No. 708,061. Patented Sept. 2, 1902.

S. MOCK & C. D. ROBINSON.

CLEANER FOR SPINNING MACHINES.

(Application filed Nov. 16, 1901.)

(No Model.)

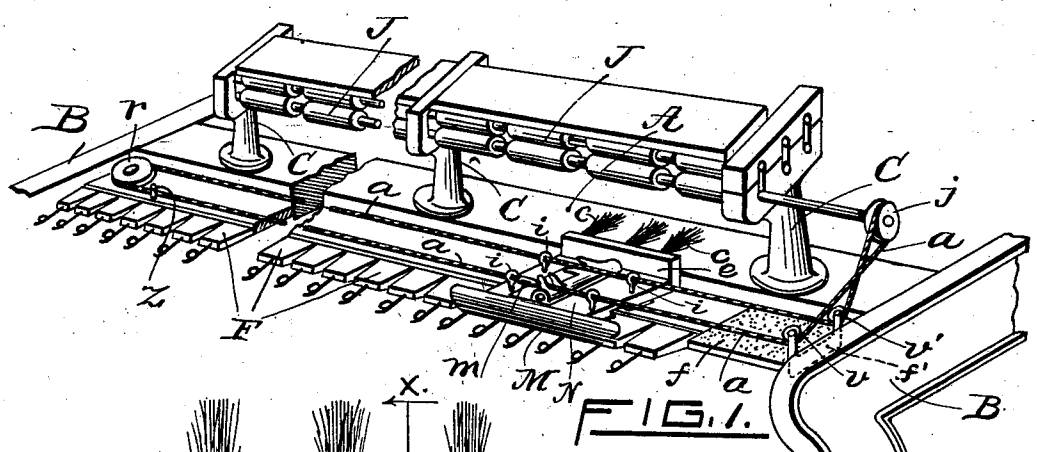


FIG. 1.

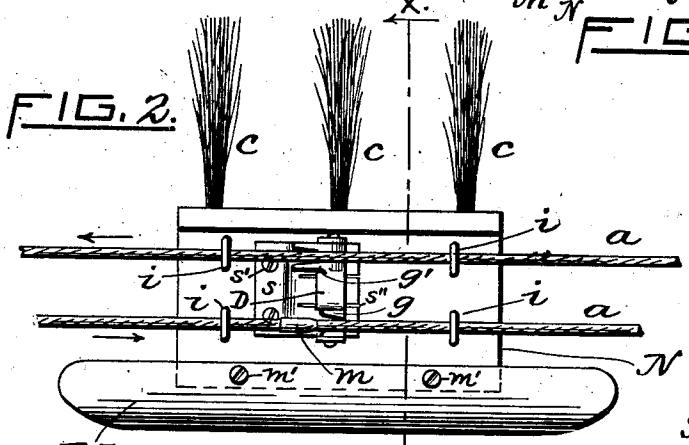


FIG. 2.

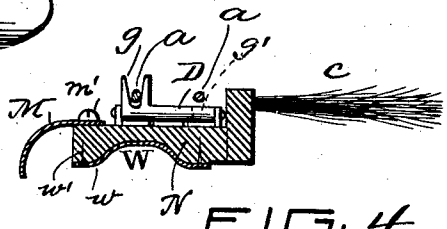


FIG. 4.

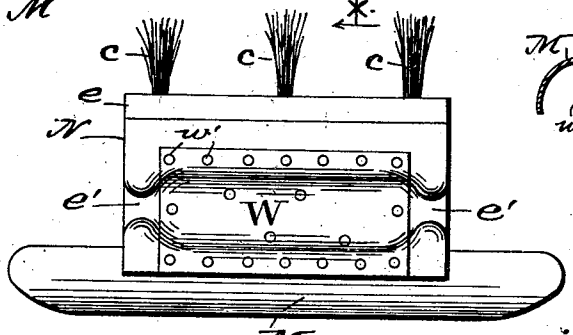


FIG. 3.

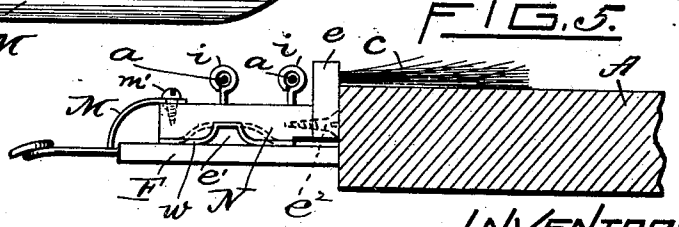


FIG. 5.

WITNESSES.

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CLEANER FOR SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 708,061, dated September 2, 1902.

Application filed November 16, 1901. Serial No. 82,569. (No model.)

To all whom it may concern:

Be it known that we, SEVERIN MOCK, residing at Pawtucket, and CHARLES D. ROBINSON, residing at Crompton, Rhode Island, citizens of the United States of America, have invented certain new and useful Improvements in Cleaners for Spinning-Machines, of which the following is a specification.

Our invention relates to improvements in cleaners for spinning-machines of the type shown in Letters Patent of the United States No. 650,515, dated May 29, 1900; and the purpose of our invention is to provide a cleaner which will more effectually retain the fly waste and which will prevent such waste from falling over the front of the lifter-blocks into the yarn below.

Our invention is fully described, and set forth in the drawings accompanying this specification, the same parts in the various drawings being indicated by the same letters.

Figure 1 is a perspective view of a portion of a ring-spinning frame, showing position occupied by our invention with reference to the lifter-blocks. Fig. 2 is a view of our invention looked at from above; Fig. 3, the same looked at from below; Fig. 4, a vertical section through the line $x\ x$ of Fig. 2; Fig. 5, a horizontal end view of our improvement.

In Fig. 1, A is the roller-beam; B, the end of the spinning-frame; J J, the top rolls, and C C C the standards supporting the same.

f is the thread-board, and F the lifter-blocks. One of the top-roller shafts J J is connected by the pulley j, the endless band $a\ a$, and the intermediate pulleys v, v', and r with the traveler N in the manner described in the aforesaid Patent No. 650,515.

$c\ c$ are the brushes; e, the back of the traveler, into which the brushes are inserted. $i\ i$ $i\ i$ are screw-eyes attached to the traveler N for purposes of reversal through the mechanism D (seen best in Fig. 2) by means of the driver m and the auxiliary members $g\ g'$.

M is a guard attached to the front of the traveler and projecting therefrom forward and downward, the lower edge thereof resting upon the guide-wires and the inner surface at said lower edge being in contact with or in very close proximity to the front edge of the lifter-blocks F. This guard is secured to the front of the traveler N by means of the screws $m'\ m'$ or any other equivalent method. Except for the guard M the upper external surface of the traveler N is not unlike that mentioned in the patent numbered 650,515 before spoken of. The reverse or bottom side of the traveler N, however, differs very materially from the aforesaid patent, and the conformation of said lower surface, together with the guard M, constitutes the features of our invention.

In Fig. 3, which is a view of the bottom part of the traveler N, it will be seen that the entire under surface of N is hollowed out, forming a recess W, having the small openings $e'\ e'$ at each end of the traveler. The interior of this recess W is lined with cloth or other material of a fibrous surface w, secured by the tacks w', or it may be secured in any other manner. The recess and lining are seen best in section in Fig. 4. The small openings $e'\ e'$ (seen in Figs. 3 and 5) are for two purposes, one in order to clear the hinges of the lifter-blocks, which pass through said openings, and the other to admit the fly waste into the interior recess of the traveler N. In the cleaner specified in Patent No. 650,515 there is no recess upon the under side of the traveler N, and consequently it has been found in practice that the fly waste was pushed along in front of the edge of the traveler, and if not attended to immediately by the operator this waste and the accumulated dirt would drop upon the threads or yarn. By means of the openings $e'\ e'$ this waste finds its way into the interior recess W, where it is immediately engaged by the fibrous surface w of the felt or lining of the recess and held there, so that it cannot escape until the operator lifts the cleaner and removes the accumulated waste. The guard M also prevents one of the difficulties arising from the use of the cleaner now in existence—that is to say, as the travelers now in use slide over the surface of the board f and the lifter-blocks F the fly waste which settles thereon is pushed before the cleaner, and as it accumulates some of it is pushed over the front edge of the lifter-blocks and down upon the cops or yarn below. The guard M, having its interior lower edge in contact with or in

close proximity to the front edges of the lifter-blocks, prevents the waste from dropping and keeps it back upon the blocks, where it can be readily removed by the operator. By means of the recess W and the guard M almost, if not quite all, the fly waste which settles or accumulates upon the lifter-blocks F or upon the fly-board *f* is engaged and held securely until the traveler N is lifted and the waste removed. The guard M works more efficiently after the accumulation of a small quantity of waste upon its inner suface, as the additional waste adheres to that which is already there, and is thus prevented from escaping. The interior surface of the guard M may be, if desired, lined with felt or some equivalent material, so as to hold the waste more securely; but in practice it is found to operate satisfactorily without such lining. The guard M is made preferably from metal; but it may be made of papier-mâché or wood or any other suitable material.

Having now described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a cleaner for ring-spinning frames of the type mentioned the traveler N having upon its under surface a recess W, and the openings *e' e'* connecting therewith, substantially as described.

2. In a cleaner for ring-spinning frames, the traveler N; a guard fixed thereto and projecting downwardly and outwardly therefrom so that the lower front edge of the guard rests upon the guide-wires while the interior surface of said lower edge is in contact with or in close proximity to the front edge of the lifter-blocks, in combination with said lifter-blocks and guide-wires, substantially as described.

3. In a cleaner for ring-spinning frames of the type mentioned, a traveler N having a recessed under surface and at each end of said traveler an opening connecting with said recess; a fibrous material lining said recess; a guard fixed upon said traveler and curving downwardly and outwardly therefrom so that its lower edge rests upon the guide-wires while the inner surface of said lower edge is in contact with or in close proximity to the lifter-blocks; the whole in combination with said lifter-blocks and guide-wires, substantially as set forth.

Signed at Pawtucket, Rhode Island, this 24th day of October, 1901.

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