May 26, 1931. B. ROTH 1,807,344

WARNING DEVICE FOR ELECTRIC PUSH BUTTONS, ETC

Filed Oct. 6, 1930

Fig. 4.

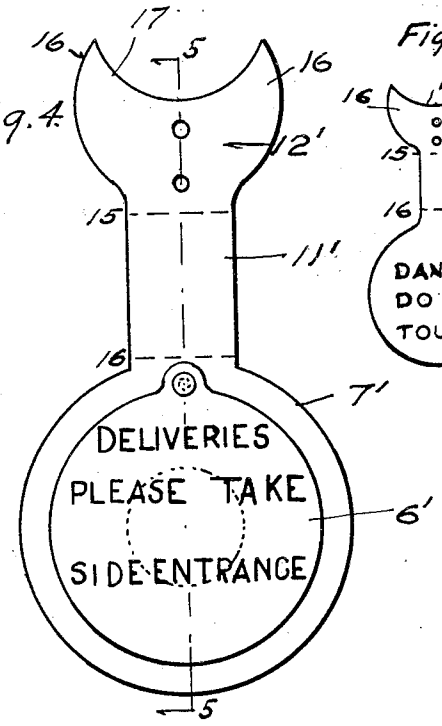


Fig. 6.

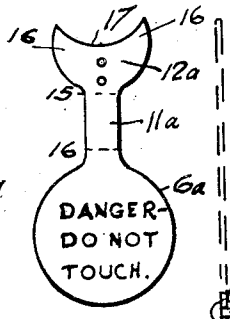


Fig. 5.

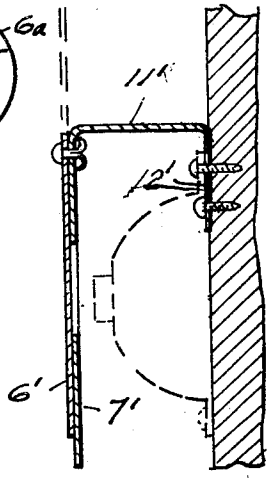


Fig. 1.

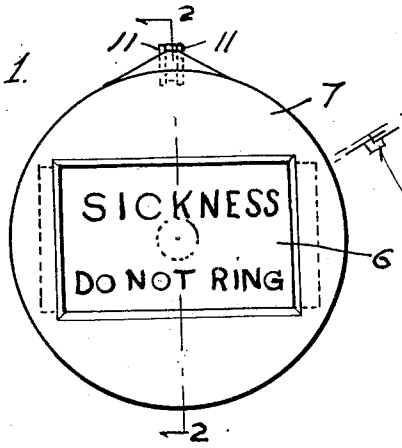


Fig. 2.

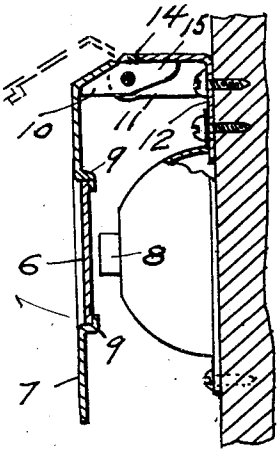
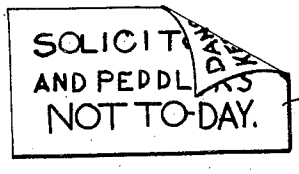


Fig. 3.



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UNITED STATES PATENT OFFICE

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WARNING DEVICE FOR ELECTRIC PUSH-BUTTONS, ETC.

Application filed October 6, 1930. Serial No. 486,522.

This invention relates to certain new and useful improvements in warning devices for electric push-buttons, etc., the peculiarities of which will be hereinafter fully described and claimed.

The main objects of my invention are, first, to safeguard the operation of a push-button, switch, or other device having electric connections; second, to warn against the use of such an electric device yet give access to it for emergency use; third, to warn certain persons against operating an electric device; fourth, to provide means for changing the warning shield hiding the electric device; fifth, to provide such a warning device that will automatically return to its warning position after use; and sixth, to provide a simple, effective warning device to carry out such objects.

In the accompanying drawings on which like reference numerals indicate corresponding parts,

Fig. 1 represents a front view of the preferred form of my warning device applied to a push-button;

Fig. 2 a vertical section of the same on the line 2—2 of Fig. 1, with the push-button in partial section;

Fig. 3 a detail view of a reversible variable warning shield forming part of such a warning device;

Fig. 4 a flat face view of a modified form of my device as stamped from sheet metal, with a pivoted shield forming part of such a device;

Fig. 5 a vertical central section of the same on the line 5—5 of Fig. 1, as bent for attachment to a push-button shown in dotted lines; and

Fig. 6 a flat view of a shield provided with an arm and base, both integral therewith for adjustment of said shield.

It is common practice to hang a warning card upon a switch having electrical connections that has been opened while men are making repairs on an electric line, or to hang such a safety card temporarily on a push-button or similar operative electric device to warn against operating said electric device. Such a safety card is removed when the repairs are made or when it is permissible to operate the electric connections.

My device provides a warning device comprising a shield bearing a warning or other directions regarding the operation of the electric device, which shield normally hides and obstructs the operation of the electric device until said shield is temporarily moved to give access to the electric device. My device is therefore always in place with regard to the operative electric device, and bears a warning or other directions, to designate persons forbidden operation of the electric device by them, while permitting operation by other authorized persons. Thus my device provides a shield adjustably mounted opposite a push-button, and bearing a variable warning or directions thereon, such as "Solicitors and peddlers not today", "Sickness—please do not ring", "Please take side entrance", or for factory use "Danger, men working on line". Thus should a telegraph messenger seek to deliver a message to a residence where my warning device indicates there is sickness for instance, the warning would not apply to him but would authorize emergency operation of the push-button for delivery of the message.

Referring to the drawings, the numeral 6 designates a movable shield, preferably mounted in a frame 7 having an opening behind which said shield is arranged. This shield is movably mounted opposite said opening hiding the push-button 8 and is carried by said frame in any suitable manner such as by lips 9 at the side edges of said opening, adapted to form retaining grooves for the shield 6 slidingly mounted therein as shown in Figs. 1 and 2.

This shield may bear any suitable warning or directions as stated above. Fig. 3 shows a detail view of such a slidable shield having on one face "Solicitors and peddlers not today" and on the other side "Danger, keep out." By sliding out the shield from its grooved connection with the frame and reversing it, or by substituting another shield with suitable directions thereon, the warning is varied according to requirements.

The said frame 7 is provided, preferably

near the top, with a lug 10 pivotally connected to a supporting arm 11 having a base 12 with openings for attachment by screws or otherwise to the wall adjacent to the push-button or other operative electric device that it is desired to safeguard. When the warning is not required, the slidable shield 6 is removed from its frame and exposes the push-button 8, permitting its operation by any person calling or desiring admittance to the residence.

When a messenger boy or other authorized person, such as the doctor, desires to use the bell, the frame and shield are raised by his hand to the dotted position indicated in Fig. 2, to expose and use the push-button. When thus raised as indicated by dash lines in Fig. 2, the lug 10 on the frame is limited in its upward movement by a stop 14, so that when released by the hand of the operator, the frame and shield will drop back by gravity or otherwise to their vertical position as shown in Fig. 2. The lug 10 preferably has an extension 15 adapted to engage the underside of the supporting arm, or otherwise limit the downward movement of the shield and frame after being raised as indicated in Fig. 2. This extension when engaged prevents the frame and shield from swinging against the push-button, and holds it in the vertical position shown.

In Fig. 4 I have shown a simpler form of frame and shield with a supporting arm 11′ integrally connected with the frame and adapted to be bent at the dash lines 15 and 16 to facilitate attachment of the base portion 12′ permanently to the wall near the push-button indicated by dash lines in Fig. 5. The frame is thus readily stamped out of tin plate or other flexible material and bent as indicated in Fig. 5 so that the resilience of the spring metal will allow the manual raising of the frame 7′, as described for the preferred form in Fig. 2. The resilience of the arm causes it to return to its normal position after being raised to allow emergency operation of the push-button. In the form shown in Figs. 4 and 5, the shield 6′ is pivoted opposite an opening in the frame so it may be swung to one side upside down as indicated in Fig. 5, or merely swinging frame 7 upwardly is sufficient to expose the push button. In both forms, the removal of the shield from the opening does away with the warning of the shield and gives permission to any one to operate the push-button.

In Fig. 6 I show a simpler form of shield provided with an arm 11*a* integral therewith and a base 12*a* for the arm when bent as indicated in Fig. 4, or otherwise bent to bring the shield in vertical position opposite the push-button, yet allow it to be raised as previously described. The base is preferably provided with the same horns 16 and curve 17 corresponding to the body of the push-button behind which it is secured as shown in Fig. 2 for better security in mounting my device in position on the wall. Any of the warning directions above mentioned may be painted, stamped or otherwise applied to the shield portion in this simplified form of my warning device.

I do not limit myself to the construction herein shown and described to illustrate my device and operation, except by the following claims.

I claim:

1. A warning device comprising a movable shield provided with a supporting arm that is adapted for permanent attachment to an operative electric device, said shield normally hiding the electric device and adapted to be moved to expose said device for operation and to return to its normal position automatically, substantially as described.

2. A warning device comprising a frame, a movable shield mounted on said frame and adapted normally to hide an operative electric device, and an arm pivotally connected to the frame and permanently located as a support for the shield and frame, and the frame being manually movable on its pivot and limited in such movement by a stop so as to return automatically to its normal position after manual operation, substantially as described.

3. A warning device comprising a vertically disposed frame having a lug near the top for pivotal mounting, a supporting arm pivotally connected to said lug and having a base adapted for permanent mounting near an operative electric device, and a shield bearing a warning and carried by said frame and normally closing an opening therein opposite the operative electric device, said frame being movable to expose the electric device and allow authorized operation thereof, substantially as described.

4. A warning device comprising a frame having an extension, a movable shield mounted on said frame and adapted normally to hide an operative electric device, and a supporting arm pivotally connected to the frame and engaged by said extension in normally vertical position of the frame,—said arm being adapted for permanent mounting adjacent to the operative electric device.

5. The combination with a push-button of a warning device comprising a shield normally vertically disposed in front of said push-button and provided with a supporting arm and base,—said base having a curved end and horns at each side corresponding to the contour of said push-button and permanently fastened adjacent thereto, and said shield being movable from its normal position to allow operation of said push-button.

In testimony whereof I have affixed my signature.

BENJAMIN ROTH.