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PATENTED NOV. 27, 1906.

P. RICHTER.

PROCESS OF PADDING AND ORNAMENTS BURLAP OR SIMILAR FABRICS.

APPLICATION FILED JUNE 13, 1906.

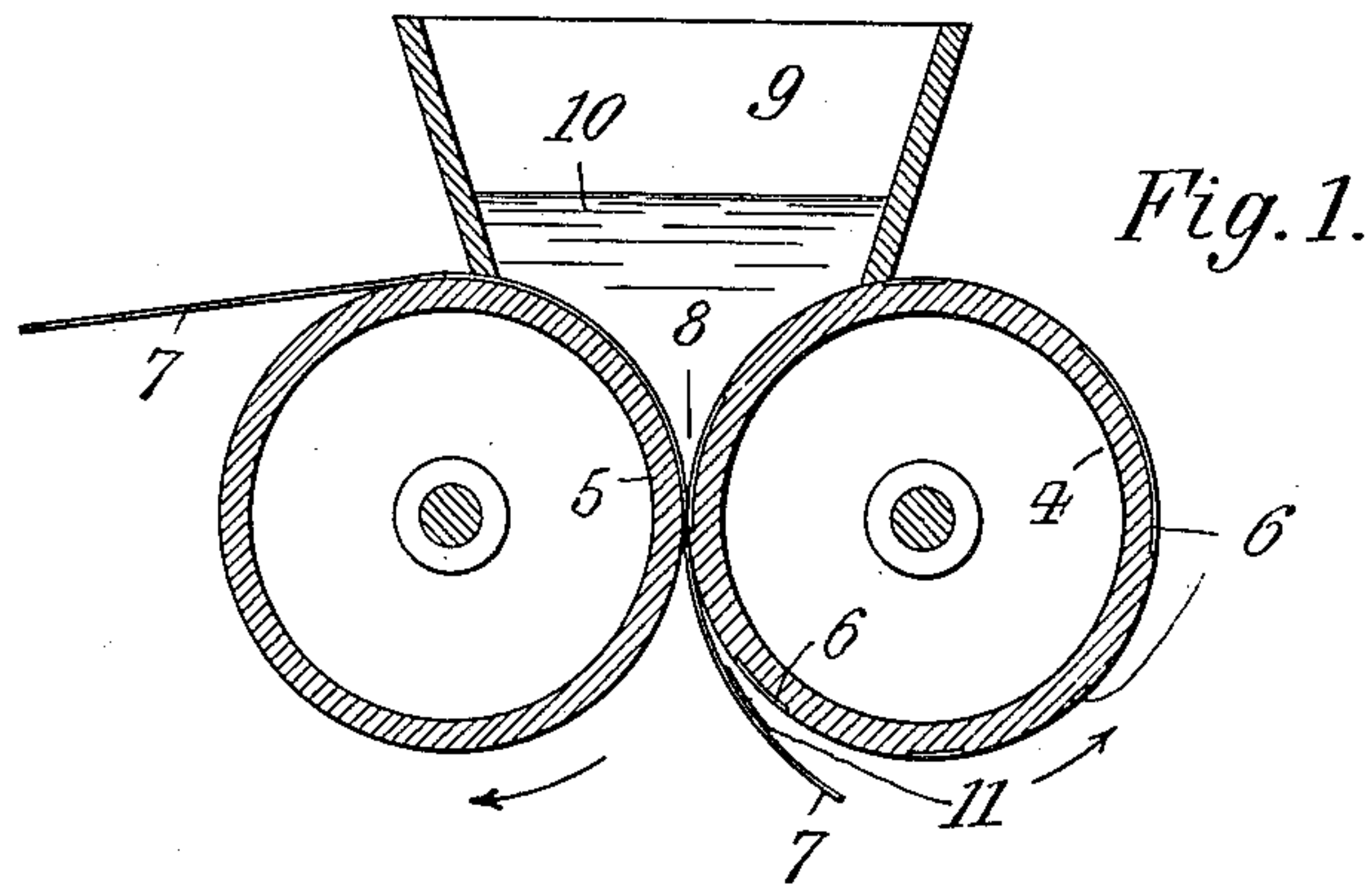


Fig. 2.

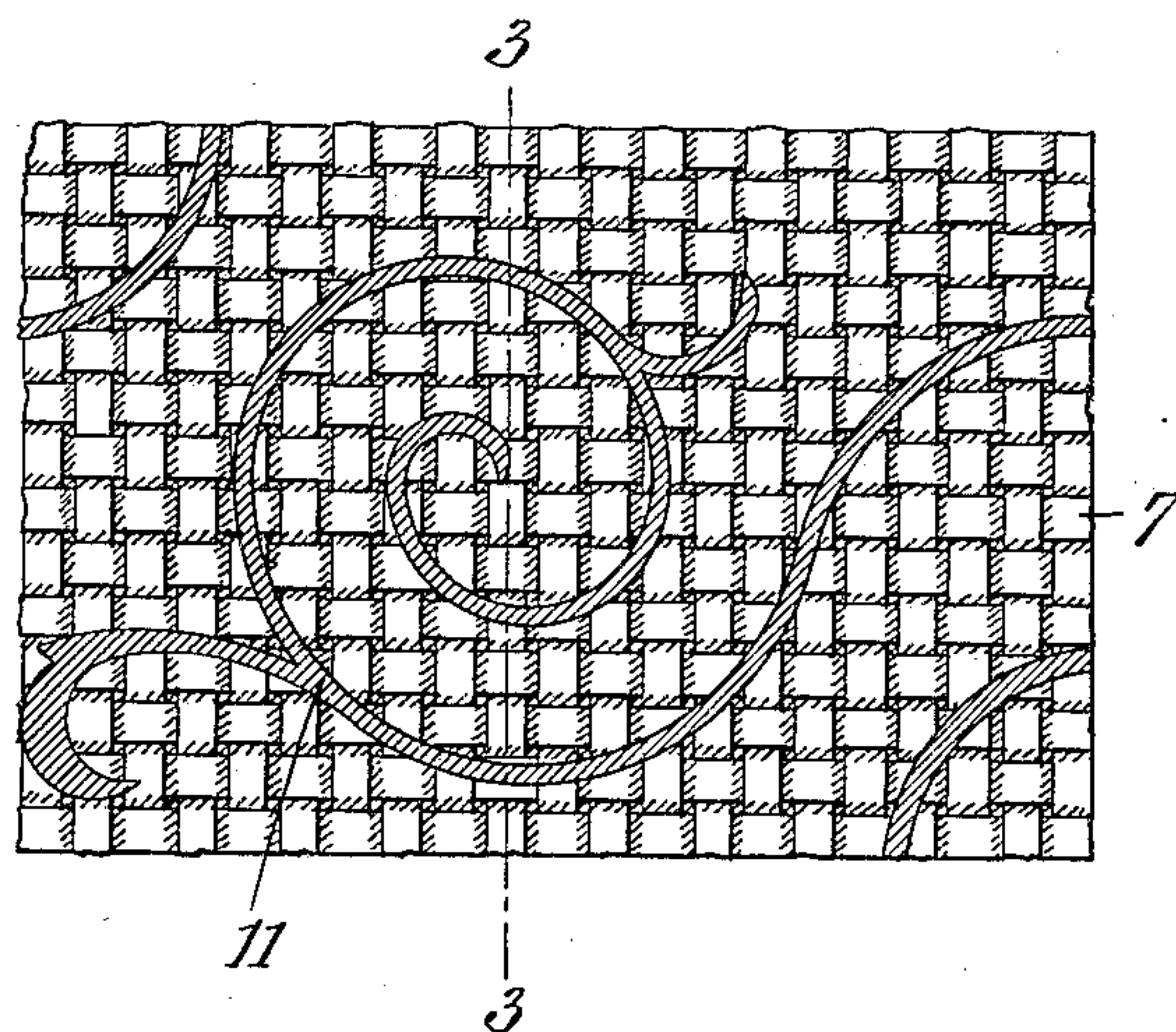
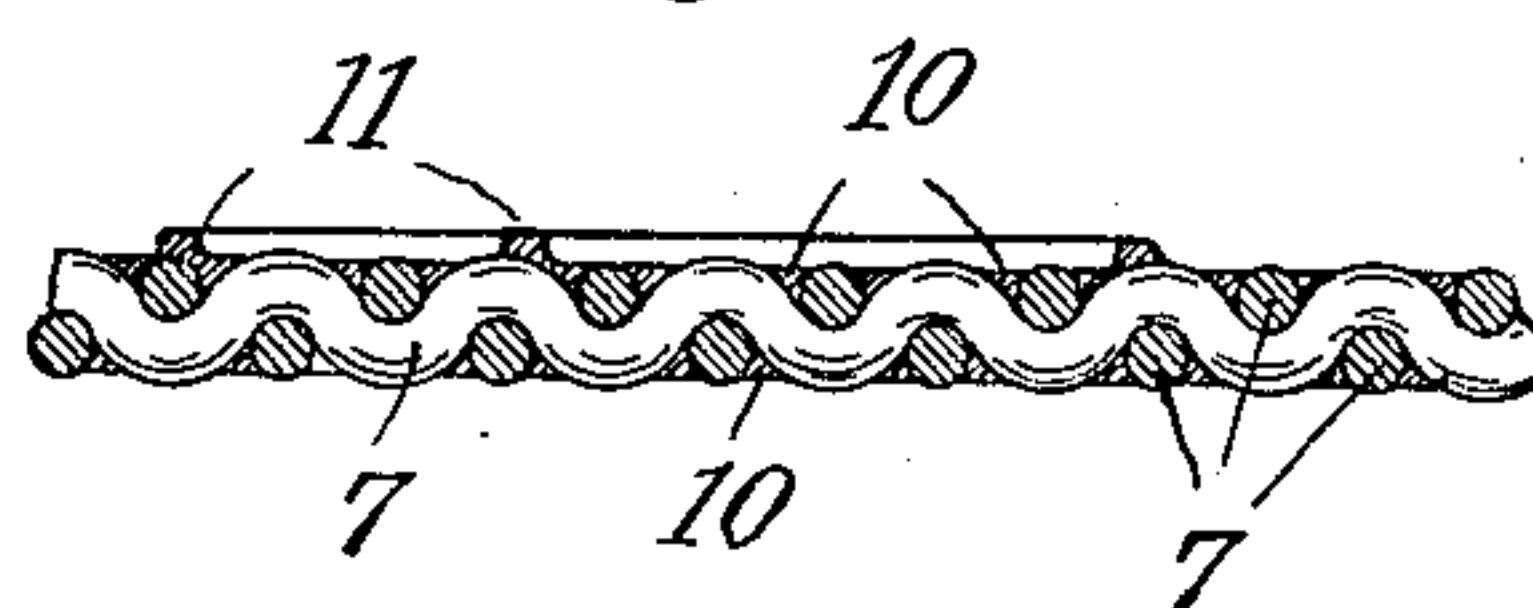


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

PAUL RICHTER, OF TENAFLY, NEW JERSEY.

PROCESS OF PADDING AND ORNAMENTING BURLAP OR SIMILAR FABRICS.

No. 837,122.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed June 13, 1906. Serial No. 321,455.

To all whom it may concern:

Be it known that I, PAUL RICHTER, a citizen of the United States, residing at Tenafly, Bergen county, State of New Jersey, have invented new and useful Improvements in Processes of Padding and Ornamenting Burlap or Similar Fabrics, of which the following is a specification.

This invention relates to an improved process of padding and coloring burlap, buckram, or similar coarse textile fabric and of producing upon said fabric simultaneously with the coloring operation any suitable ornamental design.

In the accompanying drawings, Figure 1 is a cross-section of the principal parts of an apparatus for carrying my invention into effect. Fig. 2 is a face view of a fabric treated by my process, the threads being not round-shaded to more clearly bring out the deeper coloring between the threads; and Fig. 3, an exaggerated cross-section on line 3 3, Fig. 2.

The apparatus for practicing the invention consists of two parallel cylindrical rollers 4 and 5, journaled side by side and pressed toward each other by suitable means. (Not shown.) The roller 4 is engraved, as at 6, to contain an intaglio or sunk representation of the design to be transferred to the burlap, buckram, or similar coarse textile fabric 7. Roller 5 is a true or unbroken cylinder, so that though exerting a pressure against the convex surface of roller 4 it cannot exert any pressure upon the sunk portions 6 of such roller. Centered above the pass 8 between the rollers is a vessel 9, containing a suitable sizing and coloring composition 10. Vessel 9 is open at the bottom and extends partly over both of the rollers, so that the composition will flow upon the latter and into the trough formed by the contiguous halves of the rollers. Rotary motion being imparted to, say, roller 4, the fabric 7 will be drawn over roller 5, through vessel 9, into and through pass 8, and thence out below roller 4. During this operation the sunk portions 6 of roller 4 while passing through vessel 9 will become filled with composition 10 anterior to reaching pass 8.

While fabric 7 is drawn through vessel 9, and before reaching pass 8, it will become covered with composition 10. When the fabric reaches pass 8 it is subjected to a

severe pressing or squeezing action at all points between surface of roller 5 and the convex portion of roller 4. In this way the composition is forced through the pores of the fabric to pad the same, while it is simultaneously pressed off the raised parts of the groundwork and returned in part to vessel 9, thus leaving but a light surface-coloring. This surface-coloring of the groundwork is shaded, being lighter where the pressure is greater—i. e., on top of the threads—and darker where the pressure is less—i. e., between the threads—so that the threads will be lighter than the interstices between the threads, Fig. 2.

While roller 5 squeezes out and partly returns the composition from those points of the fabric that lie across the convex portion of roller 4, it will not similarly affect those portions of the fabric which extend across the sunk sections 6 of such roller. The consequence is that the composition pocketed by such sunk sections will be transferred within pass 8 in a heavy layer to the fabric and will remain intact upon such fabric. In this way there is transfixed upon the fabric a design 11 corresponding to design 6 and formed by the same composition 10 that serves to color its surface, the design 11 being, however, considerably heavier than the surface-coloring. After the fabric has passed through the machine and has been dried it is ready for use.

If it is desired to produce shaded designs 11, the sunk sections 6 of roller 4 are made to vary in depth.

It will be seen that by my invention I pad and surface-color the fabric and simultaneously produce upon the same a suitable design with the same composition, but applied in a heavier layer than goes to form the surface-color. Thus a novel and useful product, available for a large number of purposes, is obtained in a simple and economical manner. My process may also be applied to paper fabrics, which for the purposes of this invention are equivalents of textile fabrics.

What I claim is—

1. Process of treating a fabric, which consists in passing the fabric through a sizing and coloring composition to form a ground-color, and simultaneously applying to said fabric a pattern by a heavier layer of said composition, substantially as specified.

2. Process of treating a coarse fabric, which

consists in passing the fabric through a sizing
and coloring composition to form a ground-
color, applying to said fabric a pattern by a
heavier layer of said composition, and simul-
5 taneously shading the ground-color by sub-
jecting the fabric to pressure, substantially as
specified.

Signed by me at New York city, Manhat-
tan, New York, this 12th day of June, 1906.

PAUL RICHTER.

Witnesses:

FRANK V. BRIESEN,
ARTHUR ZUMPE.