

(No Model.)

T. M. BALES.
ALARM BELL.

No. 442,937.

Patented Dec. 16, 1890.

Fig. 1.

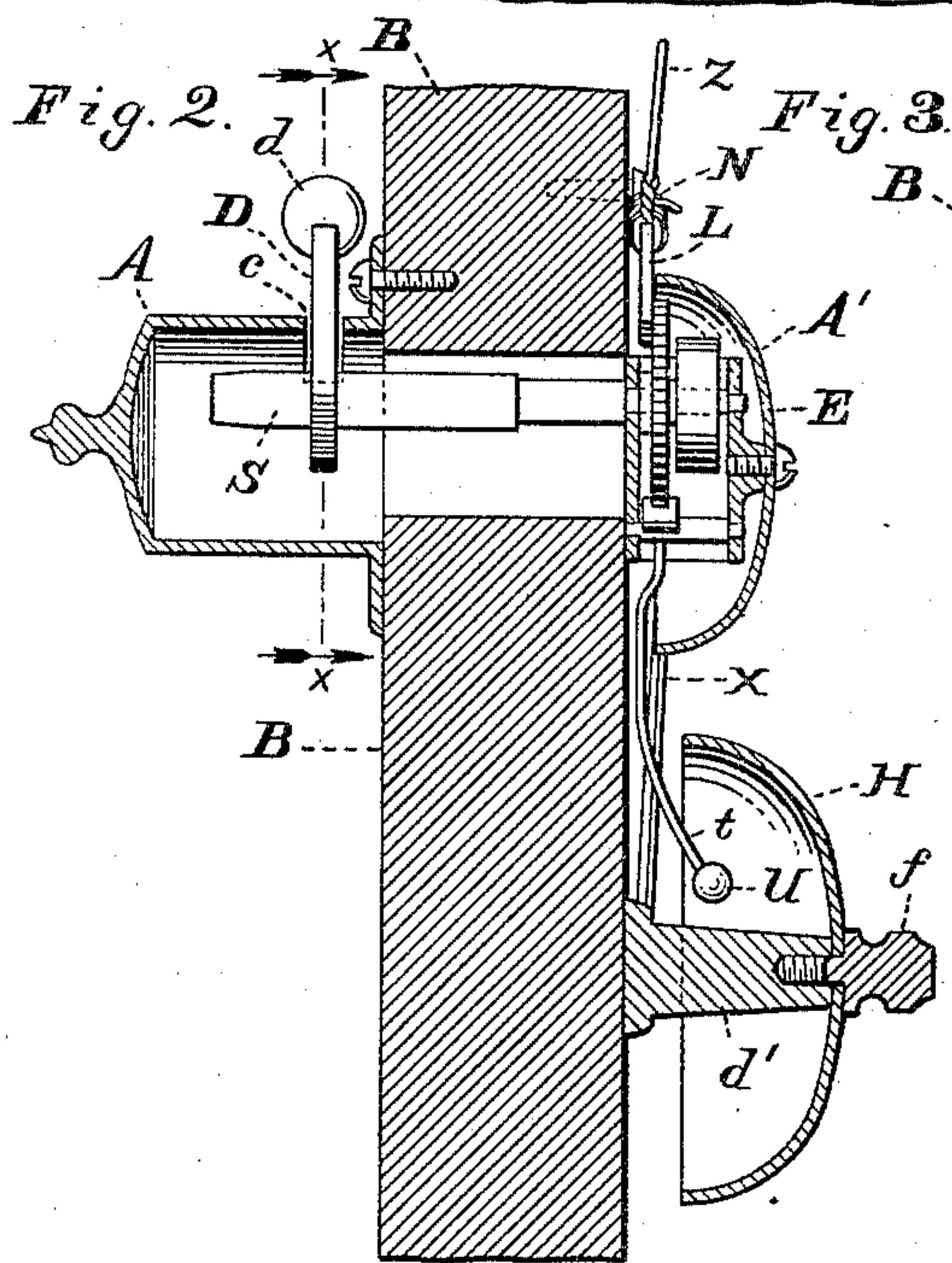
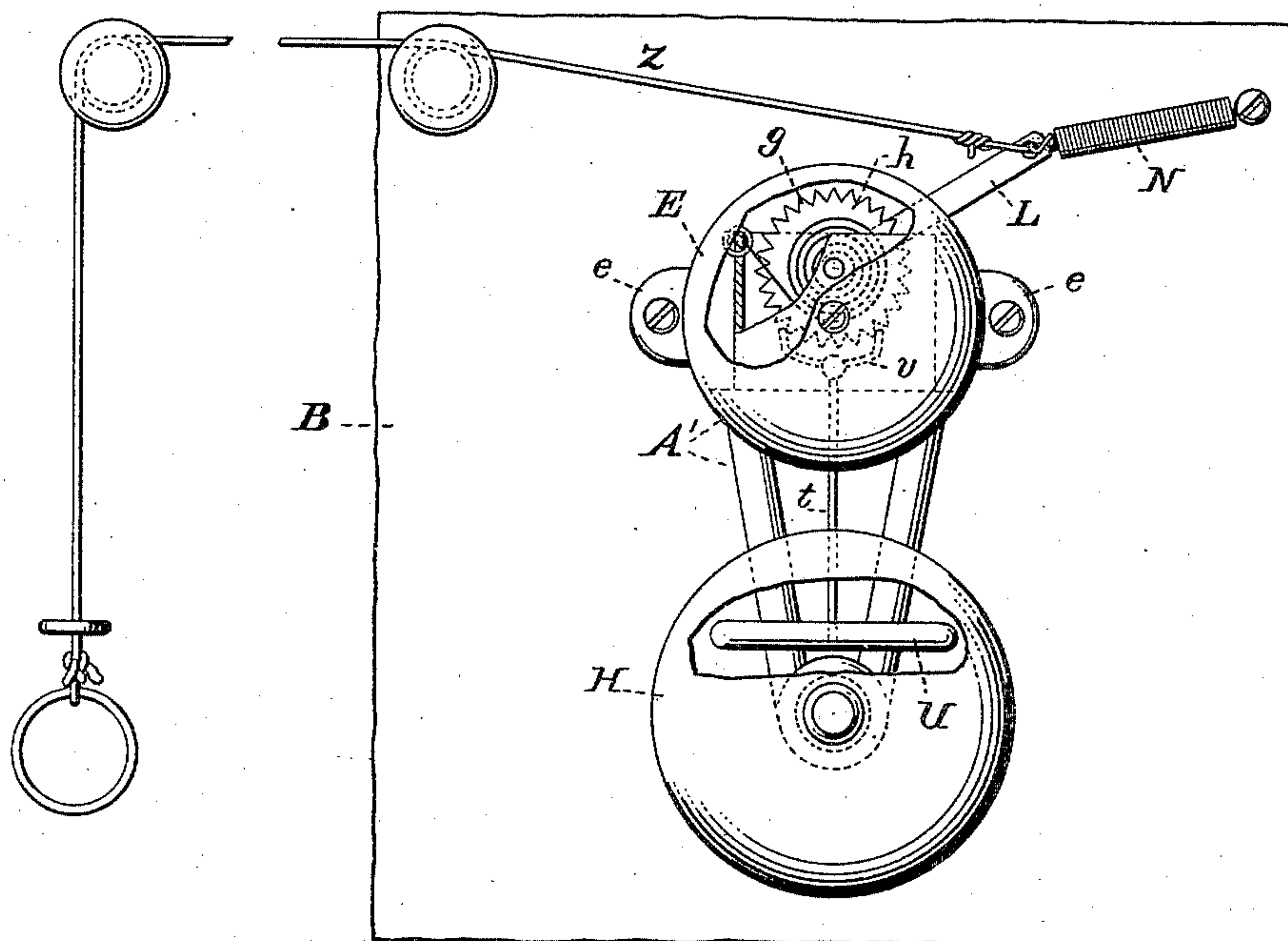
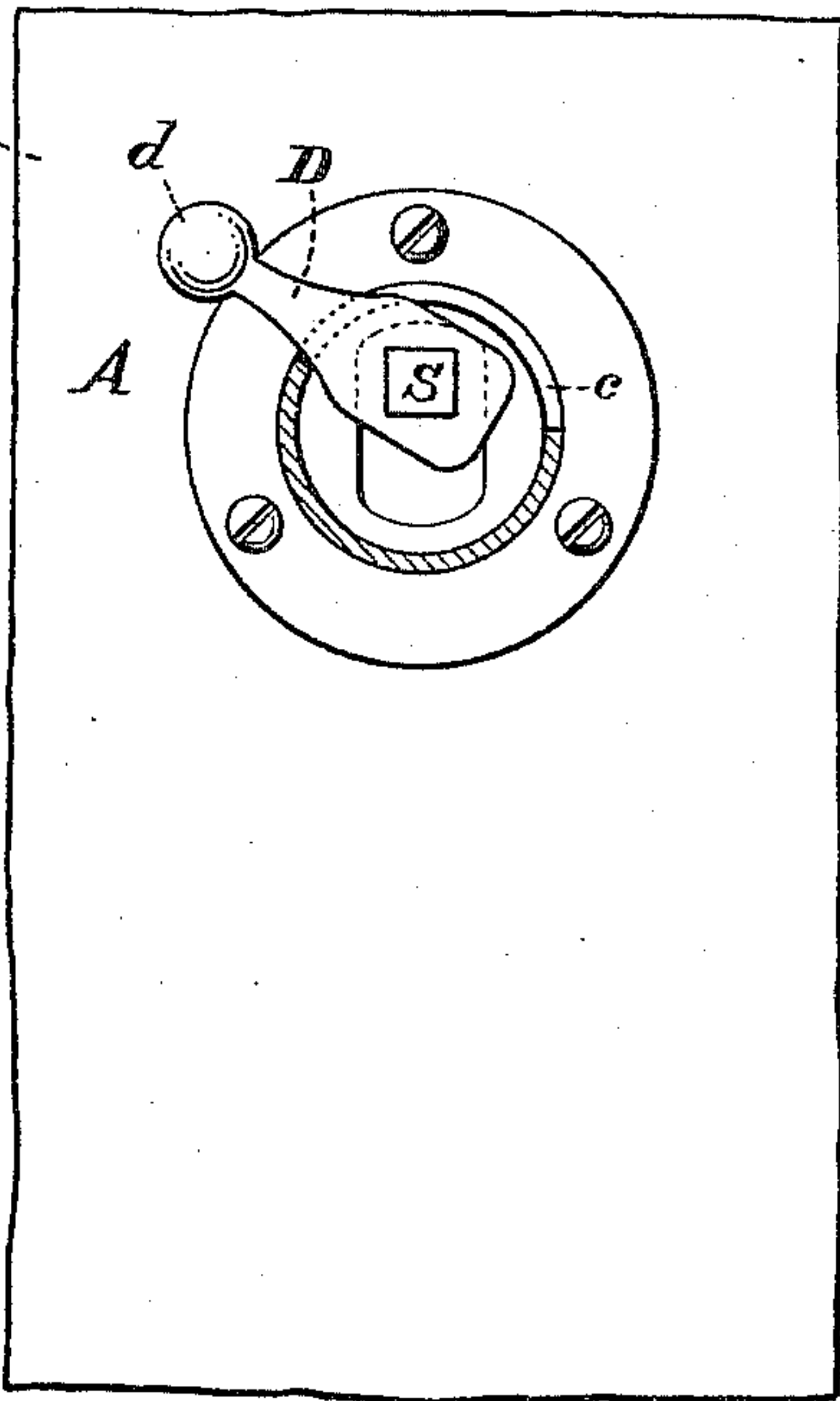


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS MONROE BALES, OF DUBLIN, INDIANA.

ALARM-BELL.

SPECIFICATION forming part of Letters Patent No. 442,937, dated December 16, 1890.

Application filed November 7, 1889. Renewed September 4, 1890. Serial No. 363,885. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MONROE BALES, a citizen of the United States, and a resident of Dublin, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Alarm-Bells; and I do 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of this invention, and is a front view on the inside of the door. Fig. 2 is a vertical section. Fig. 3 is a section taken where the broken line $x-x$ is marked on Fig. 2.

This invention has relation to door and call bells; and it consists in the novel construction and combination of parts, as hereinafter set forth.

The object of the invention is to provide for the hanging of door-bells and to connect the striking mechanism thereof with some distant point independently of the local operating knob or lever on the door.

In the accompanying drawings, the letter A indicates a knob or hollow casing secured rigidly to the outside of the door B, and provided with an upper transverse slot c to receive a vertical lug-lever D. The lever D has a rectangular opening at its end within the knob A to receive the correspondingly-angular end of the spindle S, and its outer end projects beyond the slot in the form of a knob or thumb-piece d , whereby the said spindle is operated. The spindle S connects on the inside of the door with the striking mechanism, which is contained within a casing E and is journaled in bearings in the vertical walls of said casing. A scape-wheel g is rigidly secured to the spindle within the casing, and a coiled spring h is secured to said spindle and the side of the casing, whereby the scape-wheel is held to its engagement with a pallet v , which causes the striker-arm t , connected to the pallet-shaft, to vibrate the hammer U upon the end of the striker-arm and ring the bell H when the scape-wheel is operated by the spindle. An arm or lever L is rigidly secured to the face of the scape-wheel and projects obliquely upward to connect with a spiral spring N, secured to the

door nearly at a right angle to said arm. On the opposite side from the spiral spring the lever-arm is connected by a cord or wire Z, leading to some distant point, whereby the bell may be rung from said point. The distance covered by the call-cord Z is comparatively immaterial, as the spiral spring attached to the arm may be made of sufficient strength to counteract the weight of said cord and return it to its normal position after being drawn to ring the bell. By using two sets of bells the cord Z may be connected with the lever-arms of both actions and communication permanently effected between the residence and office or shop of the owners.

A' indicates a casting consisting of a concave cap or cover E for the mechanism or action, and a downward extension or post x , having at its lower end a horizontally-projecting hanger d' for the bell. The cap E is centrally perforated to receive a screw which enters the opposite face of the casing to secure the latter in position, the cap being secured to the door by screws passing through its lateral ears or lugs e . The hanger at the end of its casting is axially recessed and threaded to receive a set-screw f , which first enters a central perforation of the bell to secure the latter in position. When the bell is in position, the hammer is within the cavity of the former, and the vibrations of said hammer are communicated by the pallet in engagement with the scape-wheel, either by pulling the cord attached to the lever-arm of the latter or by turning the spindle from without the door by operating the lever-lug of the stationary knob, as shown.

What I claim as my invention is—

In a door-bell, the combination of the hollow slotted knob, the spindle bearing in a suitable support secured to the door, the lever fitted upon said spindle and projecting through the slot of said knob, the scape-wheel secured upon said spindle and engaging a pallet whose shaft carries an arm provided with a hammer, a bell acted upon by said hammer, and a spring connected to the casing and said spindle, substantially as set forth.

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

THOMAS MONROE BALES.

Witnesses:

JASPER HOLLAND,
MARY A. HOLLAND.