No. 860,606. PATENTED JULY 16, 1907.

F. OPRENDEK.

SAFETY FUSE.

APPLICATION FILED SEPT. 12, 1905.

Fig. 1

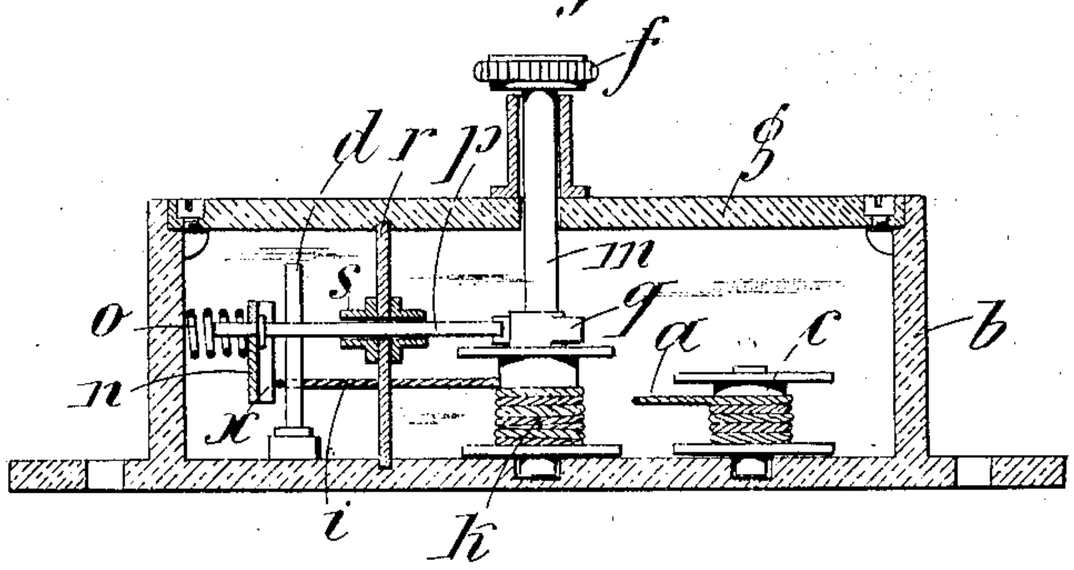


Fig. 2

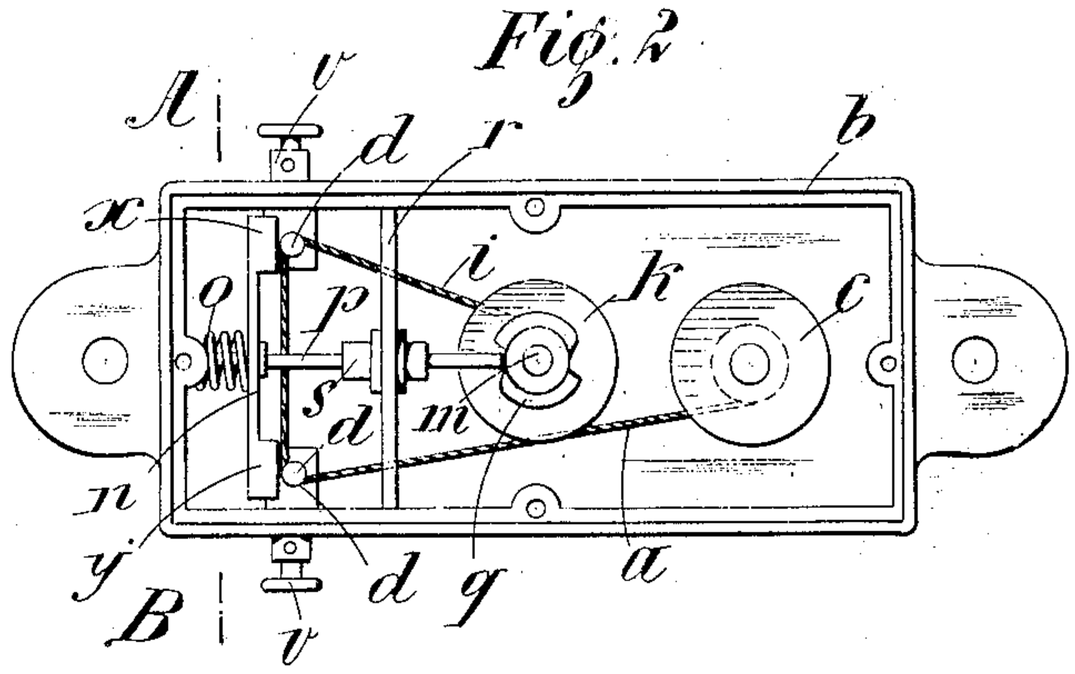
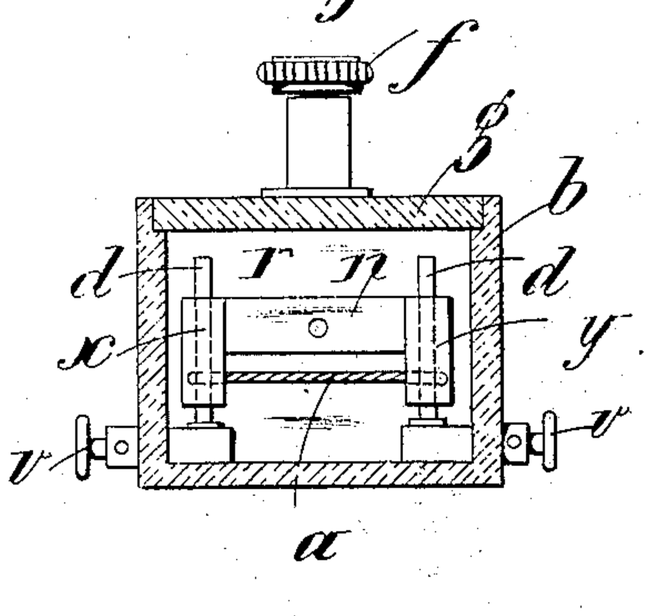


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANZ OPRENDEK, OF VIENNA, AUSTRIA-HUNGARY, ASSIGNOR, BY MESNE ASSIGNMENTS, OF ONE-HALF TO SAMU POLLAK, OF GYÖR, AUSTRIA-HUNGARY.

SAFETY-FUSE.

No. 860,606. Specification of Letters Patent. Patented July 16, 1907.

Application filed September 12, 1905. Serial No. 278,129.

To all whom it may concern:

Be it known that I, FRANZ OPRENDEK, electrician, a citizen of the Empire of Austria-Hungary, residing at Vienna, Austria-Hungary, have invented certain new and useful Improvements in Safety-Fuses, of which the following is a specification, reference being had therein to the accompanying drawing.

The present invention has for its object an improvement in safety fuses of the kind in which an asbestos cord provided with a readily conducting and easily fusing material is passed around two contact pins and upon the burning out of the portion of the cord between the contact pins the same is displaced by means of an appropriate device in such a manner that a fresh and unburned portion of cord comes between the contact pins.

The improvement relates particularly to the means for obtaining a certain contact between the safety cord and the contact pins, and also to the means by which the portion of cord in reserve is completely protected from flames due to short-circuiting.

A safety fuse constructed in accordance with the present invention is illustrated in the accompanying drawing, in which:

Figures 1 and 2 represent a longitudinal section and plan, with the cover removed, and Fig. 3 a cross section on the line A—B of Fig. 2.

The asbestos cord *a*, which contains a known fusing material such as lead wire, is wound upon the bobbin *c*, and is carried in the known manner over the contact pins *d*, *d*, which by means of the terminals *v*, *v*, projecting from the casing are connected to the light or power system. The end *i* coming off the contact pins *d*, *d* is wound around a drawing off bobbin *k* arranged at the middle of the box *b*, and which is adapted to be rotated by means of a spindle *m* projecting through the cover *g* of the casing and provided with a head *f*.

Parallel with the line of connection of the two contact pins *d*, *d* a spring plate *n*, which is well insulated or which is made entirely of insulating material, is arranged, the cheek-like reinforcements or ribs *x*, *y* of which plate are pressed by means of the spring *o* bearing upon the wall of the casing, against the contact pins *d*, *d* that is to say against the asbestos cord *a;* by this means a reliable contact between the cord *a* and the contact pins *d*, *d* is obtained under all conditions.

Against the extremity of a pin *p* which is guided in any convenient manner (in the present case in the partition *r*), the other end of which pin comes into contact with or is attached to the plate *n* there acts a tappet or cam plate *q* keyed upon the shaft *m;* owing to this arrangement, upon the rotation of the handle *f*, which takes place for example for the purpose of replacing a burned piece of cord, the cam plate *q* presses back the rod *p*, by which means the plate *n* is maintained separated from the contact pins *d*, *d* or from the asbestos cord *a* thereon until the length of cord necessary for re-establishing an electrical connection between the contact pins *d*, *d*, has been wound off.

In order to smother any flame due to short-circuiting as speedily as possible and to prevent injury to the length of cord held in reserve that portion of the casing in which the length of cord carried over the contact pins moves, is separated from the rest of the casing by a partition *r* in which openings are provided for the passage of the asbestos cord *a* and which also carries the guide sleeve *s* for the rod *p*.

The casing *b* and its cover *g* are made of porcelain or other insulating material.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is:—

1. A safety fuse device comprising a fuse cord wound upon a storage spool and guided over pins projecting from the terminals of an electric circuit, means to unwind from the spool said cord for bringing fresh parts of it between said pins, an insulated spring actuated block adapted to press upon the cord in order to insure good contact of its metallic strands with the pins, means to relieve the spring pressure while the cord is moved forward, and a partition separating the cord on the spool from the piece stretched across the contact pins substantially as described.

2. A safety fuse device comprising a fuse cord wound upon a storage spool and guided over pins projecting from the terminals of an electric circuit, a drum with a head for turning the same to unwind the cord from the storage spool, cams secured to the shaft of the drum with a head, an insulated spring actuated block adapted to press upon the cord in order to insure good contact of its metallic strands with the pins, a rod bearing against the spring actuated insulated block and adapted to be longitudinally displaced by the cams when the shaft is turned by the head in order to relieve the spring pressure while the cord is moved forward, and a partition separating the cord on the spool from the piece stretched across the contact pins substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

FRANZ OPRENDEK.

Witnesses:
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ALVESTO S. HOGUE.