No. 848,326. PATENTED MAR. 26, 1907.

E. STEINMANN & J. W. SCHOENDELEN.

SAFETY FUSE.

APPLICATION FILED OCT. 10, 1906.

Fig. 1.

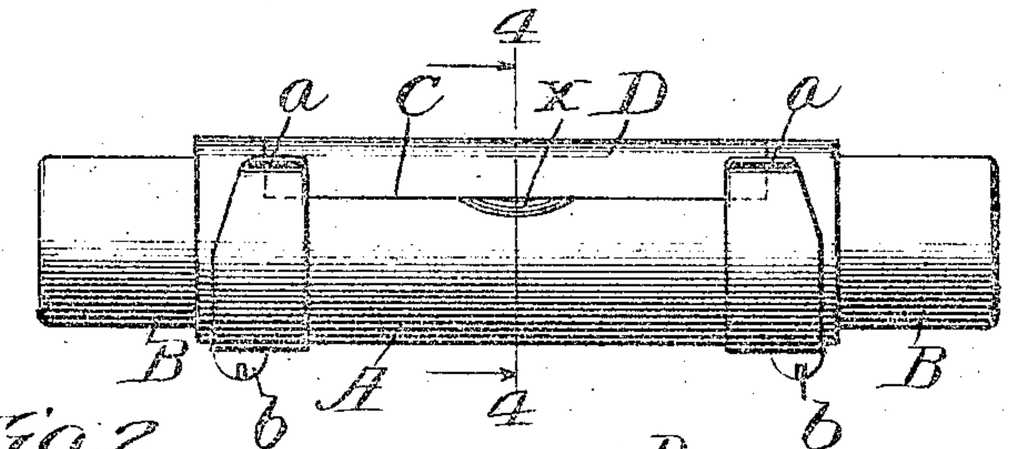


Fig. 2.

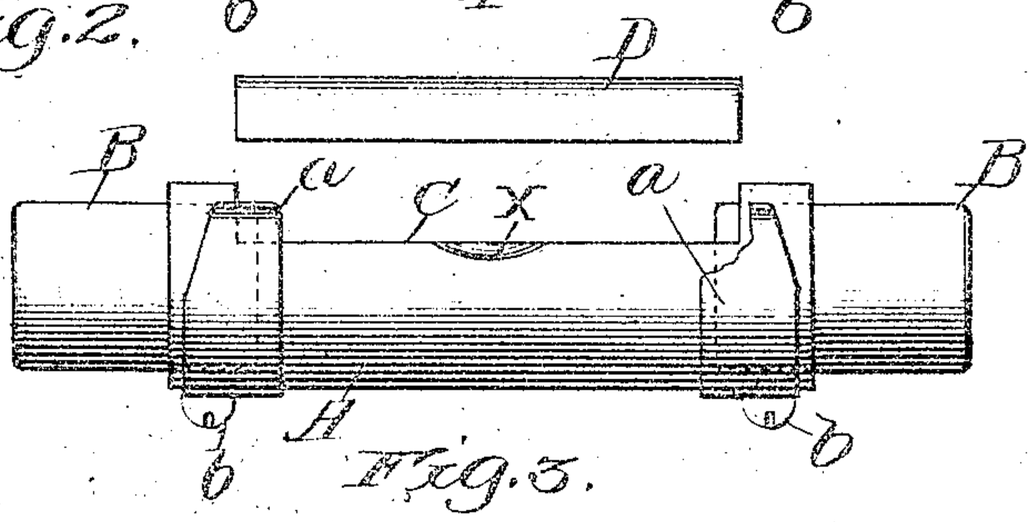


Fig. 3.

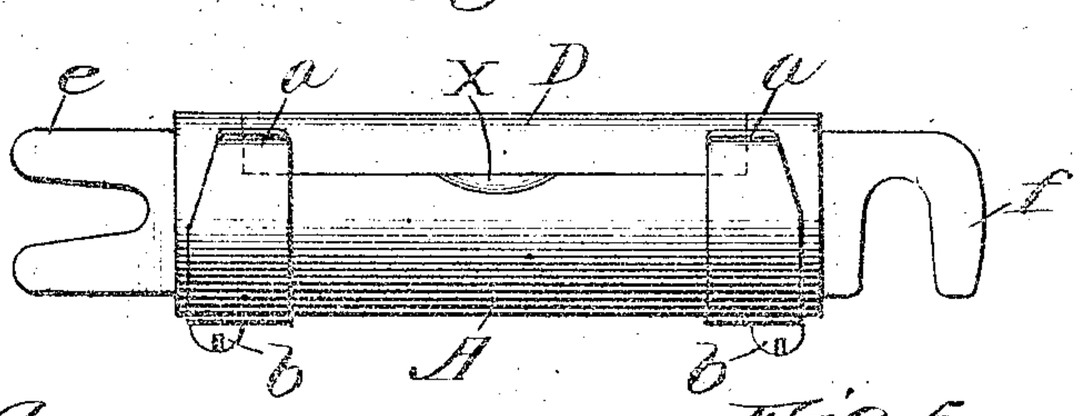
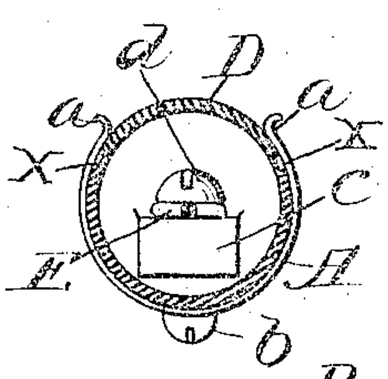


Fig. 4.

Fig. 5.



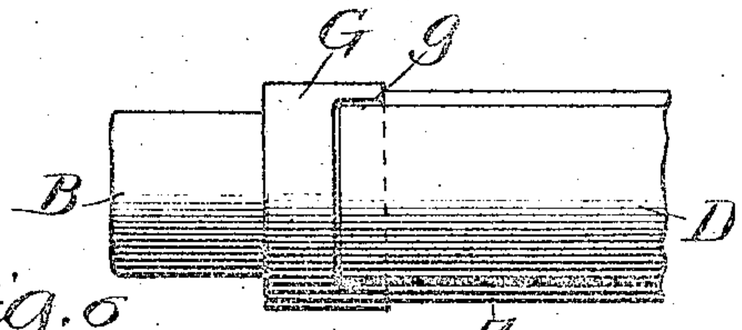
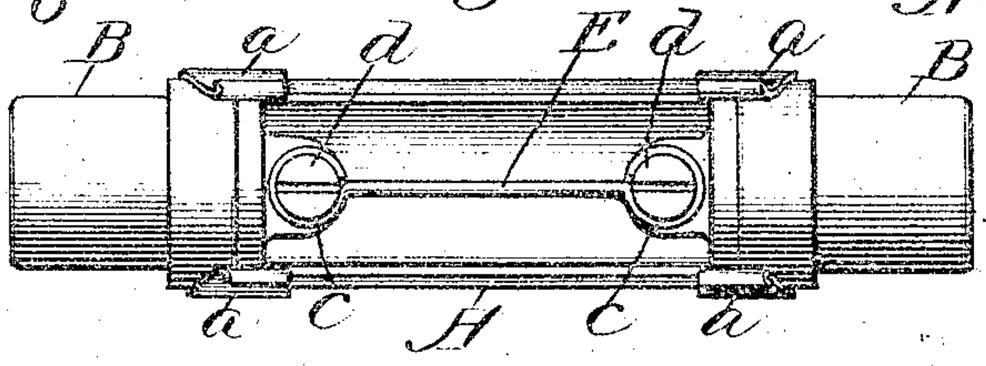


Fig. 6



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UNITED STATES PATENT OFFICE.

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SAFETY-FUSE.

No. 848,326. Specification of Letters Patent. Patented March 26, 1907.

Application filed October 10, 1906. Serial No. 338,294.

To all whom it may concern:

Be it known that we, EDWARD STEINMANN and JOSEPH W. SCHOENDELEN, both citizens of the United States, and residents, respectively, of Bettendorf and Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Safety-Fuses, of which the following is a clear, full, and exact description.

Our invention relates more particularly to fuses for arc-lights; and its objects are, first, to permit the repairing or replacing of the fuse-wire whenever necessary without disconnecting or removing it from the circuit, and, second, to provide a simple and economical way of connecting the ends of the fuse-wire to the terminals. This I accomplish by the means hereinafter fully described, and as particularly pointed out in the claims.

In the drawings, Figure 1 is a side view of my invention. Fig. 2 is a similar view showing the lid of the tubular casing separated from and placed above the same. Fig. 3 is a view similar to Fig. 1, showing the fuse with different-shaped terminals. Fig. 4 is a cross-section taken on dotted line 4 4, Fig. 1. Fig. 5 is a plan view of one end of the fuse, having modified means applied thereto for retaining the removable section of the casing in place. Fig. 6 is a plan view of the form of my invention shown in Figs. 1 and 2, but with modified means for retaining the lid thereon.

Referring to the drawings, A represents a tubular shell or casing, which is made of suitable insulating material, is of any desirable length and diameter, and has its ends closed by metal plugs B B. Plugs B are preferably cylindrical, and are of such length that they extend beyond the ends of the casing A to provide contacts for the wires of the circuit, and their inner ends terminate a slight distance nearer the center of length of the casing than the end edges of a segmental opening C whose sides are parallel with the axis of the casing, and whose ends are preferably transverse. This opening affords access to the inside of the casing, and, it will be observed, extends from near one end of the same to the other. A lid or cover D closes this opening, and is so shaped as to form, together with the casing, a cylindrical housing for the fuse-wire E, as will hereinafter more fully appear. The inner ends of plugs B form shoulders against which the ends of the cover rest when in its seat, and this cover is removably retained in its seat by means of clips *a a*, which latter are so shaped as to extend partially around the casing, so that when secured to said casing by screws *b* (or otherwise) at a point diametrically opposite the cover their ends will lap past the side edges of the same, and retain it in place with sufficient pressure to prevent the accidental displacement thereof. There are preferably two of these clips—one near each end—and their ends are turned outward to facilitate their being spread apart slightly by the fingers of the operator when it is desired to remove the cover. I also prefer to recess the longitudinal edges of the opening C at its center of length, substantially as shown at X in the drawings, to afford a purchase for the fingers on the sides of the cover.

The ends of the plugs B B within the casing are provided with a lug *c*, extending therefrom, and each of these lugs has a screw *d* tapped into the side facing the cover D. The ends of a suitable longitudinally-disposed fuse-wire E are bent around the barrel of these screws and securely held by tightening the latter. I do not wish to be confined to plugs having cylindrical outer extensions, as the same may be dispensed with and other metal terminal extensions *e f*, as shown in Fig. 3, be substituted in their place. Both of these forms of terminals are in common use, and while I make no claim of inventorship thereto they are essential to a practical fuse in connection with the other parts of my invention.

In Fig. 5 I show a modified form of the clamp or clip for securing the cover of the casing in place. This clip consists of a metal band or ferrule G, having the edges thereof next the cover recessed, as at *g*, a distance corresponding to the width of the cover. To open the casing, these metal bands are revolved on their axes until the recesses *g* are in such position that the adjacent ends of the cover can be removed therefrom. When the cover is seated in its proper place, by revolving said bands until their recesses are in such position that the ends of the cover cannot be removed therefrom the casing will be securely closed.

What we claim as new is—

1. A safety-fuse comprising a tubular case of insulating material having an opening in

its side of sufficient dimensions to permit access to its interior, metallic plugs closing the ends of said casing, a fuse-wire connecting said plugs, a frictionally-retained removable cover for closing said opening, and means for removably securing said cover in place.

2. A safety-fuse comprising a tubular case of insulating material having an opening in its side of sufficient dimensions to permit access to its interior, metallic plugs closing the ends of said casing, a fuse-wire connecting said plugs, a frictionally-retained removable cover for closing said opening, and circumferentially-disposed clips for removably securing said cover in place.

3. A safety-fuse comprising a tubular case of insulating material having a longitudinally-elongated opening therein, a removable cover fitted in said opening, circumferentially-disposed spring-clips located at each end of said cover and frictionally retaining the same in said opening, metallic plugs closing the ends of said casing having lugs extending from their inner ends, contact-screws tapped into said lugs and a fuse-wire the ends of which are removably connected to the lugs by said screws.

In testimony whereof we have hereunto set our hands this 29th day of September, A. D. 1906.

EDWARD STEINMANN.
JOSEPH W. SCHOENDELEN.

Witnesses:
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