No. 659,707. Patented Oct. 16, 1900.

J. S. STEPHENS.

RAILWAY TURN TABLE.

(Application filed Mar. 19, 1900.)

(No Model.)

Fig. 1.

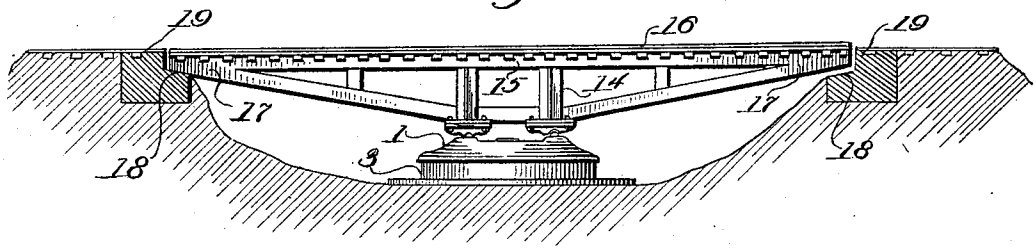


Fig. 3.

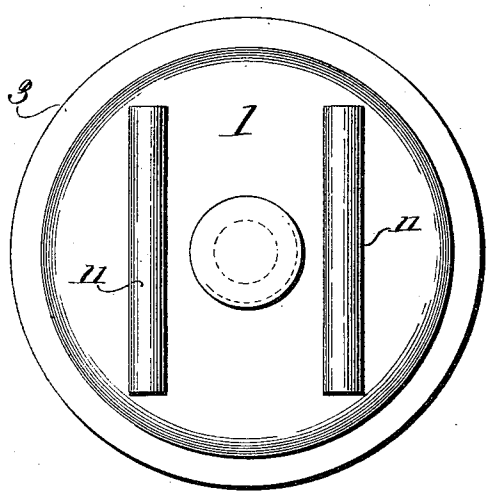


Fig. 4.

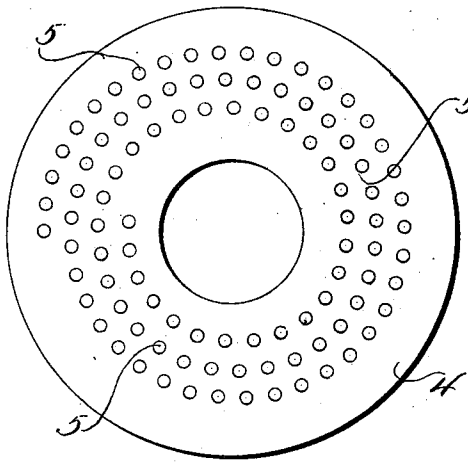
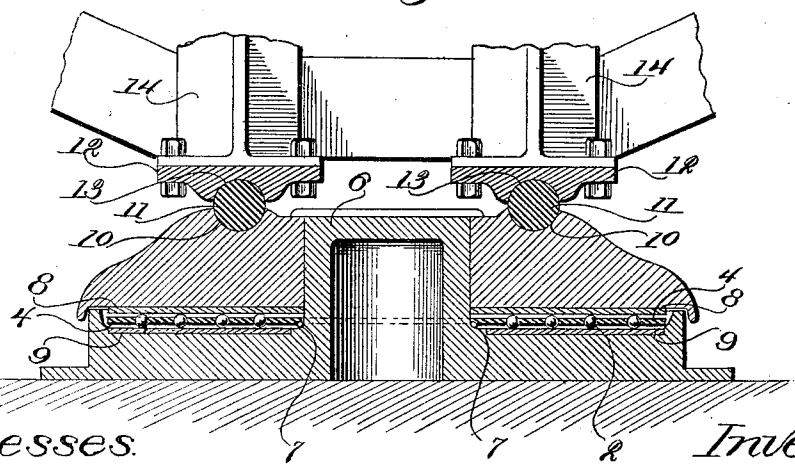


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES S. STEPHENS, OF MAYWOOD, ILLINOIS, ASSIGNOR TO THE STEPHENS & WESTCOTT COMPANY, OF SAME PLACE.

RAILWAY TURN-TABLE.

SPECIFICATION forming part of Letters Patent No. 659,707, dated October 16, 1900.

Application filed March 19, 1900. Serial No. 9,249. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. STEPHENS, a citizen of the United States of America, and a resident of Maywood, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railway Turn-Tables, of which the following is a specification.

My invention relates particularly to the balancing means and bearings for railway turn-tables.

The main objects of my invention are, first, to provide for properly balancing the turn-table when the center of gravity of the engine is not immediately over the center of the turn-table, and, second, to provide improved bearings upon which said table revolves. I accomplish these objects by the structure shown in the accompanying drawings, in which—

Figure 1 is a partly-sectional elevation of a turn-table and abutments constructed according to my invention. Fig. 2 is a vertical central section, partly broken away, taken from the same point of view as Fig. 1. Fig. 3 is a top plan of the revoluble head upon which the upper part of the frame or platform is supported. Fig. 4 is a top plan of the spacing-plate for the bearing-balls.

The revoluble head 1 is supported by the balls or rollers 2 on the base 3. Said balls are separated and spaced by means of the plate 4, having therein the perforations 5 for receiving the balls. Said perforations are spirally arranged, as shown in Fig. 4. Said plate revolves around the central part 6 of the base and is supported by the balls 7. The head 1 and base 3 are reinforced by steel plates 8 and 9 for direct contact with the balls 2. The head 1 is provided with depressions 10 for receiving the shafts or ribs 11. The plates 12 are provided with depressions 13, also receiving said shafts. The plates 12 are rigidly secured to the frame 14 of the platform 15, which supports the rails 16. The ends 17 of the platform when the latter is in its normal position will each have a slight clearance from the ledge 18 of the abutment 19. This permits the free rotation of the platform without necessitating the use of the supporting-wheels, which are usually provided at the ends of the platform in other turn-tables of common form.

The operation of my device is as follows: When the engine approaches the center of the table from the left, the platform will be slightly tilted, as shown in Fig. 1, so that its weight will be supported on the ledge 18 at the left and the shaft 11 at the left. The plate 12 at the right will then be slightly raised from its shaft, as shown in Fig. 1. When the center of gravity of the engine is over any part of the table between the fulcrum points or shafts 11, the platform will be supported on both shafts 11, as shown in Fig. 2. The platform is then in proper position to be turned. The person in charge of the engine will readily know from the slight movement of the platform when same is resting on both shafts 11. The two shafts 11 provide a double fulcrum for the platform, avoiding the necessity of bringing the center of gravity of the engine precisely over a fixed point, as is necessary in other forms of turn-tables in which the platform is supported on a single fulcrum. The spiral arrangement of the perforations 5 in the spacing-plate 4 prevents the balls from following each other in the same track, and thus avoids unnecessary wear on the plates 8 and 9.

It will be understood that numerous details of the device shown may be altered without departing from the spirit of my invention. I therefore do not confine myself to such details, except as hereinafter limited in the claims.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A railway turn-table, comprising a base, a revoluble head mounted thereon, and a tilting platform supported on said head by a double fulcrum at independent axial points, for the purpose specified.

2. A railway turn-table, comprising a base, a revoluble head mounted thereon, and a tilting platform supported on said head by a double fulcrum at independent axial points, said fulcrum consisting essentially of a pair of ribs or ridges acting in depressions between the opposed surfaces of said head and platform, for the purpose specified.

3. A railway turn-table, comprising a base, a revoluble head mounted thereon, and a tilting platform, supported on said head by a double fulcrum at independent axial points, in combination with an abutment, having an inwardly-projecting ledge for limiting the tilt of said platform, substantially as described.

4. A railway turn-table comprising a base, a revoluble head mounted thereon, and a tilting platform, supported on said head by a double fulcrum at independent axial points, said fulcrum consisting essentially of two parallel sections of shafting each seated in opposed depressions in said head and platform, for the purpose specified.

5. A railway turn-table comprising a base, a revoluble head mounted thereon, a series of bearing-rollers between said base and head, and a revoluble spacing-plate having therein the spirally-arranged perforations for receiving and guiding said rollers, said spacing-plate being supported by an independent set of bearing-rollers.

Signed by me at Chicago, Illinois, this 8th day of March, 1900.

JAMES S. STEPHENS.

Witnesses:
WM. R. RUMMLER,
GLEN C. STEPHENS.