

Aug. 27, 1935.

H. STUECKMANN

2,012,898

FUSE

Filed May 19, 1933

Fig. 1.

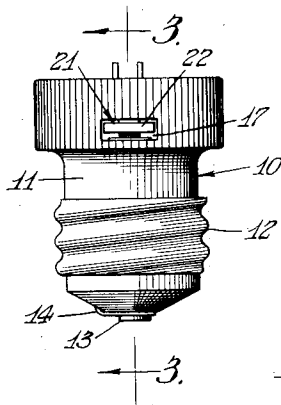


Fig. 2.

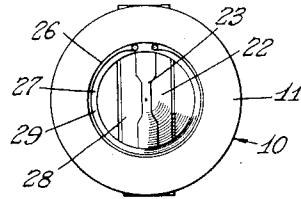


Fig. 3.

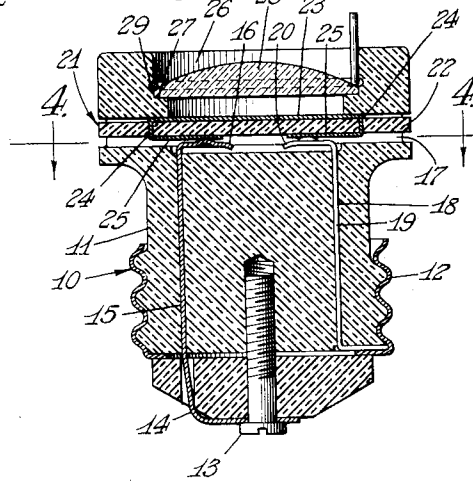


Fig. 4.

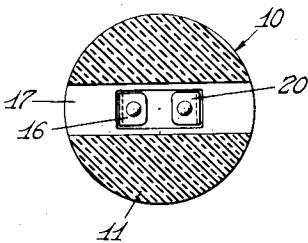
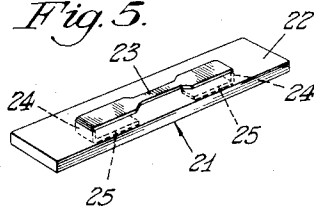


Fig. 5.



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HIS ATTORNEYS

UNITED STATES PATENT OFFICE

2,012,898

FUSE

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Application May 19, 1933, Serial No. 671,912

3 Claims. (Cl. 200—130)

This invention relates to certain novel improvements in fuses, and has for its principal object the provision of an improved construction of this character which will be highly efficient in use and economical in manufacture.

An object of this invention is to provide a new replaceable or renewable fuse of the plug type.

Another object of the invention is to provide a new replaceable or renewable plug type fuse including a non-conductive body having an opening formed therein and a magnifying lens arranged in the said opening to magnify the fusible strip and thereby facilitate determining the condition of the fusible strip.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing, showing the preferred form of construction and in which:

Fig. 1 is a side elevational view of a preferred form of the new fuse;

Fig. 2 is a top plan view of the same;

Fig. 3 is a longitudinal sectional view on line 3—3 in Fig. 1;

Fig. 4 is a transverse sectional view on line 4—4 in Fig. 3; and

Fig. 5 is a perspective detail view of the replacement cartridge.

The new fuse is generally indicated at 10 in the drawing, is of the plug type, and includes an electrically non-conductive body 11 around which is a corrugated, threaded contact ring 12.

Mounted on the body 11 is a contact screw 13 to which is attached one end of a conductive metal strip 14. This strip 14 extends through a longitudinal slot 15 formed in the body 11 and has a resilient angled contact end portion 16 arranged in a slot 17 that extends transversely through the body 11.

Having one end attached to the contact ring 12 and extending through a longitudinal slot 18 that extends through the body 11 parallel to the slot 15 is a conductive strip 19 which has a resilient angled contact end portion 20 arranged in the transverse slot 17.

The new fuse 10 includes a replacement cartridge, generally indicated at 21, (Fig. 5) and is removably inserted into the transverse slot 17. This cartridge 21 includes an electrically non-conductive mounting 22 and a reversible fusible metal strip 23 mounted thereon. The fusible strip 23 has portions thereof projected through slots 24 formed in the mounting 22; the end portions

25 of the fusible strip 23 being angled under the mounting 22 for engagement with the resilient end portions 16 and 20 of the strips 15 and 19, respectively. The cartridge 21 is held in the transverse slot 17 by the bearing action of the resilient contact end portions 16 and 20 against the angled contact end portions 25 of the fusible strip 23.

Provided in the body 11 is an opening or recess 26 which communicates at its inner end with the transverse slot 17. Arranged in the recess or opening 26, upon a flange or bezel 27 of the body 11, is a magnifying transparent glass lens 28 which is held in position by a clamping ring 29. The lens 28 magnifies the size of the fusible strip 23 as seen therethrough, readily enabling it to be determined whether or not the fusible strip 23 is intact or has been fused. In the latter case the fusible strip 23 may be replaced by sliding the cartridge 21 out of the transverse slot 17 and then arranging a new fusible strip 23 upon the mount 22.

The electrically conductive means 12—13—14—19 provides an open circuit having a gap formed therein by or between the resilient contact members 16 and 20. This gap is closed, through the fusible strip 23, by the engagement of the angled end portions 25 thereof with the contact members 16 and 20.

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

1. In an electrical plug having an opening extending through its outer wall, a pair of contact strips associated with said plug and having portions extending into said opening, said contact strips comprising an open circuit and the portions extending into said openings being shaped to provide resilient reaches, a fuse cartridge insertible into said opening and having a fuse strip detachably connected therewith, one wall of said opening comprising an abutment for the fuse cartridge arranged to hold the fuse strip in firm engagement with the resilient reaches of said contact strips.

2. A device of the type described comprising a

plug having a transverse opening extending through its outer wall and positioned inwardly of each end of the plug, a pair of contact strips imbedded in the plug and having reaches extending into said opening, a sight opening formed in one end of the plug and communicating with said opening, and a fuse cartridge insertible in said opening, said fuse cartridge comprising a rigid member having a fuse strip detachably connected therewith, said fuse strip covering a portion of two sides of said rigid member, one portion of the fuse strip engaging the contact strips and the other portion being visible through said sight opening.

3. A device of the type described comprising a plug having a transverse opening extending through its outer wall and located inwardly of each end of the plug, a pair of contact strips imbedded in the plug and having reaches extending into said opening, a sight opening formed in the plug and communicating with said opening, and a fuse cartridge insertible in said opening, said fuse cartridge comprising a rigid member having a fuse strip connected therewith, said strip engaging the contact strips for electrically connecting the same, a portion of said fuse strip being visible through said sight opening.

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