

J. H. PALMER.
FUSE.
APPLICATION FILED MAY 24, 1912.

1,052,950.

Patented Feb. 11, 1913.

Fig-1-

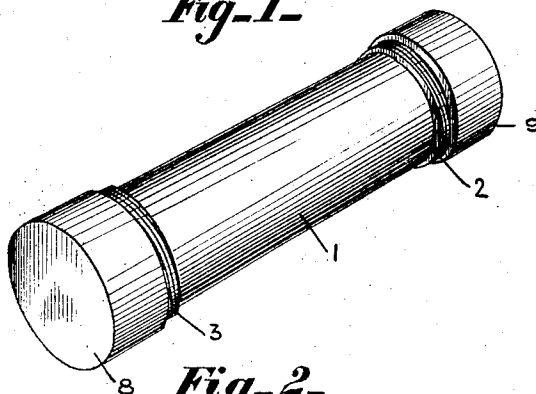


Fig-2-

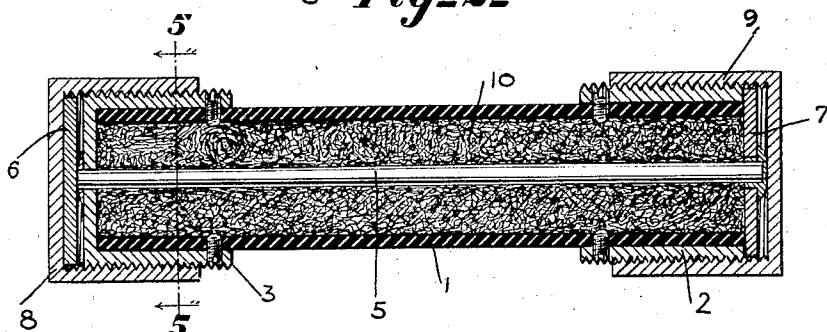


Fig-3-

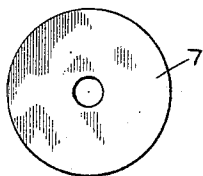


Fig-4-

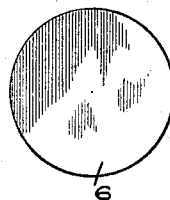
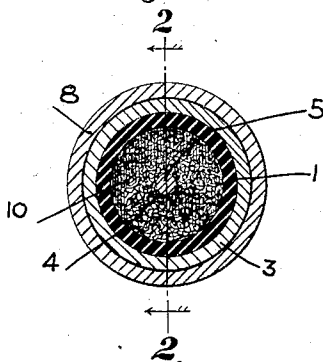


Fig-5-



WITNESSES

Frank C. Palmer.
Benedict Joffe

INVENTOR

James H. Palmer

BY

Mumler

ATTORNEYS

UNITED STATES PATENT OFFICE.

JAMES HOWARD PALMER, OF CHICAGO, ILLINOIS.

FUSE.

1,052,950.

Specification of Letters Patent. - Patented Feb. 11, 1913.

Application filed May 24, 1912. Serial No. 699,434.

To all whom it may concern:

Be it known that I, JAMES H. PALMER, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented a new and Improved Fuse, of which the following is a full, clear, and exact description.

The invention relates to fuses and has reference more particularly to a fuse comprising a shell, an insulated fusible conductor therein, and means whereby a conductor of a carrying capacity not exceeding a predetermined value can be introduced into the shell.

An object of the invention is to provide an inexpensive, simple and durable fuse, in which the fusible conductor can be easily replaced by a new one of the same carrying capacity or one not exceeding a predetermined carrying capacity.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claim.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which:

Figure 1 is an exterior perspective view of an embodiment of my invention; Fig. 2 is a longitudinal section of the same on the line 2-2 of Fig. 5; Fig. 3 is a plan view of a washer constituting part of the fuse; Fig. 4 is a plan view of the disk also forming an element of the device; and Fig. 5 is a cross section on the line 5-5 of Fig. 2.

Before proceeding to a more detailed description of my invention, it should be clearly understood that the shell may be of any form filled with any non-combustible insulating material, that the nipple and cap may be secured in any desired way to the shell and terminal caps, as well as the fusible conductor, which may be secured rigidly to the disk and washer in any manner adapted for this purpose.

Referring more particularly to the drawings, I provide a tubular shell 1 of insulating material, to one end of which a nipple 2 is fixed and to the other end an exteriorly-

threaded cap 3 is secured. The cap 3 is provided with a concentric orifice 4 through which a fusible conductor 5 of a given resistance only is disposed. The fusible conductor 5 at one end is eccentrically soldered to a metallic disk 6, and to the other end extending through the shell is also soldered a washer 7, whereby is formed an electrical connection between the disk 6 and the washer 7, and, consequently, between the metallic terminal caps 8 and 9, screwed on the nipple 2 and the cap 3 and associated with the disk 6 and the washer 7, respectively, the disk 6 and the washer 7 being made to fit loosely into the terminal caps. The space between the fusible conductor and shell is fitted with a non-combustible insulating material 10, preferably of granular form.

To replace the fusible conductor if the same has been destroyed by an excessive current, the terminal caps 8 and 9 are removed so that the disk 6 and washer 7 may be taken out. Then the shell can be emptied of the non-combustible insulating material. A new fusible conductor of the same size as the destroyed one is soldered to the disk 6 and is introduced through the concentric orifice 4 in the cap 3. The terminal cap 8 is then screwed on the cap 3 against the disk 6, thus forming a contact therewith. The shell 1 is again refilled with the non-combustible insulating material, and the washer 7 is then soldered on to the projecting end of the member 5 and the terminal cap 9 secured on the nipple 2 against the washer 7, thus completing the fuse.

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

A fuse comprising a shell of insulating material, an externally threaded cap secured on one end of the shell, an external nipple secured on the other end, said cap having a central opening, metallic terminal caps threaded on to the nipple and the first-named cap, a washer at the outer end of the nipple and between the nipple and the cap, said washer having an opening in alinement with the opening of the first-named cap, a metallic disk between the outer end of the first-named cap and the adjacent terminal

cap, a fuse conductor within the shell having its ends passed through the opening of the cap and the opening of the washer, said ends being secured to the disk and the washer, and a filling of non-combustible insulating material within the shell and encircling the fuse conductor.

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

JAMES HOWARD PALMER.

Witnesses:

HOWARD LINDSEY,

JOHN HORVATH.

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