No. 850,365. PATENTED APR. 16, 1907.

W. E. HARKNESS.

ALARM FUSE.

APPLICATION FILED FEB. 24, 1906.

Fig. 1

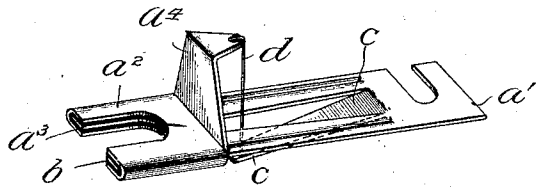


Fig. 2

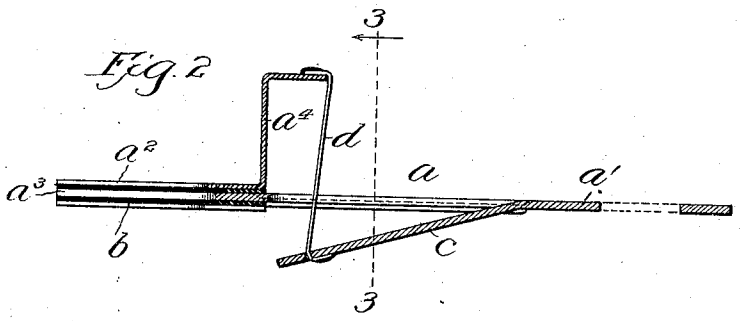
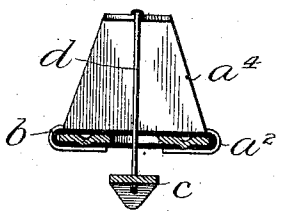


Fig. 3



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM E. HARKNESS, OF CHICAGO, ILLINOIS, ASSIGNOR TO WESTERN ELECTRIC COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

ALARM-FUSE.

No. 850,365. Specification of Letters Patent. Patented April 16, 1907.

Application filed February 24, 1906. Serial No. 302,667.

To all whom it may concern:

Be it known that I, WILLIAM E. HARKNESS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Alarm-Fuses, of which the following is a full, clear, concise, and exact description.

My invention relates to an alarm-fuse, and has for its object to provide an improved and efficient device which will be very simple and cheap to manufacture.

I will describe my invention particularly by reference to the accompanying drawings, which represent the preferred embodiment thereof, reserving for the appended claims a statement of the parts, improvements, and combinations which I consider novel with me.

In the drawings, Figure 1 is a perspective view of an alarm-fuse embodying my invention. Fig. 2 is a longitudinal sectional view thereof, and Fig. 3 is a transverse sectional view on line 3 3 of Fig. 2.

The same letters of reference are used to designate the same parts wherever shown.

The alarm-fuse shown is especially adapted for use in telephone-exchanges in order to guard the apparatus against abnormal currents, the fuses when blown bringing about the closure of a grounded alarm-circuit well known in the art.

The flat body portion a of the fuse shown and the terminal a' thereof at one end of the body portion are formed integrally, being stamped from a single piece of metal. The body portion supports at its other end an insulated terminal a^2, said body portion having an extension a^3, adapted to fit within the terminal a^2, which preferably comprises a flat metal collar, an insulating-sleeve b being interposed between the collar and extension a^3.

A spring-tongue c is secured at one end to the body portion, being preferably struck out from said body portion, and lies at the rear of the body portion with its free end adjacent the terminal a^2, a fuse-wire d electrically connecting the tongue with said terminal a^2 while maintaining the tongue under tension. The terminal a^2 preferably carries on its front surface an angular extension or arm a^4, to which one end of the fuse-wire d is secured, the other end being secured to the tongue c. The fuse-wire passes through the opening in the body portion formed by the striking out of said tongue. The body portion a is preferably corrugated, as shown, to give the device strength.

In practice when the spring-tongue c is released by the blowing of the fuse it closes an alarm-circuit containing a bell or other suitable signal device.

With my arrangement it will be seen that the fuse comprises the minimum number of parts for assembly and is substantial in construction, while very simple and cheap to manufacture.

I claim—

1. An alarm-fuse comprising a body portion of metal, a terminal at one end of said body portion formed integrally therewith, an insulated terminal upon the other end of said body portion, a spring-tongue secured at one end to said body portion, an extension of said insulated terminal on the side of the body portion opposite said tongue, and a fuse passing through an opening in said body portion and uniting said extension with the free end of said tongue, and maintaining said tongue under tension.

2. An alarm-fuse comprising a metal body portion, a terminal at one end thereof formed integrally therewith, an insulated terminal at the other end of said body portion, a spring-tongue struck out from said body portion, an extension of said insulated terminal, and a fuse connecting said tongue and extension and holding said tongue under tension.

3. An alarm-fuse comprising a body portion and terminal at one end thereof, said parts being stamped from a single piece of metal, a flat metal collar or terminal fitting over the other end of said body portion, an insulating-sleeve between said collar and body portion, an angular extension of said collar, a spring-tongue stamped from said body portion and lying on the side of the body portion opposite said extension, and a fuse-wire connecting said tongue and extension to maintain said tongue under tension.

4. An alarm-fuse comprising an integrally-

formed metal body portion, spring-tongue, and terminal, an insulated terminal carried by said body portion, and a fuse-wire electrically connecting said tongue and insulated terminal and maintaining said tongue under tension.

In witness whereof I hereunto subscribe my name this 20th day of February, A. D. 1906.

WILLIAM E. HARKNESS.

Witnesses:
ROY T. ALLOWAY,
E. F. BEAUBIEN.