

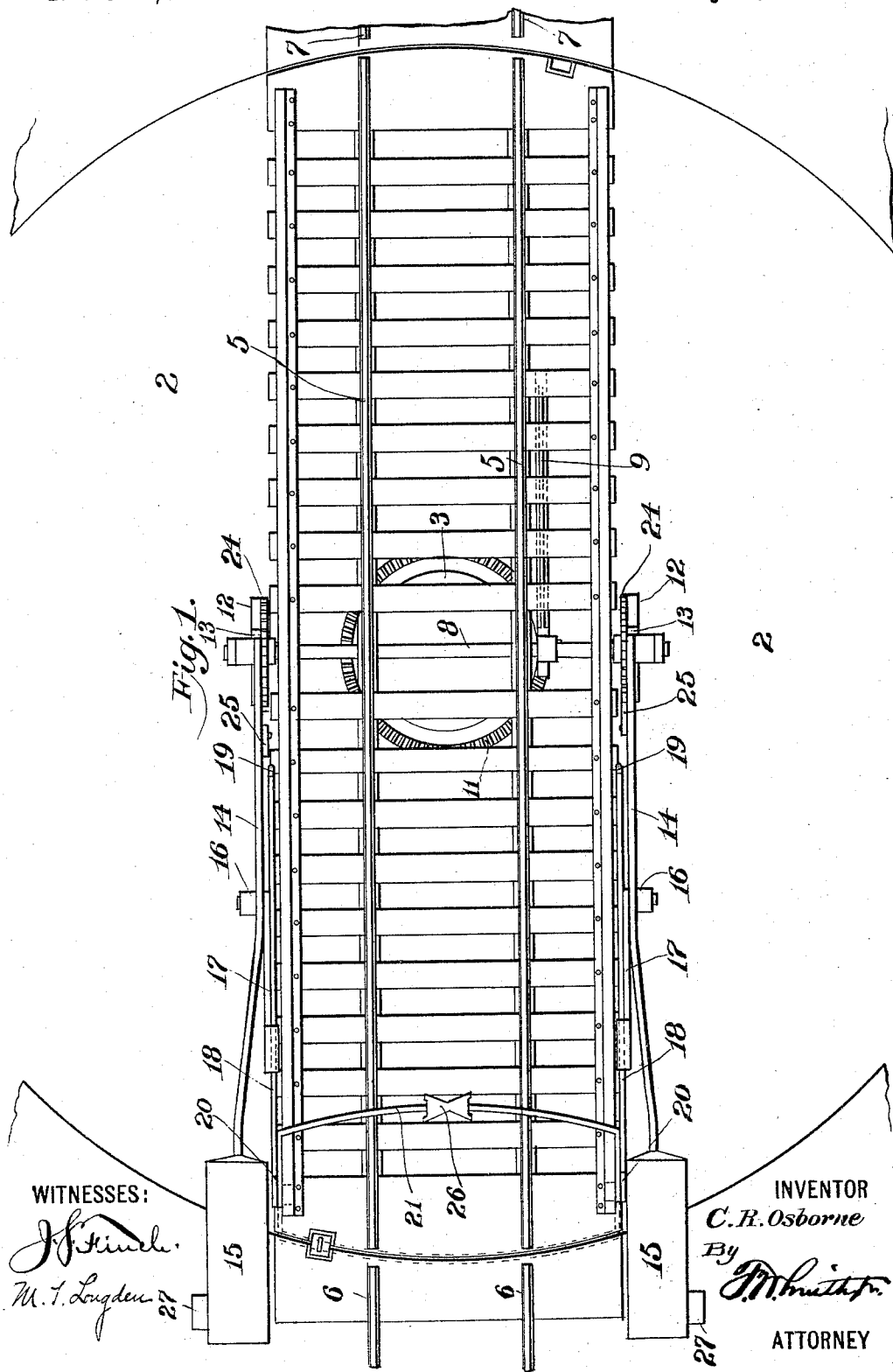
(No Model.)

2 Sheets—Sheet 1.

C. R. OSBORNE.
TURN TABLE FOR LOCOMOTIVES.

No. 541,943.

Patented July 2, 1895.



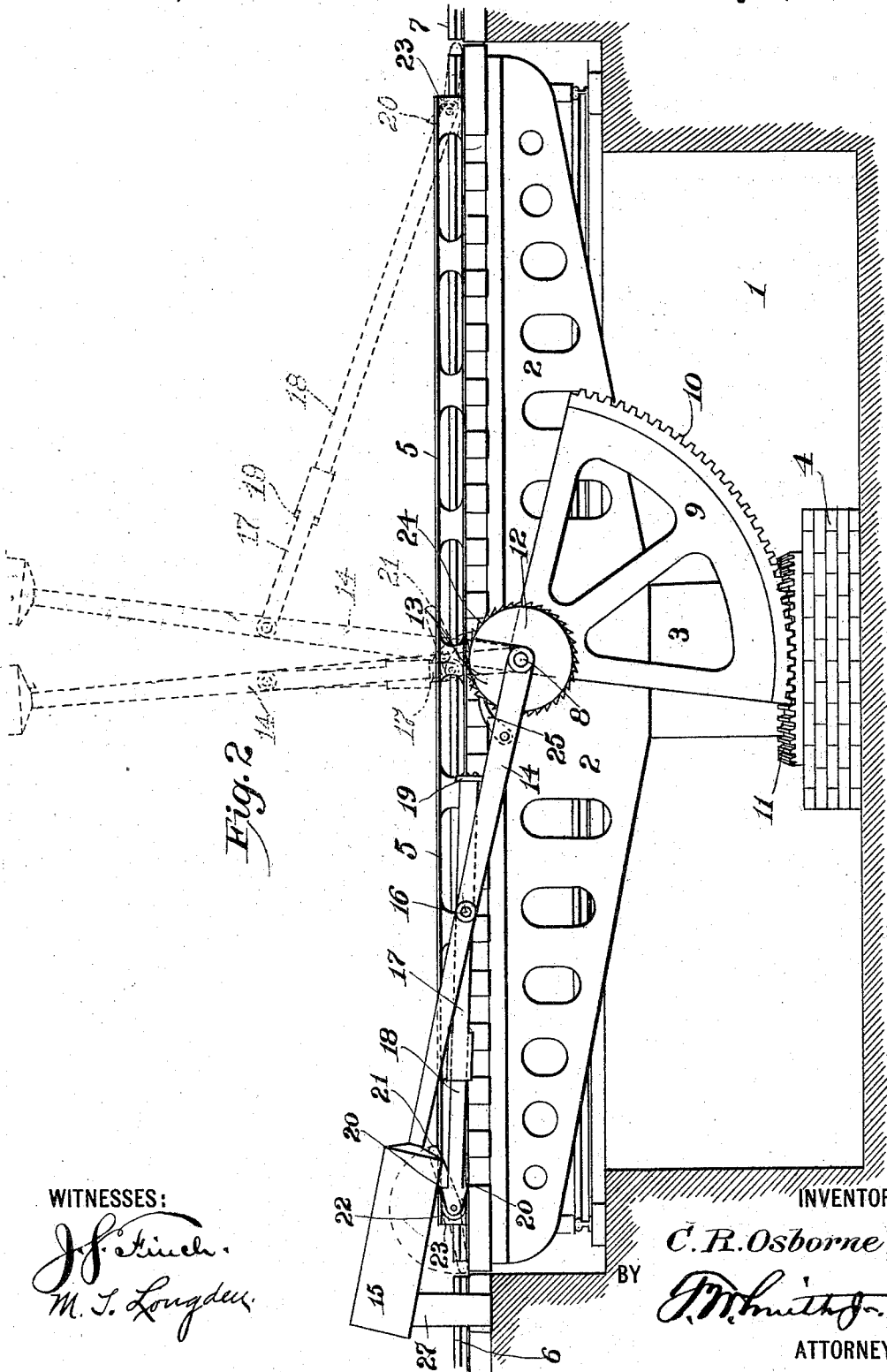
(No Model.)

2 Sheets—Sheet 2.

C. R. OSBORNE.
TURN TABLE FOR LOCOMOTIVES.

No. 541,943.

Patented July 2, 1895.



UNITED STATES PATENT OFFICE.

CHARLES R. OSBORNE, OF DANBURY, CONNECTICUT.

TURN-TABLE FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 541,943, dated July 2, 1895.

Application filed November 23, 1894. Serial No. 529,736. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. OSBORNE, a citizen of the United States, residing at Danbury, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Turn-Tables for Locomotives; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in turn tables for locomotives, and has for its object to automatically turn the table, and to control such turning by the latter part of the forward movement of the locomotive in passing upon the table.

In the accompanying drawings, Figure 1 is a plan view showing a turn-table constructed and equipped in accordance with my improvement, and Fig. 2 is a sectional elevation.

Similar numbers of reference denote like parts in both figures of the drawings.

1 is the pit, and 2 the turn table mounted upon and carried by a stanchion 3, which latter is capable of turning freely within any suitable and ordinary base 4 at the bottom of the pit.

5 are the rails carried by the turn table in the usual manner and adapted to register and align with the rails 6, 7, of the stationary track.

Journalled within the table 2 and extended therethrough from side to side is a shaft 8, and rigidly secured to said shaft is a segment 9 having along its outer end and on the inside teeth 10 which mesh with the bevel gear 11 rigid with the stanchion 3.

12 are disks rigid on the shaft 8 at opposite ends thereof, and having in their faces and on the outside thereof segmental recesses 13. 14 are levers loosely pivoted around the shaft 8 outside of said disks in such manner that the field of movement of said levers is within said recesses and is limited by the walls thereof. It will thus be clearly understood that said levers will be free to move within the limits prescribed by these recesses, but when such levers abut against one of the radially disposed walls of said recesses, the

continued movement of said levers will effect the turning of the disks 12 and the consequent swinging of the segment 9.

Secured to the outer ends of the levers 14 are weights 15, and pivoted at 16 to said levers are links 17 having in their outer or free ends sockets (not shown) through which pass freely bars 18 which latter have near their extremities shoulders 19, 20, to prevent the pulling of said bars out of the sockets. Pivoted to the outer extremities of these bars is a bail 21, and carried by the pivots of this bail are anti-friction rollers 22 (only one being shown) which latter are guided within suitable ways 23 within the outer sides of the rails 5.

Cut in the peripheries of the disks 12 are ratchet teeth 24 which extend in reverse directions, and pivoted to the levers 14 are pawls 25 capable of engaging with said ratchet teeth for the purpose of holding the weighted levers 14 as against falling backward by gravity, as will be presently explained.

The operation of my improvement is as follows: As the locomotive runs on the turn table it will strike against any suitable buffer 26 carried by the bail 21 and will cause the bars 18 to slide within the sockets in the links 17 until the shoulders 20 abut against the ends of said links, when the continued movement of the locomotive will effect the elevation of the weighted levers 14 until they reach the position shown in dotted lines at the left of Fig. 2. As the locomotive moves along the links will swing on their pivotal point 16 to the opposite side of the levers 14, one of the pawls 25 meanwhile engaging with the ratchet teeth 24 to prevent the levers from dropping backward. After the links have passed to the opposite side of the levers the further movement of the locomotive causes the bars 18 to be drawn out of the sockets in said links until the shoulders 19 have abutted against the walls of said sockets, whereupon the levers 14 will be drawn beyond a perpendicular to the position shown in dotted lines at the right in Fig. 2 so that said levers will abut against the radially disposed walls of the recesses 13. When the locomotive has reached the limit of its movement so that it is wholly upon the turn table, the weighted levers 14

will have been brought into this position last referred to, and thereupon said levers will fall thereby revolving the disks 12 and segment 9. The falling of the levers from the position last referred to to their lowest or normal position will effect a movement of the segment 9 sufficient to cause the table to be turned one-half a complete revolution, thus reversing the position of the locomotive.

Any suitable rests 27 may be provided upon which the weights 15 may fall, and also any ordinary brake may be used, if desired, for the purpose of retarding the movement of the table as it approaches the limit of its revolution.

The movement of the levers 14 as they fall by gravity is necessarily quite slow owing to the resistance offered by the work to be performed, and by the time said levers have reached their lowest position the segment will have been operated to turn the table a complete one-half revolution, so that the weights 15 always fall upon the rests 27.

The ratchet teeth on the disks 12 extend in reverse directions in order that one of the pawls 25 may obtain a hold on the teeth on one of the disks to hold the levers 14 in elevated position, whichever end of the turn table is next to the oncoming locomotive.

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

1. In a turn table for locomotives, the combination of the rotatory stanchion carrying the table and having rigid therewith the bevel gear, the rock shaft journaled within said table and having rigid therewith the segmental gear meshing with said bevel gear, the recessed disks carried by said shaft and having reversely inclined ratchet teeth on their peripheries, the weighted levers loose around said shaft and having movements within the limits prescribed by the end walls of said recesses, the bail capable of sliding within suitable ways along the tracks on the table, and operative connections between said bail and levers whereby the sliding movements of said

bail will effect the elevation of said levers, substantially as set forth.

2. In a turn table for locomotives, the combination of the rotatory stanchion having rigid therewith a bevel gear and carrying the table, the shaft journaled within said table, the segmental gear carried by said shaft and meshing with said bevel gear, the disks carried by said shaft and having on their peripheries reversely inclined ratchet teeth and provided in their outer faces with recesses, the weighted levers loosely pivoted around said shaft and carrying pawls adapted to engage with said teeth, the bail provided with rollers capable of traveling within suitable ways in the outer sides of the rails on the turn table, the links pivoted to said levers and provided at their free ends with sockets, and the bars extending loosely through said sockets and provided at their extremities with shoulders and having pivotal connections with said bail, substantially as set forth.

3. In a turn table for locomotives, the combination of the rotatory stanchion carrying the table and having rigid therewith the bevel gear, the rock shaft journaled within said table and extending therethrough from side to side, the segmental gear secured on said shaft and meshing with said bevel gear, recessed disks carried by said shaft, the weighted levers loosely pivoted around said shaft and having movements within the limits prescribed by the end walls of said recesses, the bail capable of sliding within suitable ways along the tracks on the table, operative connections between said bail and levers whereby the sliding movements of the bail will effect the elevation of said levers, and means for holding said levers in elevation, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES R. OSBORNE.

Witnesses:

SAMUEL L. BROOKS,
JOHN R. BOOTH.