

R. R. FARRELL.
TURN TABLE TURNER.
APPLICATION FILED AUG. 19, 1908.

933,637.

Patented Sept. 7, 1909.

2 SHEETS—SHEET 1.

Fig. 1

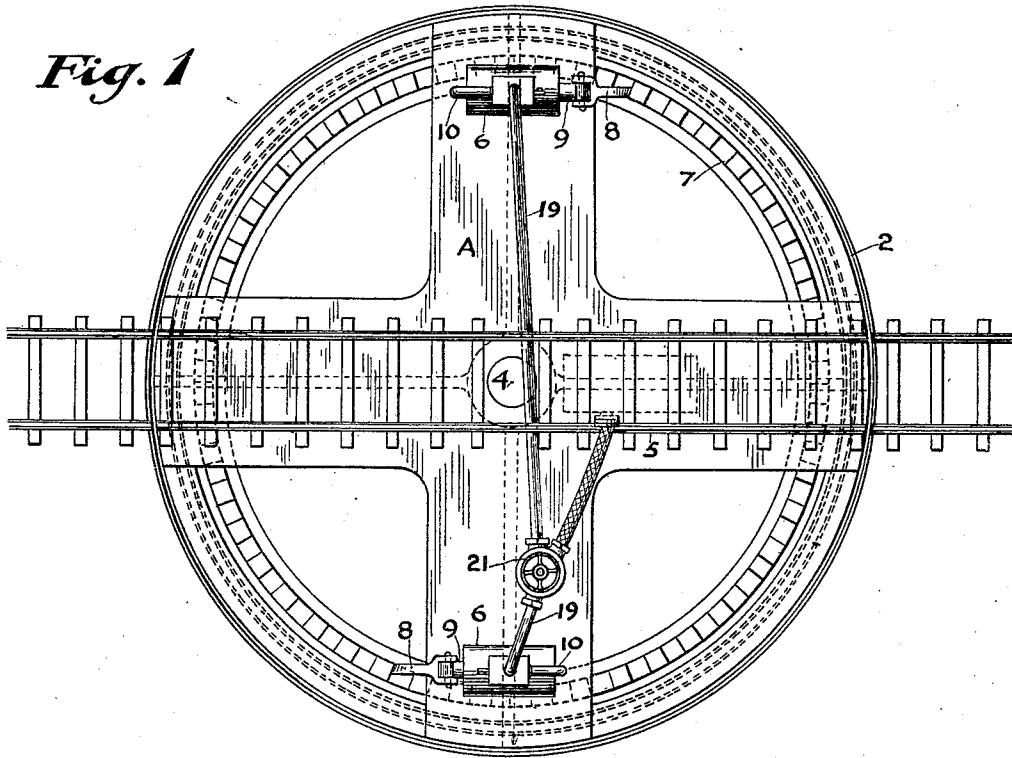
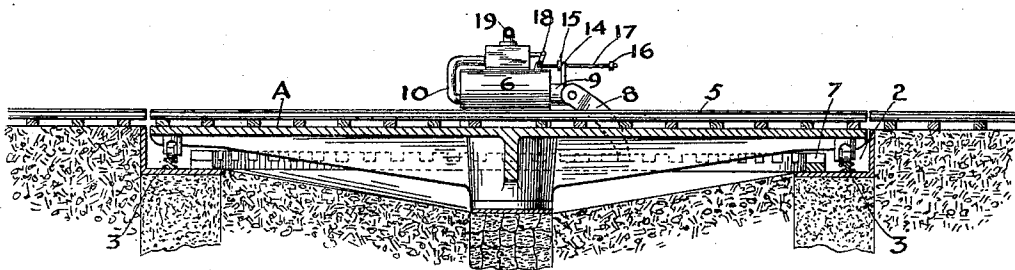


Fig. 2



WITNESSES

F. L. Friedman
W. H. Field

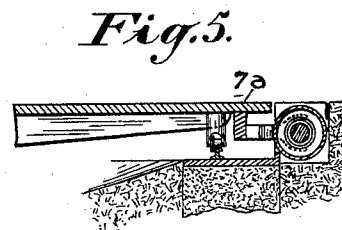
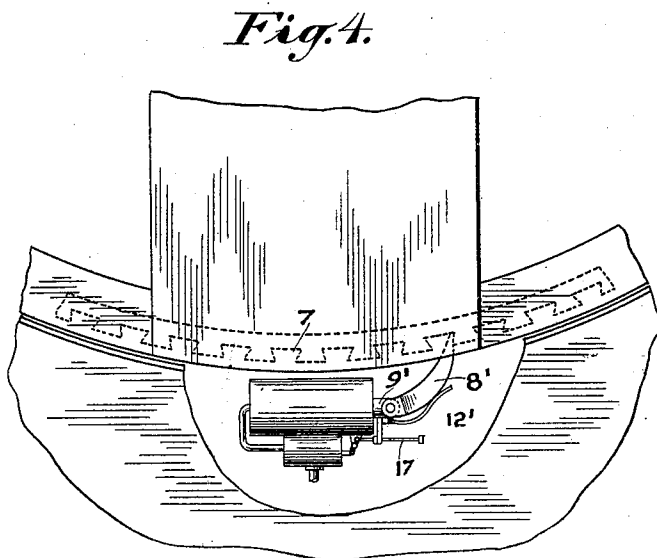
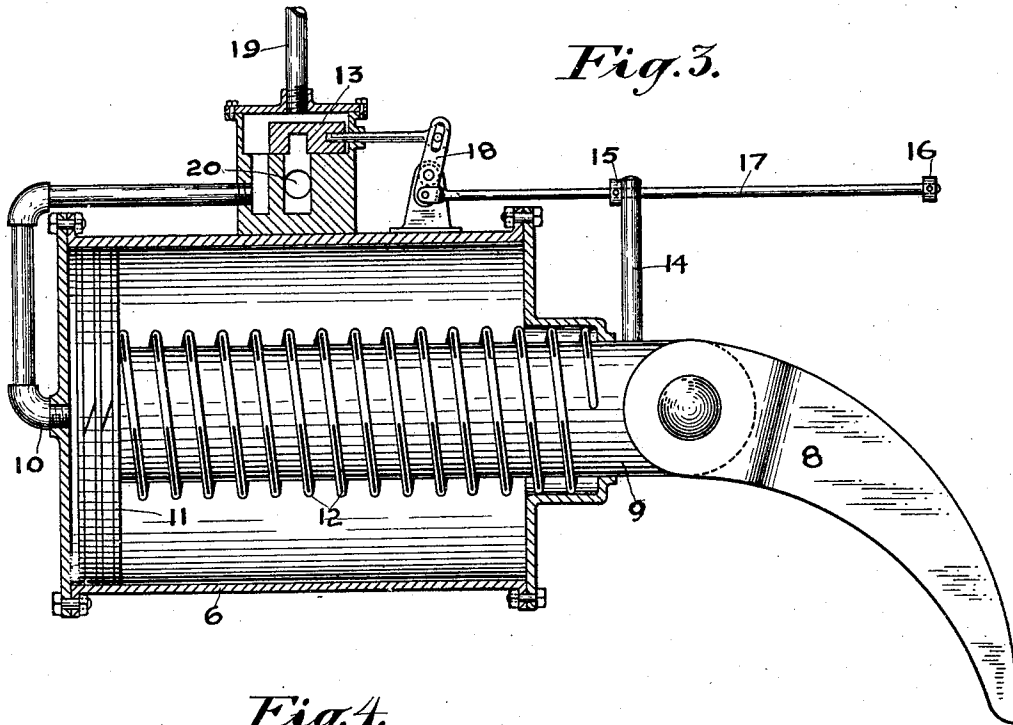
INVENTOR

Richard R. Farrell
BY *Geo H. Strong*
ATTORNEY

R. R. FARRELL.
TURN TABLE TURNER.
APPLICATION FILED AUG. 19, 1908.

933,637.

Patented Sept. 7, 1909.
2 SHEETS—SHEET 2.



WITNESSES

J. C. Fiedner
at Newfield

INVENTOR

Richard R. Farrell
BY *Geo. H. Strong*
ATTORNEY

UNITED STATES PATENT OFFICE.

RICHARD R. FARRELL, OF SAUSALITO, CALIFORNIA.

TURN-TABLE TURNER.

933,637.

Specification of Letters Patent.

Patented Sept. 7, 1909.

Application filed August 19, 1908. Serial No. 449,241.

To all whom it may concern:

Be it known that I, RICHARD R. FARRELL, citizen of the United States, residing at Sausalito, in the county of Marin and State of California, have invented new and useful Improvements in Turn-Table Turners, of which the following is a specification.

My invention relates to mechanism for operating locomotive turn-tables and the like by fluid pressure.

The object of the invention is to provide a cheap, simple and practical turn-table turner, wherein the turning of the table may be accomplished automatically through the medium of the air or steam of the locomotive upon the turn-table; or which turn-table may be operated from any other suitable source of fluid pressure supply; which turn-table turning mechanism will require practically no attention, and which can be applied to turn-tables already in use.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a plan view of a turn-table showing the application of my device. Fig. 2 is a transverse section of Fig. 1. Fig. 3 is a central section of the fluid pressure device. Fig. 4 is a plan view of a modification of my device. Fig. 5 is a section of Fig. 4.

A represents a turn-table of ordinary construction set into its usual pit 2, and running on the usual bearing tracks or surfaces 3. The turn-table pivots at 4, and has the track rails 5.

The invention resides in the use of one or more cylinders 6 attached to the turn-table and provided with suitable gripping means, as the pawls 8, for engaging an annular rack track 7 or equivalent surface, whereby on the reciprocation of the piston in the cylinder 6 a succession of impulses is given to the turn-table to turn the latter. The cylinder 6 is a single acting engine with live air admitted at 10 to one end of the cylinder to impel the piston 11 outward and give the forward impulse to the turn-table. The return movement of the piston is effected through the medium of the spring 12.

The inhaust and exhaust of the impelling medium is controlled by the slide valve 13, operated from the piston-rod 9 through the following connections: The piston-rod 9 carries

a projection 14 adapted to engage at each end of its stroke suitable abutments 15—16 on a rod 17, which latter operates a lever 18 connecting with the stem of valve 13. Live air or other fluid is admitted to the steam chest of valve 13 through the pipe 19. With the piston-rod 9 moved inward to the limit of its stroke, the projection 14 engages the abutment 15 to place the pipes 19—10 in communication with the cylinder and admit live air or steam. Under the action of the motive fluid, the piston 11 moves to the opposite end of the cylinder, compressing spring 12. As the piston 11 reaches the limit of its stroke, the projection 14 engages the abutment 16 and shifts the valve 13 to place the inlet 10 and exhaust 20 in communication, whereupon the spring 12 is allowed to expand and retract the piston and pawl.

In lieu of the pawl 8 and rack 7, I may employ any other suitable form of automatic gripping attachment to the piston to act upon the smooth rail.

The trackway 7 may be disposed in any suitable location with respect to the turn-table. For a matter of convenience I show it arranged at the bottom of the pit.

Air or steam to operate the turner cylinder 6 may be received from any suitable or convenient source of supply. Thus, the pipe 19 may lead to an ordinary steam coupling 21 suitably positioned on the turn-table and adapted to be connected with the boiler or with the air pump of the locomotive which is to be turned.

It is manifest that instead of carrying the turner cylinders on the turn-table, and having the track 7 stationary, as just described, I may reverse matters. As shown in Fig. 4, I have the cylinders stationary, and carry on the turn-table the track 7^a. I am then able to conduct the air or steam to the turner cylinders from such stationary appliance or source of fluid pressure supply as may be at hand.

In operation, the turner cylinder or cylinders being suitably connected with the fluid pressure supply receive their impulses of air or steam, and the pawl or clutch on the cylinder piston acting against the resisting surface 7 or 7^a forces the table to move the length of the stroke of the piston. Exhaust then takes place, and the piston returns to receive the next impulse.

Thus, by a succession of reciprocations of the piston and the turner cylinder, the table is turned to place.

It is possible that various changes may be made in the details of the invention herein shown and described, without departing from the principle of it, or without transcending the scope of the appended claims.

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

1. The combination of a turn-table part and a supporting part therefor, a cylinder carried by one of said parts, a track carried by the other part, said cylinder having a piston and piston-rod, and said piston-rod provided with a pivoted pawl to engage said track to turn the table when the piston is moved in one direction.

2. The combination with a turn-table, of a cylinder carried by the turn-table, a stationary track, said cylinder having a piston and piston-rod, grip mechanism carried by the piston-rod and operative on the track to turn the table on the operation of the piston, said grip mechanism including a pawl pivotally carried on the outer end of the piston rod and extending downwardly and adapted to engage said stationary track, and said cylinder having suitable fluid connections.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

RICHARD R. FARRELL.

Witnesses:

MICHAEL F. FRIELY,
ANT^o MORINEOVID.