

UNITED STATES PATENT OFFICE.

SAMUEL BANCROFT, JR., OF ROCKFORD, DELAWARE.

FABRIC FOR WINDOW-SHADES, BOOK-COVERS, &c.

SPECIFICATION forming part of Letters Patent No. 313,799, dated March 10, 1885.

Application filed January 2, 1885. (Specimens.)

To all whom it may concern:

Be it known that I, SAMUEL BANCROFT, Jr., of Rockford, in the hundred of Christiana, county of New Castle, and State of Delaware, have invented an Improvement in Fabrics for Window-Shades, Book-Covers, &c., of which the following is a specification.

The object of my invention is to produce a fabric with a smooth surface in colors with the woven surface of the foundation covered, so that the same may not appear at the surface of the finished fabric, and the finished fabric is sufficiently pliable to be available for use in window-shades or for the embossed covers of books, for the leaves of books, or for printing thereon maps or advertising-placards, &c.

Before my present invention woven fabrics have been colored by the application to their surfaces of a mixture of color and starch applied by printing the mixture on the surface, or "padding" it on, as is usual in printing a solid body of color on the surfaces of woven fabrics, and sometimes this has been carried so far by the application of successive coats of color and starch as to cover the threads of the fabric on one side, as in goods made for embossing into what are known as "book-cloths," used for the covers of books, &c.; but these processes always leave the fabric stiff and liable to be permanently injured on the surface by cracking or creasing, because the colored starch has to be in sufficient quantities to cover the threads of the fabrics. These fabrics are not flexible enough to be used for such purposes as window-shades or printed placards, &c.

My improvement relates to the method of preparing the fabric so as to obtain the necessary smoothness, flexibility, and color without the fabric becoming as stiff as those heretofore made.

In my improvement I make use of mineral substances—such as china-clay, terra-alba, barytes, or talc—and impart to the same the necessary color, and mix the same with starch, the object being to give to the surfacing material the necessary color and body to fill in the surface of the woven fabric without the same being rendered stiff by the excess of starch, as heretofore required. At the same

time the expense of the material is lessened and the operations in preparing the fabric reduced in number and simplified. The starch is made up into a plastic compound with some one of or a mixture of various mineral substances in powder—such as china-clay or kaolin, terra-alba, barytes in its various conditions, such as "blanc fixe" or French talc—and dyeing the mixture either as a mixture or the various components first and then mixing them, or using a mixture of dyed starch and "pulp-color," which is a dyed clay or baryta all prepared by heat or boiling into a homogeneous composition of the proper consistency to apply to the goods by a friction starching-mangle, or by spreading the composition on the surface with knives or doctors, thus rubbing the mixture or composition into and spreading it upon the surface of the fabric and covering it with the colored composition, so as to show the color of the composition and not of the fabric underneath.

In some cases I dye the fabric of the color to be produced where it is not desirable to apply very heavy coating or coatings of the composition; or I dye the fabric of another and dissimilar color, if such an effect is desirable; but the dyeing of the fabric is not essential. I cover one or both sides of the fabric with coloring-matter, or cover one side with one color and the other side with another, or cover one side and leave the other of the natural color of the fabric, either dyed or undyed, as above described. The fabric so produced is smooth, even, and uniform on its surface, and with all the interstices filled up, thus rendering it very desirable for all the purposes set forth.

The opaque mineral substances used in the coloring mixture covering and concealing or partially concealing the threads of the fabric, the same do not appear, except as small ridges upon the surface, whether dyed of the same color as the composition, of a different color, or if left of their natural color, or white.

I claim as my invention—

1. The method herein specified of preparing colored fabrics for window-shades, book-covers, &c., consisting in covering the surface of and filling in the interstices of the fabric

with a mixture of earthy material, starch, and dye, substantially as and for the purposes set forth.

2. The colored fabric having its surface covered and filled with a mixture of earthy material, starch, and dye, substantially as specified.

Signed by me this 27th day of December, A. D. 1884.

SAMUEL BANCROFT, JR.

Witnesses:

H. W. McINTIRE,

HENRY R. DU PONT.