

W. H. BURCH.
Turn-Tables.

No. 139,941.

Patented June 17, 1873.

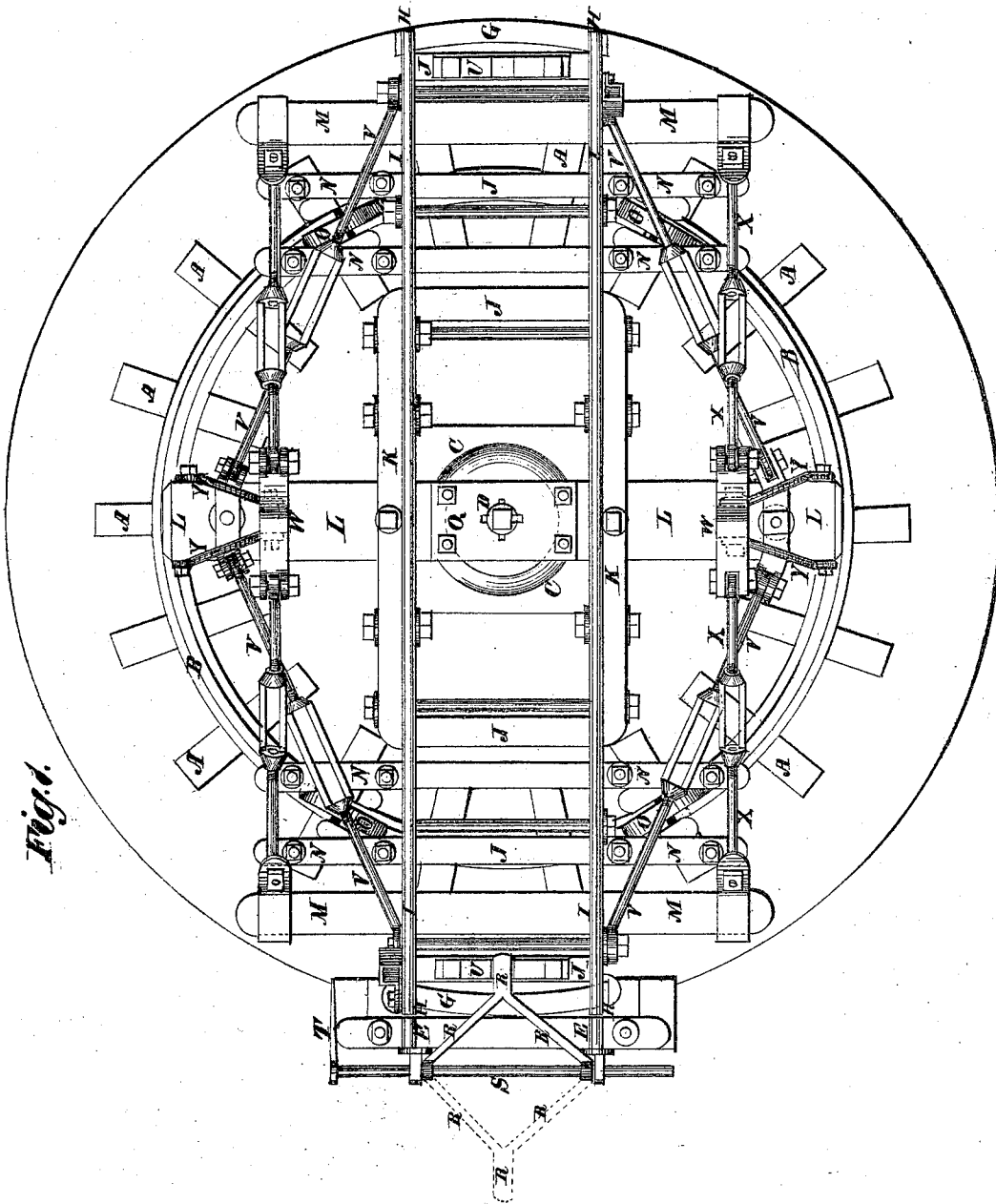


Fig. 1.

Witnesses:

V. H. McCullough
Chas. J. Smith

Inventor:

W. H. Burch

Per

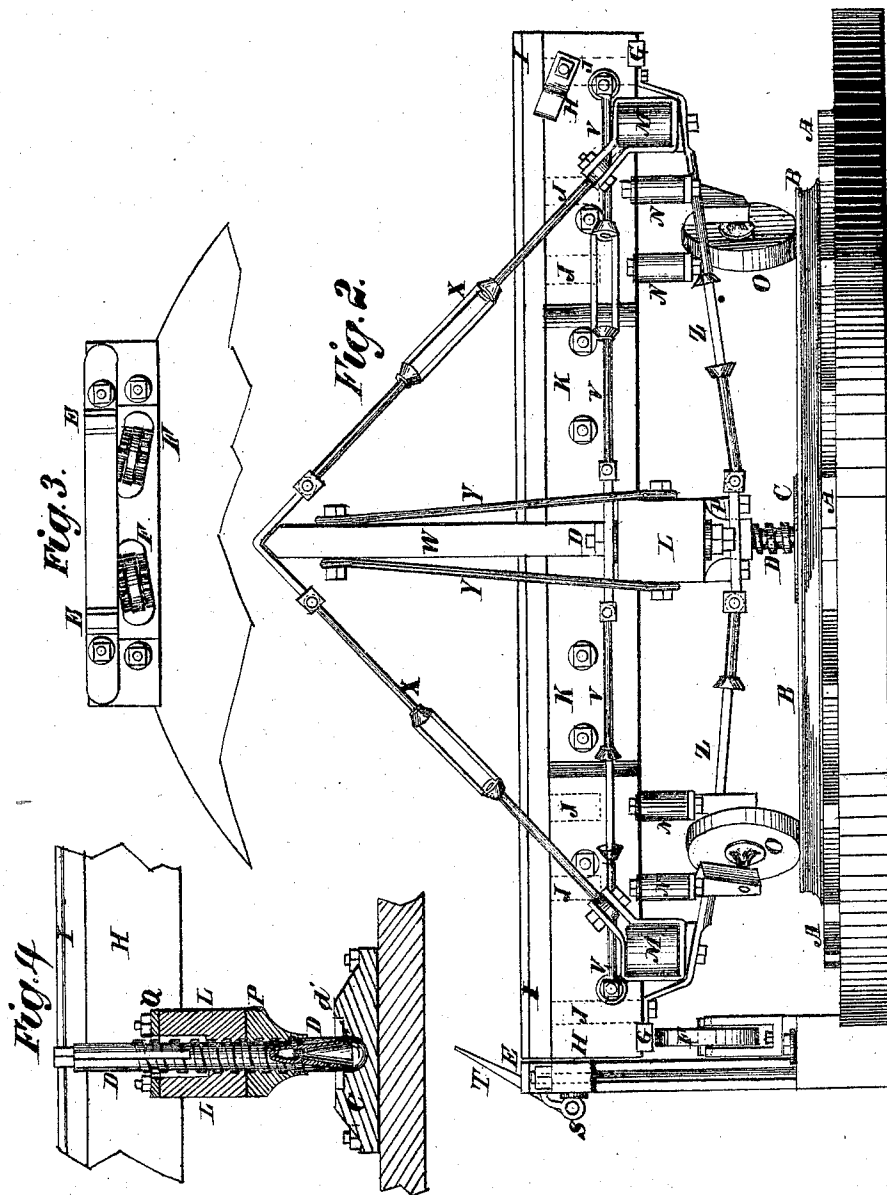
Wm. H. Burch

Attorneys.

W. H. BURCH.
Turn-Tables.

No. 139,941.

Patented June 17, 1873.



Witnesses:

J. McArdle
D. Sedgwick

Inventor.

W. H. Burch

Per

Wm. H. Burch

Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM H. BURCH, OF PORT GIBSON, MISSISSIPPI.

IMPROVEMENT IN TURN-TABLES.

Specification forming part of Letters Patent No. **139,941**, dated June 17, 1873; application filed May 5, 1873.

To all whom it may concern:

Be it known that I, WILLIAM H. BURCH, of Port Gibson, in the county of Claiborne and State of Mississippi, have invented a new and useful Improvement in Turn-Tables for Railroads, of which the following is a specification:

Figure 1, Sheet 1, is a top view of my improved turn-table. Fig. 2, Sheet 2, is a side view of the same. Fig. 3, Sheet 2, is a top view of the supporting-wheels for the end of the table. Fig. 4, Sheet 2, is a detail section, showing the adjustable pivoting-screw.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved turn-table for railroads, which shall be center-bearing, self-adjusting, more easily worked, less liable to get out of order, more durable, and less expensive in construction than turn-tables constructed in the ordinary manner, and which will not be subject to warpage.

The invention consists in the stringers, the rails, the cross-beams, the trucks, the end-wheels, the center-screw, and the plates, constructed and arranged to operate in connection with each other as hereinafter fully described. In the detachable-point or toe, constructed and applied to the center balancing-screw, as hereinafter fully described; in the V-shaped locking-bar, in combination with the shaft by which it is operated, and with the notched blocks attached to the ends of the turn-table; and in the arrangement of the stays, constructed as described, the posts and the braces, in connection with the stringers and cross-beams of the turn-table, as hereinafter fully described.

A represents the ties, upon which is laid a circle, B, of rails. C is the center or step plate, which is designed to rest upon and be secured by anchor-bolts to a bed of brick-work. In the center of the plate C is secured a cast-steel socket or step to receive the lower end of the center pivoting or balancing screw D. E represents the end of the track from and to which the engine passes to and from the turn-table. At the end of the track E are secured the bearings of two wheels F, in such positions that they may be directly

beneath the end of the track of the turn-table when in position for the engine to pass to or from said table, and that the axles of said wheels may be radial with respect to the axis of the turn-table. The wheels F are designed to take the weight off the circular-track B upon which the table revolves, when an engine is passing to or from said table.

Another advantage of the wheels F is that, should an engine, when run upon the table, pass so far beyond its center as to throw the said table off a balance, it will not be necessary to move the engine from that position, for as the table is turned into position for the engine to pass from it, the circular-plate C, attached to the under side of the ends of the stringers H, and made with beveled or inclined ends, pass upon the said wheels F, and adjust the table to the proper level. The stringers H to which the rails I are attached, are bolted to each other and are held at the proper distance apart by blocks J, interposed between them. Each of the stringers H is made in two equal parts, and they are strengthened at their joints by beams K, bolted to their outer sides. The stringers H are bolted at their centers to the center cross-beam L, and near their ends to the end cross-beams M. To the stringers H, at the inner sides of the end cross-beams M are bolted the truck-frames N, the wheels O of which are made with rounded faces to roll upon the circle of rails B. This form of the faces of the wheels O gives less friction, and prevents any tendency to "gather." To the under side of the middle part of the center cross-beam L is bolted a cast-iron plate, P, which plate is made sufficiently long to receive the bolts that secure the splice-bars K to said central beam L. Through the center of the plate P is formed a screw-hole to receive the center or pivoting screw D. The bearing for the screw D is lengthened by a boss or projection formed upon the lower side of said plate so as to avoid cutting, and thus weakening, the timbers. Upon the upper side of the middle part of the center cross-beam L is placed a metallic plate Q, which is secured in place by the same bolts that secure the lower plate P. The pivoting-screw D passes through a hole in the center of the plate Q. In the inner edge of the plate Q are formed four grooves at equal dis-

tances apart, and in the side of the screw D is formed a corresponding groove, so that by bringing the groove in the screw D opposite one of the grooves in the plate Q, and inserting a key, the said screw can be securely locked in place. By removing the key the screw D may be turned a quarter, a half, three quarters, or one or more revolutions, so that the table may be accurately adjusted. In the lower end of the screw D is formed a tapering hole to receive the tapering shank of the steel toe or point *d'*, which point may be detached by a wedge driven through a short slot in the screw D, at the point of the shank of the said toe or point *d'*. The table is locked with the rails I, in line with the rails of the tracks E, by the V-shaped locking-bar R attached to the shaft S, which works in bearings attached to a tie of the track E, or to other suitable support, and which is worked by a lever T attached to either of its ends. The free end of the V-shaped locking-bar R enters a groove in the catch-block U, one of which blocks is attached to each end of the track of the turn-table. V are lateral stays, one of which is placed upon each side of the track of the turn-table, and the centers of which are bolted to the end parts of the center-beam L. The outer ends of the two stays are bolted to each other and to the end parts of the stringers H by long bolts. Each stay V is provided with two swivel-nuts, one upon each side of the center-beam L, so that the tension may be regulated as required for adjusting the table laterally, and to prevent the trucks N O from taking an improper course, which would cause them to gather upon the circular track B, and thus cause unnecessary friction. To the end parts of the center-beam L are attached the lower ends of two upright posts, W, upon the tops of which rest the centers of the stays X, the ends of which are attached to the end parts of the end cross-beams M. Each of the stays X is provided with two swivel-nuts. The

stays X are designed to support the end parts of the table, and prevent sagging, the swiveled nuts enabling the tension of any part to be regulated as required. Y are four braces, the lower ends of two of which are attached to the opposite sides of each end of the center-beam L, and their upper ends are attached to the opposite sides of the upper part of each post W, and which are designed to prevent lateral vibration. Z are two bottom stays, the ends of which are bolted to the end cross-beams M, and to the ends of the stringers H, and the middle parts of which are bolted to the lower side of the center-beam L, the bolts also passing through the plate P and stringers H. The stays Z are designed to prevent vibration and hold the table securely and firmly under counter-strains from the other stays.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The stringers H, rails I, cross-beams L M, trucks N O, wheels F, center-screw D, and plates C P Q, constructed and arranged to operate in combination with each other substantially as herein shown and described.

2. The detachable point or toe *d'*, constructed and applied to the screw D substantially as herein shown and described.

3. The V-shaped locking-bar R in combination with the shaft S, by which it is operated, and with the notched blocks U attached to the ends of the turn-table, substantially as herein shown and described.

4. The arrangement of the stays V X Z, constructed as described, the posts W and braces Y, in connection with the stringers H and cross-beams L and M, substantially as and for the purposes herein set forth.

WILLIAM HENRY BURCH.

Witnesses:

RICHARD HAWKINS,
GEORGE W. MCGINNIS.