

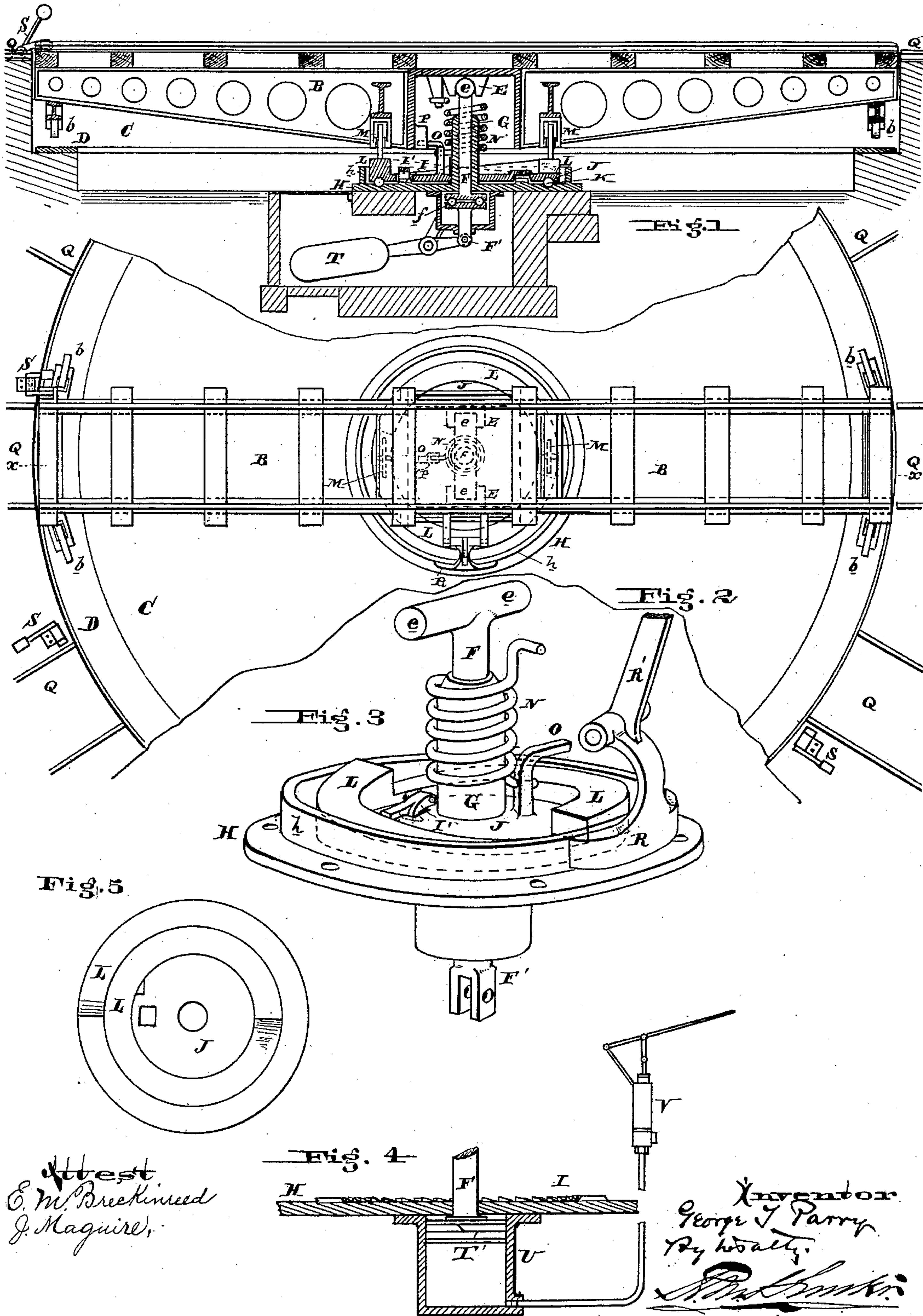
(No Model.)

G. T. PARRY.

TURN TABLE.

No. 338,357.

Patented Mar. 23, 1886.



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UNITED STATES PATENT OFFICE.

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TURN-TABLE.

SPECIFICATION forming part of Letters Patent No. 338,357, dated March 23, 1886.

Application filed October 13, 1885. Serial No. 179,743. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. PARRY, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Turn-Tables, of which the following is a specification.

My invention has reference to railroad turn-tables; and it consists in certain improvements fully set forth in the following specification and shown in the accompanying drawings, which form part thereof.

As commonly constructed, turn-tables are made similar to a pivot-bridge, but in which the ends are provided with rollers which run upon a circular railway, and the pivot-truss so supported is moved around by hand or by power.

In carrying out my invention I provide the turn-table with suitable mechanism, whereby the locomotive or car, through the aid of gravity, causes the turn-table to automatically revolve, and when the load is run off on the main track, the mechanism automatically resets itself, so as to be in an operating condition upon receiving the next load.

The object of my invention is therefore to make an automatic turn-table which shall obviate the necessity of an operator pushing the heavily-loaded truss around.

Under my improvement it is possible for the engineer on the locomotive to entirely control the action of the turn-table.

In the drawings, Figure 1 is a sectional elevation on line *x x* of a turn-table embodying my improvement. Fig. 2 is a plan view of same. Fig. 3 is a perspective view of the automatic mechanism for actuating the device removed from under the turn-table. Fig. 4 is a sectional detailed view showing the application of air-pressure as a counter-balance in place of weights; and Fig. 5 is a plan view of a modified form of circular inclined plane-table, which may be used in place of that shown in Fig. 3.

B is the turn-table truss, and swings about in the usual well, C, which is provided with a circular railway or track, D, adapted to receive the rollers or guide-wheels *b*, secured upon the free ends of the truss to prevent too much vertical movement upon the ends. This truss is hinged upon the cross-bar *e* of the vertical pivot F, which fits into the bearings E on the

truss. By this means the turn-table may rock in a plane parallel with its length, but not laterally. The vertical pivot F works in a bearing, G, rising from the bed-plate H, and is connected at the lower end to a counterbalance weight or lever, T, directly or through the mediation of the pipes F', upon which the pivot rests, and is made removable by the anti-friction rollers *f*.

In place of the counterbalance-weight T, the bottom of the pivot F may have a piston, T', working in a cylinder, U, containing compressed air as a cushion, the supply of which may be maintained by a compressing-pump, V, though in practice the counterbalance-weights would be the simplest.

The bed-plate H is provided with ratchet-teeth I and a circular groove for the anti-friction balls K, and also a brake-flange, *h*, against which a brake-shoe, R, secured to a pivoted lever, R', may be pressed to control or arrest the rotation of the turn-table, which lever is hinged to the turn-table truss and extends up to within reach of the engineer on the locomotive or car, whereby he may without stepping to the ground apply sufficient friction to prevent too rapid rotation of the turn-table, and even arrest its rotation altogether, if desired, at any particular point.

Supported upon the friction-balls K is the inclined-plane plate J, provided with the circular inclined planes L, of which there may be one or two, preferably the latter number, as shown in Figs. 3 or 5, or, if desired, the single outer inclined plane (shown in Fig. 5) may be used alone. The truss B is provided with wheels or rollers M, arranged on diametrically opposite sides of the pivot F and run upon the inclined planes L. Any excessive pressure put upon the turn-table will cause the rollers M to run down the inclined planes, allowing the truss to be slightly lowered and simultaneously therewith revolved.

I' is a pawl pivoted to the plate J, and is adapted to catch in the ratchet-teeth I on the bed-plate H, to prevent the plate J from rotating in one direction, so that the inclined planes shall not move under the wheels M when the pressure is applied. The plate T is connected to the truss B by a spring, N, which may be made in any suitable manner, the object of which being that after the truss is revolved

around to a given point and then raised, the spring causes the plate J to turn a corresponding distance, being arrested in its movement by a stop, O, coming in contact with the projection P on the truss, and thus returning the highest part of the inclined plane to a position immediately below the wheels M, so that if in this new position a locomotive was run upon the truss everything will be in proper position for work.

Q represents the various tracks radiating from the pivot of the turn-table, and may be provided with a lock, S, to lock the turn-table in position when brought before the proper track, to prevent any possibility of derailment of the locomotive.

Of course it is evident that while I have shown a coil-spring to rotate the table J, any other equivalent device may be used, and the details of construction may be modified in various ways without departing from my invention.

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

1. In an automatic turn-table, a truss supported upon a vertical pivot, in combination with a vertical pivot supporting the truss, counterbalancing devices to keep the truss normally in a raised position, and self-acting mechanism, substantially as described, to cause the truss to revolve by an excessive weight and reset itself in any position it may be upon the removal of the load, substantially as and for the purpose specified.

2. In an automatic turn-table, a pivoted truss, in combination with a vertical pivot supporting the truss, counterbalancing devices to keep the truss normally in a raised position, mechanism, substantially as described, to cause the truss to revolve upon its being pressed downward by an excessive weight, and a brake to control the rotation of the truss, substantially as and for the purpose specified.

3. In an automatic turn-table, a pivoted truss, in combination with a vertical pivot supporting the truss, counterbalancing devices to keep the truss normally in a raised position, mechanism, substantially as described, to cause the truss to revolve upon its being pressed downward by an excessive weight, and a brake to control the rotation of the truss, which is carried by the truss and extends up to within reach of the engineer on a locomotive standing upon the truss, substantially as and for the purpose specified.

4. In an automatic turn-table, a truss supported upon a vertical pivot, in combination with a vertical pivot supporting the truss, counterbalancing devices to keep the truss normally in a raised position, self-acting mechanism, substantially as described, to cause the truss to revolve upon its being pressed downward by an excessive weight and reset itself in any position it may be upon the removal of the load, and locks to lock the truss in position after it has made any desired por-

tion of a revolution, substantially as and for the purpose specified.

5. In an automatic turn-table, a pivoted truss, in combination with a vertically-movable pivot supporting the truss, a counter-balance to keep the truss normally in a raised position, and a movable inclined-plane plate having one or more inclines, and rollers carried by the truss and adapted to run upon the inclines, substantially as and for the purpose specified.

6. In an automatic turn-table, a pivoted truss, in combination with a vertically-movable pivot supporting the truss, a counter-balance to keep the truss normally in a raised position, a movable inclined-plane plate having one or more inclines, and rollers carried by the truss and adapted to run upon the inclines, and mechanism, substantially as described, to turn the inclined-plane plate always to a position where the highest part of the inclines are under the supporting-rollers upon the load being removed from the truss, substantially as and for the purpose specified.

7. In an automatic turn-table, a pivoted truss, in combination with a vertically-movable pivot supporting the truss, a counter-balance to keep the truss normally in a raised position, a movable inclined-plane plate having one or more inclines, and rollers carried by the truss and adapted to run upon the inclines, and mechanism, substantially as described, to turn the inclined-plane plate always to a position where the highest part of the inclines are under the supporting-rollers upon the load being removed from the truss, and a stop carried by the truss to arrest the rotation of said inclined-plane plate, substantially as and for the purpose specified.

8. In an automatic turn-table, a pivoted truss, in combination with a vertically-movable pivot supporting the truss, a counter-balance to keep the truss normally in a raised position, a movable inclined-plane plate having one or more inclines, and rollers carried by the truss and adapted to run upon the inclines, and mechanism, substantially as described, to turn the inclined-plane plate always to a position where the highest part of the inclines are under the supporting-rollers upon the load being removed from the truss, and a ratchet-and-pawl device to prevent rotation of the inclined-plane plate, except in one direction, substantially as and for the purpose specified.

9. In an automatic turn-table, a pivoted truss, in combination with a vertically-movable pivot supporting the truss, a counter-balance to keep the truss normally in a raised position, a movable inclined-plane plate having one or more inclines, and rollers carried by the truss and adapted to run upon the inclines, and mechanism, substantially as described, to turn the inclined-plane plate always to a position where the highest part of the inclines are under the supporting-rollers upon the load being removed from the truss,

and a brake carried by the truss to control its rotation, substantially as and for the purpose specified.

10. The combination of a vertically-movable truss, B, having guide-wheels *b*, and rails, with the railway D and the main track Q, in which in the normal position of the truss where fully raised and free to swing in any horizontal position, the rails thereon are above the main tracks a distance equal to the height of the wheels *b* above the tracks D, substantially as and for the purpose specified.

11. In an automatic turn-table, the combination of the truss B, the vertical pivot F, the counter-balance T, bed-plate H, plate J, having one or more inclines, L, and rollers M, adapted to run upon the inclines and carried by the truss, substantially as and for the purpose specified.

12. In an automatic turn-table, the combination of the truss B, the vertical pivot F, the counter-balance T, bed-plate H, plate J, having one or more inclines, L, spring N, and rollers M, adapted to run upon the inclines and carried by the truss, substantially as and for the purpose specified.

13. In an automatic turn-table, the combination of the truss B, the vertical pivot F, the counter-balance T, bed-plate H, having ratchet I, plate J, having one or more inclines, L, pawl I', and rollers M, adapted to run upon the inclines and carried by the truss, substantially as and for the purpose specified.

14. In an automatic turn-table, the combination of the truss B, the vertical pivot F, the counter-balance T, bed-plate H, having ratchet I, plate J, having one or more inclines, L, spring N, pawl I' and stop O, and rollers M, adapted to run upon the inclines, and carried by the truss, substantially as and for the purpose specified.

15. In an automatic turn-table, the combination of the truss B, the vertical pivot F, the counter-balance T, bed-plate H, having flange *h*, plate J, having one or more inclines, L, and rollers M, adapted to run upon the inclines and carried by the truss, and brake R R', carried by the truss, substantially as and for the purpose specified.

16. In an automatic turn-table, the combination of the truss B, the vertical pivot F, the counter-balance T, bed-plate H, plate J, having one or more inclines, L, and rollers M, adapted to run upon the inclines, and carried by the truss, and anti-friction balls between the bed-plate H and plate J, substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

GEORGE T. PARRY.

Witnesses:

R. M. HUNTER,
WILLIAM C. MAYNE.