

A. ISKE.  
DEVICE FOR OPERATING DOOR BELLS.

No. 448,043.

Patented Mar. 10, 1891.

Fig. 1.

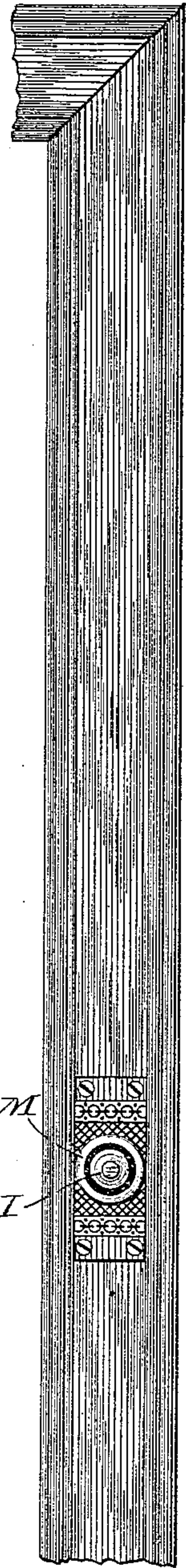


Fig. 2.

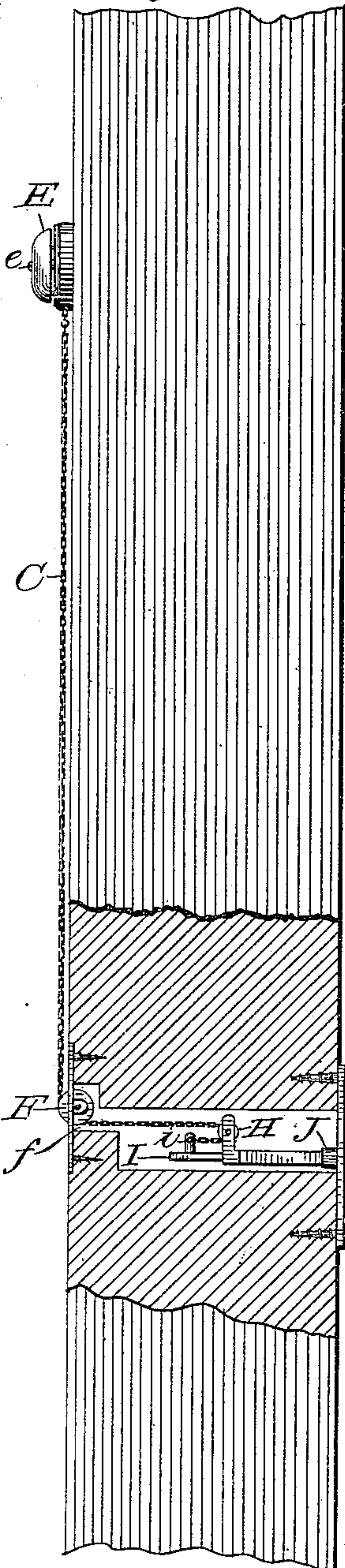


Fig. 3.

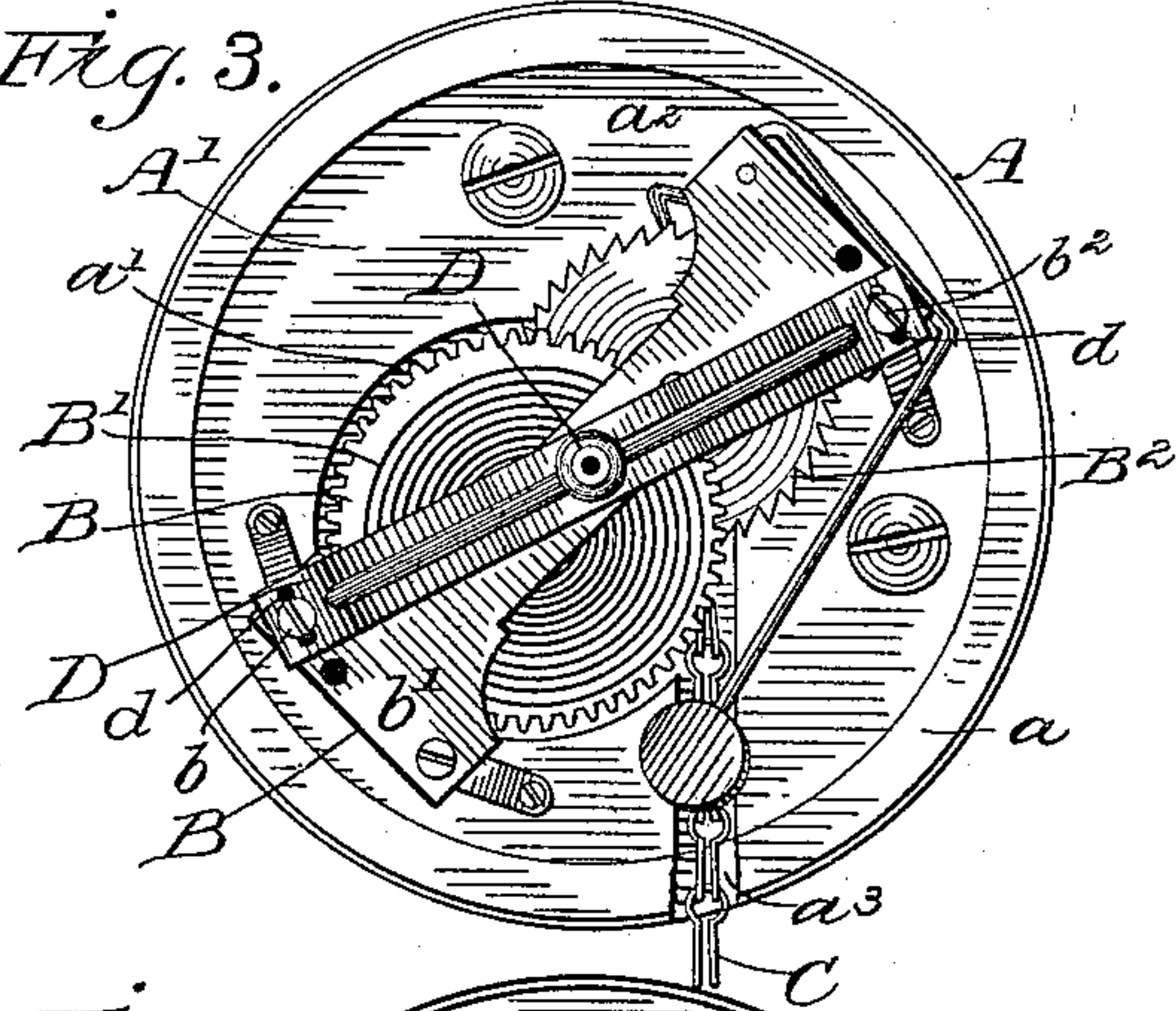


Fig. 4.

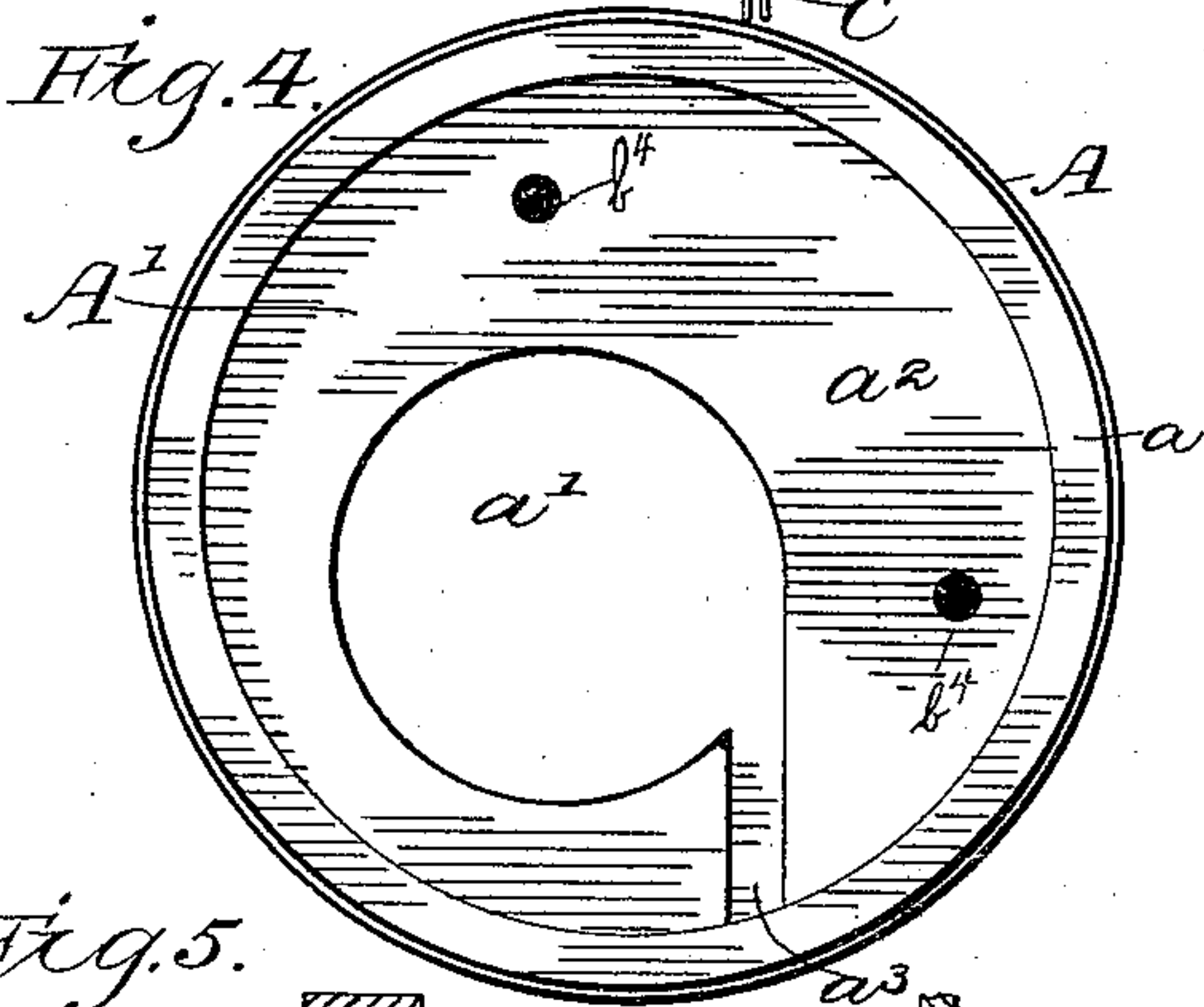


Fig. 5.

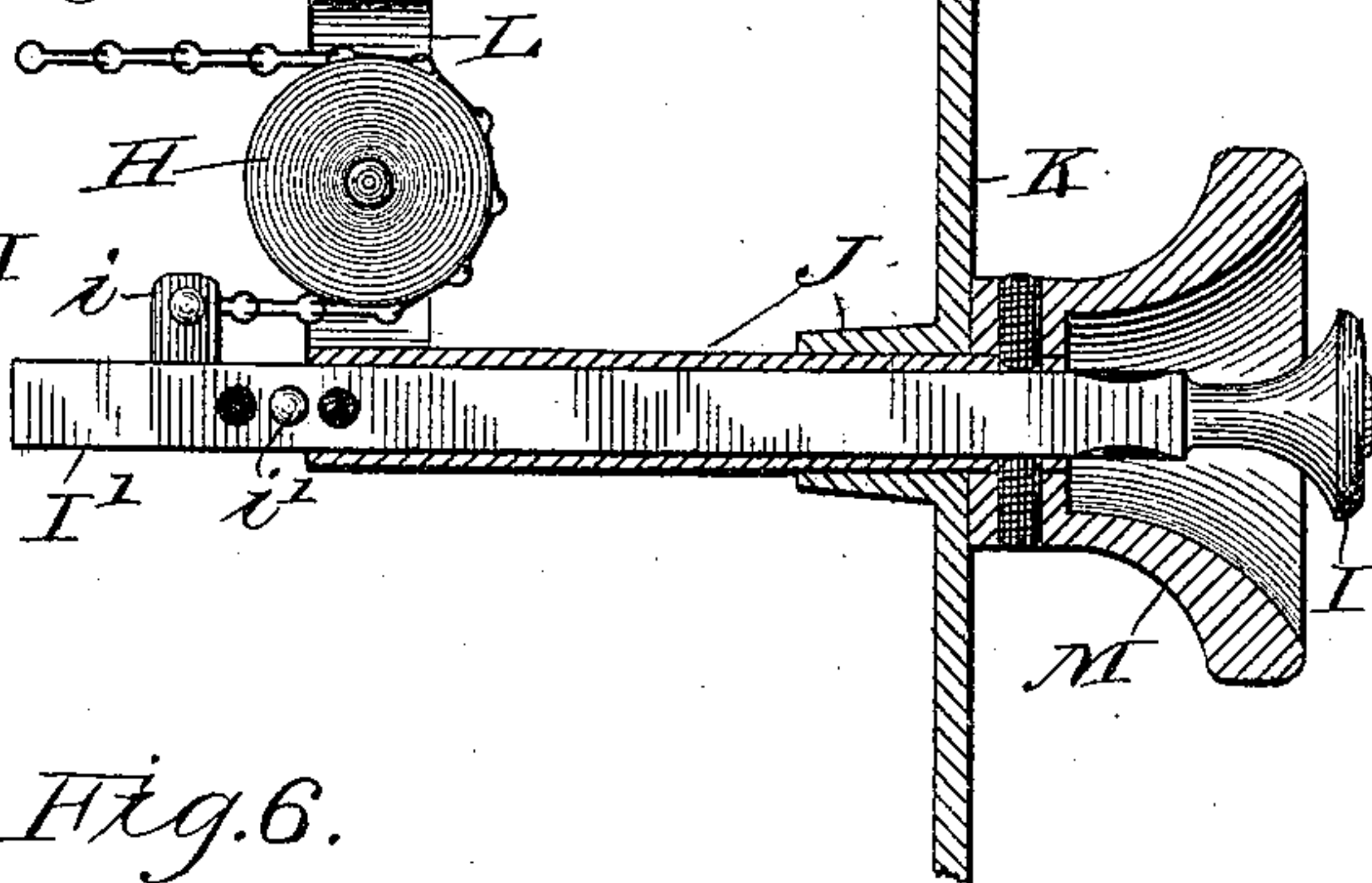
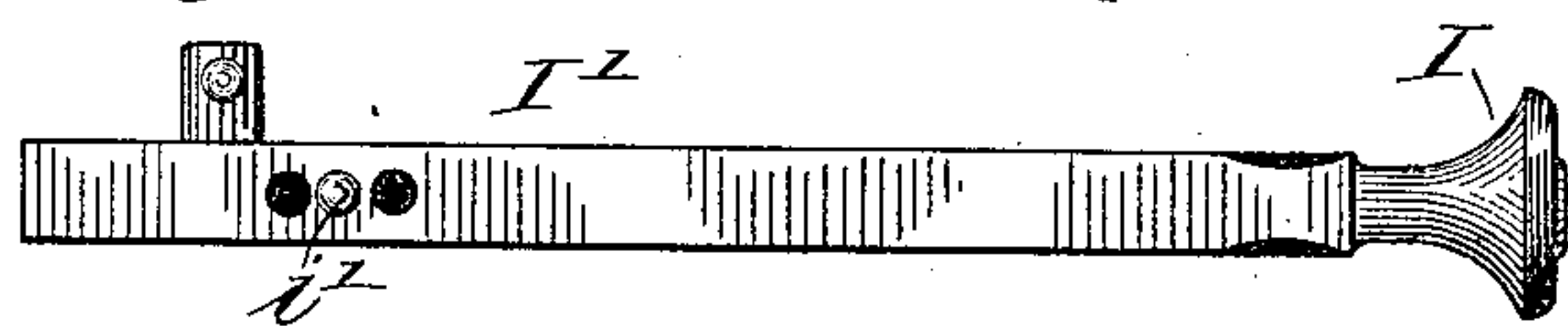


Fig. 6.



WITNESSES  
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*by W. H. Babcock*  
Attorney



(No Model.)

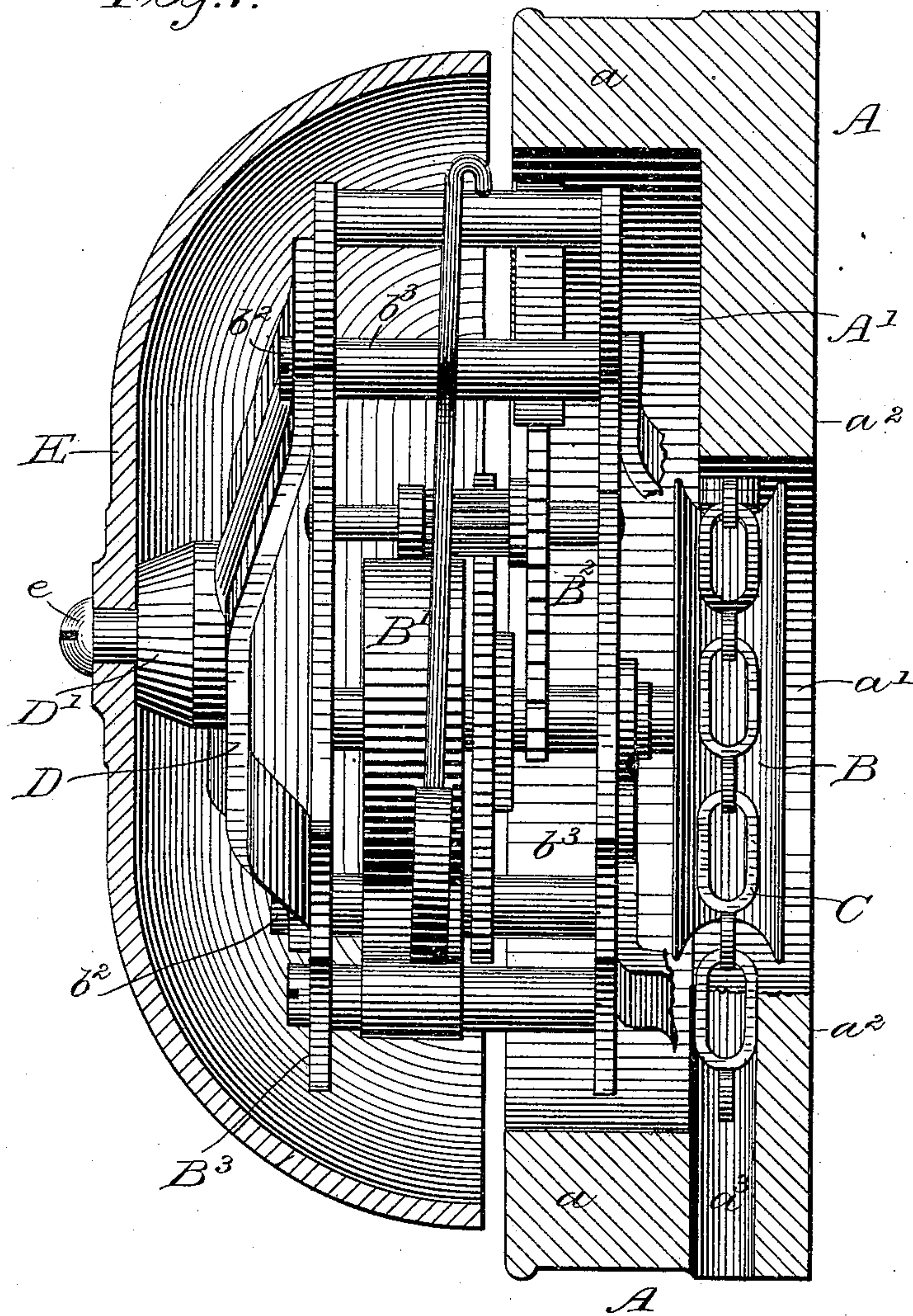
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Fig. 7.



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# UNITED STATES PATENT OFFICE.

ALBERT ISKE, OF LANCASTER, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE SELF ACTING BELL COMPANY, OF SAME PLACE.

## DEVICE FOR OPERATING DOOR-BELLS.

SPECIFICATION forming part of Letters Patent No. 448,043, dated March 10, 1891.

Application filed June 19, 1890. Serial No. 355,938. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT ISKE, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Devices for Operating Door-Bells; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The objects of this invention are partly to improve the bell-holding and train-inclosing devices of door-bells which are rung by clock-work, but chiefly to provide improved devices for operating door-bells and other alarms, especially of this construction, by either a push or pull on devices attached to the bell-pull chain.

These improvements will be hereinafter more particularly set forth and claimed.

In the accompanying drawings, Figure 1 represents a view in front elevation of the push-button and a tubular flaring knob surrounding the same, as applied to the outside of a door-frame or wall. Fig. 2 represents a side elevation of the push-button, the bell, and the intervening devices, the door-frame being partly broken away. Fig. 3 represents the bell-operating mechanism and its casing in elevation, the bell itself being removed. Fig. 4 represents a similar view of the said casing empty. Figs. 5 and 6 represent detail views of the push-button and bell-pull mechanism. Fig. 7 represents an enlarged vertical section.

A designates the said casing, which is a disk-shaped block of wood having its center recessed, forming a circular space  $A'$ , which leaves only an annular rim  $a$  between it and the periphery. From this space a circular central opening  $a'$  extends through the thin wall  $a^2$  of said casing, whereby it is attached. This opening receives the winding-pulley B of mainspring  $B'$  and clock-work train  $B^2$ , which are mounted in a frame  $B^3$ , fastened to said wall  $a^2$  and said rim  $a$ , the said clock-work being located within the space  $A'$ . A passage or channel  $a^3$  runs downward from said opening  $a'$  to leave room for and guide

the pull-chain C, which is wound on pulley B by the action of the mainspring  $B'$ , and puts the latter under tension when drawn off from said pulley.

On the cap-plate  $b'$  of the frame  $B^3$  a bridge D is held by screws  $b^2$ , which pass through slots  $d$  of said bridge and also through perforations in said cap-plate into pillars  $b^3$  of said frame. These screws have the double function of holding said cap-plate in place and of adjustably fastening said bridge. The latter is arched outward in the middle and provided there with a screw-tapped boss  $D'$ , which receives a screw  $e$ , passing through the bell E for holding the latter in place. The slots  $d$  are arranged transversely of said bridge D in the straight ends  $D'$  thereof, so that by loosening the screws  $b^2$  and moving either end or both ends of said bridge laterally in either direction the position of the bell may be correspondingly changed. To allow still greater adjustability, the cap-plate  $b'$  is provided with additional holes  $b^4$ , which may receive other screws passing through said slots  $d$ , instead of screws  $b^2$  aforesaid; or these last may be employed for that purpose and other screws employed for holding the cap-plate to its pillars. By means of the above-described adjusting devices the position of the bell may be so regulated as to keep it always central, compensating for any change of temperature and consequent contraction and expansion or for any other disturbing influence. The bell and the hollow open-faced block A, which constitute the casing, together protect the mainspring and the train of wheels very well.

The bell-pull chain C passes downward around a pulley F, which is journaled in a slot or recess  $f$  of the door-frame or other fixed support. Thence it passes over and around a second pulley H, and is finally attached to a stud  $i$  on or near the inner end of the shank  $I'$  of a push-button I. The said shank moves endwise in a sleeve J, which is extended at its front end through a fixed external plate K. Both said shank and sleeve are preferably square or of equivalent shape in cross-section, to prevent the push-button from turning. Said shank is also provided with a lat-



eral stud *i'* to prevent it from moving outward too far. Said sleeve is rigid and provided with a raised rigid yoke L, which affords fixed bearings for the pulley H. On the protruding front end of this sleeve a hollow bell-shaped knob M is detachably fastened. This surrounds the push-button, and its flaring inner face guides the thumb of the person ringing the bell to said push-button, while its outside affords holds for the first two fingers of the same hand.

When the push-button is pressed in, the bell-pull chain is necessarily drawn upon thereby. When the push-button is released, the mainspring of the bell clock-work rings the bell and at the same time replaces the push-button in its first position. When the push-button and its shank thus move, the sleeve J remains stationary. When the sleeve is drawn out by a pull on knob M, the draft on chain C, by means of pulley H, produces exactly the same result as the pressure on the push-button above referred to, and on letting go of the knob the bell is rung in the same way. In either case the mainspring of the alarm mechanism restores the reciprocating part (push-button, shank, or sleeve) to its normal position. When the sleeve moves endwise, as described, the push-button shank remains stationary and guides it.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a push-button and its shank, a sleeve inclosing the same and longitudinally movable with respect thereto, a chain attached to said push-button shank and passing over an attachment of said sleeve in order that said chain may be drawn either by pressure on said push-button or by pulling said sleeve, and an alarm connected to

said chain, substantially for the purposes set forth.

2. In combination with a push-button, its shank and the bell-pull chain attached thereto, a guide-sleeve for said shank, a pulley over which said chain passes, alarm mechanism connected to and operated by said chain, and an external tubular guide surrounding said push-button and detachably secured to said sleeve.

3. In combination with a push-button, its shank, and the bell-pull chain attached thereto, a guide-sleeve for said shank, a plate to which said guide-sleeve is attached and through which it protrudes, an attachment of said sleeve over which the said chain passes in order that it may be drawn upon when said sleeve is pulled outward, an alarm attached to said chain, and an external guide and finger-hold surrounding said push-button and secured detachably to the protruding end of said sleeve, substantially as set forth.

4. In combination with the frame and operating mechanism of a clock-work-operated bell, a bridge which supports the latter and which is transversely slotted at the ends, the said bell being arranged in front of said frame-bridge and operating mechanism, and the said bridge being attached to said frame by devices passing through said slots in order that the position of said bridge and bell may be shifted by way of compensation to keep said bell in position to be struck by the hammer, for the purpose set forth.

In testimony whereof I affix my signature in the presence of two witnesses.

ALBERT ISKE.

Witnesses:

P. DONNELLY,  
ANTHONY ISKE.