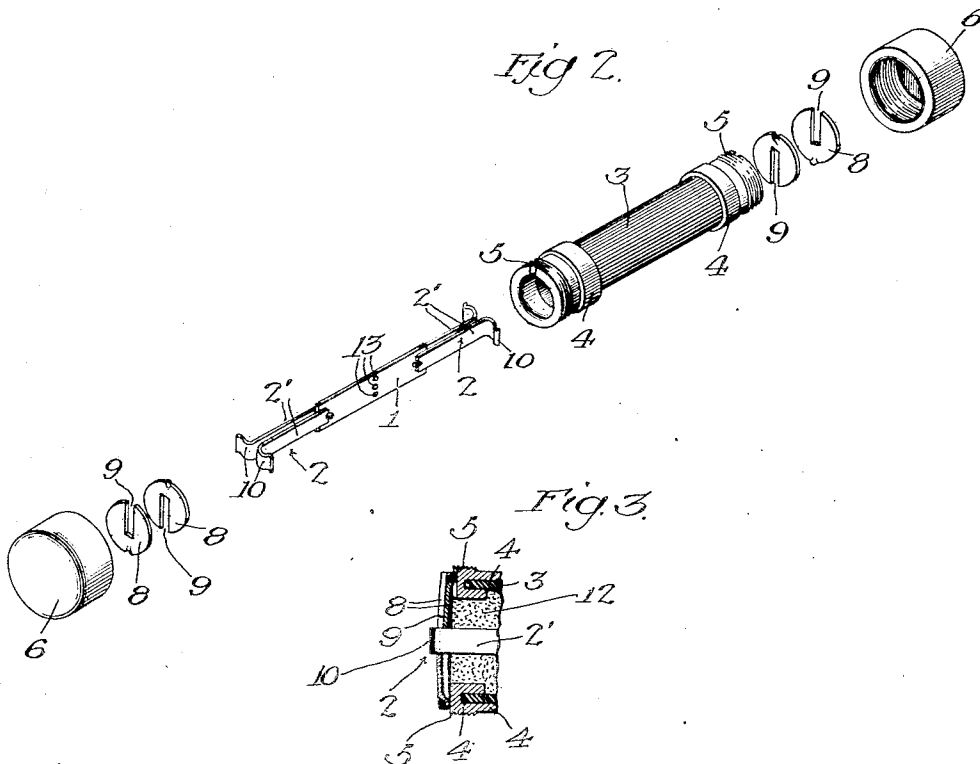
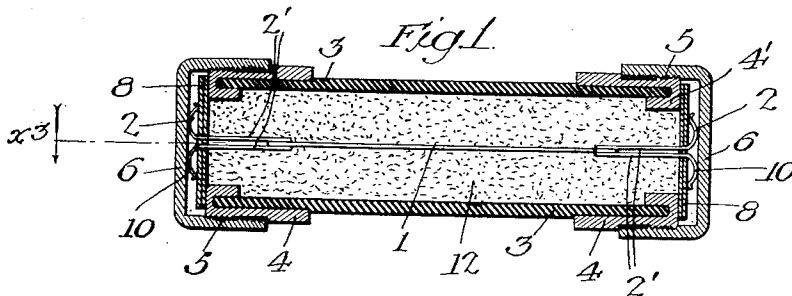


A. J. ORELLI.
 RECHARGEABLE ELECTRIC FUSE.
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961,891.

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Witnesses:
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UNITED STATES PATENT OFFICE.

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RECHARGEABLE ELECTRIC FUSE.

961,891.

Specification of Letters Patent. Patented June 21, 1910.

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To all whom it may concern:

Be it known that I, AGOSTINE J. ORELLI, a citizen of the United States, residing at Longbeach, in the county of Los Angeles and State of California, have invented a new and useful Rechargeable Electric Fuse, of which the following is a specification.

This invention relates to electric fuses which are provided with means for detachably holding the fuse strip so that the fuse can be recharged when the strip burns out.

The main object of the present invention is to provide a fuse of this character which will be simple and cheap of construction and can be quickly and easily recharged.

Another object of the invention is to provide a rechargeable fuse in which the parts will be held tightly in position when in use.

A further object of the invention is to provide a charging fuse in which the contact will be maintained in efficient condition during the operation of the fuse.

Other objects and advantages of the invention will appear hereinafter.

Referring to the drawings; Figure 1 is a longitudinal section of the fuse. Fig. 2, is a perspective showing the parts in separated relation. Fig. 3 is a vertical section of the connector portion of the fuse, taken on the line x^x-x^x in Fig. 1.

The fuse comprises a fuse strip 1, of fusible material, provided with terminal means 2 and a case for inclosing and supporting said strip, and provided with means for engaging said terminal means to conduct the current thereto. Said case comprises a tubular or cylindrical shell 3 of insulating material having metal ferrules 4 fastened on the respective ends thereof, said ferrules, for example, being crimped or pressed over the ends of the shell 3, as shown at 4', so as to be held frictionally and tightly thereon, and said ferrules being provided with screw threaded portions 5 on which screw closure caps 6 at the respective ends of the shell to inclose the fuse. End plates or disks 8 are provided at each end of the shell resting on the end ferrules 4 and supporting the terminals 2 of the strip 1. Each disk 8 has a radial cut or slot 9 to receive the longitudinal portions 2' of the terminal means 2, said longitudinal portions preferably consisting of spring metal strips soldered to the strip 1 and extending longitudinally therefrom with their ends bent over in bow or

curved shape, as shown at 10, to form the contact means.

The device is assembled as follows:—A fuse member 1, 2 is placed within the shell 3 and the slotted disks 8 are placed at the respective ends of said shell, being slipped over the longitudinal portions 2' of the terminals 2, said longitudinal portions extending in the slots 9 of said disks, and the bow spring portions 10 of the terminals 2 extending over the outside of said disks. The interior of the shell may be filled with any suitable insulating refractory filling 12 in the usual manner. The end caps 6 are then screwed onto the ferrules 4, and said caps engaging with the bow spring portions 10 of the terminals 2 serve to make spring contact to said terminals.

By reason of the elastic nature of this contact I am enabled to maintain efficient electric connection for a definite period notwithstanding the expansions and contractions due to changes of temperature in the operation of the device, this being a material advantage over the use of the ordinary flat connectors wherein the cap screws down tightly onto flat connecting strips. The above described construction also does away with the use of fastening pins, such as have been employed for fastening the ferrules to the shell, such pins being necessarily removable and therefore involving an element of looseness and liability to derangement of the parts.

Fuse strips of this character are generally standardized by slotting or notching one edge of the strip so as to reduce the cross section at that point, thereby limiting the capacity of the fuse. In punching or cutting this slot or notch there is liability of slight variation in the depth of the cut with corresponding variation in the capacity. To obviate such variation, I prefer to provide a strip with one or more perforations, indicated at 13, with metal extending between the perforations and each edge of the strip so that when using a punch of definite size there can be no variation in the actual cross section in the strip and a strip of definite capacity is thereby provided.

I prefer to provide a pair of end plates 8 at each end of the fuse, the radial slots in said plates being oppositely directed, so that a complete closure is presented at each end preventing spilling of the filler; said end

plates or disks are preferably made outwardly convex.

What I claim is:

1. A rechargeable electric fuse comprising
 5 a shell of insulating material provided with a metallic ferrule at each end, a disk resting on said ferrule at each end of the shell, said disk being slotted, a fuse strip provided with longitudinally extending terminal strips at
 10 each end thereof, said terminal strips extending within the slots of said disks and being bent over at the ends, and terminal caps screwing on the end ferrules aforesaid and bearing on the bent over portions of said
 15 terminal strips of said fuse strip to make contact therewith.

2. A rechargeable electric fuse comprising a shell of insulating material provided with a metallic ferrule at each end, a disk resting
 20 on said ferrule at each end of the shell, said disk being radially slotted, a fuse strip provided with longitudinally extending terminal strips at each end thereof, said terminal strips extending within the slots of
 25 said disks and being bent over at the ends, and terminal caps screwing on the end ferrules aforesaid and bearing on the bent over

portions of said terminal strips of said fuse strip to make contact therewith, said bent over portions of the terminal strips being
 30 bowed and being of elastic material to provide spring contact.

3. A rechargeable electric fuse comprising a shell of insulating material provided with a metallic ferrule at each end, a pair of disks
 35 resting on said ferrule at each end of the shell, said disks being radially slotted with the slots in the two disks extending in opposite direction, a fuse strip provided with longitudinally extending terminal strips at
 40 each end thereof, said terminal strips extending within the slots of said disks and being bent over at the ends, and terminal caps screwing on the end ferrules aforesaid and bearing on the bent over portions of said
 45 terminal strips of said fuse strip to make contact therewith.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 11th day of February, 1910.

AGOSTINE J. ORELLI.

In presence of—

ARTHUR P. KNIGHT,
 FRANK L. A. GRAHAM.