April 14, 1925. 1,533,498

J. H. HICKEY

FUSE

Filed July 11, 1923

Fig. 1.

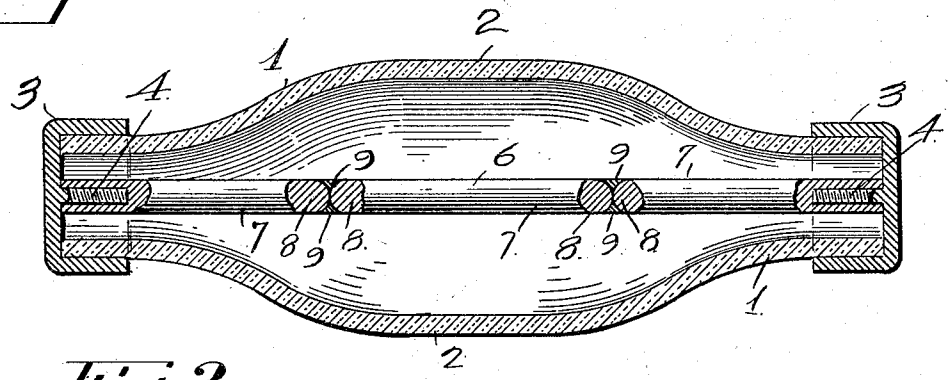


Fig. 2.

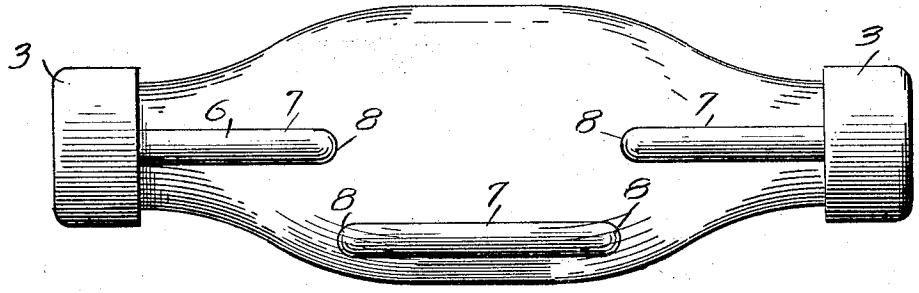
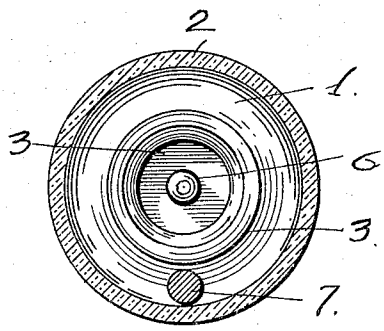


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN H. HICKEY, OF SAN FRANCISCO, CALIFORNIA.

FUSE.

Application filed July 11, 1923. Serial No. 650,902.

To all whom it may concern:

Be it known that I, JOHN H. HICKEY, a citizen of the United States, residing in the city and county of San Francisco, and State of California, have invented a new and useful Improvement in a Fuse, of which the following is a specification.

My invention relates to improvements in fuses, wherein an articulate conductor is provided with segments having semispherical contacting ends which operate in conjunction with a fusible material to provide continuity of said conductor and to separate the said segments when said fusible material is melted.

The primary object of the present invention is to provide a new and improved fuse for electrical circuits and the like.

Another object of the invention is to provide a new and improved fuse of the character described having improved facilities for providing a positive separation of the fuse at a predetermined temperature.

Another object of the invention is to provide a renewable fuse wherein the conductor may be easily and inexpensively replaced.

I accomplish these and other objects by means of the preferred form of the invention disclosed in the drawings forming a part of the present specification wherein like characters of reference are used to designate similar parts throughout the said specification and drawings, and in which—

Fig. 1 is a longitudinal sectional view, with some of the parts partly broken, of my improved fuse;

Fig. 2 is an elevation of the same disclosing the conductor separated or interrupted; and

Fig. 3 is a transverse sectional view of Fig. 2.

Referring to the drawings, the numeral 1 is used to designate a cylindrical container, preferably of glass or some other suitable transparent material, having an enlarged central portion 2 and open ends;

A metallic cap 3 is detachably mounted upon each end of the container 1 and is provided with an inwardly projecting screw 4, the purpose of which will hereinafter be more fully set forth.

An articulate conductor 6 comprises segments 7 having their contacting ends formed semi-spherical as at 8, said contacting ends being held in position to preserve the continuity of said conductor 6 by means of a suitable fusible material 9 as disclosed in Fig. 1 of the drawings.

The end segment of the conductor 6 is provided with internally threaded apertures arranged to be engaged by the threaded screws 4 whereby said conductor 6 is held centrally of the container 1.

When the fusible material 9 is melted by the action of heat at a predetermined temperature the contacting semi-spherical ends 8 of the segments 7 will readily permit a positive and complete separation of the said segments 7 and the central segment 7 will fall to one side of the enlarged central portion 2 of the container 1 thereby effecting a positive and complete separation of the segments whereby a flow of current through the fuse will be prevented.

In renewing a fuse by replacing a new conductor, the caps 3 are removed and a new conductor 6 is screwed onto one of the threaded screws 4 in the cap 3. The assembled conductor is then replaced within the container 1 by inserting the same therein and attaching the attached cap 3 to one of the open ends of the container 1. This will bring the unattached end of the conductor 6 into a central position in the opposite open end of the said container 1 where it may be readily engaged by the screw 4 of the remaining cap 3 and thereby held in operative position.

It is obvious from the foregoing that I have provided a new and improved fuse wherein improved facilities are provided for a positive separation of a conductor when the fuse is blown, and also improved facilities for renewing the conductor easily and inexpensively.

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

1. A fuse comprising an articulate conductor having segments provided with semi-spherical ends; and a fusible material connecting said semi-spherical ends of said segments whereby the same may be separated when said fusible material is melted.

2. A fuse comprising a container having an enlarged central portion; an articulate conductor having segments provided with semi-spherical ends; a fusible material connecting the semi-spherical ends of said segments whereby the same may be separated when said material is melted.

3. A fuse comprising a container having

an enlarged central portion and also having open ends; a metallic cap mounted upon each open end of said container; an articulate conductor detachably connected at the ends thereof to said caps and provided with segments having semi-spherical contacting ends; and a fusible material connecting said semi-spherical ends whereby said segments may be separated when said fusible material is melted.

4. A fuse comprising a cylindrical container having an enlarged central portion and open ends; metallic caps detachably mounted upon the open ends of said container; an articulate conductor mounted centrally of the container and having segments whose outer ends are screw threaded to the caps and whose intermediate contacting ends are semi-spherical; and a fusible material connecting the contacting semi-spherical ends whereby said segments may be separated when said fusible material is melted.

In witness whereof I hereunto set my signature.

JOHN H. HICKEY