(No Model.) 2 Sheets—Sheet 1.

J. A. KNEEDLER.

RAILROAD TURN TABLE.

No. 319,825. Patented June 9, 1885.

FIG. 1.

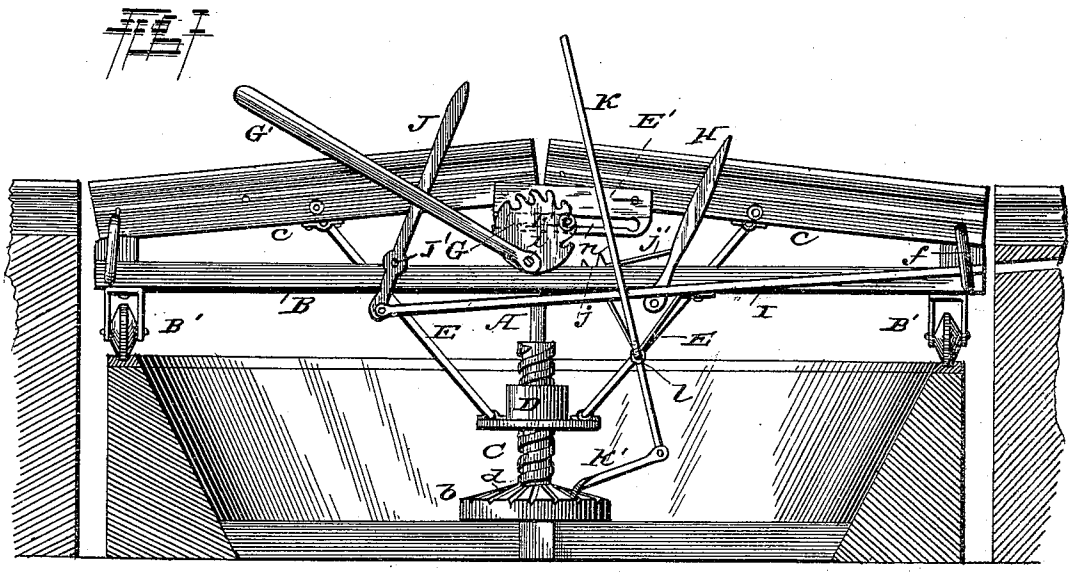
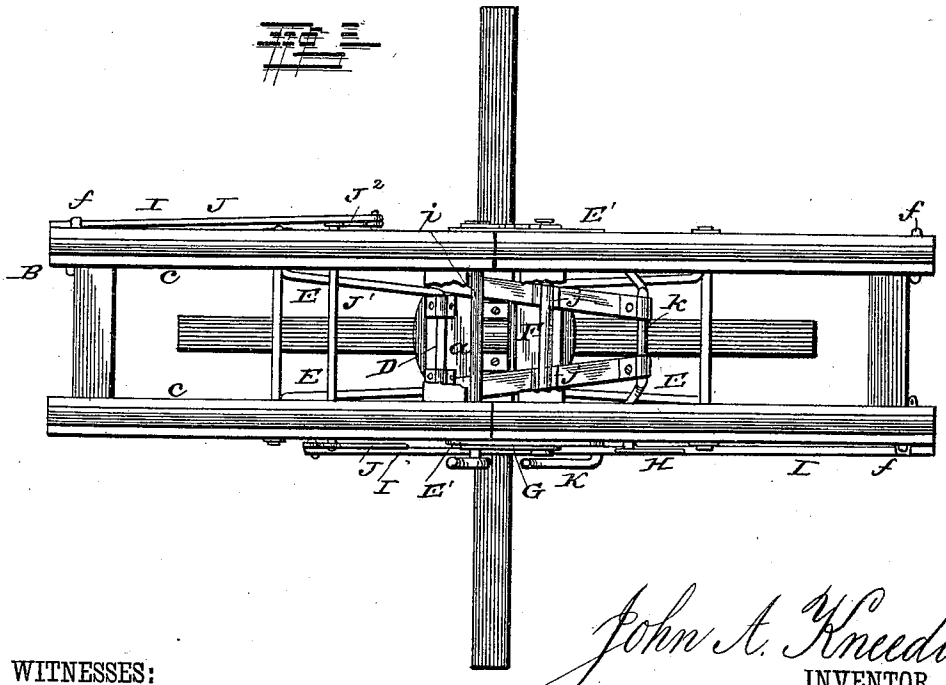


FIG. 2.



WITNESSES:

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(No Model.) 2 Sheets—Sheet 2.

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RAILROAD TURN TABLE.

No. 319,825. Patented June 9, 1885.

Fig. 3.

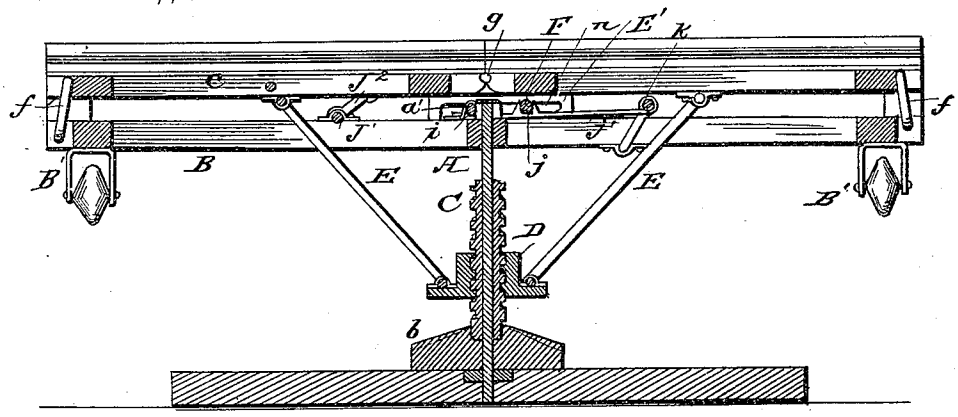
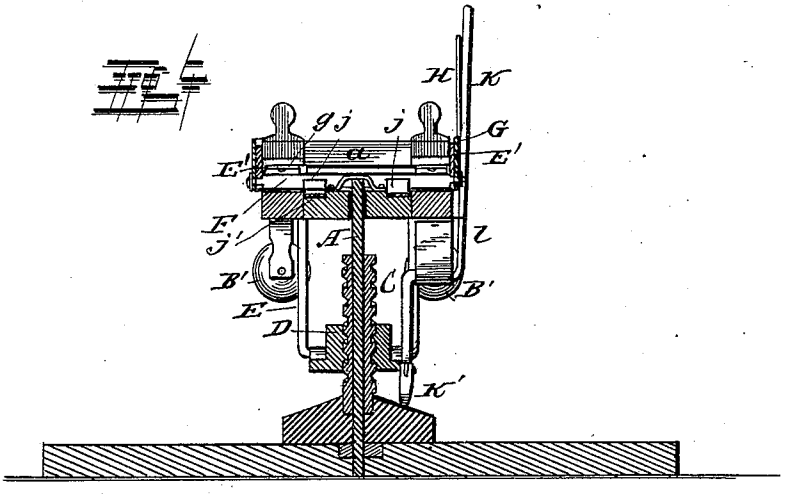


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN A. KNEEDLER, OF GRANT, PENNSYLVANIA.

RAILROAD TURN-TABLE.

SPECIFICATION forming part of Letters Patent No. 319,825, dated June 9, 1885.

Application filed July 25, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. KNEEDLER, a citizen of the United States, and a resident of Grant, in the county of Indiana and State of Pennsylvania, have invented certain new and useful Improvements in Railroad Turn-Tables; and I do hereby 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 make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a vertical sectional view of a turn-table pit, showing my improved turn-table in side view. Fig. 2 is a plan view of the table with portions broken away. Fig. 3 is a central longitudinal section, and Fig. 4 is a central vertical cross-section.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to turn-tables for railroads; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the pivoting post secured in a vertical position in the center of the pit, and the table B is pivoted at its center upon the top of this post, and having caster-wheels B′ at its ends running in the usual manner upon a circular track in the pit.

An externally screw-threaded sleeve, C, fits and turns upon the post, and has a circular or low conical base, *b*, at its lower end, the upper face of which base is provided with radiating grooves or serrations *d*.

A nut, D, having a flange at its lower end fits and turns upon the sleeve, and has the lower ends of two braces or stirrups E E pivoted to its flange, the upper ends of which stirrups are pivoted to the parallel stringers *c*, upon which the rail-sections C are secured near their inner ends. The stringers are suitably connected by cross-pieces keeping them at their proper distances, and the outer ends of the sills are movably connected to the outer ends of the table B by means of links *f*, while the inner meeting ends of the stringers are movably connected by means of flat plates E′, pivoted at their ends to the ends of the stringers upon the outer sides of the same. The inner ends of the stringers are beveled at their lower corners and recessed under the flanges of the rails for the reception of rolls or cylinders *g*, which rolls allow the ends of the rail-sections which project beyond the ends of the stringers to rest upon them and prevent them from jamming when the ends of the stringers and rails are raised and lowered.

The plates E′ have longitudinal slots *n* opening at one end at the lower edges of the plates, and a transverse bar, F, having headed ends slides in the said slots entering them from their open ends.

Two disks, G G, are secured eccentrically upon the ends of a transverse shaft, *i*, journaled in bearings upon the table B, and provided with a handle or lever, G′, by means of which the shaft may be rocked and the eccentrics raised or lowered. The edges of the eccentrics have a number of inclined notches or slots, G^2, which may engage the ends of the bar F inside of the head *s* of the same, and the said bar may be received, when the stringers are in their level horizontal position with their inner ends lowered, between lips or lugs *j* upon the upper sides of two plates or flat bars, *j′*, sliding horizontally upon the table B, and articulated to a crank-shaft, *k*, journaled in transverse bearings in the table, and provided with an operating-lever, H, projecting upward at one side of the table.

Two long bolts, I I, slide at opposite sides and ends of the table with their outer ends in the links *f*, adapted to enter suitable sockets, staples, or apertures in the sides of the pit at the sides of the tracks leading to the pit, and the inner end of one of these bolts is pivoted to the end of a crank-arm, J^2, at one end of a shaft, J′, journaled transversely in the table, and the end of the other bolt is pivoted to the lower end of a lever, J, of the first class, having its fulcrum upon the shaft, having its handle projecting upward, and having the lower end projecting in a direction opposite to the arm J^2, so that by tilting the lever the bolts will be moved in opposite directions.

A hand-lever, K, is bent at two right angles near its lower end, forming at that place a short rock-shaft rocking in a bearing of a bracket, *l*, projecting from the turn-table, as plainly seen in Fig. 4 of the drawings, and a

pawl, K′, is pivoted to the lower end of the lever and engages the radial serrations in the base or foot *b* of the threaded sleeve, so that the said sleeve may be revolved by said lever.

The operation of the turn-table is as follows: The transverse sliding bar F is slid into one set of the notches in the eccentric disks by means of the bars *j′*, crank-shaft *k*, and lever H, the table being held locked by the bolts I, whereupon the lever G is tilted so as to raise the transverse bar and the inner ends of the stringers and rail-sections, the height to which the ends of the stringers and rails are raised being regulated by the notches of the eccentrics into which the bar F is placed. The threaded sleeve and radially-grooved base is now turned by lever K and pawl K′ until it bears against the bottom of the pit, and the locomotive or car may now be run upon the table and the bolts withdrawn, allowing the table to turn. The weight of the locomotive or car upon the inner ends of the rail-sections and stringers will bear upon the nut D through the stirrups E, causing said nut to descend upon the threaded sleeve, and thus turn the table, the distance to which the table is turned depending upon the height at which the nut is placed upon the sleeve, and consequently at which the inner rail ends are elevated, which again depends upon the notches of the eccentrics in which the sliding bar is placed, the rails being elevated the most when the rod is placed in the highest notches upon the eccentrics, the lever G being in all cases tilted down entirely level with the table.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a turn-table, the combination, with the pivoted rail-sections having means for oppositely inclining the same, of a central pivot, a threaded sleeve upon the pivot, and a nut connected to the movable ends of the rail-sections, as and for the purpose shown and set forth.

2. In a turn table, the pivoted stringers and rail-sections having their meeting ends pivotally connected and having interposed rolls seated in the stringers beneath the rail-flanges, as and for the purpose shown and set forth.

3. In a turn-table, the pivoted rail-sections having their inner meeting ends connected by pivoted plates having slots within which is disposed a shaft or bolt with its ends adapted to be engaged by eccentrics mounted upon a common shaft and actuated by a lever, as and for the purpose shown and set forth.

4. In a turn-table, the pivoted rail-sections with their inner meeting ends connected by slotted plates which receive a bolt or shaft engaging notched eccentrics fixed to a common shaft and operated by a lever, said bolt also being adapted to be withdrawn and moved from said eccentrics by socketed sliding plates actuated by a lever, as and for the purpose shown and set forth.

5. In a turn-table, the combination, with the grooved foot of the screw resting upon the table-support, of the engaging lever-pawl, as and for the purpose shown and set forth.

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

JOHN A. KNEEDLER.

Witnesses:
R. H. McCORMICK,
T. M. HARTER.