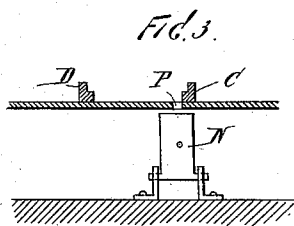
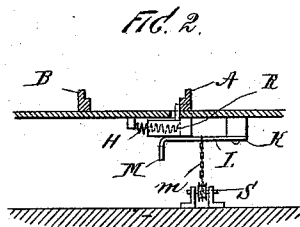
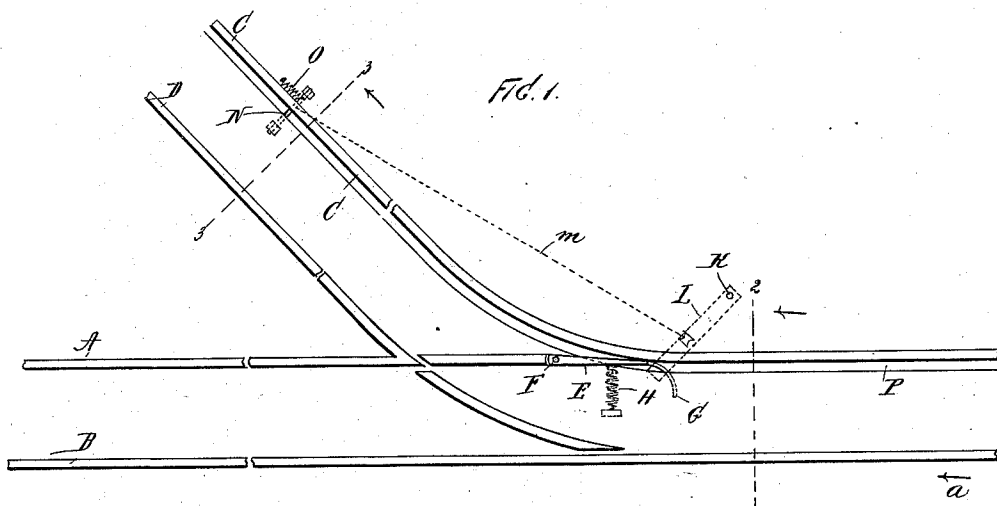


(No Model.)

M. MILLER.
SWITCH.

No. 560,814.

Patented May 26, 1896.



WITNESSES:

John Buckler,
C. Gersh.

INVENTOR

Max Miller,
BY
Deane Patent Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

MAX MILLER, OF NEW YORK, N. Y., ASSIGNOR OF TWO-THIRDS TO CHARLES BROWNOLD AND ALONZO L. TUSKA, OF SAME PLACE.

SWITCH.

SPECIFICATION forming part of Letters Patent No. 560,814, dated May 26, 1896.

Application filed October 11, 1895. Serial No. 565,405. (No model.)

To all whom it may concern:

Be it known that I, MAX MILLER, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Switches, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to railway-switches; and the object thereof is to provide an automatic device of its class which is simple in construction and operation and which is well adapted to accomplish the result for which it is intended.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a plan view of my improved switch; Fig. 2, a section on the line 2 2; Fig. 3, a section on the line 3 3.

In the drawings forming part of this application, A and B represent the rails of the main track, and C and D the rails of the side-track, and in the practice of my invention I employ a switch-bar E, which is pivoted at F in the usual manner, and the free end of the switch-bar E is outwardly and inwardly curved.

Secured to the inside of the switch-bar G, about midway of its length, is an expansive spring H, one end of which is secured to a support about midway of the main track, and the operation of this spring is to force the switch-bar E against the adjacent rail A of the main track.

Pivoted at K, a short distance outside of the rail A of the main track, is a plate-spring L, having a downwardly-directed hook or projection M, and secured about midway of this spring L is a chain *m*, which extends along the side-track, as shown in dotted lines in Fig. 1, and is secured to a vertical and pivoted plate N, which is pivotally supported beneath the outer rail C of the side-track, and secured thereto is a spring O, which is also an expansive spring.

Formed adjacent to the rail A, on the inner side thereof, is a slot P, and this slot continues along the inner side of the rail C of

the side-track, and my improved switch is adapted to be operated by a knocker or other device, (not shown,) which is secured to the engine or motor and is adapted to be inserted into the said slot.

The operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings.

If a car be passing in the direction of the arrow *a* in Fig. 1 and it is intended to take the side-track, the knocker or other device is lowered into the slot P, and this device will strike the switch-plate E and force the same open against the operation of the spring H, and at the same time the spring K will by its own force pass in behind the spring H or the lower edge of the switch-plate at R, Fig. 2, and hold the switch-bar open, as will be readily understood, and as the motor or the car passes over the plate N said plate will be operated to draw down the spring L, as will also be understood, and allow the switch-bar to close. This operation is made possible by reason of the fact that the chain *m* is carried down after being connected with the spring L and passes around a pulley S, which is supported below said spring.

My invention is not limited to the exact form, construction, and arrangement of parts as shown and described, and I therefore reserve the right to make such changes therein and modifications thereto as fairly come within the scope of the invention.

Having fully described my invention, I claim and desire to secure by Letters Patent—

1. In a railway-switch, the combination of a switch-bar the free end of which is curved inwardly, of an expansive spring secured thereto and situated between the rails of the main track, a spring-plate pivotally supported outside of the main track and adapted to operate against said expansive spring, a chain or other device connected with said spring-plate and passing along the side-track and secured to a vertically-pivoted plate which is also spring-operated, and a slot within the rail of the main track adjacent to the switch-plate, and extended along the adjacent rail of the side-track, substantially as shown and described.

2. In a railway-switch, the combination with the usual main and side tracks, of a switch plate or bar, the free end of which is curved inwardly, said switch plate or bar being spring-operated, a spring-plate pivoted outside of the adjacent rail of the main track and adapted to operate against the pivoted switch-plate, a chain or other device connected with said spring-plate and extending along one of the rails of the side-track, and connected with a pivoted plate which is supported in a vertical position, and a spring by which said plate is supported, substantially as shown and described.

3. In a railway-switch, the combination with the usual main and side tracks, of a switch plate or bar the free end of which is curved inwardly, said switch plate or bar being spring-operated, a spring-plate pivotally supported outside of the adjacent rail of the main track and adapted to operate against the pivoted switch-plate, a chain or other device connect-

ed with said spring-plate, and extending along one of the rails of the side-track, and connected with a pivoted plate which is supported in a vertical position beneath said rail, said tracks being provided with a slot along the inner side of the rail of the main track adjacent to the switch-plate, said slot to be continued along the inner side of the corresponding rail of the side-track, and said switch devices being adapted to be operated by a knocker or other device connected with a motor or car substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 8th day of October, 1895.

MAX MILLER.

Witnesses:

C. GERST,
M. A. KNOWLES.