UNITED STATES PATENT OFFICE.

HENRY A. CLARK, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN ARTIFICIAL LEATHER.

Specification forming part of Letters Patent No. **141,117**, dated July 22, 1873; application filed July 12, 1873.

CASE B.

To all whom it may concern:

Be it known that I, HENRY A. CLARK, of Boston, Suffolk county, State of Massachusetts, have invented an Improved Preparation of Paper or of Cloth, or of Paper and Cloth combined, for use as a substitute for leather, of which the following is a specification:

The purpose of this invention is not only to adapt ordinary paper or cloth, or paper and cloth combined, for use, in many cases, as a substitute for leather, more particularly where leather is employed as a covering or lining for materials—as, for instance, leather itself, wood, pasteboard, &c.—in the manufacture of various articles of trade, but also to give to it the color and appearance otherwise of the leather for which it is to be substituted, and to render it, under all practical circumstances, thoroughly proof against injury from water, perspiration, or moisture.

Under this invention the sheet material is coated or covered upon one side or surface with the flock of wool, silk, cotton, or hair, or other suitable flock, cotton or silk being preferable, and upon the other side or surface with lithographic ink, each coating, as to color, imitating the leather for which the sheet material is to be substituted, and both surfaces being rendered proof against water or moisture by means of shellac varnish or other suitable water-proofing material.

The lithographic ink is applied to the one surface of the sheet material as follows: First, in the ordinary manner of lithographic printing, apply the lithographic ink to the surface of the stone; then lay the sheet material to be prepared upon the said prepared ink-surface of the stone, and subject it to the ordinary transfer operation of a lithographic press, thereby transferring the ink from the stone to the sheet material. Now remove the sheet material from the stone, and, when its lithographic-ink surface is dry, apply with a brush a coating of shellac varnish or other suitable water-proof to said ink-prepared side or surface.

The flock of cotton, or silk, or other material, is applied to the then remaining unprepared surface of the paper, &c., as follows: First coat the said surface with shellac varnish or other suitable water-proof material, and, when it is dry, then apply a coating of any suitable adhesive material or cement—as, for instance, such as is commonly used for flocking purposes—and, before the said cement dries, sprinkle a sufficient quantity of the flock on the cemented surface to thoroughly cover it, the cement, as it dries, securing the flock to the surface of the sheet material.

It is preferable to use a grain or pebbled cloth or paper, as a more perfect resemblance to leather is thus obtained; but it is not essential.

The sheet material prepared in accordance with this invention, as before stated, is intended as a substitute for leather, and, in use, is to be cemented to the article which it is to cover or to line.

As both sides of the sheet material are water-proofed, obviously moisture, either from the cement used or from the atmosphere, or otherwise, is prevented from injuring its prepared surfaces.

Shellac varnish is deemed the best water-proof material to use, as it also imparts a body and a good wearing-surface to the sheet material.

Although the sheet material has been herein described as prepared with only one coat of lithographic ink, it may be prepared with a series of coats, one after another, waiting for each successive coat to properly dry; and also with more than one coat of varnish or other water-proof material.

To apply the cement for the flock it is preferable to use a lithographic press, first disposing the cement upon the stone, and then transferring it to the sheet material, as ordinarily in lithographic printing. By this mode the cement is most evenly disposed upon the sheet material, thus obtaining a most even flocking.

I do not claim, broadly, paper or other sheet material printed with lithographic ink; nor do I claim, broadly, paper or other sheet material surfaced with flock; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

Paper, or cloth, or other suitable sheet material, prepared on one side with flock, on the other with lithographic ink, and on both sides water-proofed, all substantially as herein described, for the purpose specified.

HENRY A. CLARK.

Witnesses:
ALBERT W. BROWN,
JOHN P. MCELROY.