

UNITED STATES PATENT OFFICE.

CHARLES E. SAWYER, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF HIS RIGHT TO E. LAMSON PERKINS, OF SAME PLACE.

IMPROVEMENT IN FINISHING THE SURFACES OF PAPER OR CLOTH.

Specification forming part of Letters Patent No. **204,098**, dated May 21, 1878; application filed February 18, 1876.

To all whom it may concern:

Be it known that I, CHARLES E. SAWYER, of Boston, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful Improvement in Finishing the Surface of Paper or Cloth so as to render the same extremely smooth and repellent to moisture, or water-proof; also leaving the same with a white pearly surface at small cost, yet very durable, as set forth in the following specification.

The object of my invention is to provide a cheap, durable, white enameled-surfaced paper, card-board, or cloth, which shall be impervious to moisture, or nearly water-proof, for the manufacture of playing-cards, paper collars, or other articles requiring much handling, and liable to become soiled by perspiration or otherwise; and it consists in finishing the surface of paper, or card-board, or cloth, or a fabric having one surface of paper and the other of cloth, with a thin film or coating of paraffine, then applying talc to the surface and polishing the same with revolving brushes, which leaves a very smooth water-repellent surface not affected by handling or soiled by the moisture or perspiration usually attending the shuffling and dealing of playing-cards; also rendering the dealing of such cards more certain and easy, the very smooth polished surfaces of the same causing them to slip freely or separate readily, there being little or no friction between such finished surfaces when brought together.

The nature and color of the best paraffine render it more desirable as a finish or polish where a white pearly surface is required, not easily soiled or affected by perspiration or moisture, than other substances heretofore employed for the purpose, and its cheapness renders it as available as any other substance possessing the requisite qualities desired.

Paper-collar stock may be finished by this means so that collars or like articles made

from the same will have a beautiful gloss, more nearly resembling laundry-polished linen, and may be worn twice as long as those now in use without becoming soiled or defaced by perspiration. For this purpose I employ that grade of paraffine which has the highest melting-point. This, when melted, I spread in a thin even film or coat over the surface of the paper, card-board, paper-collar stock, or cloth, or fabric requiring the repellent finish. This may then be submitted to the calendering process, then passed through fine pulverized talc of commerce in any convenient manner, and then polished by revolving brushes; or, in case the surface has previously been printed upon with oil colors, as in playing-card manufacture, I omit the calendering, the card-stock being previously calendered for such purpose.

Thus I am enabled, at comparatively little expense, to produce a desirable finished surface upon white or colored paper, playing-cards, paper-collar stock, or house room-paper for the walls of apartments, cloth, or other fabrics designed for the manufacture of various articles requiring much handling or exposure to the deleterious effects of perspiration, or moisture, or atmospheric changes, and air, which soon discolors and soils such goods when finished by the best means known heretofore.

Having thus described my invention, what I claim is—

The method of finishing card-board, playing-cards, or other articles requiring a smooth white repellent surface, consisting in coating the article with melted paraffine, then treating the same with pulverized talc, substantially in the manner described, as and for the purposes set forth.

CHAS. E. SAWYER.

Witnesses:

SYLVENUS WALKER,
EDWARD EDMUNDS.