

(No Model.)

C. G. PERKINS.

FUSIBLE CUT-OUT FOR ELECTRIC CIRCUITS.

No. 348,048.

Patented Aug. 24, 1886.

Fig. 1.

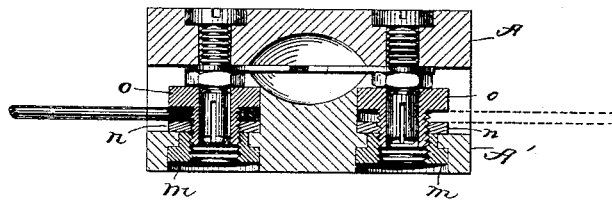
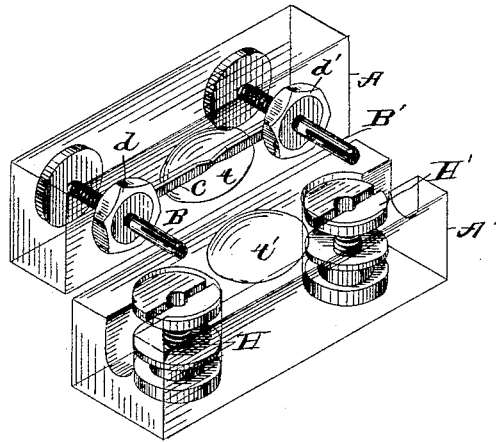


Fig. 2.

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FUSIBLE CUT-OUT FOR ELECTRIC CIRCUITS.

SPECIFICATION forming part of Letters Patent No. 348,048, dated August 24, 1886.

Application filed November 25, 1884. Serial No. 148,786. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. PERKINS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fusible Cut-Outs for Electric Circuits; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The fusible element in that class of electrical devices which are known as "fusible cut-outs" is usually lead or some alloy which melts at a low temperature. In the use of such cut-outs there is always danger that the metal or alloy, when brought to a molten state in the operation of the device, will fall on a substance which ignites at a still lower temperature, and so cause a fire, which may entail great loss. To obviate this danger, alloys have been made which melt at a temperature below the igniting-point of those substances—as wood or paper—with which the molten globule is most likely to come in contact. The production of these alloys is a matter of considerable difficulty and expense.

My invention consists in surrounding the fusible element with an inclosing-surface of non-combustible material, and in providing a receptacle for the molten globule, which shall retain it in contact with the non-combustible material until it has become cool.

It also consists in providing convenient means for attaching the fusible element to its support, and for making electrical connections through the same.

My invention is embodied in a very simple structure, illustrated in the accompanying drawings, in which—

Figure 1 is a perspective showing the two parts of my cut-out before they are joined into a single device, and Fig. 2 is a section showing the parts united.

The blocks A and A' are of some non-combustible insulating material, preferably glass. The block A has secured in it by any suitable means the posts B B', which are split at their lower ends. Between and in electrical

contact with these posts the fusible strip C is supported.

In the drawings, the posts B B' are screw-threaded along their upper portions. The heads of the posts are countersunk in the glass-support, and nuts *d d'* on the posts below the glass serve both to hold the posts in the same and to keep the strip C in electrical contact with the posts.

The block A' supports two binding-posts, H H', each of which is composed of the nut *m*, the washer *n*, and the hollow screw *o*. When the parts are applied to each other, the split ends of the posts B B' enter and make spring-contact with the hollow screw *o*, and the circuit is complete from line to binding-post H, post B, strip C, post B', binding-post H', and on to line.

With the blocks A A' constructed as described, the connecting up of the circuit through the fusible strip is very simple. It is only necessary that the block A should be applied to the block A' like a cover.

I construct the blocks A and A' of glass or other non-combustible insulating material, so that when the safety-strip is fused there will be no danger of setting fire to the same. In order to insure that the molten matter of the safety-strip shall be retained in contact with the glass or other non-combustible substance, I make recesses or depressions *t t'* in the blocks to receive the molten globule.

The safety-strip which I prefer to use is cut away at or near its center, so that it shall have at that point a smaller cross-section than elsewhere. By this means the point at which the safety-strip shall fuse is predetermined. The point of fusion being known, the recesses or depressions *t t'* need only be made large enough to surround that point. With ordinary safety-strips the depressions should extend along the whole length of the same. This becomes of some importance in case it is desired to make the insulating-block of wood, and to accomplish the special results aimed at in this invention by coating the exposed recessed or depressed portions with a non-combustible insulating material.

It will be observed that the ends of the

blocks A' are notched to receive the line-wires.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

- 5 The combination, with an insulating-base carrying hollow binding-posts, of an insulating-block supporting a conducting safety-strip and provided with split posts, which are

adapted to enter the said binding-posts, substantially as described.

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

CHARLES G. PERKINS.

Witnesses:

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