

941,165.

Patented Nov. 23, 1909.

2 SHEETS—SHEET 1.

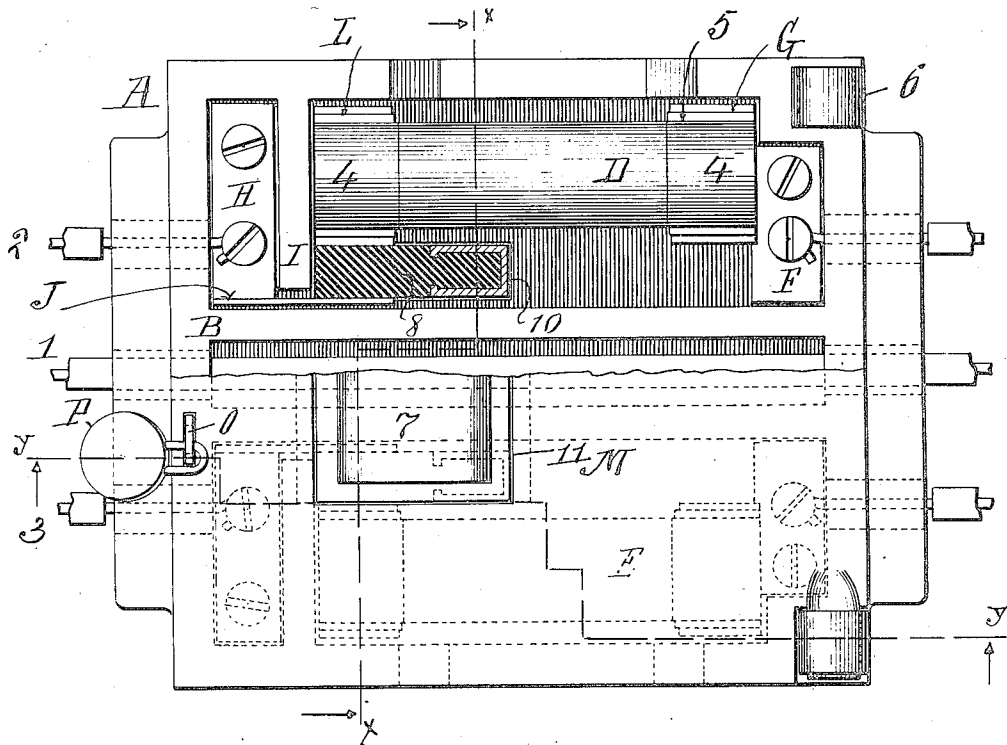


Fig. 1.

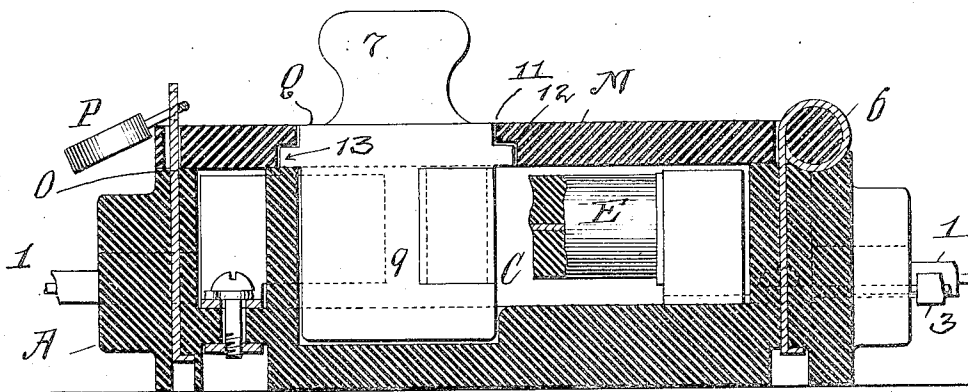


Fig. 2.

Witnesses:
C. H. Bertholf
May J. Mc Larry.

Inventor
Thomas E. Murray
By his Attorney
Laird Benjamin

T. E. MURRAY.
ELECTRIC CUT-OUT.

APPLICATION FILED JUNE 18, 1909.

941,165.

Patented Nov. 23, 1909.

2 SHEETS—SHEET 2.

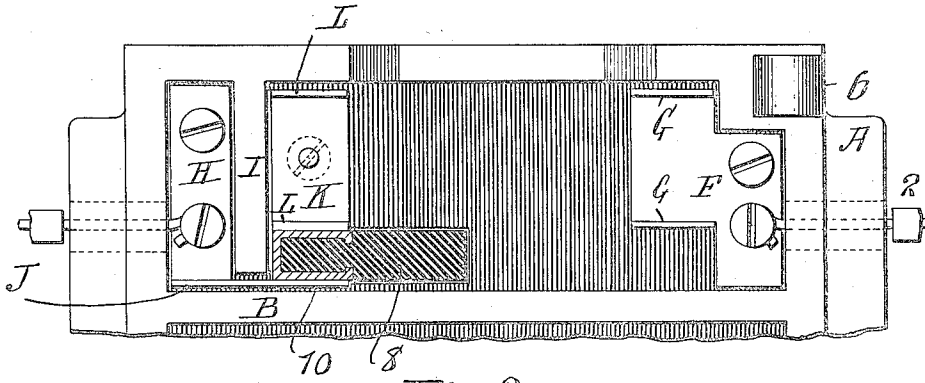


Fig. 3.

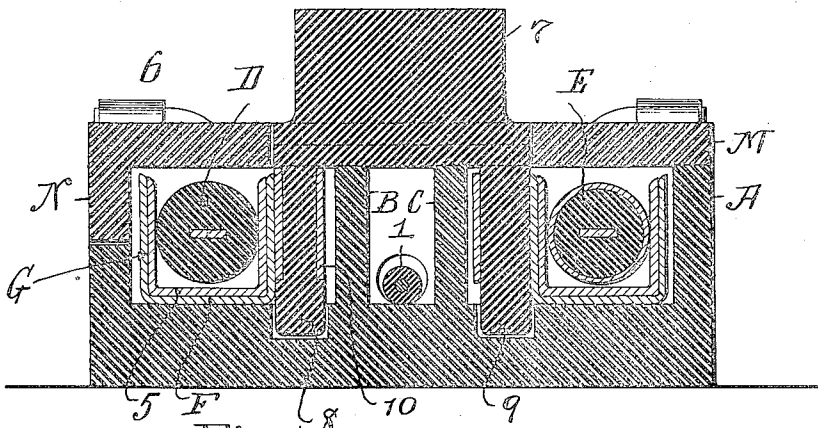


Fig. 4.

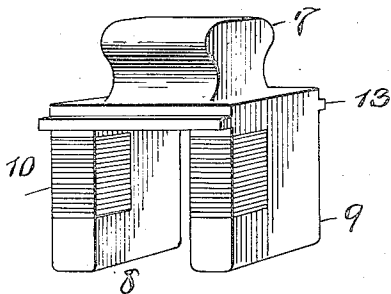


Fig. 5.

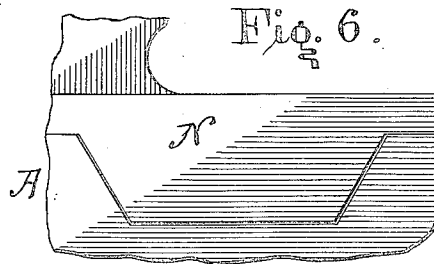


Fig. 6.

Witnesses:

C. H. Bertholf
May J. McSarris.

Inventor
Thomas E. Murray
By his Attorneys
Lam Benjamin

UNITED STATES PATENT OFFICE.

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

ELECTRIC CUT-OUT.

941,165.

Specification of Letters Patent.

Patented Nov. 23, 1909.

Application filed June 18, 1909. Serial No. 502,879.

To all whom it may concern:

Be it known that I, THOMAS E. MURRAY, 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 Cut-Outs, of which the following is a specification.

The invention relates to electric cut-outs wherein the fuses and circuit connections are inclosed in insulating refractory material, such as porcelain, and consists in the construction more particularly pointed out in the claims.

In the accompanying drawings—Figure 1 is a plan view with half of the cover M removed. Fig. 2 is a section on the line *y, y*, of Fig. 1. Fig. 3 is a partial plan view with the cover and fuse removed, and one leg of the movable cut-out plug in horizontal section. Fig. 4 is a section on the line *x, x*, of Fig. 1. Fig. 5 shows the cut-out plug separately and in perspective, and Fig. 6 shows one of the joints between the cover and the side walls of the box.

Similar numbers and letters of reference indicate like parts.

The interior of the box A, which is of porcelain or similar refractory insulating material, is divided into three compartments by the longitudinal partitions B, C. The neutral conductor 1 of a three wire system passes through the middle compartment and the end walls of the box. In the other compartments are cartridge fuses D, E which are removably connected in circuit with the plus and minus conductors 2, 3, in the following manner, the connections for one fuse being similar to those of the other. At one end of the compartment and to the bottom of the box is secured a metal plate F having upwardly extending metal clip arms G. To plate F is connected one terminal of conductor 2. At the other end of the compartment and to the bottom of the box is secured a metal plate H to which the other terminal of conductor 2 is connected. Extending upward from plate H and between the end of a transverse partition I and the adjacent longitudinal partition B is a vertical contact plate J. On the bottom of the box is secured a metal plate K, and from said plate rise two clip arms L which are disposed directly opposite to the clip arms G, so that fuse D, having tubular metallic

end connections 4 may be placed directly in said clips G, L, and in that way be brought into circuit with the terminals of conductor 2. The cartridge fuse E is connected in circuit in like manner. In order to make close contact between the tubular fuse ends 4 and the clip arms, I may secure to said ends by solder, for example, bent metal inclosing plates 5.

The box cover M which is also of porcelain, is hinged or pivoted to one end wall of the box, as shown at 6. The longitudinal edges of said cover are provided with downwardly extending flanges N which enter corresponding recesses in the walls of the box, as shown in Fig. 6. Embedded in an end wall of the box is a metal rod O which, when the cover is closed, passes through an opening therein. In the rod O above said opening is a hole to receive the seal fastening P, by which the cover is secured in closed position.

The cut-out plug Q, shown in perspective Fig. 5, is made also of porcelain and has an upper or handle portion 7 and depending legs 8, 9, which legs, when the plug is in position to close circuit through the fuses, enter between the plates J and clip arms L. On the edge of each leg and extending over the sides thereof are metal contact plates 10 which make contact with said plates J and clip arms L, as shown in Fig. 3. When it is desired to break circuit through the fuses, the plug Q is lifted out and turned end for end, as shown in Fig. 1, so that the insulating material only of the legs comes between plates J and clip arms L. The plug Q is inserted in either position while the cover is raised. The cover is then closed, the handle portion of the plug passing and protruding through an opening 11 in the cover, in the edges of which opening are formed shoulders 12 to engage with flanges 13 on the plug, so that said plug cannot be removed after adjustment, without first lifting the cover. As the lifting of the cover cannot be effected without first breaking the seal fastening, it follows that said fastening serves both to secure the cover and plug.

It will be observed that by this construction the fuses and connections are completely inclosed in a body of porcelain or other refractory insulating material; that on lifting the cover, either of the two fuses is removable, and that the cut-out plug may

be adjusted to open or close circuit and then locked in position by the cover.

I claim—

1. In an electric cut-out, a box, fuse supports therein, one of said supports being connected to a circuit terminal, a fuse removably secured in said supports, and a removable circuit closing plug constructed to enter between the other support and a circuit terminal and in contact with said last named support.

2. In an electric cut-out, a box, fuse supports therein, one of said supports being connected to a circuit terminal, a fuse removably secured in said supports, means operating within said box for making and breaking circuit between the other fuse support and the opposite circuit terminal, and a device on the exterior of said box for locking said means in adjusted position.

3. In an electric cut-out, a box of insulating material, two pairs of metal clip arms therein, one pair of said arms being connected to a circuit terminal, a fuse removably disposed in said arms, a contact plate connected to the other circuit terminal, and a removable circuit closing plug constructed to enter

between said contact plate and one member of the other pair of clip arms.

4. In an electric cut-out, a box, fuse supports therein, one of said supports being connected to a circuit terminal, a fuse removably secured in said supports, a removable plug for making and breaking circuit between the other fuse support and the opposite circuit terminal, and a hinged cover having an opening receiving and engaging with said plug.

5. In an electric cut-out, a box, fuse supports therein, one of said supports being connected to a circuit terminal, a fuse removably secured in said supports, a removable plug of insulating material, and a plate of conducting material extending over one edge and opposite sides of said plug; the said plate on said plug closing circuit between said fuse support and circuit terminal upon the insertion of the plug between said parts.

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

THOMAS E. MURRAY.

Witnesses:

MAY T. MCGARRY,
GERTRUDE T. PORTER.