

UNITED STATES PATENT OFFICE.

DAVID N. MELVIN, OF NEW SPRINGVILLE, NEW YORK.

MANUFACTURE AND COMPOSITION OF FLOOR OIL-CLOTHS.

SPECIFICATION forming part of Letters Patent No. 252,891, dated January 31, 1882.

Application filed September 24, 1881. (No specimens.)

To all whom it may concern:

Be it known that I, DAVID NEILSON MELVIN, a subject of the Kingdom of Great Britain, residing at New Springville, in the county of Richmond, State of New York, have invented certain new and useful Improvements in the Manufacture and Composition of Floor Oil-Cloths of the kinds known as "Kamptulicon" and "Linoleum," where finely divided cork or other analogous organic substance is used as a basis instead of preparations of lead or other mineral substances; and I 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.

Formerly kamptulicon floor-cloth was manufactured by mixing finely-divided cork with india-rubber in a pair of ordinary mixing-rollers, and then rolling the product into sheets, an improvement on which was the use of thick canvas as a foundation on which to roll or spread the composition of india-rubber and cork. A further improvement was the substitution of oxidized linseed-oil for the india-rubber, and the product was then called "linoleum floor-cloth."

Now, the object of my invention is to shorten and facilitate the process of manufacture by substituting for the oxidized linseed-oil a direct process, whereby the tedious operation of producing the said oxidized linseed-oil is avoided and the whole operation compassed within three or four days, instead of three months, at the same time the product being much improved and perfectly seasoned and fit for use immediately its manufacture is completed.

The first part of my process is preparing raw linseed-oil by boiling in the ordinary way with driers, either red lead, litharge, or black oxide of manganese, or sulphate of manganese, or a mixture of either of them may be used. This operation of boiling is carried further than when the boiled oil is required for mixing with paints—that is, until the oil is considerably thickened and darkened by the carbonization of the mucilaginous matters it contains. I then mix this boiled linseed-oil with powdered gums, such as copal, anime, kauri, or Manila, and

also with any ochereous pigment. I prefer to use the following proportions, which may be altered to suit the quality of the oil used or of any of the other ingredients: gum-copal, two parts; boiled linseed-oil, six parts; yellow ocher, five parts, all by weight. To thoroughly mix this mass I prefer to pass it through an ordinary paint-mill, and then, if not stiff enough, I mix it with a small proportion of finely-divided cork to bring it to the consistency of stiff mortar. This is then spread on sheets of iron or any other suitable material with a trowel. These sheets are then hung up in a temperature of at least 190° Fahrenheit for a period varying from forty to twenty hours, and when the mass is thoroughly dried it may be scraped off by means of any convenient appliance. About thirteen parts of this composition are now mixed with two parts of common rosin or colophony and nine parts of finely-divided cork, and the mixture thoroughly incorporated together in an ordinary india-rubber-mixing apparatus. The product is now ready for rolling into sheets between steam-heated rollers and upon a cloth or canvas foundation or otherwise, in the usual manner pursued with india-rubber goods.

The great advantage of my process of manufacture of floor-cloths is the rapidity with which raw material is turned into a finished product and the greater certainty of the results than by the process of using oxidized oil to produce a floor-cloth. Any adulteration or inferiority of the raw material may be detected at once without entailing the partial manufacture of a large amount of stock as obtains in the old process, where three months may elapse before an inferior oil is detected.

I do not specify any particular machinery for these processes, as there are many machines in common use in the india-rubber manufacture which answer all the purposes of the various manipulations herein described.

Having fully described my invention, what I desire to claim, and secure by Letters Patent, is—

1. The production of a floor oil-cloth by rolling onto canvas or spreading into sheets a composition composed of cork or other analogous organic substance and a gummy sub-

stance or cement, produced in the manner above specified.

2. The mixture of gum-copal or other analogous gums with boiled linseed-oil and an ochreous pigment, and spreading of the same on sheets, either by flooding, dipping, or with a trowel, after thickening the mixture to the consistency of mortar and drying the same by heat, for the purpose above specified.

10 3. Mixing the composition of gums, boiled

linseed-oil, and pigment, after being dried, as described, with common rosin and pulverized cork, for the purpose of producing a floor oil-cloth, substantially as described.

Witness my hand this 19th day of September, A. D. 1881.

DAVID N. MELVIN.

Witnesses:

CHAS. RUFF,

FRED. W. HULSEBESS.