

Wadsworth & Semple. Wool Picking Mach.

N^o 84,236.

Patented Nov. 17, 1868.

Fig. 1.

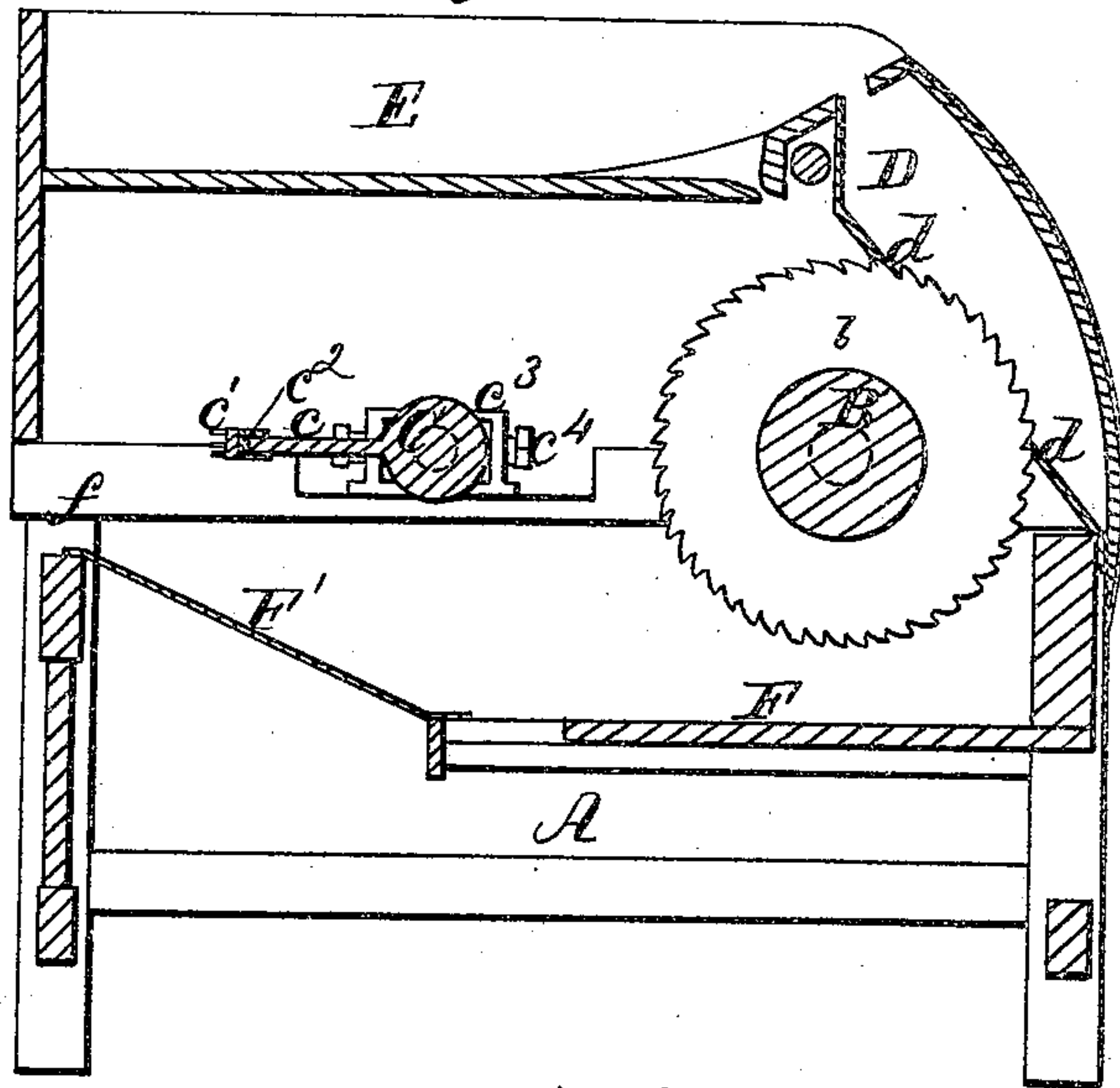


Fig. 2.

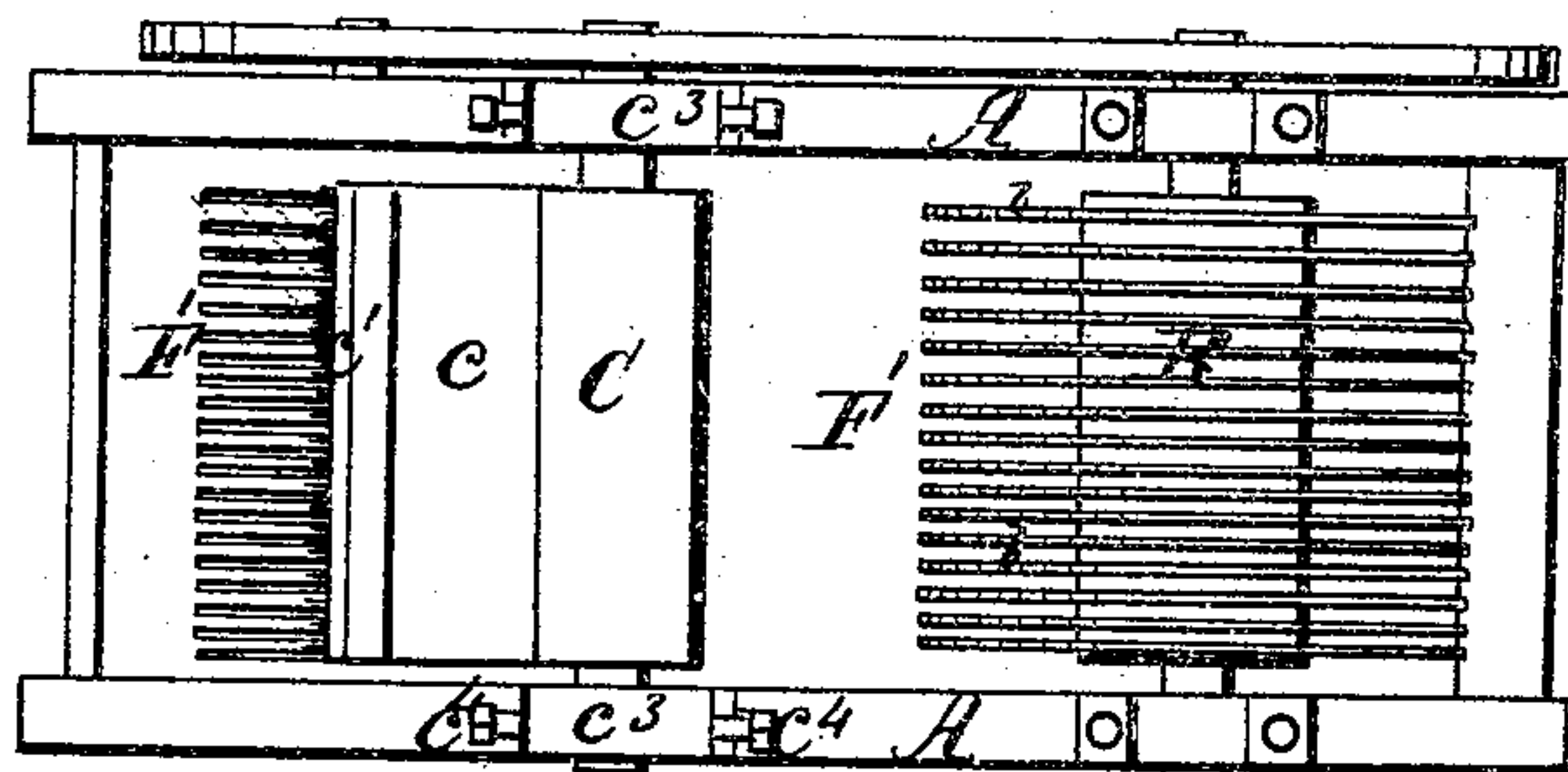
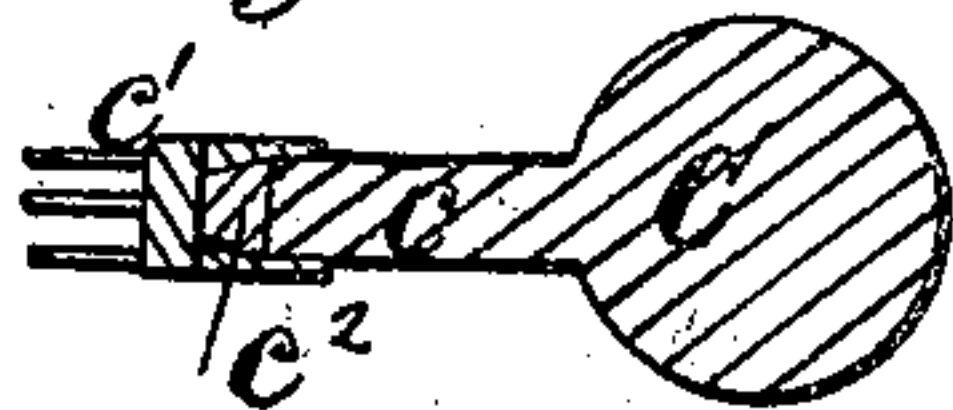


Fig. 3.



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Letters Patent No. 84,236, dated November 17, 1868.

IMPROVEMENT IN MACHINE FOR PICKING WOOL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, WILLIAM WARDSWORTH and E. H. SEMPLE, of St. Louis, in the county of St. Louis, and State of Missouri, have made certain new and useful Improvements in Wool-Picking Machines; and we do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to a machine for picking and separating wool-fleece, and preparing it for manufacturing-purposes.

The machine consists of the following devices, viz: A rotating cylinder, armed with serrated blades, placed side by side, with short intervals between them, draws the wool from the feed-box, by allowing a small portion of the periphery of the said blades to enter the feed-box through the slotted floor thereof, in a manner similar to the cotton-gin. Immediately behind this serrated cylinder is another, provided with radial wings, the outer ends of which are armed with carding-board. The latter cylinder is revolved in the opposite direction to the former, and a little faster than it, the distance between the two being just sufficient to allow the revolving card-boards to strike the serrated blades, and clear them of adhering wool. These constitute the leading features of the invention, but others, which relate to the more detailed parts of the construction, will be hereinafter more fully explained.

To enable those skilled in the art to make and use our improved machine for preparing wool, we will proceed to describe its construction and operation.

Figure 1 of the drawings is a longitudinal sectional elevation of the said machine.

Figure 2 is a sectional plan thereof, the feed-box and cover being removed in this figure.

Figure 3 is a detail section of the second or cleaning-cylinder.

The frame A may be of any convenient form of construction suitable for sustaining the operative parts of the machine, which operative parts consist of the separating or disintegrating-cylinder B and the cleaning-cylinder C.

The cylinder B is armed with serrated blades, *b*, very similar to those of a cotton-gin. These blades are placed, say, one-quarter of an inch apart, and a small portion of their peripheries is allowed to extend, through the slots *d*, into the feed-box D, also in a manner very similar to that of a cotton-gin.

The principal difference between these parts, as constructed in this machine and in a cotton-gin, consists

in having the slots *d* slightly wider in this machine than in a cotton-gin, so as to facilitate the passage of the wool through the said slots; also, in having the serrations of the blades *b* somewhat deeper.

The wool to be operated upon in this machine is first placed in the storage-box E, from whence it is placed in the feed-box D by the attendants. The serrated blades *b* seize it in the box D, and draw it through the slots *d* in a thoroughly-disintegrated condition, and well prepared for the carding-machine.

For the lighter and better grades of wool, the slide F is closed, as shown in fig. 2, so as to drive the finished wool out at the discharge-aperture *f*, over the slotted floor F', but, for heavy, knotted wool, the slide F will be opened, as shown in fig. 1, thereby letting the wool drop directly down below the roller C.

The roller C is placed directly behind the roller B, and in the same horizontal plane with it, or nearly so.

This roller is provided with radial arms, *c*, on the outer ends of which are carding-brushes, *c'*.

These carding-brushes are affixed to slides, *c''*, as clearly shown in fig. 3, the said slides being arranged to be put in or drawn out of grooves in the ends of the arms *c*, so as to readily replace worn brushes by new ones, when required.

The bearing-boxes *c'''*, of the roller C, are arranged to a lateral adjustment by means of the set-screws *c''''*, so as to set the revolving brushes *c'* in such a position as to sweep the edges of the revolving blades *b*, and clear them of adhering particles of wool.

The slotted floor F' permits the dirt separated from the wool to pass down to the apartment below the said floor, as the wool is blown across the said floor on its passage to the exit-aperture *f*.

This machine is especially adapted to pick and prepare for carding very rough refuse wool, such as comes from tanneries, or is filled with knotted locks, burrs, &c., &c.

Having described our invention.

What we claim, is—

The combination of the cleansing-cylinder B, roller C, arranged in adjustable bearing-boxes *c'''*, and having radial arms C and brushes *c'* *c''*, the slide F, and slotted floor F', all constructed, arranged, and operating as and for the purposes set forth.

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