

June 29 , 1926.

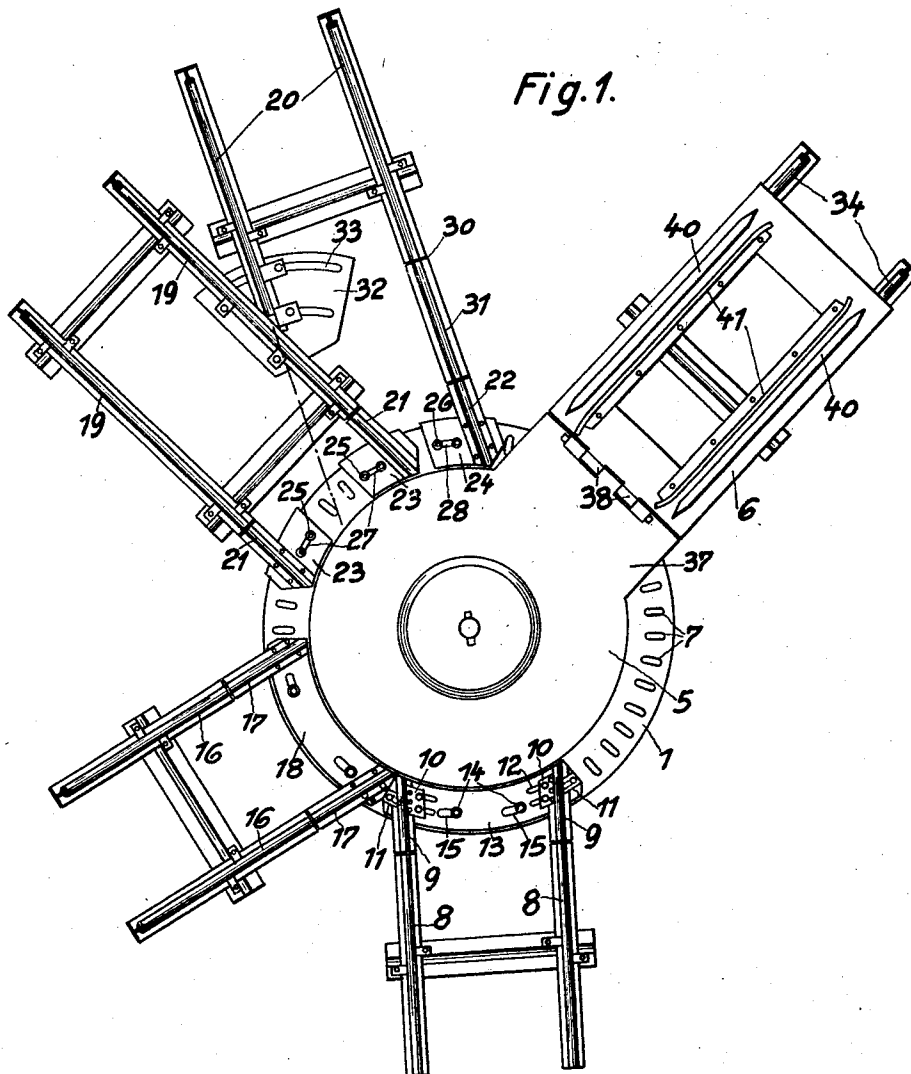
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TURNTABLE FOR PORTABLE RAILWAYS

Filed Nov. 9, 1925

2 Sheets-Sheet 1



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Fig. 2.

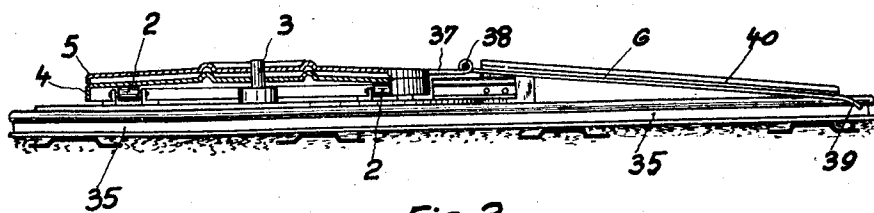


Fig. 3.



Fig. 4.

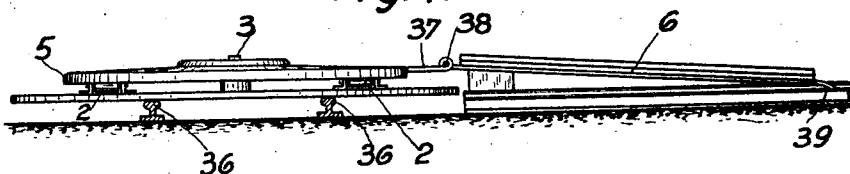


Fig. 5.

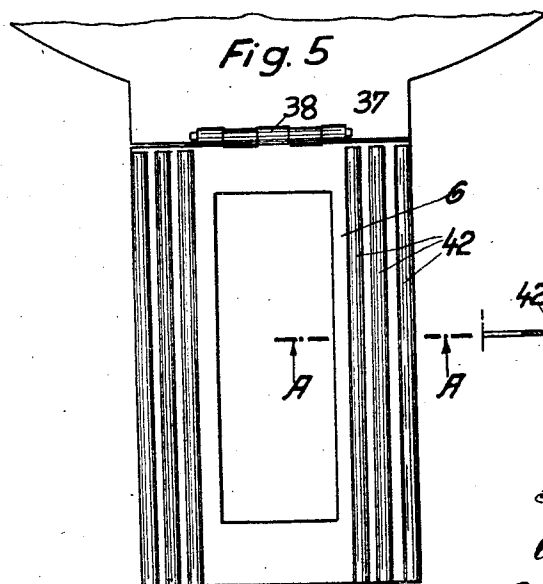
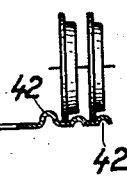


Fig. 6.



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TURNTABLE FOR PORTABLE RAILWAYS.

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This invention relates to a turntable for portable railways. The turntable according to the invention is so arranged that it can fulfil all requirements which arise in practice: On the one hand tracks converging from any desired direction can be connected to the turntable; on the other hand the turntable can be mounted on the ground between the ends of tracks or over a through track, as may be desired. Independently of the height of the turntable, it is provided that from tracks located in any direction, whether these be directly connected to the turntable or not, the cars can be rolled on to the turntable and thence rolled off on to any desired other track. Notwithstanding its universal availability, the turntable is simple in operation and construction.

The most important features of the turntable consist first, in that the lengths of rail serving to connect the approaching tracks to the base plate of the turntable are adjustably secured to such base plate, by means which conform to the radial direction of the converging track; second, in that to the rotary platform of the turntable is attached an upwardly folding, strong ramp, on which are provided guide strips for the wheels of the traversing cars and which can serve for bridging gaps in the rails between converging tracks and the turntable, and also to overcome differences in level both ascending and descending between the rotary platform and the converging track. A further important characteristic of the turntable consists therein, that it is adaptable for different gauges of track. The turntable according to the invention is therefore capable of being used with converging tracks of any desired angular position, any desired number, any desired level and any desired gauge. Other individual features of the invention will be apparent from the description of the constructional examples.

On the accompanying drawing,

Fig. 1 is a plan of a constructional ex-

ample of a turntable according to the invention, with variously arranged methods of effecting the connection to the rails. 50

Figs. 2-4 are side elevations showing different assemblies of the parts, Fig. 2 being partly in section.

Figs. 5 and 6 are respectively a plan and a partial section on the line A—A of Fig. 5, of a modified construction of ramp. 55

The illustrated turntable, to be capable of being used under all conditions arising in practice, consists of three main parts: The stationary base plate 1, the upper plate (rotary platform) 4 as usual supported on rollers 2 and rotatable about a central spindle 3, and a second rotary platform 5 with a ramp 6, which can be used either under certain circumstances as a substitution for the rotary platform 4, as illustrated in Fig. 4, or together with the rotary platform 4, superimposed on the latter, as illustrated in Fig. 2. Fig. 3 shows the use of the platform 4 without using the platform 5. 60

An annular series of bolt holes 7, adjacent to the border of the circular base plate 1, serves to connect up with converging tracks, of which on the drawing for example five are shown. This annular series of bolt holes permits connector rail lengths for connecting to the approaching tracks to be attached in the radial direction at any desired peripheral position in a rapid and simple manner, so that tracks converging on the turntable in any desired direction can be connected to the turntable 1. A suitable manner of attaching the connector rail lengths consists therein, that the two connector rail lengths belonging to one converging track are secured to a segmental connector plate, and such connector plate in its turn is secured by means of the annular series of bolt holes to the base plate 1. This method is illustrated in respect of the track 8 in Fig. 1. The connector rail lengths 9 are bolted fast in longitudinal slots 12 in the connector plate 13, by means of lugs 10 and 11; welded or riveted to 85

their bases. The connector plate 13 itself is bolted fast at the appropriate peripheral position by means of bolts 14, which pass through corresponding bolt holes 7 in the base plate 1. Longitudinal slits 15 permit fine adjustment in the circumferential direction. The adjustability of the connector rail lengths 9 on the connector plate 13 permits the use of one and the same connector plate for converging tracks of different gauges.

A method of connection to the base plate 1 is shown on the drawing in respect of the converging track 16 (Fig. 1) similar to that for the converging track 8, except that in this case the connector rail lengths 17 are shown connected directly to the connector plate 18.

With the approaching tracks 19 and 20 which cross at an acute angle shortly before the turntable, the connection to the base plate 1 of the turntable is not effected by connector rail lengths, which are mounted on a connector plate in common, but by connector rail lengths 21 and 22, each having a separate base lug 23 and 24 for connection to the annular series of holes 7. The use of such individual base lugs 23 and 24, which extend from the rails towards the middle of the track, permits the crossing angle of adjoining tracks where necessary to be selected considerably smaller than with a connector plate in common. Consequently a correspondingly larger number of tracks can be brought to converge on one and the same turntable. Longitudinal slots 27 and 28 are provided in the lugs 23 and 24 for the bolts 25 and 26 for the connection of the connector rail lengths 21 and 22 to the base plate 1. With the illustrated acute angled position of the tracks 19 and 20, cutting through of the rails or normal crossing thereof is in practice not capable of being effected. Notwithstanding this such acute angled position of the tracks is permissible with the present turntable, when the turntable is used with a ramp, as such ramp will extend over the intersection. The track 20 can therefore terminate in front of the intersection. If it is necessary to securely fasten down the track 20, the inner rail 20 is carried up to the rail 19 and connected to such rail 19 by means of a plate 32 having curved slotways 33. The outer rail 20 ends either at 30 or is connected by a continuation rail length 31 to the connector rail length 22.

The end of the remaining converging track 34 (Fig. 1), is shown covered by the ramp 6 of the rotary platform 5, the track 34 either terminating short of the turntable or being connected to the base plate of the turntable.

The turntable can be used with the ordi-

nary rotary platform 4, as shown in Fig. 3, when situated on the same level as the converging tracks, and these latter, as above described, are connected to the base plate 1 by connector rail lengths. In other cases, where either there are gaps in the rails between the stationary converging track and the turntable, as for instance with the track 20 (Fig. 1), or where the turntable is placed on a through track 35 (Fig. 2) or 36 (Fig. 4), the rotary platform 5 is used. This rotary platform 5, herein shown circular, but which can have other shapes, has an extension 37, which projects to beyond the periphery of the base plate 1 and to the outer border of which the ramp 6 is hinged by means of a hinge 38. The ramp consists of an iron plate capable of withstanding bending and pressure, with a slightly downwardly bent front border 39 (Figs. 2 and 4) and with strips 40 and 41, which serve both as guard and guide rails for guiding the car wheels and for stiffening. Conveniently, two pairs (40 and 41) of guard rails are initially provided in order to render the ramp suitable for use with two different gauges of track (50 and 60 cm. for instance). Alternatively one pair of guard rails may be provided adjustable transversely on the ramp plate. To reduce weight the ramp plate conveniently is inwardly apertured.

The rotary platform 5 with the turn-ramp 6 is either, as shown in Fig. 4, placed directly on the rollers 2 after removal of the rotary platform 4 (Fig. 3), which is particularly suitable when converging tracks mounted on the ground but not connected to the turntable are dealt with, in which case the ramp mainly serves to bridge gaps between the converging tracks and the turntable, but also to overcome differences in level. The converging tracks may however be connected to the turntable by fish plates bolted flat on the base plate 1 of the turntable, without rotation of the platform being prevented.

In the method of employment shown in Fig. 2, the rotary platform 5 is placed on the spindle 3, without the rotary platform 4 being previously removed. The cars from any desired converging track can then be caused to ascend the ramp 6 onto the platform 5. The platform 5 can then with the ramp 6 raised and together with the platform 4, which as a result of the load turns therewith, be brought to any desired angular position, so that then the car by means of the re-lowered ramp 6 can be run off onto any other desired track.

A very suitable form of construction of the ramp is shown in Figs. 5 and 6, in which the guide and stiffening strips 42 are pressed out of the material of the plate, and therefore the entire ramp 6 including

the strips can be produced by a pressing operation. The rotary platform can also be produced by pressing, and preferably with a downwardly flanged or bent border, whereby on the one hand fouling by dirt of the turntable is reduced and the strength thereof relatively to the weight is increased.

The various arrangements described can be used alone or in conjunction, for example with the employment of the adjustable arrangement of the connecting rail lengths without using the rotary platform with the ramp is conceivable, as is also the use of the platform-ramp without adjustable rail connections. For universal availability the use of all the arrangements is necessary.

I claim:

1. In a portable railway turntable for railway tracks, a base plate having an annular series of bolt holes around its periphery, a rotary platform on said base plate, and a ramp for said platform, said bolt holes being adapted to secure the tracks to the base plate.

2. In a portable railway turntable, a base plate, a rotary platform on said base plate, and a ramp with wheel guide strips hinged to the border of said rotary platform.

3. In a portable railway turntable, a base plate formed around its periphery with an annular series of bolt holes, connector plates bolted to said bolt holes, connector rail lengths secured to said connector plates, and a rotary platform on said base.

4. In a portable railway turntable, a base plate formed around its periphery with an annular series of bolt holes, connector plates bolted to said bolt holes, connector rail lengths each secured to a separate connector plate, and a rotary platform on said base.

5. In a portable railway turntable, a base plate formed around its periphery with an annular series of bolt holes, connector plates bolted to said bolt holes, connector rail lengths of one track and a connector rail length of the outer rail of a track intersecting said first track secured each to a separate connector plate, and a rotary platform on said base.

6. In a portable railway turntable, a base plate formed around its periphery with an annular series of bolt holes, connector plates bolted to said bolt holes, connector rail lengths of one track and a connector rail length of the outer rail of a track intersecting said first track secured each to a separate connector plate, a curved slotted plate interconnecting the inner rails of said tracks, and a rotary platform on said base.

7. In a portable railway turntable, a base plate, a rotary platform on said base plate, a second rotary platform superimposed on said first mentioned rotary platform, and a

ramp with wheel guide strips hinged to the border of said second rotary platform.

8. In a portable railway turntable, a base plate, a spindle upstanding on said base plate, a rotary platform on said spindle, and a ramp with wheel guide strips hinged to the border of said rotary platform.

9. In a portable railway turntable, a base plate, a spindle upstanding on said base plate, a rotary platform on said spindle, a second rotary platform on said spindle superimposed on said first mentioned rotary platform, and a ramp with wheel guide strips hinged to the border of said second rotary platform.

10. In a portable railway turntable, a base plate, a rotary platform on said base plate, an extension of said rotary platform beyond said base plate, and a ramp with wheel guide strips hinged to the border of said extension.

11. In a portable railway turntable, a base plate, a rotary platform with a downwardly directed flange on said base plate, and a ramp with wheel guide strips hinged to the border of said rotary platform.

12. In a portable railway turntable, a base plate, a rotary platform on said base plate, and a ramp plate, pressed with guide strips hinged to the border of said rotary platform.

13. A portable railway turntable for railway tracks comprising a base plate; and a rotary platform on said plate and provided with a ramp having guiding means cooperating with said railway tracks.

14. A portable railway turntable comprising a base plate; a platform rotatably mounted on said plate; and a ramp hinged to said platform which is adapted to cooperate with a track.

15. In a portable railway turntable, a base plate provided with an annular series of bolt holes around its periphery; connector rail lengths adjustably bolted in said bolt holes; and a rotary platform on said base plate.

16. In a portable railway turntable, a base plate provided with an annular series of bolt holes around its periphery; a plurality of connector rail lengths; means for adjustably securing said rail lengths in said bolt holes; and a rotary platform on said base plate.

17. In a portable railway turntable, a base plate provided with an annular series of bolt holes around its periphery; a plurality of connector plates having longitudinal slots and adapted to be bolted to said bolt holes; connector rail lengths secured to said connector plates; and a rotary platform on said base plate.

In testimony whereof I have signed my name to this specification.

OTTO MÄDER.