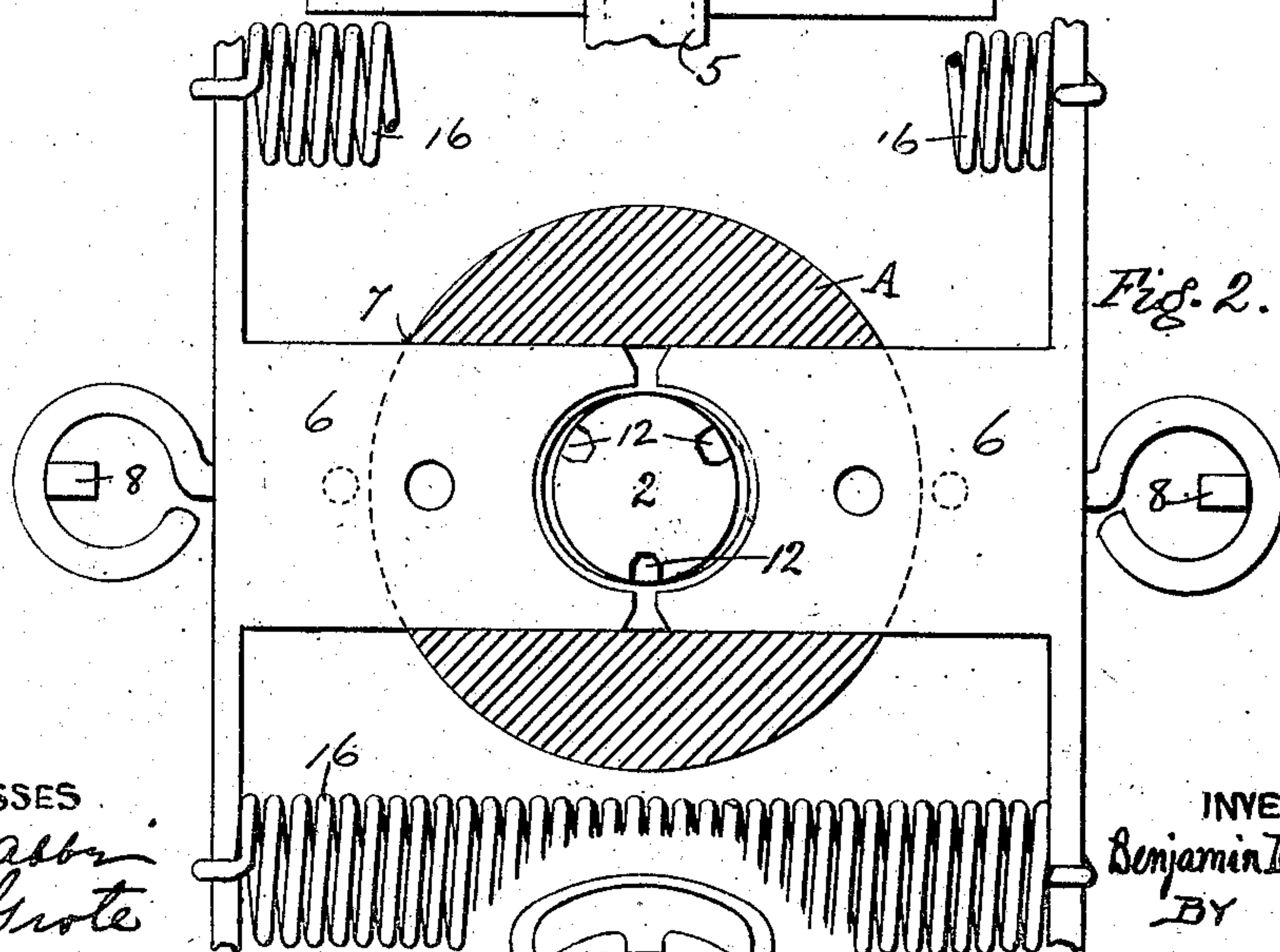
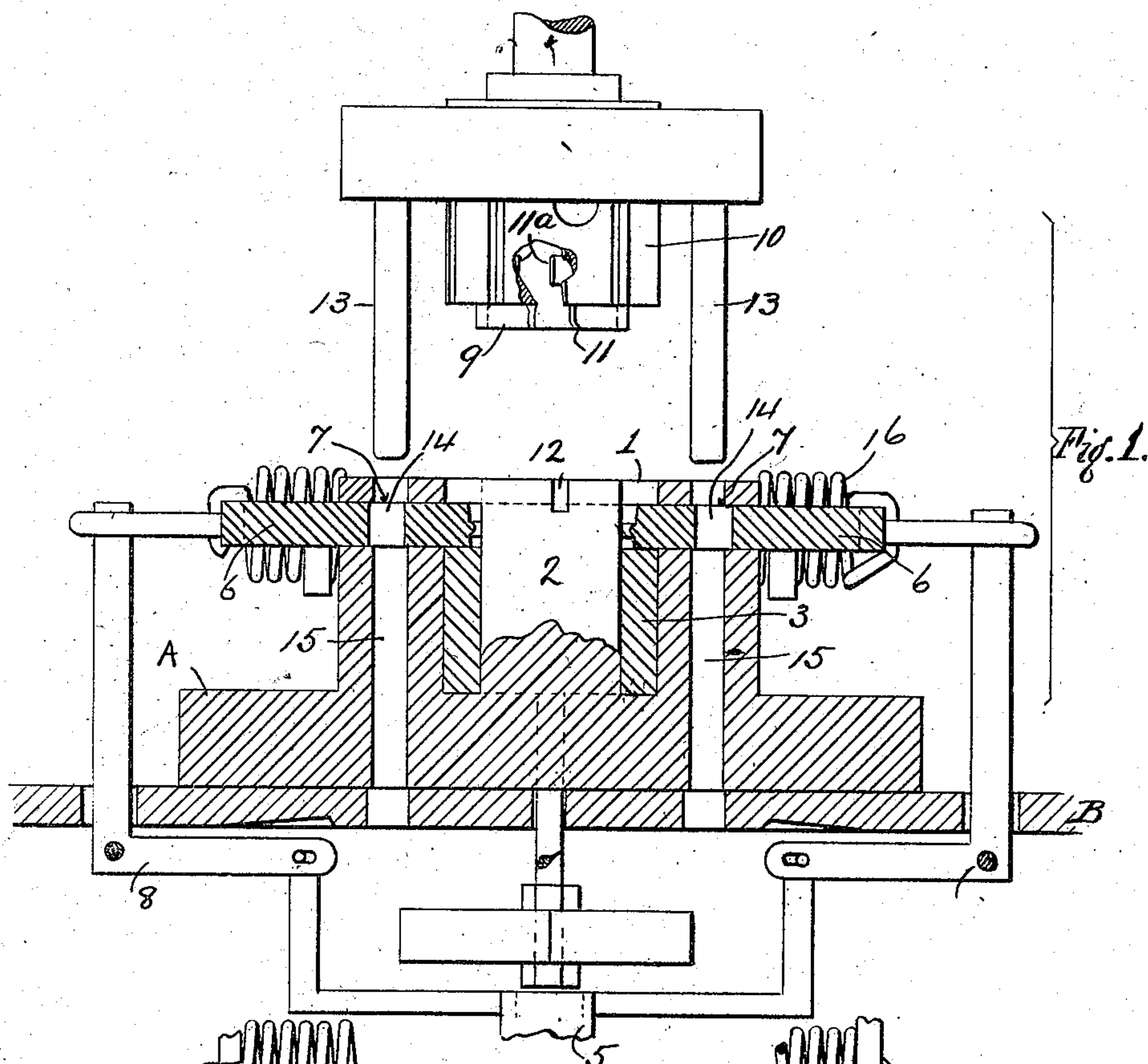


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APPLICATION FILED JAN. 9, 1908.

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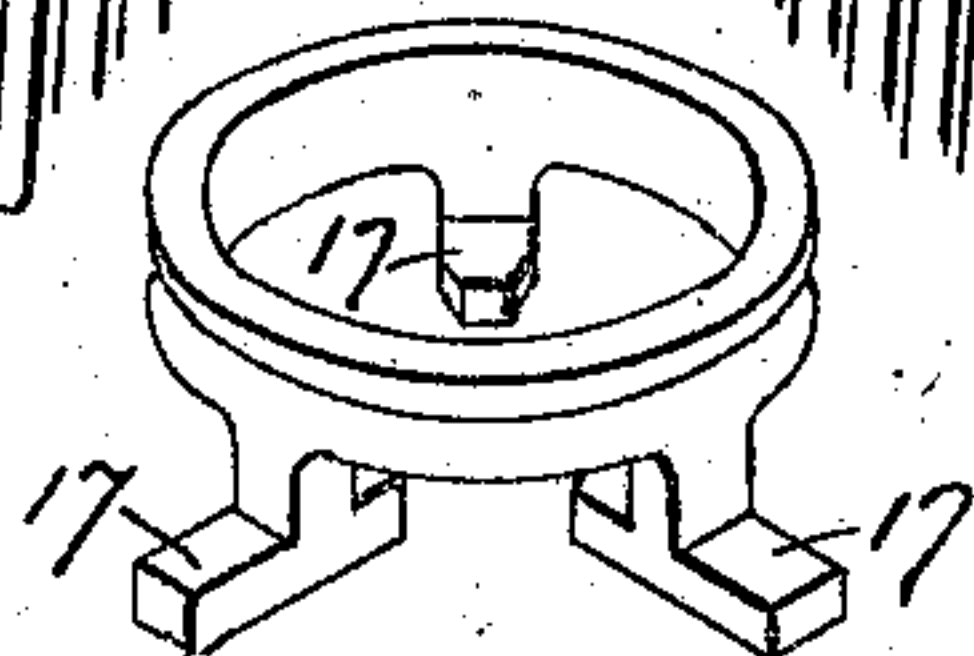
Patented Sept. 29, 1908.



WITNESSES  
Halter Abbr  
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BY

Fig. 3.



Homon and Homon

ATTORNEYS



# UNITED STATES PATENT OFFICE.

BENJAMIN D. KENNEY, OF EAST LIVERPOOL, OHIO, ASSIGNOR TO THE R. THOMAS AND SONS COMPANY, OF EAST LIVERPOOL, OHIO, A CORPORATION OF OHIO.

## MANTLE-RING MOLD.

No. 899,871.

Specification of Letters Patent.

Patented Sept. 29, 1908.

Application filed January 9, 1908. Serial No. 409,942.

*To all whom it may concern:*

Be it known that I, BENJAMIN D. KENNEY, a citizen of the United States of America, residing at East Liverpool, in the county of Columbiana and State of Ohio, have invented a certain new and useful Improvement in Mantle-Ring Molds, of which the following is a specification.

This invention relates to molds and particularly to mantle ring molds, the object of my invention being to provide a simply operated and efficient mold by which the production of mantle rings and like objects may be more expeditiously effected than with the molds now in common use for this purpose.

In the accompanying drawing showing a mold in which my invention is incorporated, Figure 1 is a side elevation of the mold partly broken away; Fig. 2 is a sectional plan view thereof; and Fig. 3 is a perspective view of the ring formed by the dies.

Referring to the drawings, the stationary body A of the mold which is secured in any suitable manner to a supporting frame B, is provided with a circular recess 1 in which is located a central pedestal 2. Surrounding this pedestal and working in the space between it and the body of the mold I provide a ring 3 which serves not only as the bottom of the lower die but also as a lifting ring being connected with lost motion to the pedal operated lifting rod 5. The sides of the lower die are formed by a split ring, the halves of which are formed at the inner ends of the sliding arms 6 passing through slots 7 in the body of the mold and connected by a rocking lever or other suitable mechanism 8 with the lifting rod 5. Springs 16 tend to keep the arms 6 together and the spreading action of the rocking lever 8 is opposed by the tension thereof.

The upper die comprises a forming ring 9 on the face of the plunger 10 and recesses 11 which with the inwardly projecting lugs 11<sup>a</sup> entering corresponding slots 12 in the pedestal 2, form the supports 17 of the finished ring. Locking pins 13 carried by the upper die enter registering holes 14 and 15 in the arms 6 and body A respectively so as to firmly lock the arms and prevent their spreading under the pressure of the upper die.

The operation of the mold is as follows:—

The lifting rod 5 being in its lowermost position so that the ring 3 is at the bottom of the lower die and the split ring closed under the action of the springs 16, the clay or other substance to be molded, is thrown into the space above the ring 3 and the upper die lowered. Descending, the pins enter the holes 14 and 15 and lock the arms 6 during the period of pressure. After the upper die has been lifted, the lifting rod 5 is actuated. Its upward movement first spreads the arms 6 and then raises the ring 3 until the molded mantle ring is flush with or above the body A of the mold whence it may be readily removed.

It will be readily understood that my improved mold may be adapted for use in connection with other objects than mantle rings and that various modifications of my construction may be made without departing from the scope of my invention.

I claim as my invention:

1. In a mold of the character described, a die having a fixed body portion provided with guide slots, spring actuated side members working in said slots and adapted to form sides of the die during the molding operation, in combination with means to remove the molded article from the mold and means in connection therewith to move said side members against the tension of said actuating springs, said side members being adapted to be withdrawn from the die after the molding is complete and before the molded article is removed.

2. In a mold of the character described, a die having a fixed body portion provided with guide slots, side members working in said slots and adapted to form sides of the die during the molding operation, in combination with means in connection with the plunger die to lock said side members in position during said molding operation and means to withdraw said side members from the die after the molding is complete and before the molded article is removed.

3. In a mold of the character described, a die having a fixed body portion provided with guide slots, spring actuated side members working in said slots and adapted to form sides of the die during the molding operation and a bottom part adapted to serve as a lifting member as well as a base for the mold, in combination with means to lift said base and means in connection therewith to



withdraw said side members before the base is actuated.

4. In a mold of the character described, a die during the molding operation, in combination with guide slots, side members working in said slots and adapted to form sides of the die during the molding operation, in combination with means carried by the cooperating die to lock said side members in position during said molding operation and means to withdraw said side members from the die after the molding is complete and before the molded article is removed.

5. In a mold of the character described, a die having a fixed body portion and spring actuated side members laterally movable

with relation thereto adapted to be brought into position during the molding operation and withdrawn therefrom after the molding operation in combination with means for removing the article from the mold and means in connection therewith for previously withdrawing said side members from their position during the molding operation.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

BENJAMIN D. KENNEY.

Witnesses:

GEO. W. THOMAS,  
A. R. HOLMES.