

I. H. ABELL.

Means for Operating Door-Bells.

No. 151,334.

Patented May 26, 1874.

Fig. 1

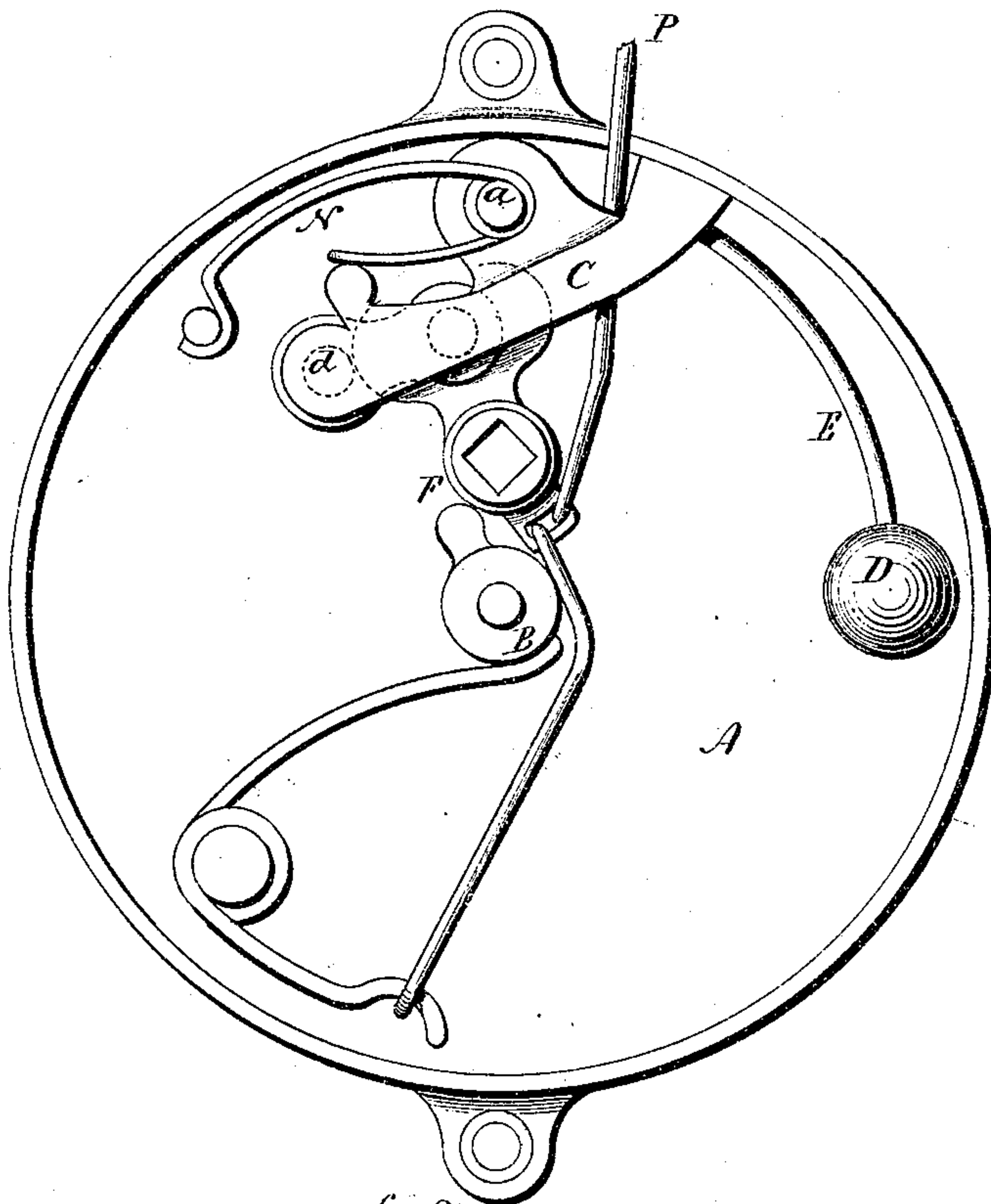
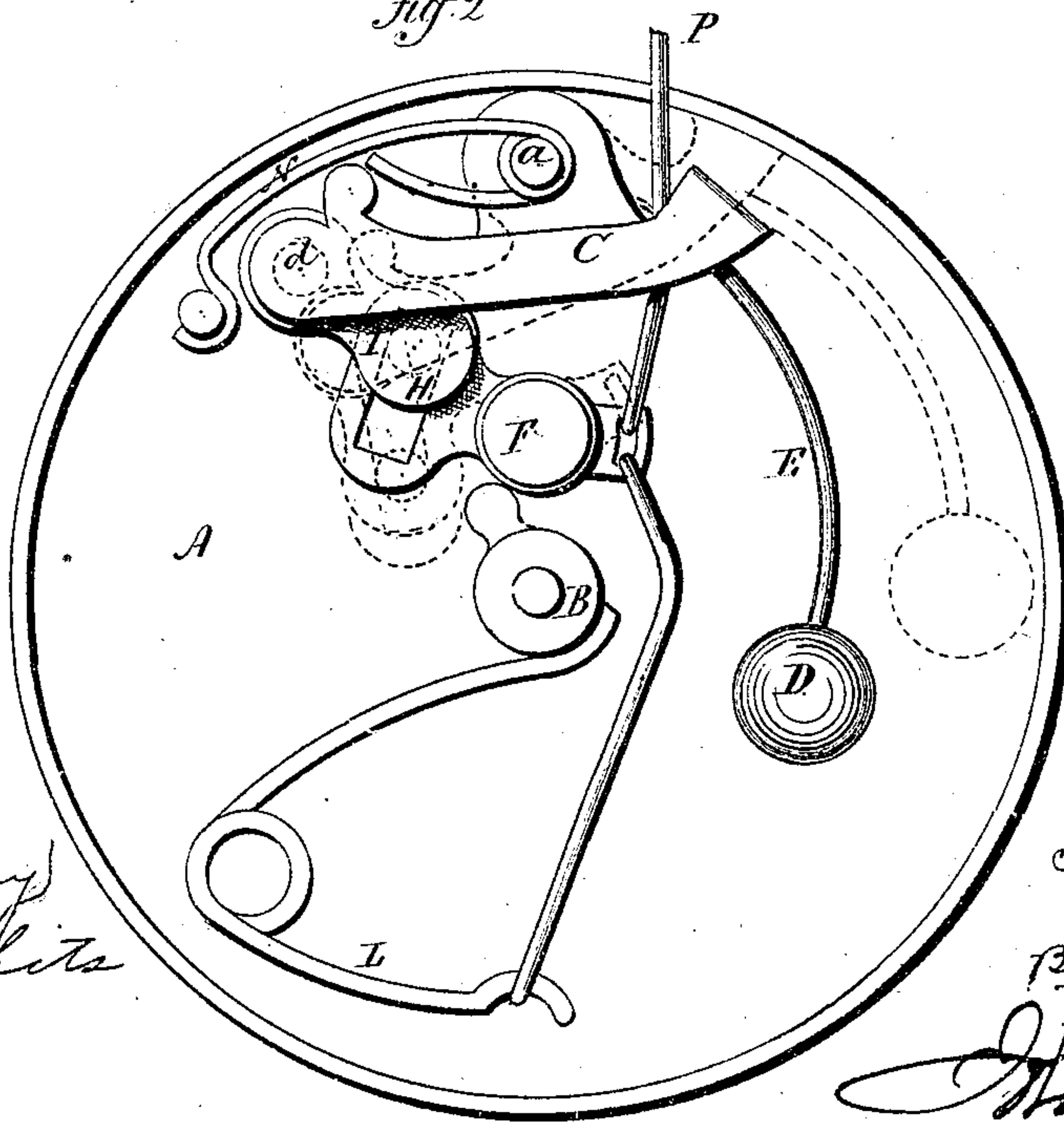


Fig. 2



Witnesses.
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UNITED STATES PATENT OFFICE.

IRVIN H. ABELL, OF EAST HAMPTON, CONNECTICUT, ASSIGNOR TO THE
EAST HAMPTON BELL COMPANY, OF SAME PLACE.

IMPROVEMENT IN MEANS FOR OPERATING DOOR-BELLS.

Specification forming part of Letters Patent No. 151,334, dated May 26, 1874; application filed
May 2, 1874.

To all whom it may concern:

Be it known that I, IRVIN H. ABELL, of East Hampton, in the county of Middlesex and State of Connecticut, have invented a new Improvement in Door-Bells; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view of the mechanism with the base-plate and mechanism in a state of rest—the bell removed; and, in Fig. 2, the same, to illustrate the operation.

This invention relates to an improvement in that class of bells which are specially arranged to be placed upon the inside of the door to be sounded by the rotation of a spindle running through the door, but applicable to other purposes; and the invention consists in combining, with a pivoted hammer, a slotted tumbler connected to the hammer-lever, the said slot allowing the hub to turn the connection and throw it past a central line; then the spring will throw the connection to the opposite extreme of the slot, thereby freeing the lever and allowing the hammer to strike, as more fully hereinafter described.

A is the base or plate by which the bell is secured to the door; B, the post upon which the bell is secured in the usual manner; C, the hammer-lever hung at *a*, the hammer D attached thereto by an arm, E, which has more or less elasticity, so that the momentum of the hammer in giving the blow will be sufficient to throw the hammer against the bell, and the elasticity of the arm E cause it to fall back slightly from the bell, and thus give a quick stroke, which is necessary to the proper sounding of the bell. F is the hub through which the spindle passes to the other side of the door, so that by turning the spindle the hub will be turned accordingly. The hub is

formed with an arm, G, in which is a slot, H, and upon the opposite side, or at any convenient point, a spring, L, is connected to the hub, the tendency of which is to throw the slot of the arm into the line of the lever C, as seen in Fig. 1, and from a pivot, *d*, on the lever C, a connection, I, extends to the slot H. A spring, N, is arranged to bear upon the lever C and hold it down to the position seen in Fig. 1, which is the place of rest. When the hub F is turned, as from the position in Fig. 1 to that denoted by broken lines in Fig. 2, the stud on the connection I, which lies in the slot H, rests until the end of the slot strikes the stud; then the stud is carried down by the slot into the position seen in Fig. 2, and so on, until the stud in the slot passes a line drawn from the pivot *d* to the center of the hub; then the connection forced by the spring N flies quickly through the slot and allows the lever C to fall and the hammer to strike. The spindle then left free, the spring L will return the hub and the slot H will carry the connection back again, raising the lever C, and so soon as the connection passes the line between the pivot *d* and the center of the hub it will fly in the opposite direction—that is, to its first position. This mechanism is adapted to use as a pull-bell by simply attaching a wire key to the hub, the pulley of which will cause a corresponding turn of the hub to operate the same as when turned by the spindle. The spring L is not essential in the use of the spindle except when it is required to positively return the spindle. This is desirable but not essential.

I claim as my invention—

The combination of the hammer-lever C, the hub F, with the slot H, and the connection I, from the arm E to the said slot H, and the spring N, substantially as described.

IRVIN H. ABELL.

Witnesses:

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