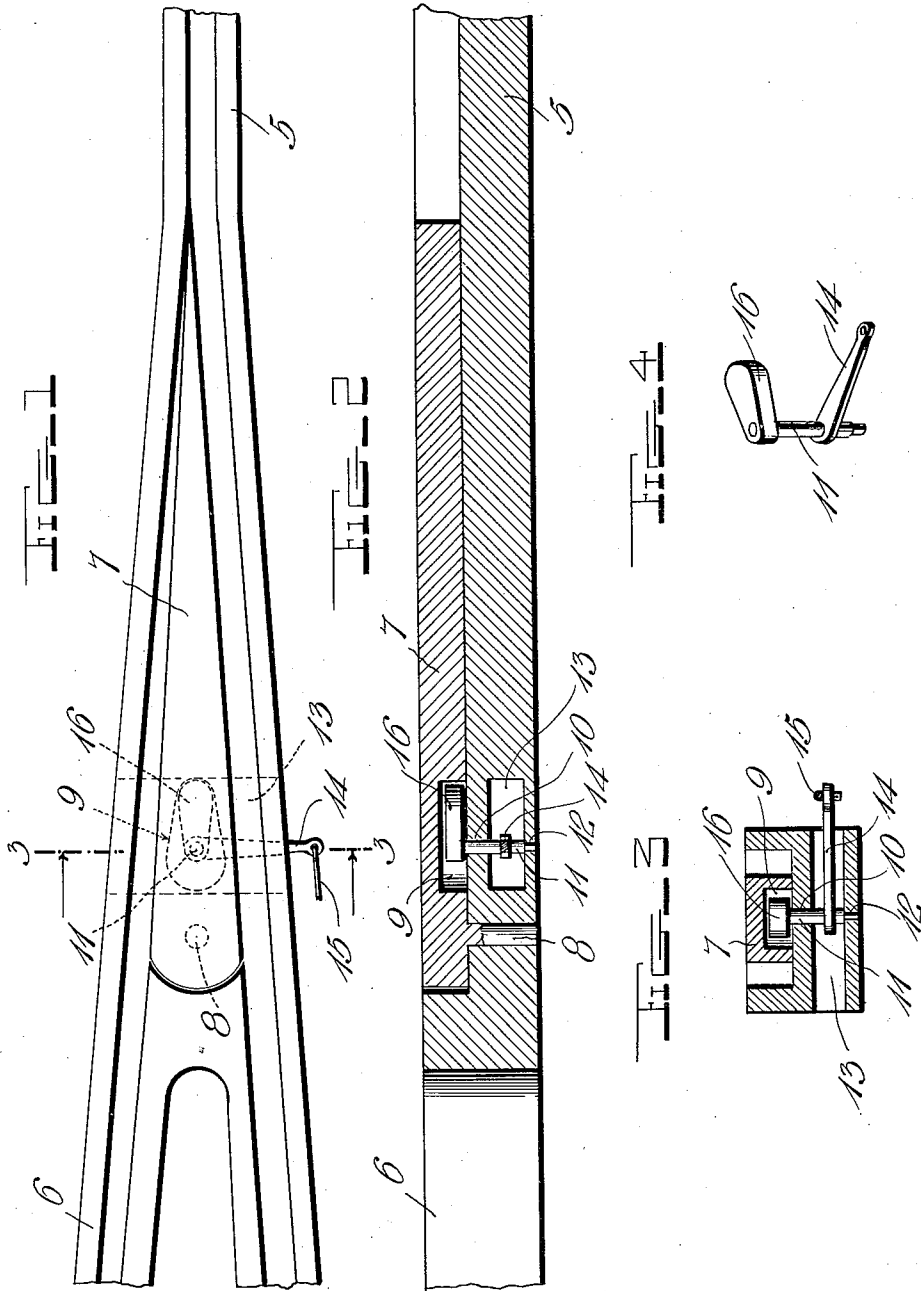


J. H. LANEY.
RAILWAY SWITCH.
APPLICATION FILED FEB. 13, 1911.

1,017,768.

Patented Feb. 20, 1912.



Witnesses
E. J. Gardner
V. K. Gardner

Inventor
John H. Laney
 By *William C. Deane*
 his Attorney

UNITED STATES PATENT OFFICE.

JOHN H. LANEY, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR OF ONE-EIGHTH TO
RONALD L. LANEY, OF HOLLOWAY, MINNESOTA.

RAILWAY-SWITCH.

1,017,768.

Specification of Letters Patent.

Patented Feb. 20, 1912.

Application filed February 13, 1911. Serial No. 608,425.

To all whom it may concern:

Be it known that I, JOHN H. LANEY, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Railway-Switches, of which the following is a specification.

It is the object of the present invention to provide an improved railway switch and the invention relates more particularly to that class of switches as are adapted to be operated from a prime mover such as a pair of electrically operated magnets, or the like.

One aim of the present invention is to provide a construction of switch in which the tongue will effectually house and protect the mechanism which moves the same.

A further object of the invention is to so construct and arrange the switch tongue and its moving means that the former will require no adjustment but will under all conditions respond to the action of its moving means.

In the accompanying drawings, Figure 1 is a top plan view of a railway switch showing the invention in dotted lines and thus illustrating its arrangement in the switch. Fig. 2 is a vertical longitudinal sectional view through the switch. Fig. 3 is a transverse sectional view therethrough on the line 3—3 of Fig. 1. Fig. 4 is a detail perspective view of the device embodying the present invention removed from the switch proper.

In the drawings, the numeral 5 indicates the main track rail and 6 the sliding rail.

The switch tongue is indicated by the numeral 7 and the pintle by the numeral 8. In its underside the tongue 7 is formed with a recess 9 which is elliptical in outline. The major end of this recess is preferably located adjacent the pintle 8. It will be readily understood that the main rail 5 and the switch rail 6 are cast integral at their juncture and in this casting there is formed an opening 10 through which is journaled

a vertical shaft 11. The lower end of this shaft 11 seats in a bearing 12 formed in the bottom of a recess 13 which is formed in the frog proper. Secured upon the shaft 11 is an arm 14 to which is connected one end of a rod 15 leading to any suitable operating means, such means being designed to oscillate the shaft. Upon the upper end of the shaft 11 there is secured a head 16 which is also elliptical in form and seats within the recess formed in the underside of the switch tongue 7. As before stated, the major end of the recess 9 is located adjacent the pintle 8, whereas the major end of the head 16 is seated in the minor end of the said recess. The head 16 does not fit tightly in the recess, but on the other hand, it has a play therein so that the shaft 11 need not move to the extreme limits of movement which it might have through the action of the rod 15. In other words, the head 16, engaging at its major end with the walls of the recess 9 at the minor end thereof, will serve as a highly efficient means for transmitting motion to the switch tongue from the rod 15 even after the parts have been subjected to considerable wear.

What is claimed is:

A switch rail having a transversely disposed recess located between its upper and lower sides, a tongue pivoted upon the rail and having a recess in its under side between its pivot and its point, a shaft journaled in the rail and extending transversely across the recess therein, an arm fixed to the said shaft and extending along the recess in the rail and projecting beyond the end thereof, and a cam head fixed to the said shaft and located in the recess of the tongue and adapted when swung to engage the sides of the said recess and move the tongue.

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

JOHN H. LANEY.

Witnesses:

ALBERT W. FIFIELD,
A. M. HOYT.