W. BUCHANAN.

RAILROAD-SWITCH.

No. 183,041. Patented Oct. 10, 1876.

Fig: 3

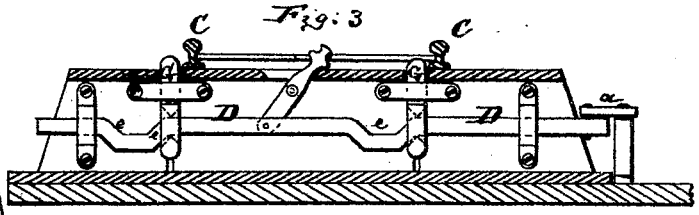


Fig: 1

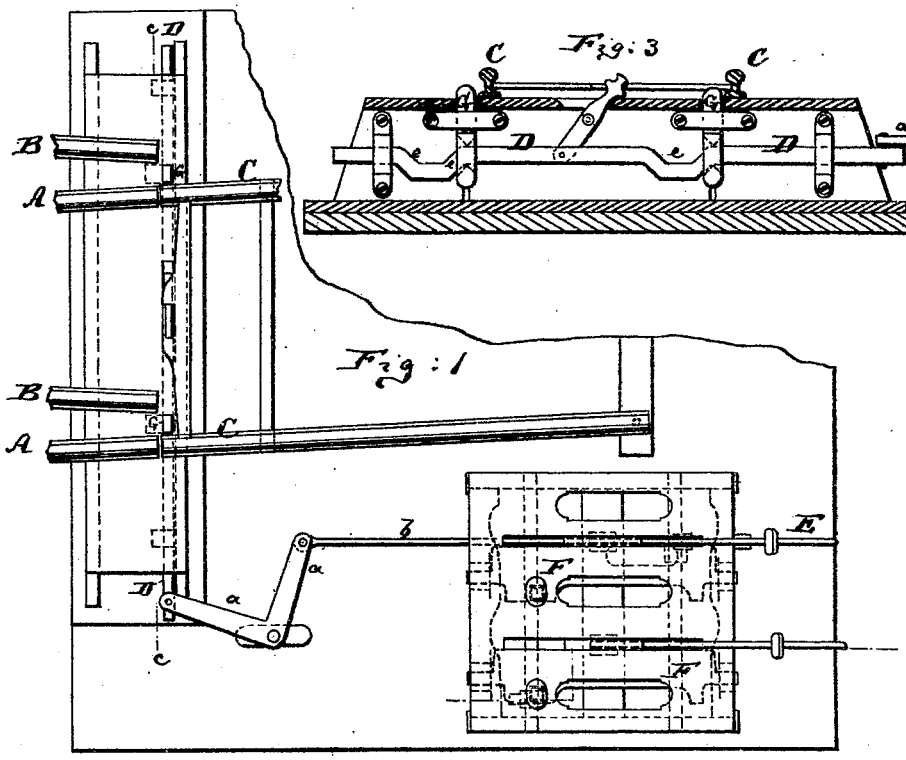
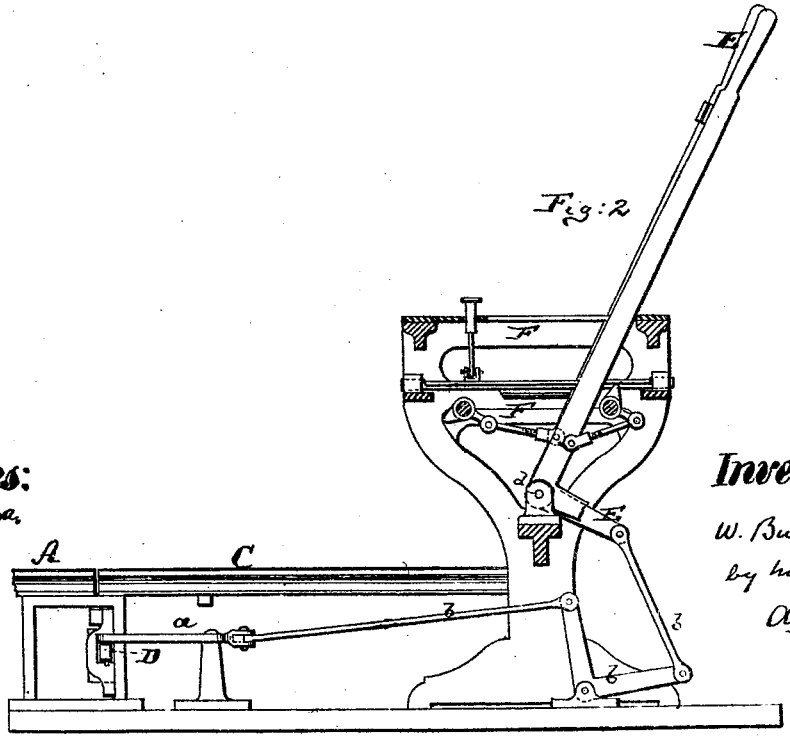


Fig: 2



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UNITED STATES PATENT OFFICE.

WILLIAM BUCHANAN, OF YONKERS, NEW YORK.

IMPROVEMENT IN RAILROAD-SWITCHES.

Specification forming part of Letters Patent No. **183,041**, dated October 10, 1876; application filed May 3, 1876.

To all whom it may concern:

Be it known that I, WILLIAM BUCHANAN, of Yonkers, in the county of Westchester and State of New York, have invented a new and Improved Switch Moving and Locking Mechanism, of which the following is a specification:

Figure 1 is a top view of my improved switch moving and locking mechanism; Fig. 2, a side view of the same; and Fig. 3, a vertical transverse section on the line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts in all the figures.

This invention has for its object to move and lock a railway-switch by the simple motion of one lever.

The invention consists in combining the switch-moving lever and bar with an automatic locking mechanism, which is effected by the same motion of the lever by which the switch is adjusted.

In the drawing, the letter A represents the main track, and B the side track, of a railroad. C C are the switch-rails, and D is the transverse bar by which the switch is moved either into line with the main or with the side track. The bar D is either placed beneath the track, as in Fig. 3, or otherwise so disposed in suitable manner that it will serve to move the switch. By intermediate links or rods *a b*, or directly, the bar D is connected with a lever, E, which is the switch-lever. By swinging said switch-lever on its pivot *d* the bar D is moved transversely to move and set the switch in the desired manner. The lever E may be pivoted in a frame, F, and combined with interlocking mechanism, such as is described in the Letters Patent No. 164,612, of June 15, 1875; but the same does not constitute part of the present invention. G is a locking-bolt, actuated by a depression, *e*, of the bar D, to be raised at the end of every motion of the bar against the side of the switch-rail to lock the same. Thus, whenever the lever E is vibrated on its pivot to move the bar and set the switch, this motion of the bar will first cause the locking-bolt G to be drawn down or away from the switch-rail, and thereafter cause the movement of the switch, and finally the relocking of the same by the re-elevation of the bolt.

I thus produce a combined switch-operating mechanism and lock, all operated by one lever, E, and at one motion of said lever.

Previous to my invention switch-locks, when used, had first to be moved by a separate lever or device before the lever moving the switch could be used; but by my invention the switch-lock is moved aside, the switch moved and relocked, all by the same motion of the lever E.

My invention can be materially modified by a different position and arrangement of the lock and moving bar. Thus, instead of causing the locking-bolt to engage directly against the switch-rail, it may be caused to lock the bar D itself, and various other mechanical combinations and contrivances, all tending toward the same result and combination, may be devised, other mechanism for imparting motion from the lever to the rails and to independent positive locking devices being employed, if desired.

I claim—

The combination of the switch-lever, connected to and operating the switch-rails, the bolts operated positively independent of the motion of the rails, and mechanism whereby the same movement of the lever is made the means of operating positively in both directions both the rails and the locks, substantially as set forth.

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