

No. 780,860.

PATENTED JAN. 24, 1905.

E. BRUSSEAU.

PUSH BUTTON.

APPLICATION FILED APR. 18, 1904.

Fig. 1.

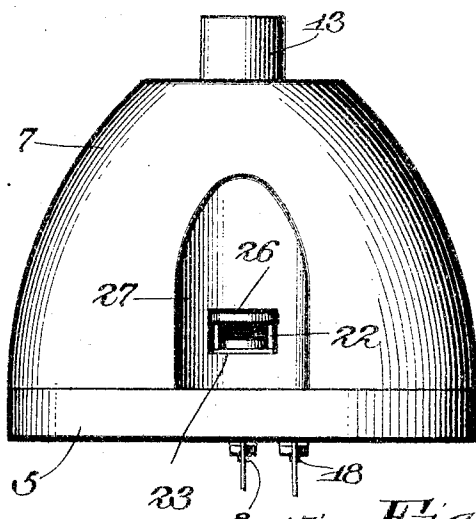


Fig. 2.

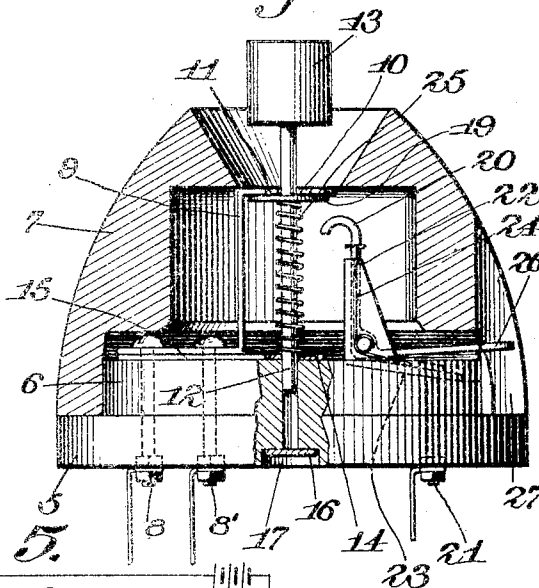


Fig. 5.

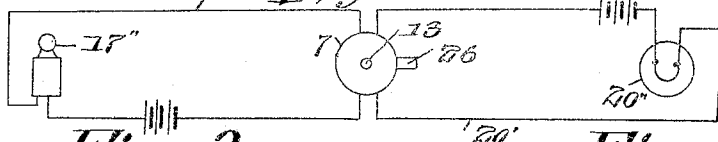


Fig. 3.

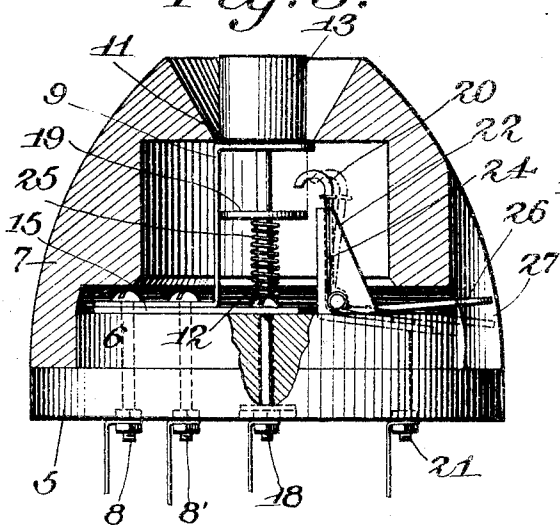
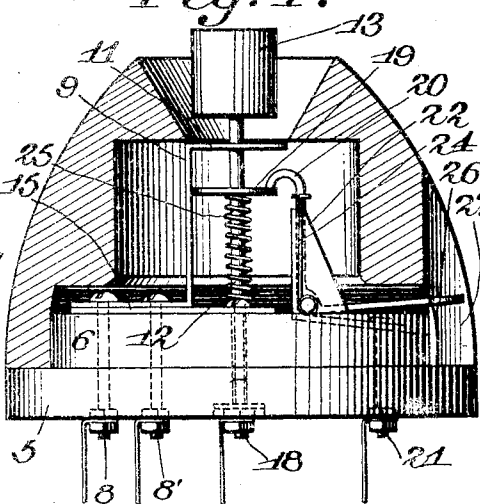


Fig. 4.



Witnesses
E. J. Howard
L. A. McKee

Edward Brusseau,
 Inventor.
 by *C. A. Snow & Co.*
 Attorneys

UNITED STATES PATENT OFFICE.

EDWARD BRUSSEAU, OF JEFFERSON, SOUTH DAKOTA.

PUSH-BUTTON.

SPECIFICATION forming part of Letters Patent No. 780,860, dated January 24, 1905.

Application filed April 18, 1904. Serial No. 203,754.

To all whom it may concern:

Be it known that I, EDWARD BRUSSEAU, a citizen of the United States, residing at Jefferson, in the county of Union and State of South Dakota, have invented a new and useful Push-Button, of which the following is a specification.

This invention relates to an improved push-button or circuit-closure for electric circuits, and has for its object the production of a simple, inexpensive, and efficient device of this character particularly designed for use in hospitals and similar institutions and by means of which a patient may ring a signal-bell and simultaneously cause an incandescent lamp or other visual signal to be displayed, to thereby indicate to the attendant the location of the person sending in the call.

A further object of the invention is to provide a push-button including a plurality of contacts and means for locking one set of contacts in circuit-closing position.

A still further object is to provide a button including contacts arranged to be successively closed by the movement of the button and a terminal carried by the button for engagement with said contacts.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended, it being understood that various changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation of a push-button constructed in accordance with my invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a similar view showing the button depressed and in position for ringing the signal-bell. Fig. 4 is a similar view showing the position of the button when contact is made with the light-circuit. Fig. 5 is a diagram illustration of the application of the device.

Similar numerals of reference indicate cor-

responding parts in all the figures of the drawings.

In carrying out the invention I employ a supporting plate or base 5, formed of wood or other suitable material, said plate being provided with a seating-flange 6, adapted to receive the lower edge of a cap or cover 7. Secured to the base 5, as by binding-screws 8 and 8', is a supporting-bracket 9, and slidably mounted in an opening 10 in the angular extension 11 of said bracket is the contact-pin 12 of a push-button 13. The lower end of the pin 12 passes through an opening 14 of a contact-plate 15, interposed between the base 5 and the bracket 9, said plate being secured to the base by the binding-screws 8 and 8', as shown. The pin 12 is arranged to make contact with a plate 16, seated in a recess 17 in the base 5, so that when the push-button is depressed the local bell-circuit 17' will be closed, and thereby ring the signal-bell 17. One terminal of the bell-circuit is connected to the binding-screw 18 and the opposite terminal thereof to the screw 8, the circuit being completed through the pin 12 and contact-plates 15 and 16, as will be readily understood. Rigidly secured to the pin 12 is a metal disk 19, adapted to make contact with a spring-pressed locking-lever 20 after the bell-circuit is interrupted, and thereby close an auxiliary circuit 20', in which may be placed an incandescent lamp or other visual signal 20. The lamp is preferably arranged just outside the door of the room in which the push-button is placed, so as to indicate to the attendant in charge the location of room from which the call is sent without the necessity of going from one room to another and disturbing the patients. One terminal of the lighting-circuit 20' is connected to the binding-screw 8' and the opposite end of the wire to the screw 21, the latter screw also serving to secure the bracket 22 of the locking-lever 20 in the recess 23 of the base. The lever 20 is mounted for pivotal movement in the bracket 22, as shown, the hooked end of said lever being normally held in the path of the disk 19 by means of a spring 24, so that when the push-button is depressed to ring the signal-bell 17 the lever will be tilted rearwardly,

and when the button is released the coil-spring 25 will force said disk in contact with the lever, closing the lighting-circuit 20' and preventing further movement of the push-button until said lever is released. One end of the lever 20 is provided with a handle 26, by means of which said lever may be tilted to break contact with the disk 19. A groove or recess 27 is preferably formed in the cap or cover 7 to accommodate the handle 26 of the locking-lever and to permit the former to be readily grasped in operating the circuit-closer.

In operation when it is desired to ring the bell the push-button is depressed, the downward movement of the contact-pin causing the disk 19 to engage the hooked end of the lever and tilt the latter, thereby permitting the disk to pass and the end of the pin to make contact with the plate 16, as clearly shown in Fig. 3 of the drawings. When the button is released, the tension of the coil-spring will force the disk in contact with the end of the locking-lever, as shown in Fig. 4, thereby closing the lighting-circuit and causing the visual signal to be displayed. In order to break the lighting-circuit, the locking-lever is depressed, permitting the coil-spring to return the push-button to its normal position, as illustrated in Fig. 2.

While I have described the invention as being particularly designed for use in hospitals and similar institutions, it is obvious, that the device may be used with equally good results whenever a circuit-closer of this type is found necessary.

Having thus described the invention, what is claimed is—

1. A push-button including a plurality of contacts one set of which forms a means for positively locking the opposite set of contacts in circuit-closing position.

2. A push-button including a plurality of contacts arranged to be successively closed by movement of the button, a terminal carried by the button for engagement with one of said contacts, and means arranged in the path of the button and forming a terminal of the opposite contact for locking said contact in circuit-closing position.

3. A push-button including a plurality of contacts arranged to be successively closed by movement of the button, and means forming a terminal of one set of contacts for locking said set of contacts in circuit-closing position.

4. A push-button including a plurality of contacts arranged to be successively closed by movement of the button, and means for automatically locking one set of contacts in circuit-closing position when the opposite set of contacts is released.

5. A push-button including a plurality of

contacts arranged to be successively closed by movement of the button, and a pivoted locking-lever arranged in the path of the button for locking one set of contacts in circuit-closing position.

6. A push-button including a plurality of contacts arranged to be successively closed by movement of the button, and a spring-pressed locking-lever forming a terminal of one set of contacts and serving to lock said set of contacts in circuit-closing position.

7. A push-button comprising a base, a supporting-bracket, a contact-pin slidably mounted in the bracket, and means for locking the pin in circuit-closing position, said means also serving to limit the upward movement of the pin.

8. A push-button comprising a supporting-bracket, a pin provided with terminal and intermediate contacts slidably mounted in said bracket, and means for locking one set of said contacts in circuit-closing position when the opposite set is released.

9. A push-button comprising a supporting-bracket, a spring-actuated pin provided with terminal and intermediate contacts slidably mounted in said bracket, and a lever normally held in the path of the button and forming one terminal of the intermediate contact for locking said intermediate contacts in circuit-closing position.

10. A push-button comprising a supporting-bracket, a pin provided with a terminal contact slidably mounted in said bracket, a disk forming a second contact carried by the pin, a lever for locking the disk in circuit-closing position, and a spring carried by the pin and engaging said disk.

11. A push-button comprising a base, a supporting-bracket secured thereto, a pin provided with terminal and intermediate contacts slidably mounted in said bracket, a manually-operated locking-lever for locking the intermediate contact in circuit-closing position, and a cup or cover fitting over the base and provided with a recess adapted to receive the handle of the locking-lever.

12. A push-button comprising a base, a supporting-bracket secured thereto, a pin provided with a plurality of contacts slidably mounted in said bracket, means for locking one set of contacts in circuit-closing position, said means also limiting the upward movement of the pin.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDWARD BRUSSEAU.

Witnesses:

W. R. MELVIN,
PHILIP BERNARD.