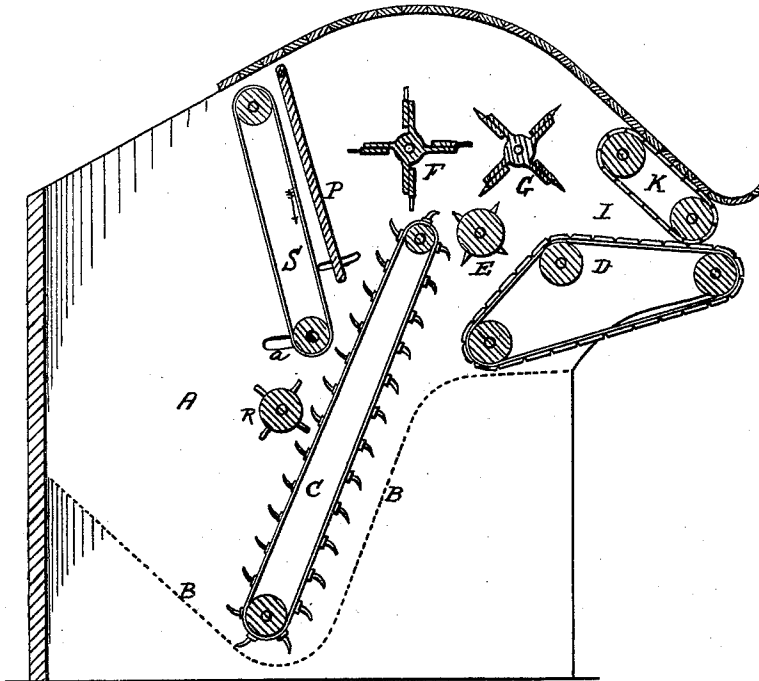


J. J. DEWEY.

FEEDING APPARATUS FOR CARDING-MACHINES.

No. 170,825.

Patented Dec. 7, 1875.



Witnesses:

Emmerson
Joseph Wildman

Inventor:

John J. Dewey
by Pollok & Bailey
his attorneys

UNITED STATES PATENT OFFICE

JOHN J. DEWEY, OF HARTFORD, VERMONT, ASSIGNOR TO GEORGE S. HARWOOD AND GEORGE H. QUINCY, OF BOSTON, MASS.

IMPROVEMENT IN FEEDING APPARATUS FOR CARDING-MACHINES.

Specification forming part of Letters Patent No. **170,825**, dated December 7, 1875; application filed October 16, 1875.

To all whom it may concern:

Be it known that I, JOHN J. DEWEY, of Hartford, Windsor county, Vermont, have invented certain new and useful Improvements in Feeding Mechanism for Carding-Machines, of which the following is a specification:

My invention relates to a machine known in the trade as Harwood & Quincy's "First Breaker-Feeder," used for feeding wool or other fibrous material to carding-machines.

A feeding mechanism of the kind referred to is shown and described in Letters Patent No. 159,923, granted to George S. Harwood on the 16th of February, 1875. In working this machine on various kinds of stock and varying length of fibers, I sometimes find a tendency to convey to the card a heavier feed when the receiving-box is full than when the stock is low in the box; and unless the box be frequently replenished, (a little at a time,) the work may vary from this cause.

The theory of the original inventor was manifestly this, that the throat of the machine being kept full, and the surplus returned to the box by the operation of the beaters, the work would be and must be uniformly fed to the card so long as any surplus was being thrown back to the box. But the condition of the stock is an element which affects the weight of the feed, and I find that stock which has been worked over by the machine, and returned to the box as surplus, becomes so thoroughly opened that it does not pack so compactly in the throat of the machine as that stock which is passed into the throat when first thrown into the box, so that inequality may arise from these two causes, first and chiefly, because the box may be too full or too nearly empty; and, secondly, because the stock in the box is not always in uniform condition.

My improvement, whereby I obviate both these difficulties, is illustrated in the accompanying drawing, which represents a longitudinal vertical section of a machine embodying my invention.

The machine in the main represents the patented machine hereinbefore referred to.

A is the receiving-box; B, the wire-gauze bottom; C, the spiked lifting-apron; D, the lower feed-apron; E, the intermediate spiked roll, which opens the wool; F, the fan-beater; G, the spiked fan; K, the upper apron; I, the packing-chamber, formed by the two aprons D K.

These parts operate in the manner described in said Letters Patent, and require no further description here. I therefore pass at once to a description of my improvement, which mainly consists in combining with the lifting-apron C an endless apron, S, arranged in front of the apron C, as shown in the drawing, with the journals or ends of its lower roll working in slots *a*, to permit the adjustment of the apron to or from the lifting-apron, as occasion may require. The apron S, which I shall call the regulating-apron, moves in the direction of the arrow. It acts to prevent the lifting-apron from loading too heavily when the box is full, and there will be no variation from this cause so long as the box is filled to the lower end of the regulating-apron.

Sometimes I use, in conjunction with the apron S, a shield, P, arranged, as shown, in front of the apron for the purpose of preventing any stock from being thrown over the latter. Whatever surplus is thrown back by the beaters does not come directly into the receiving-box, but is thrown against the shield or apron, carried down in immediate contact with the spiked lifting-apron, and immediately returned into the machine. I also sometimes use a spiked roll, R, arranged, as shown, below the regulating-apron, and in front of the lifting-apron. This roll is adjustable to and from the lifting-apron, and is designed to further the object which I have in view. It is not, however, so material in my estimation as the other portion of my improvement above described.

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

1. In feeding mechanism for carding-engines, the combination, with the spiked lifting-apron, of a regulating-apron, substantially as and for the purposes set forth.

2. The combination, with the lifting-apron, of a regulating-apron adjustable to and from the lifting-apron, substantially as set forth.

3. The regulating-apron and the shield, in combination with the lifting-apron and feed mechanism, substantially as set forth.

In testimony whereof I have signed my

name to this specification before two subscribing witnesses.

JOHN J. DEWEY.

Witnesses:

JOHN ALLYN,

JOHN A. NOYES.