

H. A. DIERKES.
DOOR-BELLS.

No. 178,421.

Patented June 6, 1876.

Fig.1.

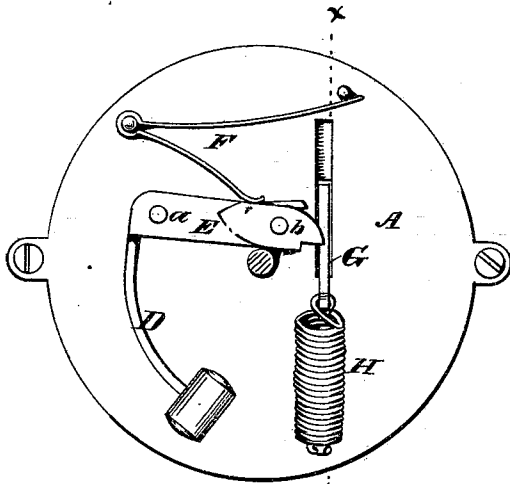


Fig.2.

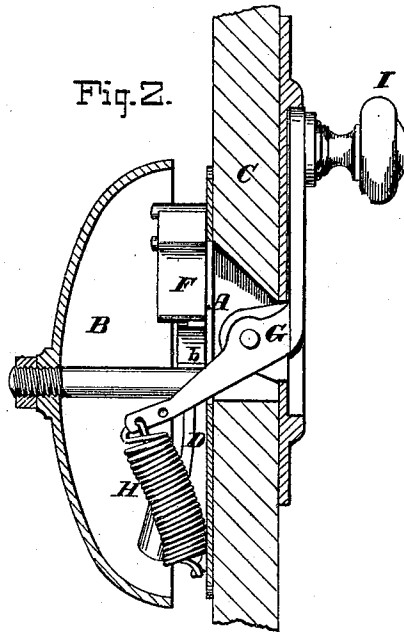
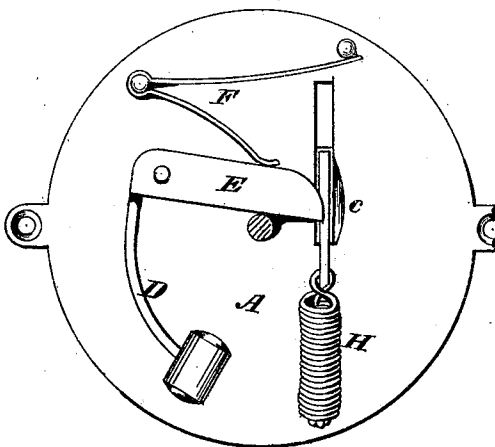


Fig.3.



ATTEST =

Arthur C. Fraser.
Thomas J. Keighorn

INVENTOR =

Henry A. Dierkes
Per Burke & Fraser
Attorneys.

UNITED STATES PATENT OFFICE.

HENRY A. DIERKES, OF NEW YORK, N. Y.

IMPROVEMENT IN DOOR-BELLS.

Specification forming part of Letters Patent No. **178,421**, dated June 6, 1876; application filed April 18, 1876.

To all whom it may concern:

Be it known that I, HENRY A. DIERKES, of the city, county, and State of New York, have invented certain Improvements in Door Calls or Bells, of which the following is a specification:

This invention relates to, and consists in, a combination of a hammer-arm, to which a hammer is rigidly affixed, a gong or bell arranged to be struck by the said hammer, and an operating-lever arranged to act directly upon the free end of the said hammer-arm, or upon a trip attached thereto, the pull of the lever being upon the outside of the door, and the striking mechanism within the circumference of the bell.

In my Letters Patent for a door-bell, dated February 29, 1876, No. 174,210, I have shown a spring-follower, arranged to be actuated directly by a lever, said follower actuating, in its turn, a loosely-suspended hammer.

In this present application the spring-follower is dispensed with, and the lever arranged to act directly upon the free end of a hammer-arm, which simplifies the device, and lessens the number of pivot-points.

In the drawings, Figure 1 is an elevation of the base-plate, upon which the operative parts are mounted. Fig. 2 is a vertical section of the bell as a whole, taken in the plane of the line *x x*, Fig. 1. Fig. 3 is a modification of my device, showing how the trip may be dispensed with.

A is a base-plate, upon which is mounted an ordinary gong or bell, B. The base-plate may be secured to the inner face of a door, C. D is a hammer rigidly affixed to, or forming a part of, a hammer-arm, E, which is pivoted to the base-plate at *a*. It may be provided at its free end with a trip or pawl, *b*, to form an escapement.

A spring, F, acts upon the hammer-arm, and keeps it habitually pressed down against a suitable stop.

A lever, G, of any desired form, is pivoted in any convenient manner either to a door, or to a suitable face-plate. This lever is provided with a suitable spring, H, which keeps it habitually drawn down, the end of the lever

resting immediately below the trip or free end of the hammer-arm.

The operation is as follows: When the knob I is pulled from the outside of the door, the inner end of the lever G engages and lifts the free end of the hammer-arm. A certain amount of upward movement causes the lever to slip past and release the hammer-arm, which is thrown down by the spring F smartly against the stop. The hammer-head being so arranged as to rest habitually in close proximity to the inner face of the bell, a little elasticity in the part connecting it with the hammer-arm permits the momentum to carry it on to the bell, which it strikes a smart blow. When the knob I is released the spring H will draw down the lever, the trip giving way to allow it to resume its former position.

In Fig. 3 I have shown a hammer-arm unprovided with a trip. In this construction I cut away the slot in the base-plate at *c*, and the ordinary looseness of the lever G in its bearings will permit it to move sidewise, and "wipe" into its proper place below the hammer-arm, as shown.

I am aware that none of the elements going to make up my invention are new in themselves, as all have been used before in different combinations; but the arrangement of these is more or less costly and complex; whereas, in my present invention they are few in number, and arranged in the simplest manner possible to produce a good result.

I claim—

The combination of the hammer-arm E, to which is rigidly attached a hammer, D, with a lever, G, arranged to operate directly upon the trip *b*, or free end of the hammer-arm, when the lever or pull is arranged to be operated from the outside, and the inner end of the lever, together with the striking mechanism, is inclosed within the circumference of the bell, as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HENRY A. DIERKES.

Witnesses:

HENRY CONNETT,
ARTHUR C. FRASER.