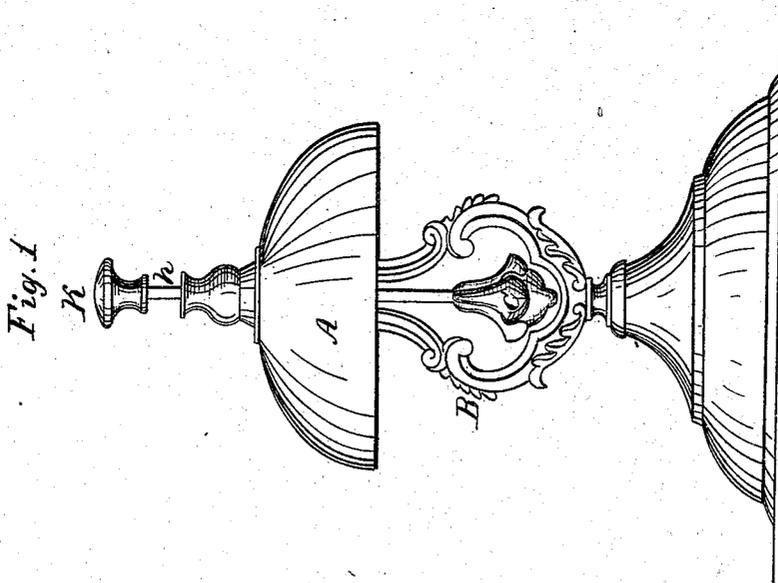
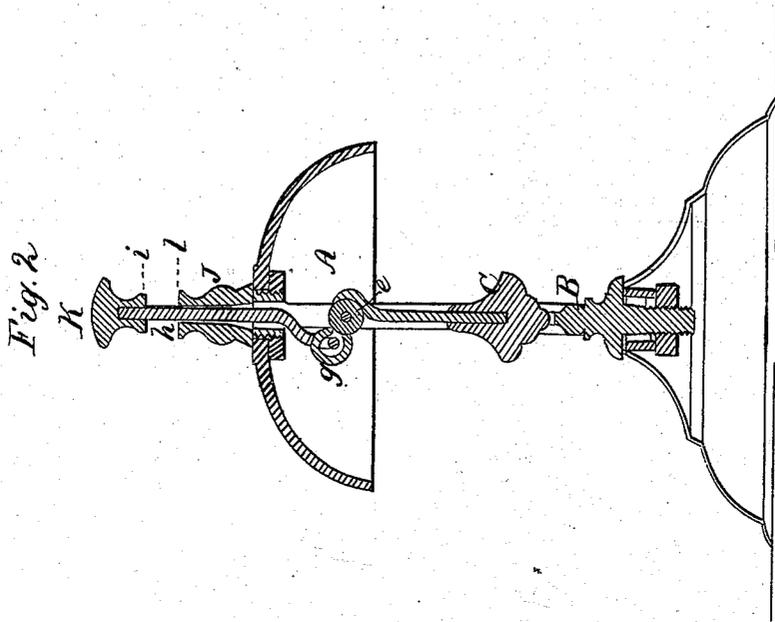


N. L. Bradley,
Call Bell,

No. 39,697

Patented Aug. 25, 1863.



Witnesses
Geo. Collins
W. L. Bennett.

Inventor
Nathaniel L. Bradley
per C. S. Kenwick attorney

UNITED STATES PATENT OFFICE.

NATHANIEL L. BRADLY, OF WEST MERIDEN, CONNECTICUT, ASSIGNOR TO HIMSELF, WALTER HUBBARD, AND WM. L. BRADLY.

IMPROVED CALL-BELL.

Specification forming part of Letters Patent No. 39,697, dated August 25, 1863.

To all whom it may concern:

Be it known that I, NATHANIEL L. BRADLY, of West Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Call-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, in which—

Figure 1 represents a side elevation of one of my improved call-bells, and Fig. 2 represents a vertical section of the same at right angles to the side elevation.

Call-bells, as generally made, consist of a bell supported by a stand and combined with a spring-hammer, to which motion is imparted by a piston extending upward through the center of the bell and terminating in a button, to which the finger can be applied. In such call-bells the construction of the spring-hammer and its appurtenances has been such that the striking-hammer is suspended at one side of the axis of the bell, and as this position of the hammer renders the instrument unsymmetrical, and as the striking mechanism is objectionable to the eye, it has been customary to inclose and conceal the striking mechanism by a cup placed beneath the bell, thereby obstructing the free vibration of air and diminishing the intensity of the tone.

The object of my invention is to simplify the construction of these instruments, increase the intensity of their tone, and improve their appearance.

To this end the first part of my invention consists in combining the bell with a clapper suspended in an ornamented stand, (without a cup beneath the bell,) and with a piston extending upward through the bell, so that the clapper can be rendered an ornamental appendage to the instrument, that the use of a cup to conceal the striking mechanism can be dispensed with, and, consequently, that the vibrations of the air in the interior of the bell can be propagated freely to that without, the whole bottom of the bell being open.

The second part of my invention consists in combining the piston of the striking mechanism with the clapper or striking-instrument and the guide, through which the piston works, in such manner that the upper end of said

guide forms the stop which limits the movement of the piston by the hand and prevents the striking-instrument from being held by the pressure of the hand in contact with the bell after striking, whereby chattering would be produced or the vibration would be stopped.

The third part of my invention consists in combining a heavy clapper freely suspended in the center of the bell with the piston, so that the use of a spring is dispensed with.

The call-bell represented in the accompanying drawings embodies all parts of my invention. In it the bell A is suspended upon an ornamental stand, B, in which the clapper C is suspended. The clapper is made in the form of a bud, and, as it is suspended in the center of the bell and stand, the instrument is symmetrical and ornamental, and there is no necessity for using a cup to conceal the mechanism within the bell. The clapper-hub *e* is fitted with an arm, *g*, in the form of an eye, with which the eye-formed lower extremity of the piston *h* is connected. The piston extends upward through the guide J at the top of the bell, and is fitted at its upper end with a button, K, to which the finger is applied when the bell is to be struck. The distance from the under side, *i*, of the button to the upper end, *l*, of the guide is such that when the button is brought into contact with the guide by the depression of the piston, the clapper (which is the striking-instrument) does not quite touch the bell. The guide thus forms a stop to stop the movement of the piston a little before the clapper touches the bell, and the completion of the movement of the clapper is effected by its momentum, the play in the eye of the piston permitting such movement. As, however, the stop prevents the clapper from being held in contact with the bell, the clapper recoils after striking and leaves the bell free to vibrate. The guide thus forms the stop without the necessity of making some other arrangement for the purpose.

Having thus described a call-bell embodying my improvements, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the bell with a clapper suspended in an ornamental stand, (without a cup beneath the bell,) and with a piston extending upward through the bell, the said

combination being and operating substantially as set forth.

2. The combination of the piston of the striking mechanism with the striking-instrument, and with the piston-guide, in such manner that the upper end of the said guide forms the stop for the piston and prevents the striking-instrument from being held in contact with the bell by the piston, the said combination being and operating substantially as described.

3. The combination of a heavy clapper sus-

pending in the center of the bell with the piston extending upward through the bell, the combination being and operating substantially as set forth.

In testimony whereof I have hereunto subscribed my name this 20th day of April, 1863.

NATHANIEL L. BRADLY.

Witnesses:

LEVI E. COE,
GEO. W. SMITH.