

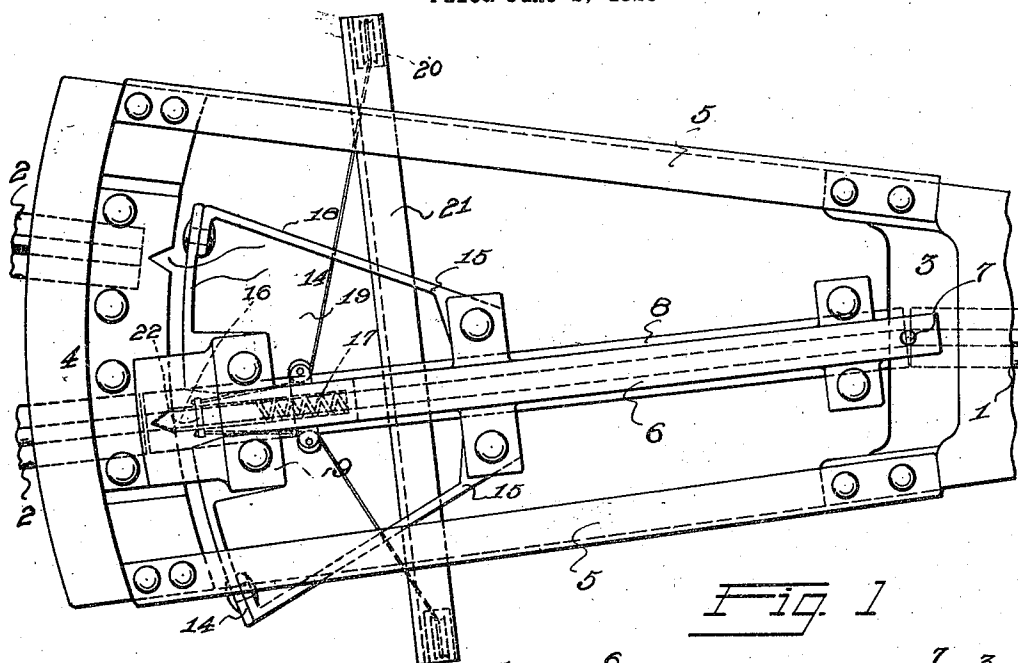
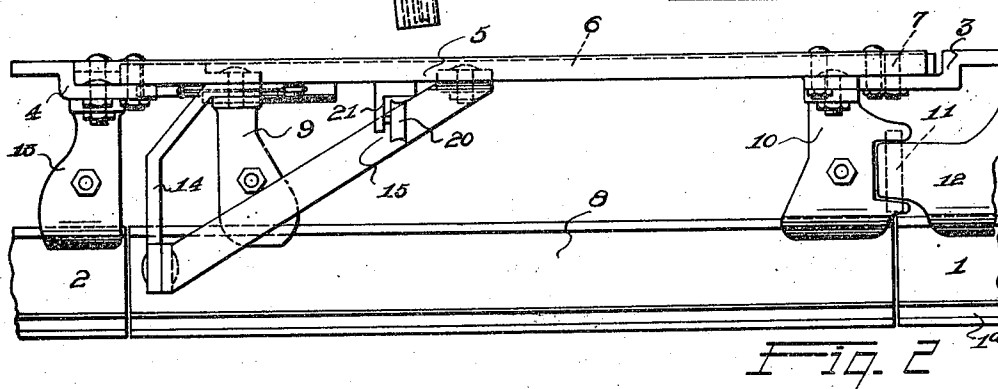
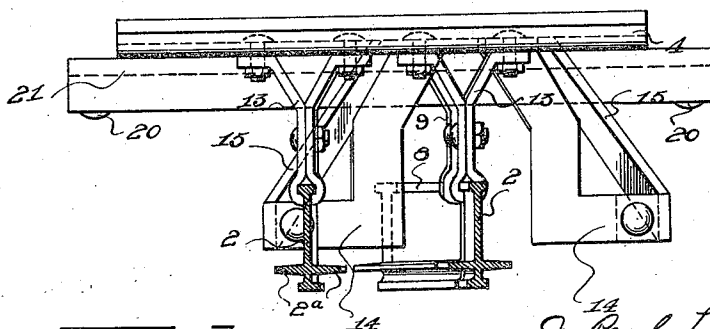
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J. P. LAWRENCE

SWITCH FOR SUSPENDED CONVEYERS

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Inventor
J. Paul Lawrence
by
Richey & Watts
Attorneys

UNITED STATES PATENT OFFICE.

JAMES PAUL LAWRENCE, OF LAKEWOOD, OHIO, ASSIGNOR TO THE AMERICAN MONORAIL COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

SWITCH FOR SUSPENDED CONVEYERS.

Application filed June 2, 1926. Serial No. 113,293.

This invention relates to a switch for suspended conveyers, particularly such conveyers of the monorail type.

One object of the invention is to provide a switch for track of the type described in which a movable track section is maintained in horizontal alignment with stationary tracks with which it cooperates.

Another object is to provide a switch for track of the character described in which the movable track is supported by means substantially free from combined bending and tensile stresses.

Another object is to provide a simple switch structure for conveyers of the type described which will automatically guard at all times stationary tracks out of alignment with the movable track section of the switch.

Another object is to provide a switch for conveyers of the class described in which a movable track section is supported in a new and improved manner with consequent simplicity of construction, with increased strength and durability.

Other objects will appear and be pointed out hereinafter.

The invention will be better understood from a description of one practical embodiment thereof, which is shown in the accompanying drawings, and in which—

Fig. 1 is a top plan view of one form of a switch embodying my invention;

Fig. 2 is a side elevation thereof; and

Fig. 3 is an end elevation, certain parts being shown in section.

In the drawings, 1 indicates a stationary track and 2 indicates each of a plurality of similar but oppositely disposed tracks. These tracks 1 and 2 are suitably supported from or suspended beneath a supporting member, for example the beams of a building or the like, as by suitable hangers (not shown).

My present invention pertains to means for spanning the space between the rails 1 and 2 in a manner to permit the passage from rail 1 to any of the rails 2 of a carrier traveling on the track, for example on the flanges 1^a and 2^a thereof. In the embodiment shown this means includes two supporting members 3 and 4 spaced apart horizontally from each other. The ends of these members are joined together by side members 5. A cross member 6 extends across the

space between the supporting members 3, being pivoted as at 7 to member 3 and slidably engaging at its opposite end with the member 4. A movable track section 8 is disposed beneath the cross member 6 and is carried thereby as by means of connecting members 9 and 10 in the form of brackets. The track section 8 is preferably joined to the rail 1 through a pivotal connection which is illustrated as comprising a pivot 11 carried by the bracket 10 and cooperating with a bracket 12 secured to the rail 1. This bracket 12 is shown partly broken away and extending upwardly for connection to the floor beam or other member to which the member 3 is secured, but any well known means of supporting the track 1 may be employed when and if desired. The pivots 7 and 11 are in substantially axial alignment so that the track section 8 may freely move with the cross member 6.

The supporting member 4 is preferably, though not necessarily, joined to each of the tracks 2, as by means of brackets 13.

Track guard means is shown comprising members 14 arranged transversely of the cross member 6 and below and to one side thereof in position to guard the end of a track 2 which is out of alignment with the movable track 8. The member 14 has its outer end braced as by member 15 extending therefrom to the cross member 6. In the drawings, and particularly in Fig. 3, the track guard means is made up of two members 14 with their members 15, but it will be understood that the members 14 may be formed in one piece if so desired. These members are moreover so shaped that while they automatically guard a track 2, which is open, they still permit passage from a track 2 onto a movable track section 8, when this section is in alignment therewith, this being clearly illustrated in Fig. 3.

The cross member 6 and its track section 8 are held in alignment with any desired stationary track 2 by any convenient positioning means, for example the latch 16 which is urged forward in a guide carried by the member 6 by a coil spring 17, so as to engage in notches 18 on the member 4. The latch 16 may be retracted as by means of a cable 19 passing over sheaves 20 carried on a spreader 21 which is supported by the members 5, the cable 19 being secured to a collar 22 which abuts against a shoulder on

the latch 16. When a pull is exerted on the cable 19 the latch 16 will be retracted out of notch 18 and thereafter the cross member 6 and the track section 8 may be moved into alignment with any other track 2.

It will be understood from the foregoing description that the track section 8 is supported in a manner to be maintained in horizontal alignment with the tracks 1 and 2 partly by reason of the supporting member 6 which absorbs the load imposed on the track 8 and which is positively positioned with respect to the members 3 and 4 and the tracks 1 and 2. Moreover, the parts of the structure are free from combined bending and tensile stresses. The track section 8 is supported directly from the member 6 and this member is in turn directly supported on members 3 and 4, thereby relieving the brackets 9 and 10 and the means connecting these brackets to the member 6 from bending stresses.

Having thus described my invention so that those skilled in the art may be enabled to practice the same, what I desire to secure by Letters Patent is defined in what is claimed.

What is claimed:

1. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a cross member supported at its ends by and spanning the space between the said spaced members, and a track section connected to and disposed beneath the said cross member and movable in a horizontal plane to span the space between a stationary track and any one of a plurality of oppositely disposed stationary tracks.

2. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a cross member supported by and spanning the space between the said spaced members, a movable track section connected to and disposed beneath the said cross member in position to span the space between a stationary track and any one of a plurality of oppositely disposed stationary tracks, and track guard means carried by the said cross member in position to obstruct tracks out of alignment with the said movable track section.

3. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a cross member supported by and spanning the space between the said spaced members, a movable track section connected to and disposed beneath the said cross member in position to span the space between a stationary track and any one of a plurality of oppositely disposed stationary tracks, and track guard means carried by the said cross member in position to obstruct tracks out of alignment with the said movable track section,

the said track guard means including a guard member disposed transversely of the said cross member in guarding position with respect to a stationary track.

4. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a cross member supported by and spanning the space between the said spaced members, a movable track section connected to and disposed beneath the said cross member in position to span the space between a stationary track and any one of a plurality of oppositely disposed stationary tracks, and track guard means carried by the said cross member in position to obstruct tracks out of alignment with the said movable track section, the said track guard means including a guard member disposed transversely of the said cross member in guarding position with respect to a stationary track, and a brace member extending from the said guard member to the said cross member.

5. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a cross member supported by and spanning the space between the said spaced members, a movable track section connected to and disposed beneath the said cross member in position to span the space between a stationary track and any one of a plurality of oppositely disposed stationary tracks, and track guard means carried by the said cross member in position to obstruct tracks out of alignment with the said movable track section, the said track guard means including a guard member disposed on each side of and braced by the said cross member and positioned transversely of the cross member in guarding position with respect to stationary tracks.

6. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a cross member pivotally connected to one of the members and slidably supported at one end by the other of said members, and a track section carried by and beneath the said cross member to serve as a connecting track horizontally movable between a plurality of fixed tracks.

7. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a cross member pivotally connected to one of the members and extending to and slidably supported by the other of said members, a track guard carried by the cross member, and a movable track section carried by and beneath the said cross member to serve as a connecting track between a plurality of fixed tracks.

8. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a horizontal

zontally movable cross member pivoted on one member and slidable on the other member, a track section carried by and movable with the cross member and means for pivotally joining one end of the track section to a fixed track, including a vertical rod-like pivot member, the pivotal axis of the said cross member and track section being coaxial.

9. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a cross member pivotally connected to one of the members and extending to and slidably supported by the other of said members, side members joining said spaced members, one on each side of the cross member, and a pivoted track section movable with the said cross member.

10. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a cross member supported at its ends by and spanning the space between the said spaced members, a track section beneath the cross member movable horizontally to span the space between a stationary track and any one of a plurality of oppositely disposed stationary tracks, and connecting members joining the said cross member and the movable track.

11. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a cross member pivoted to one member and slidable at one end on the other member, a movable track section beneath the cross member, brackets connecting the cross member and track section, and pivotally connected members joining the movable track section to a fixed track section.

12. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a cross member supported on one member and slidable on the other member, a movable track section beneath the cross member, and brackets connecting the cross member and track section, one of the said brackets being pivotally joined to a fixed track.

13. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a cross

member supported on one member and slidable on the other member, a movable track section beneath the cross member, and brackets rigidly connecting the cross member to the track section, and pivotally connecting the movable track section to a stationary track.

14. In a switch for suspended track in combination, two supporting members spaced apart horizontally from each other, a stationary track joined to one of the said supporting members, a plurality of stationary tracks joined to the other said supporting member, a cross member supported by and spanning the space between the said spaced members, and a movable track section positioned in horizontal alignment with and spanning the space between the first said stationary track and any one of the said plurality of stationary tracks.

15. A switch for suspended track, comprising a pivoted supporting member and a pivoted track section supported thereby and movable in horizontal alignment with stationary tracks to span the space between a given stationary track and any one of a plurality of oppositely disposed stationary tracks.

16. A switch for suspended track, comprising a pivoted supporting member, a pivoted track section supported thereby in horizontal alignment with stationary tracks and movable with the said supporting member to span the space between a given stationary track and any one of a plurality of oppositely disposed stationary tracks, and a track guard carried by the said supporting member in position to guard stationary tracks out of alignment with the said pivoted track.

17. A switch for suspended track comprising a fixed supporting member, a pivoted member slidably supported by the fixed member, and a track section supported and movable by the pivoted member in horizontal alignment with a plurality of stationary tracks to span the space between a stationary track and any one of a plurality of other stationary tracks disposed opposite to the first said stationary track.

In testimony whereof I hereunto affix my signature this 1st day of June, 1926.

J. PAUL LAWRENCE.