(No Model.)

J. T. HUNT.

REMOVABLE FUSE HOLDER.

No. 596,209. Patented Dec. 28, 1897.

Fig. 1.

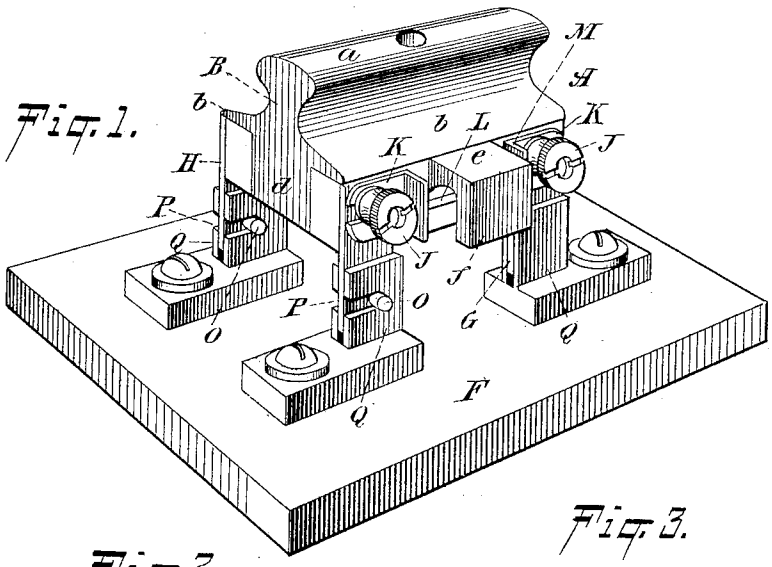


Fig. 2.

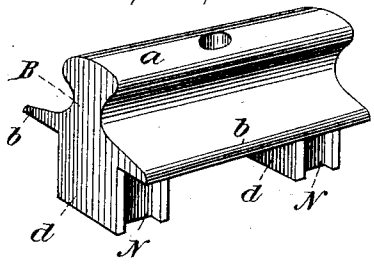


Fig. 3.

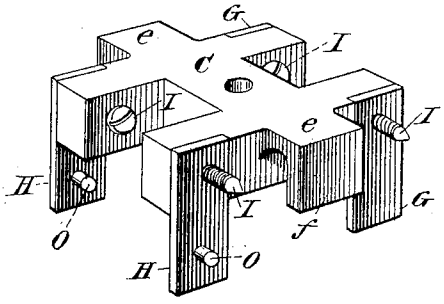


Fig. 4.

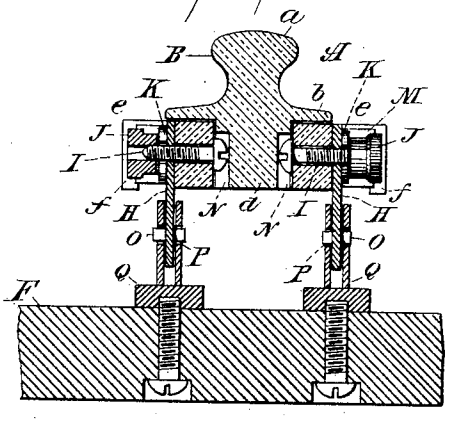


Fig. 5.

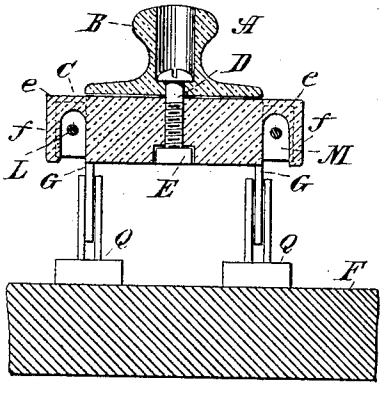
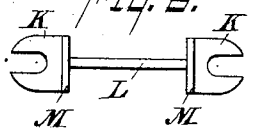


Fig. 6.



WITNESSES:

William P. Goebel.

E. Jos. Belknap.

INVENTOR

John T. Hunt,

BY

Chas. C. Gill

" ATTORNEY.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN T. HUNT, OF NEW YORK, N. Y.

REMOVABLE FUSE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 596,209, dated December 28, 1897.

Application filed July 12, 1897. Serial No. 644,229. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. HUNT, a subject of Her Majesty the Queen of Great Britain, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Removable Fuse-Holders for Electric Circuits, of which the following is a specification.

The invention relates to improvements in removable fuse-holders for electric circuits; and it consists in the novel features of construction and combinations of parts hereinafter described, and more particularly pointed out in the claims.

The object of my invention is to produce a more convenient and efficient fuse-holder than those heretofore known to me and one which may be readily applied to the supporting-boards and conveniently removed therefrom, either entirely or sufficiently, without full detachment, to break the electric circuit.

The invention will be readily understood from the following description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a removable fuse-holder constructed in accordance with and embodying the invention. Fig. 2 is a detached perspective view of the upper portion of the body of said fuse-holder. Fig. 3 is a detached perspective view of the lower portion of the said fuse-holder. Fig. 4 is a vertical transverse section of the fuse-holder through one end thereof, the section being on the line of the trunnions by which said holder may have a hinged movement when desired. Fig. 5 is a central vertical transverse section through the fuse-holder, and Fig. 6 is a detached side elevation of one of the fuses and the plates by which the fuse is connected with the fuse-holder.

In the drawings, A indicates the fuse-holder as an entirety, said holder being a block or body composed of the upper portion B and lower portion C, said portions being connected together by means of the central screw D, having the nut E.

The form of the top or upper portion B of the holder A is clearly illustrated in Figs. 1 and 2, in which it will be seen that the said portion B of the holder comprises the elongated handle *a*, the base *b*, and the downward extensions *d*, the latter being at the ends only of said base *b*.

The upper portion B of the holder, and comprising the handle *a*, base *b*, and downward extensions *d*, is in one integral piece of porcelain or other non-conducting material. The lower portion C of the holder is likewise in one integral piece of porcelain or other non-conducting material, and is of the outline more clearly illustrated in Fig. 3, the ends of said lower portion C being recessed to receive the extensions *d* of the upper portion B of the holder, and the opposite sides of said lower portion C being formed with the lateral extensions *e*, supporting the shelves or guards *f*. The extensions *e* are on a horizontal plane with the upper surface of the lower portion C of the holder, and, as illustrated, the shelves or guards *f* are at right angles to the lateral extensions *e* and project toward the supporting-board F for the holders. The shelves or guards *f* are in length about equal to the thickness of the lower portion C of the holder, and the lateral extensions *e* about equal in extent the distance between the recesses formed at the opposite ends of the lower portion C to receive the extensions *d* of the upper portion B.

Upon opposite sides of the ends of the lower portion C of the fuse-holder are secured metallic plates, lettered G G and H H, said plates being of appropriate length and being secured to the said portion C of the holder by means of the screws I, whose threaded outer ends are provided with the securing-nuts J and receive the bifurcated metal plates K, as shown more clearly in Figs. 1 and 6, which are connected by the fuse L. The plates K K are held against the plates G H by means of the nuts J, and said plates K have outwardly-turned flanges M, between which is secured the fuse L. The plates G G correspond with one another. The plates H H correspond with one another, and at each side of the holder A are secured in contact with said plates G H the bifurcated plates K, connected by the fuse L. When the nuts J are removed from the screws I, the plates K may be readily applied to or removed from the screws I, and the reapplication of the nuts J to said screws I will effectually secure the

plates K in position and in electrical contact with the plates G H.

The fuse L at each side of the holder A is shielded by the lateral extensions *e* and shelves or guards *f* of the fuse-holder. The inner ends of the screws I have their heads within the recesses formed in the opposite ends of the lower portion C of the holder, and the extensions *d* of the upper portion B of said holder are recessed, as at N, to pass over said heads.

The plates G H correspond with one another, with the exception that the plates H are provided with the pins or trunnions O, which extend laterally on both sides of said plates H and are adapted to pass within the slots P, formed in the posts Q, connected with the supporting-board F, as more clearly illustrated in Figs. 1 and 4. The plates G H pass downward between and contact with the corresponding plates forming the posts Q, and the plates of the posts Q which receive the plates H are correspondingly slotted, as at P, and within these slots are pushed the trunnions O. The trunnions O, together with the frictional contact of the posts Q against the plates G H, serve to retain the holder A in position. The trunnions O and slots P enable the holder A to be tilted upward in a hinged manner when desired, and said trunnions O, together with the slots P, permit of the ready attachment of the holder to the supporting-board and its removal therefrom. The posts Q are in electrical connection with the wires for the circuit, and said posts being of conducting material and being in contact with the plates G H will, with said plates G H, the plates K, and fuse L, constitute a part of the electric circuit, which will be broken by the tilting upward of the holder A or the removal of said holder from the posts Q or the burning out of the fuse L.

The supporting-boards F are usually of slate, marble, or like material, and constitute a substantial panel, upon which a number of the fuse-holders A will be arranged, and the said supporting-board or panel F is ordinarily, when in use, in a vertical position against a wall, and when said supporting board or panel is thus in use and in a vertical position it will be seen that the upper portions B of the holders A will be outward and that the lower portions C of said holders will be inward toward the board or panel F. When the supporting board or panel F is thus in a vertical position, the tilting of the holder A will be accomplished by simply drawing the holder outward toward the operator instead of upward, and under such conditions it will be observed that the lateral extensions *e* and shelves *f* securely guard the fuses L, and that upon the burning out of any of the fuses by an undue current the melted material thereof will be caught by the shelves *f* below them.

It will be observed that the body of the holder A is composed of simply the two parts B C, the latter being recessed at its ends to receive the extensions *d* of the part B, and that the part B covers the part C and affords a broad handle by means of which the holder may be readily handled. The parts B C are secured together by the single screw D, which, in view of the form and construction and relative arrangement of the parts B C, is amply sufficient to hold said parts firmly together. The plates G H are secured to the corners of the portion C of the holder by means of the screws I, and upon these screws are, by means of the nuts J, secured the plates K, to which the fuses L are connected, said fuses being within the space formed by the lateral extensions *e* and shelves or guards *f*.

When the holder A is in use, it will be in the position illustrated in Fig. 1, in which it will be observed that the plates G H are within the posts Q.

The holder A is free to be turned upward or downward on the trunnions O at will, and said holder is readily removable from the supporting or panel board F, as may be observed in Fig. 1, by simply sliding the trunnions O outward from the slots P, formed in the sustaining-posts.

The holder is entirely efficient in use and simple in construction and easy of manipulation. It may at any and all times be quickly applied to or removed from the posts Q without disturbing the latter, and when the holder is in use the fuses L will form parts of the electric circuit and burn out to break the circuit under the influence of an undue current of electricity.

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

1. The fuse-holder, comprising the portions B, C, each of non-conducting material, the portion B having the end extensions *d* and plate *b*, and the portion C corresponding substantially in outline with and being covered by said plate *b* and having end recesses receiving said extensions *d*, combined with means securing said portions B, C, together to form the body or block, the plates G, H, at the ends of said body, the screws fastening said plates G, H, to said body, the fuses connecting said plates at opposite sides of said body, and the posts for said plates; substantially as set forth.

2. The fuse-holder, comprising the portions B, C, the former having the plate *b* and end extensions *d* and the portion C corresponding substantially in outline with said plate *b* and having the end recesses receiving the extensions *d*, combined with the lateral extensions *e* and shelves *f* at opposite sides of said holder, the plates G, H, at opposite sides of the ends of the holder, the screws securing said plates G, H, in position and the fuses connecting said plates G, H, at opposite sides of the holder and passing within the space outlined by said lateral extensions *e* and shelves *f*; substantially as set forth.

3. The fuse-holder, comprising the upper and lower portions B, C, the former having

the handle *a*, base-plate *b* and end extensions *d*, and the portion C having its ends recessed to receive said extensions *d* and corresponding in general outline with the base-plate *b*, combined with the lateral extensions *e* and shelves *f* at opposite sides of said holder, the plates G, H, secured to the ends of said holder and at opposite sides of the latter, the screws retaining said plates G, H, in position and the fuses connecting said plates at opposite sides of said holder; substantially as set forth.

4. The fuse-holder comprising the portions B, C, each of non-conducting material, the portion B having the end extensions *d* and plate *b*, and the portion C corresponding substantially in outline and being covered by said plate *b* and having end recesses receiving said extensions *d*, combined with means securing said portions B, C, together to form the body or block, the plates G, H, at the ends of said body, the screws fastening said plates G, H, to said body, the fuses connecting said plates at opposite sides of said body, the trunnions O carried by said plates H, and the posts Q receiving said plates G, H, and one pair of which is slotted, as at P, to receive said trunnions and permit of the removal of said holder at will; substantially as set forth.

5. The fuse-holder, comprising the parts B, C, the latter having the recessed ends and being formed integral with the lateral extensions *e* and shelves *f*, and the part B being in one integral piece and formed with the handle *a*, base-plate *b* and extensions *d* to enter the recesses of the part C, combined with the plates G, H, secured to the ends of the part C and at opposite sides of the latter, the screws I retaining said plates G, H, in position, the nuts J on said screws, the plates K held on said screws by said nuts and the fuses L connecting said plates K at opposite sides of said holder and being within the space outlined by said extensions *e* and shelves *f*; substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 9th day of July, A. D. 1897.

JOHN T. HUNT.

Witnesses:
CHAS. C. GILL,
E. JOS. BELKNAP.