

United States Patent Office.

ROBERT O. LOWREY, OF SALEM, NEW YORK.

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IMPROVED MODE OF PRODUCING FLOOR-CLOTH, LEATHER CLOTH, AND THE LIKE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ROBERT O. LOWREY, of Salem, in the county of Washington, and State of New York, have invented certain new and useful Improvements in the Coating of Fabrics; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

My invention consists in the production of a new article, to be used as a substitute for oil-cloths, leather, and similar articles.

In order to produce my new article, I first prepare a solution as follows: Of gelatine, animal glue, or their known substitutes, I take in the proportion of four ounces; of soap, or similar extractive matter, two ounces; of glycerine, or saccharine matter, or of both combined, two ounces, and dissolve in from two to four quarts of water. To this solution I then add, of clay, or any aluminous earth, plaster, or any ground slate, stone, or cement, or any oxide of metal, a sufficient quantity to form a pasty compound, for the purpose of forming a water-proof body or coating, to be applied to the fabric, in any suitable manner, either by hand or machinery.

The fabric, which may consist of any kind of cloth or sheets of paper made for the purpose, after being thoroughly saturated and coated with the foregoing compound, is then treated, by immersion or otherwise, with an astringent solution, consisting of alum and salt, in about equal proportions, dissolved in water, there being of the alum and salt as much as the water will hold in solution at a temperature of from 60° to 65° Fahrenheit.

The first-mentioned compound may have imparted to it any desired color by adding the necessary pigment thereto, and thus the fabric, when coated, may be caused to have any desired color, and, if desired, other colors or figures may be added to the surface afterwards.

It will of course be understood that the fabric is to be thoroughly coated or covered with the first-mentioned compound, and that its surface will be rendered smooth and even, the same as is now the case in the manufacture of ordinary oil-cloths.

Any thin or cheap cloths or sheets of paper may be thus prepared, and ornamented by printing or painting figures or designs thereon, and thus made to answer all the purposes of the more expensive oil-cloths now used for covering floors, carriages, desks, &c. It also furnishes a cheap substitute for leather, for many purposes for which the latter is now used.

It may have its surface polished or enamelled by any suitable means, by polishing-rollers or other similar devices.

The foregoing is the method that I prefer, as being the simplest and best, but it is obvious that the proportions may be somewhat varied, without affecting the result, except in degree.

In case it is desired to render the article more soft and pliable, then there will be more of the glycerine or saccharine matter used, or of both, and in order to give to the article a slippery nature, to prevent chafing from friction or rubbing, the proportion of the soapy matter will be increased.

I have also ascertained by my experiments that, for the gelatinous compound, a solution of gum-arabic, gum-senegal, dextrine, caseine, albumen, gluten, or starch, or an admixture of any two or more of them, may be substituted; and that, instead of the solution of alum and salt, as previously described, the following may be substituted, viz, tannin, tannic acid, catechu, or any material containing tannin, gallic acid, boracic acid, alum alone, or combined with borax, or chrome alum, or any of the salts of the sesquioxide of chromium, or chloride of sodium alone may be used, or any two or more of these ingredients may be combined and used; but, as before stated, I prefer to use the solutions as before described.

By making the gelatinous compound of sufficient thickness, and applying enough of it to the fabric, a body or surface may be formed thereon without the admixture of the earthy matters, and in some cases, where a very superior quality of article is desired, this may be done, but the addition of the earthy matter cheapens the article, which answers all the ordinary purposes as well as when made without them.

Having thus described my invention, what I claim is—

The production of the new article, herein described, as a substitute for oil-cloth, rubber, leather, &c., when produced substantially as set forth.

R. O. LOWREY.

Witnesses:

W. C. DODGE,

H. B. MUNN.