

(No Model.)

T. J. FAY.
ELECTRIC FUSE BLOCK.

No. 499,664.

Patented June 13, 1893.

Fig. 1.

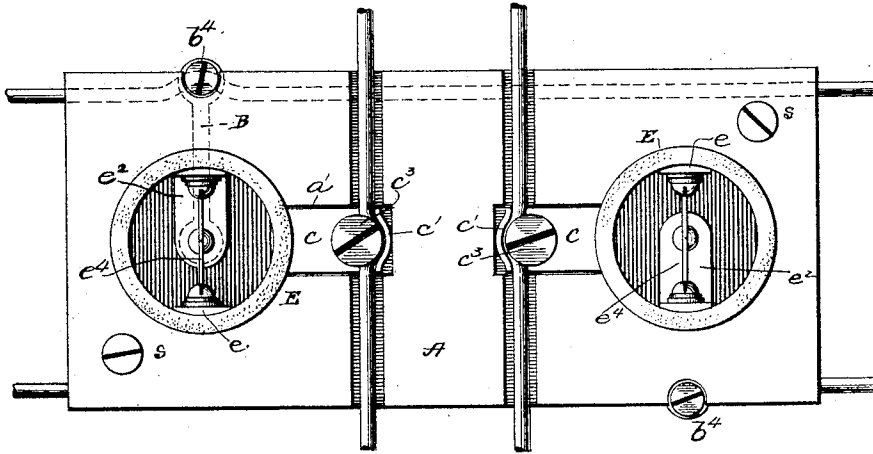


Fig. 2.

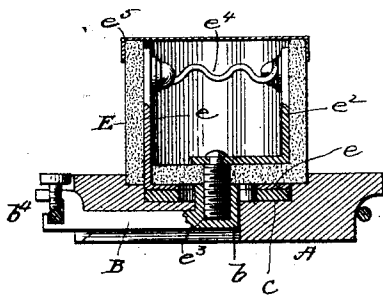


Fig. 3.

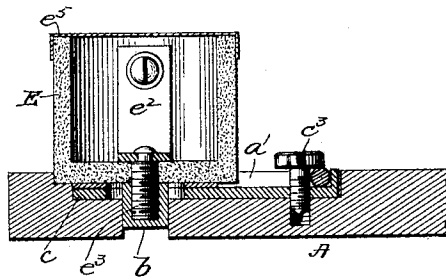
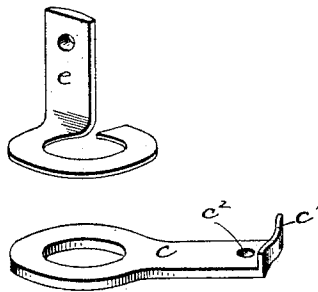


Fig. 4.



WITNESSES:

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ELECTRIC-FUSE BLOCK.

SPECIFICATION forming part of Letters Patent No. 499,664, dated June 13, 1893.

Application filed February 11, 1891. Renewed May 2, 1893. Serial No. 472,792. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. FAY, a citizen of the United States, residing in New York, county of New York, and State of New York, have invented certain new and useful Improvements in Electric-Fuse Blocks, of which the following is a specification.

My invention relates to electric fuse blocks used generally in electric apparatus for the purpose of preventing destruction caused by an abnormally high current.

The object of my invention is to provide a device of this kind in which a base or support for the fuse may be permanently attached or mounted to its support and the part carrying the fuse itself being constructed so that it may be attached or detached from the block at will for the purpose of renewing the fusible strip or making examinations and repairs.

The invention therefore consists in the combination with a base or block of insulating material provided with seats or sockets for a removable structure carrying the fusible strip and also provided with metallic parts which are constructed to be connected with the wires of the circuits and to make contact with other metallic parts on the said structures carrying the fusible strips.

In the accompanying drawings, Figure 1 represents a plan of the device; Figs. 2 and 3 sections taken at right angles to each other, and Fig. 4 details of two contacts.

Referring to the drawings by letter, A represents a rectangular block of insulating material provided on its front face with two lateral grooves *a a* in which are to be deposited the two wires of a circuit, preferably the main circuit. The rear of the block along its longest edges is cut away as shown in Fig. 2 to receive and house the two wires of another circuit, preferably a branch circuit from the main circuit. In each end of the block two sockets or seats of a circular shape are provided. They are exactly alike in construction and a description of one of them will therefore suffice for the other. The sockets connect respectively with the lateral passages *a* by means of grooves *a'* in the face of the block in which are deposited a metallic piece *c* shown in detail in Fig. 4. At one end it is formed into a flat ring

which is seated around the edge and upon the bottom of the socket, and with an arm projecting through the groove *a'* and into the lateral groove *a*. Its outer end is tipped with a curved flange *c'* and has a perforation *c²* through which a binding screw *c³* may pass.

B represents a metallic casting having at one end a socket and binding screw for a wire and at the other end a screw threaded socket *b*. This casting occupies a lateral groove located in the back of the block and extending from a point just below the center of the socket laterally across the block to the edge. The binding screw and seat *b⁴* for the wire is on the outer end and is adapted to receive one of the branch wires before mentioned; the screw threaded socket is on the inner end and projects upward through an opening in the center of the socket.

The device so far described constitutes that portion of the whole invention which is adapted to be secured permanently in place by means of the screws *s s* or otherwise.

E, E represent two cups, made preferably of fiber or other similar material, which are adapted to fit into the sockets in the block. One end is closed and the other open. Each cup is fitted with a metallic contact piece *e* shown in detail in Fig. 4. It consists of an open ring with a tail piece standing at right angles to the ring. The ring portion rests against the bottom of the cup E and the tail piece passes through an opening in the bottom of the cup and extends up along the inner wall near to the mouth of the cup. Each cup also has a second contact piece which consists of a metallic strip *e²* bent at right angles near its middle, one side standing against the inner wall of the cup opposite the tail piece *e* and the other side extending along the bottom of the cup to the center thereof where it is connected with a screw plug *e³*. This plug extends through the bottom of the cup and is located concentrically with the ring portion of the contact *e*. The upper ends of *e'* and *e³* are provided with binding screws which secure the two ends of a fusible strip *e⁴*. The open end of the cup is to be normally closed by a cap *e⁵* to keep out dust and prevent injury. The cap is adjusted to the socket by

applying the plug e^3 to the threaded socket b and screwing it down until the two rings c and e come into contact. If now one of the main wires is secured to the binding post c^3 and one of the branch wires to the binding post b^4 a circuit through the fusible strip e^4 will be established from the main to the branch and if the other cup E is adjusted and connected in the same manner with the other side of the main and the branch, the circuit of the branch will be entirely complete through two fusible strips.

One of the advantages of this block is the fact that the portion carrying the fusible strip may be removed and replaced at will, leaving the other portions permanently attached. This is done by simply screwing the plug e^3 out of and into the socket b . It is usually the case that in order to renew the fuse strip, it is necessary to remove the whole block. The small cost of manufacture is another advantage and the simple connection between the cups and block is also regarded as a good feature. The cap e^5 will be perforated to allow the gas to escape when the fuse is destroyed.

Having thus described my invention, I claim—

A cut-out device for electric circuits consisting of a block or base provided with a metallic piece, as B , having a threaded socket at one end and a binding post at the other, said block also provided with a flat contact ring c concentric with said threaded socket, all in combination with a cup having a flat contact ring e on its bottom adapted to make contact with said ring c and a threaded contact plug e^3 projecting through the bottom of the cup and fitting said screw threaded socket, and a fusible strip e^4 inside of said cup, one end being electrically connected with the ring e and the other end similarly connected with the plug e^3 , substantially as described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

THOMAS J. FAY.

Witnesses:

FRANK S. OBER,
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