D. E. MOLLOY.

CARDING OR STRAIGHTENING THE FIBER OF COTTON.

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1,427,077. Patented Aug. 22, 1922.

Fig. 1.

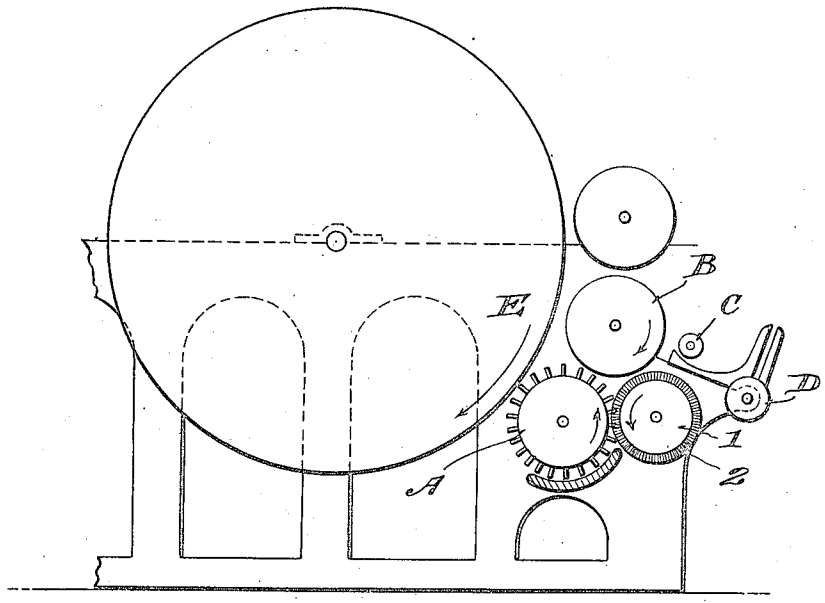
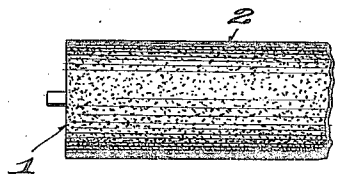


Fig. 2.



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CARDING OR STRAIGHTENING THE FIBER OF COTTON.

1,427,077. Specification of Letters Patent. Patented Aug. 22, 1922.

Application filed August 12, 1920. Serial No. 403,006.

To all whom it may concern:

Be it known that I, DANIEL E. MOLLOY, a citizen of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented new and useful Improvements in Carding or Straightening the Fiber of Cotton, of which the following is a specification.

This invention relates to certain new and useful improvements in carding or straightening the fiber of cotton, and relates especially to what are known as revolving flat cards used in the textile art for carding or straightening the fiber of cotton.

The primary object of the invention is to provide rotatable means which will act upon the stripper roll so as to keep the teeth thereof in clean and operative condition.

A further object of the invention is to provide means of the type mentioned which is possessed of wire or fiber brushes that completely surround its periphery and which is driven at a high rate of speed, and which act upon the cotton fibers so as to straighten same while cleaning the teeth of the stripper roll.

Further and other objects will be later set forth and of themselves manifested in the course of the following description.

In the drawings:

Fig. 1, is a fragmentary side elevation, partly in section, showing the present invention in position on a carding machine, and

Fig. 2, is a fragmentary plan view of the roll provided with wire brushes or the like.

In proceeding in accordance with the present invention it will be understood that the rolls depicted in the drawing are in practice supplied with the usual card cloth, and that the machine itself is otherwise of the usual structure employed in the cotton mills.

Accordingly it will be understood that the roll of cotton known as the lap is supported on the lap roll D and passes under the feed roll C on the feed table to what is commonly termed the licker in, the latter being designated B in the drawings. From the licker in the cotton is carried downward and over the stripper roll A, the latter acting to remove the short fibers carried into the machine by the licker-in B, and the cotton is then stripped from the roll A permitting it to pass to the main cylinder E, from which latter it is stripped and operated upon by the various flats until it finally reaches the opposite end of the machine where it is doffed or removed from the main cylinder and passes out of the machine. All of the above mentioned parts are old in the art.

The present invention resides in the use and combination with certain of the above parts now to be described, of a roll 1 which has on its periphery wire or fiber brushes 2 which completely surround same. This roll is driven at a comparative high speed, and is arranged close to the stripper roll A, which latter always travels at a slower speed. The licker in B is mounted adjacent the roll 1 as is usual, while the feed roll C and the lap roll D are also arranged as is customary in carding machines. The object of driving the roll 1 at a high speed is to clean the teeth of the roll A from the collection or accumulation of dirt and various matter that comes in the cotton lap and is usually deposited between the wire teeth of the stripper roll A, so that in a short time it becomes practically inoperative and has to be removed and then cleaned. The roll 1 therefore at all times keeps the stripper roll A clean and free from dirt or other foreign matter.

In operation the roll of cotton is supported on the lap roll D and passes under the feed roll C, the licker-in B breaking or tearing the fibers from the lap while the cylinder E combs these partly straightened fibers picking them off of the licker-in B, while the roll A picks off from the cylinder E the short fibers that are carried onto the cylinder E by the licker-in B. During the movement of the cotton from the licker in to the stripper roll the wire brushes of the roll 1 will act to clean the teeth of the stripper roll as above described.

From the above it will be seen that the invention is simple in character and positive in its action, and that it can be applied to existing machines easily and quickly by the mere mounting of a roll in position and the provision of any actuating means suitable for the purpose.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

In a carding machine, in combination with the feed table, thereof, a licker in arranged

adjacent to the feed table and in front thereof, a stripper roll below the licker in, a rotatable cleaner roll arranged below the table and below the licker in and adjacent to the stripper roll, and means to rotate the cleaner roll at a speed to remove foreign matter from the stripper roll and to maintain the latter clean.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DANIEL E. MOLLOY.

Witnesses:
E. P. TOOMEY,
J. A. MILLER.