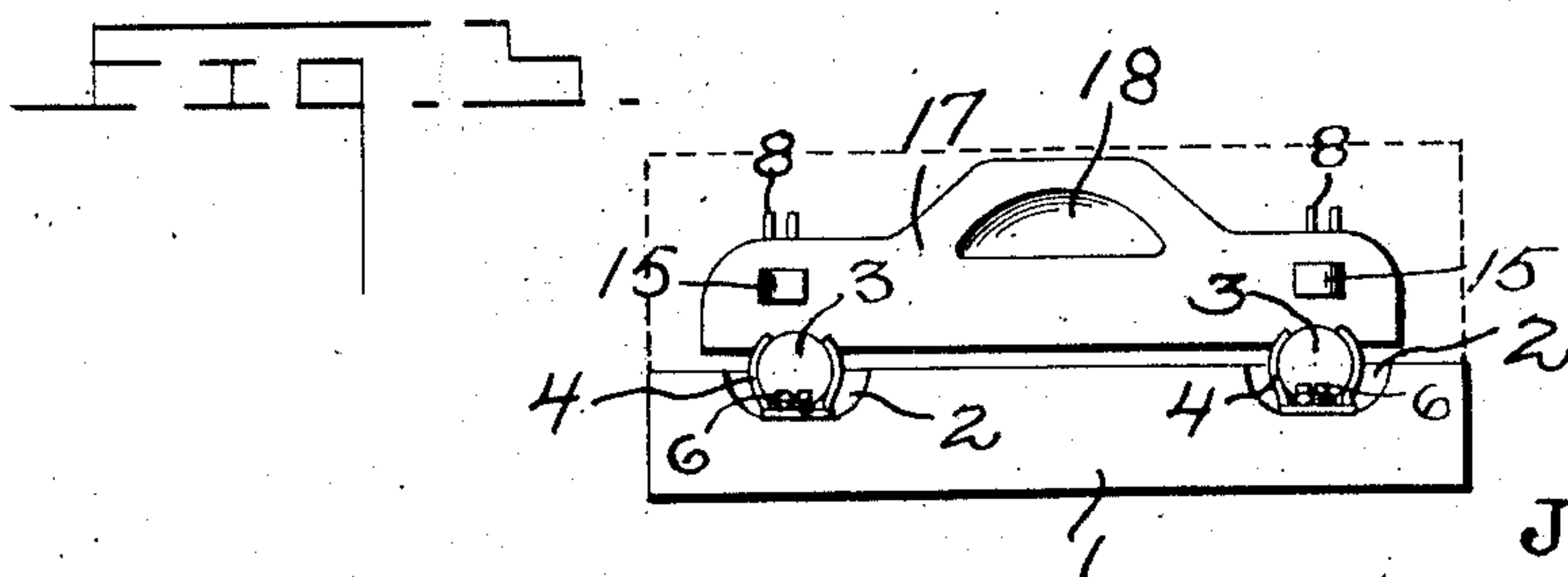
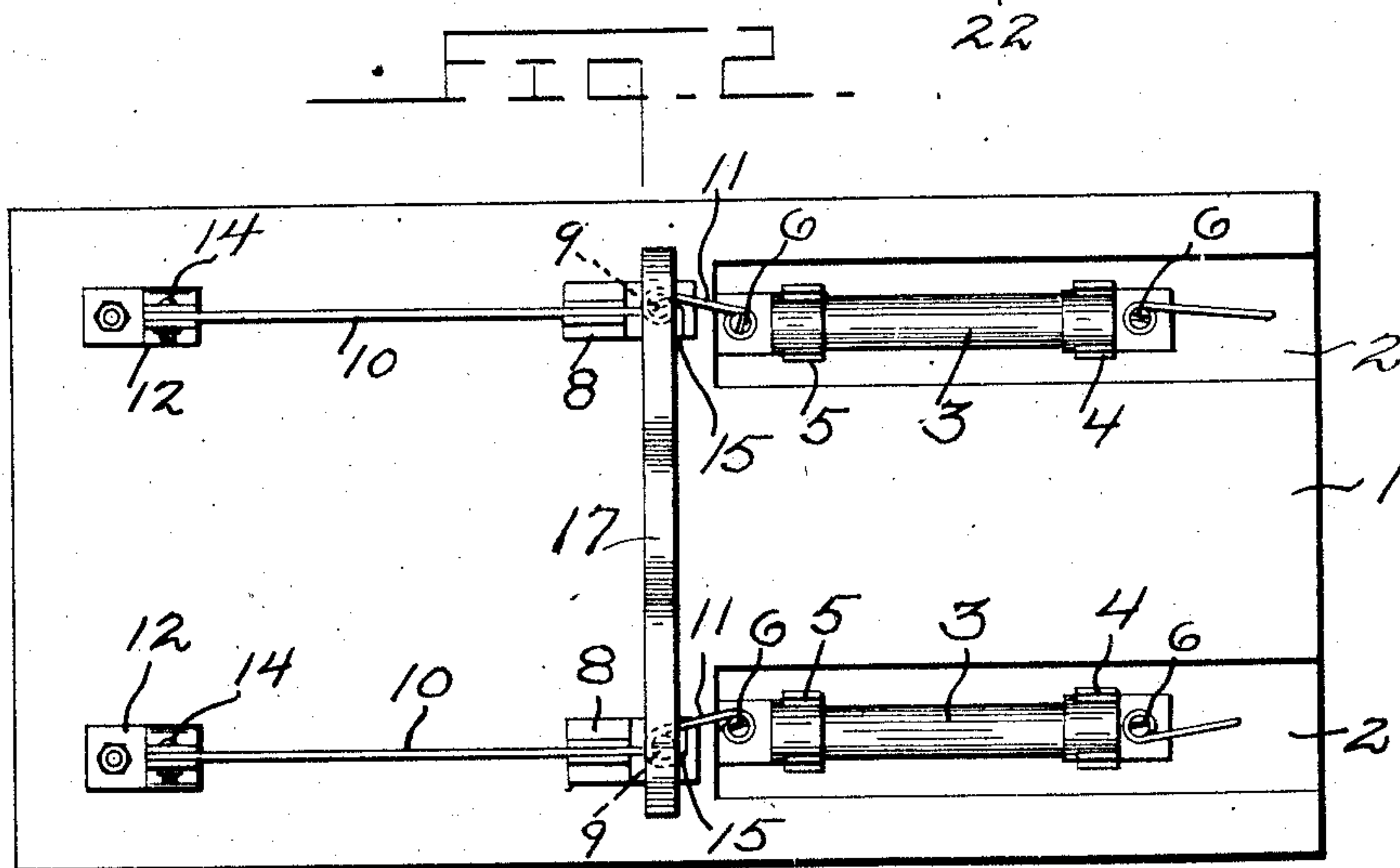


979,050.



Witnesses
E. E. Johansen.
M. S. Lowe.

By *Woodward & Chandler*
Attorneys

UNITED STATES PATENT OFFICE.

JOHN A. WARD, OF SPOKANE, WASHINGTON.

ELECTRIC SWITCH.

979 050.

Specification of Letters Patent. Patented Dec. 20, 1910.

Application filed August 21, 1909. Serial No. 513,991.

To all whom it may concern:

Be it known that I, JOHN A. WARD, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Electric Switches, of which the following is a specification.

This invention relates to improvements in electric switches.

10 The object of my invention is to provide a switch in which all the live parts are covered, and shielded when the circuit is closed, preventing any accidental contact therewith.

15 A further object is to provide a switch of a compact form having a novel form of handle and having a peculiar form of base arranged to receive the handle in such a way that while the operation of the device is readily accomplished, the casual disengagement or opening of the switch by moving objects striking against the handle is prevented.

20 In the drawings, Figure 1 shows a top view of the covered switch. Fig. 2 shows a top view of the switch with the two part cover removed. Fig. 3 shows an end view of the switch with the covers removed.

25 In the accompanying drawings the numeral 1 designates a base plate of any suitable non-conducting material such as mica, glass, or gutta-percha which near one end is provided with the grooves 2 which are disposed in parallel spaced relation, extend for a distance approximately half the length of the base plate and open through the end edge of that plate. Held within these grooves 2 respectively, there are the two outer fuse-carrying posts 4 in the form of sheet metal members bent into a U-shape to receive the fuse plugs 3 as disclosed. Held in alinement with these outer posts are the inner posts 5 which are also U-shaped and which carry the inner ends of the fuse plugs.

30 Held adjacent to the inner fuse supporting posts 5 are the posts 8 arranged to receive the knives 10, these knife receiving posts being secured by means of the screws 9. Suitable electrical conductors 11 extend from the posts 8 to which they are held by the retaining screws 9 for the posts to the inner ends of respective fuses to which they are secured by the screws 6. Held in alinement with the knife receiving posts 8 which are made of suitable conducting material are the knife carrying posts 12, two such posts

being used and held in spaced relation, being secured by means of the screws 13. These knife carrying posts 12 each carry a pin 14, and these pins 14 in turn support the knife blades, 10 made of suitable conducting material which have the reduced ends 15 which are carried through suitable slots within the transversely positioned connecting handle bar 17 which is made of non-conducting material. The lower edge of the non-conducting bar is stopped by the extending base portion of each knife receiving post, this bar having a central upwardly extending recessed finger grip 18, by means of which the switch knives are operated. The ends 15 of the knives are recurved to securely hold the bar 17 to the knives.

35 Held to the base plate 1 by means of the screw 20, is the shield or cover 21 having the channels 22, arranged to contain the upper ends of the inner and outer fuse carrying posts as well as the upper portion of the fuses. This shield 21 is provided with the extending flanges 23 the inner portion of the shield being cut away to provide the oblique portion 25 so as to form an access notch for the insertion of the fingers of an operator.

40 Held above the knife carrying and receiving posts is a slotted shield or cover 26 held by means of a suitable screw 27, and being further provided with the lengthwise positioned slots 28, through which the knife blades 10 strike, when the switch is thrown into operation. This shield 26 also has a portion removed as at 25' to make the bar 17 accessible, the extending flanges 30 also assisting in forming a socket, in which the transverse member 17 is held.

45 The two shields can be readily removed upon the removal of the screws 20 and 27.

50 The operation of my device is very simple. Whenever it is desired to throw the switch into circuit it is simply necessary to throw the bar 17 downward into contact with the knife receiving posts 8.

55 The attachment of the switch to a wall or supporting base is effected in any suitable workmanlike manner.

60 The switch is simple and inexpensive in construction and both durable and efficient in operation and the switch may be operated with positive safety to the operator, as it will be observed that the hand can not be placed in contact with any of the conductors while "live" the recesses 25 and 25'

allowing the bar 17 to be grasped only at a safe distance from the posts 8. If desired the fuse plugs may be eliminated.

It should be noted that the tops of the 5 terminal posts 8 are so spaced inwardly of the outer surface of the cover portions of the device that the switch blades 10 will be disengaged therefrom before they are disposed without the protecting covering.

10 What is claimed is:

The combination with a base member, of terminal members carried thereon, parallel switch blades pivoted thereon, terminal mem- 15 bers spaced from the first named members and adapted to receive said blades therein, an insulating grip bar carried upon the free ends of said switch blades, said bar having a central recessed enlargement adapted for manual engagement to operate the switch, 20 an insulating cover member engaged over said base member and covering said first named terminal members and having parallel narrow slots therein adapted to allow

close movement of the switch blades there- in, and stopping adjacent said cross bar, a 25 second cover member disposed oppositely of the cross bar, each of said cover members having extensions meeting at the opposite ends of said cross bar and having opposed finger receiving recesses therein on opposite 30 sides of the cross bar and stopping short of the second named terminal members, said cover members projecting outwardly a spaced distance beyond the outer ends of said second named terminal members, and 35 beyond the central extension of said cross bar to prevent casual engagement and operation of the switch, and to prevent contact of parts of the person with the conducting / portions of the switch when closed. 40

In testimony whereof I affix my signature, in presence of two witnesses.

JOHN A. WARD.

Witnesses:

FRANK M. ROSS,
NETTIE PATTISON.