

(No Model.)

J. A. BUCK.

MACHINE FOR SANDING BRICK MOLDS.

No. 290,847.

Patented Dec. 25, 1883.

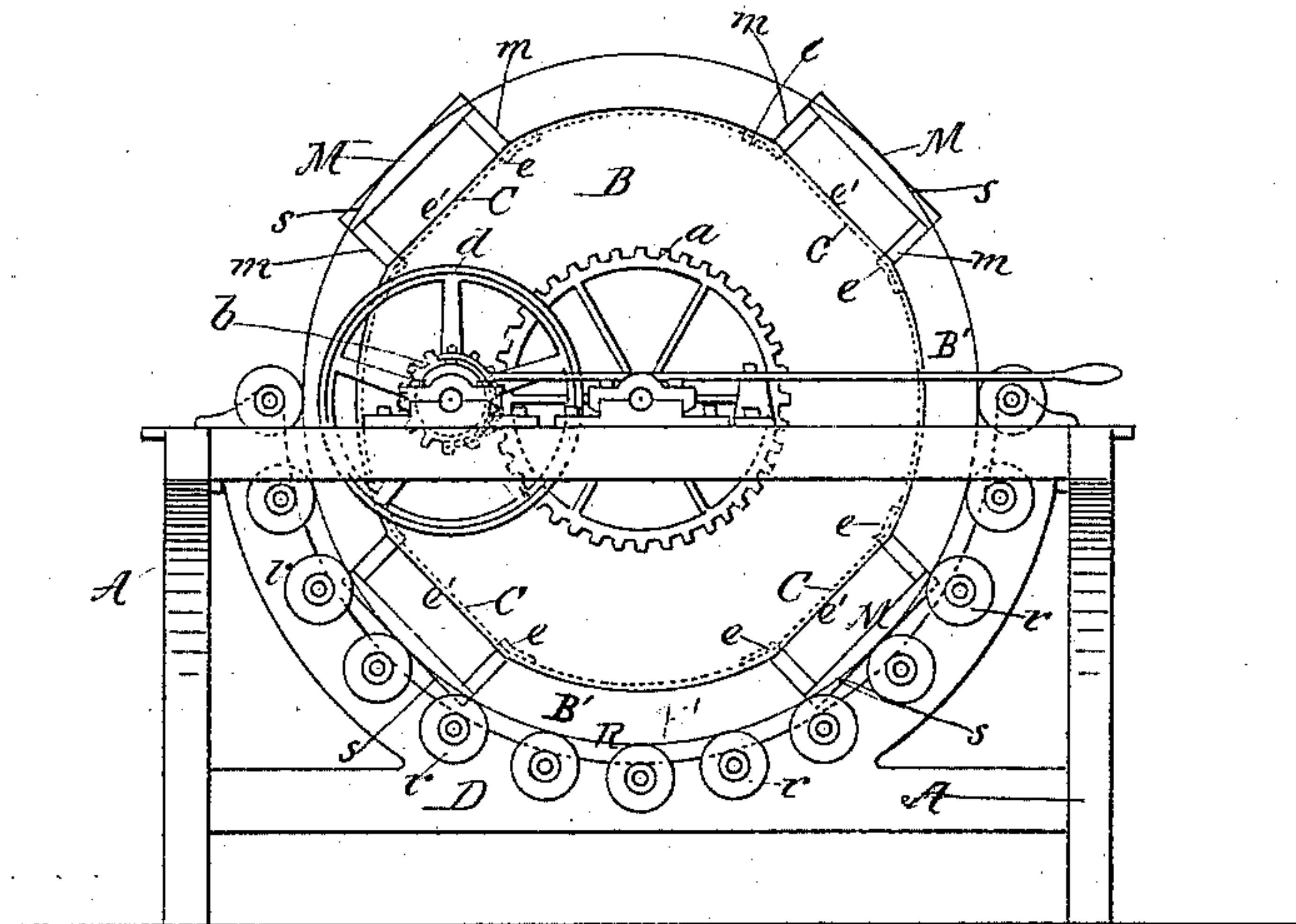


Fig. 1.

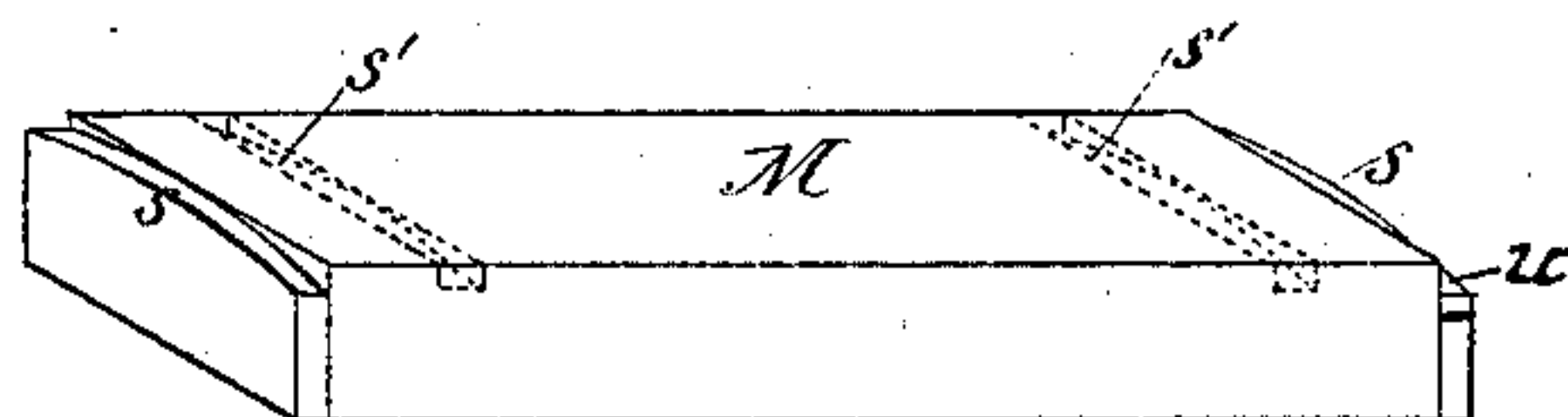


Fig. 3.

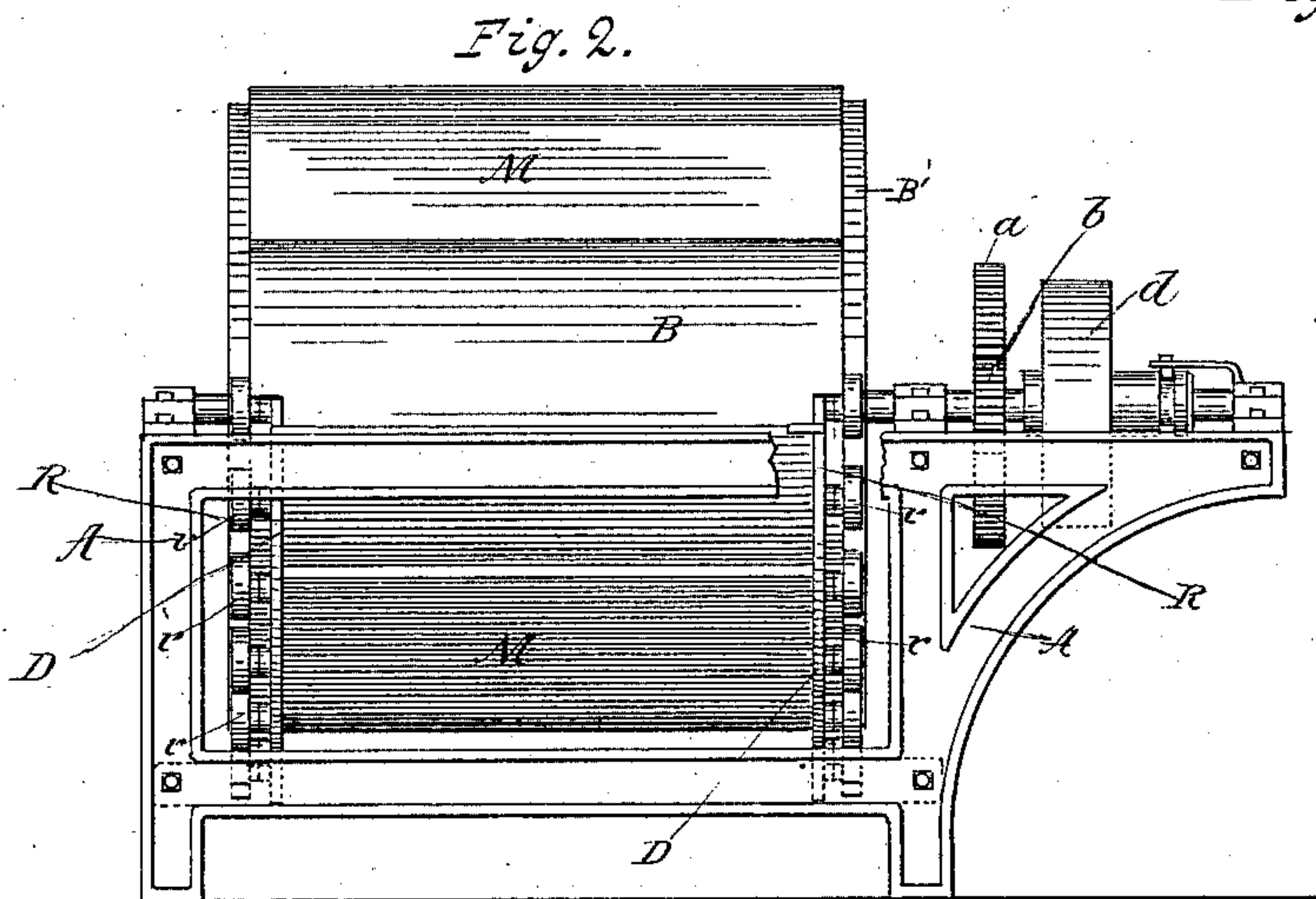


Fig. 2.

Witnesses:
Albert S. Robinson
Charles S. Searcy

James A. Buck
Inventor.
By his attorney
Alex. Selkirk

UNITED STATES PATENT OFFICE.

JAMES A. BUCK, OF CRESCENT, NEW YORK, ASSIGNOR OF ONE-HALF TO SYLVESTER NEWTON, ALBERT H. NEWTON, AND ANDREW NEWTON, ALL OF SAME PLACE.

MACHINE FOR SANDING BRICK-MOLDS.

SPECIFICATION forming part of Letters Patent No. 290,847, dated December 25, 1883.

Application filed February 21, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. BUCK, a citizen of the United States, residing at Crescent, in the county of Saratoga and State of New York, have invented certain new and useful Improvements in Machines for Sanding Brick-Molds, of which the following is a specification.

My invention relates to certain improvements in the machine for sanding brick-molds heretofore invented by myself, in which the molds for forming the brick are held in place in the mold-receiving openings in the rotary sanding cylinder or box by means of a concave bed of rollers, which have bearing on the bottom of the molds as they are being carried downward from a horizontal line on a plane with the axis of the said cylinder to receive the sand, and also while being carried upward to said plane before the discharge of the sand therefrom.

The objects of my invention are as follows, viz: first, to provide, in a machine for sanding brick-molds, a concave mold-holding roller-bed which will be supported, independently a rotary sanding-cylinder, by the frame-work of the machine, and operate to hold the molds in place in the mold-receiving openings of said cylinder while they are being successively filled with sand; second, to provide, in a brick-mold-sanding machine, the combination of a rotary sanding-cylinder provided with a series of mold-receiving openings, removable molds, and a concave mold-holding roller-bed, for united operation to hold the sand or molds from falling down and out from said cylinder while it is being rotated; third, to so combine with a rotary sanding-cylinder which is provided with a series of mold-receiving openings a series of rollers which will be supported from the frame of the machine, and extend around the lower half or portion of said cylinder, and have bearing against the molds when in place in the lower side or portion of the same, whereby the molds will be held in secure connection with the rotary sanding-cylinder when they are carried below the plane of the axis of the same for receiving the sand, and be released from such holding while being carried

above the said plane for ready and successive removal and replacement by others. I attain these objects by means of the mechanism illustrated in the accompanying drawings, in which similar letters of reference indicate like parts throughout the several views.

Referring to the said drawings, Figure 1 represents an end view of a machine for sanding brick-molds in which my improvements are employed. Fig. 2 is a side elevation of the same, and Fig. 3 is a perspective view of a brick-mold bottom side upward.

Referring again to said drawings, A represents the frame-work of the machine, and B is the rotary sanding-cylinder, which is mounted on a central shaft and supported in suitable bearings from the said frame. Said cylinder is revolved by gear-wheel *a*, actuated by pinion-gear *b*, rotated by clutch-pulley *d*, which pulley is revolved by a band from a driving-pulley, preferably geared with the brick-pressing machine standing neighboring to the sanding-machine.

In the drawings illustrating my former invention the sanding-cylinder is shown to be square in form. In my accompanying drawings of these my last improvements the sanding-cylinder is shown to be of circular form, instead of square; but this circular form is not essential for the practice of my invention, as a sanding-box of square form will operate substantially the same. In the circumference of the said sanding-cylinder are formed a series of openings, C, made each with a length and width corresponding with the molds to be sanded. These openings are arranged at about equal distances apart in the periphery of the cylinder, and have at their two oppositely-located side edges the ledges *e e*, the upper sides of which are on a plane with the exposed edges *e'* of the heads of the cylinder, and they operate to give support to the middle portion of the molds M and prevent the sand within the cylinder from escaping therefrom when the molds are in place in said openings. All the above-described parts are used in their substantial form in my original brick-mold-sanding machine, and form no part of this invention.

The parts which are new in this invention are these: Secured firmly to frame A A at each end of the sanding-cylinder B is a concave or half-ring form bearing-piece, D, which is supported wholly from the frame of the machine. Mounted from the said concave bearing-pieces at each end of the machine are a series of small rollers, *r r*, so arranged as to revolve freely on their spindles. These said series of rollers I denominate the "concave molds holding roller-bed" R, and the rollers of each series are so arranged in relation to the circular line (in which the molds are moved when the cylinder is revolved) that the face of each of said rollers will approach to said line. The marginal end portions of the bottom sides of said molds are shown to be made with curved portions *ss* on a curvature corresponding with the line of curvature of the inner bearing-face sides of the rollers forming the roller-bed R, so that when molds M are in place in openings C and cylinder B is revolved to carry said molds downward the said roller-bed will have a bearing on the molds and firmly hold the same in place in the said mold-receiving openings while they are being successively filled with sand. While the sanding-cylinder is being revolved, with the molds in place in the openings in said cylinder, these concave mold-holding roller-beds will, in their united operations, hold both the sand and molds from falling out from said cylinder while it is being revolved. The said roller-beds, being supported entirely from the frame of the machine and made to extend around the lower half or portion of said cylinder, will be made to have bearing against the molds when in place in the lower side of the cylinder, so as to hold them in secure connection with the same while they are being carried in the revolutions of the cylinder below the plane of the axis of the same for receiving the sand, while the molds will be released from such holding when they are being carried above said plane, that an attendant may readily and successively remove the sanded molds and replace the others to be sanded without necessitating any other operation than that of merely lifting or placing the molds. If elected, the curved portions of the bottoms of the molds may be located at short distances from the ends of the molds, as indicated by dotted lines *s' s'*, Fig. 3. Elastic bearing-strips *n*, made of rubber, are provided to form the faces of curved portions *s* of the molds, as shown in same figure; but, if preferred, the rollers *r* of mold-holding roller-bed R may each be provided with an elastic rubber face. In either case the wood of the molds will be preserved from injury and wear. When elected, the rollers *r* of bed R may each be supported from an elastic bear-

ing, in the same manner in which rollers of planing or other machines are supported for compensating the passage of unequal surfaces.

The drawings show a flange, B', made radial from the sides of the sanding-cylinder, and provided with notches *m m*, located correspondingly with openings C, which notches are made with a width of that of molds M. These notches hold the molds from shifting sidewise in either direction. They may have their inner edges faced or lined with rubber or leather, if elected, for preventing wear of the mold's sides.

This machine is operated in substantially the same manner as my original machine in all respects.

I do not herein claim the combination of the rotary sand-containing drum formed with mold-receiving openings, as described, the molds and mold-retaining devices arranged to permit the molds, after they are sanded, to be successively removed from the drum and replaced by others while the drum is continuously revolving, as this subject-matter is included in a previous application filed by me; nor do I claim mounting the rollers on springs.

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

1. In a machine for sanding brick molds, the concave mold-holding roller-bed supported from the frame of the machine, for holding molds in place in the mold-receiving openings of a rotary sanding-cylinder when said cylinder is being revolved and the molds are receiving the sand within the sand-cylinder, as set forth.

2. The combination of a rotary sanding-cylinder formed with mold-receiving openings, the removable molds and the concave mold-holding roller-bed, substantially as and for the purpose set forth.

3. The combination, with a rotary sanding-cylinder provided with mold-receiving openings, as described, of a series of rollers supported from the frame of the machine, and extending around the lower half or portion of said sanding-cylinder, below its axis, and adapted to bear against the molds placed over the openings in said cylinder, substantially as hereinbefore set forth.

4. The combination, with the rotary sanding-cylinder, of flange B', provided with notches *m*, located correspondingly with the mold-receiving openings made within the said cylinder, substantially as and for the purpose set forth.

JAMES A. BUCK.

Witnesses:

RICHARD P. DUMARY,
ALEX. SELKIRK.