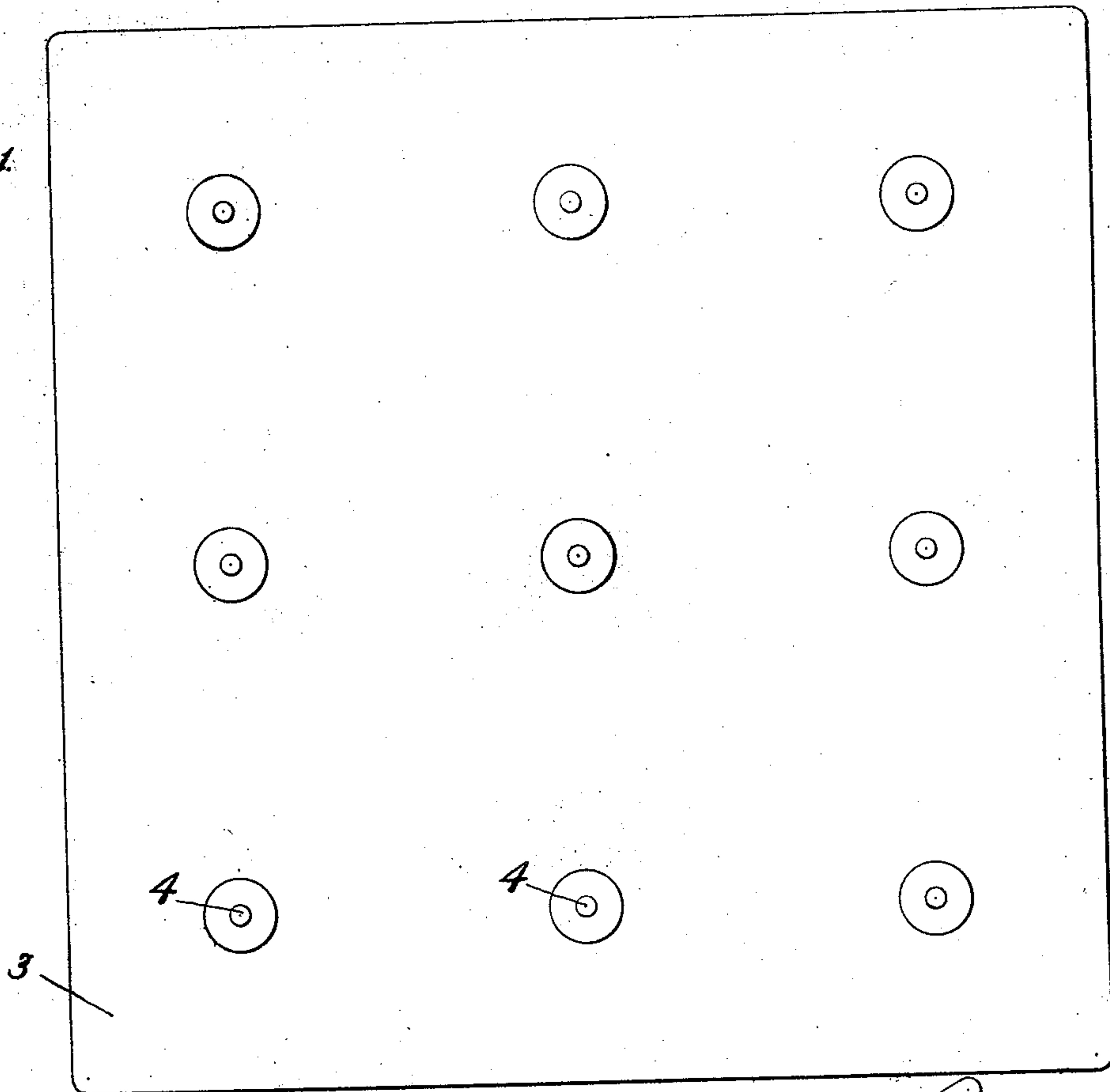


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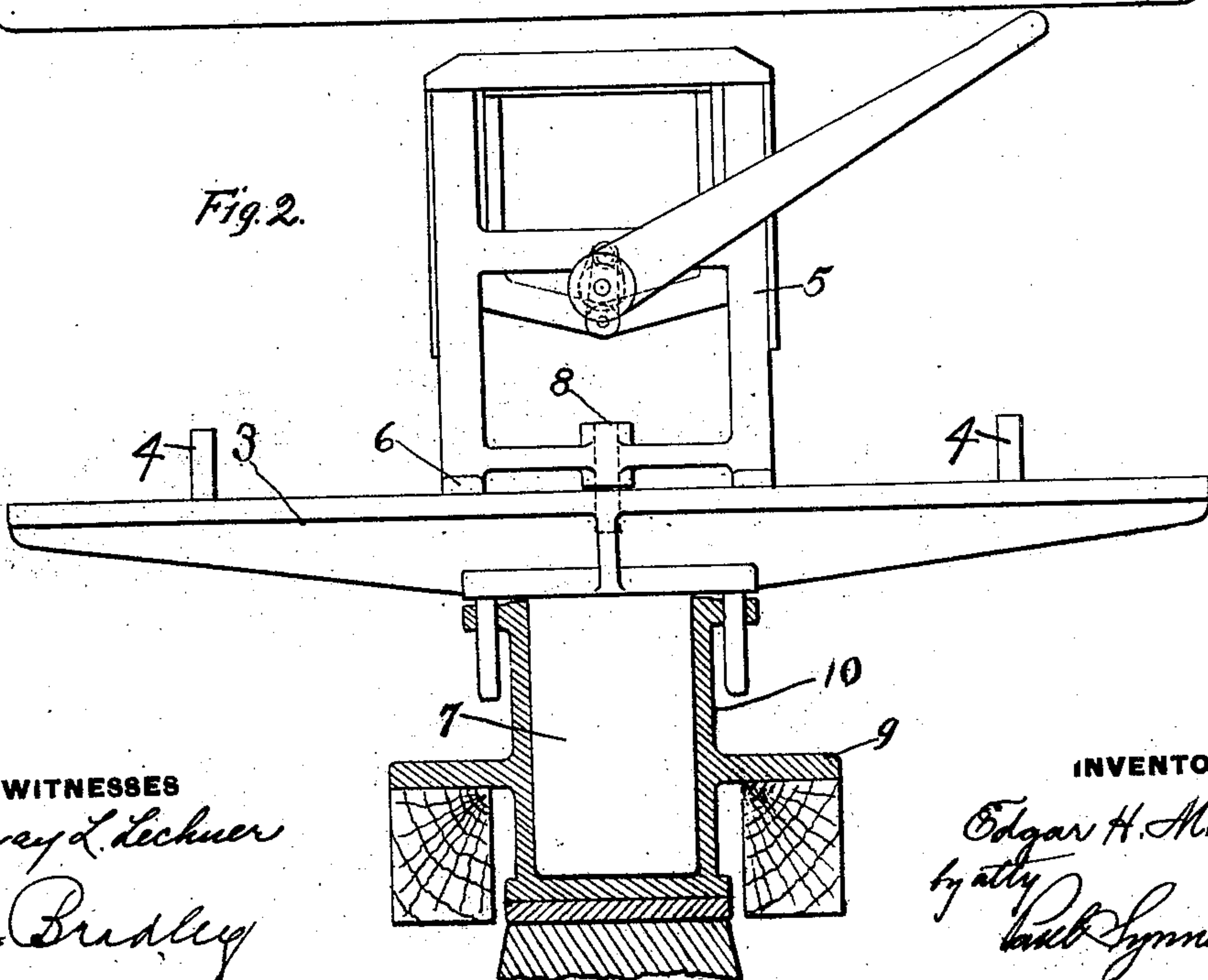
PATENTED JAN. 29, 1907.

E. H. MUMFORD.  
MOLDING MACHINE.  
APPLICATION FILED FEB. 19, 1906.

*Fig. 1.*



*Fig. 2.*



WITNESSES

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# UNITED STATES PATENT OFFICE.

EDGAR H. MUMFORD, OF NEWTOWN TOWNSHIP, DELAWARE COUNTY,  
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## MOLDING-MACHINE.

No. 842,229.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed February 19, 1906. Serial No. 301,842.

*To all whom it may concern:*

Be it known that I, EDGAR H. MUMFORD, a citizen of the United States, residing in Newtown township, in the county of Delaware and State of Pennsylvania, have invented certain new and useful Improvements in Molding-Machines, of which the following is a specification.

The objects of the invention are, to provide a molding machine in which the jolt ramming mechanism is separable from the pattern drawing machine, whereby the pattern drawing may be effected either while the pattern drawing machine is on the jolt ramming mechanism or after removal therefrom, and to provide a jolt ramming mechanism adapted to do the ramming for any desired number of pattern drawing machines simultaneously. One form of the machine is illustrated in the accompanying drawing, wherein—

Figure 1 is a plan view showing the top of the jolt ramming table, and

Figure 2 is a side elevation showing the table with a pattern drawing machine seated thereon, the bottom of the table being broken away to more clearly show the means for operating the table.

It has been common heretofore to place a plurality of pattern drawing machines upon a revolving table in such a way that the various molds are brought past a jolt ramming device successively for preliminary packing of the sand and subsequently past other devices for finally compacting the molds, but, insofar as I know, it is new to provide a plurality of pattern drawing machines upon a single jolt ramming table, all vertically movable bodily. It is also new to place a single pattern drawing machine entire removable upon a jolting table in the manner hereinafter set forth, or to so mount a plurality of such machines, and my invention comprehends these constructions.

In the drawing 3 represents the jolting table which is provided on its upper surface, in the present instance, with a plurality of upstanding dowel pins 4, and is carried on the fluid operated piston 7. This piston operates in the base 9 in the usual manner, the jolting being produced by the fall of the table against the stationary parts. In Figure

2 a pattern drawing machine is shown seated upon the ramming table. This pattern drawing machine may be of any type, it being only necessary that such machine be provided with a holding means to co-act with the dowel pins 4. As shown, the machine is provided with a socket 8 into which the dowel pin fits and holds the machine in proper position. The machine is also provided with legs 6 in order to hold the device level, in the present instance three legs being used. In practice a machine may be placed over each of the pins 4 or only a portion of these may be used, though always symmetrically, as it is recognized as essential that the masses of the falling parts should unite in a common center of gravity over the center of the anvil 10. It will also be apparent that the number of pins may be varied to suit the requirements and such number may range from one up to an even greater number than shown in the drawing.

By the use of this ramming table all the ramming for a number of pattern drawing machines may be accomplished at one place simultaneously or successively. Furthermore the table will accommodate pattern drawing machines of all sizes and types, thus enabling a single jolt ramming machine to do the ramming on a number of pattern drawing machines. This is especially valuable in the molding art, because the jolt ramming operation being so much the shorter one of the two may be done for several pattern drawing machines, while the operations of placing and returning flasks and sand and drawing patterns are being performed.

Having thus described my invention and illustrated its use, what I claim as new, and desire to secure by Letters Patent, is the following:

1. The combination of a jolt ramming table provided with a releasable holding means, and a pattern drawing machine provided with means for being held evenly supported and means for engaging the releasable holding means.

2. The combination of a vertically movable jolt ramming table provided with a dowel pin and a pattern drawing machine provided with a socket for engaging the dowel pin.



3. In combination, a vertically movable jolt ramming table and a plurality of pattern drawing machines adapted to be secured thereto.

5 4. In combination, a vertically movable jolt ramming table and a plurality of different sized pattern drawing machines adapted to be secured thereto.

10 5. In combination a vertically movable jolt ramming table and a plurality of pattern drawing machines adapted to be secured removably thereto.

6. In combination, a vertically movable jolt ramming table provided with dowel pins

and a plurality of pattern drawing machines 15 having sockets for the reception of said dowel pins.

7. In combination, a vertically movable jolt ramming table, and a pattern drawing machine secured thereto. 20

In testimony whereof I have hereunto signed my name in the presence of the two subscribed witnesses.

EDGAR H. MUMFORD.

Witnesses:

A. E. SWEETMAN,  
E. M. HUGGINS.