H. J. & W. D. DAVIES.

Carding-Engines for Making Bats for Felted-Fabrics.

No. 155,503. Patented Sept. 29, 1874.

Fig. 1.

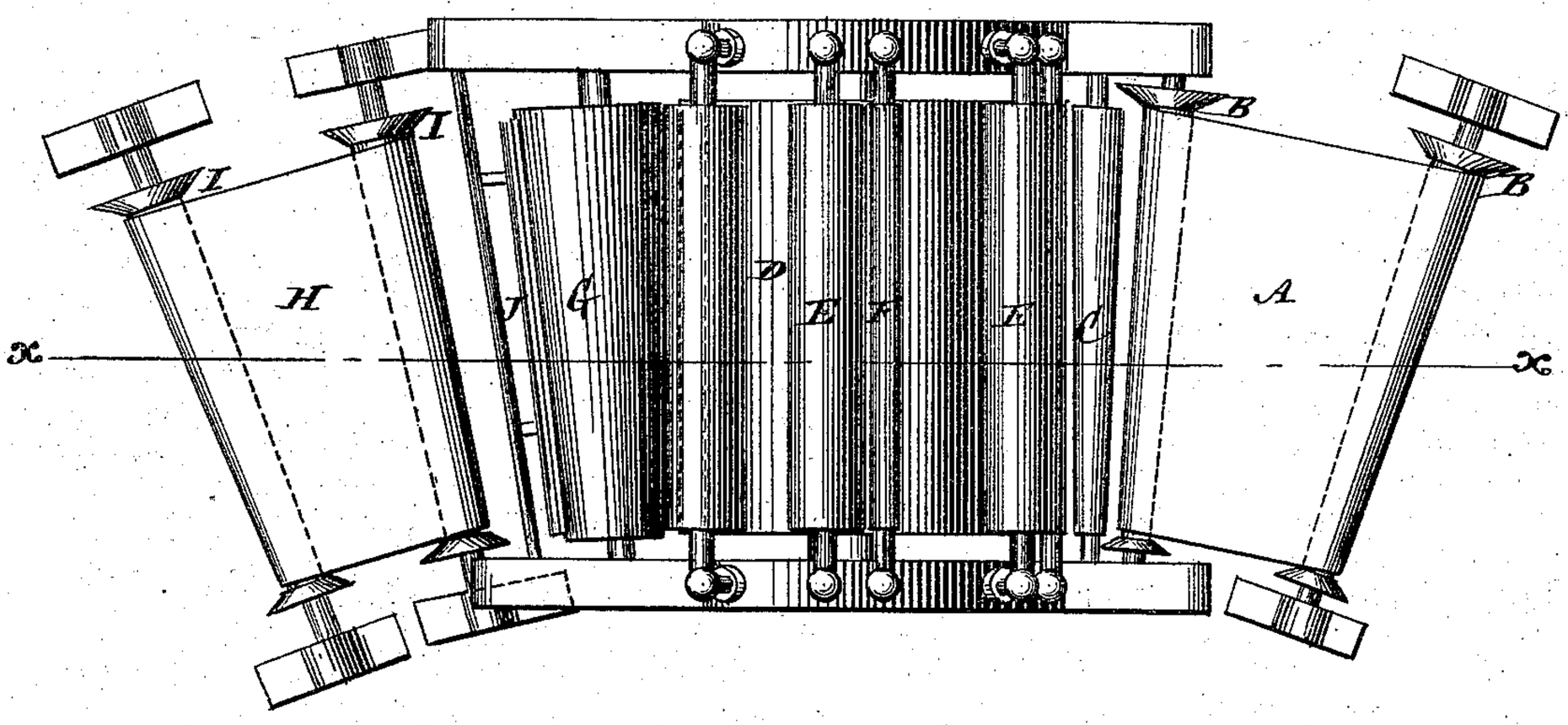
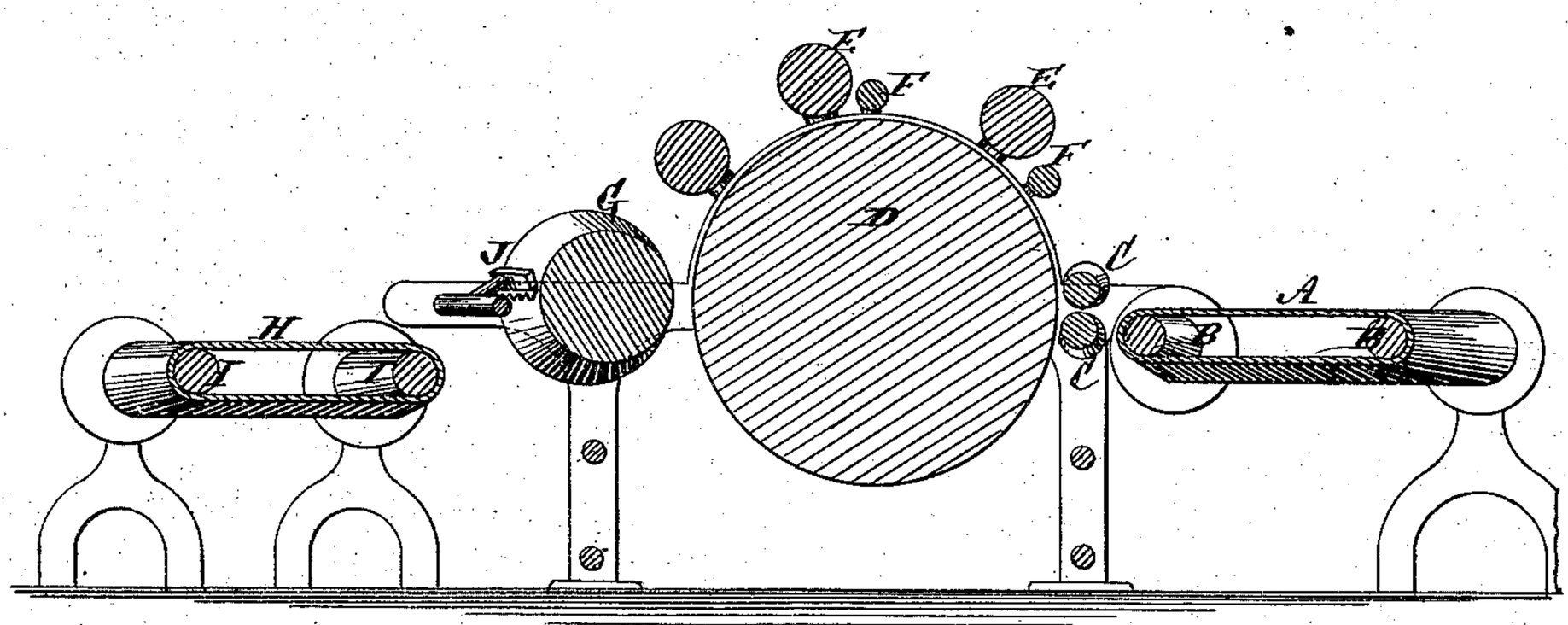


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY J. DAVIES AND WALTER D. DAVIES, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN CARDING-ENGINES FOR MAKING BATS FOR FELTED FABRICS.

Specification forming part of Letters Patent No. **155,503,** dated September 29, 1874; application filed May 15, 1874.

To all whom it may concern:

Be it known that we, HENRY J. DAVIES and WALTER D. DAVIES, both of Brooklyn, in the county of Kings and State of New York, have jointly invented certain Improvements in Carding-Engines for making Bats for Felted Fabrics, of which the following is a specification:

This invention relates to the manufacture of felted fabrics in a sheet or web of arc form—that is, of concentric curvature—its edges presenting arcs of different radius, such web not being united at its ends as it is delivered from the carding-engine, and being especially suitable for making skirts by forming the web of a width equal to the desired length of the skirt, and then cutting said web transversely into a suitable length for the circumference of the skirt, which will be of larger measurement at its bottom than at its top, and afterward uniting the ends of such web by a single seam to produce the skirt.

This fabric we propose to make the subject of a separate application for Letters Patent, and design to include making said web with its portion toward the arc of greater circumference of a different quality of wool or stock to the portion which is toward the arc of lesser radius; also, if desired, of different color, and whereby a superior and cheaper skirt may be produced, as will be described in our subsequent application for patent on the fabric.

This invention consists in a carding-engine of peculiar construction, by which such a fabric may be produced, and which includes a feeding-apron of varying length and traveling around conical rollers, the axes of which converge to a common center; correspondingly conical or tapering feed-rollers at the delivery end of the apron; a carding-cylinder of uniform diameter, and provided with the usual strippers and workers; and a conical doffer, having its lesser diameter on the same side of the engine as the lesser diameters of the rollers of the receiver and feed-rollers lie, between which latter rollers and the carding-cylinder there may be arranged a distributing cylinder or roller, as usual. There may also be a delivery-apron of varying length, and traveling around rollers of similar taper with that of the doffer.

In the accompanying drawing, Figure 1 represents a plan of a carding-engine constructed in accordance with our invention, or of such parts thereof as are necessary to illustrate the invention, all gearing being omitted. Fig. 2 is a vertical section of the same on the line *x x*.

A is the feeding-apron, onto which the wool or stock is laid to conduct it to the carding-cylinder, said apron being of varying length and traveling around conical rollers B B, the axes of which converge to a common center. C C are similarly-tapering feed-rollers, arranged at the delivery end of the receiving-apron, and having their inner sides parallel with the carding-cylinder, the same serving to conduct the wool or bat, preferably through the interposition of the usual distributing-roller or receiver, to the carding-cylinder D, which is of uniform diameter, or thereabout, and provided with the usual strippers and workers E F.

The doffer G, on the opposite side of the carding-cylinder to the feeding devices, is of like conical or tapering construction and arrangement as the rollers of the feeding-apron, and serves to take off the web from the carding-cylinder in the required arc-form, as hereinbefore described, and conduct it to a delivery-apron, H, of varying length, and passing around rollers I I of similarly-tapering arrangement as the doffer.

J is the doffer-comb or stripper.

We claim—

1. The feeding-apron A, of varying length, and its conical rollers B B, in combination with the carding-cylinder D, substantially as specified.

2. The conical doffer G, in combination with the carding-cylinder, essentially as described.

3. The delivery-apron H, of varying length, and its conical rollers I I, in combination with the conical doffer and the carding-cylinder, substantially as herein set forth.

HENRY J. DAVIES.

WALTER D. DAVIES.

Witnesses:

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