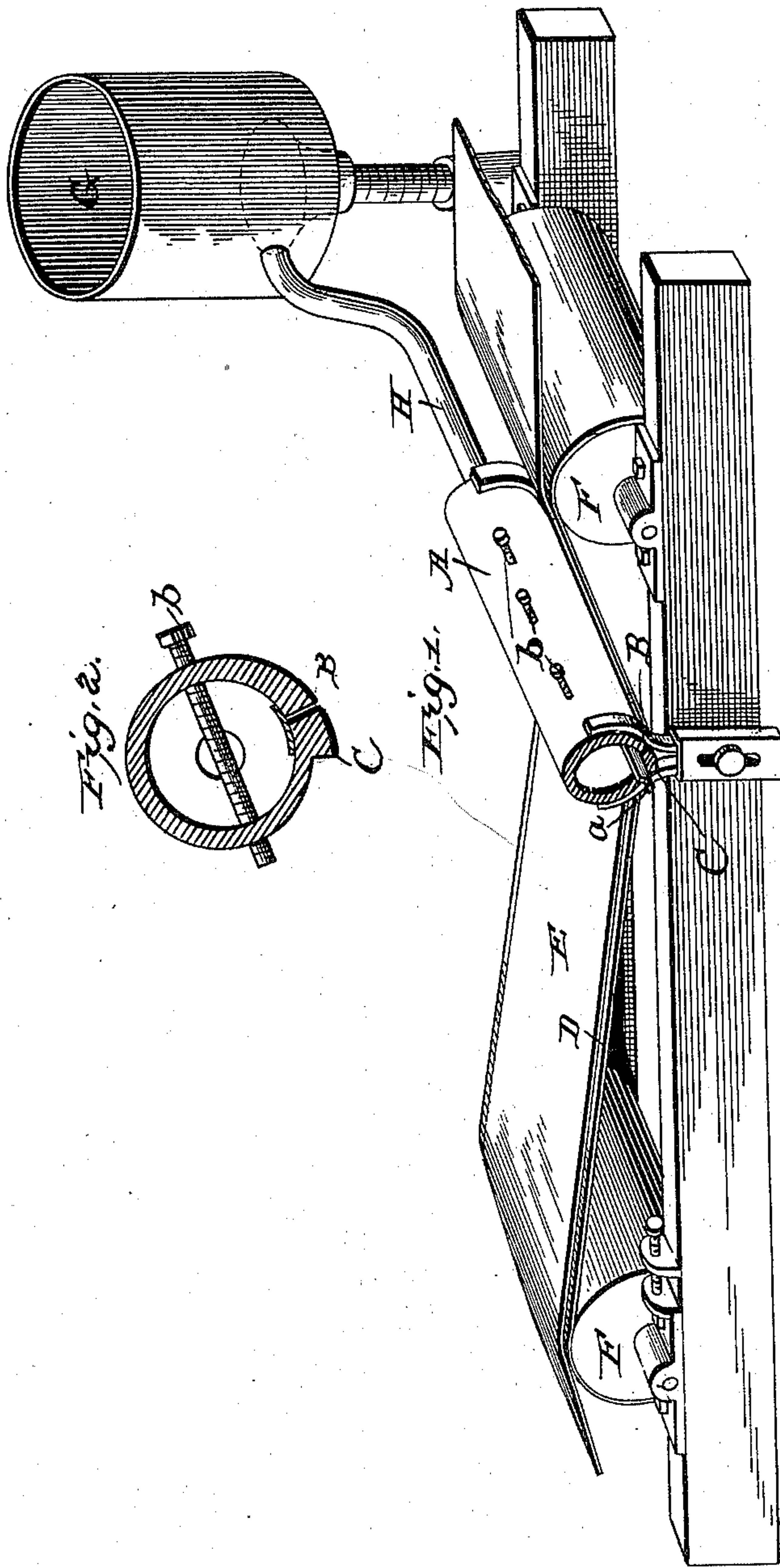


(No Model.)

F. H. CLOUDMAN.
DEVICE FOR APPLYING COATING MIXTURES.

No. 579,043.

Patented Mar. 16, 1897.



Attest
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UNITED STATES PATENT OFFICE.

FRANK H. CLOUDMAN, OF CUMBERLAND MILLS, MAINE.

DEVICE FOR APPLYING COATING MIXTURES.

SPECIFICATION forming part of Letters Patent No. 579,043, dated March 16, 1897.

Application filed September 15, 1896. Serial No. 605,916. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. CLOUDMAN, a citizen of the United States, residing at Cumberland Mills, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Devices for Applying Coating Mixtures, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in machines for applying coating mixtures—such as size, glue, paste, or the like—to paper or fabrics; and the object of the invention is to provide means for distributing the coating material smoothly and evenly upon the surface to be coated.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the device, the end of the distributing-cylinder being broken off; and Fig. 2 is a detail sectional view of the distributor.

In the drawings, A represents the distributing cylinder or chamber, which is preferably in the form of a tube of sufficient size closed at both ends and having a longitudinal slot B in its lower portion slightly in advance of a vertical plane passing through the axis of the cylinder. The coating material is fed through this slot, and in order to regulate its flow the adjusting or regulating screws *b* are provided, by which the width of the opening may be varied. Just in rear of this slot the cylinder is provided with a longitudinally grooved or slotted portion so shaped as to form a sharp smooth lip C, which serves to smoothly and evenly distribute the coating material which is fed upon the surface to be coated through the slot.

The strip to be coated is shown at E, and I prefer to feed this under the coating-cylinder by means of an endless belt D, passing over rotating rollers F F, and driven by any suitable means, which I have not deemed it necessary to show. The rollers, or one of them, are made adjustable to vary the tension on the belt, according to the nature of the coating desired.

It will be observed that the coating-cylinder is located below the top portion of the rollers, so that the belt is depressed and hugs the coating-cylinder where it passes beneath it, thus insuring a more perfect distribution of the coating material by the slot and lip.

The coating material is supplied to the distributing-cylinder from an elevated reservoir G, which is preferably made adjustable to permit it to be raised or lowered to vary the pressure, and hence the quantity of the material fed to the distributing-cylinder. In order to permit the vertical adjustment of the reservoir, it is connected with the cylinder by a flexible rubber tube H.

It is sometimes found desirable to coat only a portion of the strip of paper or fabric and not the full width, and to provide for this adjustable slides *a* are provided, by which a portion of the feed-slot may be closed, as desired.

Having thus described my invention, what I claim is—

1. In a machine for coating paper and fabrics, the combination with a moving support, of the distributing-cylinder, having an elongated slot therein, and a distributing-lip in rear of said slot, the shoulder formed thereby being directed away from said slot, the edge of said shoulder being rounded, and adapted to smooth and distribute the coating material.

2. In a machine for coating paper and fabrics, the combination with the moving support for the article to be coated, of the distributing-cylinder having the longitudinal slot therein, the lip having a curved surface leading thereto, said curved surface being presented to the article to be coated, substantially as described.

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

FRANK H. CLOUDMAN.

Witnesses:

A. A. CORDWELL,
JOHN H. NEAL.