T. E. MURRAY.

ELECTRIC CUT-OUT.

APPLICATION FILED JUNE 29, 1911.

1,012,145. Patented Dec. 19, 1911.

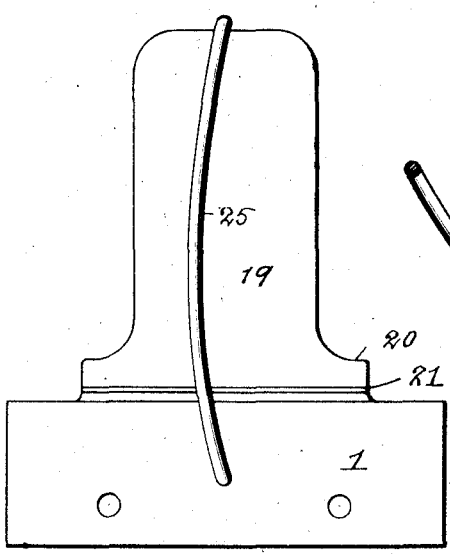

Fig. 1

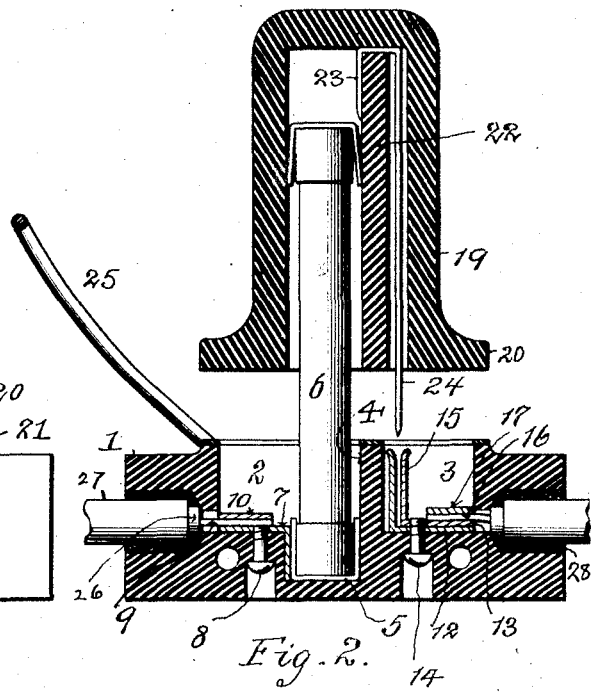

Fig. 2.

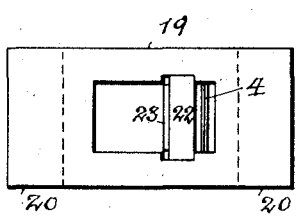

Fig. 3.

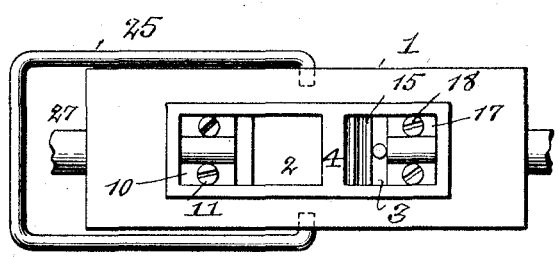

Fig. 4.

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UNITED STATES PATENT OFFICE.

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ELECTRIC CUT-OUT.

1,012,145. Specification of Letters Patent. Patented Dec. 19, 1911.

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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 is an electric cut-out, more especially intended for use with heavy currents, and comprises a base block, circuit terminals thereon, a separately removable fuse case in contact with one of said terminals and protruding from said base block, and a cup-shaped cover or envelop of insulating material adapted to be grasped by the hand of the operator and receiving the protruding portion of said fuse, and provided with means for closing circuit from the other circuit terminal to said fuse.

In the accompanying drawings—Figure 1 is a side elevation of my improved cut-out. Fig. 2 is a vertical section thereof. Fig. 3 is a bottom view of the cover, and Fig. 4 is a top view of the base block with the cover removed.

Similar numbers of reference indicate like parts.

1 is the base block, preferably of refractory insulating material, such as porcelain, provided with two recesses 2, 3, separated by a partition 4. In the bottom of the recess 2 is a socket to receive the metallic cap or end piece 5 of the cartridge fuse case 6. Within said socket is a contact plate 7, secured in place by screw 8, which extends over the bottom of recess 2. The terminal 9 of a circuit conductor is connected to plate 7 by an arched plate 10 secured to plate 7 by screws 11. In the recess 3 are two contact plates 12, 13 secured together by screw 14 and upwardly bent to form a spring clip at 15. To the upper contact plate 12 the terminal 16 of a circuit conductor is secured by an arched plate 17 attached to plate 12 by screws 18. The cup-shaped cover or fuse case envelop 19 is also of refractory insulating material, and is provided with flanges 20 to extend over the recesses 2, 3. Between the cover and the base block an elastic gasket 21 may be interposed. The fuse case 6, when placed vertically in the socket in recess 2, protrudes from the base block and is received in said cover, when said cover is in place on the base block. Within the cover is a partition 22 which, when said cover is in place, registers with the partition 4 in the base block, and which divides the space within the cover into two compartments. Said partition may enter at its edges and be secured in grooves in the cover as shown in Fig. 3. A contact plate 23 in the compartment containing the fuse case extends over the edge of partition 22 into the adjacent compartment, so that said partition lies in the loop formed by said plate, and protrudes below the cover, as shown at 24. When the cover is in place on the base block, the protruding portion 24 enters the clip 15, and the upper end of the fuse case 6 makes contact with said plate 23; so that circuit is established from terminal 16, to clip 15, plate 23, through the fuse in case 6, to plate 7 and opposite terminal 9. In order to retain the cover in place, a bail 25 pivoted in the base block, is swung over the top of said cover, forcing the same closely down upon the elastic gasket 21.

The terminals 9 and 16 form the cores of a cable which has an envelop 26 of insulating material and an outer lead sheathing 27. The cable ends are secured in the base block in the following manner: The envelop 26 and sheathing 27 are removed to expose the terminals 9, 16. The cable end is then inserted in a shouldered recess in the wall of the base block, until the cable covering meets the bottom of said recess. The space in the recess outside of the cable is then filled with lead floss 28, which is packed therein into a substantially solid mass. In this way, I form perfectly moisture-proof joints between the base block and the cable.

The partition 22 forms a barrier or screen between the fuse and the terminal 16, so that even with heavy currents there can be no sparking or leakage between the fuse and said terminal, or across the loop formed by plate 23, in which loop said screen is placed. It is also to be noted that by taking off of the cover, the fuse is at once cut out of circuit, and inasmuch as the fuse case amply protrudes from its support, (it is, of course, immaterial whether the fuse case remains retained at one end or the other in cover or base block) it may be easily and safely removed. No possible risk is incurred by the operator however unskilled, since all he has to do is to release the bail, grasp the cup-shaped cover of porcelain or the

like, the flanges of which shield the lower part of his hand, and lift the cover from the base block. And conversely, circuit connection is not reëstablished until the cover is pushed down sufficiently far to bring the upper end of the fuse case into contact with plate 23.

I claim:

1. A base block of refractory insulating material, circuit terminals thereon, a cover, a partition in said cover dividing the same longitudinally into two compartments, and a contact plate extending around said partition and having one end terminating in one of said compartments and the other end protruding beyond the other compartment.

2. An electric cut-out comprising a base block, circuit terminals thereon, a cup-shaped cover for said block, a contact plate within and protruding below said cover and terminating near the top thereof, and a removable fuse case entering said cover and said base block and closing circuit at its ends with said contact plate in said cover and a circuit terminal in said base: the said contact plate at its protruding end closing circuit with the other of said circuit terminals in said base.

3. An electric cut-out, comprising a base block, having two sockets, circuit terminals in said sockets, a cover, and in said cover a separately removable fuse case, and a conducting strip making contact with one fuse case terminal; the said fuse case and strip both projecting below said cover and making contact respectively with said circuit terminals when said cover is in place on said base block.

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

THOMAS E. MURRAY.

Witnesses:

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