(No Model.) 2 Sheets—Sheet 1.

I. NEWELL.

BURRING ATTACHMENT FOR CARDING MACHINES.

No. 419,211. Patented Jan. 14, 1890.

Fig. 2.

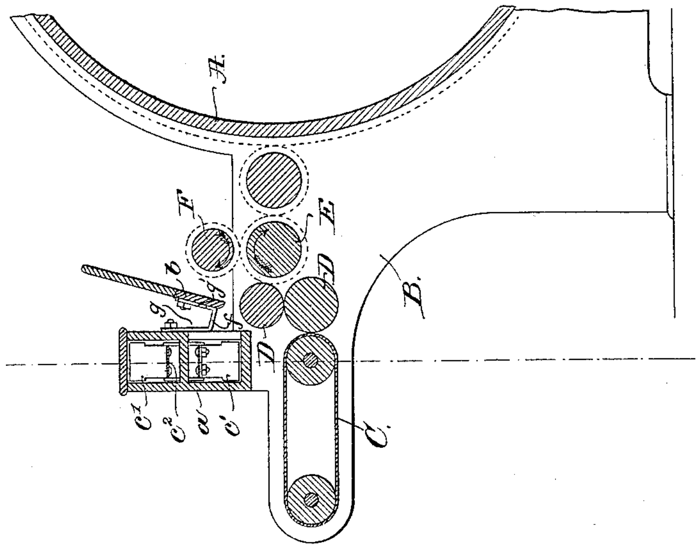
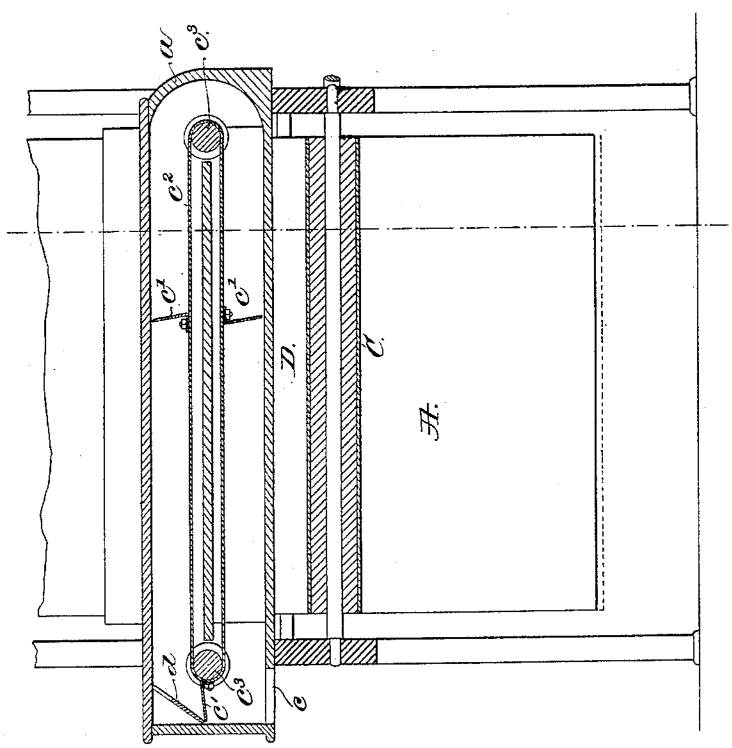


Fig. 1.



Witnesses
John F. C. Preinkert
Frederick L. Emery

Inventor:
Isaiah Newell,
by Crosby & Gregory attys.

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

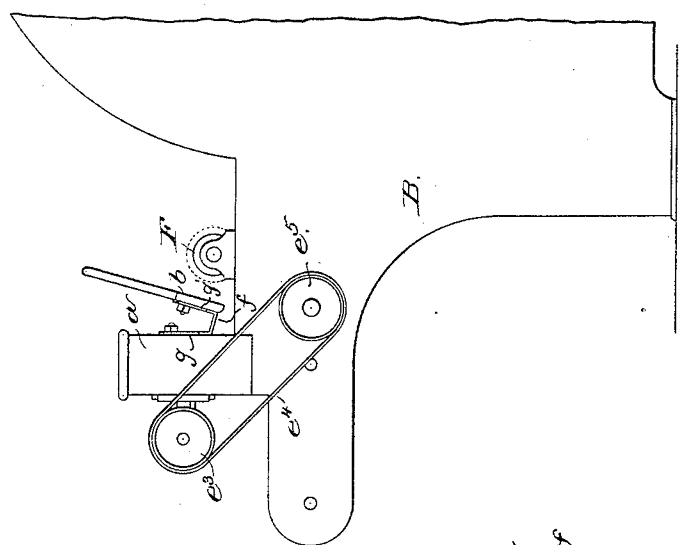


Fig. 5.

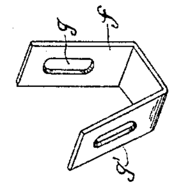
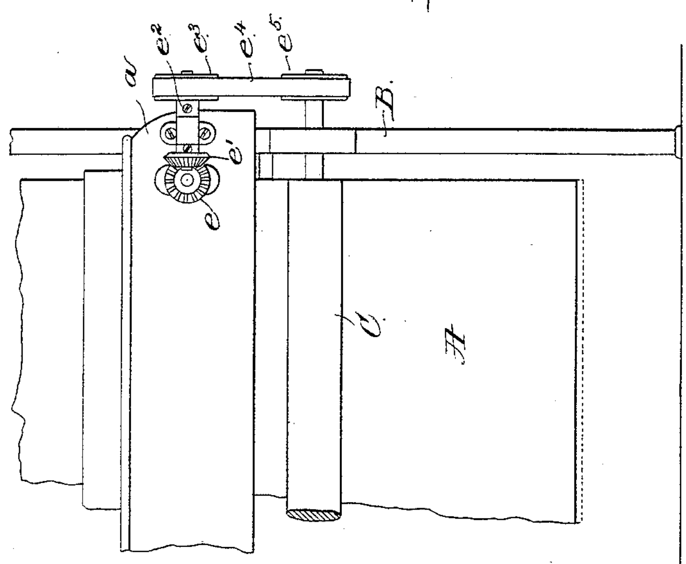


Fig. 3.



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by Crosby & Gregory
Attys.

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UNITED STATES PATENT OFFICE.

ISAIAH NEWELL, OF HAVERHILL, MASSACHUSETTS.

BURRING ATTACHMENT FOR CARDING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 419,211, dated January 14, 1890.

Application filed May 11, 1889. Serial No. 310,380. (No model.)

To all whom it may concern:

Be it known that I, ISAIAH NEWELL, of Haverhill, county of Essex, State of Massachusetts, have invented an Improvement in Burring Attachments for Carding-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to construct a device for conveying burrs and other foreign particles from a carding-machine.

In accordance with this invention a box or compartment is placed above the feed-apron parallel with the burr-guard, and having an opening from end to end serving as an entrance for burrs and foreign particles flying or thrown from the burr-guard. An endless belt or chain is employed having vanes or clearers which clear the box or compartment of burrs, &c., an opening being provided for their exit. Suitable means are provided for moving the belt or chain, and also means for cleaning the vanes. A shield is placed before the entrance to the box or compartment a little above the lower edge thereof, so that the heavier particles, as burrs, &c., leaving the burr-guard will enter the box, and the lighter particles, as wool, &c., will be guided down to the feed-rolls, to be again fed to the burr-cylinder. This shield is preferably adjustable.

Figure 1 shows a longitudinal section of a burr-conveyer embodying this invention applied to a carding-machine; Fig. 2, a cross-section of the burr-conveyer and co-operating parts shown in Fig. 1; Figs. 3 and 4, views showing the means for moving the operative parts. Fig. 5 is a detail showing one of the irons *f* detached.

The main carding-cylinder A, the frame B, the feeding-apron C, feed-rolls D, burr-cylinder E, and burr-guard F are all as usual in carding-machines. A box or compartment *a* is mounted on the frame above the feeding-apron C, said box being substantially as long as the burr-guard and lying parallel thereto. The box *a* has at the side or face adjacent the burr-guard F, and at its lower end, an opening extending from end to end, which serves as an entrance for burrs and other foreign particles leaving the burr-guard. A shield (shown as a hinged board *b*) is attached to the box *a* by bent irons *f*, (see Fig. 2,) slotted at *g g'*, to receive suitable bolts to permit vertical adjustment of the shield, the lower edge of which terminates above the bottom or lower edge of the entrance to said box, so that as burrs, &c., are thrown from the burr-guard by centrifugal force the burrs and other heavier particles will pass through the entrance to the box, and the lighter particles, as waste wool, &c., will strike the shield. Hinging the shield or board *b* enables it to be readily turned toward the receptacle *a* whenever it is desired to gain access to the burr-roll to adjust or clean the same. The shield, located as described between the receptacle and the burr-roll, and especially when inclined, as represented, acts to cause any burrs or like particles thrown upwardly to be deflected and directed down again upon the rolls in front of the long entrance-slot leading into the receptacle, the said entrance being between the bottom and top of the receptacle. The shield is inclined to direct the wool and other lighter particles striking it down onto the feed-rolls, to be again fed to the burr-cylinder. By the employment of the shield only the objectionable particles will enter the box.

The box *a* has an opening at the bottom, as *c*, for the exit of the burrs, &c., which are brushed or moved along the bottom of the box to the exit by vanes, blades, or brushes *c'*, attached to an endless belt or chain c^2, passing over rollers c^3, journaled in the box.

The vanes, blades, brushes, or clearers are herein represented as yielding, and a pivoted plate *d* is placed in the box, against or over which the clearers wipe to be cleaned.

Movement of the belt or chain is herein effected by a bevel-gear *e*, fixed to one of the rollers or shafts c^3, said bevel-gear meshing with a bevel-gear *e'*, fixed to a shaft e^2, bearing a belt-pulley e^3, the belt e^4 of which passes over the belt-pulley e^5, fixed to one of the shafts or cylinders of the machine.

I do not desire to limit my invention to the particular means employed for giving motion to the belt or chain, nor to the precise construction of the several parts.

I claim—

1. The burr-receptacle having an entrance-slot at its rear side, between its top and bottom and next the burr-roll, and having an exit for burrs at one end, and a burr-roll combined with an endless belt inclosed within the said receptacle and having attached blades c' to constitute a clearer, rolls to support and carry the said belt, and a shield located between the said receptacle and the said burr-roll near the said entrance-slot into the said receptacle, the said blades carrying the burrs before them along the bottom of the said receptacle and effecting the delivery of the same from the receptacle, substantially as described.

2. The burr receptacle or box having entrance and exit openings, and movable clearers and a cleaner for the clearers, substantially as described.

3. A burr receptacle or box having entrance and exit openings, and a movable clearer combined with an inclined adjustable shield, substantially as described.

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

ISAIAH NEWELL.

Witnesses:
JOSEPH H. PEARL,
FRANCIS H. PEARL.