

J. ABBOTT.
Feeding-Mechanism for Carding-Engines.
No. 218,208. Patented Aug. 5, 1879.

Fig. 1.

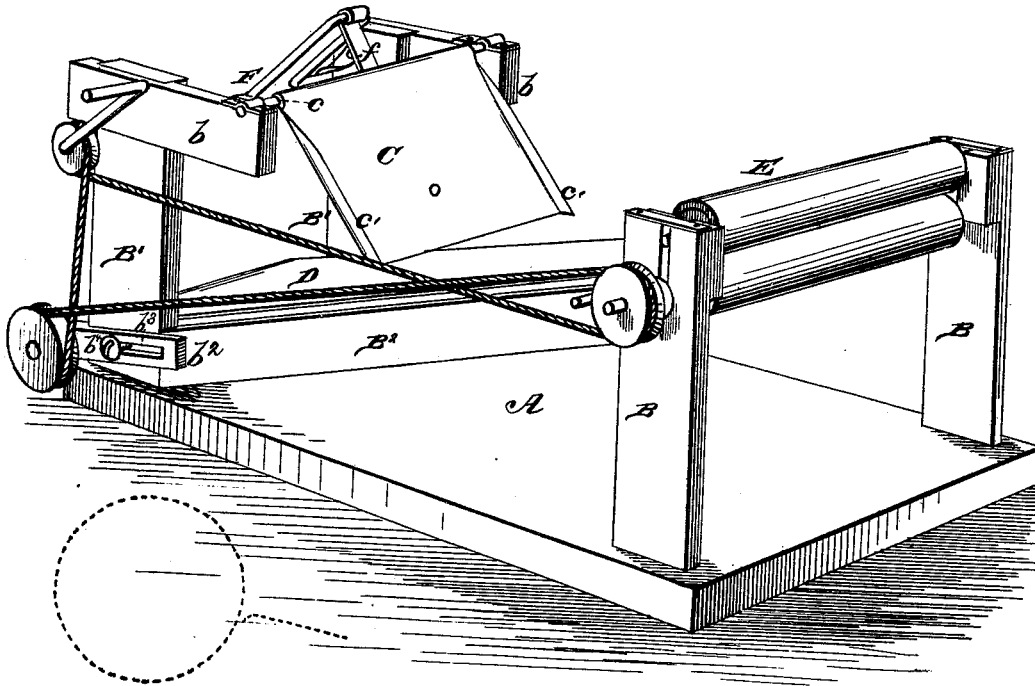
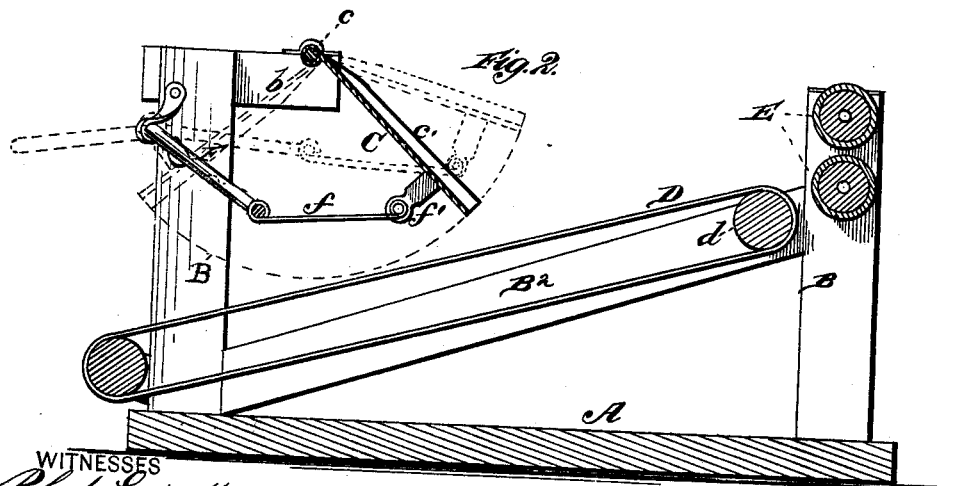


Fig. 2.



WITNESSES
Paul Smith
J. M. Smith

INVENTOR
John Abbott,
Paul Giedersheim
ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN ABBOTT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO DE YOUNG & BROTHER, OF SAME PLACE.

IMPROVEMENT IN FEEDING MECHANISMS FOR CARDING-ENGINES.

Specification forming part of Letters Patent No. **218,208**, dated August 5, 1879; application filed February 6, 1879.

To all whom it may concern:

Be it known that I, JOHN ABBOTT, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Feeding Mechanisms for Carding-Engines, of which the following is a full, clear, and particular description and specification, reference being had to the accompanying drawings, and to the letters and figures marked thereon.

This invention relates to devices for automatically feeding the sliver as it comes from one card to the next card, and compressing it while on the way.

The said invention consists in the combination, with a pair of calender-rolls and an endless carrying-belt, of a flanged feeding-plate vibrating in the direction of the movement of said belt, a crank-shaft and connecting-rod for operating said plate, and pulleys and belt for operating said carrying belt and rolls, substantially as hereinafter set forth and claimed.

In the accompanying drawings, Figure 1 represents a perspective view of my improved feeding device, with the proximate parts of the machine; and Fig. 2 represents a longitudinal vertical section through the same.

A designates the bed-plate of the machine, which supports a forward pair of standards, B B, and a rear pair of standards, B¹ B¹. These standards B¹ are connected on each side by inclined beams B², which extend upward from the lower ends of rear standards, B¹, to the upper ends of forward standards, B. The upper ends of rear standards, B¹ B¹, are provided with forward-extending horizontal bars or arms, b, and the lower ends of said rear standards are provided with horizontal longitudinally-adjustable rearward-extending arms, b².

The aforesaid parts B, B¹, B², b, and b² constitute the framing of my feeding and pressing devices.

As the sliver is removed from the doffer or front of the first card it is received by a broad flat plate, C, which is journaled at its upper end by transverse rod c to bearings on top of arms b. The said plate extends almost entirely across the space between the said arms, and is turned up at its edges c', so as to

form a broad flanged chute. Said plate or chute C is operated by mechanism, hereinafter described, so as to alternately occupy a position slightly inclined forward and downward from a horizontal plane and a position slightly inclined upward and backward from a vertical plane. When in the former position it begins laying on the upper part of an inclined carrier or endless traveling-belt, D, which is arranged below said plate, and said plate continues laying down along the incline of said carrier until the most rearward point of its vibration is reached. It then rocks forward and upward again (doubling the sliver) to its first position. This action is constantly repeated, so that there is a continuous doubling feed of the sliver.

The simplicity of the construction of the operating parts and the directness of their action insure a smooth and even sliver, and the forward movement of the carrier tends to prevent any strain on the fiber of the sliver during the doubling at the lower end of the vibration of plate C.

Carrier D delivers the sliver to a pair of compressing calender-rolls, E, which compress the doubled sliver before allowing it to pass to the feed-rolls of the next card. These calender-rolls are journaled in the upper part of standards B B. The upper roll, *e*, of the carrier D is journaled in the side beams, B², a little behind and below said calender-rolls, while the rear roll of said calender is similarly journaled in the rear ends of arms b², hereinbefore referred to. These arms b² are provided with longitudinal slots b³ and clampscrews b⁴, which allow said arms to be adjusted backward or forward longitudinally, so as to tighten or loosen said carrier or traveling belt D at pleasure.

The vibratory motion of plate or chute C is communicated by a rotating crank-shaft, F, through a connecting-rod, f, which has a hinged connection to a bracket, f', on the back of said plate. This shaft, as well as that of the driving calender-roll and the lower carrier-roll, is provided with a pulley or belt-wheel operated by a suitable belt. These pulleys and the belt operating them need no particular description.

Having thus described my invention, I do not claim a vibrating frame carrying an endless belt, and subserving the same general purpose as my plate C, in combination with a carrier or endless belt arranged like my carrier D; but

What I do claim is—

In combination with calender-rolls E, carrier D, and flanged plate C, vibrating in the

direction of the motion of carrier D, the crank-shaft F, connecting-rod f, and the pulleys and belt for operating said carrier and rolls, substantially as and for the purpose set forth.

JOHN ABBOTT.

Witnesses:

W. H. ABBOTT,

EDWARD BLACKBURN.