

T. E. MURRAY, JR.
ELECTRIC FUSE.
APPLICATION FILED APR. 22, 1912.

1,048,859.

Patented Dec. 31, 1912.

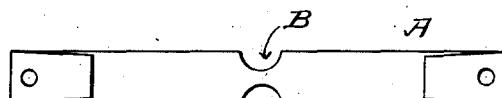
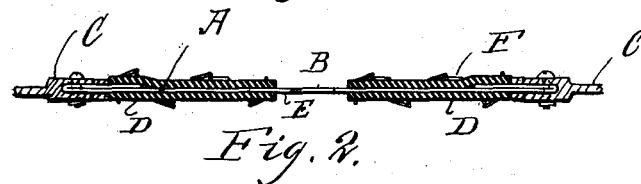
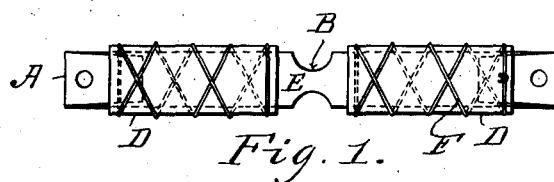


Fig. 3.



Fig. 4.

Witnesses:
May T. Murray
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UNITED STATES PATENT OFFICE.

THOMAS E. MURRAY, JR., OF NEW YORK, N. Y.

ELECTRIC FUSE.

1,048,859.

Specification of Letters Patent. Patented Dec. 31, 1912.

Application filed April 22, 1912. Serial No. 692,259.

To all whom it may concern:

Be it known that I, THOMAS E. MURRAY, Jr., a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a certain new and useful Improvement in Electric Fuses, of which the following is a specification.

The invention relates to electric fuses. As such fuses are commonly constructed, the circuit connections are attached to the plug, casing or other support for the strip, and arranged so that a new strip can be substituted for a strip which has blown. Where the explosion not only destroys the strip, but also melts or injures the circuit terminals, it is obvious that not only a new fuse strip but a new support or plug must be provided.

My invention has for its object to localize the blowing of the fuse to a predetermined fractional part of the fuse strip itself, and thus to prevent the destructive effect of the explosion from extending to said circuit terminals, to which the strip is connected at its ends.

My invention consists in a fuse strip, to which the circuit terminals are connected, disposed in contact with two bodies of non-pulverulent refractory insulating material, which extend from the circuit terminals over fractions of the length of the strip, so that an uncovered portion of the strip is exposed between them. By this means, the blowing of the fuse is localized to the uncovered portion, and the terminals are protected. Preferably, the protecting bodies are of asbestos or other flexible fabric.

In the accompanying drawings—Figure 1 is a view of my fuse, with the protective envelop in place. Fig. 2 is a longitudinal section. Fig. 3 is a view of the fuse, with the protective envelop removed. Fig. 4 is a cross section.

Similar letters of reference indicate like parts.

The fuse strip A is preferably made with the usual contraction B in its middle portion, and with its ends doubled over and

perforated for the convenient attachment of the circuit terminals C, Fig. 2. Extending from each circuit terminal and enveloping the strip is a wrapping D, D of asbestos or other refractory insulating material. A portion E of the strip between the ends of the wrappings is left exposed. The wrappings are secured in place by a winding F of cord, or in any other suitable way. By reason of this construction, the blowing of the fuse is caused to occur in the exposed portion E, and its destructive effect does not extend beyond a short distance inward from the ends of the wrappings D. Hence said effect does not reach the terminals C.

I am aware that a fuse strip has been disposed in a case filled with powdered lime or the like, and passed through a paper drum embedded in said lime, so that an air space is formed around the middle portion of the strip. By my construction, the fuse case, the pulverulent filling and the paper drum are all done away with and a complete fuse, affording ample protection to its circuit terminals and which may be exposed to the atmosphere without any further covering, is obtained by simply applying the refractory material to the strip and its terminals, as herein set forth, the device being exposed to the atmosphere.

I claim:

1. A fuse strip, circuit terminals connected thereto, and two exposed envelops of refractory insulating material respectively covering a fraction of the length of said strip and respectively in contact with said circuit terminals.

2. A fuse strip, circuit terminals connected thereto, and two exposed wrappings of flexible refractory insulating material respectively covering fractions of the length of said strip and respectively in contact with said circuit terminals.

In testimony whereof I have affixed my signature in presence of two witnesses.

THOMAS E. MURRAY, JR.

Witnesses:

GERTRUDE T. PORTER,
MAY T. McGARRY.