H. W. YOUNG.

ELECTRICAL FUSE.

APPLICATION FILED DEC. 14, 1912.

1,067,568. Patented July 15, 1913.

Fig. 1.

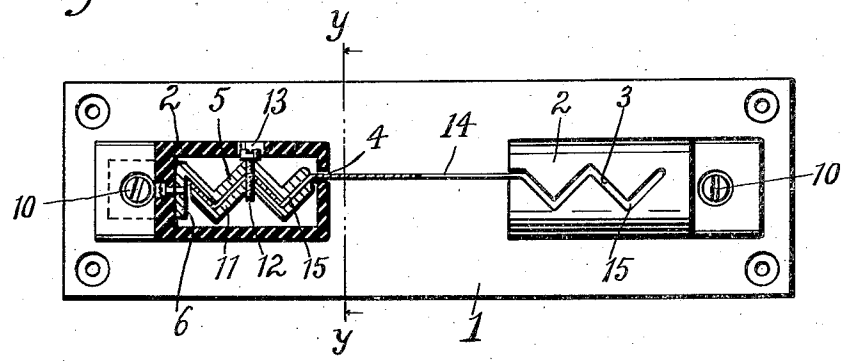


Fig. 2.

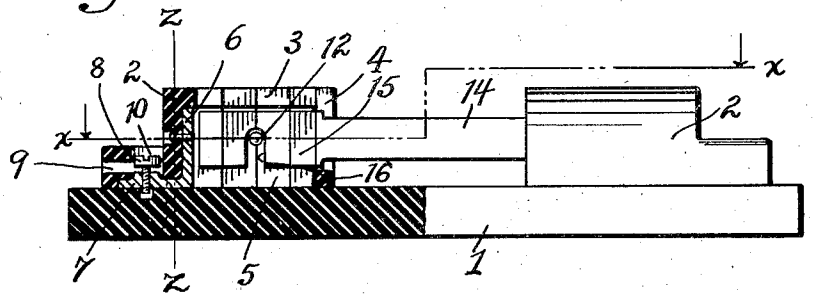


Fig. 3.

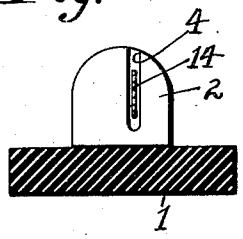
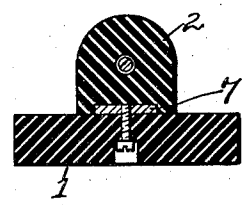


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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ELECTRICAL FUSE.

1,067,568. Specification of Letters Patent. Patented July 15, 1913.

Application filed December 14, 1912. Serial No. 736,842.

To all whom it may concern:

Be it known that I, HARRY W. YOUNG, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Electrical Fuses, of which the following is a specification.

My invention relates to improvements in electrical fuses and has for its object the provision of an electrical fuse so constructed as to prevent the substitution of a fuse member having a different capacity from that for which a fuse is designed and intended, thus insuring the proper supply of current, and at the same time preventing an oversupply.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a section, taken on line *x*—*x* of Fig. 2, of an electrical fuse embodying my invention, Fig. 2, a side view of the fuse, shown partially in section, Fig. 3, a section taken on line *y*—*y* of Fig. 1, and Fig. 4, a section taken on line *z*—*z* of Fig. 2.

The preferred form of construction as illustrated in the drawings comprises a suitable base plate 1 made of slate or other suitable insulating material. Two insulating casings 2 made of porcelain, fiber, or other insulating material, are secured to said plate in any usual or desired manner. Each of the casings 2 is provided with a zig-zag slot 3 in its top and with a vertical slot 4 in its inner face communicating with slot 3 as indicated. A metallic abutment member 5, made of sheet metal in zig-zag form, is arranged in each of the casings 2, with one side thereof registering with the corresponding side of slot 3. Each of these abutment members 5 is carried by a plate 6 secured to the outer wall of casing 2 and provided with a horizontal extension 7 carrying a binding screw 8. An opening 9 is provided in the outer end of each of the casings 2 leading to binding screw 8 to permit of the insertion of a wire to make contact with said binding screw, an opening 10 being provided in casing 2 for the accommodation of a screw-driver to be used in tightening screw 8 on such a wire. A clamping plate 11, also made of sheet metal in zig-zag form to fit abutment member 5 is also provided in each of the casings 2, and a clamping screw 12 is threaded in plate 11 and passes loosely through abutment 5 to serve as a means for drawing said clamping plate toward said abutment to clamp a member therebetween. An opening 13 is provided in the wall of each of the casings 2 for the accommodation of a screw-driver in tightening screw 12. A fuse member 14, in the form of a flat strip, is provided at its ends with a zig-zag portion 15 adapted to pass through slot 3 and fit between clamping plate 11 and abutment 5 in the casings 2, the slots 4 permitting of the insertion of such zig-zag portions. Each of the zig-zag portions 15 is provided with a notch 16 to pass over the corresponding screw 12 when inserted as explained above. By this construction it will be observed that only a fuse member having its ends formed in a distinctive manner to fit the slots 3 and the sockets formed between clamping plates 11 and abutments 5 can be employed. Thus by providing different styles of slots and clamping sockets for fuse holders of different capacities, and by providing fuse members with ends shaped to fit only the slots and sockets of the fuse holders for which they are designed, the insertion of a fuse member having a different capacity from that for which the fuse holder is designed and intended, is prevented. From this explanation it will be seen that only the fuse member which is adapted to carry the current for which a certain system is designed and intended can be employed in conjunction with my improved fuse holder, and that in this manner, it is rendered certain that the system in which this fuse holder is installed will always have a sufficient amount of current supplied thereto but never too much. This will prevent the over-loading of the system either through design or ignorance and thus add to the efficiency of the service.

While I have illustrated and described the preferred form of construction for carrying my invention into effect this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth but desire to avail myself of such variations

and modifications as come within the scope of the appended claims.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a device of the class described, the combination with a terminal socket having a distinctive shape, of a fusible member provided with a portion shaped to fit said socket; and an insulating casing for said socket having an entry slot of the same shape as said socket and adapted to permit the insertion of said fusible member portion in said socket, substantially as described.

2. In a device of the class described, the combination with a terminal socket having a distinctive shape, of a fusible member provided with a portion shaped to fit said socket, and an insulating casing for said socket having an entry slot of the same shape as and registering with said socket, substantially as described.

3. In a device of the class described, the combination with terminal sockets having distinctive shapes, of fusible members provided with portions shaped to fit said sockets, and insulating casings for said sockets having entry slots of the same shape as and registering with said sockets, substantially as described.

4. The combination with terminal sockets each comprising an abutment in zig-zag form; a clamping plate in zig-zag form to fit each of said abutments; a screw for drawing said plate toward said abutment; and an insulating casing for each of said sockets having an entry slot of the same shape as and registering with said socket, substantially as described.

5. A device of the class described, comprising a casing provided with a slot of distinctive shape; clamping means in said casing; and a fuse member shaped to pass through said slot, substantially as described.

6. A device of the class described, comprising a casing provided with a slot of zig-zag shape; clamping means in said casing; and a fuse member shaped to pass through said slot, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HARRY W. YOUNG.

Witnesses:

JOSHUA R. H. POTTS,

HELEN F. LILLIS.