

United States Patent Office.

DAVID PHETEPLACE, OF LEWISTON, MAINE.

Letters Patent No. 76,245, dated March 31, 1868.

IMPROVED VARNISH FOR THE SURFACE OF ROLLS USED IN TEXTILE MACHINERY.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, DAVID PHETEPLACE, of Lewiston, in the county of Androscoggin, and State of Maine, have invented an Improved Compound for Coating or Surfacing Rolls used in Railway, Drawing, and Fly-Frame, and other Textile and Fibrous Machinery; and I do hereby declare that the following is a description of my invention sufficient to enable those skilled in the art to practise it.

The rolls which my compound is employed to surface or coat, are usually covered with leather, which covering has heretofore been surfaced with paints and varnishes, the purpose of such surfacing being to render the rolls so smooth as to very much lessen the chances of the catching of any filaments upon the surface of such rolls, which catching or sticking results in the winding upon the rolls of the caught filaments and others connected therewith.

The coating-compounds hitherto used do not unite sufficiently with the leather to adhere well thereunto, and they have also been lacking in hardness and toughness, so that, in practical use, the surface-coating has had to be often renewed, and the coatings formerly employed have, most of them, contained ingredients which, under the friction of practical use, have induced an electrical condition of the rolls, causing filaments to adhere to them.

My invention consists in a compound, formed by dissolving about equal parts of glue and gum-tragacanth in vinegar, or other equivalent acid, adding vinegar, or its equivalent, to bring the solution to any desirable degree of fluidity.

If the compound is to be used for rolls employed in a room which is more than usually damp, then the proportion of glue to the gum may be somewhat increased, with good results, and if the surfacing is to be employed in a room more than usually dry, then the proportion of the gum to the glue may be increased. The glue gives the hardness and the gum the toughness desirable in surfacing rolls.

The application of the compound to leather-covered rolls is as follows: The rolls, having been made truly cylindrical and smooth, are slightly warmed, (by the sun, if practicable,) and the compound, reduced to the desired fluidity, is also warmed. The compound is then applied with a brush or sponge, time being given between each application for the absorption of the first coatings, and for the drying of the last, about a dozen being usually given to produce the surface which works best in practice. If necessary, the rolls may be smoothed with sand-paper between the application of some of the coatings.

The compound, made and applied substantially as described, gives the only satisfactory coating known to me, to rolls used for cards and other machinery operating on fibrous and textile materials, as the surface is hard, smooth, and tough, and does not induce an electrical condition in use, and takes a firm hold of leather, even when a large proportion of oil is incorporated therein.

I claim the described compound, consisting of the ingredients substantially as set forth.

DAVID PHETEPLACE.

Witnesses:

H. S. SPENCER,
WARREN CHAPMAN.