

(No Model.)

A. B. SCHRANTZ.
SWITCH LOCK.

No. 574,455.

Patented Jan. 5, 1897.

Fig. I.

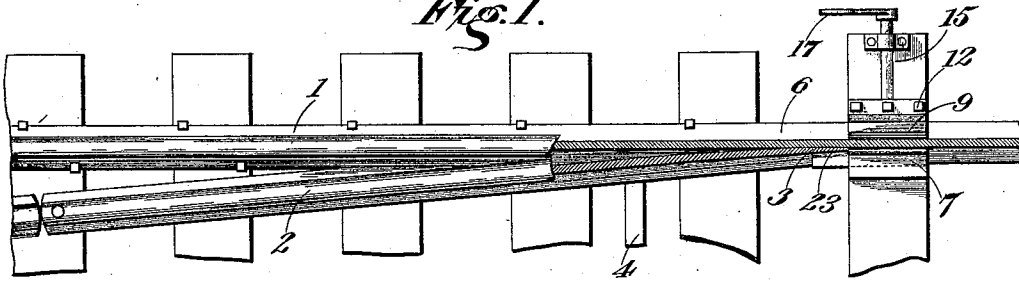


Fig. II.

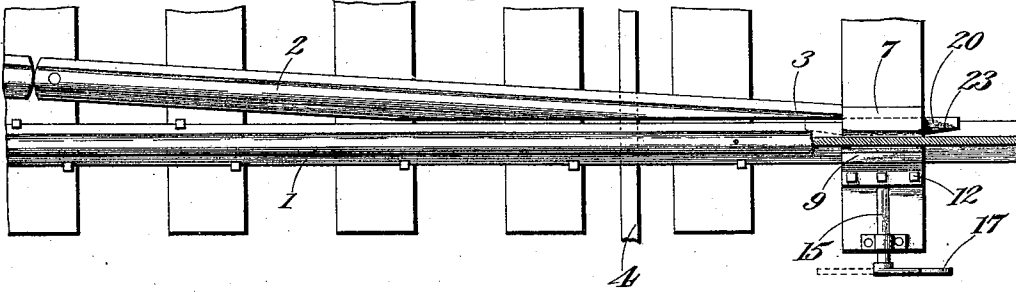


Fig. III.

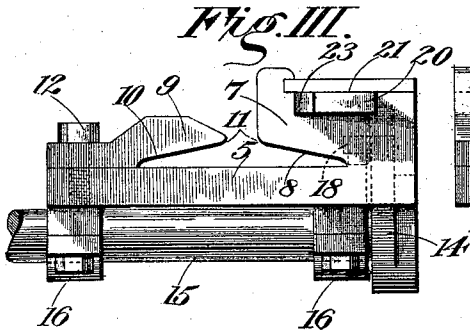


Fig. IV.

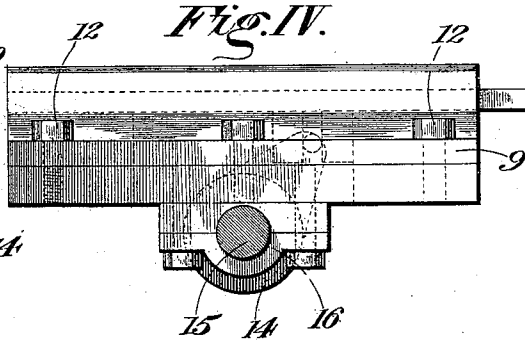
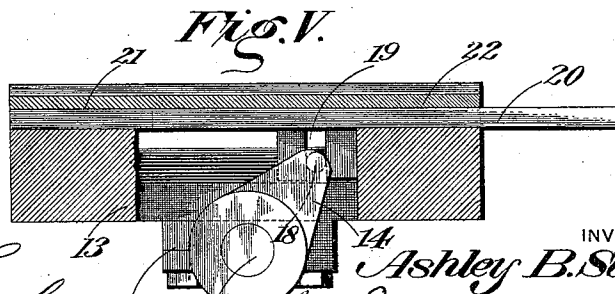


Fig. V.



WITNESSES

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ASHLEY B. SCHRANTZ, OF FAIRBURY, NEBRASKA.

SWITCH-LOCK.

SPECIFICATION forming part of Letters Patent No. 574,455, dated January 5, 1897.

Application filed December 30, 1895. Serial No. 573,745. (No model.)

To all whom it may concern:

Be it known that I, ASHLEY B. SCHRANTZ, of Fairbury, county of Jefferson, State of Nebraska, have invented certain new and useful Improvements in Switch-Locks, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce a simple, durable, and effective lock for holding the point-rail of a split switch firmly to the stock-rail, one which is carried upon the rail itself and is readily adjustable thereon, and one which, being reversible, may be attached to either side at pleasure.

In the accompanying drawings, Figure I is a top plan view of one end of a split switch, showing my lock thereon in the locking position. Fig. II is a similar view showing the lock in the unlocked position. Fig. III is an end view of my lock detached. Fig. IV is a side elevation thereof, looking at it from the outer side. Fig. V is a similar view, looking at it from the inner side, with the side wall cut away to show the relations of the interior parts.

Referring to the figures on the drawings, 1 indicates the stock-rail, 2 the split rail, and 3 the point thereof. There are two split rails, each of which swings alternately against one of the stock-rails as the switch is thrown from one side to the other. The points of the split rails are coupled together, as by a coupling or base rod 4, and they are shifted by any suitable and ordinary mechanism. (Not illustrated and described in detail.)

5 indicates the base-plate of my lock, which is somewhat wider than the flange 6 of the stock-rails. It is provided with suitable mechanism for securing it to the stock-rail, and since it is desirable to make it readily and speedily detachable or adjustable I prefer to employ for that purpose an oblong lip 7, having an undercut recess 8, within which one side of the flange 6 fits.

9 indicates a removable lip having an undercut 10, that fits upon the opposite side of the flange. A space 11 between the opposite edges of the lips receives the web of the rail when the lock is applied to it. The lip 9 is secured to the base-plate, as by bolts 12 passing through suitable opposite bolt-holes in the lip and in the base-plate, respectively.

13 indicates an oblong aperture in the bottom of the base-plate. Within this works a cam or crank 14, that is firmly secured to the end of a shaft 15 and which turns in bearings 16 on the bottom of the base-plate. The shaft 15 is designed to be operated by any ordinary lever 17 and to be locked in the same manner as switch-locks are ordinarily secured when adjusted in place. Such mechanism being of well-known and ordinary construction is not illustrated.

In its preferred form, as illustrated, the crank 14 is provided with a projection 18, which extends parallel to the axis of the shaft 15 and engages with the walls of a slot 19 in a lock-bolt 20. The lock-bolt moves longitudinally through a way or box 21, provided for it in the lip 7, a cover 22 serving to complete the way and to form a protection for the operating mechanism.

The lock-bolt is provided with beveled edges 23 at its opposite ends, the angle of inclination being made to approximately coincide with that of the point of the split rails, so that the point of the split rail is forced by a positive wedging action surely and firmly against the stock-rail, so as to take up all opening between it and the stock-rail, which is an important point in practice.

In practice the base-plate 5 is secured to the base of the rail and is readily fastened rigidly thereto through the operation of the bolts 12. When properly adjusted, the lock-bolt, through the operation of the shaft 15, may be swung into or out of engagement with the point of the split rail, and thus secure it in fixed position or release it when it is to be shifted. The bolts 12, in connection with the lip 9, afford suitable and convenient means for adjusting the lock upon the stock-rail if the latter should creep. The employment of the lock-bolt shooting through both ends of a lock that is attachable to the base of the stock-rail renders the same lock applicable to either rail of the track.

I do not confine myself to the details of construction herein shown and described, but reserve the right to modify and vary them at will within the scope of my invention.

What I claim is—

1. In a switch-lock, the combination with a base-plate, adapted to be secured to the flange

- of a rail, and means for fastening it thereto, of a lock-bolt movable endwise therein, said lock-bolt being adapted to be projected through one end or the other of the lock, and being provided at each end with a beveled edge, and mechanism for actuating the lock-bolt in both directions, so as to secure a split rail by a wedging action, substantially as set forth.
2. In a switch-lock, the combination with a base-plate, lip, lock-bolt and lock-bolt-actuating mechanism, of a second and removable lip, and mechanism for securing the same in place opposite the first-named lip, substantially in the manner and for the purpose specified.
3. In a switch-lock, the combination with a base-plate provided with a permanent lip and with a removable lip, of a lock-bolt movable endwise upon the base-plate, a slot therein, a crank working in the slot, and an actuating-shaft secured to the crank, substantially as specified.

In testimony of all which I have hereunto subscribed my name.

ASHLEY B. SCHRANTZ.

Witnesses:

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W. E. BOGART.