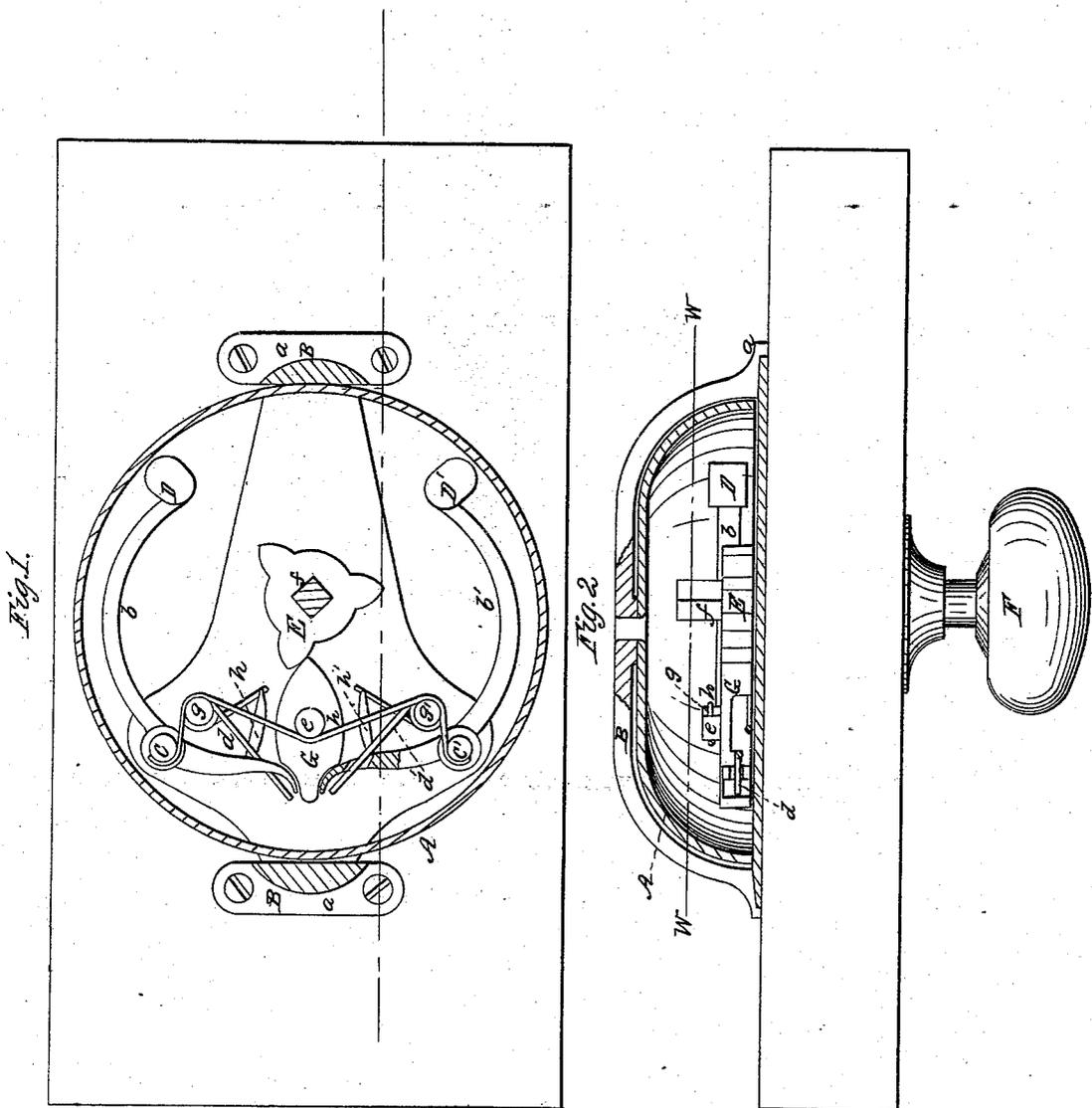


N. F. CONE.

Door Bell.

No. 39,796.

Patented Sept. 8, 1863.



Witnesses:
J. W. Croombs
G. W. Reed

Inventor:
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UNITED STATES PATENT OFFICE.

N. F. CONE, OF LA CROSSE, WISCONSIN.

IMPROVED DOOR-BELL.

Specification forming part of Letters Patent No. 39,796, dated September 8, 1863.

To all whom it may concern:

Be it known that I, N. F. CONE, of La Crosse, in the county of La Crosse and State of Wisconsin, have invented a new and useful Improvement in Door-Bells; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a vertical section of my invention, taken in the plane indicated by the line *w w*, Fig. 2. Fig. 2 is a horizontal section of the same, the line *x x*, Fig. 1, indicating the plane of section.

Similar letters of reference indicate corresponding parts in both views.

This invention relates to an improvement in that class of door-bells in which a striking mechanism is brought in such relation to a stationary bell that by rotating a crank or knob in either direction a hammer will be actuated and the bell struck.

The nature of my invention and its advantages will be readily understood from the following description.

A represents a bell, cast or otherwise produced out of metal or other suitable material. This bell is firmly riveted or otherwise attached in its center to a box-strap, B, also of metal and provided with flanges *a*, which serves to attach the same, with the bell, to a door or to any other place where the bell is to be used. Each flange of the strap is provided with a recess on its under or inner surface to receive one of the ends of the bed plate C, which supports the striking mechanism.

D D' are two hammers, which are secured to curved arms *b b*, and act on the opposite sides of the bell. The arms *b b'* of the hammers have their fulcra on posts *c c'*, which are firmly inserted into the bed-plate C, and they are curved in and subjected to the action of springs *d d'*, which cause their inner ends to bear against the frog or tumbler G. This frog turns loosely on the pivot *e*, and motion is imparted to it by a cam, E, with three (more or less) projections, which act on the inner end of the frog and cause its outer end to force back either one of the hammers, according to

the direction in which the cam is moved. The cam E is attached to the square end of a rod, *f*, which passes through the door or post to which the bell is to be secured, and which turns freely in the bed-plate C. To the outer end of the rod *f* a knob or handle, F, is firmly secured. The springs *d d'*, which act on the arms of the hammers, are wound round studs *g g'*, and one of their ends passes through a slot in the corresponding arm, whereas their other ends bear against ribs *h h'*, projecting from the bed-plate C. These ribs serve also to gage the backlash when the bell is forcibly rung and to hold the hammers from coming in contact with the inner surface of the bell, except at that moment when by the action of the mechanism said hammers strike the bell.

The frog G and the arms of the hammers D D' and the springs *d d'* are held in place by a wire, *h*, which is bent around the five posts *c c' g g' e*, and which is retained by notches filed in the upper or outer ends of said posts.

This bell is very simple in its construction, and it requires but a trifling exertion of the hand to rotate the knob or handle F and to cause the hammers to strike the bell. By turning the cam E in the direction of the arrow marked near it in Fig. 1 the frog is caused to act on the arm *b* of the hammer D, and the hammer D' remains in a state of rest. By rotating the cam in the opposite direction to said arrow the hammer D' is caused to strike and the hammer D remains at rest.

What I claim as new, and desire to secure by Letters Patent, is—

1. The frog G, in combination with the arms of the hammers D D' and with the cam E, constructed and operating in the manner and for the purpose substantially as herein shown and described.

2. The ribs *h h'*, in combination with the springs *d d'* and arms *b b'* of the hammers D D', constructed and operating in the manner and for the purpose set forth.

N. F. CONE.

Witnesses:

M. F. COLTON,
C. C. GAGE.