

E. B. SIMS.
Door-Bells.

No. 154,288.

Patented Aug. 18, 1874.

Fig. 1.

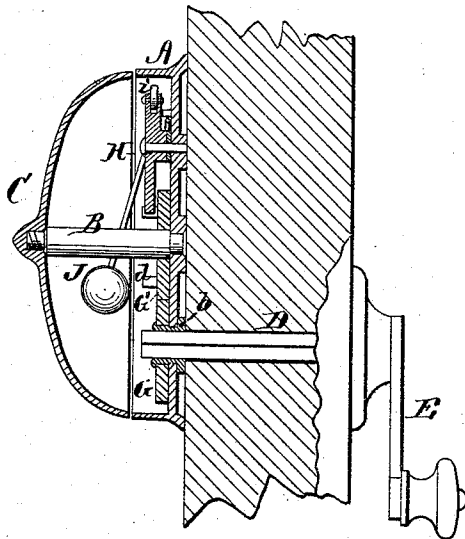
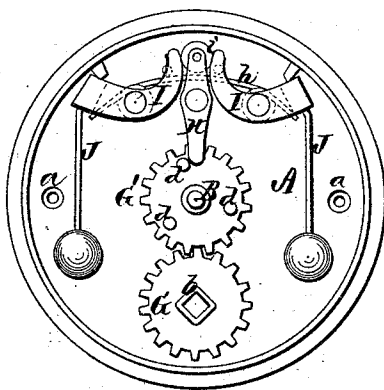


Fig. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN DOOR-BELLS.

Specification forming part of Letters Patent No. 154,288, dated August 18, 1874; application filed January 12, 1874.

To all whom it may concern:

Be it known that I, ELBRIDGE B. SIMS, of Antwerp, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Door-Bells; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

My invention relates to that class of door-bells in which the bell is sounded by turning a knob or crank; and the nature of my invention consists in the construction and arrangement of the operating mechanism, as will be hereinafter more fully set forth.

In the accompanying drawing, Figure 1 is a longitudinal section of my bell, and Fig. 2 is an interior view of the same.

A represents the base or casing of the bell, secured on the inside of a door or door-frame by screws through the holes *a a*. In the center of the casing A rises a post, B, upon the end of which the bell C is screwed. E represents the crank, having a square shaft or spindle, D, which is passed through the door or door-frame, as the case may be, into the casing A. The spindle D passes through a sleeve, *b*, having a square interior and a round exterior. This sleeve is flanged on its outer end, and passed from the outside into the casing, as shown in Fig. 2. Upon the inner end of the sleeve *b*, within the casing, is placed a cog-wheel, G, which is held by the end of the sleeve being riveted or clinched outward over the same. The cog-wheel G gears with a similar wheel, G', placed loosely on the post B. On the upper or outer surface of the wheel G' are pins *d d*, projecting outward, to work against and turn a pivoted bar, H, placed upon a stud

in the casing A. On the opposite end of this bar is a roller, *i*, to bear against and operate either of two curved levers, I I, pivoted upon studs in the casing, one upon each side of the bar H. These two curved bars are so attached that they do not bear against the surface or base-plate A; hence, in operation, there is no friction exerted by their movement on said plate. At the other end of each lever I is attached the bell-hammer J. *h* is a spring arranged to operate upon the two levers I I in such a manner as to throw the hammers J J outward, and the inner curved ends of the levers against the friction-roller *i*.

By turning the crank E in either direction the cog-wheel G' is revolved by means of the spindle D and wheel G, so that the pins *d* will turn the bar H, and the friction-roller *i* will force the inner end of one of the levers I outward, turning the hammer J inward. Then, as soon as the pin *d* passes the end of the bar H, the spring *h* throws the hammer outward against the bell, and at the same time placing the arm H in position again to be acted on by the next pin *d*.

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

In combination with the two curved bell-hammer arms I I, pivoted to the casing-plate A, the pivoted bar H, provided with the roller *i*, and actuated substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of March, 1873.

E. B. SIMS.

Witnesses:

A. N. MARR,
C. P. WEBSTER.