F. J. PETROVICS.

ELECTRIC FUSE.

APPLICATION FILED NOV. 18, 1918.

1,337,949. **Patented Apr. 20, 1920.**

Fig. 1

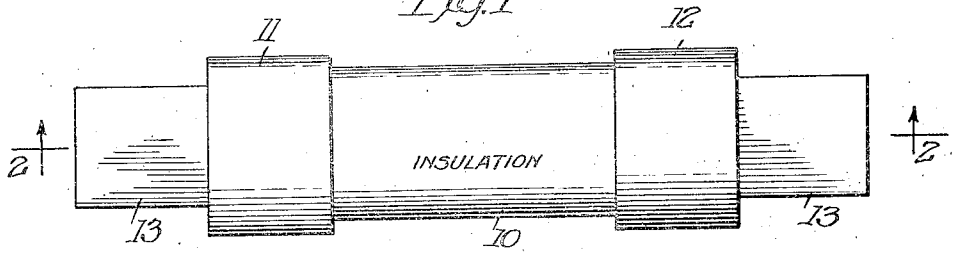


Fig. 2

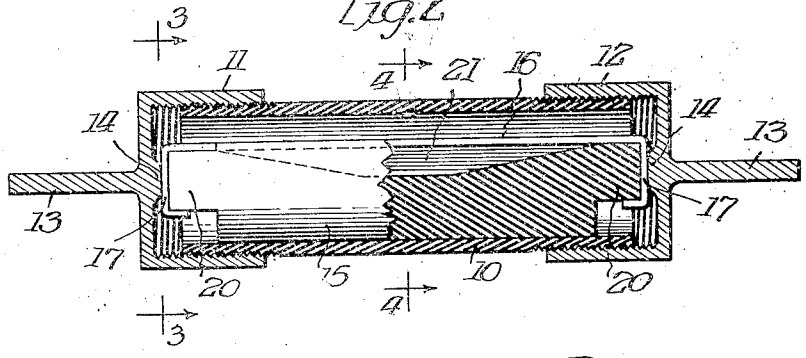


Fig. 3

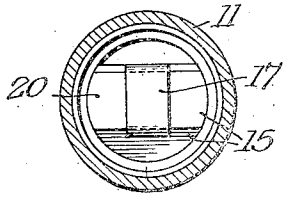


Fig. 5

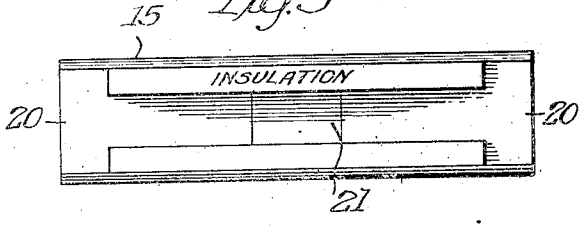


Fig. 4

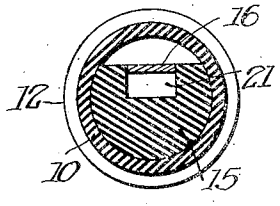
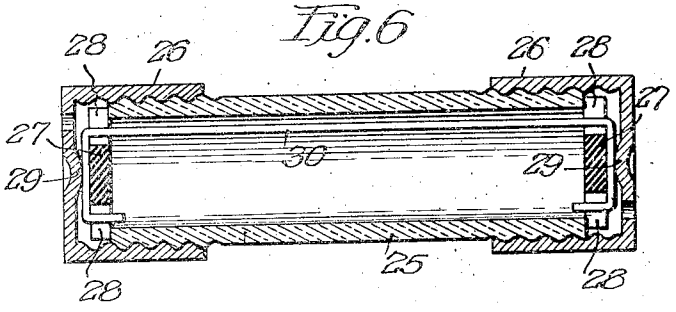


Fig. 6



Witness:

L. W. Novander.

Inventor

Fred J. Petrovics

By E. J. Andrews

Atty

UNITED STATES PATENT OFFICE.

FRED J. PETROVICS, OF CHICAGO, ILLINOIS.

ELECTRIC FUSE.

1,337,949. Specification of Letters Patent. **Patented Apr. 20, 1920.**

Application filed November 18, 1918. Serial No. 263,064.

To all whom it may concern:

Be it known that I, FRED J. PETROVICS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electric Fuses, of which the following is a specification.

This invention relates to electric fuses, and has for its object the production of a fuse case arranged so that the fuse when melted may be quickly replaced by a new fuse; the particular object is the production of such a casing as will admit of the use of a simple form of fuse, and, while inexpensive, will be durable and dependable. In this particular instance I have preferred to illustrate and describe what is ordinarily called a cartridge fuse, but it is to be understood that the invention may be applied to other forms of fuse blocks or casings.

Of the accompanying drawings Figure 1 is a plan view of a fuse cartridge embodying the features of my invention. Fig. 2 is a longitudinal section of the cartridge fuse along the line 2—2 of Fig. 1. Fig. 3 is a transverse section of the cartridge fuse along the line 3—3 of Fig. 2. Fig. 4 is a transverse section along the line 4—4 of Fig. 2. Fig. 5 is a plan view of one of the elements of the cartridge. Fig. 6 is a longitudinal sectional view of a modification of the cartridge.

The fuse cartridge illustrated in Figs. 1 to 5 comprises a casing 10 of any suitable insulating material; I prefer for the purpose ordinary vulcanized fiber. The casing in this instance is cylindrical in form with open ends, and it thus comprises a tube. Caps 11 and 12 are threaded on to the respective ends of the tube 10; each cap having fixed thereto, if desired, an ordinary contact strip 13, and having a boss 14 projecting inwardly from the central portion thereof. When the fuse cartridge is assembled an insulation block 15 is positioned within the tube 10. This block may be of any suitable shape, but is of sufficient length so that when the caps 11 and 12 are screwed in place a fuse 16 having its ends 17 bent substantially at right angles and extending over the ends of the block 15, Fig. 2, the ends 17 would be pressed firmly between the bosses 14 and the ends 20 of the block. When thus assembled the electric circuit is completed between the strips 13, by means of the caps 11 and 12 with the projecting bosses 14 pressing on the ends 17 of the fuse.

I prefer to shape the block 15 as shown in the drawings, so as to have projections 20 at each end extending a material distance beyond the ends of the tube 10, so that the block 15 may be grasped with a tool or by the fingers and easily removed from the cylinder, in case there should be any tendency to bind therein; and also to have a slot 21 extending the full length of the block, in which the fuse 17 is placed; the slot being materially deeper at its central portion than at its ends. This slot not only limits the width of the fuses that can be conveniently used, but also prevents the fuse from being in contact with the plug near the central portion thereof, and thus prevents conduction of heat from the fuse and also any tendency of the metal to form a continuous circuit after it has melted.

Although I have specified that the caps 11 and 12 are screwed onto the respective cylinder ends, yet it is to be understood that one cap only need be screwed on, the cap on the other end being fastened thereon in any suitable manner.

Fig. 6 shows a modified form of a cartridge fuse, comprising a cylinder 25 composed of any suitable insulation material; I prefer glass for the purpose. A cap 26 is threaded onto each end of the tube when the cartridge is assembled; with plates 27 positioned between the respective ends of the cylinder and the caps; the plates having recesses 28 therein, and the caps having bosses 29 formed on the inner surface thereof. When assembled the ends of the fuse 30 are passed through the respective openings 28, turned over across the plates 27 into the opposite openings, and the caps 26 are screwed onto the ends of the cylinder so that the bosses 29 come firmly against the ends of the fuses so as to form good electrical contact therewith.

With this latter form of cartridge the center piece 15 is eliminated; and by the use of glass whether or not the fuse has been blown can readily be determined. The plates 27 may be made of any suitable material, either metallic or insulating. I prefer for the purpose plates of insulation.

I claim as my invention:

1. A refillable fuse case comprising an insulation casing, a metallic cap mounted on

one end of said casing, a metallic cap threaded onto the other end of said casing, and an insulation block positioned within said casing and extending substantially from one end to the other and adapted to hold the respective ends of a fuse firmly against the said caps when the threaded cap is screwed sufficiently onto said cylinder.

2. A refillable fuse case comprising an insulation casing, a metallic cap mounted on one end of said casing, a metallic cap threaded onto the other end of said casing, and an insulation block positioned within said casing and extending substantially from one end to the other and adapted to hold the respective ends of a fuse firmly against the said caps when the threaded cap is screwed sufficiently onto said cylinder, each cap having a boss projecting from the inner end wall.

3. A refillable fuse case comprising an insulation casing, a metallic cap mounted on one end of said casing, a metallic cap threaded onto the other end of said casing, and an insulation block positioned within said casing and extending substantially from one end to the other and adapted to hold the respective ends of a fuse firmly against the said caps when the threaded cap is screwed sufficiently onto said cylinder, said block having a slot therein adapted to receive a fuse, said slot being deeper at the central portion of said block than at the ends thereof.

4. A refillable fuse case comprising an insulation casing, a metallic cap mounted on one end of said casing, a metallic cap threaded onto the other end of said casing, and an insulation block positioned within said casing and extending substantially from one end to the other end adapted to hold the respective ends of a fuse firmly against the said cylinder, said block having a slot therein adapted to receive a fuse, said slot being deeper at the central portion of said block than at the ends thereof, each cap having a projection extending from its inner end surface toward the adjacent plate.

5. A refillable fuse case comprising an insulation casing, a metallic cap mounted on one end of said casing, a metallic cap threaded onto the other end of said casing, an insulation piece fixed adjacent each end of said casing and facing the cap on said end, each of said caps having a boss projecting inwardly near its central portion, and a fuse extending through said casing and having its respective ends positioned between said pieces and the adjacent bosses.

In testimony whereof, I hereunto set my hand.

FRED. J. PETROVICS.