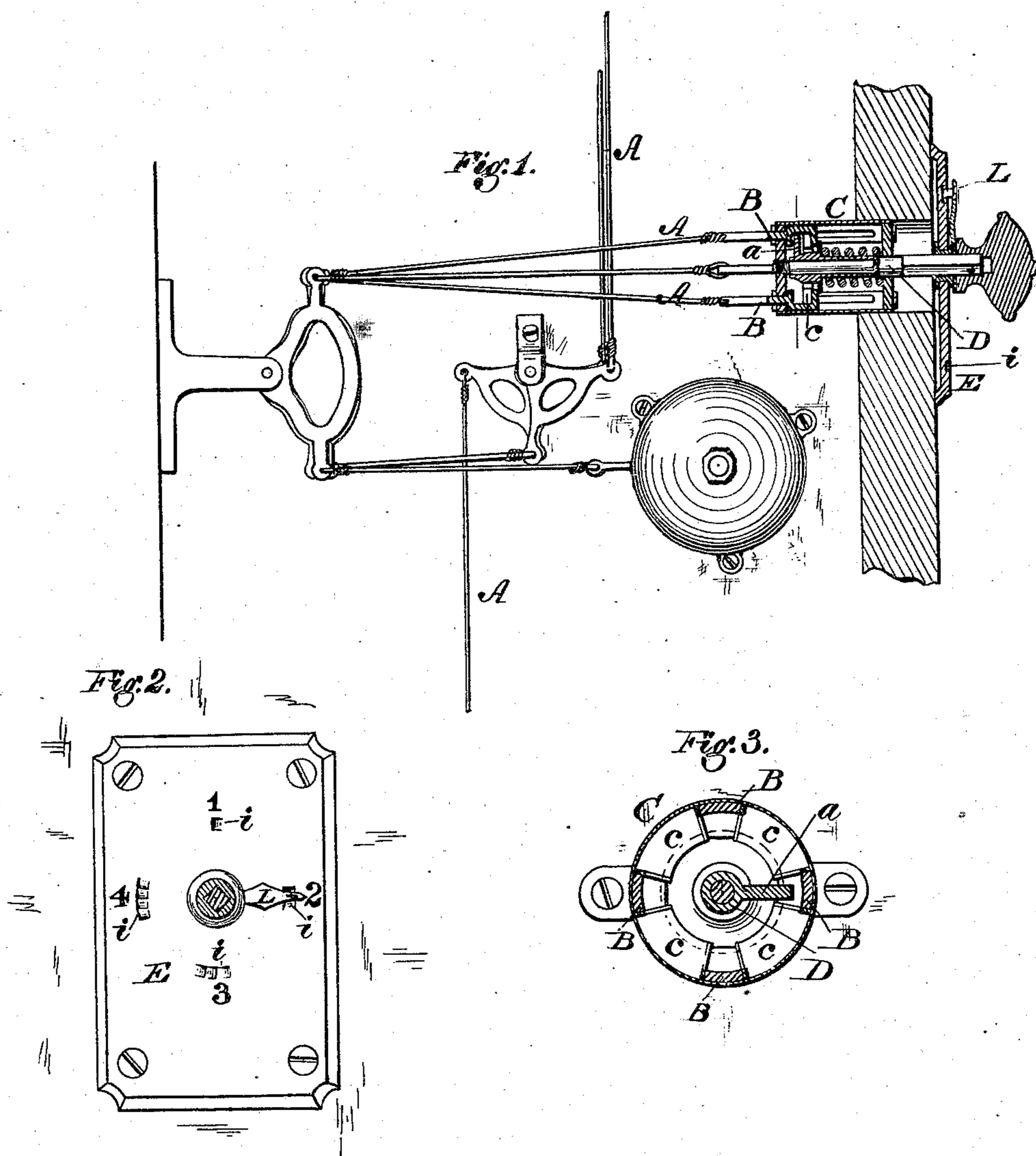


W. RICHARDSON.
Bell-Pull.

No. 164,874.

Patented June 22, 1875.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

WILLIAM RICHARDSON, OF NEW YORK, N. Y.

IMPROVEMENT IN BELL-PULLS.

Specification forming part of Letters Patent No. **164,874**, dated June 22, 1875; application filed June 5, 1875.

To all whom it may concern:

Be it known that I, WILLIAM RICHARDSON, of New York, in the county of New York and State of New York, have invented certain Improvements in Bell-Pulls, of which the following is a specification:

My invention consists in a pull or handle arranged in such manner that it will operate at will either one of several bells. The object of the invention is to avoid the use of separate pulls or handles for different bells which are to be operated from one point, the arrangement, although adapted for use in various places, being designed more especially for those buildings which are arranged in flats and occupied by several independent tenants, in order to dispense with the present unsightly array of knobs at the front door.

My pull may be constructed in a variety of forms, but I prefer to arrange a common sliding spindle in such manner that it may be rotated, and to provide its inner end with a lip, which may be caused to engage with either one of a series of slides arranged around the spindle and connected with the respective wires.

Figure 1 represents a longitudinal central section of my device, constructed on the above-mentioned plan; Fig. 2, a face-view of the dial-plate and indicator; Fig. 3, a cross-section on the line *x x*.

A A represent the various bell-wires, having their ends attached to parallel slides B, which are arranged in a circle around the inside of a fixed cylindrical case, C, in the center of which there is mounted the inner end of a sliding and rotating spindle, D, which has its forward end provided with a knob, as usual, and its rear end provided with a lip, *a*. By means of the knob the spindle may be rotated and the lip engaged in any desired one of the slides, and by then drawing the knob outward the lip will be caused to operate the slide and the bell connected therewith. In order to prevent the spindle from being drawn out, except when the lip is engaged with one of the slides, a flange, *e*, is formed around the inside of the case C, in front of the lip *a*, as shown, so that the lip can only pass forward

when locked into the slides to pass through the flange therewith.

In order that the operator may set the spindle to ring any particular bell in the series, I make the forward end of the spindle of a square form, and pass it through a rotating pointer, L, which is mounted in a stationary plate, E, the face of which is provided with characters indicating which bell will be sounded when the spindle is in each of its different positions. The operator, grasping the knob, turns the same until the pointer indicates the desired bell, and then simply draws the knob outward, as usual.

In order to guide the operator at night, when the indicator cannot be seen, I provide the plate, at the points where the characters are located, with notches *i*, arranged in sets or numbers corresponding with the numbers which may be used to designate the respective bells, and provide the indicator with a lip, which, dropping into the notches as the knob is turned, gives a loud click or report for each notch, thereby indicating audibly the bell which will be sounded on pulling the knob.

If desired a small bell may be arranged to indicate the numbers in place of the lip and notches, or any other suitable devices used for the same purpose. Instead of having the spindle take hold of the slides, the bell-cranks may be so arranged that the spindle will take hold directly upon them.

The indicator-hand may be varied in form and arrangement as desired. In place of the knob and spindle a lever or crank, arranged in a suitable manner, may be employed, and, in place of providing the dial-plate with the fixed characters, it may be provided with removable cards or plates bearing the names of tenants, or other desired information.

Having described my invention, what I claim is—

1. A bell-pull or handle constructed, and operating substantially as described, to operate at will either of two or more bells.

2. The combination, substantially as herein shown and described, of a pull or handle arranged to operate separately two or more

bells, and an indicator arranged to give an audible report for the purpose of guiding the operator at night in the adjustment of the pull to operate the particular bell required.

3. In combination with the sliding and rotating spindle D, provided with the lip *a*, the series of slides, B, having the bell-wires attached thereto.

4. In combination with the spindle, arranged to operate as described, the dial-plate D, and pointer L.

WILLIAM RICHARDSON.

Witnesses:

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