

(No Model.)

H. BALBIAN.

METHOD OF AND MACHINE FOR FULLING CLOTH.

No. 529,579.

Patented Nov. 20, 1894.

Fig. 1.

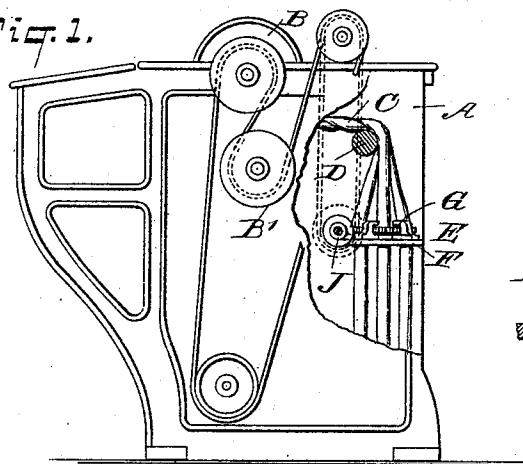


Fig. 4.

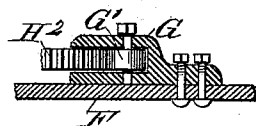


Fig. 2.

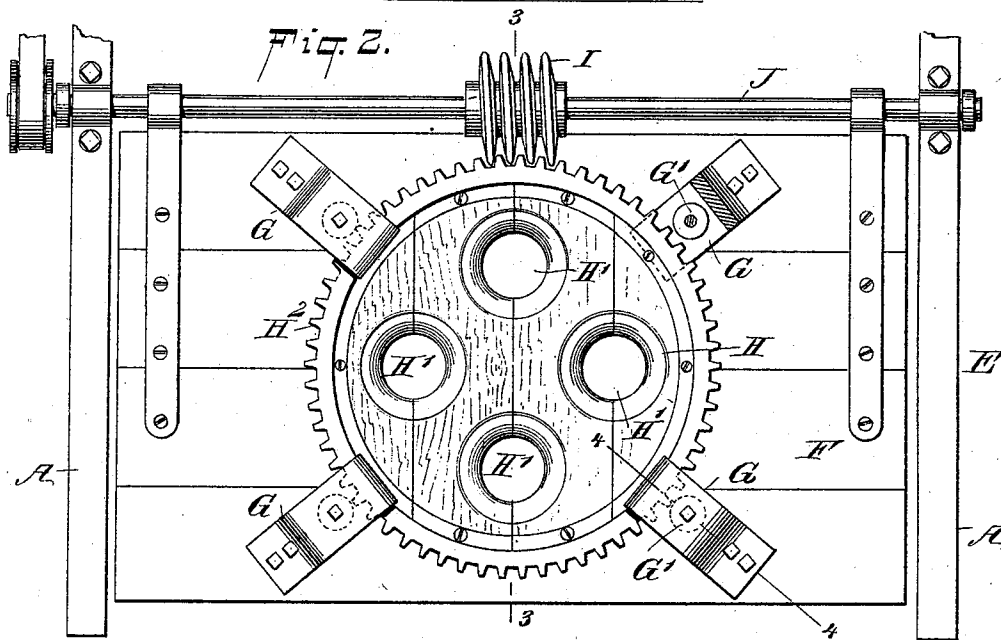
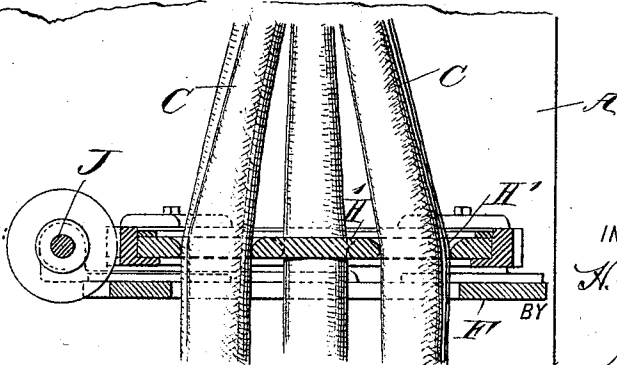


Fig. 3.



WITNESSES:

William Geibel.
C. Sedgwick

INVENTOR

H. Balbian

Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

HENRY BALBIAN, OF NORTH VASSALBOROUGH, MAINE.

METHOD OF AND MACHINE FOR FULLING CLOTH.

SPECIFICATION forming part of Letters Patent No. 529,579, dated November 20, 1894.

Application filed December 7, 1893. Serial No. 493,018. (No model.)

To all whom it may concern:

Be it known that I, HENRY BALBIAN, of North Vassalborough, in the county of Kennebec and State of Maine, have invented a new and Improved Method of and Machine for Fulling Cloth, of which the following is a full, clear, and exact description.

The invention relates to a method of, and machines for finishing textile fabrics, and its object is to uniformly full several pieces of cloth, and to provide a new and improved fulling machine, which is simple and durable in construction, very effective in operation, and arranged to permit of simultaneously twisting a number of pieces of cloth to full the same, at the same time.

The invention consists of a method according to which several pieces of cloth are twisted together before being fulled, to secure a uniform action of the fulling device on each of the said pieces.

The invention also consists of certain parts and details of the fulling machine, as will be hereinafter described and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement with parts broken out. Fig. 2 is an enlarged plan view of the pot hole carrier. Fig. 3 is a sectional side elevation of the same on the line 3—3 of Fig. 2; and Fig. 4 is a sectional side elevation of part of the same on the line 4—4 of Fig. 2.

The improved fulling machine is provided with the usual casing A, in which revolve the rollers B, B', between which pass the pieces of cloth C, to be fulled. The pieces of cloth C previous to passing to the rollers B, B', pass over a guide rod or roller D, and through a frame E, arranged between the sides of the casing A, as plainly indicated in Fig. 1. This frame E is provided with a table F, disposed horizontally between the sides of the casing and carrying bearings G, in which revolves a carrier H, formed with two or more guide holes H', through each of which passes a piece of cloth to impart the desired twist to the

same, previous to passing it between the rollers B and B'.

The revoluble carrier H is formed with a worm wheel H², guided on friction rollers G' in the bearings G, the said worm wheel being in mesh with a worm I, secured on a transversely-extending shaft J, connected by belt or other means with the driving mechanism for the rollers B and B' or directly with either of the latter, so that when the machine is in operation a rotary motion is given to the said shaft J, which by the worm I, and worm wheel H², imparts a slow rotary motion to the said carrier H. Thus, as the pieces of cloth C are drawn upward by the action of the rollers B, B', the said pieces are twisted by the slow rotary motion of the revoluble carrier H, and in this way, two or more pieces of cloth are moved around while the said pieces are drawn up, thereby giving each piece the same fulling as would be the case with the ordinary machine treating one piece and having the guide holes side by side in stationary boards. It will be seen that by this arrangement the pieces will always be uniformly fulled and all finished at the same time.

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

1. The method of uniformly fulling a number of separate pieces of cloth simultaneously, which consists in twisting together a plurality of separate pieces of cloth, and then simultaneously fulling the several pieces of cloth in their twisted condition, substantially as described.

2. In a fulling machine, the combination, with the fulling rollers, of a revoluble carrier provided with guide holes for the passage of the pieces of cloth, and a guide rod located intermediate the fulling rollers and the carrier substantially as described.

3. In a fulling machine, the combination, with the fulling rollers, of a revoluble carrier provided with holes for the passage of the pieces of cloth, and a guide rod located intermediate the fulling rollers and the carrier, and arranged transversely of the axis of rotation of the carrier, substantially as described.

4. A fulling machine provided with an act-

uating mechanism and a device for twisting
the pieces of cloth, said device comprising a
table, bearings held on the said table, a carrier
having a series of guide holes and mounted
5 to rotate in the said bearings, a worm wheel
on the said carrier, and a worm in mesh with
the said worm wheel and driven from the act-

uating mechanism of the machine, substan-
tially as shown and described.

HENRY BALBIAN.

Witnesses:

P. M. WILLIAMS,

CHARLES J. SCHRIER,