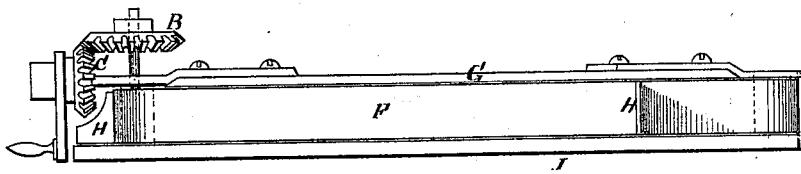


W. C. BRAMWELL.  
Burr-Conveyer for Carding-Machines.

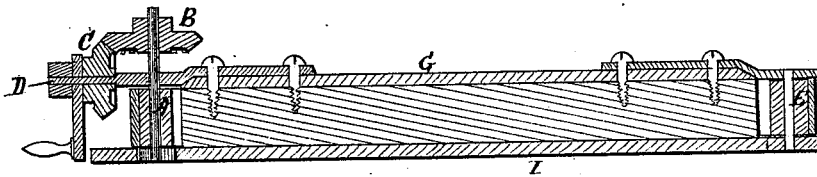
No. 212,435.

Patented Feb. 18, 1879.

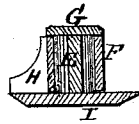
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses.  
*Wm. Turrell Andrews, Jr.*  
*Louis A. Curtis.*

Inventor -  
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# UNITED STATES PATENT OFFICE.

WILLIAM C. BRAMWELL, OF HYDE PARK, MASSACHUSETTS.

## IMPROVEMENT IN BURR-CONVEYERS FOR CARDING-MACHINES.

Specification forming part of Letters Patent No. **212,435**, dated February 18, 1879; application filed June 21, 1878.

*To all whom it may concern:*

Be it known that I, WILLIAM C. BRAMWELL, of Hyde Park, in the county of Norfolk and State of Massachusetts, have invented certain Improvements in Burr-Conveyers for Carding-Machines, of which the following is a specification:

This device is intended to remove the burrs and other refuse matter thrown off in the ordinary way by the burring apparatus of the carding-engine or other preparing-machine.

Heretofore a box, extending from side to side of the feed-table, has been employed to receive the refuse matter ejected. This box is usually supplied with hinges, so that the attendant can tilt it back whenever the burrs have accumulated on the edge of the box, and also whenever the box needs emptying of its contents. The neglect of the attendant, however, to tilt the box sufficiently often has been the cause of great destruction to the delicate teeth employed on the carding-cylinder, for it is well known that the refuse rarely reaches more than a short distance from the forward edge of the box, and therefore quickly accumulates, and if not removed will be precipitated into and among the carding-cylinders. It is to overcome this difficulty that I have herein sought a mechanical means to accomplish the object. For this purpose I use a belt, or similar traveling arrangement, and to this belt I usually attach one or more scrapers or plates, of metal or wood or other substance, which project laterally at an angle to such belt or band. The plates travel continually by and with the movement of the belt and prevent accumulation of burrs.

I usually make the apparatus of such length that one end shall project beyond the outside of the carding-machine, so that the burrs may drop to the floor or into a suitable receptacle on reaching such end.

The edges of the bottom board of this device are or may be beveled on the under side, so as to offer no impediment to the burrs, and this enables the apparatus to be placed with either edge to the carding-machine.

A spout may be attached to direct the burrs into a receptacle at either end. The top of

the apparatus is of sufficient width to extend over and protect the upper edge of the belt, so as to prevent any of the refuse from getting behind the band or belt, and so clogging it up or otherwise interfering with its proper action.

The drawings accompanying this specification represent, in Figure 1 an elevation, and in Figs. 2 and 3 vertical sections, of a device embodying my invention.

In these drawings, A is the vertical driving-roll, with its spindle and bevel-gear B, giving motion to the belt F from the driving-bevel C on the spindle D. The latter may receive its motion from any convenient part of the carding-engine by means of a pulley, band, or other device.

E shows the loose roll at the other end of the apparatus, and I make this adjustable, so as to tighten the belt when loose. I usually employ this end for the point of discharge.

G is the projecting shield, which protects the belt and thus prevents any refuse from interfering with the action thereof.

H are projecting rigid scrapers, attached to and moving with the belt. They move over the bottom board or plate, I, which, when the device is in use, occupies the same position in the carding-engine as does the floor of the ordinary burr-box, hereinbefore referred to, or such a position, for instance, as occupied by the burr-carrier shown in Letters Patent No. 140,814, dated July 15, 1873.

By placing the apron vertically instead of horizontally, it is in a position which will prevent deposit upon it of refuse, which, were the apron horizontal, might lodge on it; and so be carried to the rolls around which the apron moves.

The rigid scrapers, substantially such as herein described, are much preferable to brushes, which latter are very liable to gather and hold the refuse, and so to clog up.

The burrs taken by the scrapers are discharged at the right-hand end of the floor or plate I in Figs. 1 and 2.

What I claim, and desire to secure by Letters Patent, is—

1. In a burr-carrier, the combination, with the floor or plate on which the burrs are de-

posited, of a traveling belt standing at right angles with said board, so that the rigid projecting scrapers carried by said belt shall move over and in a plane parallel with the face of said floor or plate, substantially as shown and set forth.

2. In a burr-carrier in which the traveling scraper-belt is placed at right angles to the floor or plate on which the burrs are deposited,

as described, the combination, with said belt, of a top plate or shield covering the space enclosed by the belt, substantially as and for the purpose set forth.

W. C. BRAMWELL.

Witnesses:

T. A. WHITAKER,  
WM. E. MARSTON.