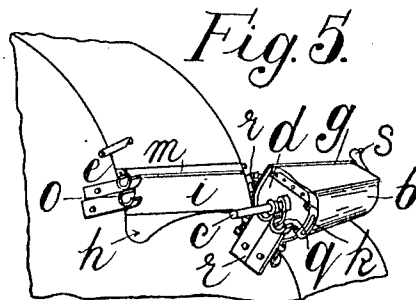
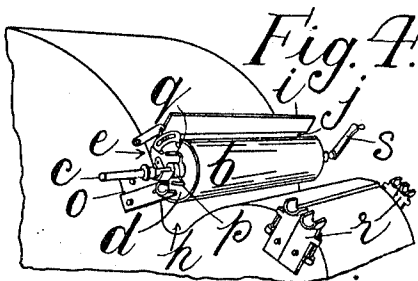
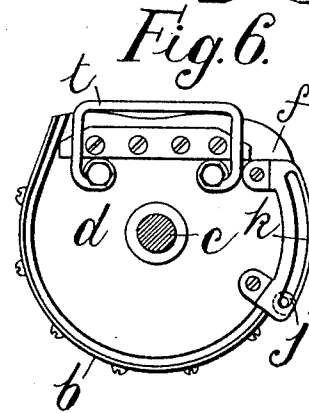
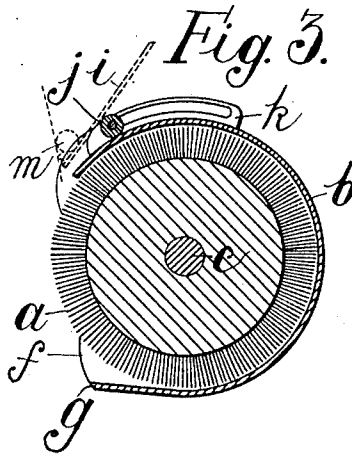
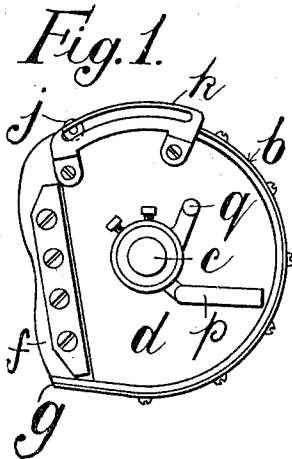
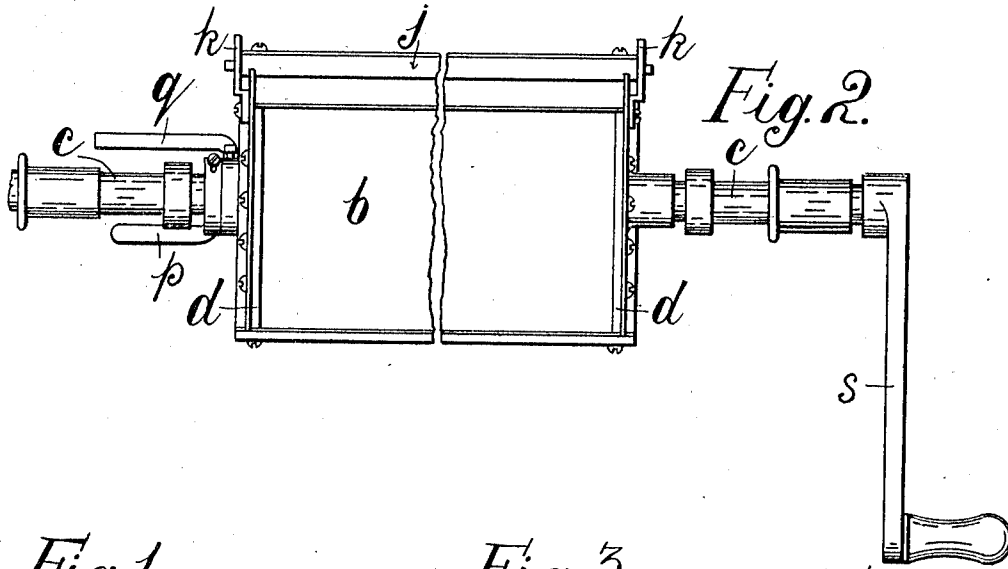


J. EDGE.
STRIPPING ROLLER OF CARDING ENGINES.
APPLICATION FILED MAY 14, 1912.

1,061,167.

Patented May 6, 1913.



Witnesses.

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JAMES EDGE, OF GORTON, ENGLAND.

STRIPPING-ROLLER OF CARDING-ENGINES.

1,061,167.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed May 14, 1912. Serial No. 697,298.

To all whom it may concern:

Be it known that I, JAMES EDGE, subject of the King of Great Britain and Ireland, and resident of Gorton, in the county of Lancaster, England, mill manager, have invented certain new and useful Improvements in or in Connection with the Stripping-Rollers of Carding-Engines, of which the following is a specification.

My invention relates to improvements in or in connection with the stripping rollers employed for carrying out the stripping of carding engine cylinders and doffers the object being to provide an improved arrangement of device which will entirely eliminate the dust arising from the aforesaid operation as it is ordinarily carried out.

My invention has particular reference to that type of device in which the stripping roller is more or less inclosed by a casing, my invention particularly relating to improvements connected with the casing, to means for controlling its action and improved means for forming dust-tight joints between the casing and the cylinder or doffer cover.

My invention will be fully described with reference to the accompanying drawings in which,

Figure 1 is an end elevation of the roller and its casing, Fig. 2 longitudinal elevation of same, Fig. 3 transverse section, Fig. 4 a partial perspective view of a carding engine to a reduced scale showing the stripping roller in position for stripping the cylinder, Fig. 5 a similar view showing the stripping roller temporarily located in bearings above the doffer while the strip is being removed from it and Fig. 6 end elevation of roller casing showing arrangement of bracket *t*.

I use the ordinary stripping roller *a* with which I combine a substantially circular casing *b* mounted freely on the roller shaft *c*, such casing extending for the full length of the roller so as to just clear its ends. The casing is quite plain and has an internal diameter a little larger than that of the roller itself and is closed at the ends by plates or disks *d* but at the side nearest to the cylinder or doffer to be stripped the casing is quite open to allow the roller to come in contact with the card wire surface of the parts named when the roller is in the position indicated in Fig. 4. To make a tight

joint between the rigid bends *e* of the carding engine and end plates *d* of the casing *b*, the latter may be fitted with strips of rubber, felt or the like *f*. The lower longitudinal edge *g* of the casing on the other hand makes a tight joint with the metal covering *h* surrounding the cylinder or doffer, though similar means may be employed at this edge, if desired. All these parts are of known construction.

In order to make a tight joint at the upper longitudinal edge of the casing between the usual hinged stripping door *i* both at its under and upper sides and in accordance with my invention, I mount on the casing *b* a small roller *j* which may be covered with felt or other soft material. This roller is mounted in slotted brackets *k* carried by the casing *b*, so that when the latter is arranged in the position shown in Fig. 4 it will come in contact with the underside of the stripping door or front plate and make a tight joint between itself and the door or the front plate and the roller casing. A similar dust-tight joint is made by a second roller *m* of the same type mounted in slotted brackets carried at the upper side of the hinged door *i*, or secured to the sheet metal casing of the carding engine. This roller forms a dust-tight joint between itself and the door and the cylinder casing though where the hinging of the former is of a close type the second roller may be dispensed with. Again where the door is hinged at the bottom instead of the top, the roller carried by the casing *b* may also be dispensed with and a strip of rubber, felt or the like be employed to make a tight joint between the longitudinal edge of the casing and the sheet metal covering surrounding the cylinder.

In order that the casing *b* surrounding the roller shall automatically assume its proper position against the cylinder covering when it is being placed in position in the bearings *o*, it has secured to one end two arms *p* and *q* projecting in an axial direction away from the end of the cover, one of such arms *p* being caused to engage with the front side of the bearing bracket *o* for the roller in such a way as to turn the casing into the proper position when the roller shaft is being dropped into its bearing. The second arm is of use to hold the casing with

its open side uppermost after the roller has been taken away from the cylinder or doffer and while it is resting in the ordinary roller bracket bearings *r* arranged on the frame near to the doffer. In other words this second arm rests in one of the bracket bearings, as shown in Fig. 5 and prevents the casing revolving about the roller shaft during the time the strip of fiber, leaf etc., is being removed from the roller by the usual hand card as will be well understood. The casing of the roller may also be provided with a projecting arm or handle *t* as in Fig. 6 at the opposite end to the arm previously referred to and in combination therewith, to hold the casing in position when the stripping roller is acting on the doffer, and to prevent the roller going too deep into the wire covering. For stripping the doffer the roller and casing are merely turned over from the position indicated in Fig. 5.

It has been generally understood that stripping rollers should be driven by a cord from the pulley mounted on the cylinder shaft during the time stripping takes place at a high number of revolutions, 425 per minute being considered necessary to effectually strip the card clothing. Such a high speed has been largely responsible for the amount of dust created during stripping and I have found it to be quite an erroneous method. In my new arrangement of roller and casing, the stripping roller is driven slowly by hand, by means of an ordinary winch handle *s*, some 14 revolutions or thereabout per minute only being necessary to effectually strip the cylinder. By this means I find that an equal weight of strip is removed to that under the old method and without the creation of any dust whatever in the process.

The arrangements hereinbefore described are of an extremely simple character and so arranged that the casing can be readily applied to the usual stripping roller without its being necessary to alter the construction of the latter.

What I claim as my invention and desire to secure by Letters Patent is:—

1. The combination, with a carding engine casing having an opening, and shaft bearings secured at the ends of the opening; of a stripping roller provided with a driving shaft which is journaled in the said bearings, a casing for the stripping roller mounted loosely on the said shaft and adapted to cover the said opening, slotted brackets on the stripping roller casing, and a packing roller slidable in the said slotted brackets and adapted to form a dust-proof joint between the two casings.

2. The combination, with a carding engine casing having an opening, and shaft bearings secured at the ends of the opening; of a stripping roller provided with a driving shaft which is journaled in the said bearings, a casing for the stripping roller mounted loosely on the said shaft and adapted to cover the said opening, and a stop projecting from the stripping roller casing and adapted to regulate its position with respect to the carding engine casing when the said shaft is placed in its said bearings.

3. The combination, with a carding engine casing having an opening, and shaft bearings secured at the ends of the opening; of a stripping roller provided with a driving shaft which is journaled in the said bearings, a casing for the stripping roller mounted loosely on the said shaft and adapted to cover the said opening, two arms projecting from the stripping roller casing at different points and adapted to regulate its positions with respect to the carding engine and the said opening when the shaft is placed in the said bearings and is moved from one pair of bearings to another.

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

JAMES EDGE.

Witnesses:

JOSEPH PEATFIELD,
WALTER HEADLAND.