(No Model.)

W. EDSON.

ELECTRIC FUSE BOX.

No. 453,111. Patented May 26, 1891.

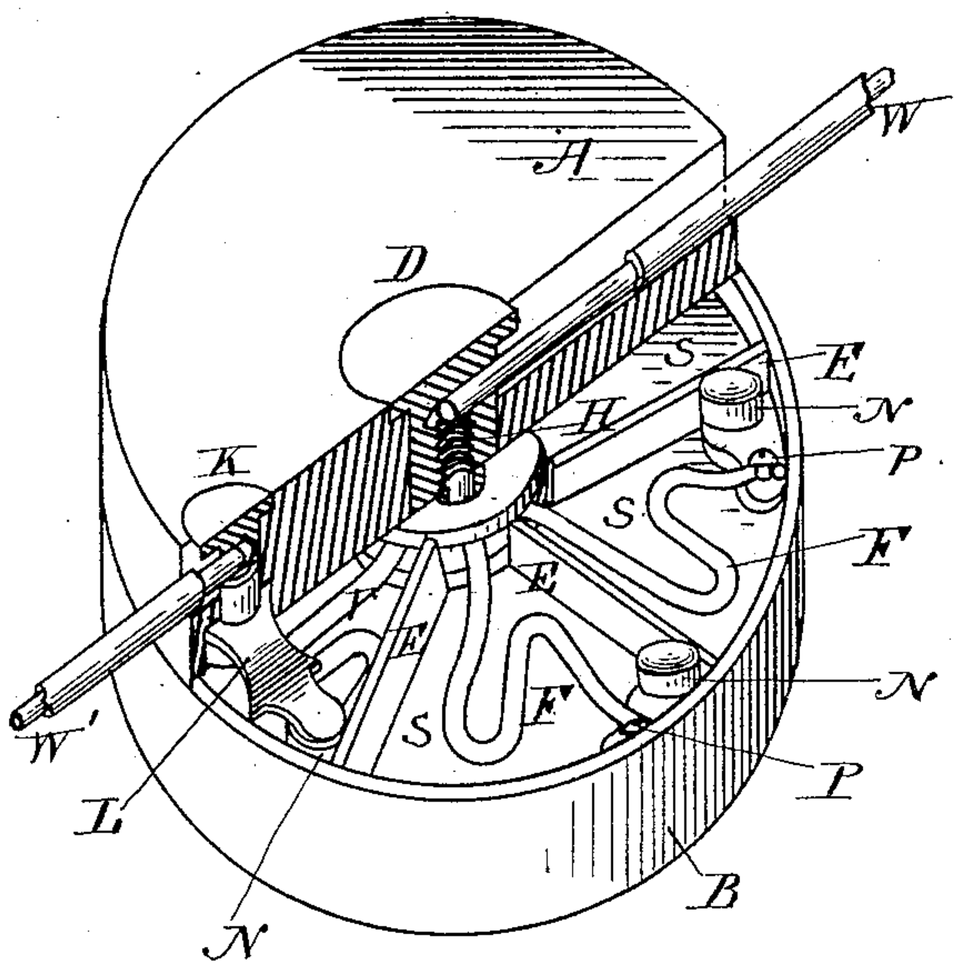

Fig. 1.

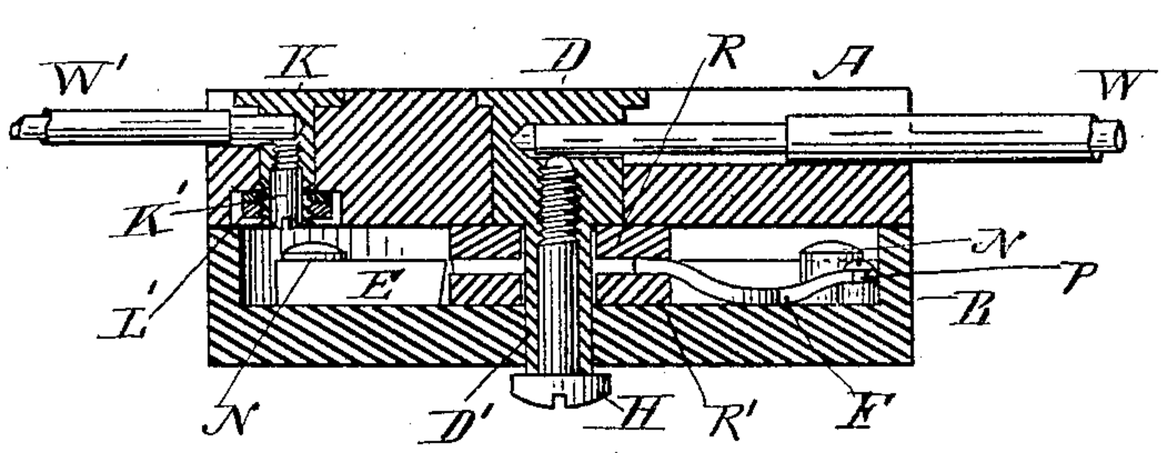

Fig. 2.

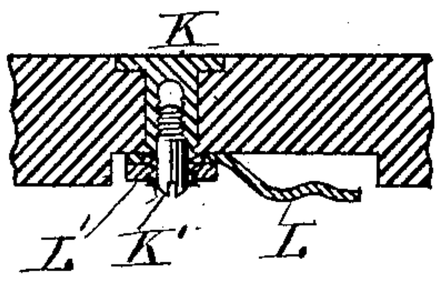

Fig. 3.

WITNESSES.

Frankly. Parker

Edward S. Day

INVENTOR

William Edson

UNITED STATES PATENT OFFICE.

WILLIAM EDSON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE BEACON VACUUM PUMP AND ELECTRICAL COMPANY, OF MAINE.

ELECTRIC-FUSE BOX.

SPECIFICATION forming part of Letters Patent No. 453,111, dated May 26, 1891.

Application filed January 21, 1891. Serial No. 378,574. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM EDSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Electric-Fuse Boxes, of which the following, taken in connection with the accompanying drawings, is a specification.

The object of my invention is to combine with an electric circuit a fuse-block of such a nature that when one fuse burns out another already in the box may by a slight movement be brought into the circuit, and that this substitution of a new fuse for a burned one may be repeated many times. This object I attain by the mechanism shown in the accompanying drawings, in which—

Figure 1 is a perspective view showing a part cut away. Fig. 2 is a vertical section of my device. Fig. 3 is a section showing in detail some of the parts.

The fuse-block in common use has but a single fuse, whose replacement requires considerable time and labor and is usually done at great inconvenience, especially when the fuse is used on electric cars and in places that are of difficult access.

My box is so constructed that it may contain a number of fuses, and that in case a fuse is burned out a part rotation of the movable section of the box will place another fuse in the circuit. This replacement may be repeated until all of the fuses are burned out. When the fuses of a box are all burned, the fuse section or part B may be removed, and on being refilled can readily be replaced or another filled fuse-section (several of which may be kept at hand) may be substituted for it with less difficulty than one ordinary fuse-wire has heretofore been inserted.

The box shown in the drawings is adapted for six fuse-wires; but the boxes may be made for a greater number, if desired.

In the drawings, A represents the upper or fixed portion of the fuse-box, which is made of some suitable insulating material, and is intended to be permanently attached to the wall or floor of a building or car. This part of the box receives the ends W and W′ of the severed line-wire, the end W being electrically connected to the metallic center part D by the screw H, the other end W′ being attached to the metallic circumferential post K by the screw K′. The circumferential post K has attached to its inner end a contact-plate L, said plate being held in place and electrically connected to the post K by the screw-nut L′. The rotating section B of the box is also made of some suitable insulating material, and is connected to the fixed part A by the quill part D′ of the metallic post D. (See Figs. 1 and 2.) The inner face of the rotating part B has recesses S S, divided from each other by the radial partitions E E. In each of the recesses S S, I have a contact-block N, adapted to receive one end of a fuse-wire F, which is electrically connected to it by a screw P. The inner ends of the fuse-wires F F are all electrically connected to the center post D by means of the metallic clamping-disks R R′, which are in contact with the said post D. It will be observed that each of the fuse-wires F is in a recess by itself, so that in the event of its melting it cannot get out of its own recess, and thus by coming in contact with another fuse-wire make an accidental closure of the circuit.

The operation of my multiple-fuse box is as follows: The ends W and W′ of the line-wire being inserted and connected, as described, with the fixed part A of the box, the rotating part B, being fitted with the fuse-wires F F, is attached to the quill and post D′ D by the screw-pin H. Now by turning the rotating part into such a position that the contact-plate L will rest on one of the contact-blocks N a circuit is established through the part W of the line-wire, post D, clamping-plates R and R′, fuse F, contact-block N, contact-plate L, and circumferential post K to part W′ of the line-wire.

To assist in manipulation and to indicate when the rotating part of the fuse-box is in such a position as to bring the contact-plate L in contact with a contact-block N, I form on the plate L a cup-shaped recess adapted to slip over and outside the rounded head of the contact-block N and to cling thereto, requiring considerable force to slide it off.

I claim—

1. In a fuse-block, the combination of a fixed part having a central pivotal post electrically

connected with one end of the severed line-wire, a circumferential post connected with the other end of the said line-wire, and a contact-plate electrically connected to the said circumferential post with a rotating block having a series of contact-blocks and fuses electrically connected severally with the said central pivotal post, the said contact-blocks being adapted to be brought, as desired, into electrical connection with the circumferential post of the fixed block, substantially as and for the purpose set forth.

2. In a fuse-block, the combination of the fuse-block A, line-wire W W′, connected, as described, to the pivotal post D, and the circumferential post K, said post K having a contact-plate L, with the rotating block B, provided with fuse-wires F, recesses S, and contact-blocks N, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 16th day of January, A. D. 1891.

WILLIAM EDSON.

Witnesses:
FRANK G. PARKER,
EDWARD S. DAY.