

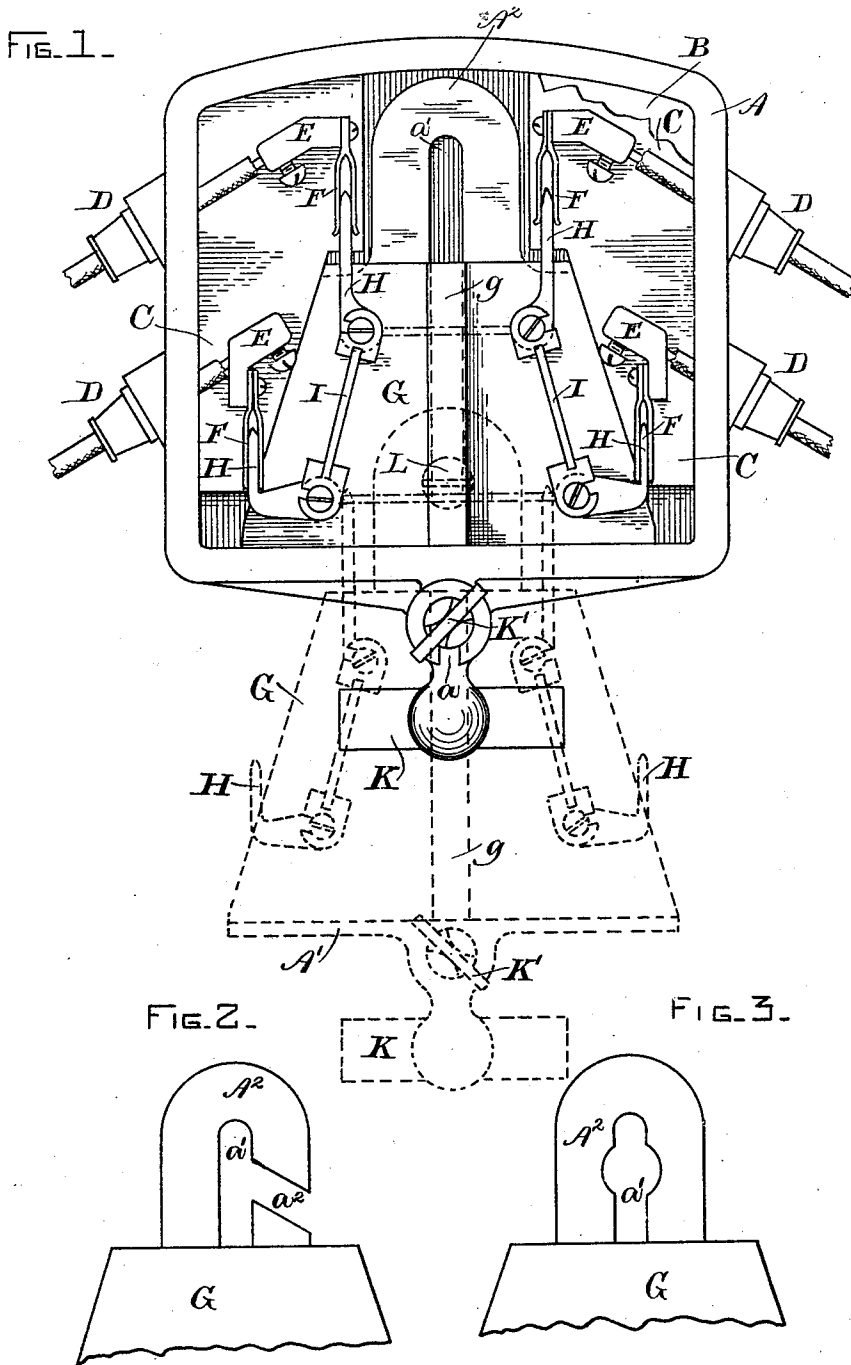
(No Model.)

2 Sheets—Sheet 1.

A. EKSTRÖM.  
FUSE BOX.

No. 520,772.

Patented June 5, 1894.



WITNESSES -

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INVENTOR-

Axel Ekström  
 by Bentley Bloodworth  
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FIG. 4.

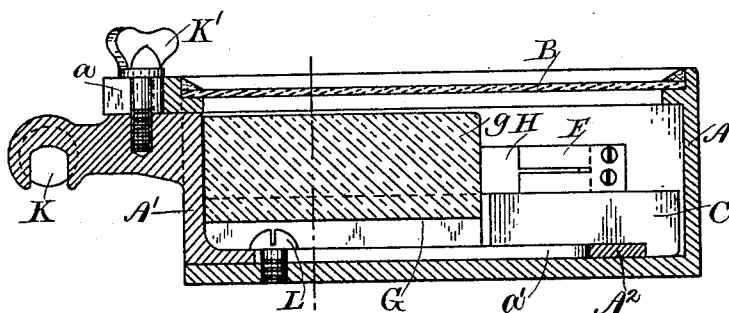
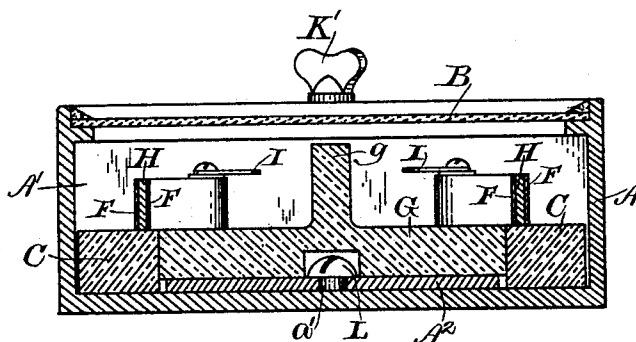


FIG. 5.



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# UNITED STATES PATENT OFFICE.

AXEL EKSTRÖM, OF LYNN, MASSACHUSETTS, ASSIGNOR TO THE GENERAL ELECTRIC COMPANY, OF NEW YORK.

## FUSE-BOX.

SPECIFICATION forming part of Letters Patent No. 520,772, dated June 5, 1894.

Application filed November 29, 1892. Serial No. 453,525. (No model.)

*To all whom it may concern:*

Be it known that I, AXEL EKSTRÖM, a citizen of the United States, residing at Lynn, county of Essex, State of Massachusetts, have invented a certain new and useful Improvement in Fuse-Boxes, of which the following is a specification.

My invention relates to safety cutouts or fuse boxes for electric lines, and its object is to protect the fuses from the weather, permit them to be readily inspected, and facilitate their renewal when burned out.

The invention consists in a fuse box having a glass front, and containing insulating supports for the terminals of the line, said supports forming a space into which fits a removable block of insulating material, on which is carried the fuse or fuses. This removable block can be withdrawn from the box to give access to the switches or contact pieces to which the fuse is attached. When slid back into the box, the edges of the line terminal supports guide the block into place and insure the proper closing of the switches.

In the drawings Figure 1 is a front elevation of my fuse box. Figs. 2 and 3 show means for permitting the detaching of the fuse block when desired. Fig. 4 is a longitudinal section of the box, and Fig. 5 is a transverse cross section.

The invention is illustrated as applied to a double pole fuse box, though the construction is equally suitable for a single pole cutout.

The box A is provided with a glass front B, to permit inspection of the fuses at any time. Secured within the box are one or more plates C, to which are fastened the terminals of the line circuits, the wires being preferably passed through insulating bushings D and confined in binding posts E attached to the plates C. Each binding post carries a contact piece or switch F, preferably a pair of metallic leaves. The opposite edges of the plates C are separated a suitable distance apart, and preferably diverge as shown, so as to form a wedge shaped opening with the wide part preferably at the bottom.

The box A has one side removable preferably the side A', on which is supported a block G of insulating material, preferably porcelain, and of a proper size to fill the space be-

tween the plates C. On each side of the block are two contacts H, preferably blades as shown, each adapted to enter between the leaves of one of the switches F, when the block is slid up between the plates. The two blades on the same side of the block are adapted to be connected in any suitable manner by a fuse I, which when the switches are closed bridges the gap between two wires. The fuses are separated by a septum *g* on the block G, which fits close up to the glass B, and prevents the metallic vapors, arising from the melting of a fuse, from carrying the arc to the other fuse.

The drawings show the fuses connecting the wires on the right and left sides of the box respectively, but it is evident that they may be arranged as shown in dotted lines so as to connect the wires on opposite sides of the box. In this case the septum *g* would be horizontal instead of vertical.

The side A' is provided with a handle K and carries a thumb screw K' adapted to enter a slot *a* in the box A, whereby upon tightening the screw it can be secured to the box. The side A' also carries a slide A<sup>2</sup> containing a vertical slot *a'* through which passes a screw L inserted into the back of the box. When the block G is slid out of the box into the position shown in dotted lines in Fig. 1, the slide A<sup>2</sup> is stopped by the screw L, upon which it hangs while the fuses are being renewed.

To provide for detaching the block from the box, the slide may have a lateral slot *a*<sup>2</sup> communicating with the slot *a'*, as shown in Fig. 2; or the slot *a'* may be a keyhole slot as shown in Fig. 3.

It will be seen that when the block G is slid up into the box, the edges of the block co-act with those of the plates to guide the block and the switches into place, so that the operation of inserting the fuse block is one that can be quickly performed and requires no great care on the part of the lineman. It is evident that a single plate can be used instead of the two plates C, a suitable opening being cut in it to receive the block G.

What I claim as new, and desire to secure by Letters Patent, is—

1. A fuse box having a removable side and

a fuse supporting block, attached to such removable side and provided with a septum adapted to divide one side of the box from the other when the block is in place.

- 5 2. The combination with a box, of line terminal supports arranged on each side of the same leaving a space between them, and a fuse supporting block adapted to slide in between said supports and fill the space between
- 10 them.
3. The combination with a box, of line terminal supports arranged at each side thereof, leaving a wedge-shaped space between them, and a wedge shaped fuse supporting block
- 15 carrying contacts and adapted to slide in between said supports and fill the space between them, being guided by its edges to a proper position to cause said contacts to engage with the line terminals.
- 20 4. A fuse box containing line terminal supports having a space between them, in combination with a removable fuse supporting block adapted to fit into said space, a slotted slide attached to said block and a screw en-
- 25 gaging with the slot in the slide, substantially as set forth.
5. A double pole fuse box containing line terminal supports having a space between

them, in combination with a removable block carrying two fuses, and adapted to fit into said space, said block having a septum interposed between the two fuses, substantially as described.

6. The combination, with a box having a removable side, of two insulating plates carrying binding posts for the line terminals, each post having a pair of contact leaves, an insulating block supported on the removable side of the box and adapted to fit between said plates, contact blades attached to said block adapted to enter between said contact leaves, fuses connecting the two adjacent blades, and a septum upon the insulating block between the fuses, substantially as set forth.

7. The combination with a fuse box having a screw L, of a slide containing a keyhole slot engaging with said screw, and a fuse supporting block supported on said slide, substantially as described.

In witness whereof I have hereto set my hand this 28th day of November, 1892.

AXEL EKSTRÖM.

Witnesses:

JOHN W. GIBBONEY,  
BENJAMIN B. HULL.