

A. L. SWAN.
Bell-Pulls.

No. 142,057.

Patented August 19, 1873.

Fig. 1.

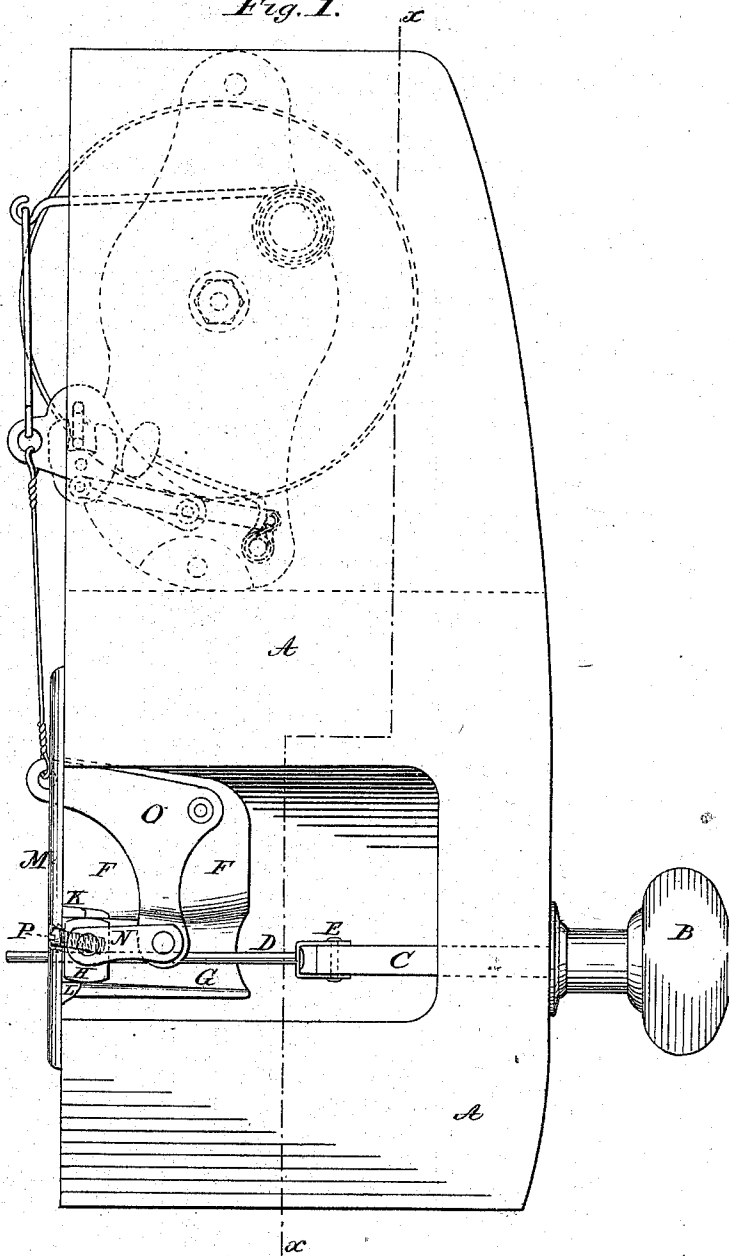
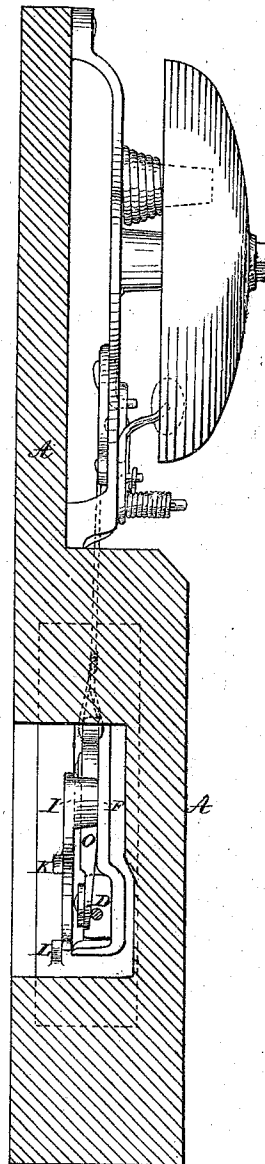


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN BELL-PULLS.

Specification forming part of Letters Patent No. **142,057**, dated August 19, 1873; application filed May 1, 1873.

To all whom it may concern:

Be it known that I, AMOS L. SWAN, of Cherry Valley, in the county of Otsego and State of New York, have invented a new and valuable Improvement in Bell-Pulls; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view with my improvement attached to a bell-pull and gong. Fig. 2 is a partial sectional view of the same taken through the lines *x x*.

My invention relates to "door-pulls," and the novelty consists in certain improvements that will be hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the door-post; B, the bell-knob; C, the square shank; and D, the rod, attached to the shank by means of a swivel-joint, E, which allows the knob and square shank to turn freely upon the rod D without disturbing or injuring the other parts. F designates a metallic plate properly secured in a recess in the door-post. This plate F is channeled or recessed at G to receive the sliding block H and wire D. The sliding block H is of an ordinary construction, and is provided with a case-hardened set-screw, P, entering the front end of the block at a slight angle to the wire D, and the threads of said screw, when entered, cut into the wire D, passing through the said block, and hold it firmly and securely to its proper place. Also, by means of this screw the operating wire and shank-knob can be easily and perfectly adjusted in and out whenever required. The lever O indicates

the crank-lever pivoted near the upper end of the plate F, and connecting with the gong or bell and connecting-link N, as shown in Fig. 1. The connecting-link N is used to connect the sliding block H to the lower arm of the crank-lever; or, the link N may be dispensed with and the sliding block attached directly to the crank-lever, in which case the sliding block will move in a segment of a circle. The face M of the plate F has oblong openings for the passage of the upper arm of the crank-lever, and to allow for adjustment of the screw on pull-wire and knob. I represents a covering-plate, secured under the lugs K L, on the plate F, by means of screws; or this covering-plate may be dispensed with and not affect the working mechanism of the gong.

It will be seen that this "mortise-crank" is not only adapted to this gong and peculiar mechanism, here shown, but to any and all other kinds of gongs or bells worked by a "pull," giving a sure and firm motion to the bell-wire, with no stretching or breaking, as in the ordinary kind now in use. Once properly adjusted, it will so remain, no matter how much or how long used.

One great advantage of this improvement is, that the wire D and its manner of connection is secured against accident, and avoids looping or twisting, as in the ordinary modes of fastening.

I claim as my invention—

The combination of the swivel-jointed bell-pull, the sliding adjustable block H with set-screw P, the connecting-link N, and crank-lever O, operating substantially as specified.

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Witnesses:

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