

UNITED STATES PATENT OFFICE.

ERASMUS B. COLLINS AND LYMAN P. CONVERSE, OF CHICAGO, ILLINOIS.

WATER-PROOF CLOTH.

SPECIFICATION forming part of Letters Patent No. 258,380, dated May 23, 1882.

Application filed April 24, 1882. (No specimens.)

To all whom it may concern:

Be it known that we, ERASMUS B. COLLINS and LYMAN P. CONVERSE, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in the Manufacture of Water-Proof Cloth; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The special object of our invention is the avoidance of the use of any deleterious constituents in the preparation of the compound with which the cloth is saturated and coated for rendering the same water-proof, thereby maintaining the full life and strength of the fiber of the fabric thus coated, in contradistinction to the destructive chemical action exerted upon the same by the injurious agents employed in other compounds for such purpose; and to this end it consists essentially in the use of the ingredients, and in the proportions hereinafter set forth, and in the manner of compounding the same, the application of such compound being by brush, roller, or otherwise, as may be most expedient.

To make one gallon of our compound, we take raw linseed-oil, three quarts; copal varnish, one quart; gutta-percha bark, one ounce. These ingredients are mixed and cooked by boiling at a temperature equal to about 450° Fahrenheit, which should be maintained for one hour. Then, allowing the temperature to drop to about 280°, there should be added, burnt umber, five ounces; red oxide of iron, five ounces, or white lead, sixteen ounces; pulverized pumice-stone, five ounces. The temperature should then be raised to as high

a point above 450° as can be attained without inducing combustion, and so maintained for two hours, during which time the compound should be stirred unremittingly. When cooling down all sediment should be removed and japan, two ounces, added.

Any desired pigment may be used for producing any desired color.

To apply the compound its temperature should be raised to about 200°, and be laid upon the cloth with a brush or other convenient means, after which a roller is preferably passed over the same to insure a perfect saturation of the entire fabric. The cloth being thus treated should be allowed to dry for twenty-four hours. Then a solution of sal-soda, sixteen ounces, and water, one gallon, should be sprinkled upon it and the coated surface smoothly worked down with a slab of pumice-stone or other like and suitable substance.

Additional coatings of the compound may be applied to the cloth, the process of applying, drying, and finishing being adhered to as in the first instance, save that the use of the roller, as described, may be dispensed with. Having thus fully described our invention, what we desire to claim, and secure by Letters Patent, is—

The compound for rendering fabrics water-proof, composed of the raw linseed-oil, copal varnish, gutta-percha bark, burnt umber, red oxide of iron or white lead, pulverized pumice-stone, and japan, in the proportions set forth, and prepared, applied, and finished substantially as described.

ERASMUS B. COLLINS.
LYMAN P. CONVERSE.

Witnesses:

LOUIS DANZIGER,
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