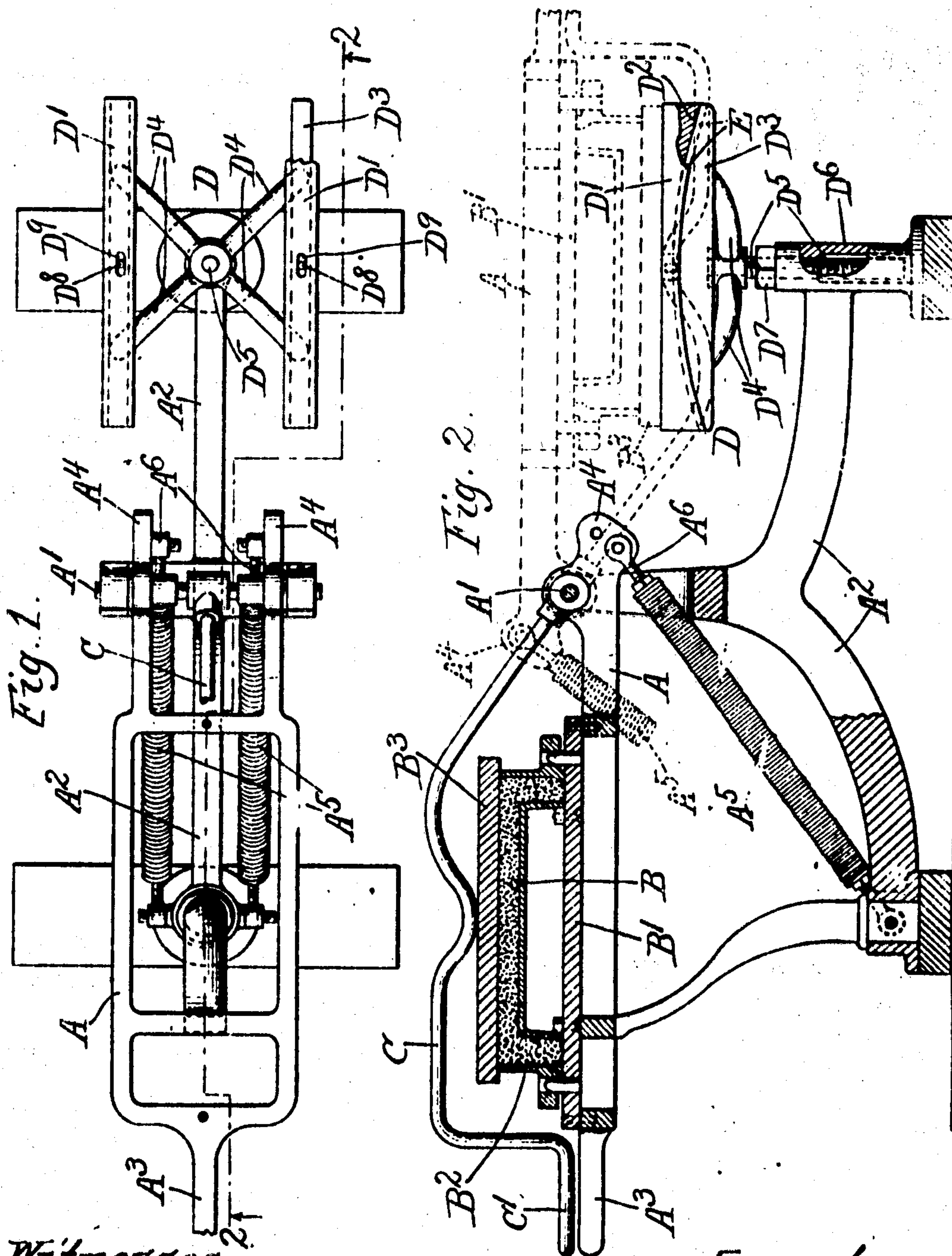


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**Patented Nov. 15, 1910.**



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# UNITED STATES PATENT OFFICE.

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## MOLDING-MACHINE.

975,715.

Specification of Letters Patent.

Patented Nov. 15, 1910.

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To all whom it may concern:

Be it known that I, HENRY E. PRIDMORE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Molding-Machines, of which the following is a specification.

This invention relates to molding machines, and has for its object to provide a new and improved device of this description.

The invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a plan view of one form of machine with the flask and pattern plate removed to expose the mechanism; Fig. 2 is a sectional view taken on line 2—2 of Fig. 1.

Like letters refer to like parts throughout the several figures.

A pattern carrier A is hinged at A<sup>1</sup> to a suitable frame A<sup>2</sup>. The pattern B is mounted upon the pattern carrier in any desired manner, as by means of the pattern plate B<sup>1</sup>. The flask B<sup>2</sup> is also mounted upon the pattern carrier and is provided with a suitable bottom board B<sup>3</sup>. A holding piece C is hinged to the frame and engages the bottom board so as to hold it in place, and is provided with a handle C<sup>1</sup> which is opposite to a handle A<sup>3</sup> on the pattern carrier. The pattern carrier is provided with projecting parts A<sup>4</sup> to which are connected springs A<sup>5</sup> said springs being connected at their other ends to the frame and acting to assist in the turning movement of the pattern carrier. These springs are made adjustable by means of the threaded end pieces A<sup>6</sup> which work in threaded parts with which the springs are connected. A receiving device or parting frame D is arranged so as to receive the flask when turned over to the position shown in dotted lines in Fig. 2. The receiving device D is provided with a plurality of supporting parts D<sup>1</sup> each provided with a bearing surface for the flask, and adapted to engage the bottom board thereof, said supporting parts arranged to move in vertical planes so as to adjust themselves to irregularities in the said bottom board so as to bring the parts in a proper position to withdraw the pattern from the flask. These supporting parts as herein shown are provided with curved faces D<sup>2</sup> which engage curved faces on the supports D<sup>3</sup>. Some means is provided for moving the supporting parts D<sup>1</sup> bodily. As herein shown this is secured by

connecting said supporting parts to an adjustable device which can be moved up or down. As herein shown the supports D<sup>3</sup> are connected by the connecting pieces D<sup>4</sup> with the threaded part D<sup>5</sup> which works in the threaded opening in the standard D<sup>6</sup>. A locking nut D<sup>7</sup> is preferably provided. It will thus be seen that by this means the supporting pieces may be moved up or down bodily. The supporting parts D<sup>1</sup> are provided with some means for limiting their movement so as to prevent them from becoming displaced. As herein shown this means consists of the pins D<sup>8</sup> working in the slots D<sup>9</sup>. Lateral displacement of the supporting parts is prevented by means of the flanges or projecting parts E which engage the supports D<sup>3</sup>.

In the operation of the device the sand is first moved into the flask when the flask is in the position shown in full lines in Fig. 2. The bottom board is then placed in position and the holding piece C moved to the position shown in full lines. The pattern carrier, together with the pattern and flask and associated parts, is then moved to the position shown in dotted lines in Fig. 2, until the bottom board D<sup>3</sup> rests upon the supporting parts D<sup>1</sup>. These supporting parts automatically swing in vertical planes so as to adjust themselves to irregularities in the bottom board, and bring the parts in proper relation so that the pattern can be easily and properly withdrawn from the flask. It will further be seen that these supporting parts form proper supports for the flask.

The supporting parts may be raised or lowered to adjust them to flasks of different thicknesses.

I claim:

1. A molding machine comprising a frame, a pattern carrier hinged thereto, a receiving device comprising a plurality of sliding supporting parts each provided with a bearing surface for the flask free to move longitudinally independent of the rest of said support and adapted to move in vertical planes to adjust themselves to irregularities in the bottom of the flask.

2. A molding machine comprising a frame, a pattern carrier hinged thereto, a receiving device comprising a plurality of supporting devices each comprising a supporting part having a curved face, a support for each supporting part having an opposed curved face, said supporting parts free to move



along the curved faces of said supports to adjust themselves to irregularities in the bottom of the flask, and means for moving said supporting parts bodily.

3. A molding machine comprising a frame, a receiving device for the flask connected to said frame and comprising a plurality of supporting parts each provided with a straight face and a curved face, one acting as a bearing surface for the flask and adapted to swing in vertical planes and means for limiting said movement.

4. A molding machine comprising a frame, a receiving device for the flask connected to said frame and comprising a plurality of two-part supporting devices each provided with a bearing surface for the flask and adapted to swing in vertical planes, and means for moving said supporting parts up or down.

5. A molding machine comprising a receiving device, a plurality of supporting parts connected with said receiving device and adapted to receive the flask, said supporting parts mounted so as to be free to swing in vertical planes parallel to each other, and independent of each other, to compensate for irregularities in the bottom board of the flask supports for said supporting parts, the supporting parts having a loose sliding connection with said supports.

6. A molding machine comprising a receiving device, a plurality of supporting parts connected with said receiving device

and adapted to receive the flask, said supporting parts mounted so as to be free to swing in vertical planes parallel to each other and independent of each other to compensate for irregularities in the bottom board of the flask, said plurality of supporting parts fastened to a single part, and a frame to which said latter part is connected and means for moving said single part to simultaneously adjust said supporting parts.

7. A molding machine comprising a frame, a receiving device for the flask connected to said frame, and comprising a plurality of supporting parts, each provided with a bearing surface for the flask, supports for said supporting parts, means for giving said bearing surfaces a longitudinal movement with relation to said supports, and a limiting device for limiting this movement.

8. A molding machine comprising a pattern carrier hinged so as to be moved to an inverted position and adapted to receive a flask, a bottom board for said flask, a receiving device for the flask and bottom board comprising a plurality of movable supporting parts, a supporting device upon which said supporting parts are slidably mounted, and means for limiting the sliding movement of said supporting parts.

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