No. 651,599. Patented June 12, 1900.

W. FOSTER.

PROCESS OF DYEING.

(Application filed Jan. 23, 1900.)

(No Model.)

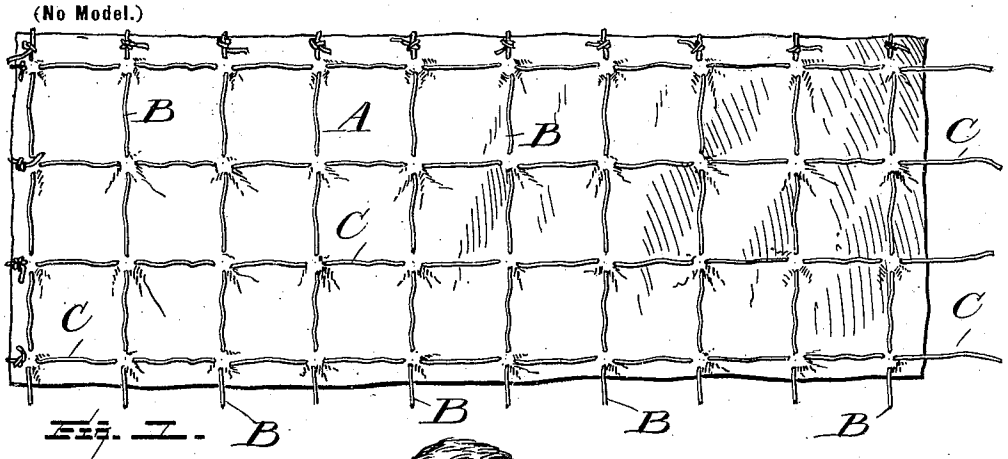


Fig. 1.

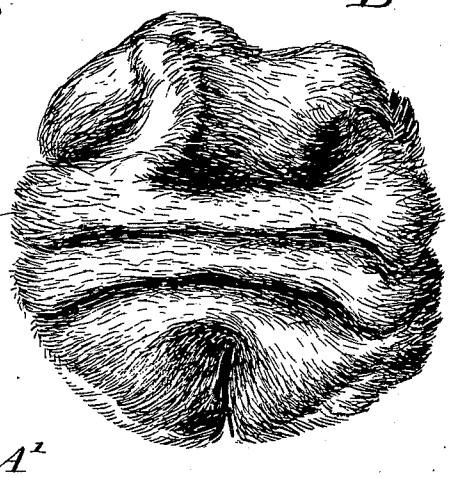
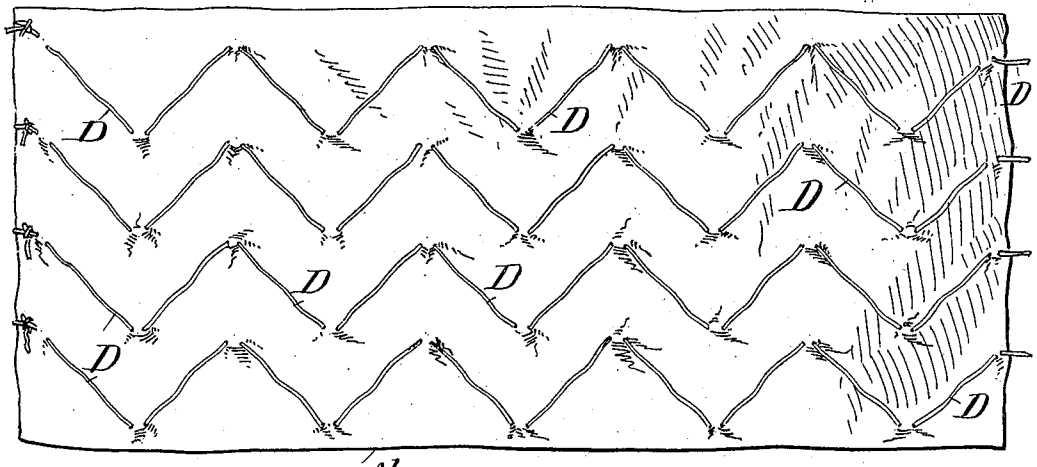


Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM FOSTER, OF NEWBURG, NEW YORK.

PROCESS OF DYEING.

SPECIFICATION forming part of Letters Patent No. 651,599, dated June 12, 1900.

Application filed January 23, 1900. Serial No. 2,488. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM FOSTER, a citizen of the United States, residing at the city of Newburg, in the county of Orange and State of New York, have invented certain new and useful Improvements in Processes of Dyeing Fabrics; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists in an improved process for dyeing fabrics hereinafter described, reference being had to the accompanying drawings, and my invention is fully disclosed in the following description and claim.

Referring to the drawings, Figure 1 is a diagrammatic view representing one method of stitching the goods temporarily for the purpose of producing a definite shaded design. Fig. 2 is a view in perspective illustrating the goods when puckered or drawn up by the threads or strings. Fig. 3 is a diagrammatic view similar to Fig. 1, showing the threads or cords arranged to produce a different design.

The object of my invention is to produce shaded effects which are under the control of the operator.

In carrying out my process I take the fabric and sew it or baste it with a series of drawing strings or threads in the form of very long stitches, by means of which the material can be puckered or drawn up into bunches by drawing upon the said strings or threads. The strings or threads are arranged to form a definite design with respect to each other, and after the material has been bunched or puckered by drawing tightly upon these threads or cords it is immersed in an oxidizable dye. The material is lifted out of the dye, so as to permit the outer portion of the puckered material to be exposed to the air and more or less oxidized, and the operation of dipping the material into the dye and exposing it to the air may be repeated a greater or less number of times, as desired. It will be seen that the interior portions of the goods, which will be drawn into the form of inwardly-extending pockets by the drawing strings or threads, will not be subjected to the oxidizing action of the atmosphere and will be of a different color from the outer or more exposed portion and will shade gradually from the innermost recesses of said pockets toward the outer or exposed portions and form a more or less definite design, which design is controlled by the relation of the drawing threads or cords to each other. After dyeing, the material is spread out and finished in any desired way.

In Fig. 1 I have shown, diagrammatically, a piece of fabric A, provided with a series of parallel drawing strings or threads B, extending transversely of the fabric and tied or otherwise secured at one edge thereof. C represents a series of similar drawing strings or threads extending longitudinally of the fabric and forming a series of squares with the series of threads B, the said strings or threads being stitched through the material at intervals, as shown. The threads C are also tied or otherwise secured at one end of the fabric. By drawing tightly all of the threads B and C the goods will be bunched or puckered in both directions, as illustrated in Fig. 2.

In Fig. 3 I have shown a diagram similar to Fig. 1, illustrating a different arrangement of threads. In this figure, A′ represents the fabric provided with a series of threads or strings D, forming a series of zigzag lines, the threads D being sewed into the material for the purpose of producing a different design from that which will be produced by the arrangement shown in Fig. 1.

It will be seen that the relative arrangement of the drawing strings or threads can be varied infinitely to produce different-shaded designs, which will always be controlled by the relative arrangement of the drawing strings or threads.

What I claim, and desire to secure by Letters Patent, is—

The herein-described process of producing definite shaded designs in dyed fabrics, which consists in first providing the fabric with a series of drawing strings or threads having a definite relation to each other, drawing up said strings or threads to bunch or pucker the fabric in a definite and predetermined manner, immersing the fabric in an oxidizable dye and exposing it to the oxidizing action of the atmosphere, whereby a definite predetermined shaded design is produced, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM FOSTER.

Witnesses:
WILLIAM F. CASSIDY,
REEVE KETCHAM.