(No Model.)

W. F. STOCKER.

ELECTRIC CIRCUIT CLOSER.

No. 377,538. Patented Feb. 7, 1888.

Fig. 1.

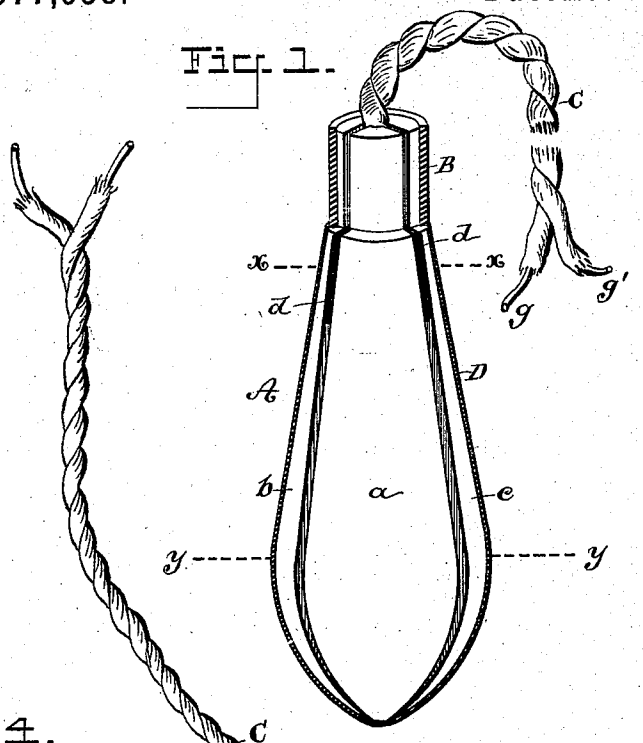


Fig. 5.

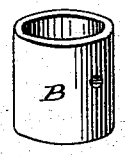


Fig. 4.

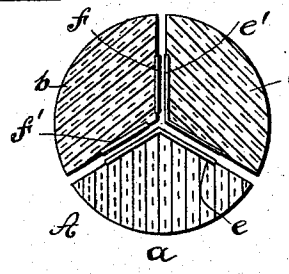


Fig. 3.

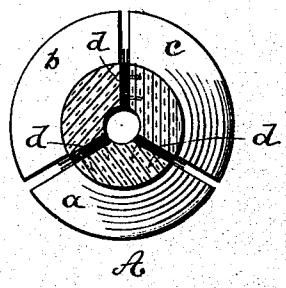
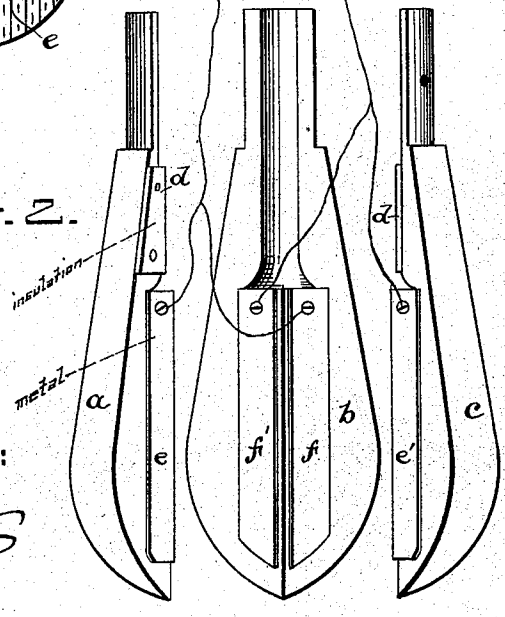


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM F. STOCKER, OF EUREKA, KANSAS, ASSIGNOR TO WILLIAM H. BYERS, OF SAME PLACE.

ELECTRIC-CIRCUIT CLOSER.

SPECIFICATION forming part of Letters Patent No. 377,538, dated February 7, 1888.

Application filed February 2, 1887. Serial No. 226,279. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. STOCKER, of Eureka, in the county of Greenwood and State of Kansas, have invented a new and improved Electric-Circuit Closer, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a perspective view, partly in section, of my improved circuit-closer. Fig. 2 is a side elevation of the sections of the handle of the circuit-closer separated from each other to show their electrical connections. Fig. 3 is a transverse section taken on line *x x* in Fig. 1. Fig. 4 is a transverse section taken on line *y y* in Fig. 1, and Fig. 5 is a detail view of the ferrule which confines the ends of the sections of the handle.

Similar letters of reference indicate corresponding parts in all the views.

The object of my invention is to provide a pendent circuit-closer, which will close the circuit with certainty whenever it is grasped by the hand.

My invention consists in a handle of non-conducting material divided longitudinally into three equal parts, each part carrying a plate connected with one of the electrical conductors, the smaller ends of the three sections of the handle being confined by a ferrule, so as to allow the free ends of the sections to spring when pressed by the hand, all as hereinafter more fully described.

The handle A is formed of wood or other insulating material, and is divided longitudinally into three sections, *a b c*. The handle is preferably made pear shape; but it may be made in any convenient form. The ends of the sections at the smaller end of the handle are inclosed by a ferrule, B, which binds the ends tightly together. The sections *a c*, outside of the ferrule, are separated a short distance by plates *d*, of insulating material, and all of the sections are arranged to spring apart to insure the breaking of the circuit when the handle is released.

To the section *a* is attached a metallic plate, *e*, which is angled to fit over the angle of the handle-section. To the section *c* is attached a similar plate, *e'*, and to the section *b* are attached plates *f f'*, on the plane faces of the inner surfaces of the section, near the angle thereof. The handle is bored axially from the smaller end down to the plates *e e' f f'*, and a flexible cord, C, carrying two conductors, *g g'*, is inserted in the bore of the handle. The conductor *g'* is split, and one part thereof is connected with the plate *f'*, attached to the handle-section *b*. The other part is connected with the plate *e'*, attached to the handle-section *c*. The conductor *g* is split and connected in a similar way with the plate *f* of the handle-section *b*, and with the plate *e* of the handle-section *a*. Arranged in this manner, when any two of the sections of the handle are brought together, the electric-circuit will be closed between two of the plates *e e' f f'*.

To exclude dust, and to give the handle a uniform appearance, it is provided with a covering, D, of elastic rubber, cloth, or other flexible material.

I am aware that circuit-closers have been made with two parts adapted to be brought together by the pressure of the hand to complete the circuit. Therefore I do not claim that construction. My improved circuit-closer, being made of three parts, has an advantage over the one formed of two parts, in that a pressure upon opposite sides of the three-part handle will establish an electric contact without regard to the direction of the pressure, thus permitting of using the circuit-closer without giving any attention as to how it is grasped in the hand.

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

1. The combination, in an electric-circuit closer, of the axially-bored handle A, formed of the sections *a b c*, the ferrule B, surrounding the smaller end of the handle, the contact-plates *e e' f f'*, carried by the handle-sections, the split conductor *g*, connected with the plates *e f*, and the split conductor *g'*, connected with the plates *e' f'*, substantially as described.

2. As an improved article of manufacture, a circuit-closer formed of the handle A, bored axially and divided into three sections, *a b c*, the ferrule B, surrounding the smaller end of the handle, the contact-plates *e f e' f'*, attached to the sections of the handle, the flexible cord C, provided with conductor *g g'*, connected with the contact-plates, and the flexible covering D, substantially as described.

WILLIAM F. STOCKER.

Witnesses:

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