

No. 816,417.

PATENTED MAR. 27, 1906.

T. E. AINLEY.  
FLEECE CARRIER.  
APPLICATION FILED APR. 21, 1905.

FIG. 1.

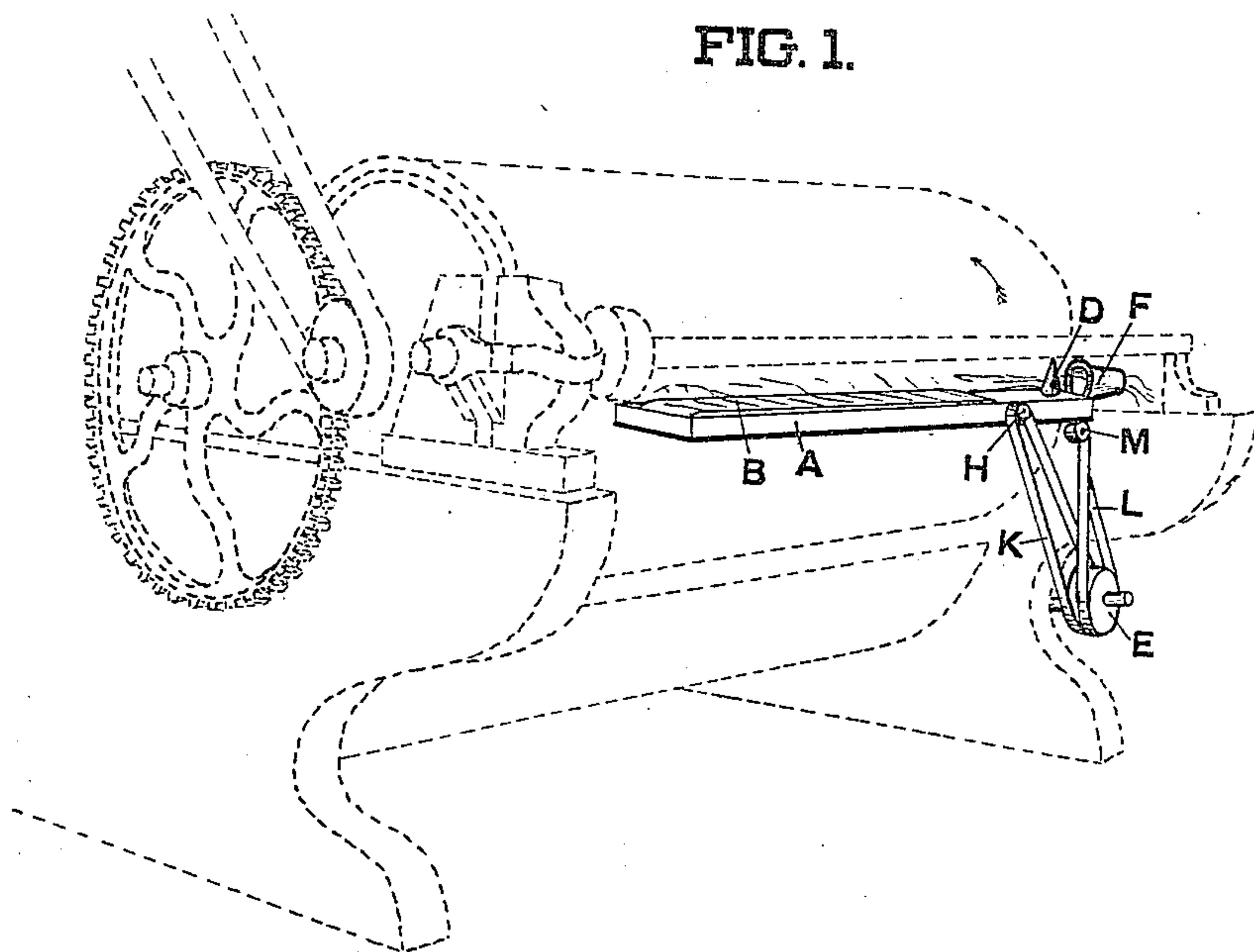
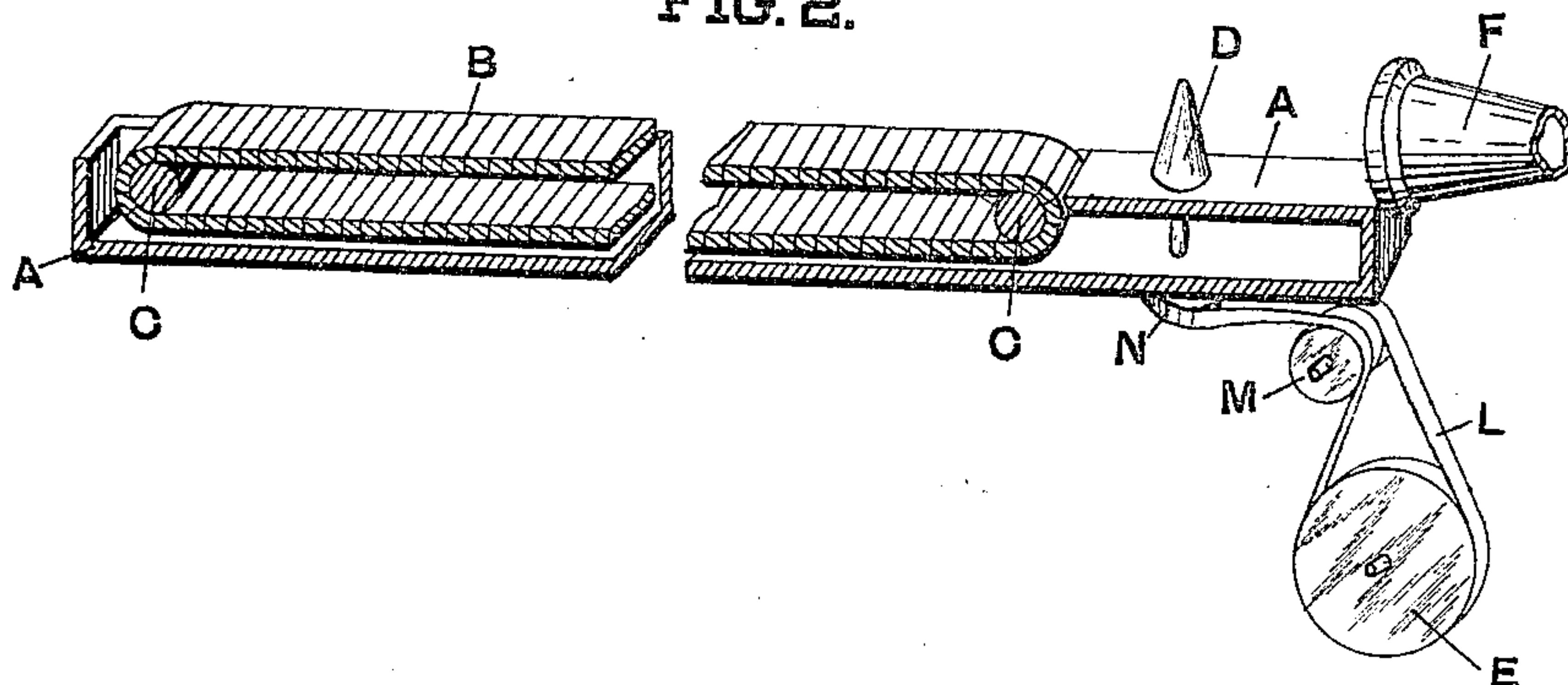


FIG. 2.



WITNESSES

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# UNITED STATES PATENT OFFICE.

THOMAS E. AINLEY, OF SHERBROOKE, CANADA.

## FLEECE-CARRIER.

No. 816,417.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed April 21, 1905. Serial No. 256,815.

*To all whom it may concern:*

Be it known that I, THOMAS E. AINLEY, of the city of Sherbrooke, Province of Quebec, and Dominion of Canada, have invented certain new and useful Improvements in Fleece-Carriers, of which the following is a full, clear, and exact description.

My invention relates to machines employed for the purpose of carding cotton or other fiber preparatory to drawing the sliver forming a part of the art of weaving cotton; and it relates more particularly to a means for removing the card or fleece from the doffer in the breaker-machine and transporting it to the coiler and rolls, by which it is given a slight twist, so as to make the strands adhere, producing a roping, which is then carried by a suitable feeding mechanism, such as the Bramwell type, to the intermittent feed or Apperly comprising a part of the finisher-machine.

In the processes of preparing cotton for weaving a certain class of goods which must be sold at a minimum cost it is usual to substitute definite quantities of inferior fiber for that of the cotton, thus producing what is commonly known as "shoddy" goods; but it is found that the carding resulting from such substitution has so little strength before being twisted that it will barely support its own weight when being combed off the doffer in a fleecy sheet preparatory to being twisted into a self-sustaining sliver.

It is therefore an object of my invention to devise a carrier which will support the card coming from the doffer and transport the same transversely into a conical trumpet preparatory to being twisted and drawn into the roping.

Further and more particular objects of my invention will appear upon reference to the following description and claims when taken in connection with the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view in perspective, illustrating the application of my invention, shown in full lines, to a breaker, shown in dotted lines. Fig. 2 is an enlarged sectional perspective of the carrier.

Referring to the drawings now more particularly by reference-letters, it will be seen that the carrier is designed for application to a doffer-roll immediately below the comb, so that the removed carding will fall upon my

carrier for transportation, as hereinafter described.

The carrier (shown in detail in Fig. 2) comprises a casing A for encompassing a belt B, passing around end rollers C. The right-hand roller-axle protrudes through the casing and carries upon the end thereof a small pulley H, round which passes the driving-belt K, driven from a suitably-placed fly-wheel, such as E. The carrier-belt B preferably extends for about three-quarters only of the carrier, and that the card may be properly assisted in its travel toward the twisting-cone I mount a directing-cone D upon the casing intermediate the belt end and the trumpet, as will appear from Fig. 2. This cone is rotated clockwise through the instrumentality of the belt L and its attendant guiding-pulleys M and N, the pulleys being driven, preferably, from the drive-wheel E. Mounted at the extreme right-hand end of my carrier is the usual trumpet F, this being set upon the framework of the machine and operated in a well-known manner, and therefore need not be further described, as it does not form an essential part of my device, which is mainly designed for independent application to the usual types of breaker-machines.

From the foregoing it will be readily understood that the removed carding will be carried by the belt B to its end and will then be properly forwarded by the conical member D to the coiler-tube and that the success of this operation does not depend materially upon the strength of the fleece emitted by the breaker-machine. I do not extend the belt entirely across the machine in order that a massing of the fibrous material will be avoided. The cone D assists the fibrous material in its course, and it will be found that by the application of this carrier means to breaking-machines fibrous material of the most delicate strength may be readily handled without fear of damage.

Having thus described my invention, so that the same may be readily understood by those skilled in the art to which it appertains, what I claim, and desire to secure by Letters Patent, is—

1. In a carding-machine, a fleece-remover comprising a casing, a traveling belt therein mounted, a forwarding-cone adjacent the belt end thereof, and means for actuating said belt and cone.

2. In a carding-machine, a fleece-remover



comprising a casing, an endless traveling belt therein mounted whereby the upper belt-surface is exposed for receiving said fleece, a guiding-cone intermediate the belt and the trumpet, and means for rotating said belt and cone respectively.

3. In a carding-machine, a fleece-carrier comprising an endless belt, positioned for receiving, supporting, and transporting the fleece to the trumpet, and a positively-rotated intermediate cone for forwarding said fleece to said trumpet.

4. In a carding-machine, a fleece-carrier located adjacent the doffer and immediately under the comb whereby the stripped fleece will fall upon the carrier-belt, be supported and carried thereupon toward the trumpet, and a positively-rotated conical forwarder intermediate the belt end and the trumpet.

5. In a carding-machine, a fleece-carrier

comprising an endless belt mounted upon end rollers located adjacent the doffer periphery and immediately under the fleece-removing comb, whereby the stripped fleece will fall upon the carrier-belt, be supported thereby, and carried thereupon toward the trumpet, a conical rotating forwarder located intermediate the belt end and the trumpet, driving-pulleys mounted upon said rollers and forwarder, and a belt for transmitting motion to said pulleys whereby said belt will be caused to travel and said forwarder rotate, thereby assisting in the translation of the fleece toward the trumpet.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

THOMAS E. AINLEY.

Witnesses:

ALEX D. IRELAND,  
A. JONCAS.