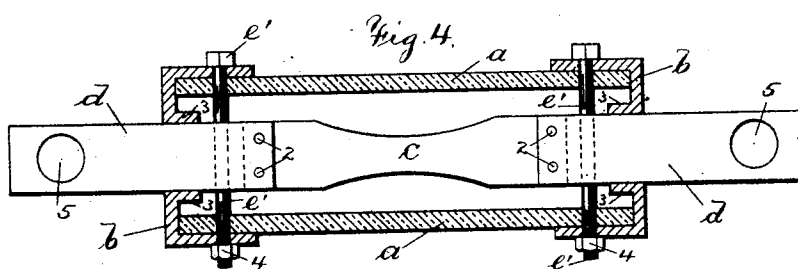
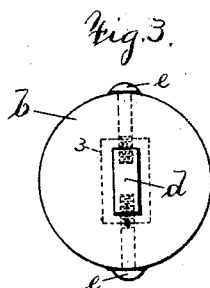
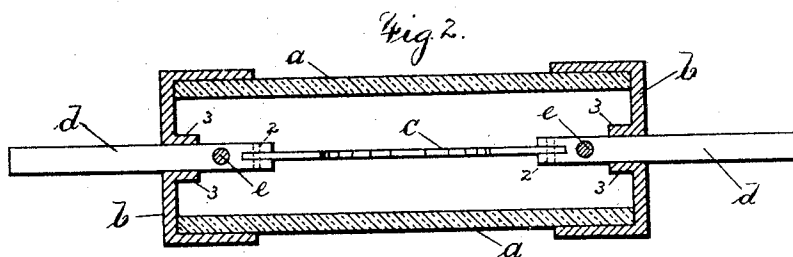
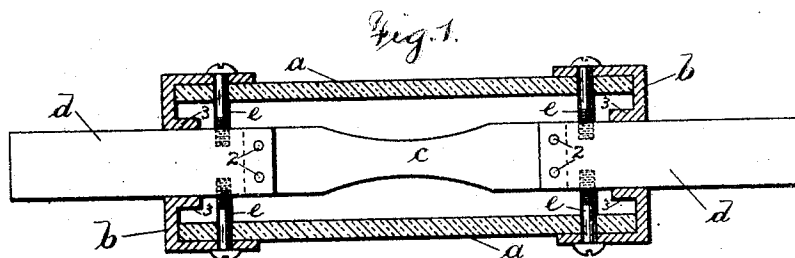


J. SACHS.
SAFETY FUSE.

APPLICATION FILED DEC. 18, 1903.



WITNESSES
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JOSEPH SACHS, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE JOHNS-PRATT COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

SAFETY-FUSE.

No. 797,325.

Specification of Letters Patent.

Patented Aug. 15, 1905.

Application filed December 18, 1903. Serial No. 185,640.

To all whom it may concern:

Be it known that I, JOSEPH SACHS, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented an Improvement in Safety-Fuses, of which the following is a specification.

My invention relates particularly to the class of safety-fuses having terminals adapted to be received in knife-blade or stud-bolt contacts. Heretofore fuses of this description have been constructed in which a casing, end caps, a fuse-strip, and terminals therefor have been employed, and these parts have been connected in various ways. Usually, however, the end caps are secured to the casing, the fuse-strip to its terminals, and the terminals to the end caps; but the construction of devices of this class as known in the art is such that the joints between the parts are apt to become loose in use, thereby impairing the efficiency of the device or rendering the same useless.

In carrying out my present invention I employ a casing of insulating material, end caps therefor, a fuse-strip and terminals therefor, and a unitary means for connecting the end caps, the casing, and the fuse-strip terminals with the object of making a secure and permanent joint between these parts.

In the drawings, Figure 1 is a longitudinal section of my improved fuse device. Fig. 2 is a longitudinal section at right angles to that shown in Fig. 1. Fig. 3 is an end view. Fig. 4 is a longitudinal section of a modification of my invention.

a represents a casing, preferably tubular and of insulating material, provided with metallic end caps *b*, fitting over the extremities of the same.

c represents a fuse-strip of any suitable material, and *d d* are fuse-strip terminals. The fuse-terminals *d d* are preferably rectangular in cross-section, and one end of each of the same is grooved to receive an end of the fuse-strip, which is electrically connected to the terminals by rivets 2 or in any other desired manner.

The end caps *b b* are provided centrally with apertures of the same shape and approximately the same size as the cross-section of the terminals *d d*, and interiorly of the end caps there are bosses 3, in which the apertures are made, and the fuse-strip terminals are

adapted to pass through the said apertures, having a material bearing-surface on said bosses, and to be received in suitable knife-blade terminals. At correspondingly opposite points I preferably provide the narrow sides of the fuse-terminals *d*, adjacent to the joints between the same and the fuse-strip, with screw-threaded holes, and at diametrically opposite points the end caps *b* and the ends of the casing *a* are provided with holes in such positions that when the ends of the casing abut against the interior of the end caps the said holes in these parts will be in alignment. Screws *e* are passed through the holes in the casing and end caps and into the holes in the fuse-strip terminals, in which the said screws are turned down tight, and as a means make a secure and permanent joint between the casing, end caps, and fuse-strip terminals and prevent any movement of said terminals on the said means as centers in a plane parallel to their external contacting surfaces.

As shown in Fig. 4, bolts *e'* may be employed in lieu of the screws *e*, in which instance the bolts *e'* pass directly through the end caps, the casing, and the fuse-strip terminals and the parts are drawn securely together by the nuts 4 on the exterior. As also shown in Fig. 4, the outer ends of the fuse-strip terminals may be provided with circular openings 5, which render the same applicable for use in connection with stud-bolt terminals.

I claim as my invention—

1. A safety-fuse comprising a casing, end caps therefor, a fuse-strip, fuse-strip terminals passing through said end caps and to which said fuse-strip is electrically connected, and means passing through said end caps and casing and into the edges of said fuse-strip terminals for securely connecting the said parts together.

2. A safety-fuse, comprising a casing, end caps therefor, a fuse-strip, fuse-strip terminals having two flat substantially parallel sides passing through the said end caps and to which the said fuse-strip is electrically connected, and means passing at diametrically opposite points through said end caps and casing and into the edges of said fuse-strip terminals for securely connecting the said parts together.

3. A safety-fuse comprising a casing, end caps for the same, a fuse-strip, fuse-strip terminals to which the ends of said fuse-strip are

electrically connected and which pass through and are in electrical contact with said end caps, and screws passing at diametrically opposite points through said end caps and casing and into said fuse-strip terminals to securely and permanently connect the said parts.

4. A safety-fuse comprising a casing, end caps therefor, a fuse-strip, fuse-strip terminals in electrical contact with said end caps and to which the said fuse-strip is electrically connected, and means for connecting the said casing-terminals and end caps rigidly together so as to prevent any movement of the said terminals on the said means as a center in a plane parallel to the plane of the external contacting surfaces of said fuse-strip terminals.

5. A safety-fuse, comprising a casing, end caps therefor, a fuse-strip, fuse-strip terminals in electrical contact with said end caps and to which the said fuse-strip is electrically

connected, and screws passing through said end caps and casing, and into the edges of the said fuse-strip terminals in such positions as to prevent any movement of the said terminals on the said screws as centers in a plane parallel to the planes of the external contacting surfaces of said fuse-strip terminals.

6. A safety-fuse comprising a casing, end caps for the same, a fuse-strip, fuse-strip terminals to which the ends of said fuse-strip are electrically connected and screws passing at diametrically opposite points through said end caps and casing and into said fuse-strip terminals to securely and permanently connect the said parts.

Signed by me this 15th day of December, 1903.

JOSEPH SACHS.

Witnesses:

GEO. T. PINCKNEY,
A. S. BERRELL.