

UNITED STATES PATENT OFFICE.

SAMUEL BARLOW, OF LAWRENCE, MASSACHUSETTS, ASSIGNOR TO PACIFIC MILLS, OF SAME PLACE.

IMPROVEMENT IN PROCESSES OF MANUFACTURING ORNAMENTAL TEXTILE FABRICS.

Specification forming part of Letters Patent No. **174,891**, dated March 21, 1876; application filed March 10, 1876.

To all whom it may concern:

Be it known that I, SAMUEL BARLOW, of Lawrence, in the county of Essex and State of Massachusetts, have invented an Improvement in the Art of Manufacturing Textile Fabrics, of which the following is a specification:

This invention relates to an improvement in the art of manufacturing ornamental textile fabrics; and consists in a novel method of producing a figured fabric, wherein the portions which it is desired to have stained or printed are composed of vegetable fiber or threads, as of cotton, and the portions which it is desired to have unstained or unprinted are composed of animal fibers or threads, as of wool, the fabric woven of fibers and threads so selected being printed, after weaving, with aniline-black, the color mixture staining or printing the vegetable threads or fiber, and leaving the animal threads or fiber, after cleansing, without stain, and unprinted.

Warps, prior to being woven, have been dyed or printed with other colors than aniline-black, and such parti-colored warps (and in some instances parti-colored wefts) have been woven into fabrics to variegate the ground of the fabrics; but by my process the printing of the warps in the skein and the spooling—two expensive steps—are obviated.

The cloth to be treated according to my invention must be so woven that the threads in which it is desired to fix the black color or dye are of vegetable fiber, and the threads which are to remain unstained by the same black color or dye are of animal fiber. Of this character, for instance, are certain classes of dress-goods, delaines, worsteds, &c., composed of cotton warp and ordinary woolen or worsted filling.

Such cloth, after weaving, is made ready for printing in the usual manner, and is then printed with a color mixture suitable for developing aniline-black in cotton fabrics, no care being taken to keep the color mixture from the woolen portions of the fabric; and

in order to imitate more fully the effect of printing the cotton threads before weaving I find it advantageous to print both sides of the cloth.

After printing, the cloth receives the proper treatment for developing aniline-black in cotton fabrics; but the woolen portions resist the fixation of this color to such a degree as to remain unstained by it after being cleansed by the operations of washing and raising.

The fabric made by me may, preferably, be woven on a jacquard or fancy loom adapted to produce ornamental figures, raised usually by the woolen weft, on the ground of plain woven threads of cotton and wool, and the woven fabric so prepared will, after being printed and cleansed, as above described, present ornamental woven designs, or effects in wool fibers, standing out in relief on a printed or stained groundwork of cotton fiber or threads; but it is obvious that the fabric of threads of animal and vegetable fiber may be woven plain or tweeled in any usual way.

Delaines or worsted so made and printed may afterward be dyed with colors which fix themselves in both woolen and cotton fibers, without obscuring or obliterating the previously-printed aniline-black, and in this manner the beauty of the cloth may be still further enhanced.

I claim—

The art of producing figured cloth by weaving of vegetable fibers the portions to be stained or printed, and of animal fibers the portions to be left unstained or unprinted, and then printing the woven fabric with aniline-black, and cleansing it, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL BARLOW.

Witnesses:

S. B. KIDDER,
G. W. GREGORY.