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J. D. BALDWIN & J. J. SCHLEGELMILCH.

PUSH BUTTON.

APPLICATION FILED AUG. 5, 1912.

1,070,387. Patented Aug. 19, 1913.

Fig. 1

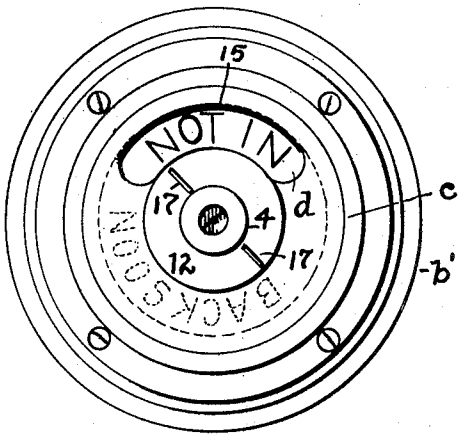


Fig. 2

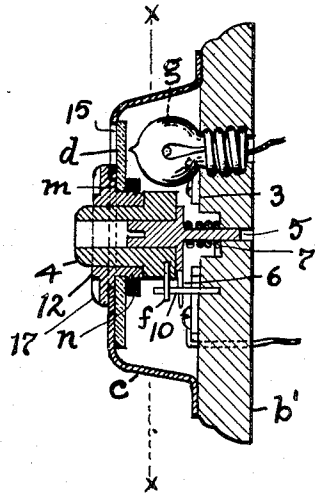


Fig. 3

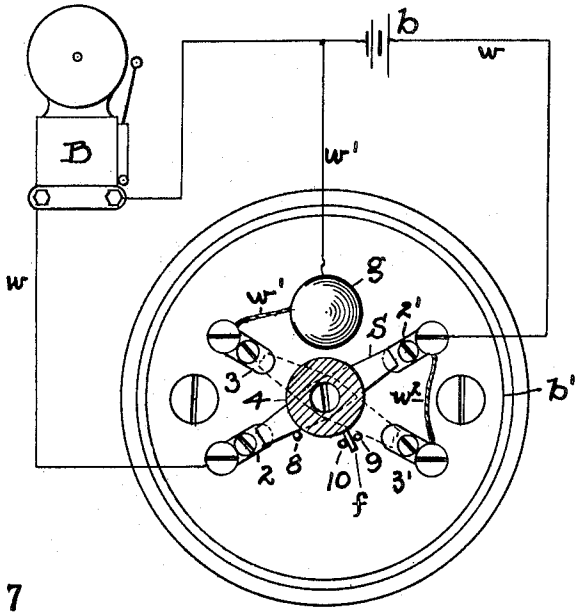


Fig 4

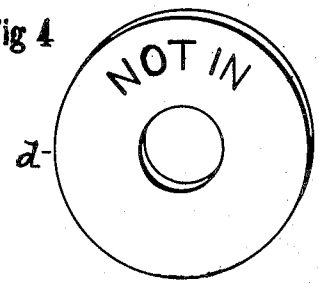


Fig. 5

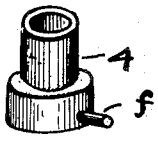


Fig. 6

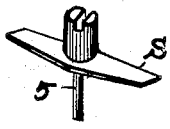
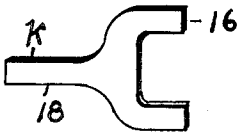


Fig 7



ATTEST

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UNITED STATES PATENT OFFICE.

JOHN D. BALDWIN AND JOHN J. SCHLEGELMILCH, OF CLEVELAND, OHIO.

PUSH-BUTTON.

1,070,387 Specification of Letters Patent. Patented Aug. 19, 1913.

Application filed August 5, 1912. Serial No. 713,249.

To all whom it may concern:

Be it known that we, JOHN D. BALDWIN and JOHN J. SCHLEGELMILCH, citizens of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Push-Buttons, of which the following is a specification.

This invention has reference to push-buttons of the kind usually employed in residences, and the invention consists in the construction and combination of parts substantially as shown and described and particularly pointed out in the claims.

In the accompanying drawings Figure 1 is a face view of the complete device and Fig. 2 is a cross section thereof, including the base which carries the working parts. Fig. 3 is a view corresponding to line x, x, Fig. 2, but with the shell and lamp removed and looking inward, and showing a bell and battery and wire connections to make the circuits as hereinafter more fully described. Fig. 4 is a perspective of the glass disk. Fig. 5 is a perspective of the push button proper. Fig. 6 is a perspective of the switch member and Fig. 7 is a view of the key by which the mechanism is set to different positions as will presently be more fully explained.

The invention as thus shown contemplates the usual and common push-button installation in a dwelling or other place and in which there is a bell B, a battery b and wires w running to the push button where the circuit is adapted to be closed by said button on the terminals by the conductor s. This organization serves the ordinary every day purpose of signaling the presence of some one at the door to the persons in the house or apartment and in itself is not new. However, there are no means in this organization by which the occupants of the dwelling can advise callers when they are out or absent or when they will return, or to deliver any other short message or notice, and hence we have supplemented the old system with devices which do not change the operation of the button as such when the parties are in and subject to call but which enables them to use the same means substantially to give counter advices when they are really out and cannot answer the call. To these ends we introduce two additional contacts 3 and 3′, and the contact 3 is connected with the line wire w through an electric lamp or bulb g by a wire w' while the two contacts 2′ and 3′ are connected by a wire w^2 and conductor s is rotatable to either set of contacts 2, 2′, or 3, 3′ according to its proposed use. The said several contacts and the other parts are supported on the base b' which constitutes a portion of the complete article. Now, in order to convert the switch to the double use as thus indicated we supplement the push-button 4 with a spindle 5 upon which the conductor s is rigidly mounted midway between the ends thereof, and the said spindle has a reduced lower portion adapted to enter a guide hole through base b' and which lower portion is wound about by a spiral spring 7 having a suitable seat in said base and adapted to exert sufficient outward pressure to hold the conductor s normally out of touch or communication with the several contacts 2, 2′ and 3, 3′. Obviously the conductor might pause between these contacts and deaden operation but this is not intended. Rather the device is of a positive character and communicates to the occupants of the place or to the visitor at the door. The said spindle has a head which projects about half way into a bore in push-button 4 and has a transverse slot or its equivalent in its exposed end in said bore to operatively engage the stem of the key k therewith and rotate the said conductor through said spindle to either set of contacts. Stops 8 and 9 limit the movement or rotation of the switch in either case, and the push-button has a laterally projecting finger f of heavy wire or the like confined between the two ins 9 and 10 located at the side of push-button 4 between contacts 2 and 3′ and which prevent the rotation of said button but leave it free to be depressed. It may be explained here that the spring 7 acting through spindle 5, and the conductor thereon bears against the head of the button 4 and presses it outward as far as its limits of action will allow, and the said spindle can be axially rotated by means of the key k independently of the said button and which is held against rotation at any time by its finger f or projection and pins 9 and 10 as above described.

The shell c is flanged about its bottom and fixed to base b' and serves as the immediate support of button 4 and parts associated therewith. These parts comprise the thimble 12 which has a flange bearing against the outside of said shell about the opening into which the thimble is inserted

and which serves also as a sleeve sustaining the push button in said shell. A glass or other transparent disk *d* is supported on said thimble immediately on the inside of the shell *c* and the said shell has a substantially crescent shaped slot 15 relatively above the push-button through which said disk is exposed, and a nut *n* on said thimble bears against said disk and locks it firmly against the enlarged inner annular base portion *m* of the flange on the thimble but said disk is free from the shell *c* by reason of the said base *m* being slightly deeper than the shell and taking the pressure from nut *n*.

Any desired imprint can be made on the disk *d* according to its use, but the words "Not in," "Back soon" or the like serve the usual purpose and either set of words is exposed through the slot 15 in the shell *c* as one or the other set is rotated into such position. For example, in Fig. 1 "Not in" is displayed in said slot, but the words "Back soon" might be rotated to the front if that were the message to be conveyed to the caller, such rotation being effected by inserting the end 16 of key *k* in the slots 17 in the face of thimble 12. Otherwise the stem 18 of the key is inserted in the bore of the push-button to engage the open slot in the head of the spindle 5 which controls the electric conductor *s*, and said conductor is rotated upon contact points 3 and 3′. This brings the lamp *g* into the electric circuit and displays whatever words may be exposed through said slot and this part of the object of the invention is accomplished. The other, the use of the push-button for calling purposes in the house, is effected by rotating the conductor back upon the contacts 2 and 2′. This cuts out the lamp and in that case the words on the disk are not readable. Usually the disk *d* remains in a given place whether with one or another message exposed in slot 15, so that when a person goes out he needs to merely change the switch onto contacts 3 and 3′ and the lamp will be thrown into the circuit and the bell B out of circuit. However the spring 7 keeps the conductor out of touch with the contacts at all times except when the push-button is depressed. The glow of the lamp will then disclose the intended message on disk *d* and the caller can conduct himself accordingly.

The shell, so called, is of cup shape and struck up from suitably light metal, and the necessary insulation is employed here and there as may be required.

Any suitable or available source of electrical energy may be employed but presumably a suitable battery will generally answer the purpose.

The light opening 15 is preferably curved and of a size to take in two or more words.

What we claim is:—

1. A push-button installation comprising a bell and an electric lamp, two sets of electrical contacts connected with said lamp and bell respectively, a conductor adapted to be rotated to bridge either set of contacts, a push button to press said conductor upon said contacts and operate either the bell or the said lamp and a base on which said conductor and lamp are mounted, in combination with a shell fixed on said base and inclosing said conductor and lamp and having an opening opposite said lamp, and means in said push button to rotate said conductor.

2. A push-button mechanism comprising a suitable base and two separate sets of electrical contacts thereon, a push-button and a spindle rotatably mounted therein and a conductor on said spindle adapted to engage either set of said contacts, means to prevent the rotation of said push button and stops to limit the rotation of said conductor, in combination with a bell connected with one of said sets of contacts and a lamp mounted on said base connected with the other set, the said push-button being open through its center to reach and rotate said spindle.

3. In a push-button device, a suitable base, a lamp and a shell fixed on said base, said base having an opening in its front to display said lamp, a transparent disk rotatably mounted in said shell over said opening in front of said lamp and a circuit for said lamp containing electrical contacts on said base within said shell, in combination with a push-button mounted in said shell having a bore through its center, a spindle rotatably mounted in said bore and provided with a stem projecting into said base, a spring in lifting relation about said stem to press said spindle and push-button outward and a conductor mounted on said spindle and adapted to be rotated to engage with said electrical contacts.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN D. BALDWIN.
JOHN J. SCHLEGELMILCH.

Witnesses:
R. B. Moser,
E. M. Fisher.