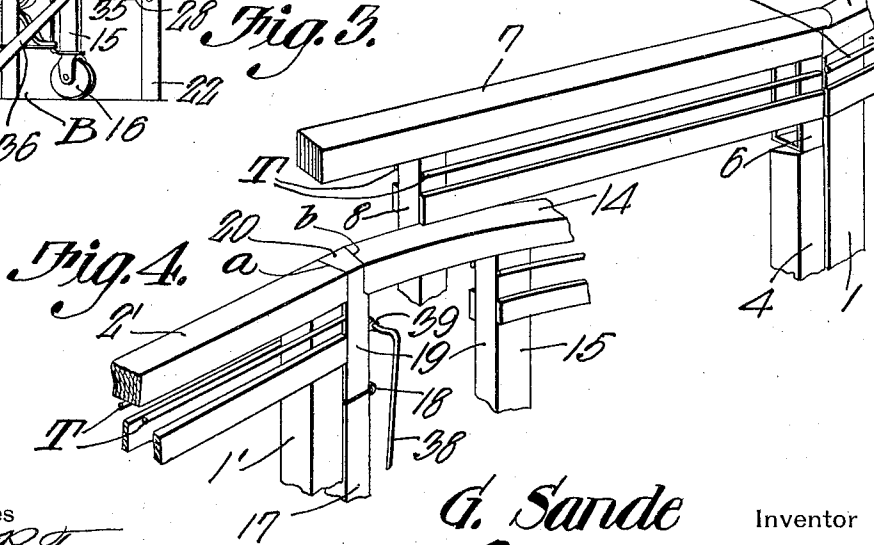
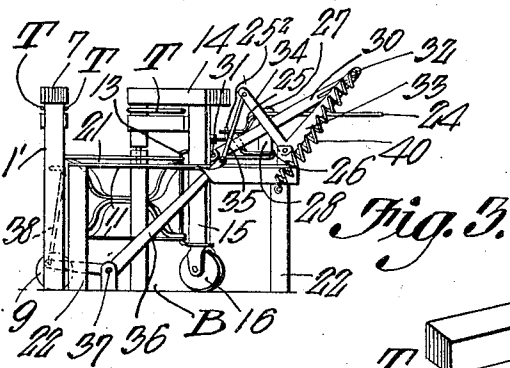
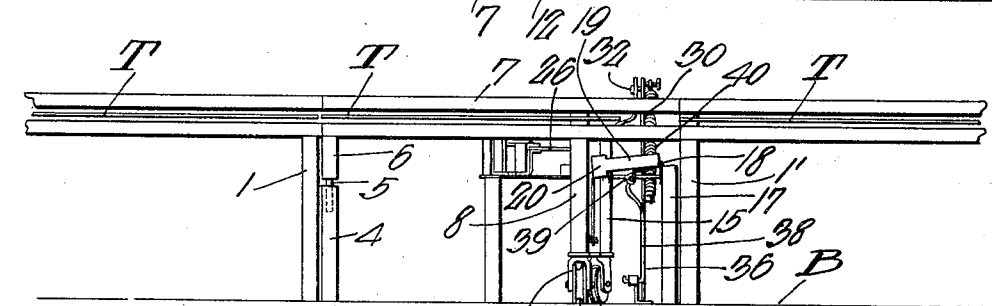
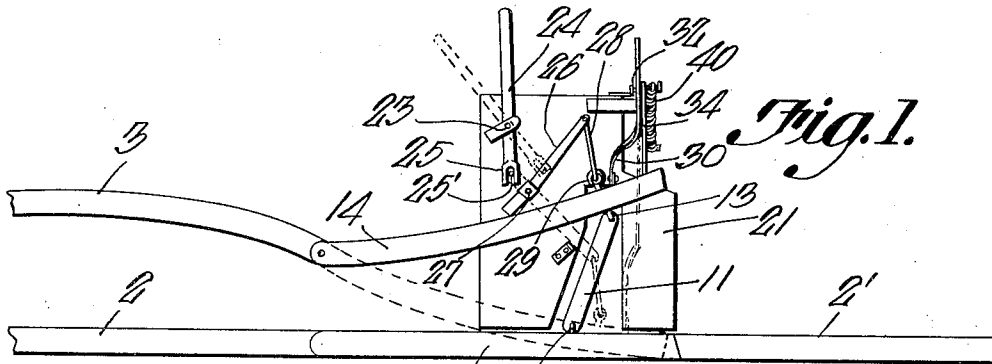


G. SANDE.
MONORAIL SWITCH.
APPLICATION FILED JAN. 22, 1912.

1,035,244.

Patented Aug. 13, 1912.



Witnesses

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UNITED STATES PATENT OFFICE.

GUS SANDE, OF SEATTLE, WASHINGTON, ASSIGNOR OF ONE-THIRD TO JOHN L. LARIMER AND ONE-THIRD TO HARRY HOBEY, OF SEATTLE, WASHINGTON.

MONORAIL SWITCH.

1,035,244.

Specification of Letters Patent.

Patented Aug. 13, 1912.

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To all whom it may concern:

Be it known that I, GUS SANDE, subject of the King of Sweden, residing at Seattle, in the county of King and State of Washington, have invented a new and useful Monorail Switch, of which the following is a specification.

The present invention relates to improvements in switches, and an operating mechanism therefor, said switches being especially designed for use in connection with a monorail system, the primary object of the present invention being the provision of a switch embodying two switch points, one of which is connected for operation between a main rail while the other is connected to displace the same to connect a siding with such main rail.

A further object of the present invention is the provision of a novel form of actuating mechanism for simultaneously disconnecting one switch and connecting the other switch to the main rail, and for operating an auxiliary switch to compensate for the difference in length of the respective switch points.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a top plan view of a main and siding of a monorail system, employing the present invention, the main rail switch point being in operable position, dotted lines showing the position of the siding switch connected to the main rail. Fig. 2 is a side elevation thereof. Fig. 3 is an end elevation looking toward the left as viewed in Fig. 1. Fig. 4 is an enlarged fragmentary perspective view of the adjacent portions of the main rail at the switch.

Referring to the drawings, the numerals 1 and 1' designate two vertical supports for maintaining the respective ends of the main rails or sections 2 and 2' respectively, while 3 designates the siding rail section, the same being similarly supported.

Mounted adjacent to the support 1 is a

support 4, which has journaled therein the pin 5 carrying the post 6, which in turn carries the main rail switch point 7. The free end of the switch point 7 is supported by the standard 8, carrying at its lower end a caster 9 which rests upon the base B, and thereby properly supports the switch point 7 when in main rail continuity or when open.

A linking member 11 is connected at 12 and 13 respectively to the main rail switch point 7 and the siding switch point 14, so that the movement of one in either direction will simultaneously move the other. The free end of the switch point 14 carries a supporting standard 15 having a caster 16 which acts in a similar manner to the support 8 and caster 9 of the switch point 7.

In order to compensate for the difference in length of the respective switch points, the switch point 7 necessarily being shorter than the switch point 14, a post 17 is disposed adjacent to the post 1' and has hinged thereto at 18 the frame 19 which carries the short track section 20. This short track section 20, when the switch point 14 is thrown in continuity with the rail section 2' assumes the position as clearly shown in Fig. 4, thus contacting the respective ends of the rail section 2' and switch point 14 at *a* and *b*, to snugly close the space therebetween.

In order to properly operate the respective switch points and the track section 20 simultaneously, a platform 21 is disposed adjacent to the switch points, it being properly supported upon standards 22. Mounted upon the platform by means of a pin 23 is the operating lever 24, whose forked end 25 engages the pin 25' upon the short end of the bell crank lever 26, which in turn is mounted upon the pin 27. A link 28 connects the long terminal of the bell crank lever 26 by means of the eye 29 to the post 15 of the switch point 14, so that any operation of the lever 24, which though shown manually controlled may be operated by other mechanisms, will simultaneously move both switch points 7 and 14, as is apparent.

In order to insure the proper operation of the track section 20, and also lock the respective switch points in continuity with the rail section 2', a link 30 is pivoted at 31 to the post 15, while its slotted outer end is connected by a pin 32 to the long terminal

of the bell crank lever 33, the shorter terminal 34 of said bell crank lever being connected by a link 35 to the long terminal 36 of the track section operating lever, which is pivoted at 37, and is operably connected by means of the link 38, as at 39, to said track section 20.

In order to insure the operation of the switch point and consequently the movement of the track section 20, a spring 40 is connected to the platform and to the upper or extreme end of the long terminal of the lever 33, the link 30 thus forming a wedging means to assist in maintaining the respective switch points 7 and 14 in the desired position, so that a train will be properly guided along the main rails, or from the main rail section 2' upon the siding 3, or vice versa.

As this system is primarily designed for use in connection with electric monorail systems, the two rails T are properly supported below the respective rail sections and switch points as clearly shown.

What is claimed is:

1. The combination with the main track of a monorail system, and a siding track, of a switch, having two switch points connected together for movement in unison, one point being operably connected to the siding track while the other point is disposed between adjacent sections of the main track, a track section for compensating for the difference in length between the switch points disposed in operable relation to one section of the main rail, and means for simultaneously operating both switch points and said track section.

2. The combination with the main track of a monorail system, and a siding track, of a switch, having two switch points connected together for movement in unison, one point being operably connected to the siding track while the other point is disposed between adjacent sections of the main track, a track section for compensating for the difference in length between the switch points disposed in operable relation to one

section of the main rail, means for simultaneously operating both switch points, and means operably connected to said operating means and the track section to cause the simultaneous operation thereof with the switch points.

3. The combination with the main track of a monorail system, and a siding track, of a switch, having two switch points connected together for movement in unison, one point being operably connected to the siding track while the other point is disposed between adjacent sections of the main track, a track section for compensating for the difference in length between the switch points disposed in operable relation to one section of the main rail, means for simultaneously operating both switch points, means operably connected to said operating means and the track section to cause the simultaneous operation thereof with the switch points, and a spring for retaining said last mentioned means locked when either one of the switch points is in main rail continuity.

4. The combination with the main track of a monorail system, and siding track, of a switch having two switch points, one point being operably connected to the siding track while the other point is disposed between adjacent sections of the main track, an anti-frictionally carried support for the free end of each switch point, means operably connecting both switch points for movement in unison, a compensating track section disposed to be interposed between one main rail section and the free end of the siding switch point, means for operably connecting said compensating track section to the switch points, and means for operating said switch points and compensating track section in unison.

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

GUS SANDE.

Witnesses:

SELINA WILLSON,
ANNA BURKE.