

UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN PROCESSES FOR MAKING OIL-CLOTH.

Specification forming part of Letters Patent No. **205,415**, dated June 25, 1878; application filed December 6, 1877.

To all whom it may concern:

Be it known that I, THOMAS POTTER, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in the Manufacture of Floor Oil-Cloth, of which I do hereby declare the following to be a full, clear, and precise description, and sufficient to enable those skilled in the art to which my invention appertains to comprehend and employ the same.

My invention relates to what are known as floor oil-cloths, in contradistinction from any oil-surfaced fabric employed for purposes other than the covering of floors.

It designs to effectuate the making of a new article of manufacture in the class of floor oil-cloths—viz., a fabric having and retaining, by reason of the mode of its making, the brilliancy of its coloring-matters and the brightness of its surface; a fabric durable, because impervious to moisture, and both elastic and tough of texture.

To thoroughly comprehend my improvement, it becomes necessary to state the mode of making heretofore practiced, and the defects in floor oil-cloths made by the old methods.

Heretofore the foundation-web, of jute, after being straightened and stiffened with size of glue or starch, has been coated and its interstices filled with a compound of ocher (or other earth or coloring-matter) and linseed-oil, or of other analogous substances, and dried and rubbed to a smooth, but dead, surface, the fabric thus prepared being ready for the surface figures or pattern, which latter are printed with pigments, such as white lead and other oil-paints, upon the dead surface prepared as above set forth. When the printed figures are dry, a coat of copal varnish is applied to the surface over all.

Floor oil-cloths produced by the above process are defective, in that the dead surface first produced on the web, being of necessity somewhat pervious, absorbs the oils of the pigments used to print the pattern, impairing the tone and brilliancy of color, and rendering the printed portions of the surface them-

selves absorbent, while weakening and making the fibrous structure of the foundation-web brittle.

The finishing-coat of varnish is likewise, and for similar reasons, more or less absorbed into the substance both of pattern and of web, being weakened, and consequently made liable to be worn off in spots, destroying its function of rendering the finished fabric impervious to wet and so preserving it.

The following is my improved method of making: The foundation-web is first sized, filled, rubbed, and dried in the manner now practiced. The fabric so prepared is then coated in any convenient manner and to the required extent with an impervious varnish, black or neutral in tint, water and oil tight when dried, composed, for instance, of linseed-oil and Chinese blue, boiled with such a degree of heat as will convert the oil and blue into a varnish to form the ground-color of the cloth.

Upon this varnish-surface, when thoroughly dry, the pattern is printed, in the usual manner, with the desired pigments, and the superficial coat of copal or other transparent varnish applied to the whole, as heretofore.

It is obvious that the essence of my invention lies in the separation of the absorbent ingredients of the pigments composing the pattern and the filling material employed to surface the web, in the making of a floor oil-cloth by a layer of impervious varnish, which, surfacing in the most effective manner the filled web, forms a perfect and impervious face or bed, upon which to print the pattern, and into the substance of which it is impossible for any of the ingredients of the pattern-pigments to penetrate, the cohesion of all portions being meanwhile perfect.

It is therefore clear that the brilliancy of the pigments will be not only unimpaired, but even augmented, by reason of the black or dark tint of the varnish, and that the damaging permeation hereinbefore explained will be totally obviated, while the brightness of the entire surface of the finished product will be increased, the superficial varnish encountering an almost entirely non-absorbent surface.

