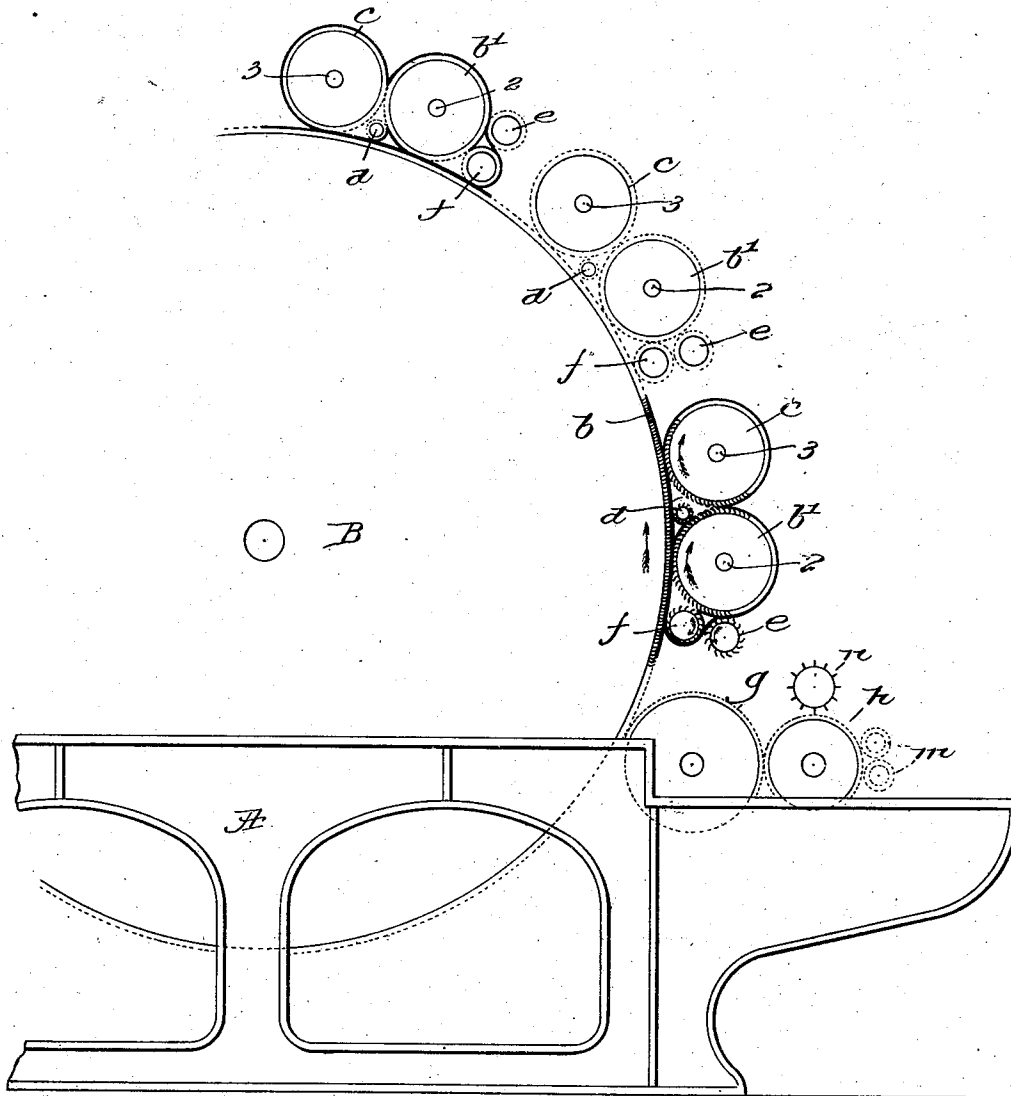


No. 860,154.

PATENTED JULY 16, 1907.

W. D. RUNDLETT.
CARDING MACHINE.
APPLICATION FILED OCT. 1, 1906.



Witnesses,
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Inwitness;
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attys.

UNITED STATES PATENT OFFICE.

WILLIAM D. RUNDLETT, OF NORTH ANDOVER, MASSACHUSETTS, ASSIGNOR TO DAVIS & FURBER MACHINE COMPANY, OF NORTH ANDOVER, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

CARDING-MACHINE.

No. 860,154.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed October 1, 1906. Serial No. 336,828.

To all whom it may concern:

Be it known that I, WILLIAM D. RUNDLETT, a citizen of the United States, and a resident of North Andover, county of Essex, and State of Massachusetts, have invented an Improvement in Carding-Machines, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

This invention relates to carding machines, and is shown as applied to the class of carding machines illustrated in United States Patent No. 635,634, October 24, 1899, wherein the workers are arranged in pairs about the card cylinder, and a stripper is located in the space between the workers and the main cylinder, the central stripper stripping the stock from the first worker and returning the stock to the main cylinder. In the carding machine shown in said patent, the stock on the teeth of the main cylinder is carded when it is taken from the main cylinder by the first worker, is returned to the main cylinder by the central stripper, and is again carded when it is taken from the main cylinder by the second worker, and the twice carded stock on the second worker is stripped therefrom by the first worker at the point of contact of the first and second workers without additional carding.

In my invention hereinafter to be described, I have provided means whereby that portion of the stock taken from the main cylinder and carded by the workers and yet on the first worker is carded again prior to its return by a stripper to the main cylinder. To effect this extra carding which adds very materially to the value of the stock removed from the card cylinder by the doffer, said stock being better prepared for the manufacture of uniform yarns, I have combined with the first worker of the pair of double workers a carding roller that, running at a faster speed than the first worker, engages the twice carded stock thereon and again cards the same, the stock being taken from the first worker and the carding roller and returned to the main cylinder by a stripper. By the joint action of the carding roller and the stripper, substantially all the stock on the first worker is removed therefrom before the teeth of the first worker again arrive in contact with the stock on the main cylinder so that the first worker comes into engagement with the stock on the main cylinder in its most effective condition, and the stock thus returned is in a thoroughly separated condition.

The drawing in side elevation shows a sufficient portion of a card clothed main cylinder and workers arranged thereabout, together with strippers and carding rollers, to illustrate my invention in one form.

Inasmuch as each pair of workers, the two strippers

co-acting therewith and the carding roller are all alike, I need specifically describe but one pair of workers and its co-acting strippers and carding roller. 55

Referring to the drawings, A represents part of the frame work of a carding machine, B the usual main cylinder having card clothing *b*, and revolved usually seventy or more times per minute. The frame work of the carding machine has suitable bearings to sustain about the periphery of the main cylinder, a series of shafts 2, 3 forming part of the workers *b'*, *c* shown as arranged in pairs, each worker being driven in usual manner, their teeth at the point of contact with the main cylinder moving in the direction of the movement of the more rapidly revolving main cylinder, the surface speed of the worker *b'* being preferably a little faster than the speed of the second worker *c*, the workers traveling at a very much slower surface speed than the main cylinder. 60 65 70

The center stripper *d* in the space between the two workers and the main cylinder, strips from the rear side of the first worker *b'* the stock taken thereby from the main cylinder, and returns said stock to the main cylinder to be recarded, and the second worker thereafter again takes a part of the stock from the main cylinder and carding said stock carries the same over and about the second worker, and the first worker strips the stock from the second worker and carries the same backwardly toward the end of the machine at which the stock is fed to the main cylinder by the usual tumbler. 75 80

The twice carded stock on the first worker *b'* is again carded prior to its return to the main cylinder through the stripper *f*, by a carding roller *e* located at the front side of said first worker, said stripper taking from said first worker and said carding roller the stock and returning the same to the teeth of the main cylinder. 85

Each pair of workers, its central stripper *d* stripping the rear side of the front roller, and the carding roller and stripper at the front side of the first worker *b'* coact to card three times and return the stock to the main cylinder, thus thoroughly preparing the stock, the latter being acted upon many times from the point where the usual tumbler *g* or other device supplies stock in the first instance to the teeth of the main cylinder, to the point where the carded stock is removed from the said main cylinder by the usual doffer, not shown. 90 95

The drawing shows a lickerin *h* in advance of the tumbler and feed rollers *m*, *m* and a bur guard *n*, the stock being considered to be wool, but the stock may be any staple capable of being carded. 100

In practice, about half of the stock applied to the

teeth of the main cylinder is taken off by the first worker, and the stock is stripped from the first worker and again applied to the surface of the stock yet in the teeth of the main cylinder, from which it is again taken
 5 by the teeth of the second worker, and the first worker takes the stock from the second worker, cards it, and brings the stock opposite the teeth of the carding roller *e*. This roller, as shown by the drawings, takes the majority of the stock from the first worker and that
 10 stock is stripped from the carding roller *e* by the stripper *f*, the latter stripper also acting to substantially strip from the first worker practically all of the stock in its teeth.

The drawing shows in the space between the first
 15 worker and carding roller and stripper *f* the film of stock as it is removed, and, as above described, the stock stripped from the first worker by the stripper *f*

being applied to the under side of the stock taken from the first worker by the carding roller *e*.

Having described my invention, what I claim as new 20 and desire to secure by Letters Patent is:—

In a carding machine, a main cylinder, workers arranged thereabout in pairs, a central stripper to transfer the stock from the rear side of the first worker to the main cylinder, from which cylinder the stock is again 25 taken by the second worker, carried thereabout and transferred to the first worker, a carding roller to card a third time the stock on the first worker and supplied thereto from the second worker, and a stripper co-acting with said carding roller and first worker to return said carded stock 30 to the main cylinder.

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

WILLIAM D. RUNDLETT.

Witnesses:

T. IDA BIXBY,

GEORGE WOOLLEY.