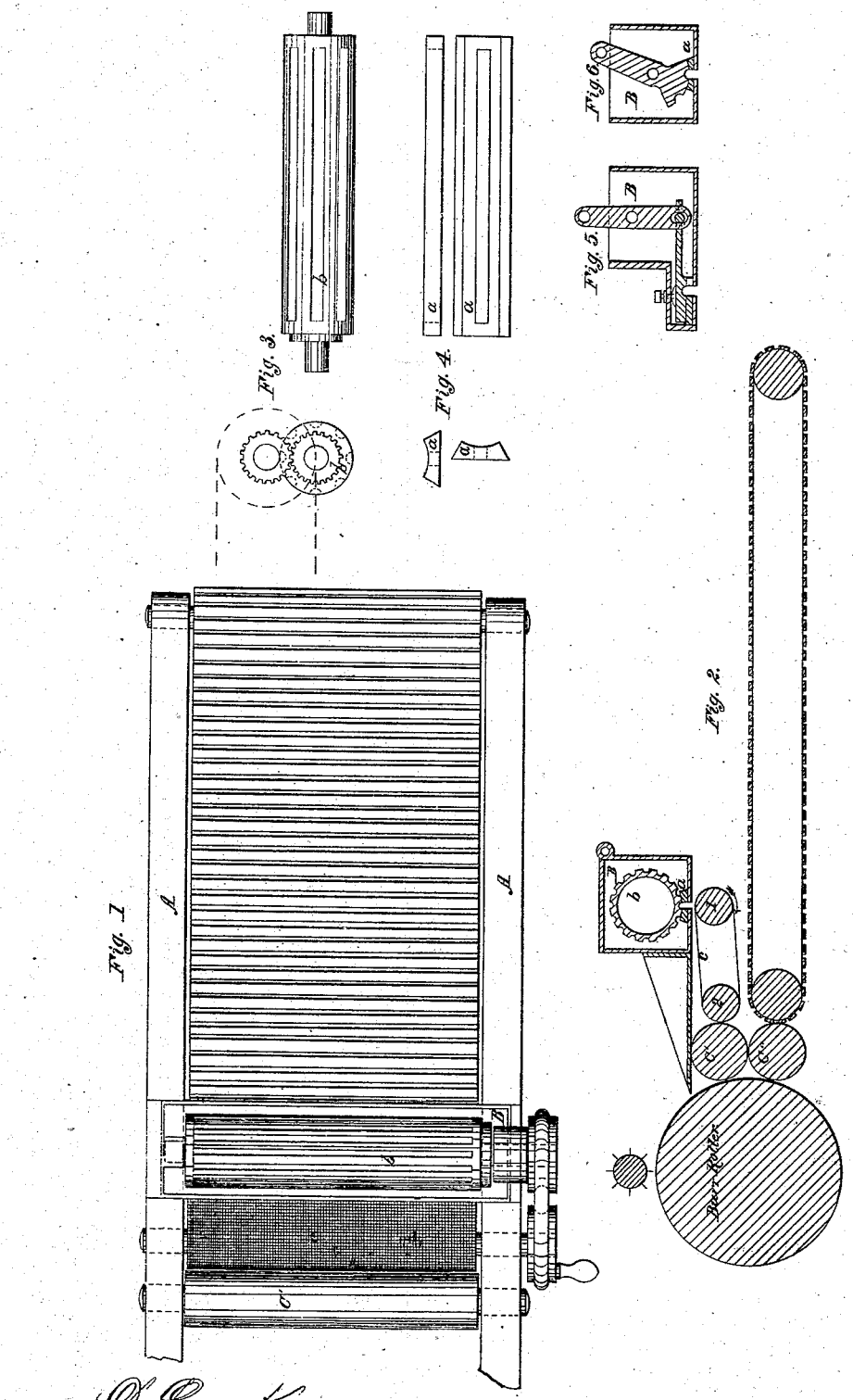
J. Shinn.

Wool Oiling Mach.

No. 48,348. Patented Jun. 20, 1865.



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JOHN SHINN, OF LEVERINGTON, PENNSYLVANIA, ASSIGNOR TO HIMSELF, GEO. S. HARWOOD, AND GEO. H. QUINCY.

IMPROVEMENT IN MACHINERY FOR OILING WOOL.

Specification forming part of Letters Patent No. **48,348**, dated June 20, 1865.

To all whom it may concern:

Be it known that I, JOHN SHINN, of Leverington, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Machinery for Oiling Wool on the Feed-Cloth of a Card or Picker; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in oiling wool on the feed of a wool-picker or card by means of a tank, grooved cylinder, and endless wire-cloth, belt, or a plain roller covered with wire-cloth.

To enable others to make and operate my invention, I will now proceed to explain its construction and operation.

In referring to the drawings which make part of this specification similar letters in the drawings refer to like parts.

Figure 1 is a top or bird's-eye view. Fig. 2 is a section through the center of the feed. Fig. 3 is a view of the grooved roller *b*. Fig. 4 is a view of the slotted roller-bed *a*. Figs. 5 and 6 are modifications of my improvements for discharging the oil from the tank.

That others may make my improved oiler, I will describe its construction.

A A is the frame of an ordinary feed-table of a card. B is the oil-tank, which extends across and rests on the same. In and fastened to the bottom of this tank is the slotted roller-bed *a*. (Seen in Figs. 2, 4, and 6.) The roller *b* may be made of ordinary wrought-iron steam-pipe, about four inches in diameter and about three-fourths of an inch longer than the width of the feed-table. Cast-iron journals are fitted in each end of this pipe, which is turned perfectly true. The bed *a* is then ground to fit the circle of the roller. The roller is then grooved with any suitable number of grooves by either milling or planing. These grooves must not extend the full length of the roller, but about three-eighths of an inch on each end of the roller must be plain and not grooved. On one journal is a spur-wheel. This wheel is geared into a pinion on a stud fastened to the end of the tank. On this stud is a pulley, which may be driven from any suitable part of the card; but I should prefer to drive it from one of the workers. The face of bed *a* is the eighth part of a circle, and eight of them forming a complete circle. They are clamped together and bored out just the size of the roller *b*. The bed *a* (seen in Figs. 2, 4, and 6) should be made of brass, and have a slot extending nearly the whole length of it, to correspond with the groove in the roller and to a slot cut in the bottom of the oil-tank.

c is the endless wire-cloth, which is mounted on the rollers 1 and 2, and working close to the top feed-roller, C, and directly under the opening in the bottom of the oil-tank. These rollers are set one a little more elevated than the other, as seen in Fig. 2, so as to give the wool a better chance to enter between the two cloths. This cloth should be operated by gearing from the feed-rollers.

The machine operates in the following manner: The oil is put in the tank B. The roller *b*, fitting the bed *a* perfectly oil-tight, the oil expels the air from the grooves, and as the roller revolves the oil is carried to the openings in the bed *a* and bottom of the tank, through which it drops on the wire-cloth *c*. The meshes of the wire-cloth cause it to spread and be more evenly diffused over the wool as it passes to the feed-rollers between the two cloths than if dropped directly on the wool. The wire-cloth moves in the direction of the arrow and close to the feed-roller C′, and this feed-roller will strip off any fibers that may adhere to it.

When the burrs are discharged under the feed-table, or a burr-box is not used on top of the feed, the oil-tank may in such case be set directly over the roller 2. This roller may be covered with fine wire-cloth or not, or the oil may be directly discharged on the wool; but I would prefer the wire and roller, as it will cause a perfect diffusion of the oil on the wool.

Figs. 5 and 6 are modifications of the roller *b* and bed *a*. Only one groove is used in Fig. 5, and in Fig. 6 two grooves are used. The arms receive an oscillating movement from a crank on any suitable part of the card.

I am aware that in Mason's English specification No. 1,172 for 1852 a grooved roller is used; but this roller is on the outside of the tank, and partly embedded in and through the

bottom of the same, while with my improvement the roller is wholly in the tank and used in connection with the bed, which is separate from the tank and fastened to it by screws. It will thus be seen that my improvement has advantages in the cost of fitting and making; also, it will be more easily kept in working order, which will be readily perceived by comparing the two. In the same specification is also described a cylinder covered with wire. This cylinder is used for the purpose of pressing the wool to an endless cloth immersed in oil, so that the oil may saturate the wool, the cylinder and endless cloth working inside of the tank. With my improvement I use the wire-cloth or covered roller for conveying the oil to the wool, after having been discharged from the tank by suitable mechanical contrivances.

Claims.

1. In wool-oiling machinery I do not broadly claim a grooved roller; but I claim the combination of the bed *a* and grooved roller *b*, revolving inside of the tank, as and for the purpose described above.

2. I do not claim a cylinder covered with wire, as shown and operated in Mason's English specification No. 1,172 for the year 1852; but I claim an endless cloth of wire or a pressure-roller covered with wire mounted just above the feed-cloth, to receive the oil after being discharged from the tank and convey it to the wool on the feed-cloth, as above described.

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