

UNITED STATES PATENT OFFICE.

PAUL DOSNE, OF AGLIÉ, ITALY.

PROCESS OF MERCERIZING.

SPECIFICATION forming part of Letters Patent No. 629,780, dated August 1, 1899.

Application filed February 16, 1897. Renewed June 3, 1899. Serial No. 719,303. (No specimens.)

To all whom it may concern:

Be it known that I, PAUL DOSNE, a citizen of the Republic of France, residing at Aglié, Italy, have invented a certain new and useful
5 Process of Treating Cotton and Similar Goods to Produce the Appearance of Silk, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the
10 same.

This invention relates to a process for producing the moiré effect on goods from a vegetable fiber, such as cotton cloth, whereby the appearance of silk is given to ordinary cotton
15 cloth.

To carry out my improved process, it is necessary to operate on calico or similar material which has been printed in a series of parallel stripes of the same or various colors,
20 which are formed quite close together. The moiré effect shows to the best advantage when the width of the stripes averages about three to six warp-threads. The cloth is then printed with white or colored resists consisting, preferably, of gum-arabic alone or in conjunction
25 with substantial dyestuffs, the stripes of the resist being substantially the same width as the colored stripes. While the cloth is being passed through the printing-rolls for printing
30 the resists it is subjected to distortion or pulled to right and left, thus producing an irregular print or interruption or break in the continuity of the resist-stripes, which gives the moiré effect. The moiré effect can be
35 varied by increasing or diminishing the number of pulls to the right and left to which the cloth is subjected. The moiré effect is produced by the contraction or drawing together

of the mercerized stripes, which causes the stripes printed with the resist to stand out in
40 relief and is likewise caused by the irregular undulations of the varied resist-stripes on the cloth, which are produced by the twisting of the fabric.

After the cloth has been printed with resist
45 it is treated to a bath of concentrated soda liquor of from 15° to 40°, bismuth, or concentrated sulfuric acid. After the cloth has been impregnated with the solution it is passed between grooved rollers or it may be drawn over
50 grooved cross-rails in order to produce small folds, which make a pleasing effect. The mechanical result of the soda-bath tends to heighten the moiré effect. Threads when
55 viewed singly do not show any special peculiar luster; but when examining the cloth crosswise to the warp an irregular moiré effect with the original play of color is apparent.

Having fully described my invention, I claim as new and desire to secure by Letters
60 Patent—

The process for producing moiré effects on striped woven fabrics, consisting in applying the stripes of a resist to said fabric, distorting or pulling the fabric from right to left and
65 left to right alternately as the resist is being applied and then subjecting the fabric to mercerization, substantially as described.

In testimony whereof I have hereunto subscribed my hand in presence of the two
70 subscribing witnesses.

PAUL DOSNE.

Witnesses:

GUSTAVO SCHEIDECKER,
PROLA GUISEPPE.