

UNITED STATES PATENT OFFICE.

WILLIAM BELL, OF NEW YORK, N. Y.

IMPROVEMENT IN COATING FABRICS TO IMITATE LEATHER, MOROCCO, &c.

Specification forming part of Letters Patent No. **153,473**, dated July 23, 1874; application filed April 14, 1874.

To all whom it may concern:

Be it known that I, WILLIAM BELL, of the city, county, and State of New York, have invented a certain Compound called "Plastique," of which the following is a specification:

This invention relates to a new and useful compound to be used to form a durable surface on cotton, linen, paper, or other fabrics upon which it may be spread, and a plain or ornamental pattern may be pressed on the compound at the time of spreading it on such fabric or material.

This compound may be molded in any desired form in which other solidifying compounds or natural articles have been or can be molded. It is adapted to and intended to be used in place of and for the purposes for which india-rubber, leather, gutta-percha, paper, and oiled or painted cloths are used; also, in forming ornamental articles, frames, moldings, trimmings, the imitation of articles of wood, ivory, and bone, bags, boxes, trunks, buttons, buckles, toys, and other articles known in the useful arts.

The compound and its use I term and call "Plastique."

I make the compound as follows: I take a suitable vessel and dissolve therein, by means of heat in any convenient manner, glue with vinegar or other suitable liquid, adding glycerine, each in the proportion hereinafter stated. I then thoroughly mix therein fine particles of cork and such pigment as I desire to color the compound with; and, just before using, I mix in (having it previously prepared in another vessel) chromic acid or other chemical equivalent, first dissolved in water and then mixed with glycerine. This last manipulation is of great importance to observe in all cases of the preparation of the compound. I also add either tannic acid or else Aleppo-galls water. I prefer to add tannic acid or Aleppo-galls water, though the use of either may be dispensed with.

When Aleppo-galls water is used it is necessary to combine with it some good oil, (linseed preferred,) in the proportion hereinafter stated. I may also vary the above by using

a very small quantity of or leaving out altogether the cork.

Having the compound as above described, while hot and in a liquid state I spread it on the fabric desired to be covered in any convenient manner, and before it hardens impress it with such pattern, plain, ornamented, or imitation, as I choose to use, or to form solid articles I run it in molds.

The proportions in which I propose to use the ingredients of the compound are as follows: Of glue, ten quarts; glycerine, from two and a half to four quarts; cork, from five to seven quarts; and about an ounce of chromic acid, which latter is first dissolved in water and then mixed with about one quart of glycerine before being added to the other ingredients.

I prefer to add to the compound either tannic acid or else Aleppo-galls water in the proportion of one quart of the former or two quarts of the latter, or thereabout. In case the latter is added, then one quart of good oil (linseed preferred) is to be first mixed therewith.

After the article has been formed and is sufficiently dry, I prefer to apply, with a brush or other convenient means, to the surface of the compound the following solution, namely: About one ounce of chromic acid (or its equivalent) is first dissolved in a small quantity of water, and then added to about a quart of glycerine. This I term "vulcanizing."

This coating may be used with advantage on the surfaces of other materials than those herein referred to.

In a compound for coating fabrics, &c., I claim—

1. Glue, glycerine, chromic acid, and either tannic acid or Aleppo galls, in the proportions and prepared substantially as and for the purposes set forth.

2. Glue, glycerine, and chromic acid, in the proportions and prepared substantially as and for the purposes set forth.

3. Glue, cork, glycerine, and chromic acid, either with or without the addition of tannic

acid or Aleppo galls, in the proportions and prepared substantially as and for the purposes set forth.

4. A coating solution composed of chromic acid and glycerine, in the proportions and prepared substantially as and for the purpose set forth.

5. A fabric whose surface is covered with said compound, prepared substantially as described.

6. A fabric composed of the compound prepared substantially as described, whose surface is coated with the solution composed of chromic acid and glycerine, substantially as described.

WM. BELL.

Witnesses:

K. NEWELL,
JAMES H. HUNTER.