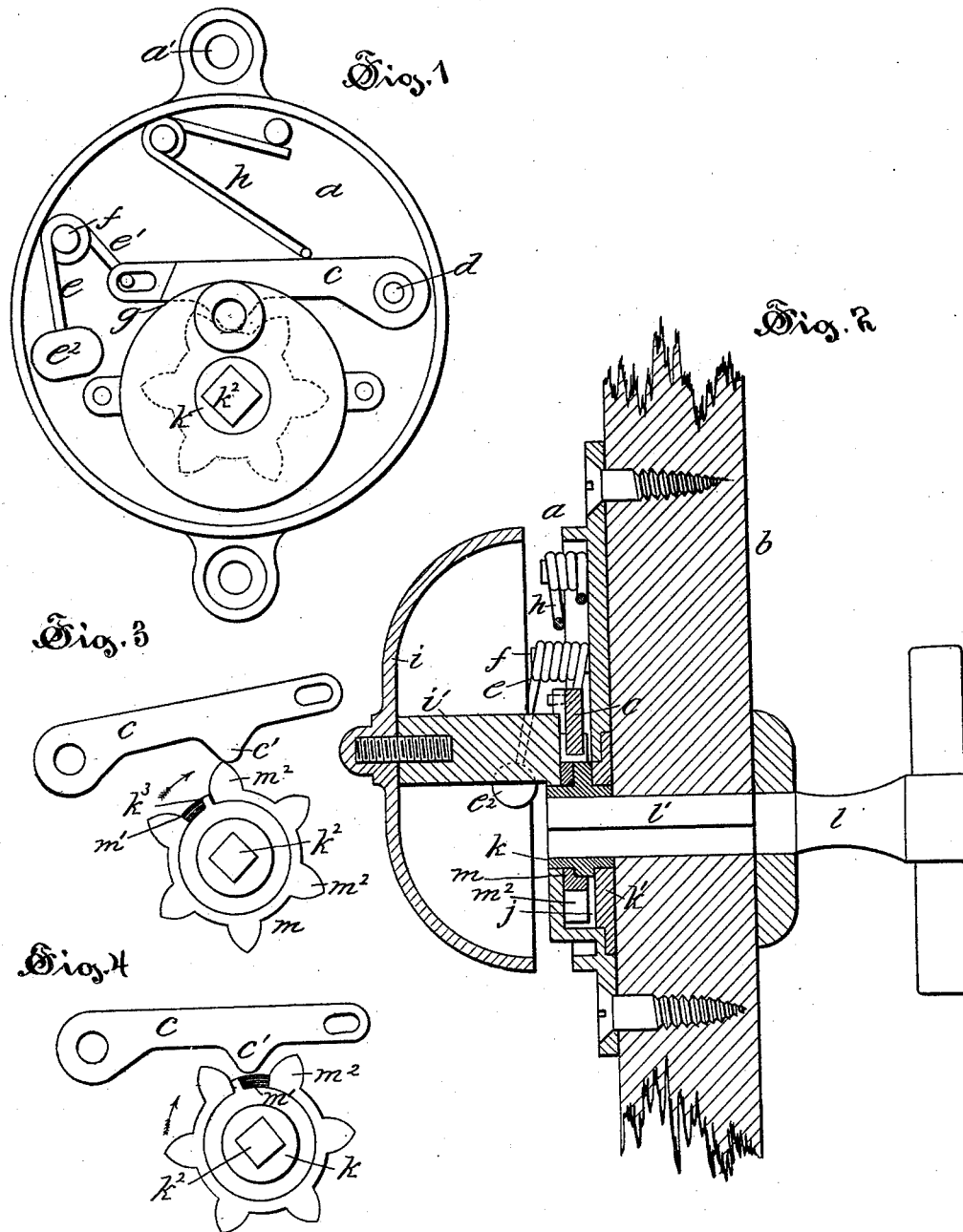


(No Model.)

J. P. CONNELL.  
GONG DOOR BELL.

No. 423,414.

Patented Mar. 18, 1890.



Witnesses:

H. R. Williams  
Arthur B. Jenkins.

Inventor,

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# UNITED STATES PATENT OFFICE.

JOHN P. CONNELL, OF KENSINGTON, CONNECTICUT.

## GONG DOOR-BELL.

SPECIFICATION forming part of Letters Patent No. 423,414, dated March 18, 1890.

Application filed March 23, 1889. Serial No. 304,481. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN P. CONNELL, of Kensington, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Gong Door-Bells, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

The object of my invention is to provide a door-gong-bell that shall be simple in construction and embody a simple and cheap form of striking mechanism; and to this end my invention consists in the combination of the several parts making up the structure as a whole, as more particularly hereinafter described, and pointed out in the claims.

Referring to the drawings, Figure 1 is a plan view of the base of the bell and the operative parts. Fig. 2 is a detail view in central vertical section of the bell when in position for use. Fig. 3 is a detail rear view of the trip-wheel shown in position for lifting the tumbler. Fig. 4 is a detail view showing the position of parts with the tumbler released from the trip.

In the accompanying drawings, the letter *a* denotes the base of the bell, that is of ordinary form and construction, and is provided with the openings *a'*, through which screws are driven to fasten the bell to a door *b*. The tumbler *c* is pivoted to a stud *d* near one edge of the base of the bell, and extends across it to a point where it is pivotally connected to an arm *e'* of the hammer-lever *e*, that bears the hammer *e''*. This hammer-lever is pivotally supported on a stud *f*, that is fixed to the base-plate, and the tumbler is held in contact with a stop or shoulder *g* on the base-plate with a yielding pressure by means of the mainspring *h*. (See Fig. 1.) When the above parts are in position, as described, the striking-face of the hammer lies close to and just out of contact with the inner face of the sounding-shell *i*, that is secured to the post *i'*, that projects from the central part of the base-plate.

Within a socket *j* in the base-plate is mounted the hub *k*, that is held by the cover *k'* against lengthwise movement in the socket, but is free to rotate, as by means of the handle *l*, the squared shank *l'* of which fits into a corresponding socket *k''* in the hub. An arm *k<sup>3</sup>* projects from one side of the hub into a

recess *m'*, that is formed in the side of the trip-wheel *m*, the socket being considerably wider than the arm on the hub. This trip-wheel is mounted so as to turn freely upon the hub a limited distance, determined by the width of this socket. This trip-wheel is provided with a series of arms or lugs *m''*, having rounded surfaces, as shown, that are adapted to encounter the lug *c'* on the tumbler *c* as the trip-wheel is rotated, as by means of the handle *l*.

In operating this bell, the parts being assembled as shown in the drawings, the handle *l* is turned as in the direction shown by the arrows in Figs. 3 and 4, and this rotary movement of the handle carries with it, through the medium of the hub, the trip-wheel *m*. As soon as the highest point of an arm *m''* passes the lug *c'*, the tumbler *c*, that is lifted against the pressure of the spring *h*, is pushed downward toward the wheel, that moves freely a sufficient distance to offer but slight resistance to the downward movement of the tumbler under the impulse of the spring, the trip-wheel moving about to the position shown in Fig. 4. When the tumbler is lifted, as by means of the trip-wheel just described, it turns the hammer-lever on its pivot and swings the hammer *e''* away from the gong; but as soon as the arm *m''* has slipped past the lug *c'* on the tumbler the quick return movement of the latter, under the impulse of the spring, swings the hammer toward the gong, that is thrown with a rebounding blow against it, so as to ring it.

I claim as my invention—

1. In a gong-bell, in combination with the base-plate, the spring-impelled tumbler pivoted to the plate and having a projecting lug lying in the path of movement of the trip-wheel, the hammer-lever pivotally connected to the base-plate and to the tumbler, the trip-wheel bearing a number of arms and mounted on a rotary hub, the hub rotarily supported on the base-plate, and the handle whereby the hub is rotated, all substantially as described.

2. In a gong-bell, in combination with the base-plate, the rotary trip-wheel with its projecting arms, the swinging tumbler pivoted to the base-plate and having a projecting lug normally arranged in the path of movement of the trip-wheel, the slot to receive the end

of the hammer-lever, the mainspring *h*, holding the tumbler normally in engagement with the trip-wheel, and the hammer-lever *e*, pivoted to the base-plate and connected to the tumbler by the arm *e'*, having an end projecting into a slot in the tumbler and bearing the hammer *e''*, all substantially as described.

3. In a gong-bell, in combination with the base-plate *a*, having the swinging tumbler *c*, with lugs *c'*, the mainspring *h*, the hammer-lever *e*, pivoted to the base-plate and connected to the tumbler by the arm *e'*, and bear-

ing the hammer *e''*, the rotary trip-wheel *m*, having the socket *m'* and arms *m''*, the hub *k*, upon which the said trip-wheel is loosely mounted, having an arm *k<sup>3</sup>*, projecting into the socket *m'* in the trip-wheel, and the handle *l*, by means of which the hub and trip-wheel may be rotated, all substantially as described.

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Witnesses:

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