May 24, 1927. 1,629,805

J. F. McCARROLL

RAIL CAR TRANSFER

Filed Jan. 19, 1927 2 Sheets-Sheet 1

Fig. 1.

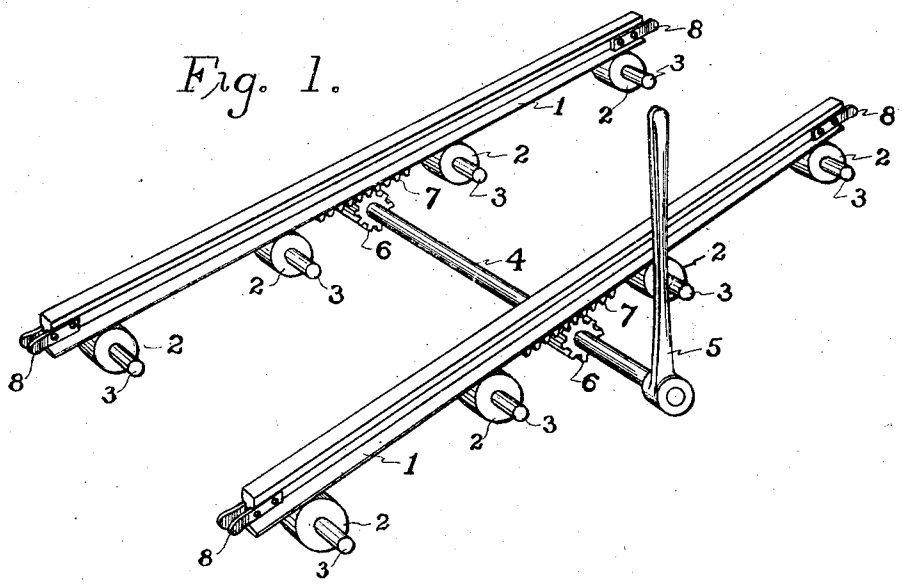


Fig. 2.

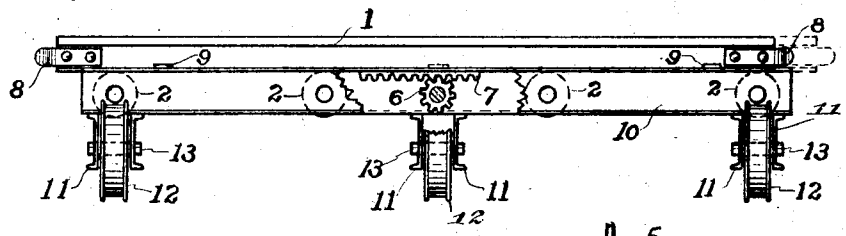
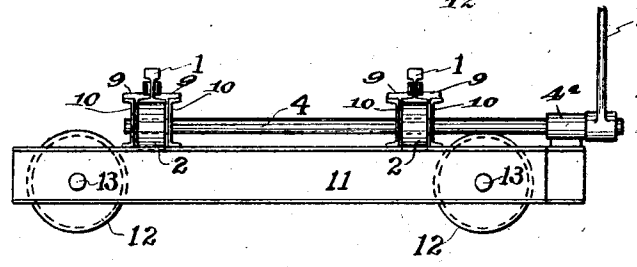


Fig. 3.



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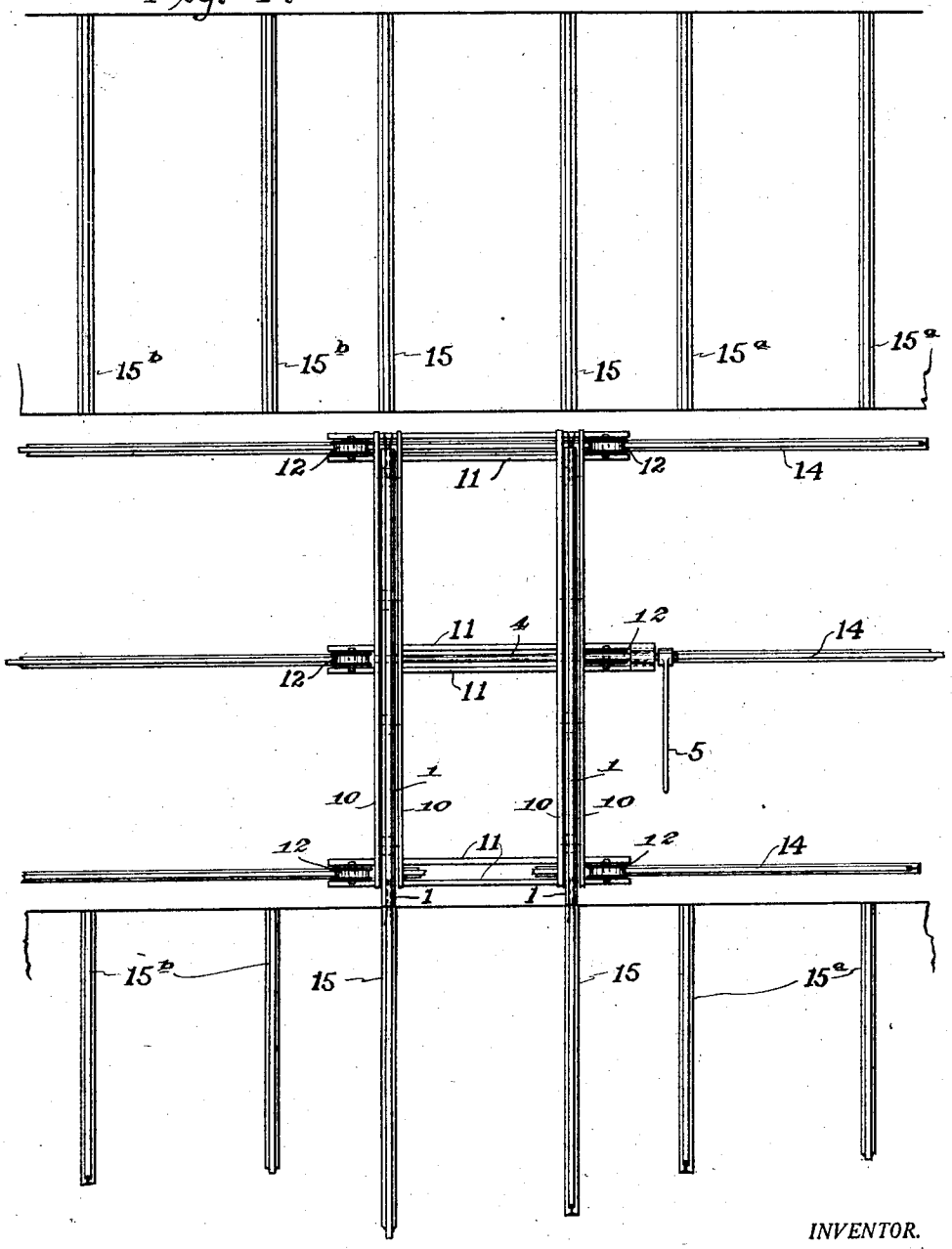
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Fig. 4.



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UNITED STATES PATENT OFFICE.

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RAIL-CAR TRANSFER.

Application filed January 19, 1927. Serial No. 162,126.

This invention relates to rail car transfers and more particularly to a device which is used in connection with cars that are manually operated.

An object of the invention is the provision of a device which will provide a continuous and uninterrupted track surface between the transfer and associated car tracks to facilitate the movement of the cars to and from said transfer and associated car tracks.

Another object of the invention is the provision of a device which will provide for the positive alignment and connections between the transfer rails and a plurality of associated car tracks in which the transfer rails may be readily manipulated for alignment with the associated rail.

A further object of the invention is the provision of a device for not only aligning the rails of a transfer system but for holding the transfer rails in alignment with pairs of associated rails so that there will be no danger of the car supported by the transfer rails from being thrown from their positions on the transfer rails when the car is moving from the associated rails to the transfer rails.

This invention will be best understood from a consideration of the following detailed description, in view of the accompanying drawings forming a part of the specification; nevertheless, it is to be understood that the invention is not confined to the disclosure, being susceptible of such changes and modifications which shall define no material departure from the salient features of the invention as expressed in the appended claims.

Figure 1 is a view in perspective of the transfer rails and operating mechanism for the same,

Figure 2 is a side view of the transfer rails and rotatable supports for said transfer rails,

Figure 3 is an end view of the transfer device, and

Figure 4 is a plan view of a system of associated rails showing my transfer device applied thereto.

Referring more particularly to the drawings 1 designates slidably mounted rails which are supported by rollers 2 revolvably mounted on axles 3. A shaft 4 is provided adjacent its opposite end with gears 6 meshing with a rack 7 formed integrally with the underface of the rails 1 or formed separately and rigidly connected therewith. The shaft 4 is actuated by a lever rigid on the projecting end of said shaft.

The axles 3 are supported in bearings by means of spaced pairs of U-beams 10 maintained in spaced relation in any approved manner. Running transversely of the spaced pairs of beams 10 are a plurality of pairs of spaced U-beams 11 which are rigidly connected to the U-beams 10. Grooved wheels 12 are mounted for rotation on axles 13 which are provided with bearings in the U-beams 11. The shaft 4 as shown in Figure 3 has a bearing 4^a carried by a bracket supported at one end of a beam 11.

A plurality of tracks 14 are disposed at a lower level than the pairs of associated tracks 15, 15^a and 15^b and adapted to receive the grooved wheel 12 with the rails 14 disposed at right angles to the associated rails. In this manner the car transfer device is adapted to be shifted transversely of the associated rail and between the same so that the rail 1 may be aligned with any set of the associated rails.

At the ends of each of the rails 1 are provided a pair of resilient tongues 8 which are flared outwardly at the free ends and are adapted to engage the web of an associated rail when the rails 1 are moved into alignment with the ends of the associated rail and these clips are also adapted to maintain the transfer rails 1 in alignment with the associated rails.

A pair of stops 9 are located adjacent the ends of each of the U-beams 10 and upon opposite sides of a rail 1 and are adapted to ride over the top of the base flange of the rails 1 for retaining the rails 1 in position and for engaging the inner ends of the resilient fingers 8 to limit the outward movement of the rails 1 from the upper edge of the U-beams 10.

The operation of my device is as follows: When it is desired to transfer a car from the tracks 15 to either the tracks 15^a or 15^b the transfer device is moved so that the rails 1 will align with either the rails 15^a or the rails 15^b as the case may be. After such alignment the lever 5 is actuated to cause a rotation of the gear 6 which being in engagement with a rack 7 causes both rails to move simultaneously towards the ends of the pair of rails 15 and until the ends abut and the resilient fingers have moved up into position for engaging opposite sides of the

web of the associated rails. At this time the rails are locked in alignment and the car may be moved from the associated rails onto the transfer rails.

The lever 5 is then actuated in a reverse direction, causing the resilient fingers to move away from the web of the associated rails 15 whence the transfer device may be moved transversely of the associated rails for alignment with either the rails 15^a or 15^b. After alignment the lever 5 is actuated in the proper direction and until the end of the rails which abut either ends of the rails 15^a or 15^b. At this time the resilient fingers will have moved into engagement with the webs of the associated rails whereby the transfer rails will be held against movement. The car may then be released and moved onto the associated rails. In this manner it will be seen that cars may be transferred from rails 15 to rails 15^a or to rails 15^b or vice versa.

While I have shown a shaft 4, gears 6, rack 7 and a lever 5 for shifting the rails 1 longitudinally, nevertheless, it will be appreciated that any form of operating mechanism suitable for the purpose, such as a toggle, may be employed.

I claim:

1. A car transfer comprising a wheeled frame with slidable car rails mounted thereon, means providing for relative longitudinal movement of said car rails, and means provided at the ends of said car rails to engage associated car tracks to cause positive alignment therewith.

2. In combination with a car transfer and associated car tracks slidable car rails mounted on said car transfer, means providing for longitudinal movement of said car rails, and means provided at the ends of said associated car tracks to engage said car rails and cause positive alignment therewith.

3. In combination with a car transfer and associated car tracks, slidable car track rails mounted on said car transfer, means for providing relative movement of said car track rails longitudinally to make contact with associated car tracks, and means for connecting the ends of said car rails to the ends of said associated car tracks to cause positive alignment therewith.

4. A transfer car comprising a wheeled frame having a plurality of rollers mounted thereon, slidable rails movable longitudinally on said rollers, associated car and racks, and means provided at the ends of said car rails to engage the associated car tracks to cause positive alignment therewith and to form substantially uninterrupted track surface between said slidable rails and said associated tracks for the purpose described.

5. In combination with a transfer car and associated car tracks, said car transfer being provided with rollers, slidable car rails mounted on rollers on said car transfer, means providing for longitudinal movement of such car rails on said rollers, and means provided at the ends of said associated car tracks to engage said car rails and cause positive alignment and uninterrupted connection between said slidable rails and said associated tracks.

6. In combination with a car transfer and associated car tracks, said car transfer being provided with rollers, slidable car rails mounted on rollers on said car transfer and means providing for longitudinal movement of such car rails relative to body of said car transfer, and means provided on said car rails to engage said associated car tracks to cause positive alignment and uninterrupted connection therewith.

7. An attachment for car transfers comprising a plurality of car track rails, slidably mounted on such car transfer and arranged to engage with associated car tracks substantially as described.

8. An attachment for car transfers comprising a plurality of car track rails slidably mounted on the car transfer, means for moving said car rails relative to the body of such car transfer to engage with associated car tracks substantially as described.

9. A car transfer comprising a plurality of car track rails slidably mounted on the car transfer, means for moving said car rails relative to the body of such car transfer, and means provided on ends of said car rails to engage associated car tracks substantially as described, and means for moving the car transfer transversely of a plurality of car tracks.

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