(No Model.)

M. R. UTLEY.

ELECTRIC SWITCH.

No. 484,380. Patented Oct. 11, 1892.

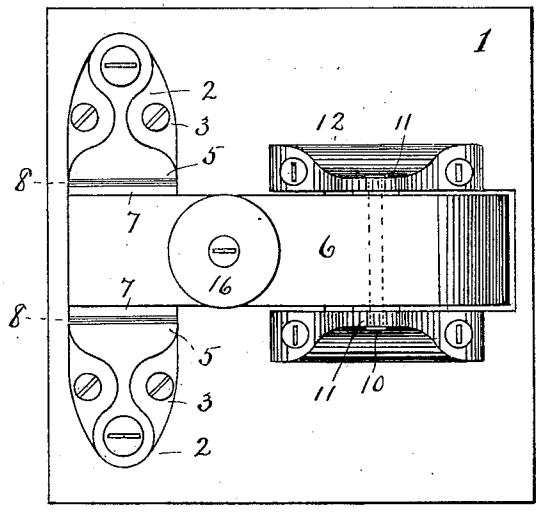

Fig. 1

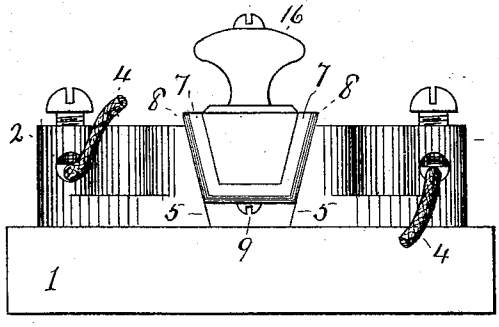

Fig. 2

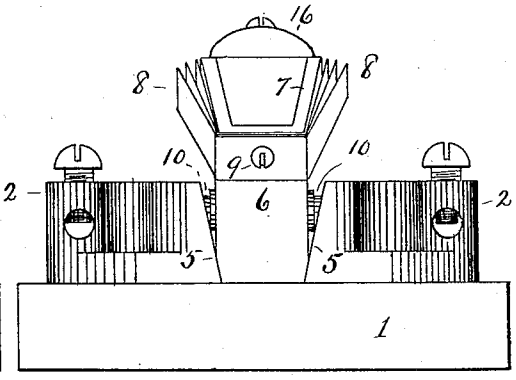

Fig. 3

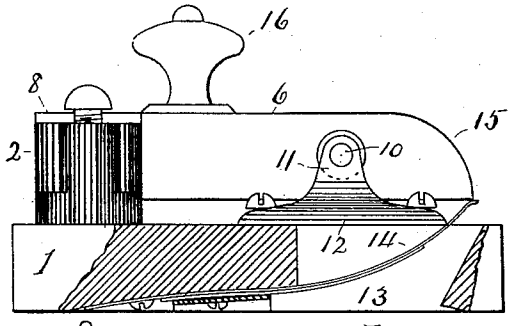

Fig. 4

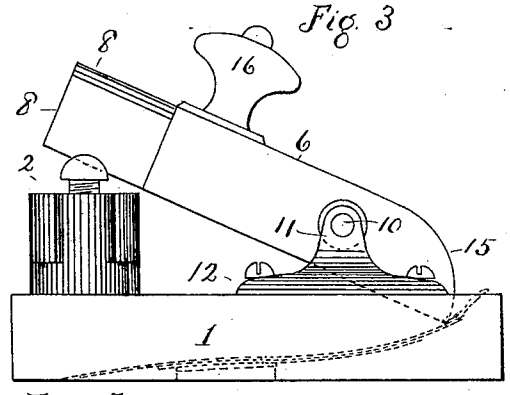

Fig. 5

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

UNITED STATES PATENT OFFICE.

MILTON R. UTLEY, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR OF ONE-THIRD TO FRANK P. SEAVEY, OF SAME PLACE.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 484,380, dated October 11, 1892.

Application filed March 5, 1892. Serial No. 423,827. (No model.)

To all whom it may concern:

Be it known that I, MILTON R. UTLEY, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Electric Switches, of which the following is a specification.

It is the object of my invention to produce a simple and effective switch to be manually operated for controlling electric currents. This object is accomplished by the device illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of an electric switch embodying my improvements. Figs. 2 and 3 are front elevations of the same, respectively showing the parts in position for closing and breaking the circuit; and Figs. 4 and 5, side elevations of the same, showing, respectively, the positions for closing and breaking the circuit.

In said drawings, 1 designates any suitable base, either of wood or other non-conductor, for supporting the switch devices. The binding-posts 2 are attached by screws 3 or otherwise to this base for connecting the electric wires 4 in the usual manner. These posts have their adjacent walls 5 inclined toward each other from top to bottom, so as to form a tapering opening between them. In rear of the binding-posts is pivoted a wooden or other non-conducting lever or bar 6, which has its forward end provided with a tapered metallic piece 7, conforming in shape to the opening between the walls 5. The bottom and sides of the part 7 are covered by one or more thin metal strips 8, preferably copper, which are fastened at the bottom, as by a screw 9, and have their sides free. The strips 8, constituting the brush, should have sufficient elasticity to spring out from the piece 7 when freed from the walls 5 in the manner indicated in Fig. 3, so that as the switch-lever is being raised or lowered in making or breaking circuit the leaves of the brush will be in constant contact with the walls 5 until freed entirely and simultaneously. Thus the forming of an arc in closing or opening the circuit is avoided.

The lever 6 is connected by a pivot 10 to standards 11, formed on a plate 12, that is screwed to the base 1, and in a slot 13 in the base is a flat spring 14, having its forward end secured and its rear end bearing against the under side of the end of the lever, and thus serves to hold the brush firmly to contact, as shown in Fig. 4. The rear end of the lever is rounded off, as shown at 15, and so when the lever is lifted the spring bearing against its rounded surface holds it in place and prevents its descent. A knob 16 is provided on the lever for operating it.

Having described my invention, what I claim is—

The combination, with a base and binding-posts, of a pivoted lever carrying contacts on its longer arm and having the upper portion of the end of its shorter arm rounded and a flat spring arranged to bear against the end of the shorter arm to hold the lever in different positions of adjustment, substantially as set forth.

MILTON R. UTLEY.

Witnesses:
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