

(No Model.)

J. B. TINSLEY.
TURN TABLE.

No. 521,060.

Patented June 5, 1894.

Fig. 1

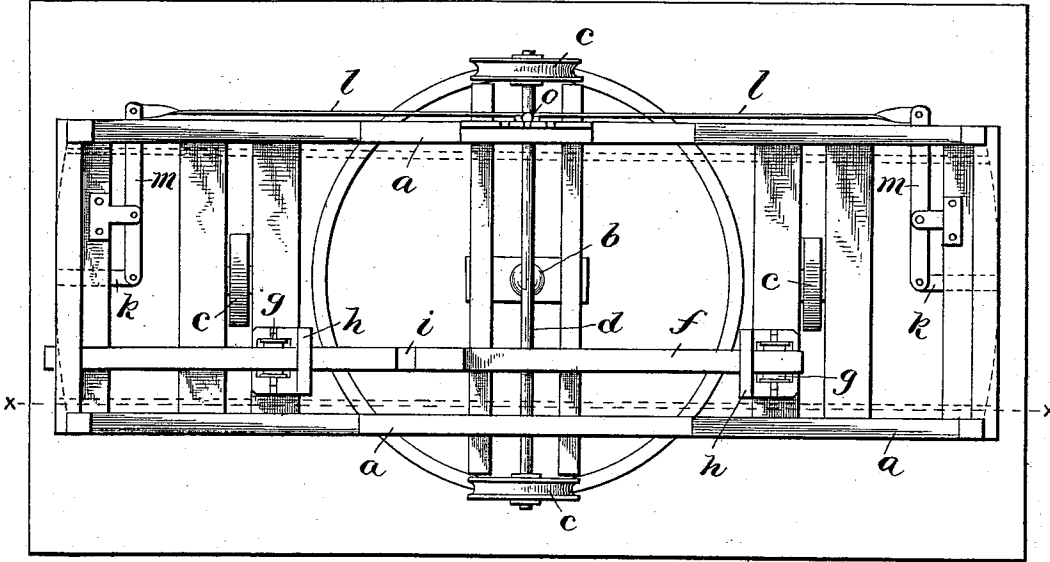
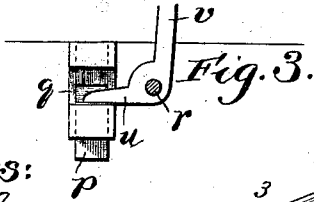
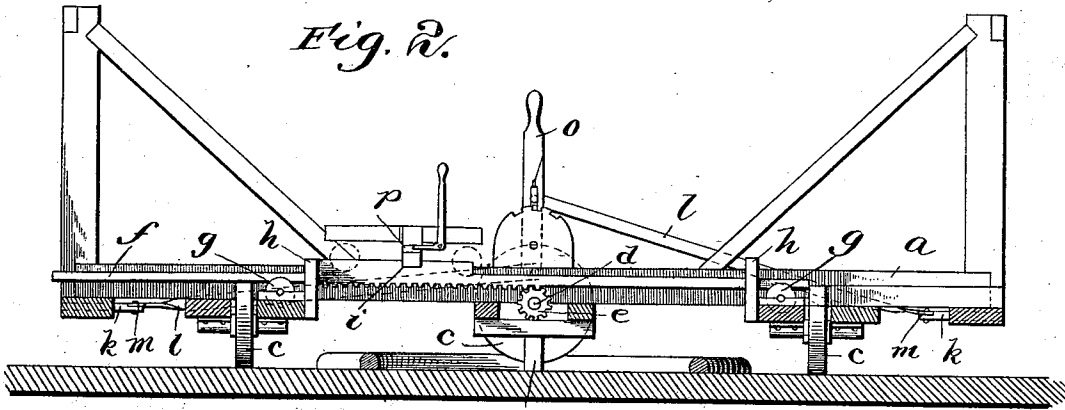


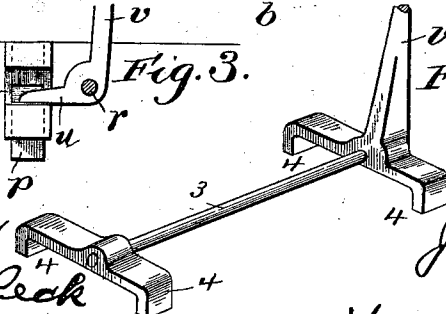
Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH BURTON TINSLEY, OF ANTHONY, KANSAS.

TURN-TABLE.

SPECIFICATION forming part of Letters Patent No. 521,060, dated June 5, 1894.

Application filed November 3, 1893. Serial No. 489,922. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH BURTON TINSLEY, of Anthony, in the county of Harper and State of Kansas, have invented certain
5 new and useful Improvements in Locomotive Turn-Tables; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to
10 make and use the same, reference being had to the accompanying drawings, and to the letters and numerals of reference marked thereon, which form part of this specification.

This invention relates to certain improvements
15 in turn-tables for locomotives.

The object of the invention is to provide an improved automatically operated turn-table for locomotives exceedingly simple and durable in construction and whereby the table
20 is turned by the forward movement of the locomotive entering the table.

The invention consists in certain novel features of construction and in combination of parts more fully pointed out hereinafter and
25 particularly described.

Referring to the accompanying drawings: Figure 1, is a plan view of the turn table. Fig. 2, is a side elevation of the turn table with a locomotive shown diagrammatically
30 thereon, parts being broken away. Figs. 3 and 4 are respectively, detailed views showing different styles of trips for operating the rack bar.

In the drawings the reference letter *a*, indicates a turn table of any suitable or ordinary construction, mounted on a central pivot
35 *b*, and provided with supporting wheels *c*. Two of the supporting wheels are mounted rigidly on the main driving axle *d*, and this driving axle extends transversely of the track on the turn table and is provided with a small strongly constructed pinion *e*, preferably located between the rails. This pinion *e*, meshes with gearing on the under side of an
40 elongated sliding rack bar *f*, extending longitudinally of the turn table, preferably, between the rails thereof and adjacent to one of the rails. The said rack bar slides on suitable pulleys *g*, and is confined in position by
45 suitable yokes or guides *h*, so that it can freely slide in either direction when properly

actuated and yet will always be maintained in engagement with the pinion of the main drive shaft. At or about its center this sliding rack-bar is provided with an elevated
55 portion having a central notch *i*, to engage means carried by the locomotive and lock the rack bar to the locomotive so that when the locomotive passes on the turn table from adjacent tracks, means carried by the
60 locomotive will drop into said notch and will thereby cause the rack-bar to move longitudinally with the locomotive, hence by means of the gearing revolving the main drive shaft of the turn table and causing the turn table
65 to revolve the desired degree. The rack-bar and pinion are usually so geared together and proportioned with the drive wheels *c*, and arranged to connect with the operating apparatus on the locomotive that the forward movement of the locomotive entering the turn
70 table will revolve the turn table one-half a revolution so as to turn the locomotive completely around.

It is evident that in the present device the
75 contact between the locomotive and the rack bar cannot be made until the locomotive and tender are completely upon the turn table; hence the table must be formed of such length as to permit forward movement of the locomotive, after it has passed on to the table,
80 sufficient to cause the desired rotation of the table.

The ends of the turn table are provided with suitable sliding bolts *k*, arranged to enter
85 suitable slots or openings in the surrounding frame or wall of the turn table pit so as to lock the turn table in alignment with the tracks. These sliding bolts are operated together by suitable links and levers *l, m*, connected with a hand lever *o*, at the center of the turn table so that the operator can throw the bolts as desired. This hand lever is controlled by suitable pawl ratchet mechanism and hand clip as shown in any usual or suitable
90 manner.

Various means can be carried by the locomotive to operate the sliding rack-bar and lock the locomotive thereto. In Fig. 3, this means consists of sliding posts or blocks *p*,
100 located on opposite sides of the locomotive so that the locomotive can enter either end of

the turn table and yet always have a device to operate the rack-bar. These vertically sliding blocks *p*, move in suitable vertical guides *q*, in the locomotive so that their lower ends can project into the path of the rack-bar and enter the notch therein when lowered. These bars can be raised when desired by means of a rock shaft *n*, having lateral toes or arms *u*, extending loosely into slots or notches in the vertically movable blocks *p*, and provided with an upwardly extending lever or arm *v*, for rocking said shaft. Thus when the locomotive passes into a turn table the shaft *r*, is rocked to drop said blocks *p*, to permit them to enter the rack-bar. When the locomotive has been turned, the blocks are raised out of the way.

In Fig. 4, a rock shaft 3, is shown mounted on the under side of the locomotive and provided with an upwardly extending operating arm and with oppositely extending curved arms 4, arranged to engage the notch of the rack bar when the rock shaft is moved to throw said arms down. The raised portion of the rack-bar has a limited movement between the yokes *h*, and hence can serve as a stop for the locomotive.

I do not wish to limit myself to any peculiar means or mechanisms carried by the locomotive to operate the rack-bar as my invention is not limited to any specific construction for this purpose.

This invention possesses many advantages and is of great utility and it is evident that various changes might be made in the forms, arrangements, and constructions of the parts described, without departing from the spirit and scope of my invention, hence I do not wish to limit myself to the exact construction herein set forth, but consider myself entitled to all such changes as fall within the spirit and scope of my invention.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A turn-table having a longitudinally movable rack-bar adapted to be moved by the locomotive entering the turntable and geared to the driving mechanism of the turn table to operate the same, substantially as described.

2. A turn table provided with a longitudinally movable bar adapted to be moved longitudinally by a locomotive entering the table and connected with the driving mechanism of the table to revolve the table by the movement of the locomotive, substantially as described.

3. A turn table having its main drive shaft provided with a pinion and a longitudinally movable rack-bar gearing with said pinion and arranged to be engaged and moved longitudinally by means carried by the locomotive, substantially as described.

4. A turn table having its main drive shaft provided with a pinion, the longitudinally sliding rack-bar on said turn table meshing with said pinion the supporting pulleys and guides for said rack-bar, said rack-bar having an elevated portion provided with the notch arranged to receive means carried by the locomotive so as to move the rack bar as the locomotive enters the turn table substantially as described.

5. A locomotive provided with vertically movable means arranged to engage the notch of the rack-bar on the turn table, and means for operating said engaging means, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSEPH BURTON TINSLEY.

Witnesses:

E. C. WILCOX,
S. A. BLUMER.