

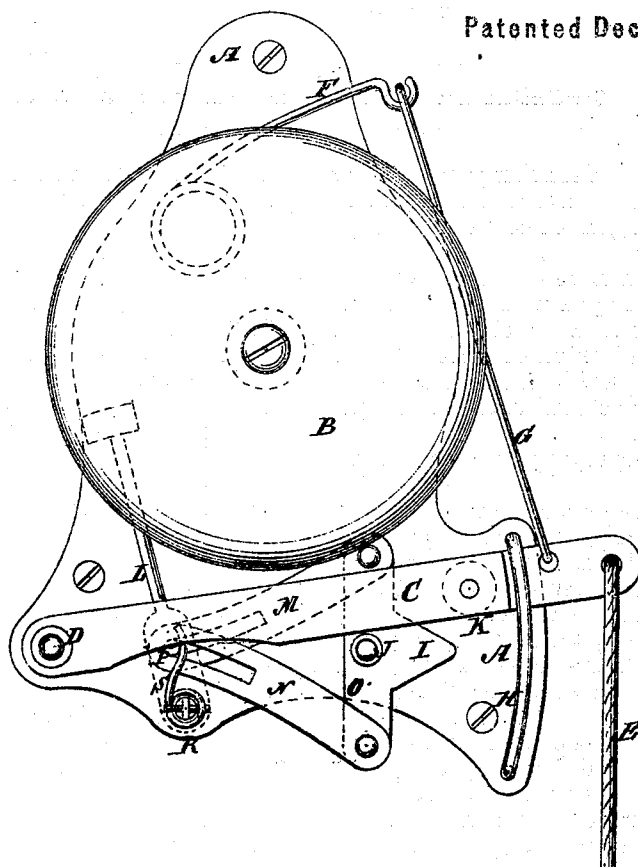
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A. L. SWAN.

Improvement in House Bells.

No. 122,200.

Patented Dec. 26, 1871.



Witnesses:

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UNITED STATES PATENT OFFICE.

AMOS L. SWAN, OF CHERRY VALLEY, NEW YORK.

IMPROVEMENT IN HOUSE-BELLS.

Specification forming part of Letters Patent No. 122,200, dated December 26, 1871.

Specification describing certain Improvements in House-Bells, invented by AMOS L. SWAN, of Cherry Valley, in the county of Otsego and State of New York.

This invention relates to a new and useful improvement in apparatus for ringing house-bells; and consists in a double rocking-cam and two slotted plates which connect the cam with the bell-hammer, and in the general construction, arrangement, and combination of the parts hereinafter described.

The accompanying drawing illustrates my invention.

A is a metallic plate, preferably of cast-iron or brass, to which the operating parts of the device are attached. B is the bell, which is attached by a screw to the stud of the plates. C is a bar, which is pivoted to the plate A at the point D. E is the bell-cord, which is attached to the bar C. It may be either a cord or a wire. F is a spring, the coil of which is attached to a stud of the plate A, as indicated in dotted lines, which spring is connected with the bar C by the wire G. H is a staple-guard over the bar, to keep the latter in place. I is the double cam, the bar O of which is pivoted to the plate A at J. K is the friction-roll, pivoted to the underside of the bar C, which roll is brought in contact with and operates the cam when it moves past it in either direction. The cam is connected with the hammer-rod L by the slotted plates M and N. These plates are pivoted to the ends of the cam-bar O, as seen. Their other ends are slotted and placed over a pin, P, of the hammer-rod L. R is a stud in the plate A, on which the hammer-rod turns. S, a spring confined to the stud R, the end of which bears against the pin P. This spring S operates

the bell-hammer when the latter is drawn back for striking.

Now, to draw back the hammer, it is only necessary to rock the cam-bar O, or turn it in either direction on its pivot. This is done by drawing the roll K in contact with and past the point of the cam I by the bell-cord, which action strikes the bell-cord once, and allowing the spring F, by its recoil, to draw back the bar and move the cam in the other direction, which strikes the bell again, the hammer being drawn back in the first instance by the slotted plate M, and the second time by the plate N. The bearing of the spring S on the stud R with a constant pressure keeps the pin P at the end of each slot, which keeps the cam in proper position when the mechanism is at rest. A pull of the cord rings the bell, whether it is pulled quick or slow. The arrangement is very simple; nothing is liable to be broken or get out of order.

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

1. The bar C, roll K, combined with the bell-cord E and spring F, substantially as and for the purposes described.
2. The cam I and slotted plates M N, arranged to operate as and for the purposes described.
3. The pin P and spring S, in combination with the slotted plates M N, as and for the purposes described.
4. The combination, with a house-bell, of the plate A, bar C, cam I, slotted plates M N, pin P, springs S and F, rod G, arranged substantially as and for the purposes described.

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