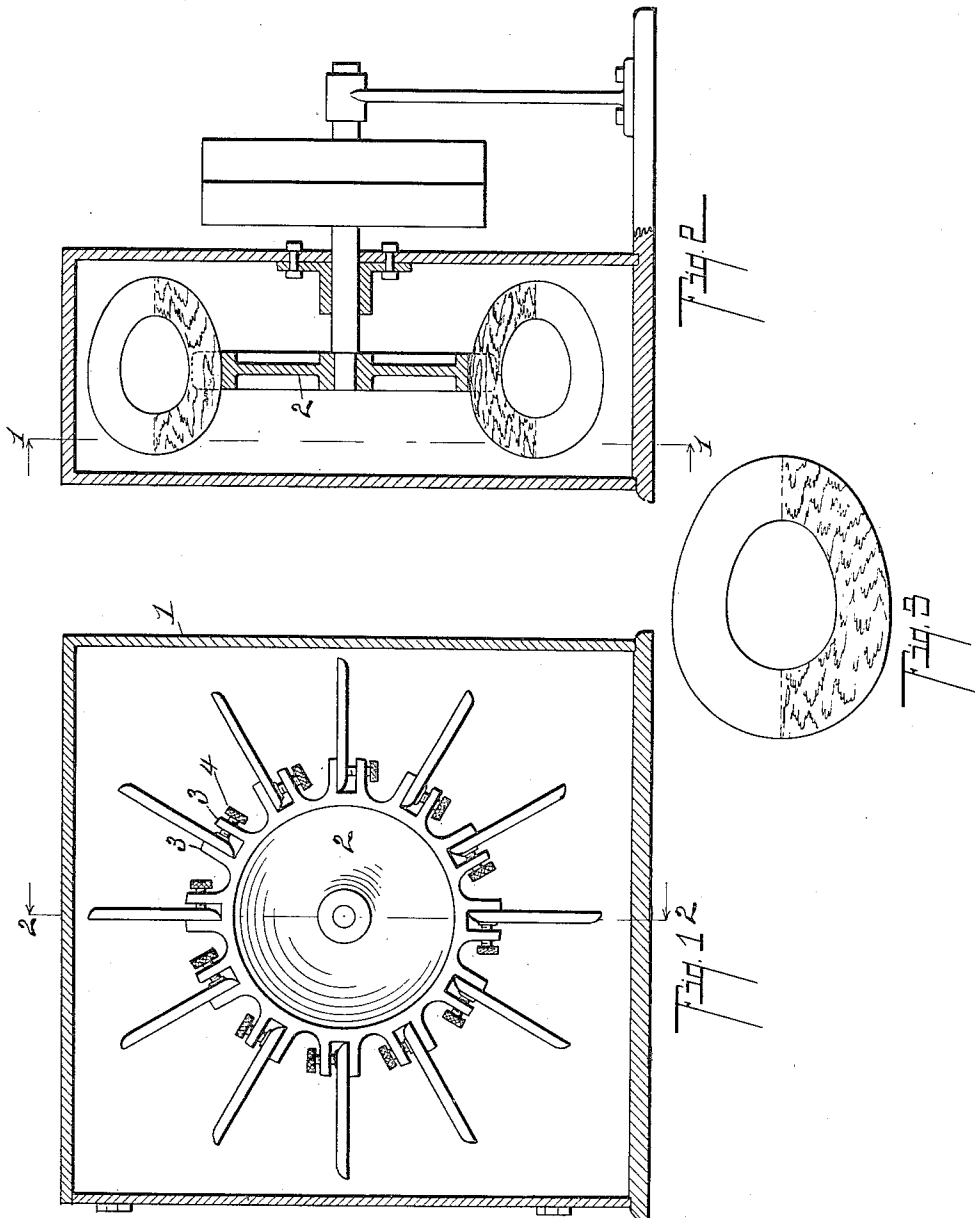


H. L. HASKELL.
FINISHING PROCESS.
APPLICATION FILED JULY 23, 1906.

935,603.

Patented Sept. 28, 1909.



Witnesses:

A. J. V. Lomb
M. H. O'Toole

Inventor,

Henry L. Haskell
By *Chapman & Co.*
Att'ys

UNITED STATES PATENT OFFICE.

HENRY L. HASKELL, OF LUDINGTON, MICHIGAN, ASSIGNOR TO CARROM-ARCHARENA COMPANY, OF LUDINGTON, MICHIGAN.

FINISHING PROCESS.

935,603.

Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed July 23, 1906. Serial No. 327,347.

To all whom it may concern:

Be it known that I, HENRY L. HASKELL, a citizen of the United States, residing at Ludington, county of Mason, and State of Michigan, have invented certain new and useful Improvements in Finishing Processes, of which the following is a specification.

This invention relates to improvements in processes of finishing or coating with celluloid.

The main object of this invention is to provide an improved process of coating or finishing with celluloid by which an article may be completely coated with an even coating of celluloid without any break or joint therein.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

In carrying out my process of finishing or coating with celluloid, I preferably employ the apparatus illustrated in the accompanying drawing, which I find very satisfactory for the purpose.

In the accompanying drawing, Figure 1 is a vertical section through the casing 1 taken on a line corresponding to line 1—1 of Fig. 2. Fig. 2 is a vertical section taken on a line corresponding to line 2—2 of Fig. 1. Fig. 3 is a plan view of a water-closet seat which has been partially finished.

In the drawing, similar reference characters refer to like parts in the several views, and the section views are taken looking in the direction of the little arrows at the ends of the section lines.

In carrying out my improved process, I preferably conduct the several operations in a room in which the temperature is not below 60 degrees Fahrenheit. This room is preferably tightly closed, and one from which the moisture is removed from the atmosphere by a suitable means, as by the use of an exhaust fan, which causes the air to circulate through a condenser. The means of accomplishing this result will be readily understood by the operator.

In carrying out the process, the celluloid is dissolved by ether or any other solvent which readily evaporates. The dissolved celluloid is made quite thick, preferably about the consistency of a thick batter or as thick as will readily flow or spread. The article to be finished is first dipped into the solvent, and then before the solvent has time

to evaporate it is dipped into the dissolved celluloid.

I preferably dip only a portion of the article to be coated at a time so that the article can be readily handled without touching the dipped or undried portion. After dipping in the dissolved celluloid, the surplus celluloid is drained or allowed to drip therefrom and the article is then mounted upon a slowly revolving wheel, the wheel being kept in revolution until the celluloid is set or dried. By mounting the article upon the wheel, the draining off or settling of the celluloid to one side of the article is prevented, so that an even coating is obtained. For the purpose of drying, I preferably employ the wheel 2, which is arranged within the casing 1. By inclosing within the casing the too rapid drying or evaporation of the solvent is prevented. The wheel is preferably provided with outwardly projecting clamping members or arms on its periphery arranged in pairs, the clamping screws 4 being arranged through one of these clamping lugs for securing the article in place, as clearly appears from the drawing. The object of carrying on this process in a dry atmosphere is on account of the great affinity of the solvent for water. When the drying is carried on in a moist atmosphere, drops or bubbles are likely to form on the surface of the coating, forming pit-like dents therein. Too rapid evaporation of the solvent is likely to cause the same to gather in drops on the coating which also forms pits or dents therein by the solvent eating into the same. If there should be a tendency for the coating to dry unevenly, this can usually be overcome by brushing with the solvent or by dipping the same into the solvent when partially dry. After the coating is thoroughly dry, the other portion of the article is treated in the same manner. A perfectly smooth surface may be formed by smoothing up the joint, while the last dipped portion is drying, with a brush dipped in the solvent. After the article is entirely coated, or so much as is desired, the coating may be polished or finished by sanding and then dipped into the solvent. The polishing may, if preferred, be done by rubbing or burnishing. This, however, requires an unnecessary amount of work as by sanding and dipping in the solvent a perfectly smooth glossy surface is secured.

The celluloid may be colored as desired, and when colored gives the appearance of enamel. If it is colorless, the grain of the wood shows therethrough, giving the article the appearance of a varnished article. The finish is, however, much superior to either varnish or enamel as it does not cleave or crack off and is not affected by water or acids such as will completely destroy varnish. The wood is entirely protected so that it is not affected by atmospheric changes, such as cause varnished wood to shrink and swell. This renders it particularly valuable as a coating for water-closet seats, covers, tanks and the like, and the same is perfectly sanitary, as it may be washed as frequently as desired without deteriorating it.

While I have illustrated the means preferred by me in carrying out my improved process, it is evident that other mechanisms might be employed in this relation, and I have shown this means only for the purpose of illustrating and making clear the process. Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. The process of finishing or coating with a pyroxylin compound, consisting of dissolving the compound with ether or other readily evaporating solvent; dipping a portion of the article to be coated into the solvent and then into the dissolved compound; drying; dipping and drying another portion of the article to be coated and forming a perfect joint between the dry portion and the last dipped portion by applying the solvent thereto; and polishing by sanding and dipping into the solvent, as specified.

2. The process of finishing or coating with a pyroxylin compound, consisting of dissolving the compound with ether or other readily evaporating solvent; dipping a portion of the article to be coated into the solvent and then into the dissolved compound; drying; dipping and drying another portion of the article to be coated, and forming a perfect joint between the dry portion and the last dipped portion by applying the solvent thereto, as specified.

3. The process of finishing or coating with a pyroxylin compound, consisting of dissolving the compound with ether or other readily evaporating solvent; dipping the article to be coated into the solvent and then into the dissolved compound; drying; and polishing by sanding and dipping in the solvent, as specified.

4. The process of finishing or coating with a pyroxylin compound, consisting of dissolv-

ing the compound with ether or other readily evaporating solvent; dipping the articles to be coated into the solvent and then into the dissolved compound; drying, as specified.

5. The process of finishing or coating with a pyroxylin compound, consisting of dissolving the compound with an evaporating solvent; dipping the article to be coated into the dissolved compound; drying on a revoluble support; and dipping the completely coated article into the solvent, as specified.

6. The process of finishing or coating with a pyroxylin compound, consisting of dissolving the compound with an evaporating solvent; dipping the article to be coated into the dissolved compound; and dipping the completely coated article into the solvent, as specified.

7. The process of finishing or coating with a pyroxylin compound, consisting of dissolving the compound with a readily evaporating solvent; coating the article to be finished with the dissolved compound; and drying on a support by which the article is revolved about a horizontal axis in a dry atmosphere, as specified.

8. The process of finishing or coating with a pyroxylin compound, consisting of dissolving the compound with a readily evaporating solvent; coating the article to be finished with the dissolved compound; and drying on a support by which the article is revolved about a horizontal axis, as specified.

9. The process of finishing or coating with a pyroxylin compound, consisting of dissolving the compound with an evaporating solvent; coating the article to be finished therewith; sanding; dipping in the solvent; and drying in a dry atmosphere, for the purpose specified.

10. The process of finishing or coating with a pyroxylin compound, consisting of dissolving the compound with an evaporating solvent; coating the article to be finished therewith; sanding; and dipping in the solvent, for the purpose specified.

11. The process of finishing or coating with a pyroxylin compound, consisting of dissolving the compound with an evaporating solvent; coating the article to be finished therewith; and washing the coated article when partially dry with the solvent, as specified.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

HENRY L. HASKELL. [L. S.]

Witnesses:

W. L. HAMMOND,

A. D. WOODWARD.