

UNITED STATES PATENT OFFICE.

JAMES BURBRIDGE, ROBERT C. THORPE, AND THOMAS OAKLEY, OF TOTTENHAM, COUNTY OF MIDDLESEX, ENGLAND.

COMPOSITION FOR ELASTIC ROLLERS.

SPECIFICATION forming part of Letters Patent No. 223,880, dated January 27, 1880.

Application filed August 29, 1879.

To all whom it may concern:

Be it known that we, JAMES BURBRIDGE, ROBERT CURETON THORPE, and THOMAS OAKLEY, all of Tottenham, in the county of Middlesex, England, have invented an Improved Composition Applicable for the Manufacture of Elastic Rollers, of which the following is a specification.

This invention relates to the preparation of a composition specially applicable as an elastic covering for rollers for wringing and washing machines; also, for lithographic and other printing purposes.

The composition consists of sulphurized linseed or other oil, or a mixture of these sulphurized oils, with a proper proportion of fibrous material, and gum-resin or pitch mixed therewith, according to the purpose for which the composition is to be used, as the softness and elasticity of the rollers are regulated by the proportion of fibrous material and gum-resin or pitch added to the sulphurized oil used.

When the sulphurized oil, the fibrous material, and the gum-resin or pitch have been thoroughly mixed, which is done by means of headed rollers, the composition is fit for molding onto the spindles or stocks of the printing, wringing, or other rollers.

The rollers formed of this composition are subjected to a heat of about 300° Fahrenheit for about three hours, after which process they will be unaffected either by heat or cold.

For printing and other similar purposes a soft plastic composition is obtained by a proportion of three to four pounds of rags or other fibrous material to six pounds of sulphurized oil and about one pound of gum-resin or pitch, and for wringing and washing machines any softness or elasticity can be obtained, according to desire, some preferring a soft roller and others that of a harder nature.

Three and a half, four, and four and a half

pounds of fibrous material, added to about one and a half pound of gum-resin or pitch, and combined with six pounds of sulphurized oil, give three good and useful modifications.

The composition is united to iron or other metal by means of an intervening thin layer of vulcanite, which is applied to the iron or other metal in the manner well understood in the trade.

It will be sometimes found desirable to cover the elastic roller with a thin layer of india-rubber containing just such a proportion of precipitated sulphuret of antimony or sulphur as will give it the same softness and elasticity as the composition already on the roller when both are submitted together to the curing operation; or it may be sometimes covered with a layer or skin of what is known as "compounded rubber."

In some cases we propose to use the composition above described for the formation of what we term "laminated rollers." Thus we prepare the thin sheet of the composition and coil it up with a thin sheet of compound rubber, or of canvas or other cloth, and thus obtain a roller-covering possessing the degree of elasticity required.

We claim as our invention—

The composition of sulphurized oil, fibrous material, and gum-resin or pitch, substantially as herein described.

London, August 5, 1879.

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