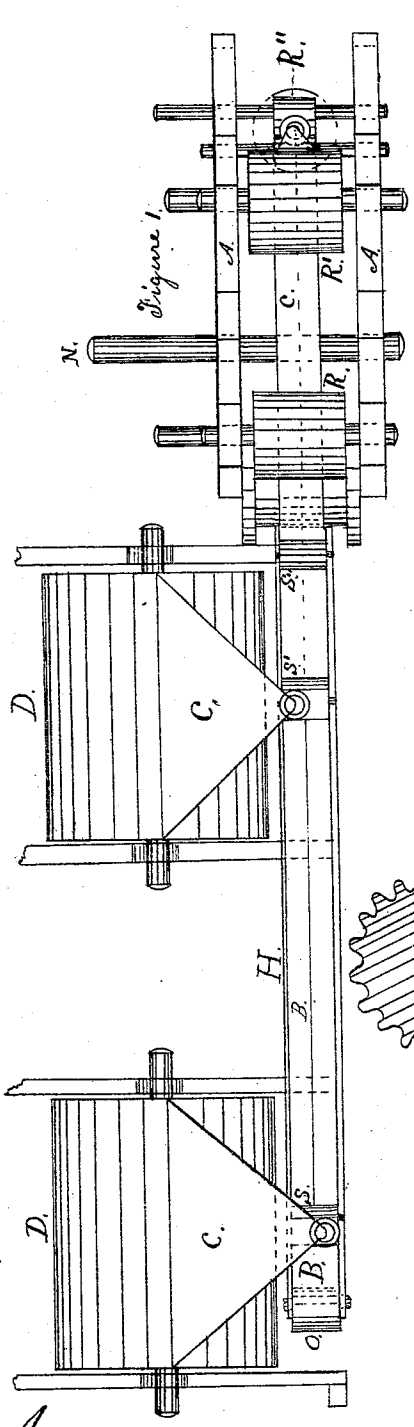
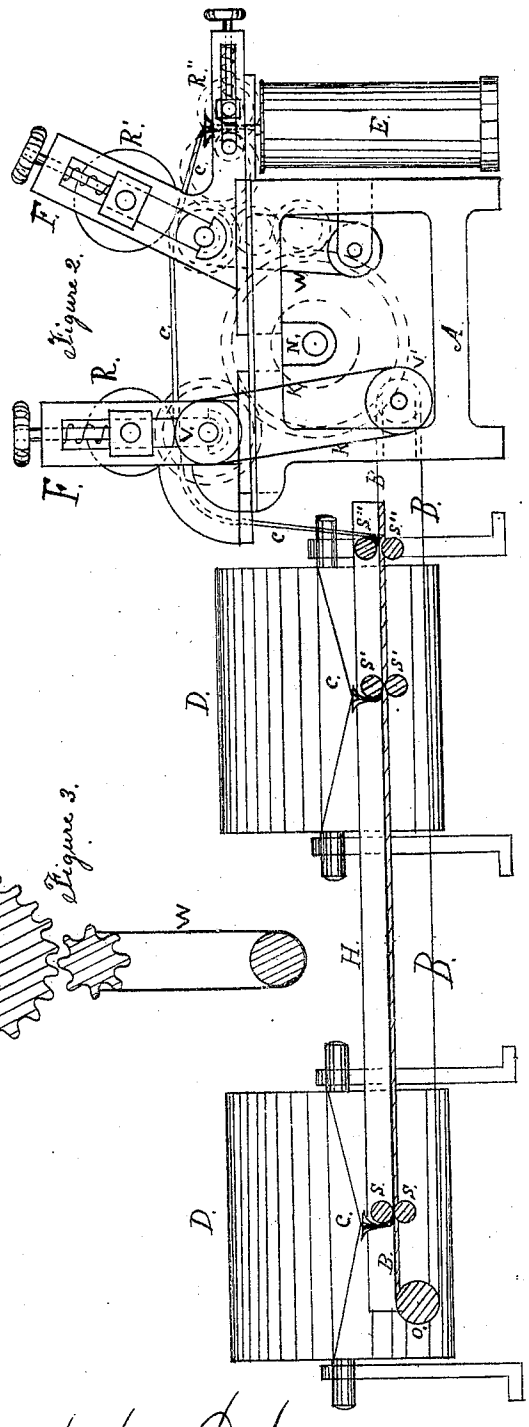
J. & J. DOBSON.

Apparatus for Delivering and Drawing Long-Fibered Wool after Carding.

No. 144,840. Patented Nov. 25, 1873.





Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN DOBSON AND JAMES DOBSON, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN APPARATUS FOR DELIVERING AND DRAWING LONG-FIBERED WOOL AFTER CARDING.

Specification forming part of Letters Patent No. **144,840**, dated November 25, 1873; application filed March 17, 1873.

To all whom it may concern:

Be it known that we, JOHN DOBSON and JAMES DOBSON, of Philadelphia, and State of Pennsylvania, have invented certain Improvements in Apparatus for Preparing and Drawing Long-Fibered Wool as it Passes from the Cards to the Cans, of which the following is a specification:

In preparing long-fiber wools for combing on carding-machines it has been the practice to wind the sliver from each card separately in the form of a ball, requiring a help to tend or look after three balling-heads, (and in some cases only two,) and with the closest attention and care the balling-machines make considerable waste, both at the cards and in unwinding the balls at the combs or gill-boxes.

The object of our invention is to dispense with the balling-heads; and it consists in the combination and arrangement of simple, yet very effective, machinery for taking the sliver from the card-doffers, and delivering it on an endless apron or belt, by which it is carried (with others) to suitable rollers for drawing long-fiber wool, and from them deposited into a tin can, from which it is taken to the combs or gill-boxes, as may be desired, making much more even and better work with less waste, and a great saving of labor; as, when two lines of cards are arranged conveniently close together, and each row connected with our improvement, one hand or help can overlook both rows of cards, although there are six or more cards in each row.

In describing the construction and operation of our improvement, reference will be had to the accompanying drawings making a part of this specification.

Figure 1 is a top or bird's-eye view. Fig. 2 is a side view. Fig. 3 is a section of the rollers R′ and apron W.

Similar letters in the drawings refer to like parts.

A represents the frame of the delivery-head, which is constructed, as is shown in the drawings, with three pairs of rollers, R R′ R″. The pairs R and R′ are fluted, as is shown in section in Fig. 3, and the top roller of each pair is larger than the bottom one. The bottom roller of pair R′ has an endless apron, W, which may be made of leather or heavy cotton-duck cloth. The rollers of the pair R″ are plain, and both of the same size, and are used principally to deliver the sliver into the tin can E. The journals of the three pairs of rollers are fitted in slotted stands and adjusted by screws and open spiral springs, as is now used on the draw-rolls of the gill-box. The stands F are made so that they can be adjusted closer together or farther apart, as may be desired. B is the endless apron, which is mounted on rollers *v* and *o*, one at each end of the long narrow box H. In this box are three pairs of rollers, S S′ S″. (Shown in section, Fig. 2.) The apron B is driven by belt K from the pulley V on one end of the shaft of the bottom roller of the pair R. D D are the doffers of the cards, which are arranged in a straight line. C represents the sliver as it is taken from the doffers of the cards. This sliver is guided by a small funnel to the rollers S and S′, which deliver it to the endless apron B.

The operation is as follows: The sliver is delivered to the endless apron B, which carries it forward to the first pair of rollers R, which deliver it to the second pair R′, which pair runs faster than the first pair, to draw the fibers somewhat. This speed may be varied to draw it more or less. The second pair of rollers R′ deliver the sliver to the third pair R″, which deliver it into the tin can E. Motion is communicated to the head through shaft N, and on this shaft is a large spur-wheel, gearing into other wheels that communicate motion to the three different pairs of rollers. These gears are only shown by the dotted lines in Fig. 2. The endless apron W on the bottom roller R′ may be dispensed with by having the top rollers R R′ plain and covered with leather, the bottom rollers being fluted fine.

We claim—

In preparing wool on cards for combing and delivering the sliver from a number of cards through one delivery, the combination of endless apron B and a delivery-head composed of three pairs of rollers, R, R′, and R″, as shown and described.

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