UNITED STATES PATENT OFFICE.

BERTRAM DOUGLAS BAKER, OF WYLDE GREEN, ENGLAND.

PROCESS FOR COVERING AND INCASING ARTICLES.

1,300,550. Specification of Letters Patent. Patented Apr. 15, 1919.

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To all whom it may concern:

Be it known that I, BERTRAM DOUGLAS BAKER, a subject of the King of Great Britain and Ireland, and residing at 2 Highbridge road, Wylde Green, in the county of Warwick, England, have invented certain new and useful Improvements in Connection with the Processes for Covering and Incasing Articles, of which the following is a specification.

This invention relates to improvements in and relating to the coating or covering of articles with celluloid or a celluloid compound.

An object of the invention is to provide an improved process and a coating material or solution by means of which celluloid or a celluloid compound may be applied to articles.

According to the invention the article to be covered is immersed in a coating material or solution consisting of celluloid or a celluloid compound, acetone, amyl acetate and American turpentine. Before immersion, the article may be preliminarily coated with a lacquer-like material containing celluloid, acetone and American turpentine, and of such a nature that it may be sprayed on to the article or may be applied by a brush or by like treatment. The article is caused to emerge from the coating material somewhat quickly initially and then as the lower portion of the surface of the article is reached, the action takes place more slowly.

In carrying my invention into effect, I prepare and produce my coating material by introducing a celluloid strip or scrap to a bath containing a solvent which I compound and prepare by mixing proportions of acetone, amyl actate and American turpentine, a convenient mixture for producing an efficient solvent bath being obtained by employing about fifty (50) parts of acetone, ten to forty (10–40) parts of amyl acetate, and ten to forty (10–40) parts of American turpentine, the proportions of amyl acetate and American turpentine being varied to suit the nature and material of the article to be treated and the particular degree of viscosity that is desired and the depth of coating that is to be applied to the particular article requiring to be incased.

When the celluloid has been introduced into the solvent bath and thereby reduced to a fluid or comparatively fluid state, the resultant compound is in the form of a pasty or somewhat viscous mass. This mass is then transferred into a vat or vessel which is to form the bath for receiving the articles that are to be covered or coated, but before introducing any articles into the mass I allow the material to remain in the vat for a sufficient time to permit the air bubbles to freely rise and escape from the surface, and, when all air has thus passed off from the material in the bath, I introduce or immerse the article therein by suspension or otherwise.

The article that is to be thus immersed or coated, I prefer to treat to a preliminary coating of lacquer-like material produced from a weakened solution of acetone, celluloid, and American turpentine, the consistency of which is such as will admit of its being sprayed or applied by a brush or the like treatment to the surface that is to be coated.

Having thus preliminarily protected or incased the article with a gummy lacquer-like coat, I introduce it into the vat in one manner by immersing it so that the entire surface is completely covered, and I then permit the liquid forming the contents of the bath within the vat to run away or be withdrawn somewhat quickly, initially, and then, as the lower portion of the surface of the article is being reached, I cause the flow or outlet to be reduced by throttling or checking the size of the opening by valve or by hand, in order that no bead or string-like attachments or runners form upon the surface connecting it to the body of coating material that is slowly receding from contact therewith.

After the coated article which had been left suspended within the vat or vessel out of contact with the coating solution has been removed and become dry or hardened, I polish it or treat it in any ordinary manner by buffing or the like operations for producing any desired face flatting or other effect upon the outer surface of such coating.

Having described the method of operation which I consider to be the simplest for effecting a satisfactory covering of articles such as the rims or other portions of wheels, handles for door furniture and the like, I wish it to be understood that I do not limit the application of my invention to any particular manner in which the articles are to be immersed or introduced into the bath containing the coating solution, but I vary

the manner and means employed for so introducing the articles to suit the extent of the operation that is to be involved and the kind of article that is to be coated, sometimes employing racks or suspenders carried upon arms, slides or the like, with means for mechanically lifting or drawing the article out of contact with the coating bath quickly at the initial movement but slowly at the latter portion thereof, for the purpose of preventing the runners or beads that would be formed thereupon were the article to be quickly removed or withdrawn from contact with the coating solution.

I also vary the proportions of the three elements employed for making my coating bath to suit the particular requirements for efficiently covering articles of metal, concrete and other material of a special form or configuration.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:—

A process for covering or incasing articles with celluloid or like compound consisting in preliminarily coating the article to be treated with a lacquer-like material, immersing the article in a lacquer-like solution, and causing the article to emerge somewhat quickly initially and then as the lower portion of the surface of the article is reached, causing the action to take place more slowly, for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BERTRAM DOUGLAS BAKER.

Witnesses:

B. MONT. WADE,

ERNEST PARKER.