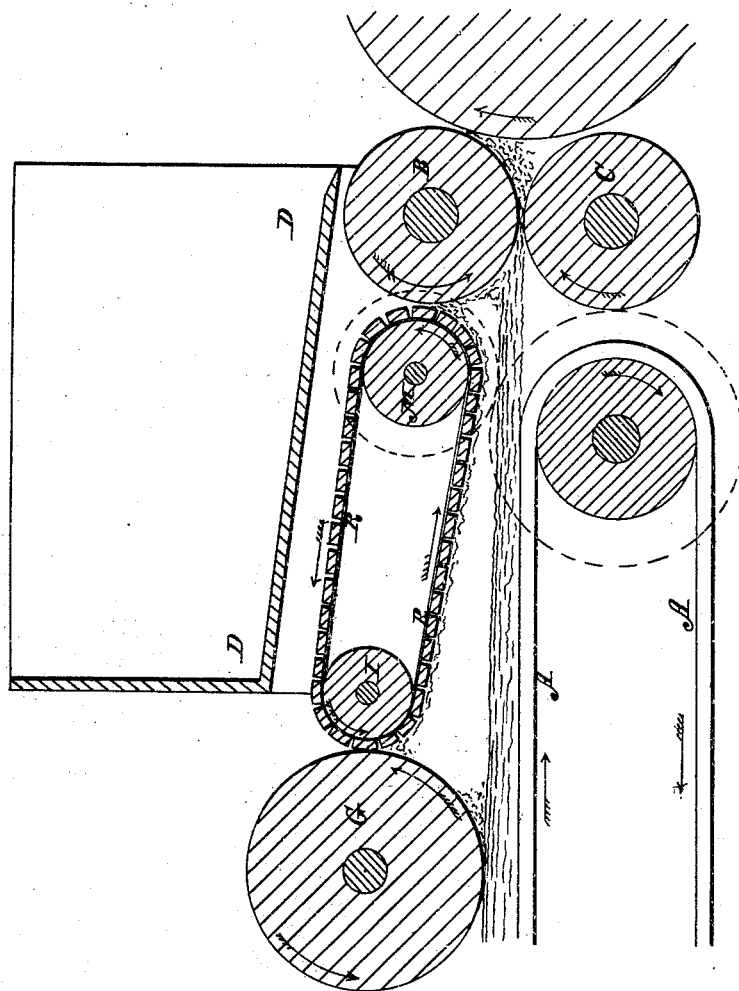


J. W. Hussey.
Wool Oiling Mach.

N^o 46,189.

Patented Jan. 31, 1865.



Witnesses,
F. C. Brewster
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UNITED STATES PATENT OFFICE

JOHN W. HUSSEY, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO GEORGE S. HARWOOD AND GEORGE H. QUINCY, OF SAME PLACE.

IMPROVEMENT IN MACHINERY FOR OILING WOOL IN CARDING-MACHINES.

Specification forming part of Letters Patent No. **46,189**, dated January 31, 1865.

To all whom it may concern:

Be it known that I, JOHN W. HUSSEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Machinery for Oiling Wool; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which represents a sectional elevation or diagram of the apparatus for oiling wool, to which my said improvement is applied.

In Clissold's oiling apparatus, for which Letters Patent of the United States were issued on the 24th day of February, 1862, and reissued to HARWOOD and QUINCY on the 13th day of September, 1864, a pressure-roller is used which performs the double function of applying or conveying the oil to the wool as it is fed to the carding or other wool-preparing machine and of imprinting it on or disseminating it through the wool. This pressure-roller is generally located over the feed-apron, in the immediate vicinity of the top feed-roller of the card, so that the fibers of wool which adhere to the oiled surface of the roller are taken off and carried to the card by the action of the feed-roller. This arrangement of the apparatus is generally carried out on English machines in which no burr-box is used; but on most of the American carding-engines, a burr-cylinder and burr-box are used, and, the latter being necessarily placed over the top feed-roller and feed-apron, it interferes with the location of the pressure-roller in close proximity with the feed-roller. In carding-machines, therefore, with which a burr-box is combined, the pressure-roller is located at such distance from the feed-roller as to clear the burr-box; but the objection to this arrangement is that there is no mechanical means of keeping the pressure-roller clear and that the wool adhering to its surface is necessarily discharged by a special attendant, which is a source of much trouble, danger, and expense. To remedy this I have tried many experiments and devised various contrivances. Thus I have used traveling scrapers—that is to say, blades having a traverse motion—upon and in contact with the roller. These I found inefficient, because the wool

would accumulate faster than it was practicable to reciprocate the blades. Straight edges—i. e., stationary blades—extending the whole length of the roller were also tried; but these are liable to become clogged up. From these and other experiments I have come to the conviction that the best way to keep the roller clean is to bring it in contact with or in very close vicinity to a surface constantly moving in a contrary direction, so that the roller shall be stripped of the fibers within a short distance of the feed-apron—i. e., as fast as the fibers adhere to it—and this I have accomplished by the employment, interposed between the top feed-roller and the pressure-roller, of an endless apron mounted upon two rollers which revolve in the same direction as the feed and pressure rollers, so that the surface of the apron in contact or nearly in contact with the feed and pressure rollers will move in opposite directions to their surfaces.

To enable others to make and use my invention, I shall now proceed to describe the manner in which the same is or may be carried into effect.

Referring to the drawing, A is the feed-apron, B and C the feed-rollers, and D the burr-box, of an ordinary carding engine, and the pressure-roller G is shown placed at a convenient distance in front of the burr-box. Between the pressure-roller G and the top feed-roller, B, there are two rollers, I and M, around which is passed an endless apron, R, which is here shown to consist of slats riveted or otherwise fastened to an apron or band of leather or other material. The rollers carrying the apron are located in such manner as that the apron touches or nearly touches both the pressure and the feed roller, and they are geared to revolve in the direction of the top feed-roller. By this arrangement the apron performs, with respect to the pressure-roller, the same functions as the feed-roller in Clissold's apparatus—that is to say, it presents a surface constantly moving in contrary direction to the surface of the roller, keeping it constantly clean and clear of the fibers carried up from the feed-apron. On the other hand, the feed-roller acts upon the endless band in the same way as the band on the

pressure-roller—*i. e.*, any fiber that still adheres to the band is removed by the feed-roller and carried to the card.

Having thus described my invention and the manner in which the same is or may be performed, I shall state my claims as follows:

1. In carding or other wool-preparing machinery, and in combination with the pressure-roller of an oiling apparatus of otherwise ordinary or suitable construction, an independent scraper, or its equivalent, so arranged as to keep the pressure-roller clear of the wool adhering to its surface.

2. In combination with the pressure-roller of an apparatus for oiling wool as it is fed to

carding or other wool-preparing machinery, an endless apron interposed between the said pressure-roller and the top feed-roller, and moving in the direction of the said rollers, so that the surfaces in contact move in opposite directions, substantially in the manner and for the purposes set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

JOHN W. HUSSEY.

Witnesses:

CHARLES JONES,

RICHARD W. LEWIS.