J. F. SCHEUER.

THERMAL CIRCUIT CLOSER.

APPLICATION FILED FEB. 8, 1913.

1,076,607. Patented Oct. 21, 1913.

Fig. 2.

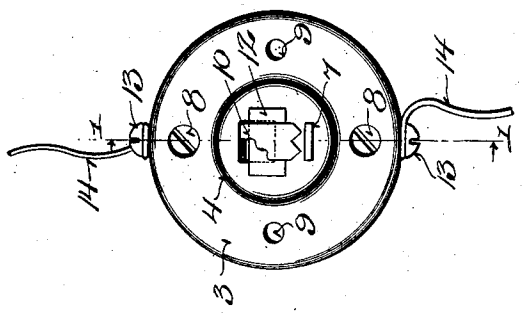
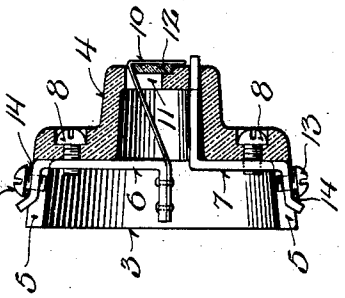


Fig. 1.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH F. SCHEUER, OF TWO RIVERS, WISCONSIN.

THERMAL CIRCUIT-CLOSER.

1,076,607. Specification of Letters Patent. Patented Oct. 21, 1913.

Application filed February 8, 1913. Serial No. 747,149.

To all whom it may concern:

Be it known that I, JOSEPH F. SCHEUER, a citizen of the United States, and resident of Two Rivers, in the county of Manitowoc and State of Wisconsin, have invented certain new and useful Improvements in Thermal Circuit-Closers; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention consists in what is herein particularly set forth with reference to the accompanying drawings and pointed out in the claims of this specification, its object being to provide simple, economical and efficient thermal circuit-closers of the fusible type and which are applicable as parts of automatic electric-signaling apparatus to be individually operative in the event of an increase of temperature in the vicinity thereof beyond a predetermined degree, the construction of said circuit-closers being such as to facilitate testing of a line in which any one of the same is utilized.

Figure 1 of the drawings represents a sectional view of a fusible thermal circuit-closer in accordance with my invention on the plane indicated by line 1—1 in Fig. 2, and said Fig. 2 represents a front elevation of said circuit-closer.

Referring by numerals to the drawings, 3 indicates the shell and 4 the forwardly projecting central boss of a hollow insulator for attachment to a wall or other support, said insulator being of any suitable material and preferably of the circular form shown. The wall of the insulator-shell 3 is provided with diametrically opposite recesses 5, and engaging these recesses are ends of angular conductor-plates 6, 7. Screws 8 extend through preferably countersunk apertures in the front of the insulator-shell and engage said conductor plates to hold the same in place against opposing inner surfaces of said shell. Other apertures 9 are provided in the shell-front for the passage of screws by which the insulator is attached to a support.

Within the shell 3 of the insulator, a spring contact 10 is riveted or otherwise fastened to a rearwardly extending end of the conductor-plate 6, and said contact extends through a play-opening 11 in the front of the insulator-boss 4. The outer end of the contact 10 is bent at an acute angle to the remainder thereof and extends over a fusible-block 12 for which a seat is provided in said boss. The fusible-block serves to hold the spring-contact out of engagement with the opposing outer end of the conductor-plate 7 that extends through another opening in the front of the insulator boss.

Binding-screws 13 for electric-current distribution-wires 14 engage the outer ends of the conductor-plates 6 and 7, and the circuit-closer as a whole is thus arranged in series with other devices of an electric-signaling apparatus not shown. Melting away of the fusible-block 12 permits the spring-contact 10 to close on the opposing conductor-plate 7, and thus the signaling apparatus is energized. Any time it is desirable to test the line the spring-contact and the opposing conductor-plate may be temporarily connected by a suitable bridge applied thereto.

I claim:

1. A thermal circuit-closer comprising a hollow insulator attachable to a support and having wall-recesses, a pair of conductor-plates secured in the insulator and exposed through said recesses thereof for connection with electric-current distribution-wires, a spring-contact attached to one of the conductor-plates and exposed through a play-opening provided in the front of the insulator through which the other conductor-plate is extended in the path of the contact, and a fusible-block arranged in connection with said insulator to normally hold said contact away from the opposing conductor-plate.

2. A thermal circuit-closer comprising a hollow insulator attachable to a support and having wall-recesses, a pair of conductor-plates secured in the insulator and exposed through said recesses thereof, binding-screws engaging the exposed ends of said plates, a spring-contact attached to one of the conductor-plates and exposed through a play-opening provided in the front of the insulator through which the other conductor-plate is extended in the path of the contact, and a fusible-block arranged in connection with said insulator to normally hold said contact away from the opposing conductor-plate.

3. A thermal circuit-closer comprising a hollow insulator attachable to a support and having wall recesses, a pair of conductor-plates secured in the insulator and exposed through said recesses thereof for connection with electric-current distribution-wires, a spring-contact attached to one of the conductor-plates and exposed through a play-

opening provided in the front of the insulator, the outer end of the contact being bent at an acute angle to the remainder thereof in opposition to the other conductor plate that is also exposed through said front of the insulator; and a fusible-block arranged in connection with said insulator under the bent end of said contact that is thus normally held away from the opposing conductor-plate.

4. A thermal circuit-closer comprising a hollow insulator in the form of a shell having a forward central boss, the shell being provided with front apertures for the passage of attaching screws, conductor-plates within the shell of the insulator to which they are secured by screws engaging other apertures provided in the shell-front, there being an exposure of ends of the plates in recesses with which the wall of said shell is provided; binding-screws engaging said ends of said plates, a spring-contact attached to one of the conductor plates and exposed through a play-opening in the front of said boss through which the other conductor-plate is extended in the path of the contact, and a fusible-block seated in the aforesaid boss to normally hold said contact away from the opposing conductor-plate.

In testimony that I claim the foregoing I have hereunto set my hand at Two Rivers in the county of Manitowoc and State of Wisconsin in the presence of two witnesses.

JOSEPH F. SCHEUER.

Witnesses:
PETER SCHROEDER,
W. A. PRIEGNITZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."