

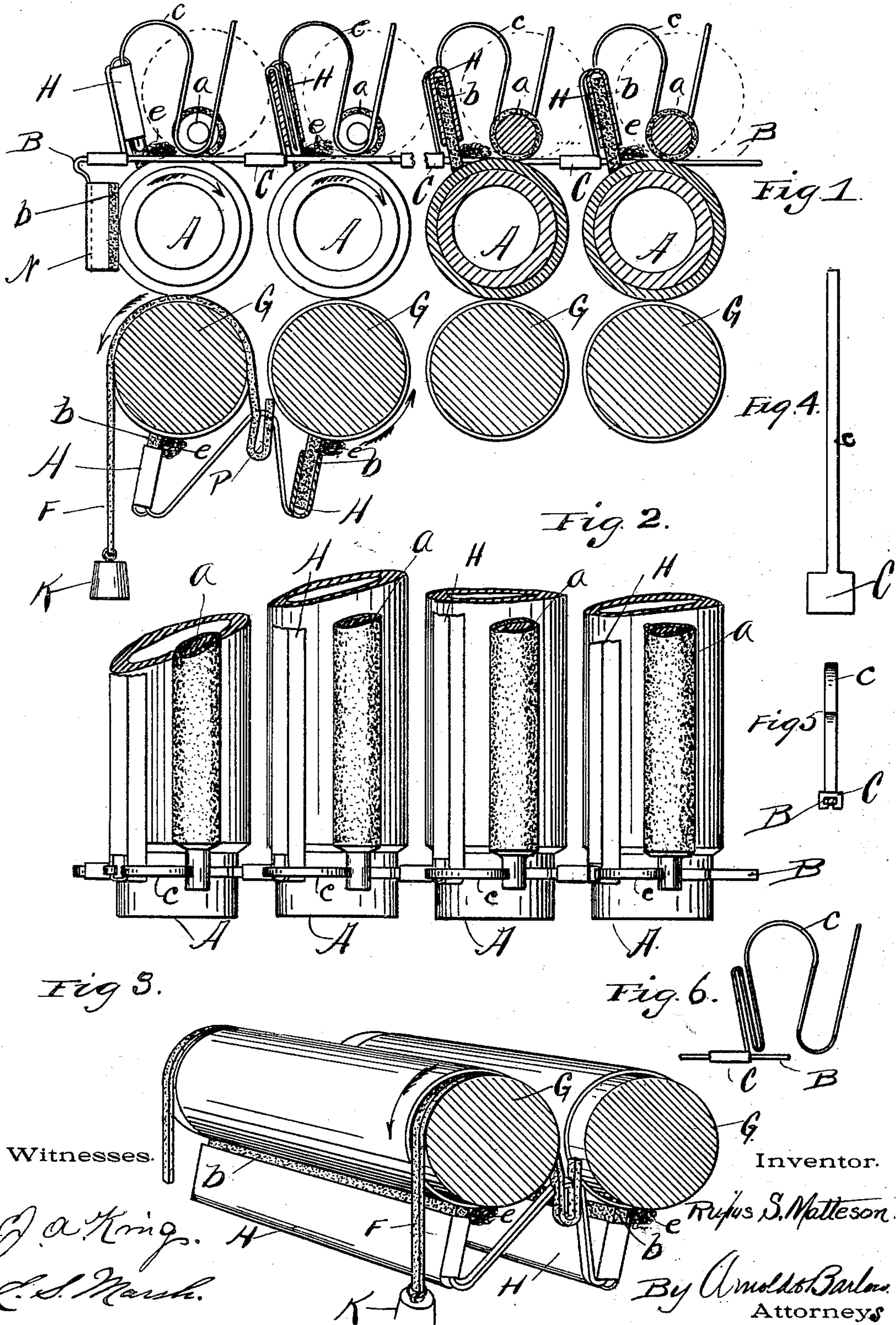
No. 697,212.

Patented Apr. 8, 1902.

R. S. MATTESON.
TEXTILE ROLLER CLEARER.

(Application filed May 2, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

RUFUS S. MATTESON, OF PROVIDENCE, RHODE ISLAND.

TEXTILE-ROLLER CLEARER.

SPECIFICATION forming part of Letters Patent No. 697,212, dated April 8, 1902.

Application filed May 2, 1901. Serial No. 58,466. (No model.)

To all whom it may concern:

Be it known that I, RUFUS S. MATTESON, a resident of the city of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Textile-Roller Clearers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to the class of devices made for the purpose of clearing the top and under rolls of spinning and drawing machines of the lint and other waste.

It consists mainly of a combination of collecting-bars that detach the lint or other waste from the drawing-rolls and of rolls that collect it after being detached and wind it up in a shape that can readily be removed. It is fully described and illustrated in this specification and the annexed drawings.

Figure 1 shows an end view, partly in section, of the lower rolls and the top rolls with the clearing devices. Fig. 2 is a top view of the parts shown in Fig. 1. Fig. 3 is a perspective view of part of two lower rolls, showing the clearing devices for those rolls. Fig. 4 shows the shape of the blank that is bent up to form the support for the clearer bars and rolls shown in the two first figures. Fig. 5 shows a view of one end of the blank seen in Fig. 4 bent up to form a tube to slide on a bar. Fig. 6 is a side view of the blank bent up in the form in which it is seen in Fig. 1.

The construction and operation of the clearer are as follows:

A A represent the top rolls, and G G the lower or fluted rolls, which accomplish the drawing of the cotton sliver in the working of cotton.

Blanks of the shape represented in Fig. 4 are punched out of sheet metal and have their broad ends bent up to form a short square tube C and fitted to slide on the bar B. (See Fig. 5, in which the bar B is seen in section.) The narrow part of the blanks C are then turned up square to the tube C and bent so as to form a loop to hold the clearer-bars H, (see Fig. 6,) then is again carried up to form a larger loop and the end turned up

to form a reversed loop to hold the ends of the collecting-rolls *a a*. The bars B are made, preferably, square in cross-section, and the square tubes C of the holders are fitted to slide on the bars B, so that they may be adjusted to agree with the top rolls A A. Flat hollow bars H H, open on one edge and closed at the ends, are made of sheet metal, and each bar H has one of the holders seen in Fig. 6 attached to it, so as to slide vertically at each end of the bar in the loop of the holders nearest to the tube C. A strip of felt *b* is put in each hollow bar H, with one edge projecting from the open edge of the bar.

As many of the holders C, with the felt bars H attached, as there are rolls in a division are placed on two of the bars B, at the same distance apart on the bars as the rolls are in the frame, and put on the top rolls, with a felt bar H over each roll, with the edges of the felt strips *b* resting on the rolls to support the clearer.

A roll *a*, covered with felt, is placed in the last loop of each holder over the rolls A A and allowed to rest on those rolls to collect the waste *e*, detached from the rolls A by the felt in the bars H. The outer ends of the bars B are turned down in front of the first roll A, as shown in Fig. 1, and a bar N is attached to them, faced with felt, which is allowed to bear against the face of the front roll, which keeps the apparatus from being carried back by the motion of the rolls A when running. In applying the clearer to the under sides of the rolls, as shown in Figs. 1 and 3, the bars B are dispensed with, the bars H H with the felt strips are reversed and held up in contact with the under sides of the rolls G G by means of straps F F, one at each end, that catch under a cross-bar P, that supports the holders of the felt bars H H, and passing over the front roll G have weights K K attached to them to hold the bars H H up against the rolls, and the friction of the rolls on the straps will draw on them and help to press the bars H up against the rolls. The felt-covered rolls *a a* are also omitted in this case, as the waste taken off of the under rolls by the felt bars H H will drop down out of the way and not injure the roving.

When the machine is in operation, the bars

H H and the rolls *a a* are in position on the tops of the rolls A A, as seen in Fig. 1, the rolls A A turning in the direction indicated by the arrows. The waste attached to the surface of the top rolls will be carried under the edge of the strips of felt in the bars H H and rubbed off of the rolls and carried out back of the felt strip and caught by the rolls *a a* and wound up on them. The strips of felt are set at an angle to the rolls, so that as the rolls turn the friction will carry the lower edges of the strips in against the rolls and increase their efficiency. The rolls *a a* rise up in the loops of the holders as they increase in size until they are large enough to be taken out and have the waste stripped off, and then they are replaced in the loops. The waste detached from the under sides of the lower rolls by the bars H H drops down, as before stated, and can easily be removed while the machine is running. Instead of felt for the bars H H and rolls *a a* any other suitable material may be used, if preferred.

Having thus described my improvements, what I claim, and desire to secure by Letters Patent, is—

1. A clearer for textile rolls consisting of a pair of horizontal bars, holders having loops and arranged to slide on said bars, bars carrying felt strips, connecting said holders together and arranged to rest on the rolls to be cleared, rolls covered with felt and held in the loops of said holders on the upper side of the top rolls, and said top rolls, substantially as described.

2. In a clearer for textile rolls the combination of a pair of horizontal bars having their front ends turned down, holders with loops, arranged to slide on said bars, bars with strips of felt in said holders on the top of the rolls to be cleared, rolls covered with felt and held in loops of said holders on the upper side of the top rolls, and a bar having a lining of felt, made fast at each end to the

turned-down ends of the horizontal bars, substantially as described.

3. In a textile-roll clearer the combination of a series of bars carrying strips of felt, a series of rolls covered with felt and driven by the top rolls, means for connecting each bar of the series with a roll of the series, and connections between each pair of a bar and a roll, and the other like pair in the same division of the top rolls, substantially as described.

4. In a textile-roll clearer, drawing-rolls, a series of flexible or gathering strips supported throughout their length running parallel with and bearing against said rolls, in combination with means for collecting and retaining the waste as fast as gathered by said flexible strips, and arrangements for pressing said strips against the rolls by the action of said rolls when revolving, substantially as described.

5. In a textile-roll clearer, a series of drawing-rolls, a series of flexible gathering-strips bearing against the surface of said rolls with means for adjusting each individual strip separately to bear against the surface of its roll, in combination with means for collecting and retaining the waste when gathered by said strips, substantially as described.

6. In a textile-roll clearer, a series of drawing-rolls, a series of flexible gathering-strips bearing against the surface of said rolls held automatically adjusted by their weight vertically, and mechanically adjustable laterally, in combination with rolls for collecting and retaining the waste when gathered by said strips, substantially as described.

In testimony whereof I have hereunto set my hand this 1st day of May, A. D. 1901.

RUFUS S. MATTESON.

In presence of—

EDGAR S. MARSH,
BENJ. ARNOLD.