

No. 770,818.

PATENTED SEPT. 27, 1904.

M. P. J. NEMMERT.
LOCKING DEVICE FOR SWITCHES.

APPLICATION FILED NOV. 21, 1903.

NO MODEL.

Fig. 1.

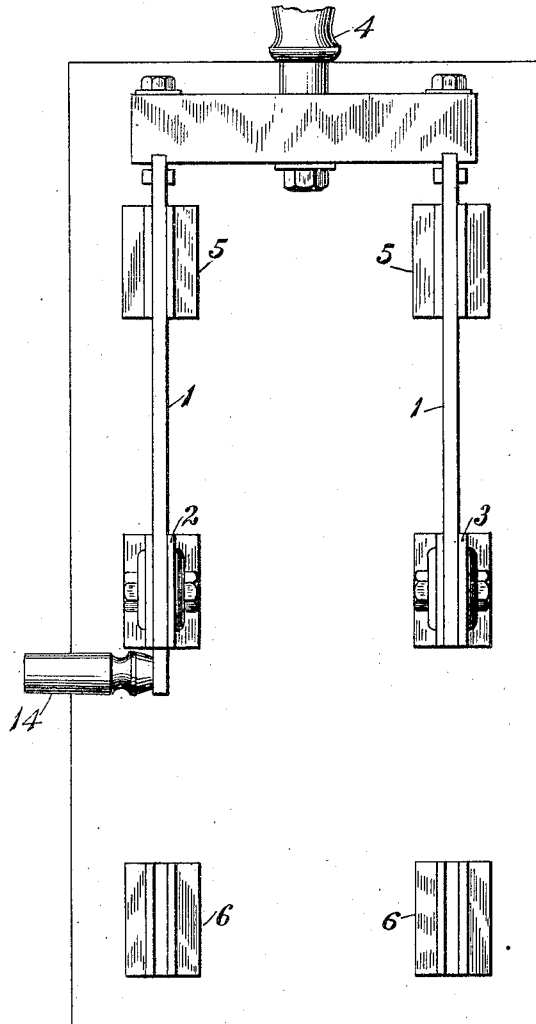
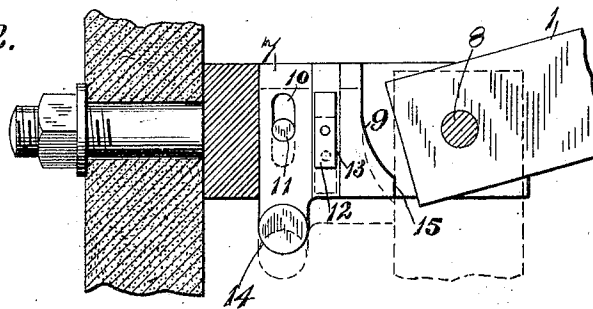


Fig. 2.



WITNESSES:

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MAX P. J. NEMMERT, OF WILKINSBURG, PENNSYLVANIA, ASSIGNOR TO
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LOCKING DEVICE FOR SWITCHES.

SPECIFICATION forming part of Letters Patent No. 770,818, dated September 27, 1904.

Application filed November 21, 1903. Serial No. 182,190. (No model.)

To all whom it may concern:

Be it known that I, MAX P. J. NEMMERT, a citizen of the United States, and a resident of Wilksburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Locking Devices for Switches, of which the following is a specification.

My invention relates to switches employed on switchboards in connection with electrical circuits; and it has for its object to provide simple, inexpensive, and efficient means for supporting double-throw switches of the knife-blade type in the open position.

In the use of knife-blade switches of the double-throw type which are mounted on vertical panels, with spring contact-jaws above and below the hinge-jaws, it sometimes happens that the weight of a movable switch member is such as to cause it to drop into contact with the lower jaws when it should remain in open position. While accidental movement of the movable member of such a switch from either of its closed positions is not likely to occur, means for locking it in its uppermost position would be a safeguard of some importance and value, and I have therefore devised a means for supporting it in its open position, which may also be utilized to lock it in its upper closed position.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a view in front elevation of a switch constructed in accordance therewith. Fig. 2 is a detail view of the locking device, the switch being open and parts thereof and of the panel being broken away. The position of the locking device when the switch is free to move is shown in broken lines.

The switch itself may be of a well-known type of construction, such as is shown in Fig. 1, consisting of blades 1, hinged to jaws 2 and 3 and operated by means of a handle 4, so as to be brought into contact with either the upper pair of spring-jaws 5 or the lower pair of like jaws 6.

The locking device consists of a plate 7,

movably located between the jaws of the hinge 2 and back of its pivot-pin 8, the outer edge of said plate being partially cut away, as indicated at 9. The plate is provided with an elongated slot 10, in which fits a pin 11 in order to guide it and limit its range of movement. In order to prevent accidental movement of the plate 7, I mount a spring 12 in a recess 13 therein, the free end of which bears against the adjacent face of the hinge-jaw. The plate is also provided with a handle 14, by means of which it may be operated.

When the plate 7 is in the full-line position (shown in Fig. 2) and the blade is in either its full-open position or in its upper closed position, the latter cannot be moved downward, because the straight portion 15 of the outer edge of the plate engages closely the end of the switch-blade 1; but when the plate 7 is moved to the position shown by the broken lines the clearance is sufficient to permit the switch-blade to be moved in either direction, as desired.

My invention may of course be applied to single-pole switches and may be modified as regards form and dimensions of parts provided its functional characteristics are retained.

I claim as my invention—

1. A lock and support for electrical switches having one or more blades hinged at one end between suitable jaws, comprising a movable plate located between said hinge-jaws, the outer edge of which is cut away for a portion of its length.

2. A lock and support for electrical switches having one or more blades hinged at one end between suitable jaws, comprising a plate adapted for movement between said hinge-jaws, the outer edge of said plate being cut away for a portion of its length, means for moving said plate and means for guiding and limiting the movement thereof.

3. A lock and support for electrical switches having one or more blades hinged at one end between suitable jaws, comprising an adjustable plate located between said hinge-jaws and having a projecting portion that is adapted to

be engaged by the end of a switch-blade when the plate is in one of its extreme positions and is removed from such relation when the plate is in its other extreme position.

5 4. In an electrical switch, the combination with a movable member comprising one or more blades hinged at one end in suitable jaws, means for operating said member, and spring-jaws adapted to make contact with said blades,
10 of means for supporting said movable member in its open position comprising an adjustable plate located between said hinge-jaws and having a projecting portion that is adapted to be engaged by the end of a switch-blade
15 when the plate is in one of its positions and is movable out of said relation.

5. A double-throw, knife-blade switch having a sliding plate mounted between its hinge-jaws back of the blade and provided with a
20 projecting edge portion that is adapted to be engaged by the blade when the plate is in one of its extreme positions and is out of the path

of movement of the blade when the plate is in its other extreme position.

6. A double-throw, knife-blade switch provided with a sliding plate having means for
25 adjusting it to lock the switch-blade in either its upper closed position or in its full-open position and for moving it out of such locking relation.

7. A double-throw, knife-blade switch provided with an adjustable locking-plate having
30 a portion which engages the blade when the plate is in one of its extreme positions and the blade is either closed or fully open and is free from the blade when the plate is in its other
35 extreme position.

In testimony whereof I have hereunto subscribed my name this 6th day of November, 1903.

MAX P. J. NEMMERT.

Witnesses:

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BIRNEY HINES.