

UNITED STATES PATENT OFFICE.

JOHN SMITH, OF MELBOURNE, VICTORIA.

PAINT.

SPECIFICATION forming part of Letters Patent No. 441,075, dated November 18, 1890.

Application filed May 13, 1890. Serial No. 351,680. (No specimens.) Patented in Victoria May 19, 1888, No. 5,835; in New South Wales May 27, 1889, No. 1,441; in South Australia May 28, 1889, No. 1,310; in New Zealand June 21, 1889, No. 3,749; in England July 5, 1889, No. 10,858, and in Queensland September 18, 1889, No. 759.

To all whom it may concern:

Be it known that I, JOHN SMITH, formerly of Marton, in the colony of New Zealand, but now residing at Melbourne, in the colony of Victoria, have invented a new and useful Composition for Waterproofing Textile Fabrics or for a Paint for Wood and other Surfaces, (for which I have received Letters Patent in the following countries: In England, No. 10,858, dated July 5, 1889; in Victoria, No. 5,835, dated on or about the 19th day of May, 1888; in New South Wales, No. 1,441, dated May 27, 1889; in South Australia, No. 1,310, dated May 28, 1889; in Queensland, No. 759, dated September 18, 1889, and in New Zealand, No. 3,749, dated June 21, 1889,) of which the following is a specification.

This invention relates to a new composition for making textile fabrics water-proof, and to a certain extent fire-proof, being specially adapted for application to rugs, coats, and such coverings or articles of apparel as are used for protection against wet or damp. This composition is also applicable as a paint for wood, plaster walls, or any other surfaces requiring to be damp-proof or water-proof, and it is also adapted for general purposes in which ordinary paint is used, and can be applied with an ordinary paint-brush.

The novelty consists in the ingredients used in the manufacture, and the improved result lies in the short time the composition takes to dry, being from four to twenty-four hours, according to the purpose for which it is used. A second coat can be put on, if desired; also, two coats of this paint are equal to three coats of ordinary paint, it lasts longer, and may be tinted to the required color.

In order that my invention may be easily understood, I will now describe its use. The composition may be equally well applied to the materials either in the piece or made up. I treat the piece of fabric or article of clothing with one coat of my composition; but I do not confine myself to the application of one coat, as it will be found necessary in some instances to apply two or more (one upon each side) in order to render the material thoroughly water-proof. To give a better fin-

ish to the material in the piece I pass the latter after, having immersed it in the composition, between two smooth-surfaced iron rollers arranged and revolved in a manner similar to those in a calendering-machine. This insures a more even surface to the piece of material and uniform thickness to the spread of the composition.

Having now described the application of my invention to the various materials and substances, I will give the component parts of the composition, which are as follows: ten hundred-weight of white lead, (I find best for the purpose is that known as "Champion's;" it should not be too soft; that having a little age is best adapted;) sixty gallons linseed-oil, (half of this quantity to be boiled, the other half raw;) three hundred pounds (avoirdupois) of whiting entirely free from lumps; eighty-eight pounds (avoirdupois) of sulphate of lime free of all grit; three pounds (avoirdupois) of crushed alum; forty pounds of glue (medium quality;) fifty-six pounds of patent driers; fifty gallons of cold water; one pound of marine blue to make the composition white.

The mode of combining and mixing the above ingredients is as follows: The linseed-oil is first placed in an ordinary wooden vat. Then the white lead is added (one hundred-weight at a time.) The patent driers are next introduced. These ingredients are well mixed by means of an ordinary paint-mixer or its equivalent. The whiting is placed separate in a wooden or iron vat (termed the "whiting-vat") and allowed to soak in sixteen gallons of the water taken from fifty gallons, before stated, for twelve hours, after which it is stirred to the consistency of a thick paste. The glue, alum, and seventeen gallons of the water are placed in an ordinary copper boiler or vat and there allowed to remain for twelve hours. These quantities are then boiled and stirred until the glue is dissolved. The sulphate of lime is placed in another wooden or iron vessel, (arranged at one side of but higher than the whiting-vessel,) and well mixed with sixteen gallons of water and then added to and mixed with the whiting and water before mentioned. To

this admixture the glue, water, and alum are added and blended therewith. The compound thus formed is let into the vat (through the medium of a tap or cock secured near the 5 bottom of the whiting-vessel) containing the white lead, linseed-oil, and patent driers. The whole of the ingredients are then thoroughly blended by the paint-mixer or its equivalent. The remaining one gallon of 10 water is now used, or whatever quantity will make the mixture of the proper consistency. After all the ingredients have been thoroughly mixed the composition is strained through a fine sieve to render it perfectly smooth and 15 consistent.

Care should be exercised in mixing the ingredients in order to obtain a good body, because the white lead varies in quality, and in consequence of this water sometimes shows 20 itself after the application of the paint to the surface of the material or substance. To test its body, dip a paint-brush into the composition while still in the vat and apply it to the surface of the material or substance. A 25 workman of ordinary skill will be able to detect whether there is too much water. When water shows itself on the surface, small extra quantities of white lead and linseed-oil should

be added; but if no water appears then the body of the paint may be left without further 30 additions.

My composition is white when made according to the above-mentioned instructions; but when, for instance, a grey tint is required a sufficient quantity of common black paint 35 is added; or for a cream tint sufficient common yellow paint is added. The tints may be varied at pleasure according to fancy.

I do not confine myself to the quantity of composition above mentioned, as I may pro- 40 portionately diminish or increase the quantities according to the amount required; nor do I confine myself to the exact quantity of each ingredient, as it may be altered more or less according to the quality. 45

What I claim, and desire to secure by Letters Patent of the United States, is—

The herein-described composition of matter, consisting of white lead, linseed-oil, whiting, sulphate of lime, alum, glue, driers, and 50 water, in substantially the proportions set forth.

JOHN SMITH.

Witnesses:

ALBERT SWANSON,
CYRUS N. SMITH.