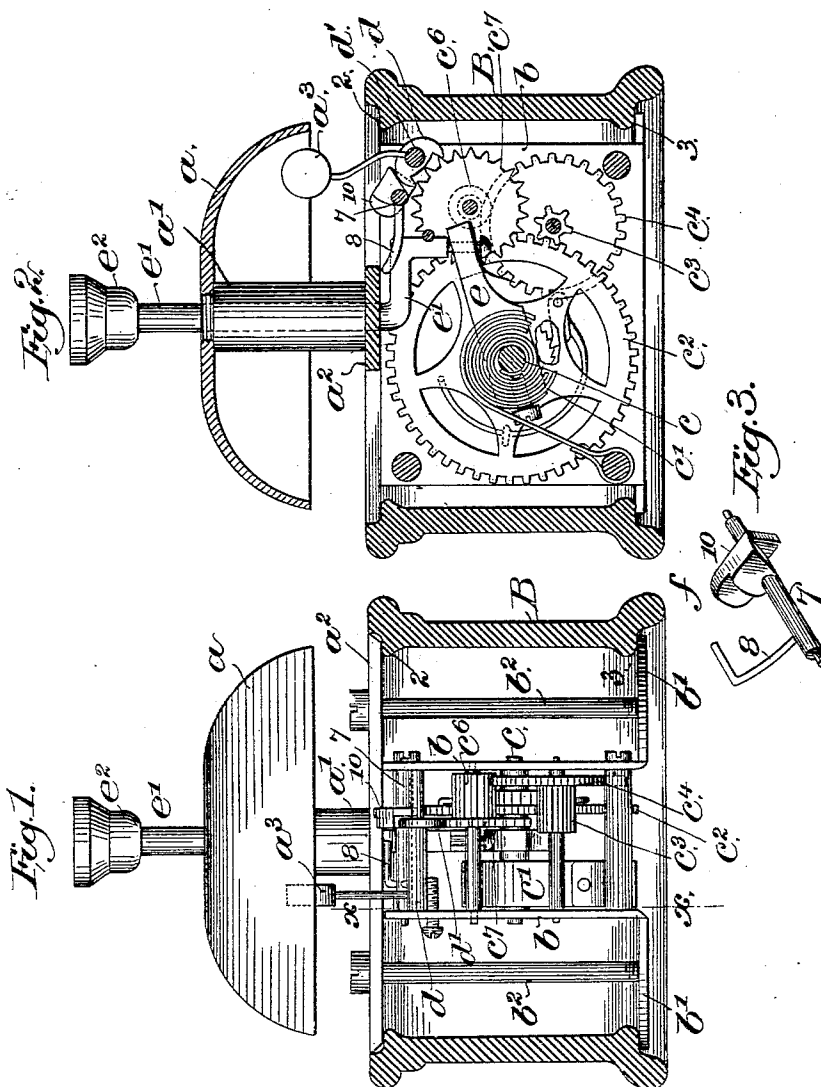


(No Model.)

N. J. BUSBY.  
GONG OR CALL BELL.

No. 504,705.

Patented Sept. 12, 1893.



Witnesses.  
Louis N. Howell  
Edward F. Allen.

Inventor:  
Nathan J. Busby.  
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# UNITED STATES PATENT OFFICE.

NAHUM JUDSON BUSBY, OF MAPLEWOOD, MASSACHUSETTS.

## GONG OR CALL-BELL.

SPECIFICATION forming part of Letters Patent No. 504,705, dated September 12, 1893.

Application filed February 23, 1892. Serial No. 422,421. (No model.)

*To all whom it may concern:*

Be it known that I, NAHUM JUDSON BUSBY, of Maplewood, county of Middlesex, State of Massachusetts, have invented an Improvement in Gongs or Call-Bells, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

Being desirous of producing a bell which will always give forth a clear and ringing sound when rung, I have provided a hammer retracting and locking device, which retracts and locks the hammer simultaneously with the stoppage of the actuating train, and I have incased or inclosed the actuating train of the bell and its frame-work in a curb composed preferably of a vitreous or clay-like material, or some moldable plastic compound, as paper pulp, india-rubber, or compounds of celluloid in whole or part, or equivalent compounds capable of being ornamented, said curb having shoulders formed in the interior to support the train frame-work.

Figure 1 shows one of my improved bells in elevation, the curb being shown in section; Fig. 2, a section to the right of the dotted line *x*; and Fig. 3 shows in perspective the locking-device.

The gong *a*, of aluminum, is screwed upon the hollow post *a'*, erected on the top-plate *a*<sup>2</sup> of the frame of the spring-actuated clock train to be described, which train in its movements actuates the hammer *a*<sup>3</sup>.

The frame-work consists, besides the said top-plate, of side plates *b*, *b*, preferably flanged outwardly at *b'*, the said flanges being entered by screws *b*<sup>2</sup>, which serve to bind the frame-work together and to the outside curb *B*, the latter being shown as provided with shoulders or projections, as 2, 3, so that the frame-work and curb are fixed together.

The curb *B* will preferably be composed of a non-tarnishable material, preferably a vitreous or clayey material, or paper pulp suitably compounded, pressed, and indurated; or of some preparation of india-rubber or its compounds; or of celluloid, or an equivalent compound which may be molded and also ornamented to render the gong bell more attractive and pleasing to the eye.

The driving train shown consists of a main

shaft *c*, spring *c'*, gear *c*<sup>2</sup>, pinion *c*<sup>3</sup>, gear *c*<sup>4</sup>, pinion *c*<sup>5</sup>, and escapement wheel *c*<sup>7</sup>, all common to clock trains; but instead of the particular train shown I may use any other known equivalent.

The escapement wheel *c*<sup>7</sup>, when the train is permitted to run, acts on the pallet *d*, fast on the shaft *d'*, carrying the hammer *a*<sup>3</sup>, and causes said hammer to strike the gong.

The winding lever *e*, fast on the main shaft *c*, has combined with it an actuating device *e'*, shown as a rod having a head *e*<sup>2</sup> adapted to be pushed upon by the hand, the lower end of said rod, as herein represented, resting against the winding lever, as best shown in Fig. 2, the spring *c'* normally acting, as shown, in its unwound condition, to keep the free end of the lever *e* up.

In practice whenever the rod *e'* is depressed it acts on the lever *e* to further wind the spring *c'*, and the pressure on the rod *e'* having been released, the spring *c'* elevates the free end of lever *e* and at the same time the train moves to actuate the hammer *a*<sup>3</sup>. As the actuating device arrives in the position Fig. 2, after having been pushed down, the hammer retracting and locking device *f* is moved to lock the pallet in the position Fig. 2 and stop any further unwinding of the train, it also, as shown in Fig. 2, retracting the hammer and retaining it away from the gong, in order that a full and clear ringing sound may be obtained.

Prior to this invention it has been common in call-bells patented to me to employ a normally-wound up train which was released at intervals. The use of such a train would be within the scope of one part of this present invention.

The locking device, as herein shown, consists of a rock-shaft 7, having an arm 8 and shoe 10, the latter partially covering the pallet when the arm 8 is acted upon by a projecting portion of the rod *e'*, or some other suitable moving part.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A call-bell consisting essentially of a gong; a hammer; a motor; a combined actuating and releasing device to control the movement of the train; a supporting frame having a top plate and side pieces outwardly turned at their

lower ends to form flanges, and a curb to increase the train and having internal shoulders upon which said top-plate and flanges bear, substantially as described.

5 2. In a call-bell, a gong; a hammer; an actuating train and its frame-work having outwardly turned flanges and a top plate; combined with a surrounding curb internally  
10 being engaged by and held between the top plate and flanges, and removable fastenings connecting said top plate and flanges, substantially as described.

15 3. The gong; its hammer; the actuating train, winding lever *e* therefor, and an actuating device to turn said lever and wind the train; combined with a hammer retracting device in the path of movement of and thrown  
20 into operative position by the lever actuating device in its retrograde movement to thereby lock the train and also positively retract the hammer from the gong simultaneously, substantially as described.

25 4. The gong; hammer, and its actuating train, and a supporting frame-work for said

train; combined with an internally shouldered open-ended curb to surround and protect the said operating train, the shoulders projecting inward intermediate the top and bottom of and supporting said frame-work, and means  
30 to draw the said top and bottom toward each other, substantially as described.

5. The gong; its hammer; the actuating train, its winding lever *e*, and a longitudinally movable actuating device therefor; combined  
35 with a normally inoperative hammer retracting device in the path of movement of said actuating device and including a shoe adapted to be moved into operative engagement  
40 with the hammer by the return of the actuating device, to thereby retract and hold said hammer away from the gong, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

NAHUM JUDSON BUSBY.

Witnesses:

GEO. W. GREGORY,  
EMMA J. BENNETT.