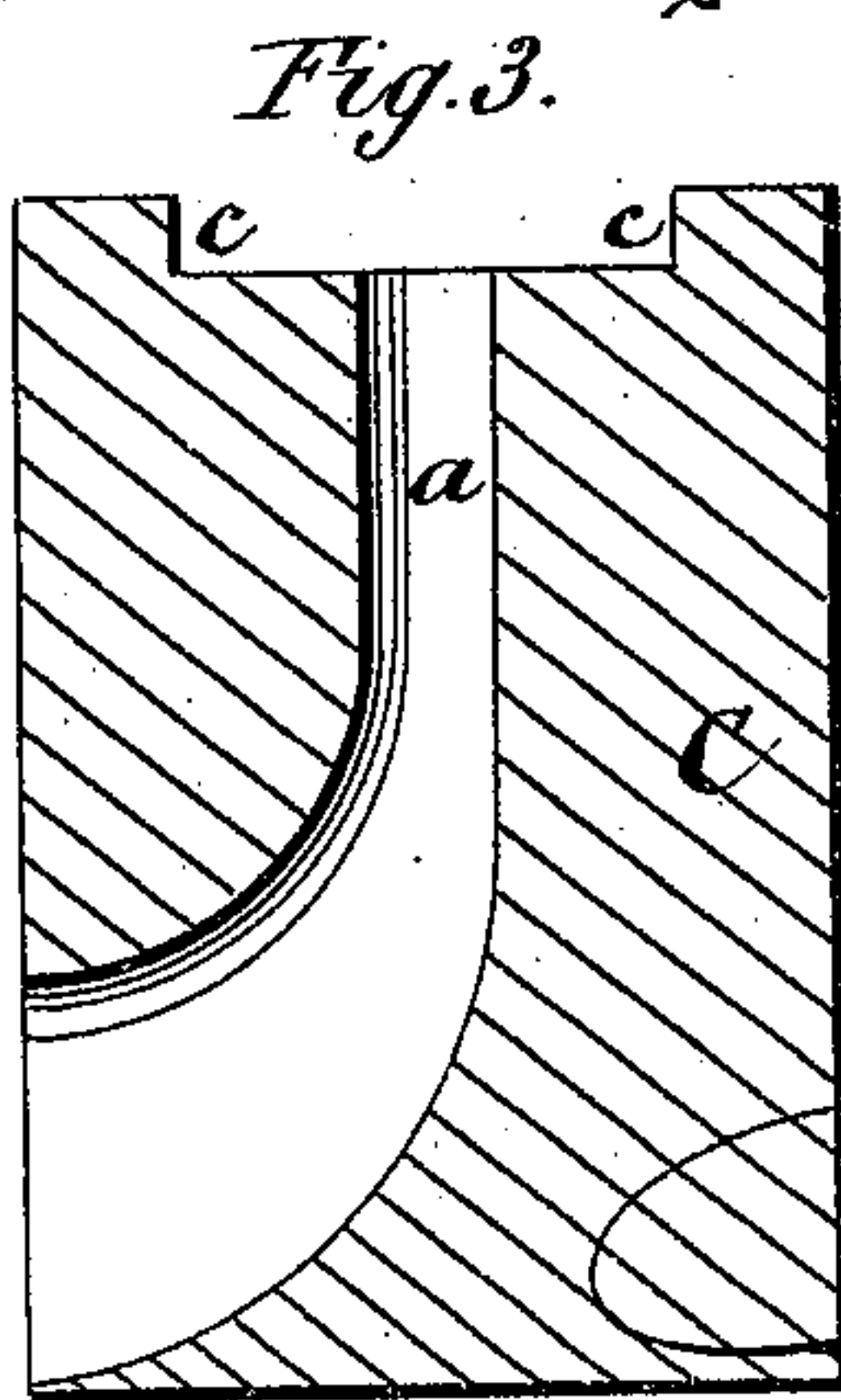
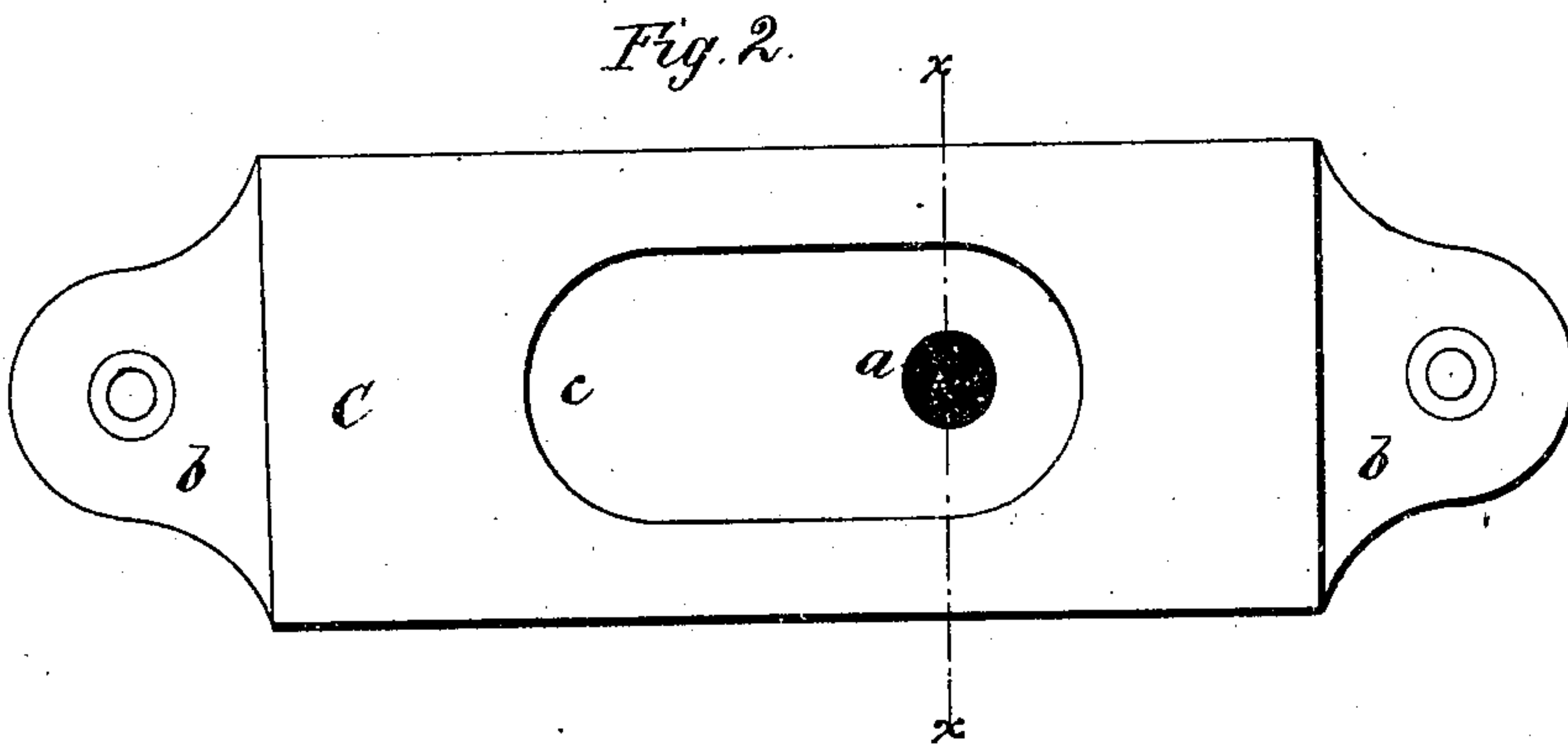
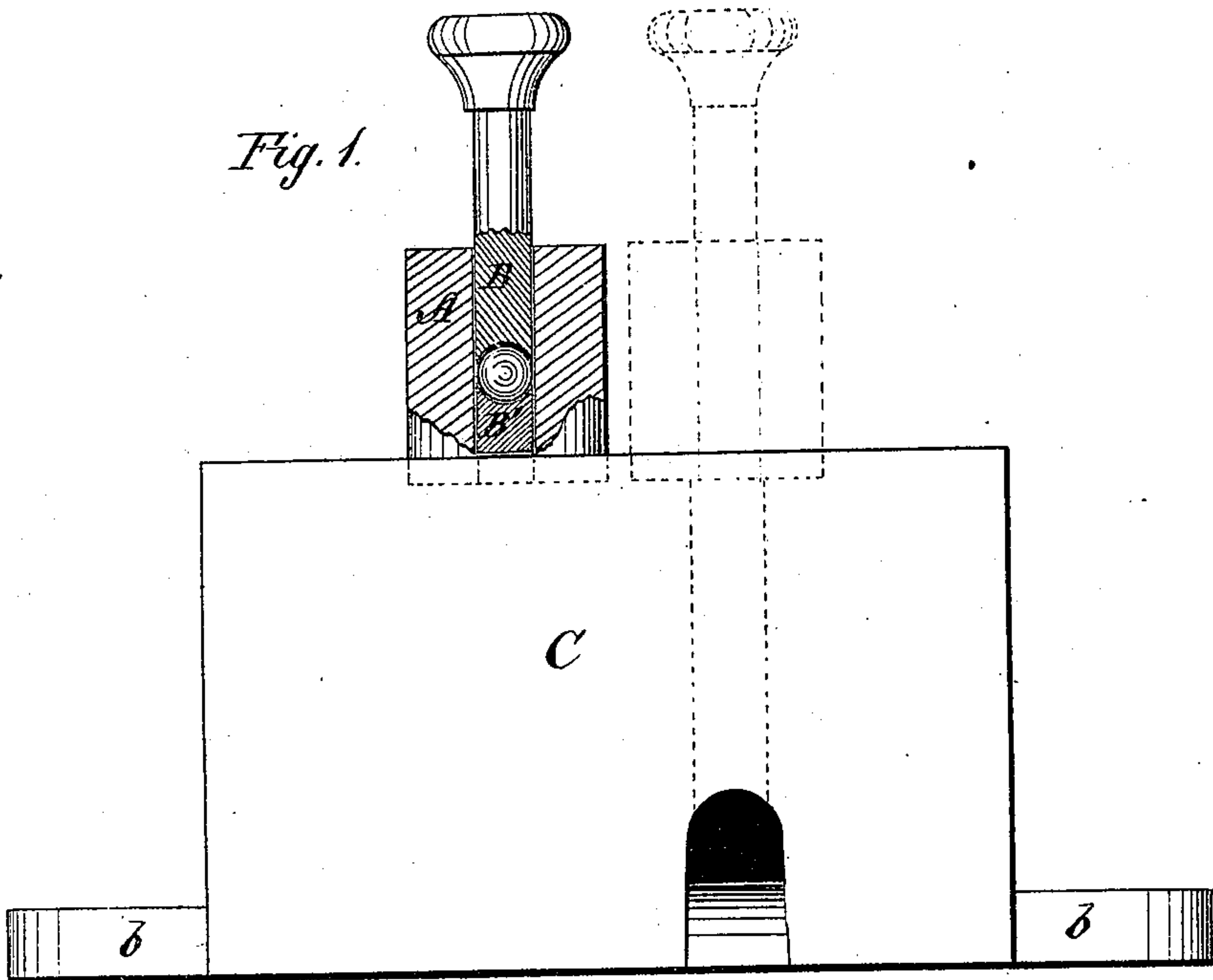


J. DUNTON.
PILL MACHINE.

No. 174,790.

Patented March 14, 1876.



WITNESSES:
W. W. Hollingsworth
John Kenyon

INVENTOR:
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BY *[Signature]*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JACOB DUNTON, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN PILL-MACHINES.

Specification forming part of Letters Patent No. **174,790**, dated March 14, 1876; application filed February 18, 1876.

To all whom it may concern:

Be it known that I, JACOB DUNTON, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and Improved Pill-Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a side elevation, with the dies and compression-chamber in section, showing also in dotted lines the different positions of the movable dies and chamber; Fig. 2, a plan view of the base; Fig. 3, a transverse section of the same through line *x x*.

This invention relates to an improved machine for making pills by compression; and it consists in a movable or detachable compression-chamber or powder-receptacle, in combination with two movable dies having concaved ends, the upper one of which forms the plunger, and the lower one of which is made short, and is adapted to be driven through a hole in a base-piece together with the pill.

The invention also consists in the construction of the base-piece, which is provided with a hole terminating in a laterally-discharging curved chute, by which the pill and lower die are driven out of the chamber into a convenient position; and it also further consists in the combination, with the powder-receptacle, of the base-piece, provided with guides, which permit the powder-receptacle to be shifted from its position for compressing to its position above the hole for discharging the pill without displacement, and without the delicate adjustment which would be otherwise required.

In the drawing, A represents the powder-receptacle, which constitutes also the compression-chamber. This receptacle is perforated vertically and longitudinally with a hole, in which are accurately fitted the dies B B', of which B constitutes the plunger, through which the application of power is made to effect the compression. Both these dies are movable and entirely detachable, and have their adjacent ends concaved, so as to give sphericity to the pill compressed between them. The lower die B' is made short, and is de-

signed to be driven out with the pill through a hole, *a*, in the base-piece C. Said base-piece is made with ears *b*, having screw-holes through them, by means of which it may be firmly secured to the counter or stand; and its upper side is provided with an oblong recess or depression, *c*, in which rests the powder-receptacle A. This recess is rounded at the ends with a curve corresponding to the circumference of the powder-receptacle, and the transverse dimension of the recess is the same as the diameter of the powder-receptacle. In one end of this recess the pill is compressed, and the chamber, with the dies and pill, is then slid to the opposite end, over the hole *a*, in which position the pill, with the lower die, is ejected downwardly through the hole by a tap upon the plunger, which latter is provided with a head or knob to receive the impact of the blow, and to prevent the plunger from going through.

The base C is made of considerable height, so as to enable the hole *a* to be conveniently curved to one side, so as to form a laterally-discharging chute.

This arrangement permits the base to set solid upon its support, and yet brings the pill and the discharged die into a convenient position for removal and replacement without lifting up the base.

In operating my devices the sides of the oblong recess simply operate as guides for the powder-receptacle in being moved from one position to the other; and I therefore do not confine myself to a recess for this purpose, but may employ any other form of guides, and as modifications of this feature of my invention pins may be arranged to form guides and stops, or a raised continuous guide may be employed.

Having thus described my invention, what I claim as new is—

1. The removable powder-receptacle A, the detachable plunger B, and the smaller lower die B', in combination with the base-piece, having a hole through which the pill and lower die may be together downwardly discharged, for the purpose described.

2. The movable powder-receptacle A and the detachable plunger B, in combination with the base-piece having a hole, *a*, which termi-

nates in a laterally-discharging chute, for the purpose described.

3. The movable powder-receptacle A and the two movable dies B B', in combination with the base-piece C, having guideways upon its upper surface, as and for the purpose described.

4. The movable powder-receptacle A and

the detachable plunger B, in combination with the base-piece, having a hole through which the pill may be downwardly discharged.

JACOB DUNTON.

Witnesses:

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E. W. MEVINS.