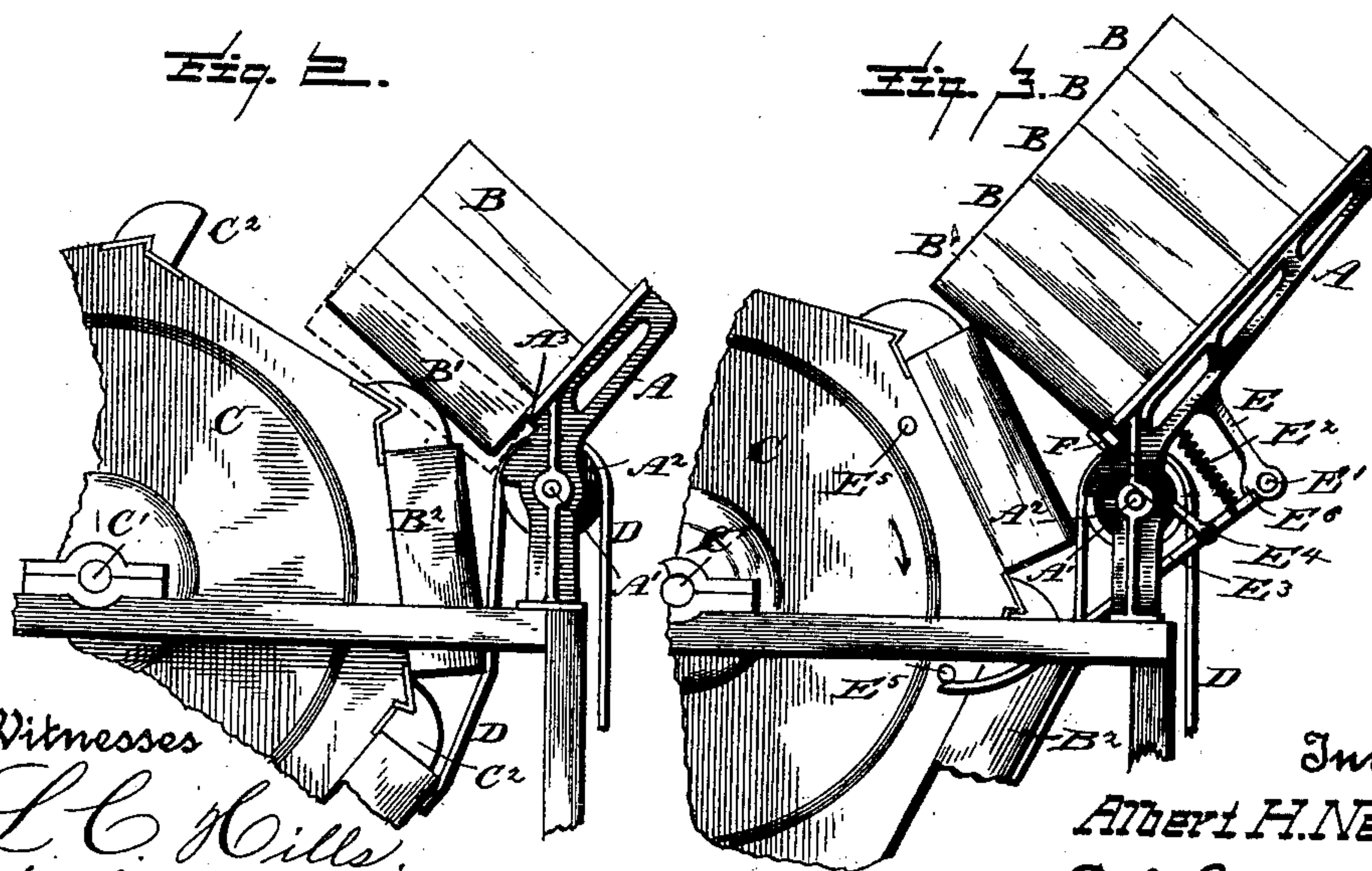
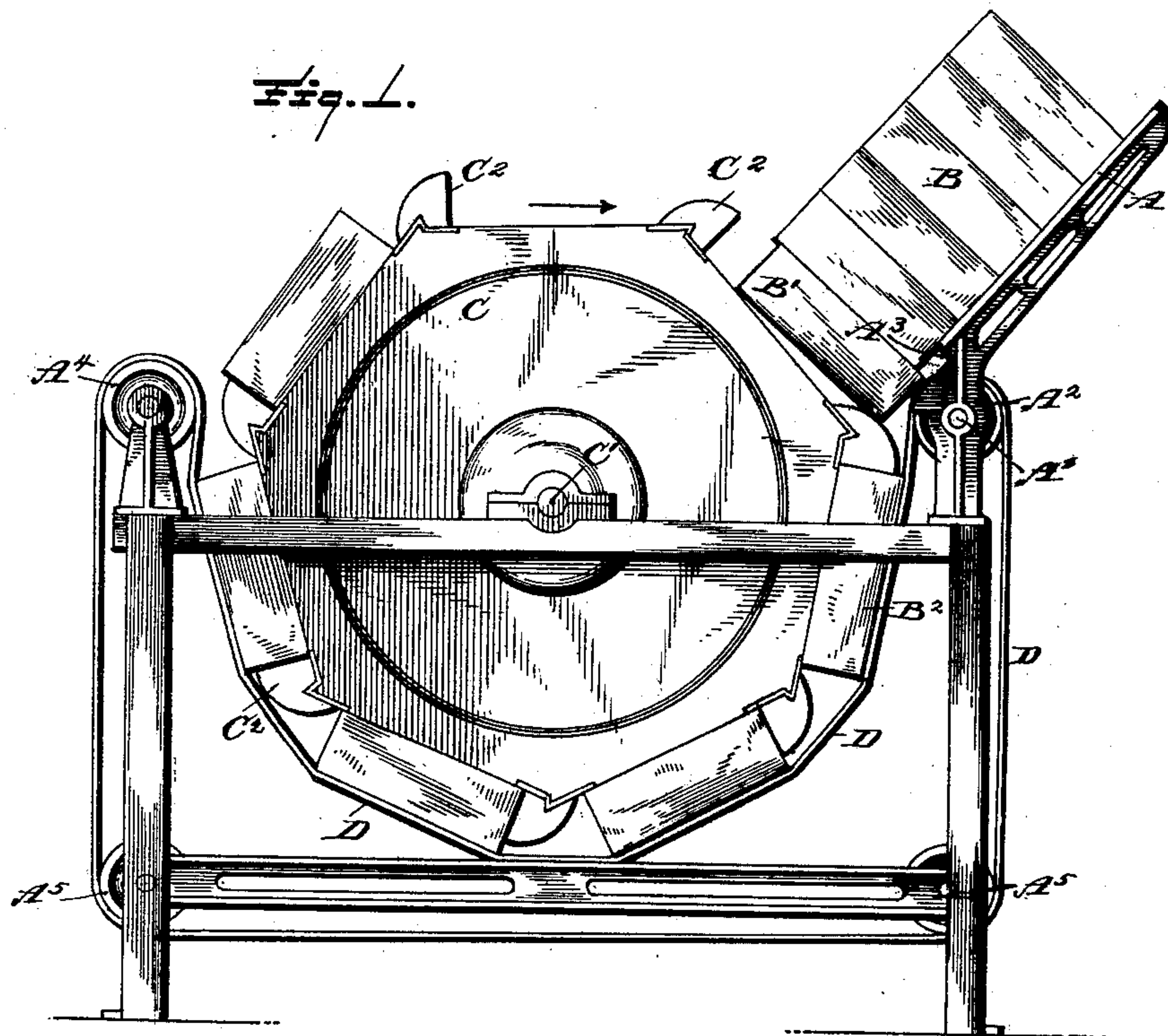


(No Model.)

A. H. NEWTON.  
BRICK MOLD SANDING MACHINE.

No. 407,030.

Patented July 16, 1889.



Witnesses  
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# UNITED STATES PATENT OFFICE.

ALBERT H. NEWTON, OF COHOES, NEW YORK.

## BRICK-MOLD-SANDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 407,030, dated July 16, 1889.

Application filed February 8, 1889. Serial No. 299,182. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT H. NEWTON, a citizen of the United States, residing at Cohoes, in the county of Albany, State of New York, have invented certain new and useful Improvements in Brick-Mold-Sanding Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The object of my invention is to supply a form of brick-mold-sanding machine which shall have a positive feed.

A further object of my invention is to supply a feed track or platform provided with 15 certain devices, hereinafter described, whereby the molds are regulated in their onward movement and are kept upon said track until the proper moment for their dropping onto the sanding cylinder or drum. To these 20 ends I have constructed my machine as is described in the following specification, and have provided the same with certain novel features, which will be particularly pointed out in the claims at the end of the same.

25 In the drawings, Figure 1 is a side elevation of my machine, showing a mold on the point of being thrust into position by the positive-feed mechanism. Fig. 2 is a side elevation of a portion of my machine, showing a 30 brick-mold which has just passed the feed-point and a second mold just dropping onto the forward cam. Fig. 3 is a side elevation of a portion of my machine, showing a modified form of mold-detaining device.

35 In the figures, A is the feed-table, upon which the molds are placed upon their sides, and down which they slide on their way to the sanding-cylinder. These molds are shown at B, and they are fed, as at B', onto the cylinder C, around which passes the belt D, which 40 serves to hold said molds close against said cylinder, as shown at B<sup>2</sup>. The cylinder C is pivoted to the frame of my machine, as at C', and revolves over toward the feed-table, as 45 shown by the arrow in Fig. 1. Strictly speaking, the sanding-cylinder is a polygon of any convenient number of sides, (in the drawings a heptagon is shown,) and at the apices of this polygon are fastened cams C<sup>2</sup>, with 50 their radial faces turned in the direction of the revolution of the cylinder, and having

curved surfaces turned in the opposite direction, as shown.

On the opposite ends of the machine are the feed and belt rollers A<sup>2</sup> and A<sup>4</sup>, A<sup>2</sup> being 55 the feed-roller, and being placed, as shown in all the figures, at the bottom of the feed-table. At the bottom of the frame of the machine are placed two belt-rollers A<sup>5</sup>, upon which the holding-belts D are run, and which 60 co-operate with the rollers A<sup>2</sup> and A<sup>4</sup> to revolve the sanding-cylinder and to feed the molds upon the same.

The feed-table is mounted upon a standard upon which is pivoted the feed-rollers A<sup>2</sup>, it 65 being understood that there are two of these rollers on the same axis A'. The surface of the feed-table does not extend entirely out to the top of the feed-rollers, which revolve at the end of the table, but do not project into 70 its plane. The table is provided instead with a step A<sup>3</sup>, a little back of the pulley, for the purpose to be described.

The cylinder is filled with sand, as is usual with sanding-cylinders of this class, and as 75 the molds are turned down by the action of the revolving belt and cylinder this sand is dropped into them, and as they are turned up again on the side of the remover this sand all drops out into the cylinder, save that part 80 which sticks to the sides of the molds and serves to prevent the sticking of the bricks therein. In this machine it is only necessary to place the molds upon their sides, as shown in the figures, when they will slide down the 85 surface of the table toward the feeding-rollers and the cylinder.

As the molds come to the cylinder, as shown at B', they drop off of the step A<sup>3</sup> and onto the feed-rollers and belt running thereon, the 90 front or open face of the mold lying against the flat face of the cylinder, which is open for the admission of the sand into the molds. As the cylinder continues to revolve, the belt on the feed-rollers acts by friction against the 95 under surface of the molds and thrusts them onto the cylinder by positive-feed action, the cylinder revolving into position the while, and thus bringing the face of the rear cam against the back of the mold, as shown in Fig. 3. The 100 advantage of the positive feed of this kind is that where mere friction is employed and



the molds are allowed to slide down the table freely and without a feed they are extremely apt to stick together more or less at the feed-point and thus to get jammed and stop the machine, besides being a serious detriment to its lasting qualities. Where this feed is employed, however, it is found that freely-sliding molds are apt to be caught by the feed before their time, producing the same result of jamming by the second mold being caught by the feed before the first has been carried past the feed-point. In order to obviate this difficulty some device must be provided for the purpose of retaining or retarding the molds at this point and insuring the carriage of one mold before the next is allowed to fall upon the belt on the feed-rollers. For this purpose I cut away the table, as shown at A<sup>3</sup>, and form a step just behind the feed-rollers. Upon this step the second mold is held by friction until the first has been carried away by the cams. In this manner the molds are held back and the underside of the second mold slides upon the back of the first, as shown in Fig. 3, until the latter has been carried by, as shown in Fig. 2, when the second mold falls first into the position shown by dotted lines in Fig. 2, and thence, as the cylinder revolves, into the position shown in Fig. 1.

It is not necessary to the essence of my invention that this stop or retarding device should be fixed as shown, since this is the first stop of any kind in the art, and therefore I show in Fig. 3 a specific form of my device, which may be employed instead of the mere step hereinabove described.

Fixed within the side flanges of the feed-table and underneath the same there is an arm E, extending downward, and to the end of which is pivoted, at E', an arm E<sup>3</sup>, held up against the table by the action of a spring of any kind, as at E<sup>2</sup>. Pivoted between the end and the pivotal point of this arm is a stop-rod E<sup>4</sup>, extending upward, as shown, and projecting into the path of the molds at F, and thus retaining them upon the table. At proper points upon the side of the cylinder are placed pins E<sup>5</sup>, which move in a path intersecting the end of the arms E<sup>3</sup>. Upon the bracket E there is formed a shoulder E<sup>6</sup>, for the purpose of preventing the drawing of the arm E<sup>3</sup> too far by the action of the spring.

The normal position of this device is as shown in Fig. 3, where the spring acts to keep the stop-rod in front of the molds. When the pins come successively into action at E<sup>5</sup>, however, they catch the end of the arm E<sup>3</sup> and draw the stop-rod out of the path of the molds, allowing the passage of a single mold,

which drops upon the cylinder and is thrust into place, as described above. The pin then passes on, and, the arm being disengaged, the stop-rod returns to its place.

I do not wish to be understood as limiting myself to the exact construction shown, as many details may be varied without the exercise of more than mechanical skill without departing from the spirit of my invention.

What I claim is—

1. In a brick-mold-sanding machine, a feed-table having a mold-retarding device at the bottom thereof, substantially as described.

2. In a brick-mold-sanding machine, a feed-table having a movable mold-retarding device at the bottom thereof, substantially as described.

3. In a brick-mold-sanding machine, the combination of a feed-table having a mold-retarding device, with a mold-cylinder and feed-rollers tangential to the path of the molds, substantially as described.

4. In a brick-mold-sanding machine, the combination of a feed-table having a mold-retarding device, with a mold-cylinder and positively-rotated feed-rollers tangential to the path of the molds, substantially as described.

5. In a brick-mold-sanding machine, a feed-table, a sanding-cylinder, belt-rollers, and feed-rollers, in combination with belts passing around said cylinder, belt-rollers, and feed-rollers, substantially as described.

6. In a brick-mold-sanding machine, a feed-table and sanding-cylinder, in combination with a pivoted arm and a stop-rod pivoted to said arm and tangential to the path of the molds, substantially as described.

7. In a brick-mold-sanding machine, a feed-table and sanding-cylinder, in combination with a pivoted arm, a stop-rod pivoted to said arm and tangential to the path of the molds, and a spring attached to said arm for holding it, as described, in an operative position.

8. In a brick-mold-sanding machine, a feed-table and sanding-cylinder, in combination with a pivoted arm, a stop-rod pivoted to said arm and tangential to the path of the molds, a spring attached to said arm for holding it, as described, in an operative position, and pins upon the head of said cylinder moving in a path which intersects the end of said arm, substantially as described.

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

ALBERT H. NEWTON.

Witnesses:

HEATH SUTHERLAND,  
HAROLD MACKAYE.