

J. W. DAMMERALL.
Cloth-Sponging Machines.

No. 147,243.

Patented Feb. 10, 1874.

Fig. 1

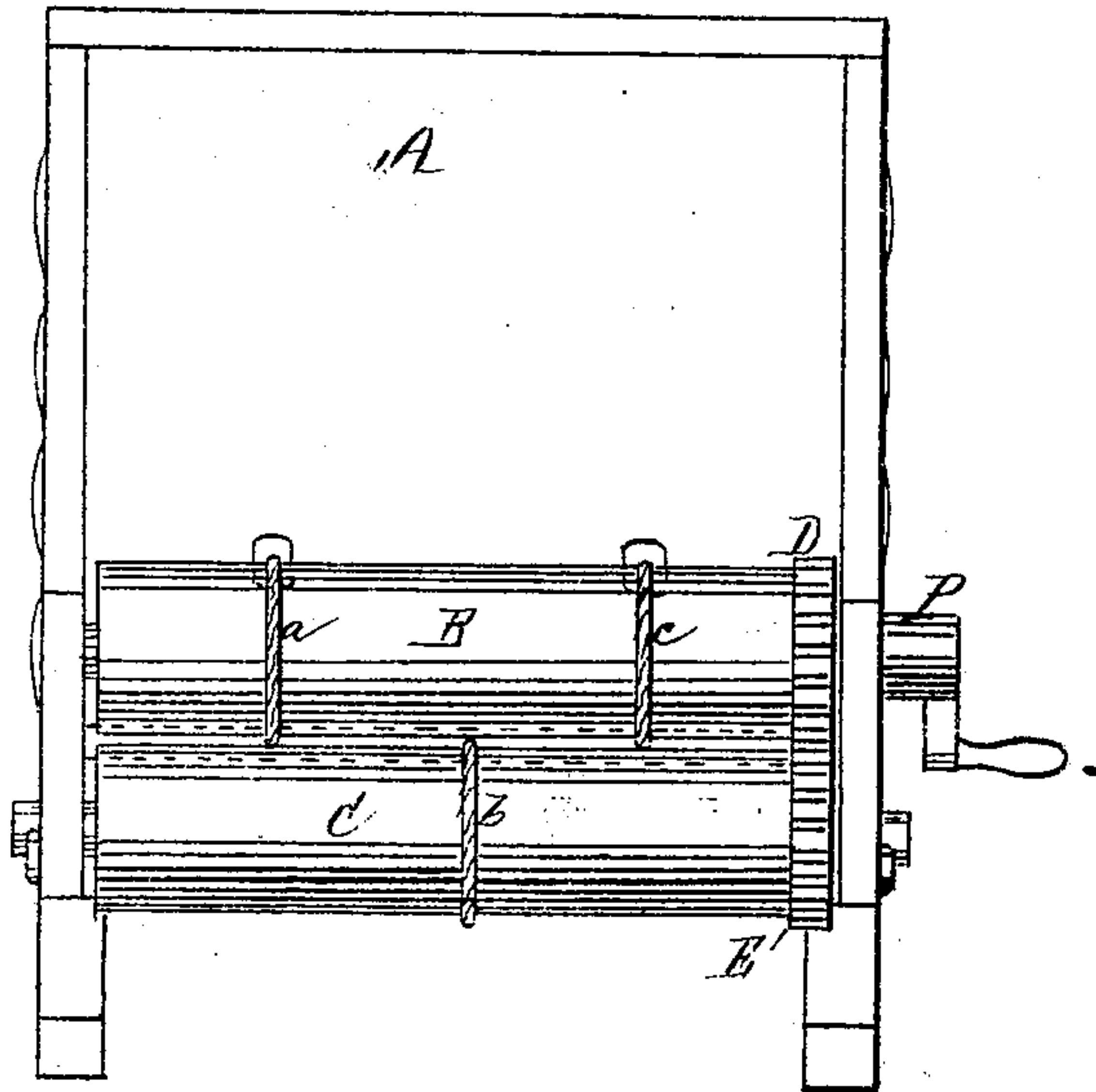
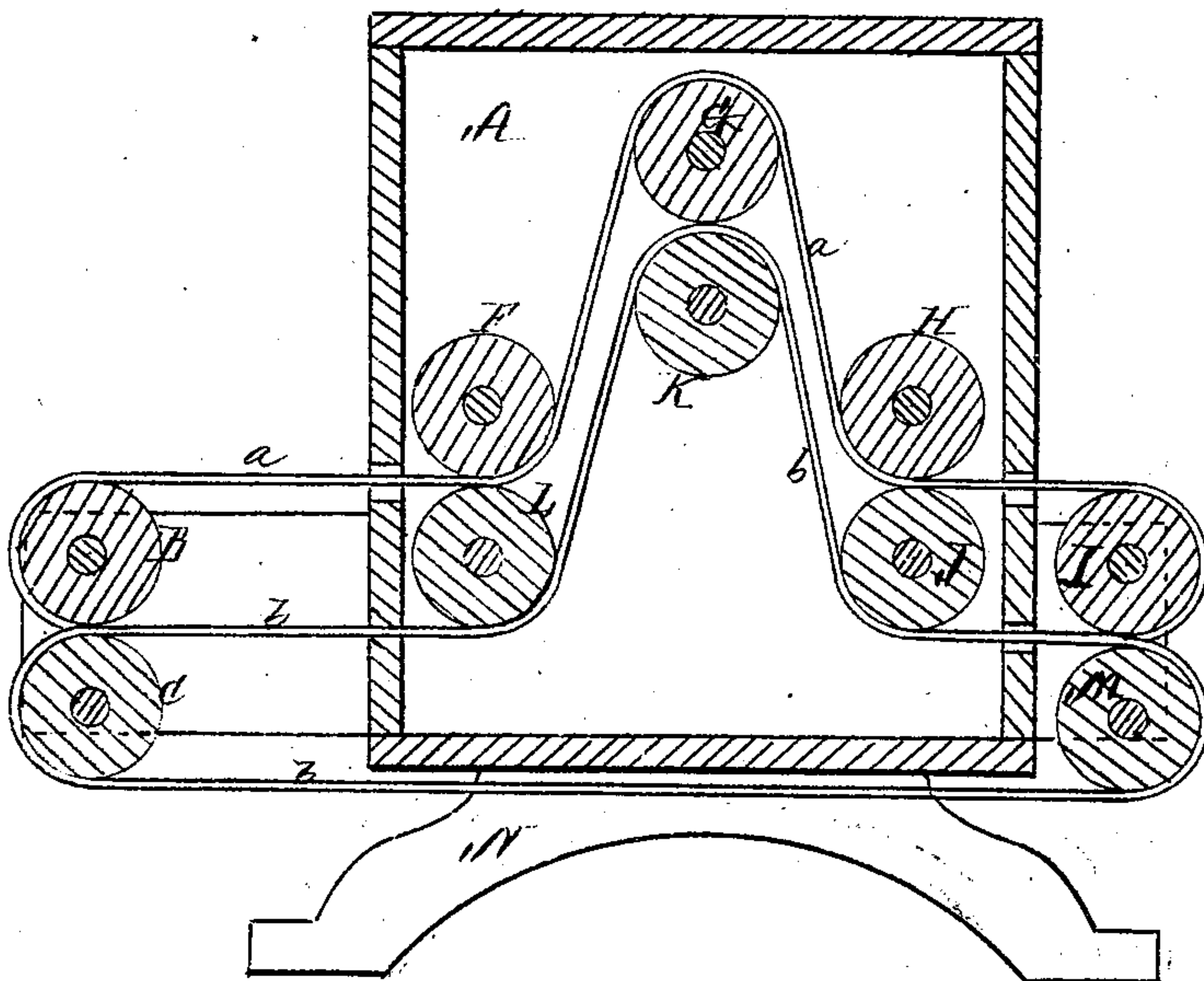


Fig. 2



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IMPROVEMENT IN CLOTH-SPONGING MACHINES.

Specification forming part of Letters Patent No. **147,243**, dated February 10, 1874; application filed January 14, 1874.

To all whom it may concern:

Be it known that I, JAMES W. DAMMERALL, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Cloth-Sponging Machines, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is an end elevation of my improved cloth-sponging machine. Fig. 2 is a vertical longitudinal section of the same.

Like letters refer to like parts in the different figures of the drawing.

My invention relates to that class of cloth-sponging machines in which the cloth is sponged by steam; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth, the object being to afford a cheaper and more effective means of performing the operation than has heretofore been provided.

In Fig. 1, A is the steam-box; B C, the feed-rollers, mounted in suitable supports on said box, and provided with the intersecting gears D E. In Fig. 2, I M are the draft-rollers, disposed in suitable bearings on the outside of the box A, and opposite to the rollers B C. Within said box a series of pairs of rollers, F L, G K, and H J, are arranged. These rollers are provided with the endless bands *a b c*, which pass through the cloth-slots, and suitable openings in the sides of the box A, the band *a* passing around the roller I, through a hole in the side of the box A, under H, over G, under F, through a hole in the box A, around the feed-roller B, through the cloth-slot in A, under L, over K, under J, through the horizontal cloth-slot in the box A, and around I. The band *b* passes around the roller M, under the box A, around the feed-roller C, through a slot in the box A, under L, over K, under J, through a slot in the box A, and around the roller M. The course of the band

c is precisely the same as that of *a*. The box A is designed to be connected in any convenient manner with a pipe for supplying it with steam, and is supported on the legs N. Any required number of bands *b* can be used.

From the foregoing, the nature and operation of my invention will be readily understood by all conversant with such matters.

Steam being let into the box A, one end of the roll of cloth to be sponged is inserted between the rollers B C, power being at the same time applied to the crank-shaft P, revolving it to the left, by which the cloth will be "fed" or drawn through the box, being grasped or held between the belts, and carried first under the roller L, over the roller K, under the roller J, and so out between the draft-rollers I M. It will be understood that the box A is provided at two sides with suitable slots or apertures for the cloth and belts to pass in and out. In the ordinary manner of sponging cloth by steam, a vertical perforated cylinder is used, on which the cloth is wound, and into which the steam is let; but the objection to this method is that the cloth is liable to slide or fall down on the cylinder, and become wrinkled; the steam also rises to the top of the cylinder, causing the cloth to be sponged unevenly, whereas in my improved machine the cloth, by being carried through the rollers, as described, is prevented from wrinkling, and by mounting the rollers G K, as shown, in the top of the box, it is subjected to the hottest steam during the process, and evenly sponged.

Having thus described my invention, what I claim is—

The cloth-sponging machine described, consisting of the steam-box A, feed-rollers B C, draft-rollers I M, and interior rollers F L, G K, and H J, arranged as described, and provided with the endless belts *a b c*, substantially as specified.

JAMES WILLS DAMMERALL.

Witnesses:

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