

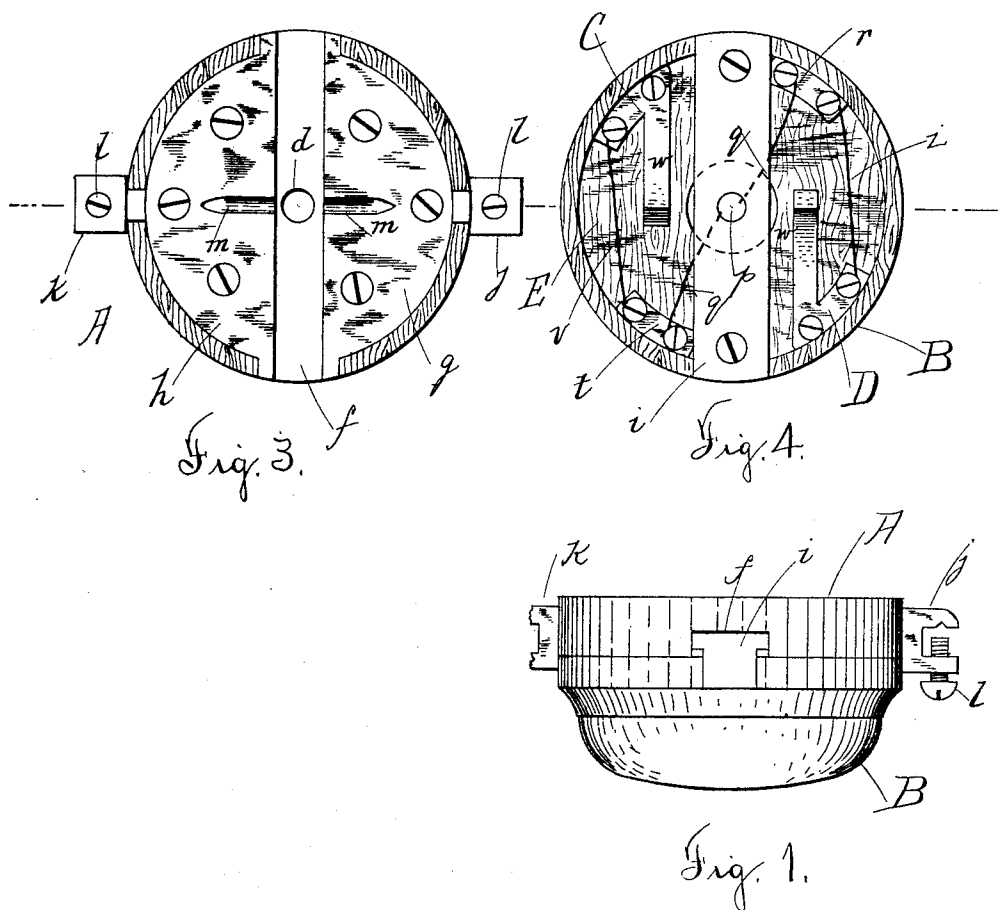
(Model.)

2 Sheets—Sheet 1.

A. B. HOLMES & G. F. GALE.
FUSE BOX FOR ELECTRIC LAMPS.

No. 460,968.

Patented Oct. 13, 1891.



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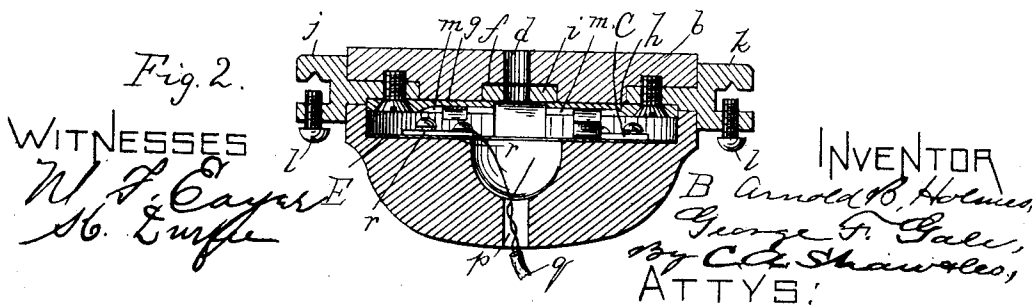
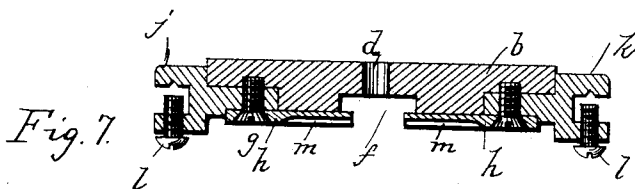
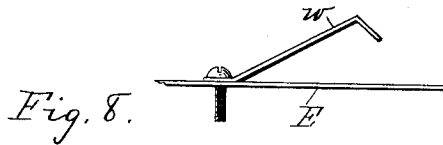
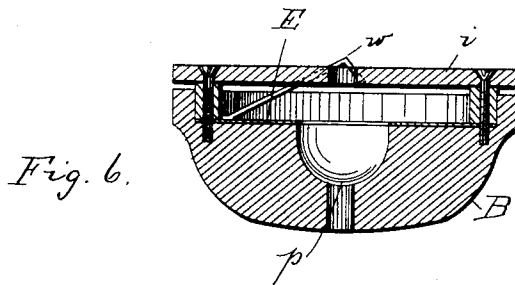
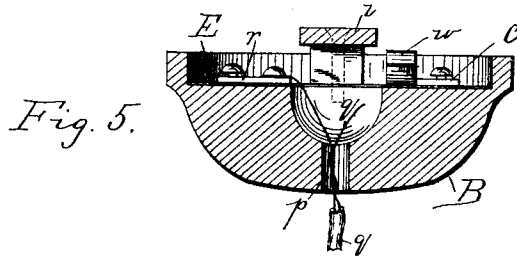
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FUSE BOX FOR ELECTRIC LAMPS.

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UNITED STATES PATENT OFFICE.

ARNOLD B. HOLMES, OF BOSTON, AND GEORGE F. GALE, OF WINTHROP,
MASSACHUSETTS.

FUSE-BOX FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 460,968, dated October 13, 1891.

Application filed April 15, 1890. Serial No. 347,970. (Model.)

To all whom it may concern:

Be it known that we, ARNOLD B. HOLMES, of Boston, in the county of Suffolk, State of Massachusetts, and GEORGE F. GALE, of Winthrop, in the county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Fuse-Boxes for Incandescent Electric Lamps, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

15 Figure 1 is an elevation of my improved fuse-box; Fig. 2, a vertical transverse section of the same; Fig. 3, an inside plan view of the fixed section; Fig. 4, a like view of the movable section; Fig. 5, a cross-section of the
20 movable section; Fig. 6, a sectional view showing one of the spring-electrodes in engagement with the fixed-section contact-plate; Fig. 7, a sectional view illustrating details of construction, and Fig. 8 an elevation
25 of one of the spring-electrodes detached.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates, especially, to a drop
30 fuse-box for incandescent electric lamps; and it consists in certain novel features herein-after fully set forth and claimed, the object being to produce a simpler, cheaper, and more effective device of this character than
35 is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

40 In the drawings, A represents the base or fixed section of the box, and B the movable section.

The section A is circular in form and comprises a wooden base-plate *b*, adapted to be
45 secured to the wall or ceiling by a central aperture *d*. A groove *f* extends centrally across the base-plate. Two semi-disks *g h*, composed of brass or similar conducting substance, are secured on the inner face of the section A, and
50 their adjacent edges project slightly over the groove *f*, forming a dovetail groove adapted

to receive a correspondingly-grooved block *i* on the section B. Binding-posts *j k* are respectively in electrical contact with the conducting-plates *g h*, and are provided with
55 screws *l* for securing the line-wires thereto. A locking-groove *m* is formed centrally in the face of each plate *g h*.

The section B corresponds in shape with the section A, and is adapted to be secured there-
60 on by the dovetailed block *i* to fit it to slide in the groove *b*. The body of the section is chambered at either side of the block, and a central aperture *p* opens downward through said body. The lamp-wires *q* pass through
65 said opening and are respectively secured to metallic plates *r t*. Two spring-electrodes C D are secured within the chamber and are respectively in electrical connection with the
70 plates *r t* by means of fusible wires *v z*. The free ends of the electrodes C D are provided with lips which are adapted to take in the
75 grooves *m* of the plates *g h* and detachably lock said sections together when in position. A sheet of isinglass E is disposed between
the electrodes C D, plates *r t*, and the body of the wooden section B.

In the use of our improvement the section A is secured in any desired position, the line-wires being fastened in the posts *j k* in the
80 usual manner. The dovetail block on the section B being inserted in the groove *f* of the companion section, said sections are pushed together until their edges are registered. As soon as the spring-electrodes C D
85 come into engagement with the plates *g h* the electrical circuit is closed, and the current passes over the wires *q*. The heads *w* of the electrodes engage in the grooves *m* of the plates *g h* and lock the sections together
90 sufficiently to prevent the movable section from being accidentally displaced. The plates *g h* extending nearly to the edge of the fixed section A, contact is made by the electrodes as soon as said sections are joined.
95 By this arrangement of parts danger of the contact being accidentally broken by slight displacement of the movable section is avoided. The fuse-wires *v z* are adapted to melt at a determined volume of current. The
100 isinglass plate E, being a non-heat conductor, serves as a guard to prevent the wooden body

of the section B from igniting from the melting fuse-wire.

The heads of the electrodes C D are V-shaped in cross-section to adapt them to enter the grooves *m* in the contact-plates and prevent accidental movement of the movable section B.

Having thus explained our invention, what we claim is—

10 1. A fuse-box of the character described, comprising a fixed section provided with conducting-plates separated by a dovetail groove extending across the inner face of said section, in combination with a movable section
15 provided with a block fitted to enter said groove, and spring-electrodes having fusible connection with the lamp-wires and adapted to engage said conducting-plates, substantially as and for the purpose set forth.

20 2. In a fuse-box, a fixed section provided with contact-plates separated by a dovetail groove and having posts for the line-wires, in combination with the movable section provided with a block fitted to slide in said
25 groove, spring-electrodes adapted to engage said contact-plates, and posts for the lamp-wires connected with said electrodes by fuse-wires, substantially as described.

30 3. In a fuse-box for incandescent electric lamps, a fixed section provided with contact-

plates and connectors for the line-wires, a dovetailed groove extending across the inner face of said section and separating said plates, a movable section provided with a block fitted to slide in said groove, spring-electrodes
35 disposed at opposite sides of said block and adapted to engage said contact-plates, posts for the light-wires, fuse-wires connecting said posts and electrodes, and a non-heat-conducting plate interposed between said fuses and
40 the body of said sections, substantially as set forth.

4. In a fuse-box for incandescent electric lamps, the section A, provided with the contact-plates *g h*, having the locking-grooves *m*,
45 the dovetail groove *f*, separating said plates, and the connector-posts *j k*, in combination with the section B, provided with the dovetail block *i*, the spring-electrodes C D, provided with the heads *w*, and posts or wire-
50 plates *r t*, connected, respectively, with said electrodes by fuse-wires, and the insulating-plate E, all being arranged substantially as and for the purpose set forth.

ARNOLD B. HOLMES.
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