

# United States Patent Office.

JOHN B. STEVENSON, JR., OF PHILADELPHIA, PENNSYLVANIA.

*Letters Patent No. 72,932, dated December 31, 1867.*

## IMPROVEMENT IN THE MANUFACTURE OF OIL-CLOTH.

*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, JOHN B. STEVENSON, Jr., of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in the Mode of Manufacturing Oil-Cloths; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand and use the same.

In the manufacture of oil-cloths heretofore, it has been found difficult to produce an oil-cloth sufficiently flexible so as not to crack, crease, or break, on accidental folding, or otherwise. These evils have resulted from the brittle surface of the background and the pattern, the colors of which being combined with linseed oil, at present employed, and applied to the canvas or cloth, after drying, are found to be of a gummy nature, due to the linseed oil, and readily crack, and thereby break and destroy the fabric, especially when it is laid on an uneven floor, or accidentally turned up or folded.

Various experiments have been made to produce an oil-cloth equal in appearance to those now in use, but with a surface less liable to crack and break, and at a much less expense. For this purpose it is necessary to substitute, for linseed oil, an oil possessing the same qualities, so as to allow the color to retain its brightness or brilliancy, causing the background to be well applied to the canvas, and produce a flexible or yielding surface, ready for the reception of the pattern. It is evident to every one engaged in printing fabrics of this nature, that the hard or brittle background has been objectionable in the extreme, but as no substitute has hitherto been found therefor, the oil-cloth continues to be made with linseed oil. After a background has been produced with a flexible surface, and therefore but little liable to crack, it is necessary that the pattern afterwards applied should possess the same advantages.

In carrying out my invention, the canvas or cloth is sized with glue, hung or stretched on frames, and dried by heat or air, as in ordinary cases. The background is then prepared by thoroughly combining with any suitable color a sufficient quantity of cotton-seed oil, or fifty per cent. of cotton-seed oil and fifty per cent. of linseed oil, more or less, and applying the same to the sized canvas or cloth, in several coats, and successively dried. The linseed and cotton-seed oil should be well boiled together previous to admixture with the color.

It will be found that the fabric thus prepared, will possess a peculiar soft and flexible surface, and presents the appearance of a homogeneous mass, and will take the colors of the pattern more readily than the harsh and brittle surface caused by the use of linseed oil.

The colors for the pattern are also combined with cotton-seed oil, or with cotton-seed oil and linseed oil, in the proportion of fifty per cent. of each, more or less. The colors will readily dry, and then be found to have a bright, glossy, and elastic surface and nature, equal in appearance in every respect to those combined with linseed oil, but superior in their non-liability to crack or break. The oil I intend especially to apply is known not to gum, and therefore possesses the advantages stated.

I have also found from experience that canvas or cloth prepared with color and cotton-seed oil will effectually resist dampness, and the oil-cloth may therefore lie in a damp cellar, storehouse, or any place, and be scarcely affected by dampness or moisture; but where linseed oil has been employed in the manufacture of oil-cloth, those experienced in this art know that the fabric cannot be stowed in a damp place without commencing to rot.

In the present state of the market, linseed oil commands one dollar and a quarter per gallon, while cotton-seed oil commands but fifty cents per gallon. In oil-cloth factories where at least a thousand gallons are consumed weekly, the saving by my process is from thirty to seventy-five per cent., and its employment is therefore a great consideration.

In the above respects, I claim decided important advantages, and have overcome the great objections in the mode of producing oil-cloth, and at a much less expense.

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

The mode of manufacturing oil-cloth by the means substantially as described.

To the above I have signed my name, this sixteenth day of November, 1867.

JOHN B. STEVENSON, JR.

Witnesses:

JOHN A. WIEDERSHEIM,

JOHN G. HARDING.