W. J. COWING.

CALL-BELLS.

No. 193,753. Patented July 31, 1877.

Fig 1.

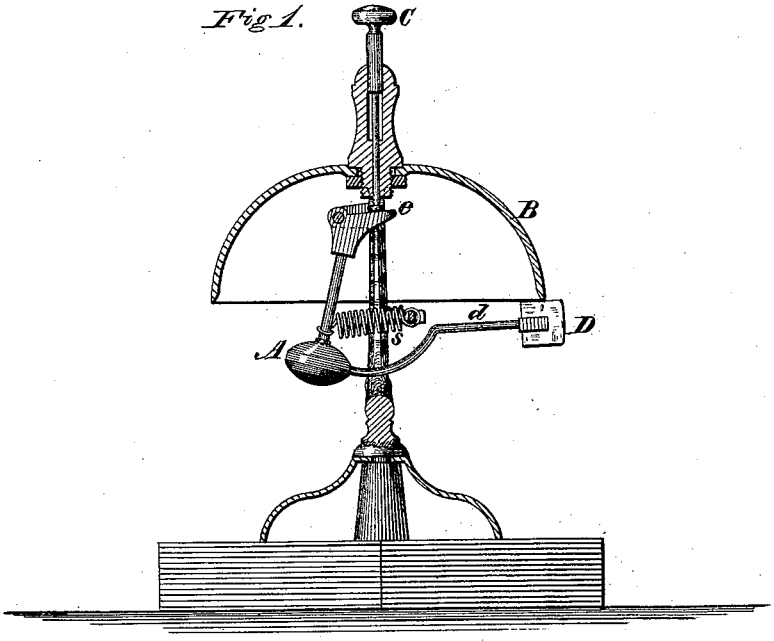


Fig 2.

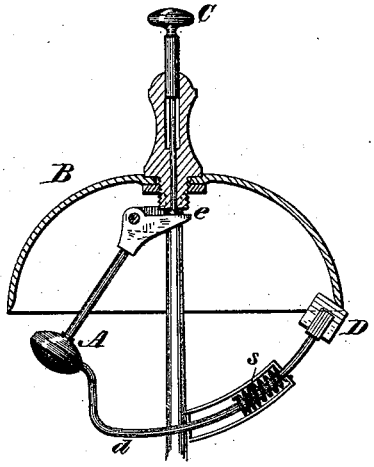
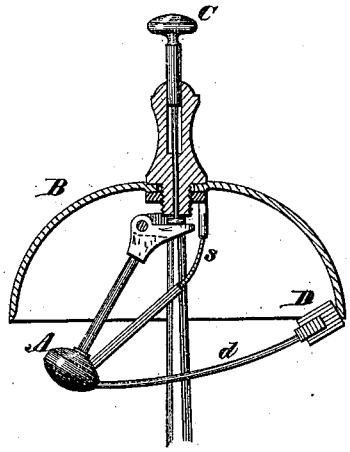


Fig 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM J. COWING, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN CALL-BELLS.

Specification forming part of Letters Patent No. **193,753**, dated July 31, 1877; application filed July 21, 1877.

To all whom it may concern:

Be it known that I, WILLIAM J. COWING, of Washington, in the District of Columbia, have invented a new and Improved Call-Bell; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1, 2, and 3 are vertical sections, representing different modifications and adaptations of the invention.

Similar letters of reference indicate the same parts in the several figures.

In the ordinary call-bell no means is provided for arresting the vibrations of the bell after the call has been sounded; but it continues to ring for a long time, and often to the great annoyance of the persons within hearing. A few attempts have been made to obviate the difficulty by providing means for stopping the sound; but such means (consisting, generally, of buffers or pads, to be operated by a separate or additional movement of the hand) have not proved satisfactory in practice, and have not come into use.

The object of my invention is to provide a simple and efficacious remedy for the difficulty by constructing the bell in such manner that a single movement of the hand will sound the call, and then the sound will at once cease automatically without requiring any attention on the part of the person operating the bell.

To this end the invention, in its general principle, consists in combining, with a call-bell and its tongue or hammer, a pad which is not in contact with the bell at the moment when the stroke is given, but is automatically thrown into contact therewith as soon as the stroke is completed; and, in detail, in combining a call-bell, hammer, and pad with a thumb-piece, which withdraws the pad and rings the bell simultaneously, and a spring which automatically throws the pad back against the bell to stop the vibrations thereof as soon as the thumb-piece is liberated.

In the drawings, B is the bell, and C the thumb-piece, which operates the hammer A in the usual manner. D is a soft pad connected to the hammer by a rod, *d*, and held normally against the vibrating edge of the bell by means of a spring, *s*, of any suitable form.

When the thumb-piece is pressed down the movement of the hammer withdraws the pad from the edge of the bell, leaving it free to sound; but as soon as the thumb-piece is liberated the spring *s* automatically restores the hammer to its original position and presses the pad against the edge of the bell again, causing it to arrest the vibrations thereof.

I have shown three modes of applying the springs, viz., one by a common spiral spring, Fig. 1; one by an incased spiral spring, the casing of which operates as a guide to the stem of the pad, Fig. 2; and one with a flat spring, Fig. 3.

Various other modifications will readily suggest themselves to the mind of the mechanic from an inspection of these drawings. For example, the pad may be connected to the stem of the hammer, or to the stem of the thumb-piece, or to the arm or shoulder *e*, against which the thumb-piece operates, and the spring may be attached in any way to the pad, the rod *d*, the hammer, the hammer-rod, or the shoulder *e*, the precise mode of arrangement being unessential, so long as the general principle is employed. The form and material of the pad or stop may be varied, and the pad may be applied at or near the edge of the bell.

I claim as my invention—

1. In a call-bell, the combination of the following elements, viz: first, a stop normally held against the bell to arrest the vibrations thereof; secondly, a connection to the thumb-piece, whereby the movement of the latter to ring the bell releases the stop and allows the bell to sound; and, thirdly, a spring to force the stop against the bell again as soon as the operator's hand is removed from the thumb-piece, substantially as described.

2. The combination of a bell, a thumb-piece, a hammer, a sound-stop, and a spring, substantially as described.

3. The combination of a bell, a thumb-piece, a hammer, and a sound-stop connected to the hammer by a rod, so as to move therewith, substantially as described.

W. J. COWING.

Witnesses:
FRANK MCKENNY,
MELVILLE CHURCH.