No. 618,178. Patented Jan. 24, 1899.

R. P. LIPPINCOTT.

GLASS PRESS.

(Application filed Aug. 24, 1898.)

(No Model.)

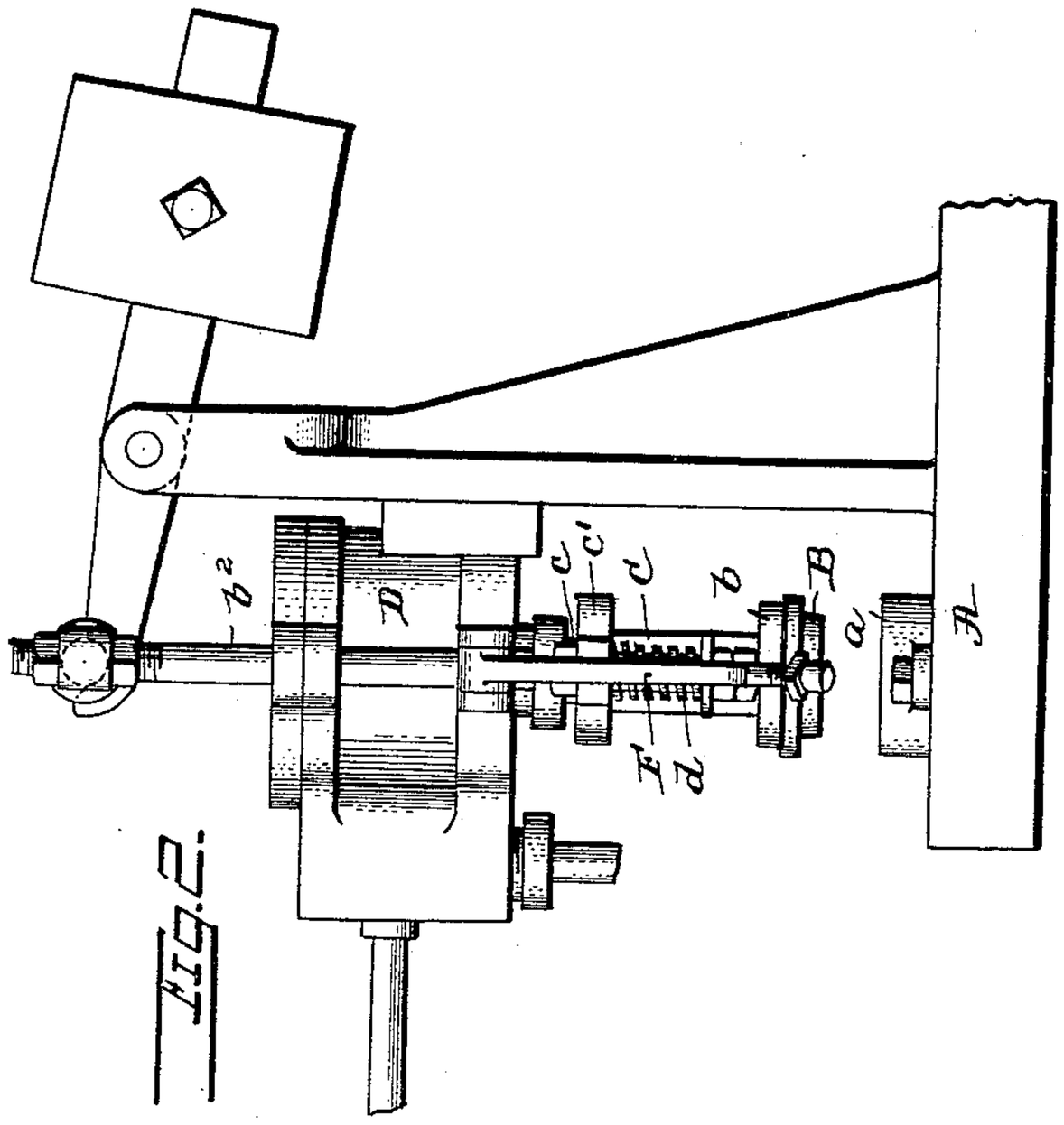

FIG. 2.

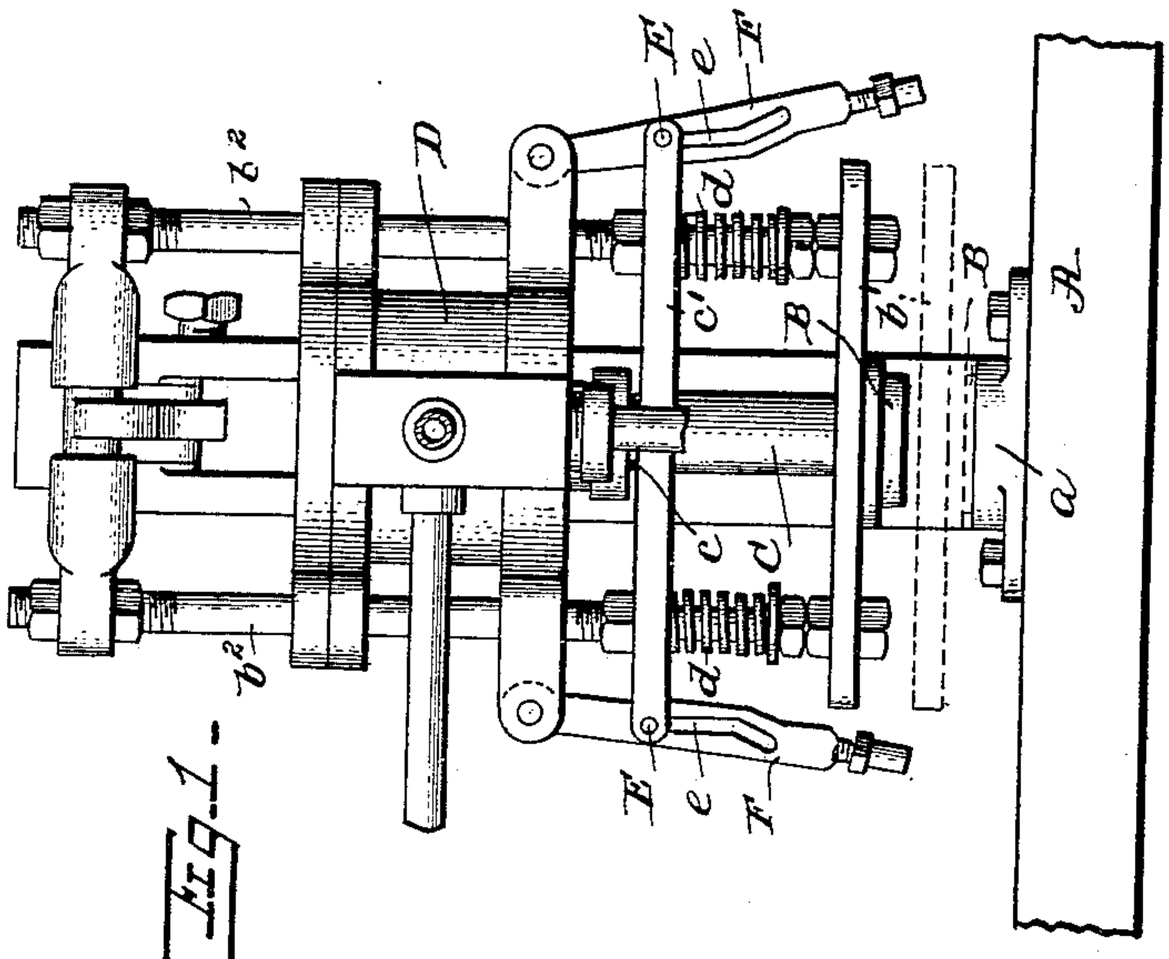

FIG. 1.

WITNESSES:

Jesse B. Keller.

Frances Ellis.

INVENTOR

Randolph P. Lippincott

BY

Harding & Harding

ATTORNEYS

UNITED STATES PATENT OFFICE.

RANDOLPH P. LIPPINCOTT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO SALMON B. ROWLEY, OF SAME PLACE.

GLASS-PRESS.

SPECIFICATION forming part of Letters Patent No. 618,178, dated January 24, 1899.

Application filed August 24, 1898. Serial No. 689,370. (No model.)

To all whom it may concern:

Be it known that I, RANDOLPH P. LIPPINCOTT, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Glass-Presses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates particularly to that class of glass-presses in which the press or movable member is in two parts, the follower and the plunger, both of which have a movement downward until the follower takes its seat, and then the plunger has a further independent movement. In this type of machine there is a spring connection between the plunger and follower which is relied upon to maintain the follower in position. In practice I have found this has some defects in not always maintaining the follower in fixed position, and as the follower carries a part of the mold this is quite disadvantageous; and my invention has for its object to prevent this occurring by locking the follower in its position and automatically locking and releasing the follower at the proper times. I accomplish this in the following manner, which is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a front view of the device. Fig. 2 is a side elevation of the device.

A is the table, carrying the fixed molds *a* of the press.

B is the follower, carrying a part of the movable mold, and C is the plunger, connected to the piston-rod *c*, which is operated from the cylinder D. I have shown this plunger operated by a piston-rod. It might be operated by a lever or in any manner, as the power to drive the piston forms no part of my invention. *b* is the follower-plate, and *c'* the plunger-plate, which surrounds the rods b^2, and between which plate *c'* and the follower-plate *b* are the springs *d*. The plunger-plate *c'* extends beyond the rods b^2 and is provided at its ends with the pins E, which work in the slots *e* of the arms F, pivoted to the frame of the machine. One part of the slot *e* is straight and the remainder inclined. The arms F are of sufficient length so that when swung over they will be within the line of the follower and when the follower is down will rest over said follower. The means by which I move this lever is as follows: As before described, the slot *e* has a vertical and an inclined portion. The length of the vertical portion is equal to the length of travel of the follower and plunger together. As a consequence, in the downward movement of the plunger and follower together the arms F are held outward. When the plunger moves downward alone, the follower being in its ultimate position, the pins E meet the inclined portion of slots *e* and the arms F swing over above the follower-plate and hold it in position. On the return movement, the first movement of the plunger upward, through the medium of pins E, acting on the inclined portion of the slots *e*, the arms F are pushed outward free from the follower-plate, so that when the time for the upward movement of the follower-plate is reached it is free to move upward.

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

1. In a glass-pressing machine, in combination with the plunger and follower, the plunger having a movement with, and a movement independent of the follower, of a swinging arm, there being a slot in said arm, one portion of which is inclined, a pin moving in said slot, and connection between said pin and said plunger, the pin traveling in the inclined portion of the slot during the independent movement of the plunger.

2. In a glass-pressing machine, the combination with the plunger and follower, the plunger having a movement with and a movement independent of the follower, of a swinging arm normally out of alinement with the follower, and a connection between said plunger and arm adapted in the independent movement of the plunger to swing said arm into alinement with the follower for the purpose specified.

3. In a glass-pressing machine, the combination with the plunger and follower, the plunger having a movement with and a movement

independent of the follower, of means for positively locking the follower during the independent movement of the plunger.

4. In a glass-pressing machine, the combination with the plunger and follower adapted to move downwardly to press the glass and then upwardly, the plunger having in both directions a movement with and a movement independent of the follower, and means for positively locking the follower during the independent downward movement of the plunger and for releasing the follower during the upward movement of the plunger.

In testimony of which invention I have hereunto set my hand, at Philadelphia, on this 10th day of August, 1898.

RANDOLPH P. LIPPINCOTT.

Witnesses:

FRANK S. BUSSER,

M. FRANCES ELLIS.