

No. 656,361.

Patented Aug. 21, 1900.

H. D. MILES.  
SWITCH LOCK.

(Application filed June 2, 1900.)

(No Model.)

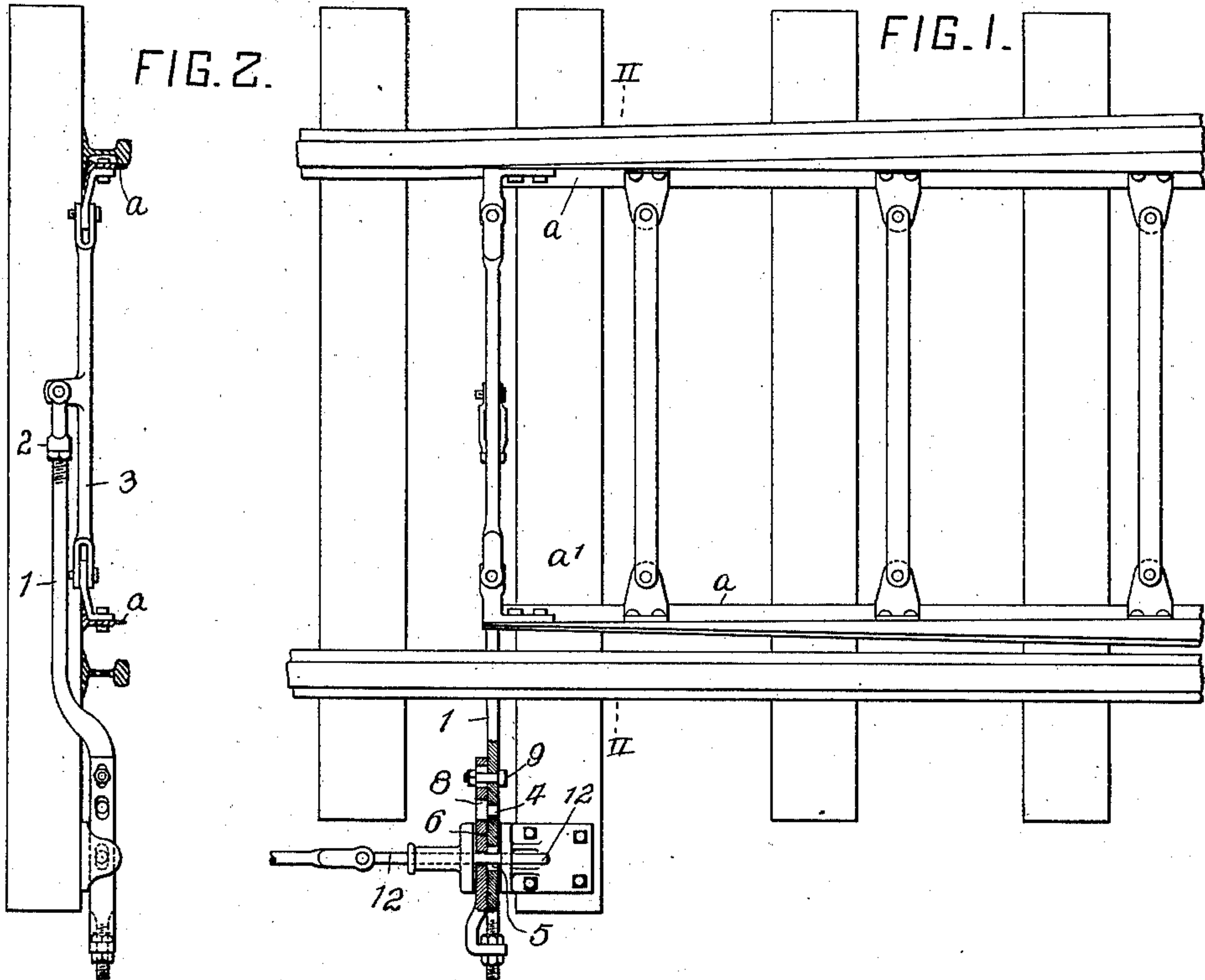


FIG. 3.

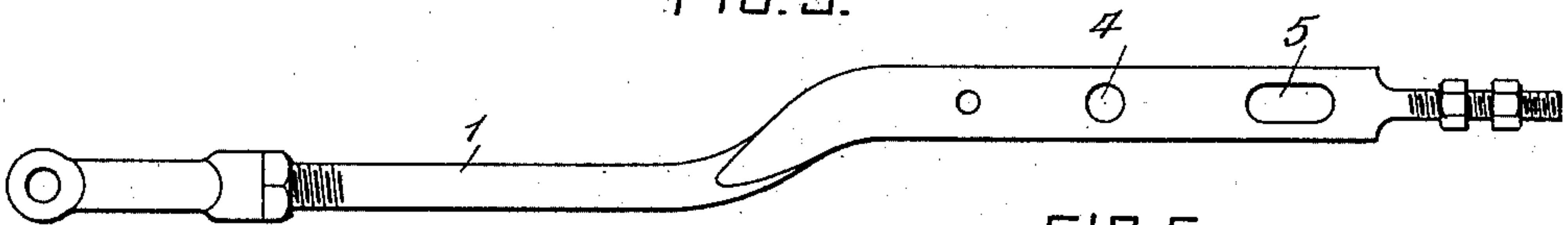


FIG. 5.

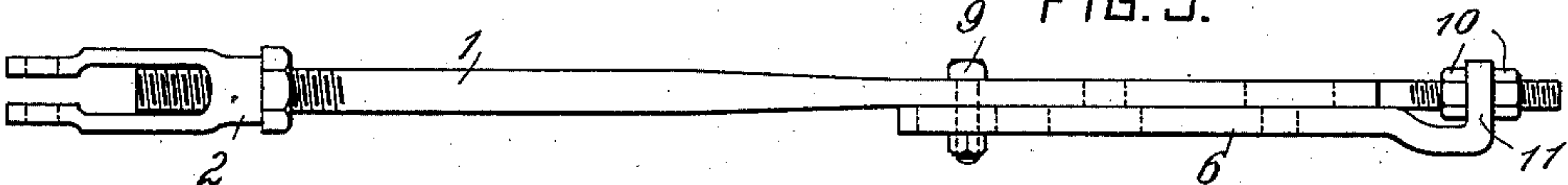


FIG. 4.

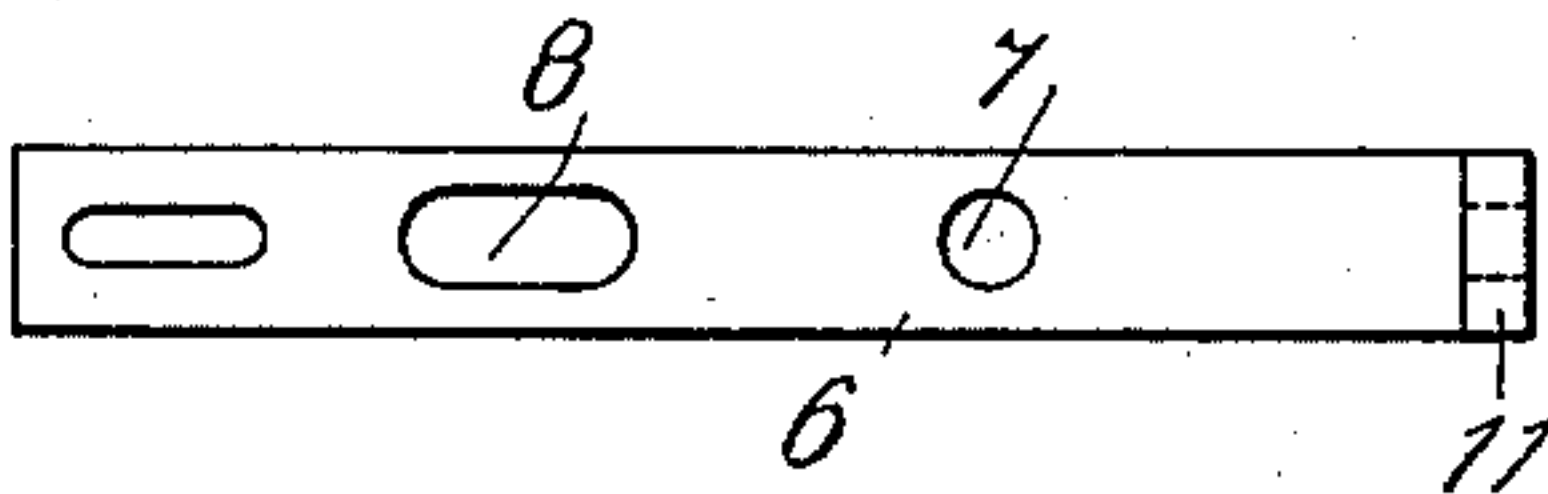
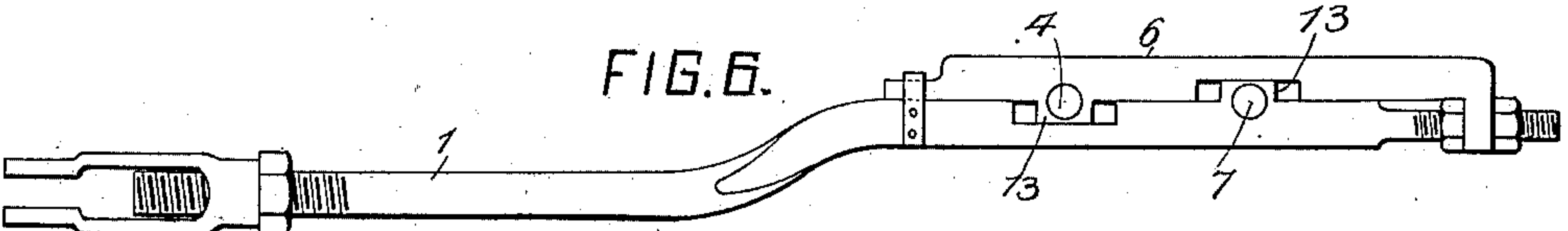


FIG. 6.



Witnesses  
*F. H. Dapper.*  
*Herbert Bradley.*

Inventor  
*Henry D. Miles*  
By his Attorney *Samuel B. Wolcott*



# UNITED STATES PATENT OFFICE.

HENRY D. MILES, OF DETROIT, MICHIGAN, ASSIGNOR TO THE UNION SWITCH AND SIGNAL COMPANY, OF SWISSVALE, PENNSYLVANIA.

## SWITCH-LOCK.

SPECIFICATION forming part of Letters Patent No. 656,361, dated August 21, 1900.

Application filed June 2, 1900. Serial No. 18,895. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY D. MILES, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented or discovered certain new and useful Improvements in Switch-Locks, of which improvements the following is a specification.

The invention described herein relates to certain improvements in facing-point switches, in which the movable switch-rails are arranged between the stock-rails and have their points tapering, so as to fit snugly against their respective stock-rails when shifted to open or closed positions. These switch-rails must at all times make a close fit against the stock-rails; but as the latter are subjected to more or less wear provision must be made to admit the switch-rails to insure the necessary close fit. Adjusting of the switch-rails or their throw to compensate for wear necessitates an adjustment or change in the switch-locking mechanism which is attached to the front connecting-rod of the switch-rails. The most usual form of construction of locking device consists of a pin movable by the switch-operating mechanism prior and subsequent to the shifting of the switch-rails, said pin engaging when in operative position holes or notches in the locking rod or bar. The adjustment of the switch-rails changes the range of movement of the locking-bar, so that the holes or notches in the locking-bar will not be in line with the locking-pin. Hence it has heretofore been customary to fill up in any suitable manner the old holes or notches and to form new holes or notches in proper position, so that the mere adjusting of the switch-rails is the least part of the labor and expense involved.

The object of the present invention is to provide for the easy and quick adjustment of the switch-rails and the locking mechanism when necessary.

The invention is hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a plan view of a portion of a facing-point switch, a part of the locking mechanism being shown in section. Fig. 2 is a transverse section, the

plane of section being indicated by the line II II, Fig. 1. Figs. 3 and 4 are side elevations of the two parts or members of the locking-bar. Fig. 5 is an edge view, on an enlarged scale, of the locking-bar complete; and Fig. 6 is a side elevation of a locking-bar, illustrating a modification of my improvement.

In the practice of my invention the bar 1 is adjustably secured by a turnbuckle-joint 2 to the front rod 3 of the switch-rails. In the outer end of the bar 1 are formed a circular opening 4 and a slot 5. A plate 6 is adjustably mounted alongside of the bar 1 and is provided with holes 7 and 8, (the latter being elongated,) but in reverse position to the hole and slot in the bar, so that when the plate 6 is placed alongside of the bar the hole 7 will register with the slot 5 and the hole 4 with the slot 8. Any suitable means may be employed for adjustably securing the plate 6 to the bar—such, for example, as that shown, consisting of a circular hole in one of the parts and an elongated slot or opening in the other part and a bolt 9 passing through said openings. The adjustment of the plate 6 along the bar is effected by nuts 10, screwing onto the threaded end of the bar and bearing against opposite sides of a lug 11 on the bar, having an opening therethrough for the reception of the threaded stem of the locking-bar. After the switch-rails have been adjusted to compensate for wear the rail *a* is shifted against its stock-rail, and by a proper manipulation of the turnbuckle-point 2 the hole 4 in the bar is brought into the line of movement of the locking-pin 12. The switch-rails are then adjusted so as to bring the rail *a'* against its stock-rail, and the nuts 10 are turned back and forth, so as to shift the plate 6 to bring its hole 7 into the path of movement of the locking-pin. The slots 5 and 8 in the bar 1 and plate 6 are made of sufficient length to permit of the several adjustments stated without interfering with the operation of the locking-pin 12.

It will be understood by those skilled in the art that in lieu of holes and slots through the bar and plate 6 corresponding notches may be formed in the edges of such parts, thereby rendering my improvement applicable to the construction of locking mechan-



ism employing the notched bar with the longitudinally-movable and notched locking-piece.

5 In lieu of the construction shown in Figs. 1 to 5 a construction similar to that shown in Fig. 6 may be employed. As shown in Fig. 6, the sections of the locking-bar are so arranged that the locking-pin will not have to pass through both sections. The holes 4  
10 and 7 for the locking-pin are formed in lugs 13 13<sup>a</sup>, formed on the respective sections of the locking-bar, and said sections have their edges notched for the reception of the lugs, said notches being made sufficiently long to  
15 permit of the necessary adjustment of the sections.

I claim herein as my invention—

1. A switch-lock having in combination a locking-pin, and a locking-bar adjustably  
20 connected to the switch-rails, and consisting of two parts or members adjustable relative to each other and to the locking-pin, each of said parts or members being provided with

means for engaging the locking-pin, substantially as set forth. 25

2. A switch-lock having in combination a movable locking device and means adjustably connected to the switch-rails for engaging the locking device, substantially as set forth.

3. A switch-lock having in combination a 30 locking-pin, a locking-bar adjustably connected to the switch-rails and provided with two holes or openings, one of which is elongated in the direction of the movement of the switch-rails, a plate adjustably mounted 35 on the locking-bar and provided with openings or holes similar to those in the locking-bar, but oppositely arranged, substantially as set forth.

In testimony whereof I have hereunto set 40 my hand.

HENRY D. MILES.

Witnesses:

EDWARD A. EVERETT,  
JOHN A. JOHNSON.