UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN WATER-PROOFING COMPOUNDS FOR GUANO-BAGS, BALES, &c.

Specification forming part of Letters Patent No. **149,472**, dated April 7, 1874; application filed March 25, 1874.

To all whom it may concern:

Be it known that I, JONATHAN H. GREEN, of the city of Camden, in the State of New Jersey, have invented certain Improvements in Water-Proof Fabrics and Materials; and I do hereby declare that the following is a full, clear, and exact description thereof.

My said invention relates to that class of compositions used chiefly to render cloth, paper, and other fibrous material impervious to water, or water-proof, for the purposes for which such water-proof material is necessary and used; and among the most important of said material is that used for the manufacture of bags and bagging for bales and lining and covering to bales and boxes, &c., and for the carrying, and transporting, and storing, and keeping, and preserving of nitrate of soda, guano, sumac, gum-camphor, pulverized charcoal, gold and silver ore, &c., and all such articles as are necessary to be transported from one place to another at long distances or otherwise, or stored or kept so that no water or moisture can penetrate, and where the same will remain perfectly dry and free from outside moisture, and also to render the same free from all kinds of moths and other vermin.

The said composition is composed of or made up in the proportion and of the ingredients as follows, to wit: Twelve gallons of rubber cement; two gallons of linseed-oil, or its equivalent; twenty-five gallons benzine or turpentine; twelve pounds of zinc or white lead, or their equivalent of other pigment; four pounds of magnesia; four pounds of burnt umber; twenty pounds of whiting; eight pounds of common bran or flour, or fine, dry sawdust; three pounds of litharge; one pound pulverized sulphur.

This compound should be mixed and pulverized well, and ground in a common paint-mill or other suitable grinding-mill. The same, when sufficiently pulverized by grinding or otherwise, may be applied to the fabric to be made water-proof with the common rubber or oil-spreader, or other apparatus adapted to the purpose.

The above compounds may be somewhat varied in their proportions, and must be varied when the qualities used differ in their relative power and strength, or when the fabric to which it is to be applied differs in its texture and kind; but I consider the proportions given above the best under ordinary circumstances.

When the surface and fibers of the fabric or material are thoroughly covered, and the meshes filled with this compound, I then dry the fabric so prepared with artificial heat, of not less than 125° Fahrenheit, nor more than 240°, until the same becomes dry, and in no way inclined to yield upon its surface to pressure, and no longer tackey or adhesive; then the fabric becomes impervious to water, or perfectly water-proof, and fit for use.

From the fabric so prepared by the use of this compound may be manufactured all kinds of coverings and linings, as aforesaid, and the said material so manufactured, being perfectly water-proof, will be preserved from decay for a very long time, and for a much longer period of time than material prepared in any other way or process.

Having thus fully described my invention, I claim—

The composition made up of rubber cement, linseed-oil, benzine or turpentine, zinc or white lead, magnesia, umber, flour, bran, or sawdust, litharge, sulphur, or their equivalents, applied to any fabric or other material, for the purpose of making the same impervious to water, substantially as and for the purposes described, &c.

Dated New York, March 18, 1874.

JONATHAN H. GREEN.

Witnesses:
C. W. BEAN,
H. B. KINGHORN.