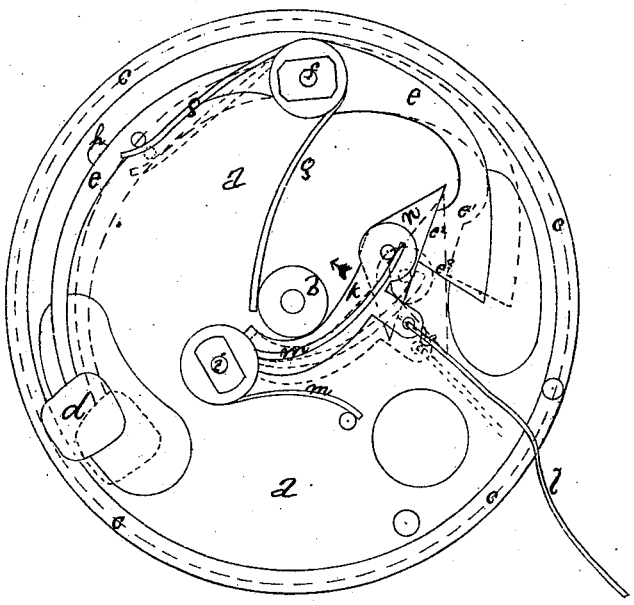
J. P. Connell,

Door Bell.

No. 112,903. Patented Mar. 21. 1871.

Fig. 1.



Witnesses.

Wm. E. Simonds

Theo. L. Ellis.

Inventor.

John P. Connell

United States Patent Office.

JOHN P. CONNELL, OF KENSINGTON, CONNECTICUT.

Letters Patent No. 112,903, dated March 21, 1871.

IMPROVEMENT IN DOOR-BELLS.

The Schedule referred to in these Letters Patent and making part of the same.

I, JOHN P. CONNELL, of Kensington, in the county of Hartford and State of Connecticut, have invented certain Improvements in Gong and Door-Bells, of which the following is a specification.

Nature and Objects of the Invention.

As its name imports, my invention is a gong and door-bell; and

The objects aimed at are to produce a bell for this purpose which shall give two strokes for each pull upon the pull-wire, and shall be sure and simple in operation.

The nature of my invention may, perhaps, be explained by saying that it consists in a new arrangement of the "striking" apparatus, pulling a triangular tumbler into the end of the arm to which the pull-wire is attached, which tumbler acts upon one end of the hammer-arm, to the opposite end of which the hammer is attached, in such manner that a stroke of the hammer is given upon the bell when a pull is exerted upon the pull-wire, and also when the pull-wire is allowed to recoil.

Description of the Accompanying Drawing.

Figure 1 is a plan view of the bell, the covering bell being removed, and its outline denoted by a dotted line.

General Description.

The letter *a* denotes the circular base-plate, in the center of which rises the standard *b*, upon the top of which is fixed the common metal shell which serves as the bell. This bell is concave upon its under side, and the outside rim reaches down almost to the base-plate *a* and incloses all the operating mechanism.

The line *c* (dotted) denotes the outline of this bell.

The letter *d* denotes the clapper, and *e* denotes the clapper-arm, to one end of which the clapper *d* is hung. This clapper-arm is pivoted and swings or vibrates on the upright pin *f*, affixed to the base-plate.

The spring *g* tends to throw the clapper and arm outward so as to cause the clapper to strike against the bell; and the pin *h* defines and limits the length of this movement.

Upon the upright pin *i*, which starts from the base-plate, is pivoted what I denominate as the "primary arm" *k*. To this is attached the pull-wire *l*.

The spring *m* tends to throw this primary arm in the direction indicated by the short arrow.

The end of this primary arm is slotted for the introduction of the triangular tumbler *n*, which is pivoted, within the slot, to the arm.

The end of the clapper-arm e^1 is made so as to have two end-surfaces, e^2 and e^3, which are at an angle to each other somewhat more acute than a right angle.

The parts, as so far described, are in the positions respectively occupied by them before the wire is pulled, the tumbler *n* resting against the end-surface e^2. Now, if a pull is given to the wire *l*, the clapper will be first drawn back, and will then return to strike upon the bell, and the tumbler *n* will rest upon the end-surface e^3, the clapper returning to substantially the same position as at first. When the wire is let go the clapper will again be made to strike, and the tumbler *n* will return, so that it will rest against the end-surface e^2. Thus at every pull on the wire *l* the clapper *d* will strike the bell twice.

The dotted lines represent the positions of the parts, respectively, when the tumbler *n* is in the middle of its passage from one end-surface to the other and the clapper is in the act of impinging upon the bell.

This bell can be used upon the inside of a door by having the base-plate secured to the door, a shaft running through the door, with a short arm and wrist-pin, to actuate the primary arm *k* in place of the pull-wire *l*.

Claim.

I claim as my invention—

In a gong and door-bell, the combination and arrangement shown of the primary arm *k*, having the triangular tumbler *n* in the loose end thereof, with the hammer-arm *e*, the whole constructed, arranged, and operated substantially as and for the purposes set forth.

JOHN P. CONNELL.

Witnesses:

WM. E. SIMONDS,

THEO. G. ELLIS.