

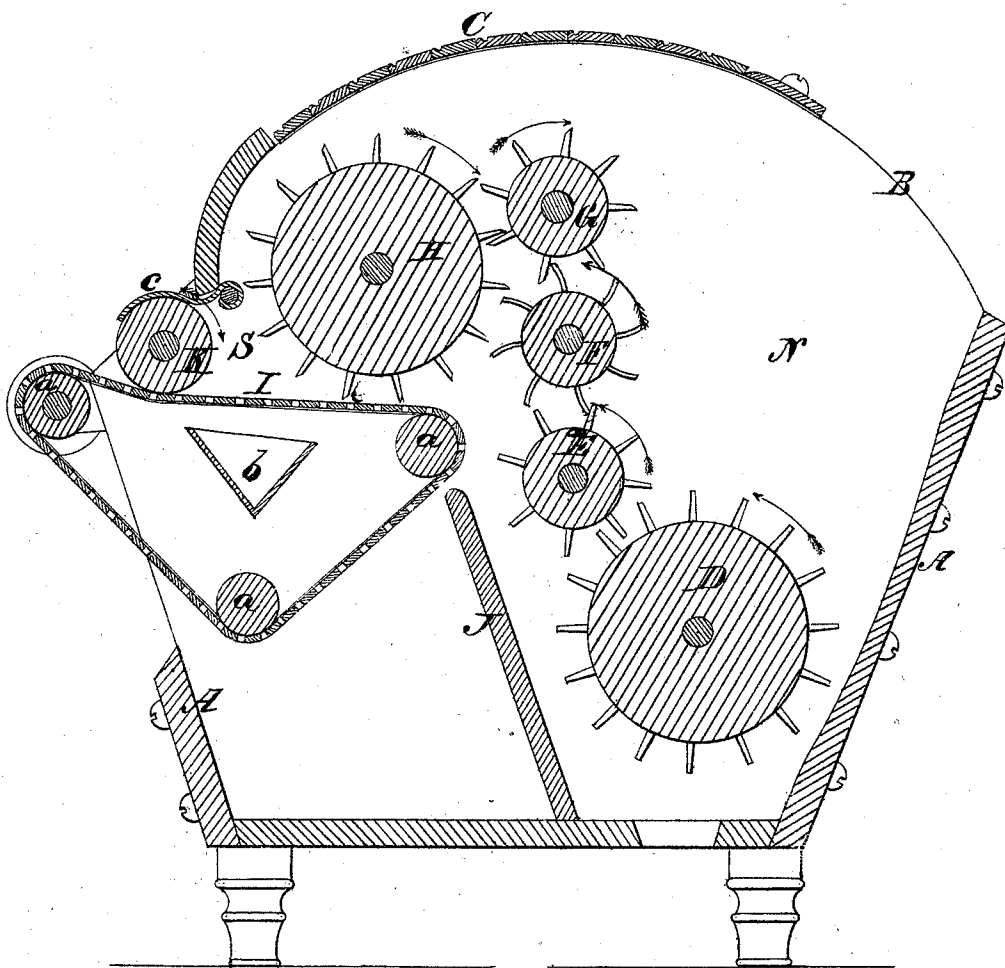
J. W. BARBOUR.

Improvement in Feeding Apparatus for Carding-Machines.

No. 128,697.

Patented July 9, 1872.

Fig. 1



Witnesses.
Wm. Phillips.
J. W. Campbell.

Inventor
J. W. Barbour
per
Mason, Russell & Lamson

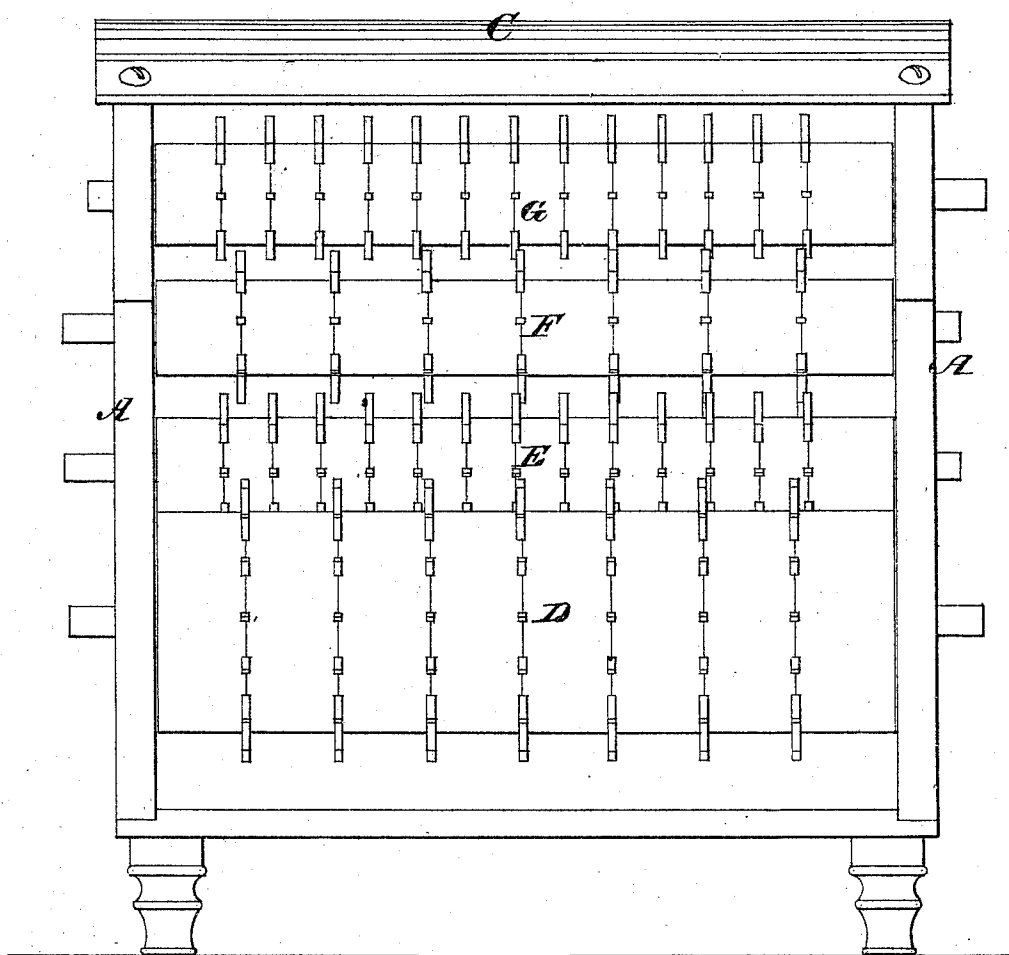
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Fig. 2



Witnesses.
W. Campbell
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Inventor
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by
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UNITED STATES PATENT OFFICE.

JOSEPH W. BARBOUR, OF WINOOSKI FALLS, VERMONT, ASSIGNOR TO HIMSELF AND WILLIAM EARL, JR., OF NASHUA, NEW HAMPSHIRE.

IMPROVEMENT IN FEEDING APPARATUS FOR CARDING-MACHINES.

Specification forming part of Letters Patent No. 128,697, dated July 9, 1872.

To all whom it may concern:

Be it known that I, JOSEPH W. BARBOUR, of Winooski Falls, in the county of Chittenden and State of Vermont, have invented a new and Improved Feeder for Carding-Engines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1, Plate 1, is a section taken longitudinally and centrally through the improved feeder. Fig. 2 is a front view of the feeder with the front board removed.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to improvements on the feeder for carding-engines for which Letters Patent were granted to me, bearing date on the 27th day of September, 1870, wherein I described and represented, among other things, a spiked elevating-belt combined with fluted rollers, a picker, and guard. In the machine which I am about to describe I employ a bank of elevating spiked rollers or drums, having varying speeds, for elevating the stock from the receiving-chamber and delivering it to a picker, which deposits it into a packing-chamber, to be carried thence into the carding-engine, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawing, A represents the case of the feeder, which is open on top in front at B, and provided with a hinged cover, C. The opening B leads into a receiving-chamber, N, at the bottom of which is a large spiked drum, D, the speed of which will be relatively to the rollers above it about two revolutions per minute. A little above and to one side of the drum D is a spiked roller, E, the teeth of which work between the teeth of the said drum and carry the stock upward to a spiked roller, F, the teeth of which work between those of the roller E and also between those of a still higher roller, G. The receptacle N is thus provided with a drum and several rollers, which form a bank for elevating the stock to the spiked picker-drum H. This bank of rollers inclines a little forward, although this is not essential to the operation of the rollers. The drum D and the rollers E F rotate in the

direction indicated by the arrows in Fig. 1. The roller G and the drum H rotate in an opposite direction, as indicated by their respective arrows. The speed of the roller E relatively to that of the drum D is about eight, while that of the two rollers F G is about twelve, and that of the drum H is about twenty-four, all of which speeds are regulated by large and small spur-wheels on the shafts of the rollers and drums. The roller G, which is the highest of the bank of rollers, throws back the superfluity of stock into the receptacle N, while the spiked drum H removes the stock from the rollers F G and delivers it into a packing-space, S. The spiked drum H is arranged over an open slatted endless apron, I, and in front of a feed-roller, K, which latter is provided with a scraper or clearer, c, to prevent the stock from winding around it. The apron I is stretched around three rollers, a a a, arranged in a triangular form around a dust-drawer, b, which latter is located just below the packing-chamber S for collecting the dust which falls therefrom. J represents a partition which separates the receiving-chamber from the space below the feed-apron I.

It will be seen from the above description, first, that instead of the endless elevating-belts hitherto used in feeders for carding-engines I employ a bank of spurred elevating-drums, which not only elevate the stock in the feeder-chest, but also, at the same time, pick open the thick and matted locks, whether the stock be of long or short staple, or of drawing or jack waste.

One great advantage attending my invention is that the elevating and picking rollers are positive in their operation—that is to say, they will not sag like spurred elevating-belts hitherto used for this purpose, and they will pick out and loosen the stock, whether it be long or short, before it is delivered to the doffing-drum. Thus I am enabled to mix uniformly the short and long stock on its way from the receptacle N to the carding-engine.

I do not confine myself to the number of elevating and picking rollers above the spurred drum D, as any desired number may be employed; nor do I claim, broadly, under this application, the elevation of the wool by means of teeth, as many instances of the kind can be found where belts are employed.

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

1. The combination of a spurred roller, G, with the bank of elevating and picking rollers, substantially as described.

2. The spiked drum H, in combination with the bank of elevating-rollers and the roller G or its equivalent, substantially as described.

3. The combination of the endless feeding-

belt I and feed-roller K with the spurred drum H and a bank of elevating and picking rollers, substantially as described.

4. The dust-drawer *b*, arranged within the feed-belt I and below the packing-chamber S, substantially as described.

JOSEPH W. BARBOUR.

Witnesses:

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