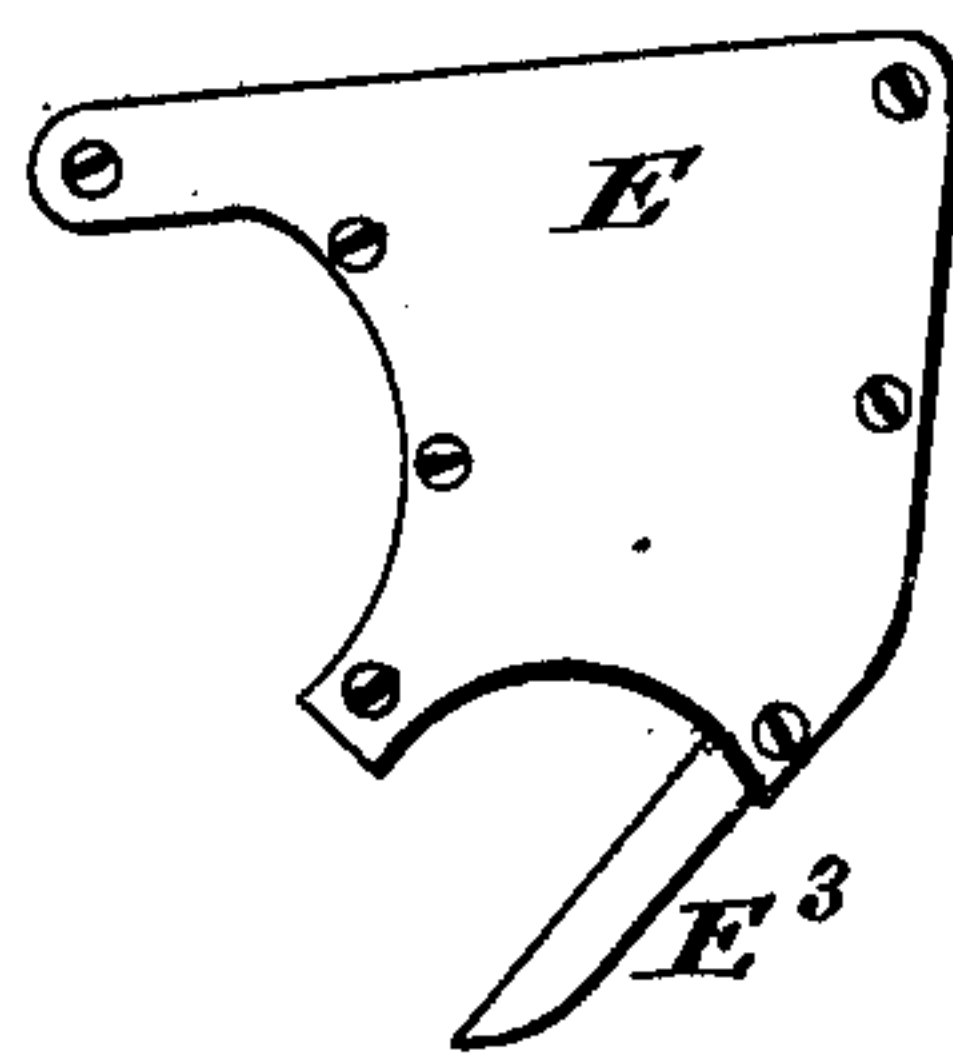
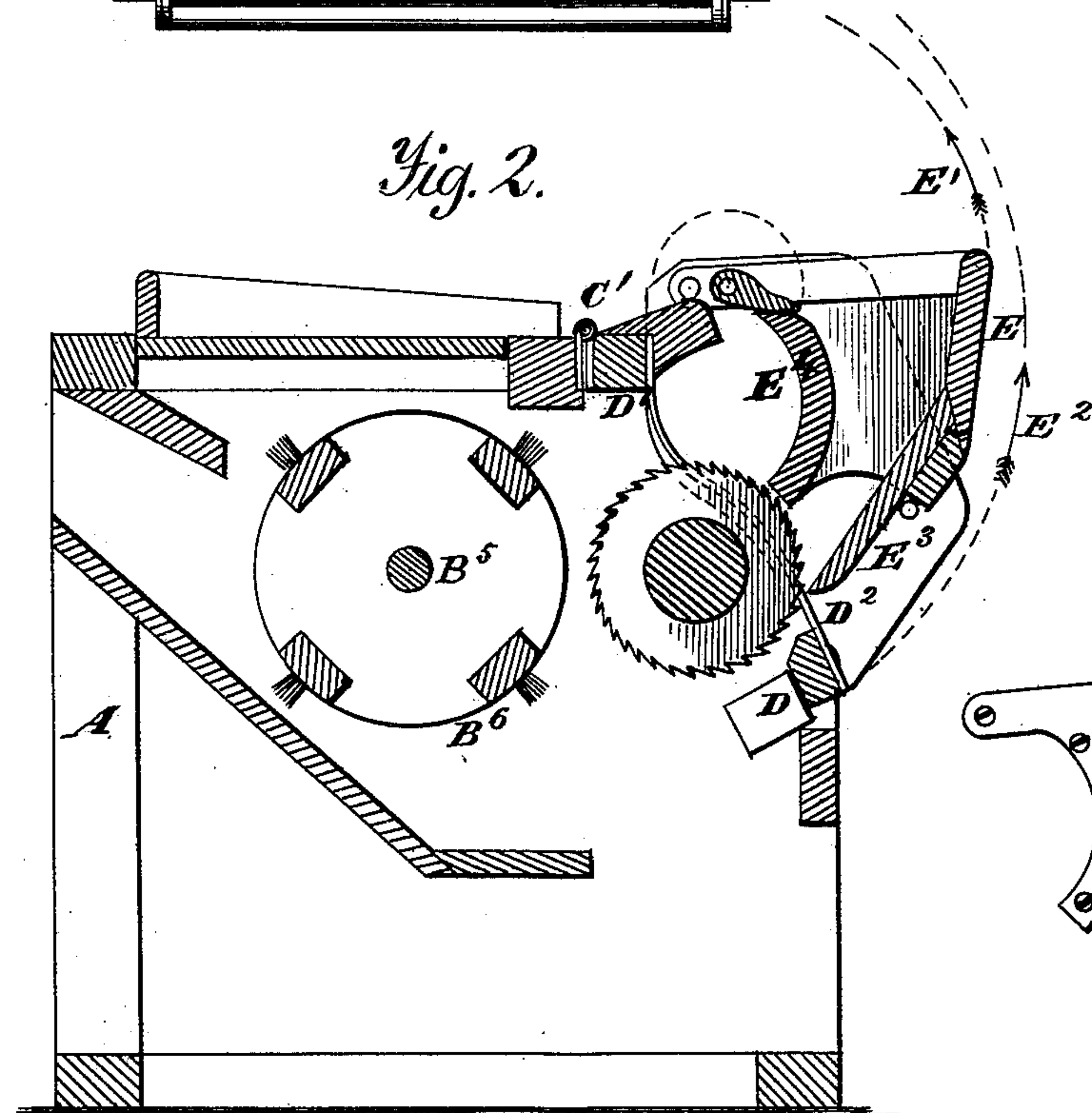
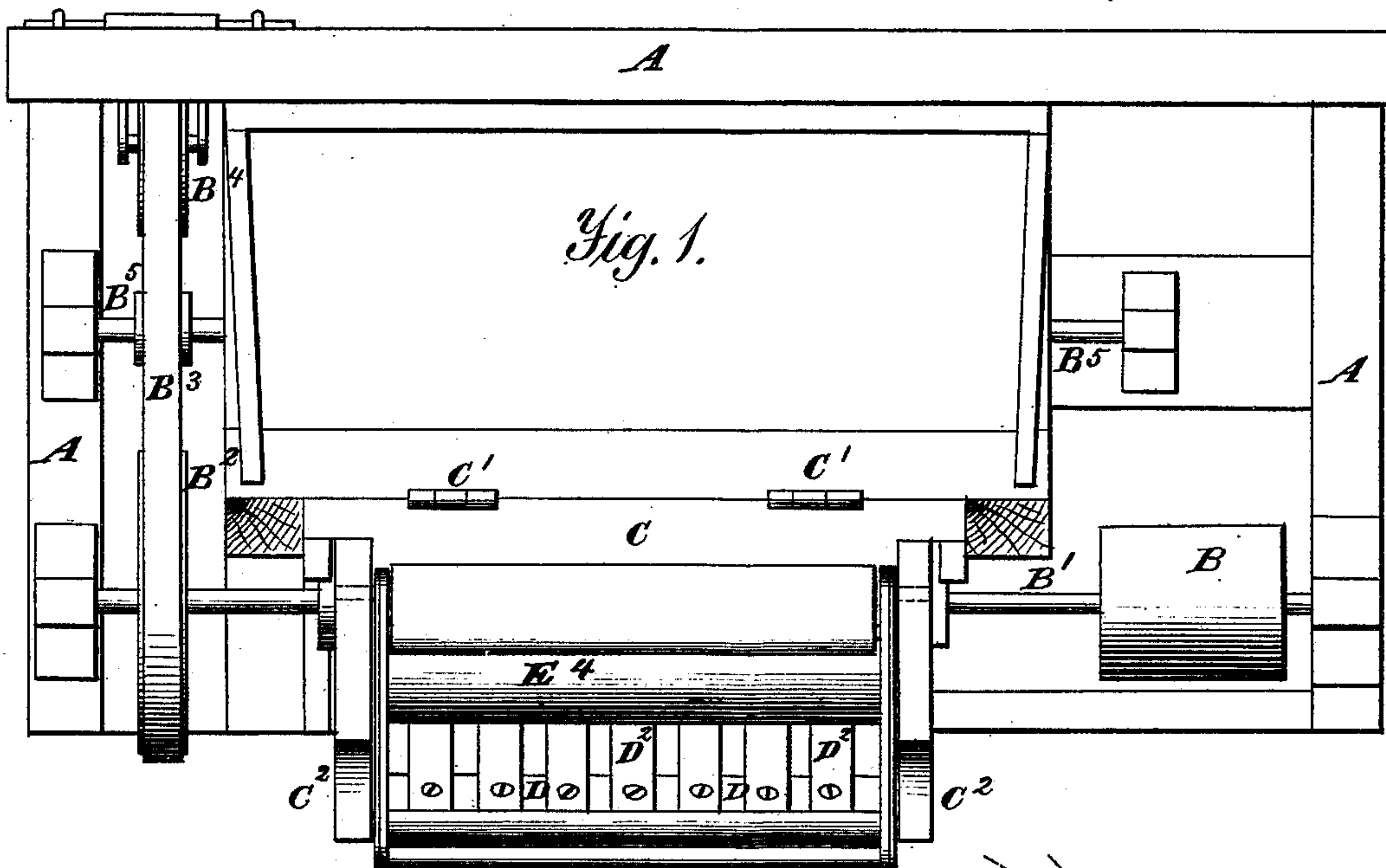


(No Model.)

W. O. WATSON.
Cotton Gin.

No. 235,185.

Patented Dec. 7, 1880.



Witnesses:
A. Ryppert
D. P. Cowl

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Atty

UNITED STATES PATENT OFFICE.

WILLIAM O. WATSON, OF ALBANY, GEORGIA.

COTTON-GIN.

SPECIFICATION forming part of Letters Patent No. 235,185, dated December 7, 1880.

Application filed June 9, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. WATSON, a citizen of United States, residing at Albany, in the county of Dougherty and State of Georgia, have invented certain new and useful Improvements in Under-Feed Cotton-Gins; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in under-feed cotton-gins, the objects of which are, first, to combine in an under-feed cotton-gin an independently-swinging roll-box, adjustable swinging ginning-ribs, and an independently-moving feed-hopper; and, second, to facilitate the removal of the roll of cotton from the roll-box by the proper movements of the parts, and all at one period of time.

I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my improved under-feed cotton-gin, showing the frame-work, the driving mechanism, the upper or top part on which the seed-cotton is placed preparatory to being fed to the gin, the hinged breast and front of roll-box, and portions of the ribs between which the saws run. Fig. 2 is a sectional elevation, showing the swinging hopper and front of roll-box, one of the saws and the ribs which pass between them, and a revolving brush; and Fig. 3 is an end view of the feed-hopper.

Similar letters refer to similar parts in the several views.

In constructing this type of cotton-gins I use any suitable frame-work, A, for receiving and supporting the moving and other parts of the machine.

In the example here illustrated there is shown a pulley, B, which is placed upon a shaft, B¹, which extends across the frame-work, and upon which the saws are secured, and which carries upon its opposite end a pulley, B², over or around which a belt, B³, passes to and around an idler attached to the frame. The belt, in

passing from the pulley B² to the idler B⁴, is made to drive the shaft B⁵, to which a revolving brush, B⁶, is secured.

The above-named parts do not constitute any part of my present invention, and hence need not be more fully described here.

My invention consists in combining in an under-feed roll-box for cotton-gins a feed-hopper composed of the fingers E³ and finger-rail to which they are attached with the front circle of the roll-box E⁴, whereby the feed-hopper and that portion of the roll-circle combined with it may have an independent movement imparted to them, the necessary parts being constructed and arranged as follows:

That portion of the gin-breast or roll-box designated by the letter C is hinged to the frame A at C', it being supplied with end pieces, C² C², between which the feed-hopper enters when it is in position for use. The end pieces, C², of this portion of the device are secured to cross-bars, to which are also fastened the gin-ribs in such a manner that when this portion is dropped down for ginning, as shown in Fig. 2, the saws protrude through the spaces between the gin-ribs, such ribs being designated by the letters D² D², said arrangement being clearly shown in Fig. 2. To the upper portion of this swinging part of the roll-box, designated by the letter C, is pivoted or hinged the feed-hopper E, it being shown as combined with the front circle of the roll-box E⁴ in such a manner that it may be turned up into the position indicated by the dotted line and arrow E' in Fig. 2, independent of that portion of the roll-box designated by the letter C, which, when this independent movement is made, will remain in the position indicated by full lines in the same figure; but when it is desirable to swing upward both the feed-hopper and the front portion of the roll-box, it can be done without changing their positions relative to each other, as shown by the dotted lines and arrow E².

When the feed-hopper is in its operating position, as shown in full lines in Fig. 2, the fingers E³ of the feed-hopper will conduct the cotton to the gin-saws and keep it in contact with them until it is carried by them up into the cotton-roll, while at the same time they leave ample space for the seed to pass out be-

low. This arrangement also enables the operator to adjust the gin-saws to any desired depth in the cotton-roll for ginning wet or dry cotton, by raising or lowering the lower rib-bar, and at the same time keep the fingers of the feed-hopper and the lower edge of the front circle of the roll-box any desired distance from the gin-saws by a like adjustment, which adjustment is made by set-screws passing through the cross-bar D, and made to bear against the bar to which the lower ends of the gin-rods D² are attached, or by placing between such bars thin strips of wood or other suitable material.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, in an under-feed cotton-gin,

of the independently-moving roll-box E⁴, the adjustable swinging ginning-ribs D², between which the saws protrude when in operation, and the independently-moving feed-hopper E, provided with fingers E³, said hopper being arranged with reference to the roll-box substantially as shown and described, whereby the two may have a simultaneous movement imparted to them, or they may each have an independent movement, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WM. O. WATSON.

Witnesses:

JESSE W. WALTERS,
CHS. LIEBLER.