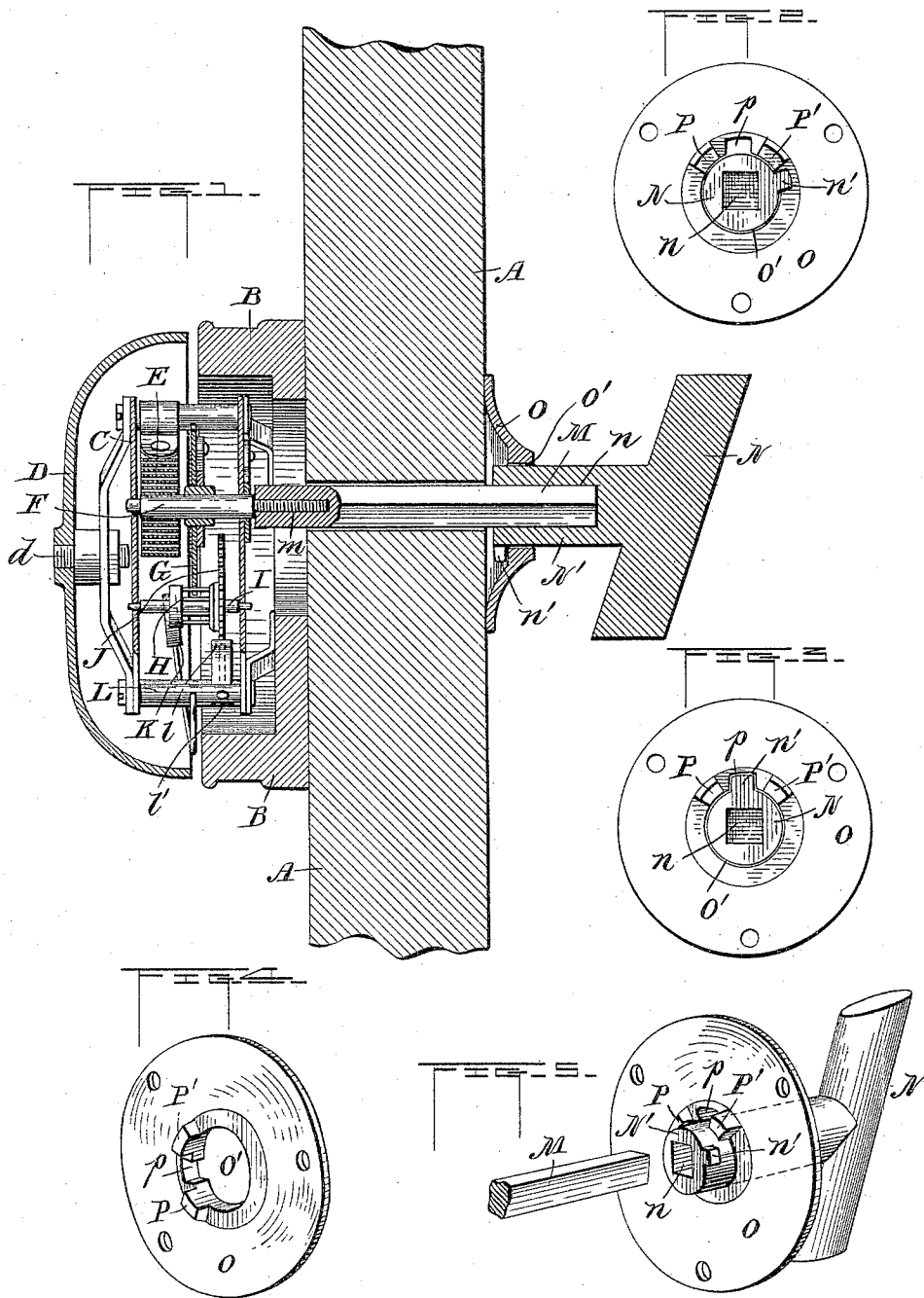


(No Model.)

A. ISKE.
DOOR BELL HANDLE.

No. 473,879.

Patented Apr. 26, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT ISKE, OF LANCASTER, PENNSYLVANIA.

DOOR-BELL HANDLE.

SPECIFICATION forming part of Letters Patent No. 473,879, dated April 26, 1892.

Application filed July 16, 1891. Serial No. 399,730. (No model.)

To all whom it may concern:

Be it known that I, ALBERT ISKE, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Door-Bell Handles and Connecting Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to devices for operating a door-bell by turning a handle; and it consists, mainly, in certain devices for limiting the turning action and the consequent duration of the alarm; also, in the combination of these devices with the spring and train of wheels of a clock-work alarm, whereby the turning by hand in one direction winds the said spring, and the reaction of the latter operates the mechanism and alarm, the degree of turning being positively limited in both directions; also, in such a construction and combination of the handle and a shaft which makes connection between it and the clock-work mechanism that the said handle and the said shaft will turn together, though the former will be capable of endwise movement over the latter, in order that a lug on the tubular stem of said handle may avoid obstacles to detachment, and, finally, in the construction and combination of the said shaft, the handle, and the fixed escutcheon and in additional details hereinafter particularly set forth and claimed.

In the accompanying drawings, Figure 1 represents a vertical sectional view through a door-bell and its operating clock-work alarm mechanism and handle embodying my invention and a part of the door to which these devices are applied, the connecting-shaft and the small clock-work arbor which it is screwed upon being shown in elevation. Fig. 2 represents a rear elevation of the escutcheon and the end of the tubular handle-stem, the latter being in position for operation. Fig. 3 represents a similar view of the same, the handle being in position for withdrawal. Fig. 4 represents a rear perspective view of the said escutcheon, showing the groove for allowing such withdrawal. Fig. 5 represents a perspective view of the handle-escutcheon

and prismatic connecting-shaft, the said handle being pushed inward far enough to allow it to be turned into the position for withdrawal and the said handle and escutcheon being shown as slightly separated from the said connecting-shaft.

A designates the door, to which the wooden casing B of a door alarm-bell is secured on the inner side. To this casing is attached the frame C of the clock-work, said frame having an outwardly-extending screw-threaded stud *d*, on which a gong-bell D is screwed in the usual manner, the said casing and bell together inclosing the said clock-work. The latter consists of a coiled spring E, an arbor F, turned thereby, a gear-wheel G on the said arbor, a lantern-pinion H, gearing with said wheel G and mounted on the escapement-arbor I, an escapement-wheel J, and a hammer K, mounted on an arbor L and having pallets *l l'*, which engage the said escapement-wheel after the usual fashion. In the construction and combination of the parts thus far described there is no novelty, except that the arbor F is screw-threaded on its inner end.

M designates a prismatic connecting-shaft extending through the door and having one end provided with a screw-threaded recess *m* to receive and engage the said screw-threaded end of the said arbor. The other end of the said shank fits into the tubular stem N' of a handle N, the bore or recess *n* of the said stem corresponding in cross-section to the said connecting-shaft, and therefore turning therewith, although detachable therefrom by endwise withdrawal. The inner end of the said stem N' is provided with an external radial lug *n'*.

O designates the escutcheon, having a circular central opening O', at one point of which a groove *p* is formed, allowing the lug *n'* to slide in and out. Two lugs PP' are arranged one on each side of the said groove and on the inner face of the said escutcheon. The handle N is adjusted for use by slipping the stem N' in through the opening O' until the lug *n'* passes beyond the lugs PP'. The handle is then turned to the right or left far enough for the lug *n'* to clear said lugs PP', and it is drawn forward so that these lugs PP' may be in the path of revolution of said lug *n'* when the handle is turned. The said stem

is then fitted on the connecting-shaft M and the said escutcheon is screwed to the door A. The lugs P P' fit snugly against the door, and as the lug n' cannot be turned past them they limit the turning of the said handle in either direction to less than one complete revolution, and also absolutely prevent the accidental detachment of the said handle. When the bell is to be rung, the handle is simply turned until stop P prevents it from turning farther. This winds the spring. When the handle is released, the spring turns it back until stopped by lug P', at the same time sounding the alarm. The interval between the lugs on their outer sides is sufficient to allow for all the ringing that is necessary; but a prolonged uproar and injury to the works by excessive action are prevented by the said lug P'. The lug P also prevents the spring from being overstrained by turning the handle too far at the outset. When the said handle is to be removed for cleaning, repair, or any other purpose, the escutcheon O is unscrewed from the door and the stem N' is separated from the shaft M. The handle and escutcheon are then slipped into the position shown in Fig. 5, and then turned into that shown in Fig. 3 and separated, the lug n' passing out through the groove p. The shaft M may be unscrewed at will from arbor F by turning it in the direction of its rotation by the spring E.

The bell and its operating attachments are very easily mounted on any ordinary door and easily taken apart and removed also, as above indicated, the casing B, like the escutcheon O, being merely screwed to the wood-work in the simplest manner.

Of course the lugs n', P, and P' would be available for fastening the handle, even if no clock-work were employed, and would suffice, also, to regulate the degree of turning, the bell being operated directly by the rotary motion of the hand and not by the reaction of the spring or any such device; but the clock-

work bell shown is much better, as the alarm lasts longer and the lugs, which serve as stops, have greater practical utility in connection therewith.

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

1. An escutcheon having a central opening, a groove p, connected therewith, and two lugs P P' on the inner face of the said escutcheon and arranged one on each side of the said groove, in combination with a handle N, having a stem N' and a lateral lug n', and alarm devices actuated by the turning of the said handle, the said groove and lugs P P' allowing the lug n' to be introduced behind the escutcheon and turned and drawn into such position that the lugs P P' will serve both to limit the turning and to prevent the handle from being accidentally detached, substantially as set forth.

2. In combination with a pair of fixed lugs for limiting its axial movement, a bell-handle having a lug arranged to be in contact with one or the other of said lugs at certain points of such movement and to limit the rotary motion of said handle by contact with the said lugs and clock-work-alarm mechanism, and connecting devices operated by the said bell-handle, substantially as set forth.

3. In combination with a bell and a rotary handle and detachable connections, an escutcheon provided with lugs for limiting the turning of said handle in either direction.

4. In combination with a door-bell handle arranged to turn on its axis, an escutcheon provided with lugs for limiting this turning and preventing the detachment of said handle, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT ISKE.

Witnesses:

P. DONNELLY,
J. H. RUTH.