No. 823,147. PATENTED JUNE 12, 1906.

E. WARTMAN.

RAILWAY SWITCH.

APPLICATION FILED SEPT. 18, 1905.

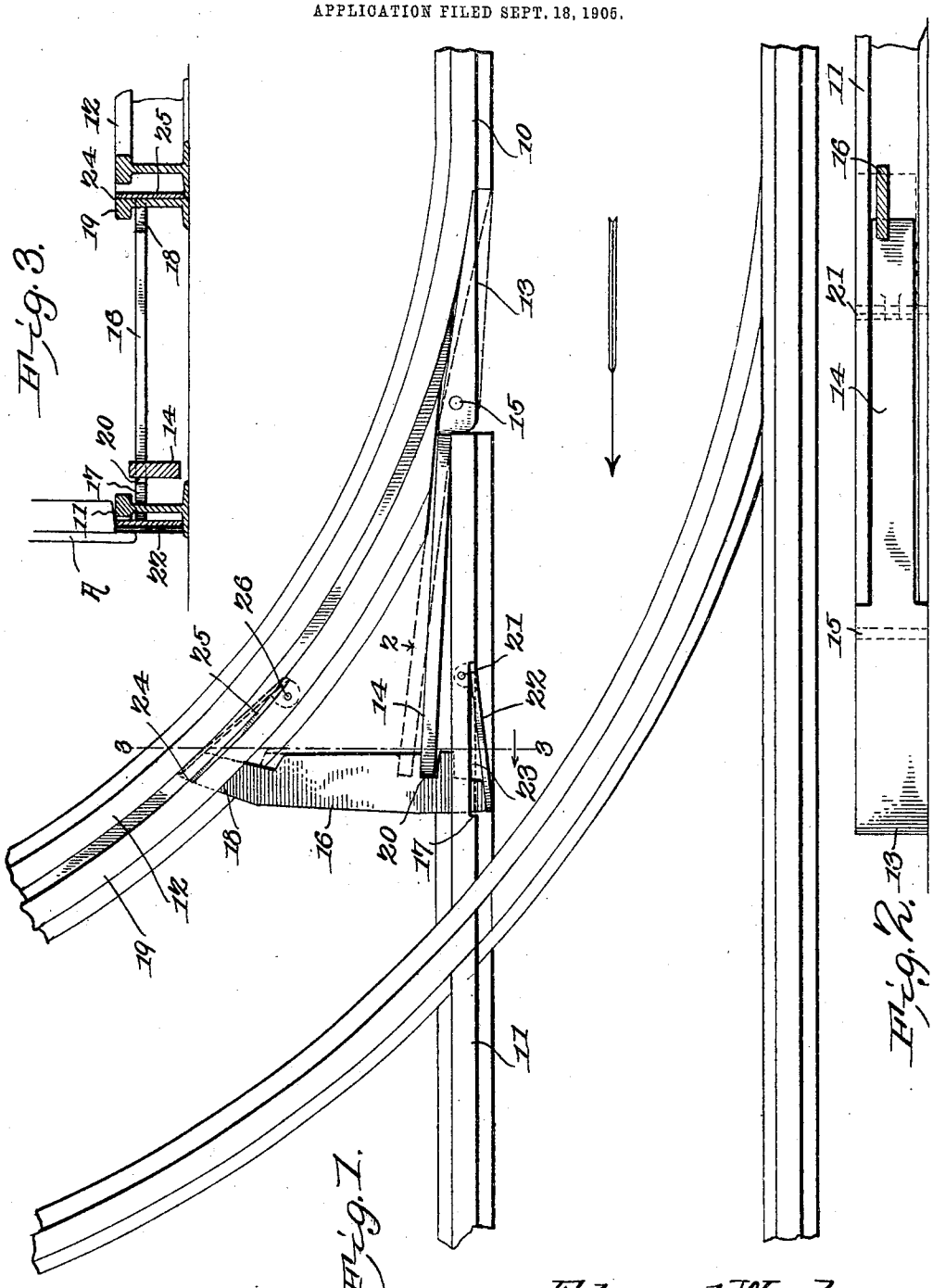

Fig. 1.

Fig. 3.

Fig. 2.

Witnesses

E. F. Stewart

L. B. Morrill.

Edward Wartman,

Inventor.

by C. A. Snow & Co.

Attorneys

UNITED STATES PATENT OFFICE.

EDWARD WARTMAN, OF SOUTH BEND, WASHINGTON.

RAILWAY-SWITCH.

No. 823,147. Specification of Letters Patent. Patented June 12, 1906.

Application filed September 18, 1905. Serial No. 278,995.

To all whom it may concern:

Be it known that I, EDWARD WARTMAN, a citizen of the United States, residing at South Bend, in the county of Pacific and State of Washington, have invented a new and useful Railway-Switch, of which the following is a specification.

This invention relates to railway-switches, and has for its object to provide a device of the class embodying new and improved features of efficiency, simplicity, and convenience.

It is well known that in the operation of street-railways the cars of two lines often travel a portion of their run upon one track, alternate cars then switching to complete their run on their own line.

It is an object of this invention to provide a switch wherein each car in passing automatically reverses the switch, and thus leaves the switch in position to switch the next car upon the diverging track, thereby obviating the necessity of keeping a switchman on duty and also the inconvenience and loss of time incident upon the throwing of the switch by the motorman.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made without departing from the spirit or sacrificing any of the advantages of this invention.

In the drawings, Figure 1 is a top plan view of diverging tracks with the improved switch applied thereto. Fig. 2 is a view in side elevation of the switch-point and lever looking in the direction of the arrow 2 in Fig. 1. Fig. 3 is a transverse sectional view taken on line 3 3 of Fig. 1.

Like characters of reference indicate corresponding parts in all of the figures of the drawings.

The improved switch forming the subject-matter of this application is adapted to be applied to a street-railway track of ordinary construction wherein the track used by both lines is indicated by 10 and the diverging tracks by 11 and 12. In its preferred embodiment the switch-point 13 is formed with an integral lever continuation 14 and pivoted between the diverging tracks, as at 15, and to swing in a horizontal plane.

Between the diverging rails 11 and 12 is slidably mounted the shifting-bar 16, having at its ends offset portions 17 and 18, extending, respectively, through openings in rails 11 and guard-rail 19. The bar 16 has an aperture 20, receiving the extremity of lever 14 in such manner that when the bar is shifted longitudinally the lever 14 and point 13 are shifted angularly about the pivot 15.

Pivoted at 21 to the rail 11 is the trigger 22, movable in a horizontal plane and bearing against the end of bar 16, inserted through the rail 11. The rail 11 is provided with a recess 23, formed in its upper tread and into which the trigger is forced by the flange of a car-wheel, whereby the bar 16 is moved longitudinally and the lever 14 and point 13 shifted to the position shown in outline.

The guard-rail 19 is provided with a similar and oppositely-disposed recess 24, in which is disposed a trigger 25, pivoted at 26 to swing in a horizontal plane and bearing against the extremity of offset 18.

With the elements assembled and disposed in the relative positions shown in Fig. 1 the car traveling along track 10 in the direction indicated by the arrow will have one wheel engaged by the point 13 upon the outer side of the flange and will continue to and along track 11. When, however, the flange of the wheel, such as shown at A in Fig. 3 of the drawings, contacts with the trigger 22, the bar 16 and point 13 will be shifted to the position shown in outline, so that the point will engage the wheel of the next car upon the inside of that flange and switch the car to the track 12. The trigger 25, being then in the position shown in outline, is engaged by the flange to throw the point in the reverse direction.

It will thus be seen that each car automatically reverses the switch for the next car, so that alternate cars are automatically switched to diverging tracks.

Should it chance that a car desires to follow an immediately-preceding car, the switch-point may be thrown in the usual manner with as much ease as the ordinary switch-point.

Having thus described the invention, what is claimed is—

1. In a switch, means whereby a wheel of

each passing car throws the switch to register with the opposite track.

2. In a switch, means whereby wheels of successive cars automatically reverse the switch after passing.

3. In a switch, a switch-point, and means whereby a wheel of each passing car throws the switch-point to register with the opposite track.

4. In a switch, a pivoted switch-point, and means whereby wheels of alternate cars swing the switch-point in the same direction.

5. A switch having a pivoted switch-point, a lever associated with the point, and means connected to the lever and located in the path of car-wheels after passing the point upon either track to throw the point to the opposite track.

6. In a switch, a pivoted switch-point carrying a rigid lever, and means disposed in the path of car-wheels whereby each passing car actuates the lever to swing the switch-point to the opposite track.

7. In a switch, a pivoted switch-point carrying a rigid lever, and a trigger disposed in the path of car-wheels whereby each passing car actuates the lever to swing the switch-point to the opposite track.

8. A switch having a lever pivoted adjacent the divergence of two tracks, triggers secured one to each track and connected with the lever and so arranged that each passing car swings the lever in the opposite direction, and means whereby the switch is thrown by the lever.

9. A switch having a lever pivoted between diverging tracks, a reciprocating bar extending between the tracks and connected with and capable of swinging the lever, a trigger for each track in the path of passing car-wheels and operatively engaging the bar, and means whereby the swinging of the lever throws the switch.

10. A switch having a pivoted switch-point arranged to register with diverging tracks, a lever rigid with the switch-point and extending between the tracks, a reciprocating bar extending between the tracks and connected with the lever, and pivotal triggers for the respective tracks and arranged in the path of passing car-wheels in coöperative relation with the bar for moving the same.

11. A switch having means in the path of car-wheels after passing the switch upon either track to set the switch to the opposite track.

12. A switch having means in the path of car-wheels after passing the switch upon either track to set the switch to the opposite track, said switch capable of being reset to permit successive cars passing upon the same track.

13. A switch which is always set to the opposite track by means upon each car after passing the switch upon either track.

14. A switch which is always set to the opposite track by means upon each car after passing the switch upon either track, said switch capable of being reset to permit successive cars passing upon the same track.

15. The combination with diverging tracks, of a switch-point therefor, car-actuated trips for the respective tracks, and means connecting the trips with the switch-point for throwing the latter to the other track when either trip is actuated.

16. The combination with diverging tracks, of a pivotal switch-point, an endwise-slidable cross-bar extending between the tracks with portions in the paths of car-wheels passing upon the respective tracks, and means connecting the bar and the switch-point whereby the latter is thrown to the opposite track when the bar is actuated by a car upon either track.

17. A switch having means disposed in the path of means upon each car after passing the switch upon either track for setting the switch to the opposite track, the car-carried means being normally in its operative position.

18. A switch having means disposed in the path of means upon each car after passing the switch upon either track for setting the switch to the opposite track, the car-carried means being normally in its operative position, and said switch capable of being reset to permit successive cars passing upon the same track.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDWARD WARTMAN.

Witnesses:

LEWIS BOWSER,

FRANK GAGNIE.