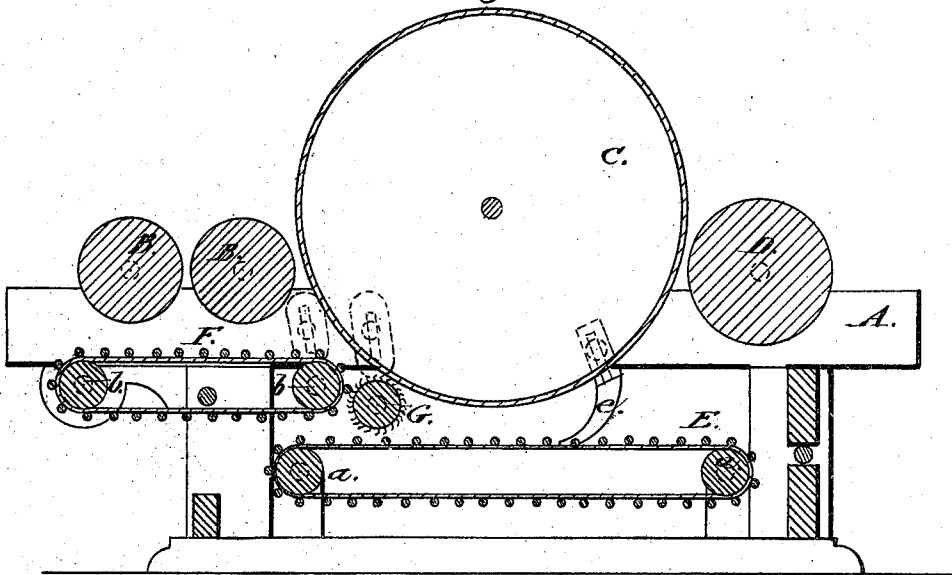


*C. F. Morrison.*

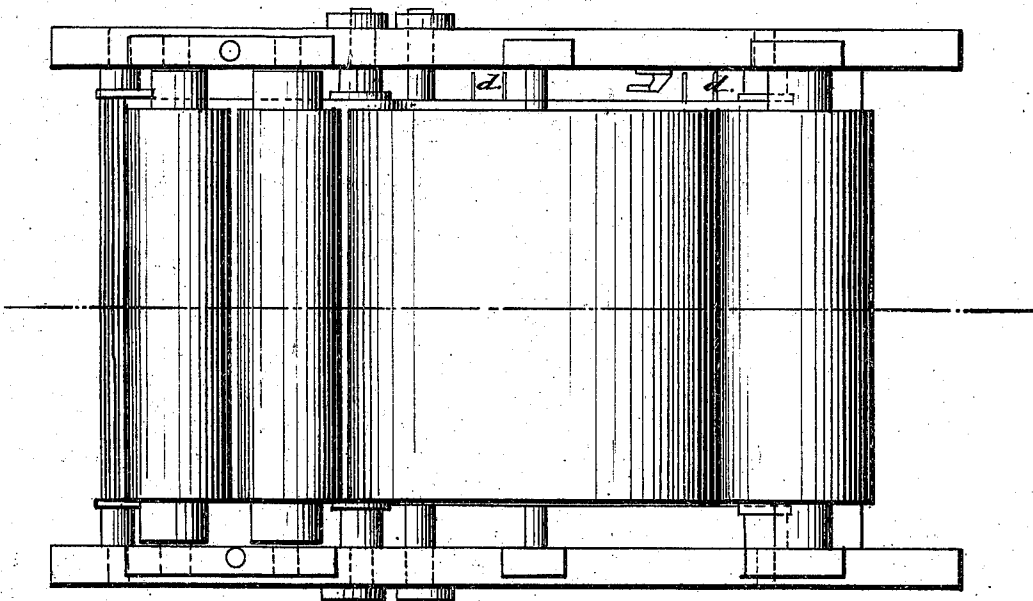
*Carding Mach.*

*N<sup>o</sup> 83,526.*

*Patented Oct. 27, 1868.*  
*Fig. 1.*



*Fig. 2.*



*Witnesses:*  
*W. C. Ash Kettle*  
*J. A. Morgan*

*Inventor;*  
*C. F. Morrison*  
*per Munnifg*  
*attorneys.*

# United States Patent Office.

CHARLES F. MORRISON, OF RIFTON GLEN, NEW YORK.

Letters Patent No. 83,526, dated October 27, 1868.

## IMPROVEMENT IN WASTE-SAVER FOR CARDING-ENGINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES F. MORRISON, of Rifton Glen, in the county of Ulster, and State of New York, have invented a new and useful Improvement in Carding-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a longitudinal sectional elevation of a carding-machine with my improvements applied.

Figure 2 represents a plan view of the same.

Similar letters of reference indicate corresponding parts.

The nature of this invention relates to improvements in carding-machines, whereby it is designed to improve the efficiency of the same.

It consists in providing horizontal carriers, to receive the waste that falls from the feeding-rolls, main card, and doffer, and carry it to a stripping-roller, whereby it is returned to the carding-rollers again and reworked. Also, in providing a shaking-apparatus, for separating the dirt from the waste before it is delivered to the carding-rollers.

In the drawings, A represents the frame of a carding-machine, B and B' the feeding-rollers, C the main card-cylinder, and D the doffer.

E and F represent carriers, arranged under the several feeding and carding-cylinders, composed of transverse bars or strips of metal, of a length equal to or somewhat greater than that of the cylinders, which are secured at each end to leather or other suitable belts, and arranged to be rotated by the rollers *a* and *b*, or by any other suitable means.

The carrier E is arranged to receive the waste from the main card and the doffer, and the carrier F to receive it from the feed-roller.

G represents a stripper, which takes the waste from the said carriers and delivers it to the main card-cyl-

inder, whereby it is conducted again through the cards and incorporated with the finished stock.

The carriers are also arranged to be shaken, for the purpose of separating the dirt from the waste before it is delivered to the stripper G.

A portion of the rods or strips of the carriers is extended on one or both sides beyond the belt, as shown at *d*, fig. 2, and knockers, *e*, are provided in any suitable position, and adjustably connected to the frame, so as to project into the path of the said strips, whereby the belts of the carriers may be more or less deflected from their true course, causing a recoil to take place after the said rods pass the knockers, whereby the foul matter may be sifted through the spaces between the said ribs.

I have found, in practical use, a very great saving to be effected by this method of reworking and mixing the waste, over the common method of reworking it separately, as in this method the waste is incorporated in the stock of first quality, whereas, when worked separately, only a very inferior product is obtained. I am also enabled to save a greater proportion of the waste.

The waste may also, if desired, be delivered to the card by other means than the stripping-roll G.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

1. The described arrangement of the horizontal waste-carriers E F with relation to the doffer D, cylinder C, feed-rollers B B', and stripping-roller G, as herein described, for the purpose specified.

2. The horizontal waste-carriers E F, constructed as described, of small wire ribs, widely spaced upon the belts, and adapted to be shaken, in the manner described, for the purpose specified.

The above specification of my invention signed by me, this 22d day of April, 1868.

Witnesses: CHARLES F. MORRISON.

WM. F. McNAMARA,

ALEX. F. ROBERTS.