E. M. LOCKWOOD.

Door-Bell.

No. 167,846. Patented Sept. 21, 1875.

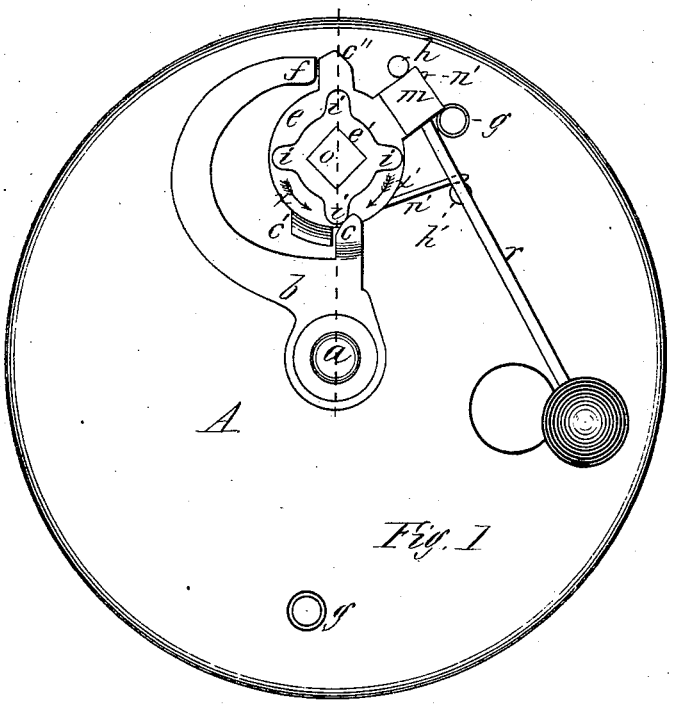

Fig. 1

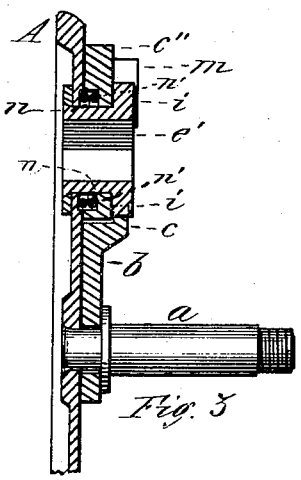

Fig. 3

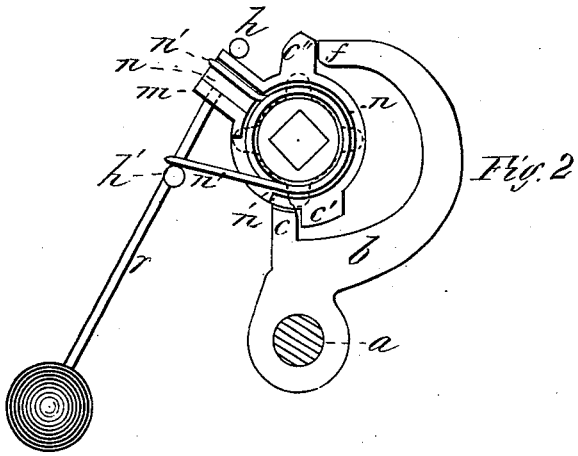

Fig. 2

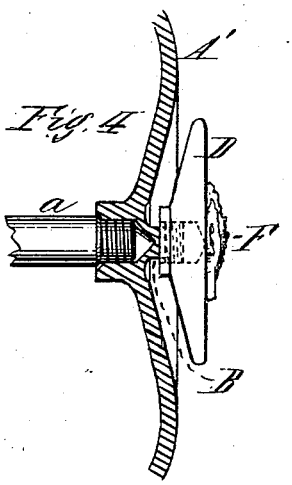

Fig. 4

Witnesses,
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UNITED STATES PATENT OFFICE.

EDWARD M. LOCKWOOD, OF WEST MERIDEN, CONNECTICUT, ASSIGNOR TO EDWARD M. LOCKWOOD AND CHARLES PAGE.

IMPROVEMENT IN DOOR-BELLS.

Specification forming part of Letters Patent No. **167,846**, dated September 21, 1875; application filed March 17, 1875.

To all whom it may concern:

Be it known that I, EDWARD M. LOCKWOOD, of West Meriden, in the State of Connecticut, have invented a new and useful Improvement in Door-Bells; and that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this description and specification.

The object of my invention is to ring the bell by the rotation of the knob or shank attached thereto in either direction; and to this end my invention consists of a plate or disk provided with a projecting stud to hold a bell, and provided with a rotating socket having cams thereon, and an oscillating striker having the bell-hammer attached thereto, and with a spring arranged to keep the said striker in place, the shank of the socket extending through the plate and arranged to receive the shank of the knob by which the socket is operated to rotate in either direction to strike the bell.

Figure 1 is a plan view of the disk and operating parts of the striking mechanism attached thereto, and with the bell removed. Fig. 2 is a reverse plan view of the operating parts of the striking mechanism. Fig. 3 is a transverse section of the rotating socket and the oscillating striker; and Fig. 4 is a central cross-section through the bell, showing the method of attaching the ornamented button.

In the drawings, A represents the disk or plate provided with a projecting stud, *a*, to the outer end of which is secured an ordinary gong-bell. Upon this stud, *a*, and close to the plate A, is arranged a vibrating lever, *b*, having thereon a cam, *c*. A hole is made in the plate, through which is inserted the shank *o* of the socket *e'*. This socket is provided with cams *i* on its inner end, so arranged as to impinge against the projection *c* on the lever *b* when the socket is rotated in either direction, and is provided with a prismatic hole, *o*, to receive the shank of the door-knob. The striker *e* has a hole therein through which is inserted the shank of the socket, and is provided with the projections *c' c''* and *m*, the latter having the bell-hammer *r* attached thereto. The striker is also recessed on the back at *n* to receive the spring *n'*, which is coiled around the shank of the socket, with one end bearing against the stud *h'* on the plate A, and the other end having a bearing against one side of the recess in the projection *m*. The projection *c* on the striker is nearly opposite the projection *c''*, and when the parts are in place the action of the spring *n'* is to hold the striker *e* in a position with its projection *m* against the stud *h* of the plate.

The operation of my invention is as follows: If the socket *e'* be rotated in the direction indicated by the arrow at *x*, one of the cams *i* strikes against the projection *c* of the lever, and moves the lever, its end *f* pressing against the projection *c''* of the striker, and partially rotating the latter until the bell-hammer is moved away from the bell. As the cam *i* passes the projection *c* the lever is released, and the action of the spring *n'* quickly moves the striker back to its position with the projection *m* against the stud *h*, which movement strikes the bell. If the socket *e'* be rotated in the opposite direction, as indicated by the arrow at *x'*, one of the cams *i* strikes against the projection *c* of the lever, forcing it against the projection *c'* of the striker, and partially rotates the striker in the same direction in which it was before rotated, moving the hammer *r* away from the bell as before, and, as the cam passes the projection *c*, the lever is released and the striker is, by the motion of the spring, quickly moved back to its former position, and the bell struck as before.

It will thus be seen that in whichever direction the socket *e'* is rotated by the shank of the knob, the striker will be partially rotated always in the same direction, and the alarm given.

It is evident that the spring *n'* may be applied to cause the striker to be moved back to its proper position in any other convenient manner, and I do not therefore limit

myself to the particular form and application of the spring shown herein.

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

The combination of the socket e', the striker e, the pivoted lever b, and the spring n', all operating to strike the bell by rotating the socket in either direction, substantially as set forth.

EDWARD M. LOCKWOOD.

Witnesses:
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