(No Model.)

F. H. SAYLOR.

TURN TABLE.

No. 356,162. Patented Jan. 18, 1887.

Fig. 2.

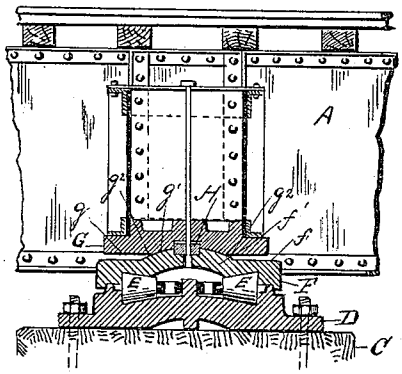


Fig. 3.

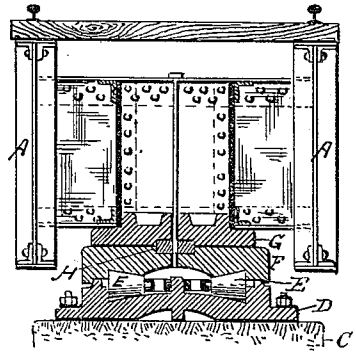


Fig. 4.

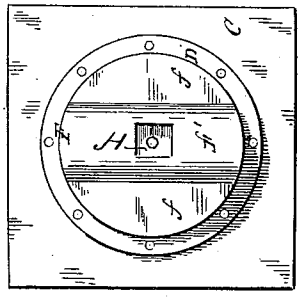


Fig. 1

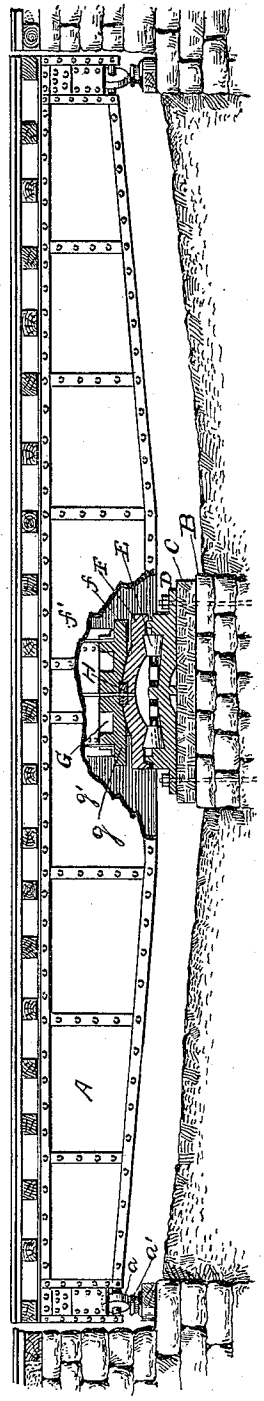


Fig. 5.

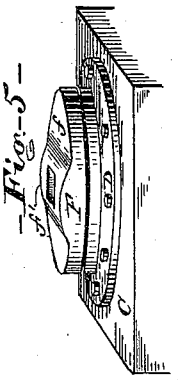
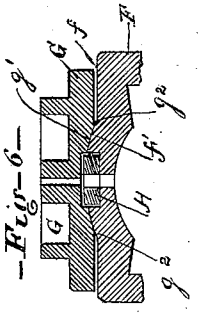


Fig. 6.



WITNESSES:

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FRANCIS H. SAYLOR, OF PHILADELPHIA, PENNSYLVANIA.

TURN-TABLE.

SPECIFICATION forming part of Letters Patent No. 356,162, dated January 18, 1887.

Application filed May 7, 1886. Serial No. 201,461. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS H. SAYLOR, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Turn-Tables, of which the following is a full and true description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to the balancing of the turn-table and its load upon its support; and its object is to so construct the supporting structure that the track-supporting girders may tip or rock slightly in the direction of its length when loaded at either end, and right itself when the load is at or close to its center.

Reference being now had to the drawings, which illustrate a turn-table constructed according to my invention, Figure 1 is a side elevation, showing the construction and arrangement of the supporting and pivoting devices in section. Fig. 2 is a side sectional elevation through the center of the table and its supports. Fig. 3 is a section through the center of the table at right angles to the track. Fig. 4 is a plan view of the support upon which the track-supporting girders rest. Fig. 5 is a perspective sketch of the table-supporting structure; and Fig. 6 is a central sectional elevation, on an enlarged and more accurate scale, of the device by which the table is permitted to rock on its support without sliding.

A is the main structure of the turn-table, which is of usual construction, having wheels *a* at its ends adapted to rest upon supporting-tracks *a'* when the table is tipped.

B is the foundation upon which the supporting-pivot is secured; C, the top plate of the foundation; D, a strong supporting-plate, having at its top an annular recess in which rest the usual conical rollers, E, upon which rests and turns the plate F. The top of this plate F is made, as shown in the drawings, with a convex cylindrical projection, *f'*, across its center, the two sides *f* being plain and flat. In the top of the cylindrical section *f'* a square recess having its sides parallel and at right angles to the axes of the cylinder is made, into which fits an iron block, H, which projects above the top of the cylindrical section *f'*.

G is a strong iron plate bolted fast to the table A, and having its center lower surface, *g'*, of a concave cylindrical form adapted to fit neatly upon the cylindrical surface *f'* of the plate F. In the center of the convex surface of *g'* a square recess is made, into which fits the upper part of the metallic block H. The convex cylindrical surface *g'* is smaller than its supporting-surface *f'*, and the sides *g* of the plate G do not therefore rest upon the plain sides *f* of the plate F, but are supported above the same, as shown in the drawings, the plate G being free to tip upon the supporting convex cylindrical surface *f'* at the two points g^2. The curvature of the cylindrical surfaces *f'* and *g'* should be very gradual, so as to avoid as much as possible any tendency of the plate G to slide upon the supporting-surface *f'*, the tendency to slide being further contracted by means of the block H, which locks the two plates together. The plate G is bolted to the turn-table A in such a manner that the axis of the cylindrical surface *g'* is at right angles to the line of the track, and when the plate G is fitted and rests upon the plate F the table is supported against tipping in the direction across the tracks by the whole length of the cylindrical section *f'*, while against tipping in the direction of its length it is supported only by the narrow cylindrical base extending between the two points g^2, upon either edge of which it can rock freely, and which allows the weight of the engine or other load run upon the table to be partly supported by the track *a'* when the center of gravity of such load is outside of the base, the table at once righting itself when the center of gravity of the load comes within the base. The supporting conical rollers E, or their equivalents, upon which the plate F rests and turns, are arranged in a circular groove having a diameter greater than the distance between the supporting-edges g^2, so that even when the table is tipped in either direction there is no tendency to tip the plate F upon its supporting-rollers E.

I prefer to make the supporting-surface of the plate F slightly cylindrical, as shown and described, and to give the plate G a corresponding cylindrical curvature between the points g^2 g^2, for the reason that such a surface tends to keep itself clean. Any dirt or obstruc-

tion falling on it will naturally move both by gravity and the compression downward, and hence away from contact-surfaces. The cylindrical shape of the contact-surfaces f' and g' also serves to prevent any turning of the plate G upon the plate F, which, if it should happen, would result in the table lurching sidewise whenever it tipped; but a plain-surfaced elevation of similar outline to the cylindrical surface f' between the points g^2 may be used, if desired. The surface of the plate G will then of course be plain; but in this case care must be taken to so key the plates F and G together that the plate G cannot turn upon its supporting-plate F.

By my device the table can tip freely upon its pivotal support, thus avoiding any destructive strain, while at the same time the table rights itself readily when the load is in a proper position to be moved.

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

1. In a turn-table, substantially as described, the combination of the plate F, supported upon rollers and having a raised central supporting-surface, f', with the plate G, rigidly secured to the table A, and secured against sliding or turning on the plate F by a key-block, H.

2. In a turn-table, substantially as described, the combination of the plate F, supported upon rollers and having a convex cylindrical central supporting-surface, f', with the plate G, rigidly secured to the table A, and having the concave cylindrical surface g' and the key-block H.

3. In a turn-table, substantially as described, the combination of the rollers E, the plate F supported thereon and having extending across it and rigidly attached thereto the raised supporting-surface f', provided with a key-block or other device to prevent the table from slipping, and of less breadth than the chamber of the circular groove in which the rollers move.

FRANCIS H. SAYLOR.

Witnesses:
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