

H. V. ELMORE.
 SWITCH THROWING MECHANISM.
 APPLICATION FILED AUG. 14, 1911.

1,015,669.

Patented Jan. 23, 1912.

Fig. 1.

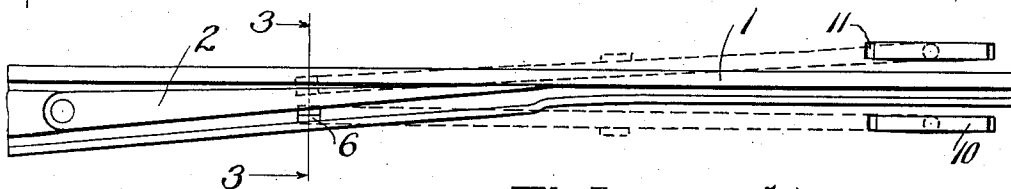
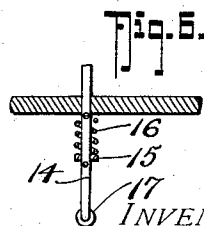
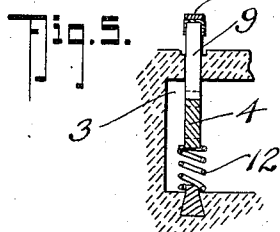
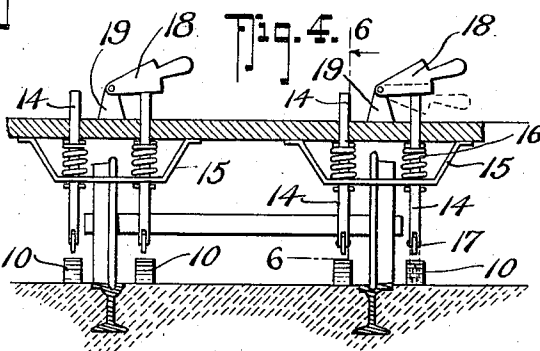
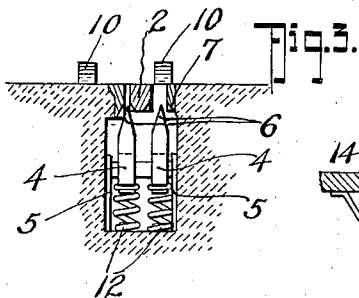
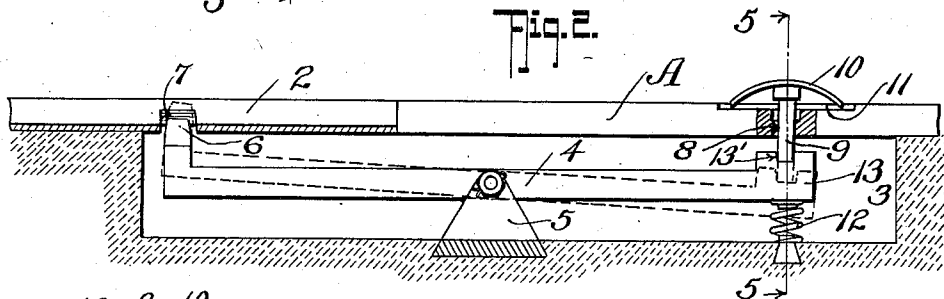


Fig. 2.



WITNESSES:
Charles H. Wagner,
H. M. Crook.

INVENTOR
H. V. Elmore
 BY *Richard Cobb*
J. Cobb
 Attorneys

UNITED STATES PATENT OFFICE.

HARRY VICTOR ELMORE, OF DAYTON, OHIO.

SWITCH-THROWING MECHANISM.

1,015,669.

Specification of Letters Patent.

Patented Jan. 23, 1912.

Application filed August 14, 1911. Serial No. 643,877.

To all whom it may concern:

Be it known that I, HARRY VICTOR ELMORE, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Switch-Throwing Mechanisms, of which the following is a specification.

This invention has reference to railway switches, and primarily to that class of switches which may be operated by the motorman or other member of the car crew from the car without necessarily stopping the vehicle.

An object of the present invention resides in the provision of a switch throwing mechanism located beneath the road bed which may be operated for moving a part thereof against the movable part of the switch, commonly known as switch point, for shifting the latter to the desired point.

With the above and other objects in view, this invention consists in the construction, combination, and arrangement of parts, all as hereinafter more fully described, claimed and illustrated in the accompanying drawings, wherein—

Figure 1 is a top plan view disclosing a switch having the present invention applied thereto; Fig. 2 is a longitudinal vertical section thereof, more clearly disclosing the present invention; Fig. 3 is a sectional view taken on line 3—3 of Fig. 1; Fig. 4 is a fragmentary view of the platform of a car which carries the mechanism for actuating the switch throwing mechanism; Fig. 5 is a sectional view taken on line 5—5 of Fig. 2; and Fig. 6 is a view taken on line 6—6 of Fig. 4.

Referring more particularly to the drawings, similar parts are referred to by like reference characters.

The present invention embodies a mechanically operated switch which will do away with an extra man for operating the same and yet operate the switch as efficiently as if operated by a switchman. In Fig. 1 is illustrated the two rails 1 forming a track each of which has an independently movable switch point 2.

Located below the track within a recess 3 or casing, if desired, is the switch point throwing mechanism comprising a lever 4 fulcrumed on the standard 5, said lever having one terminal thereof extending beneath the switch point and provided with

an upward extension provided with a beveled or cam face 6. This cam face 6 is adapted to move vertically and bear against an inclined recess 7 formed in the point 2. As shown in Fig. 3 both the switch point and the rail are provided with inclined recesses 7 in which operates the wedge. When the latter is moved upwardly, it produces a wedging action causing the movable member of the switch to give or shift.

The road bed A is provided with an opening 8 communicating with the casing or boxing 3, through which operates a depending shank or stem 9 formed on a bow spring 10, the latter operating in an elongated recess 11 formed on the surface of the road bed. The stem 9 is projected into the casing 3 and fits in a recess 13' formed in the terminal 13 of the lever 4. A spring 12 is interposed between the terminal 13 and the base of the boxing 3 to normally hold the lever 4 in a position ready for operation.

From the foregoing, it will be noted that upon depressing the bow spring 10, the wedge member will be elevated between the switch point 2 and the rail 1 causing the former to move. For depressing the bow spring 10, the rods or pressure members 14 are mounted on the platform of the car by the brackets 15 and are encircled with the coiled springs 16 interposed between the platform of the car and the brackets 15 to normally hold said pressure members in an elevated position. The lower terminal of the rod or pressure member 14 has a wheel mounted thereon to reduce the friction or wear on that terminal, while the upper terminal thereof is adapted to be depressed by a lever 18 pivotally mounted on the support 19.

I have illustrated switch points independently movable, thus requiring me to use four levers with as many bow springs, and a similar number of pressure members. A support 19 is located between each pair of pressure members and, since the lever 18 is pivotally mounted, it is adapted to swing to engage either pressure member of a pair. It will, of course, be obvious that the number of mechanisms may be reduced by connecting the switch points, or entirely doing away with one of the points.

Having thus fully described the invention, what is claimed as new is:—

In combination, a track having a switch point and also a recess in the bed thereof,

means for shifting said point comprising a lever provided on one end portion with a cam face for riding on said point and on the opposite end portion with a recess, a depressible member comprising a bow spring having its terminals mounted in the recess in said track bed for longitudinal movement therein, the walls of the recess in said bed preventing lateral twisting of said spring, a depending shank carried by said bow spring and receivable by the recess in said

lever for rocking movement therein, and a coiled spring mounted beneath the recess terminal of the lever for normally holding the latter in operative position and said shank in the recess in said lever. 15

In testimony whereof I affix my signature in presence of two witnesses.

HARRY VICTOR ELMORE.

Witnesses:

JOHN PH. BENDER,
FRANK H. KRONAUGE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."