

(No Model.)

E. A. CLARK.
ELECTRICAL PUSH BUTTON.

No. 540,949.

Patented June 11, 1895.

Fig. 1.

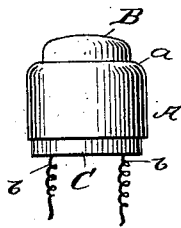


Fig. 2.

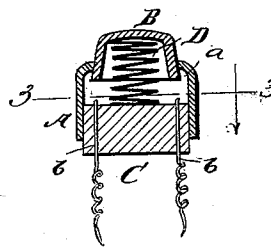


Fig. 3.

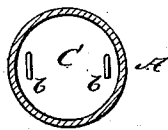


Fig. 4.

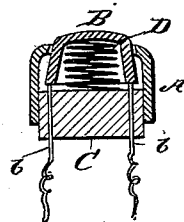
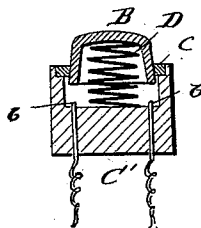


Fig. 5.



WITNESSES:

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ELECTRICAL PUSH-BUTTON.

SPECIFICATION forming part of Letters Patent No. 540,949, dated June 11, 1895.

Application filed January 24, 1895. Serial No. 536,072. (No model.)

To all whom it may concern:

Be it known that I, EDWIN A. CLARK, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Electrical Push-Button, of which the following is a full, clear, and exact description.

The object of the invention is to construct a simple, compact and inexpensive electrical push button, which may be inserted in a circular cavity formed by a bit in wood or by a drill in stone.

The invention consists in a ferrule having an inwardly turned flange or fillet, a plug of insulating material carrying two contact points, a metallic cap having flaring sides inserted in the ferrule and adapted to touch the two contact points, and a spring resting upon the insulating plug and pressing the cap outwardly away from the contact points, all as will be hereinafter more fully described.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of my improved push-button. Fig. 2 is a vertical transverse section. Fig. 3 is a horizontal section taken on line 3 3 in Fig. 2. Fig. 4 is a vertical transverse section showing the cap depressed and forming contact with the two contact-points, and Fig. 5 is a vertical transverse section of a modified form.

The ferrule A, which is formed of metal or other suitable material, has an inwardly turned flange or fillet *a*, and in the end of the ferrule thus contracted is inserted a cap B, having flaring sides. The smaller end of the cap projects through the fillet at the end of the ferrule, while the larger end is of greater diameter than the opening in the ferrule. In the larger end of the ferrule is inserted a plug C, of insulating material, in which are inserted the contact points *b* which are to be connected with the circuit wires. In the

present case the contact points are formed by boring two pairs of holes through the insulating plug C, and inserting therein looped wires, as shown in Fig. 3, each loop forming a contact point, the distance between the loops being equal to the diameter of the larger and inner portion of the cap B. In the cap is placed a spiral spring D, which rests upon the insulating plug and pushes the cap B outwardly away from the contact points *b*. When the cap *b* is depressed, as shown in Fig. 4, it touches both contact points, and the circuit is completed through the cap. When it is released the spring D pushes the cap outwardly and breaks the circuit.

In the modification shown in Fig. 5, the body C' of insulating material is recessed to receive the spring D, and a ring *c* is inserted in the rabbet in the outer end thereof for receiving and holding the cap B. The action of this form of push button is the same as that already described.

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

1. A push button, formed of a flaring frusto-conical cap of conducting material forming a spring receptacle, a ferrule having a fillet for engaging the larger end of the cap, a body of insulating material, contact points inserted therein, and a spring resting on the body of insulating material and extending into the cap, substantially as specified.

2. A push button formed of a casing having an inwardly projecting rim, a flaring frusto-conical metallic cap engaged by the rim, contact points held in the path of the cap, and a spring extending into the cap for automatically separating the cap from the contact points, substantially as specified.

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Witnesses:

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D. A. KEISTER.