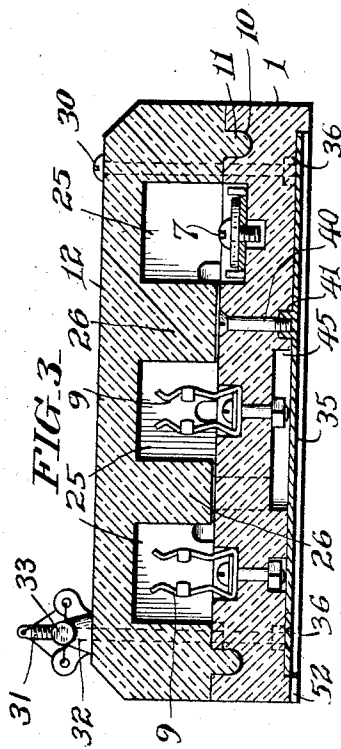
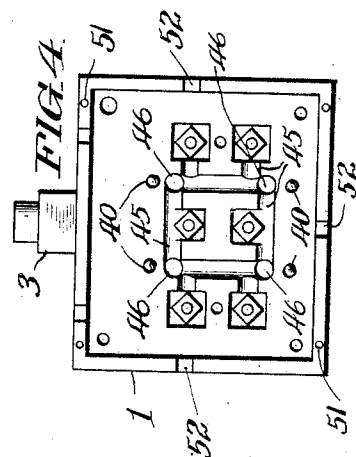
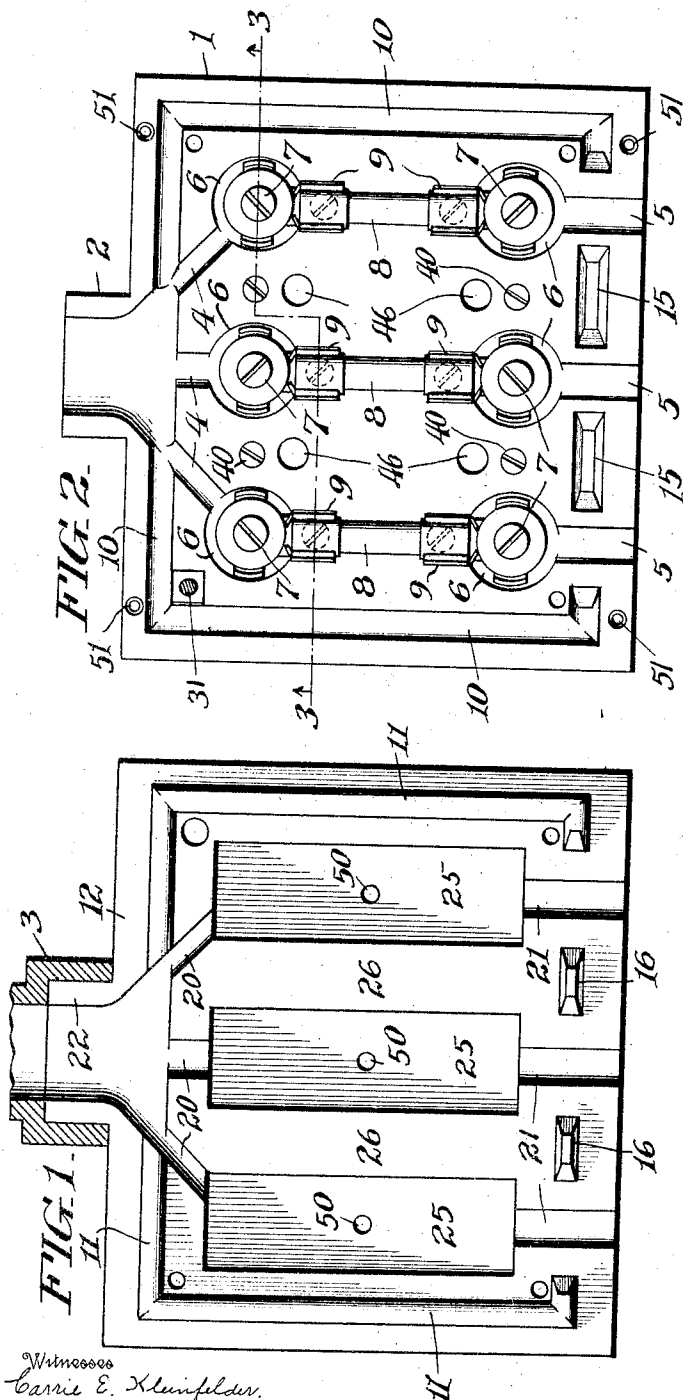


W. J. GIBBONS.
 SWITCH AND FUSE SUPPORT AND COVER.
 APPLICATION FILED JULY 2, 1910.

984,759.

Patented Feb. 21, 1911.



Witnesses
 Carrie E. Kleinfelder.
 Daniel Webster, Jr.

Inventor
 William J. Gibbons
 By Cyrus M. Anderson
 Attorney

UNITED STATES PATENT OFFICE.

WILLIAM J. GIBBONS, OF PHILADELPHIA, PENNSYLVANIA.

SWITCH AND FUSE SUPPORT AND COVER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM J. GIBBONS, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Switch and Fuse Supports and Covers, of which the following is a specification.

My invention relates to improvements in switch and fuse supports and covers and it has for its object to provide means whereby when the cover is in place upon the support, the individual polarities, that is the mountings and connections constituting the same, will be separated from each other by suitable insulating walls, but when the cover is removed the said separating walls will also be removed so that the mountings and connections upon the base of the support shall be readily accessible.

A further object of my invention is to provide means whereby a relatively free circulation of the air around and about the mountings and connections upon the support may be secured.

Other objects and advantages of my invention will be set forth hereinafter or will be obvious from the description of my invention, one form of which is illustrated in the accompanying drawings: but it will be understood that the same may be embodied in other forms in which the details of construction are different without departing from my invention as the same is set forth in the claims.

In the drawings:—Figure 1 is an inside plan view of a cover for a switch and fuse support; Fig. 2 is a top plan view of a switch and fuse support with the cover removed; Fig. 3 is a section on the line 3—3 of Fig. 2 with the cover in place; and Fig. 4 is a bottom plan view of the support with the bottom plate which is shown in Fig. 3 removed.

Referring to the drawings: 1 designates the base of a switch and fuse support having a boss or projection 2 thereon which is adapted to project into the end of a reducing socket 3, the said reducing socket having an open side as in the construction shown in my Patent No. 953,782, dated April 5th, 1910. The base portion 1 of the support is preferably provided with grooves 4 and 5 therein, as indicated in Fig. 2 of the drawings. The grooves 4 communicate with an opening 6 through the projection 2 through which the wires pass from the reducing

socket into the region of the base or support 1. When fitted up the wires preferably occupy positions in the grooves 4 and 5. The support is provided with binding posts 7 60 to which wires are connected in any known manner.

8 designates cut-outs or fuses which are supported in the spring clips 9, the said clips being arranged in pairs as illustrated in Fig. 2. 65

The groups of binding posts 7, clips 9, and cut-outs or fuses 8, are respectively designated as "polarities", the said term being one of relationship indicating that the different groups are of different polarities,— 70 plus or minus.

Extending partially around the outer edge portion of the base 1 of the support is a groove 10 into which a bead or elongated 75 projection 11 from the cover 12 projects or fits. The said base 1 is also provided with recesses 15 into which projections 16 on the cover extend when the cover is in place.

It should be noted here that the cover is 80 provided with grooves 20 and 21 which are complementary to the grooves 4 and 5 in the base 1, and also that the said cover is provided with a projection 22 which is complementary to the projection 2 on the base 1. 85

The cover is provided with recesses 25 separated by wall portions 26 as indicated in Figs. 1 and 3 of the drawings. When the cover is in place it will be observed that the individual polarities are located in the said 90 recesses 25 in the cover and that the wall portions 26 of the cover separate and insulate the said individual polarities from each other. By reason of the fact that the parts constituting the individual polarities are located in the recesses 25 in the cover and 95 mainly above the upper or top surface of the base or support 1, it is evident that when the cover is removed, as it may be readily, the said parts are conveniently accessible 100 for the purpose of being removed, for the purpose of being repaired, or for any other purpose. The cover is secured in position by means of screws 30 situated preferably at three of the corners of the device and a 105 fourth screw or bolt 31 situated preferably at the remaining corner of the device. The latter screw bolt is provided with a wing nut 32 which is prevented, by means of a seal 33, from being turned for the purpose 110 of removing it and thereby permitting the removal of the screw bolt 31.

For the purpose of protecting the screws and other portions of the mountings on the base 1 which extend through the said base, I have provided a plate 35 on the lower side of the said base. The screws 30 have screw-threaded engagement with bosses 36 which may be formed integrally with or separately from the said plate and then secured thereto by soldering or otherwise. The said screws 30 may be the only means for securing said plate in position, although I prefer to employ additional screws 40 for that purpose. These screws 40 engage bosses 41 on the plate 35 similar to the bosses 36.

In order to provide for free circulation of air around and about the parts of the mountings and connections of the support I have provided in the bottom side of said base grooves 45 which communicate with the openings in the said base by means of which the mountings are secured thereto; and I have also provided perforations 46 through the said base which communicate with the spaces between the cover and the base of the said support; and in addition I have provided the perforations 50 through the said cover. By means of these grooves the air is permitted to circulate with substantial freedom about the mountings of the said base or support and thus the liability of the parts becoming overheated is reduced to a minimum. Also by reason of the fact that the plate 35 is free from openings or perforations the air which may become heated by reason of the heating of the electrical connections or which may also become heated by the blowing out of a fuse or fuses and which is located between the plate 35 and the base 1 escapes through the perforations 46 in the base 1 and the perforations 50 in the cover of the support. It will be understood that the air may circulate between the plate 35 and the base 1.

The base may be secured in any suitable manner to a supporting means but I prefer to employ screws or bolts (not shown) which extend through openings 51 in the base and connect with the supporting means.

In order that the space between the supporting means and the plate 35 may have communication with the outside air, I provide notches 52 in the edges of the bottom of the base 1.

The base and cover parts of the support consist of a suitable insulating material, such as porcelain.

Having thus described my invention, I claim:—

1. In a switch and fuse support, the combination of a base member, electrical connections secured thereon, and a cover secured to said base member, the said cover having cavities in its inner side into which the said connections extend when the said cover is in place and also having separating walls between the said cavities.

2. In a switch and fuse support, the combination of a base member, electrical connections secured thereon, and a cover secured to said base member, the latter having grooves in its lower side, and both the base member and the covering member having perforations extending therethrough and being in communication with the said grooves for the purpose of permitting circulation of air around the said connections.

3. In a switch and fuse support, the combination of a base member, electrical connections secured thereon, a protecting plate secured to the lower or bottom side of the said base member, a cover adapted to be secured to the said base member, the latter member having grooves in its lower side and the said base member and cover having perforations extending therethrough which perforations are in communication with the said grooves in the base member for the purpose of permitting circulation of air around the said electrical connections and between the said plate and the said base.

4. In a switch and fuse support, the combination of a base member, electrical connections secured thereon and projecting above its top or upper side, a cover adapted to be secured to the said base member, the said cover having cavities in its inner side into which the said connections extend when the said cover is in place, and the said cover also having walls between the said cavities which separate the said connections when the cover is in place, and the said base and cover having perforations extending therethrough which communicate with the said cavities and permit circulation of air around the said connections.

In testimony that I claim the foregoing as my invention, I have hereunto signed my name this 1st day of July, A. D. 1910.

WILLIAM J. GIBBONS.

In the presence of—

GEO. H. WEIDNER,

CYRUS N. ANDERSON.