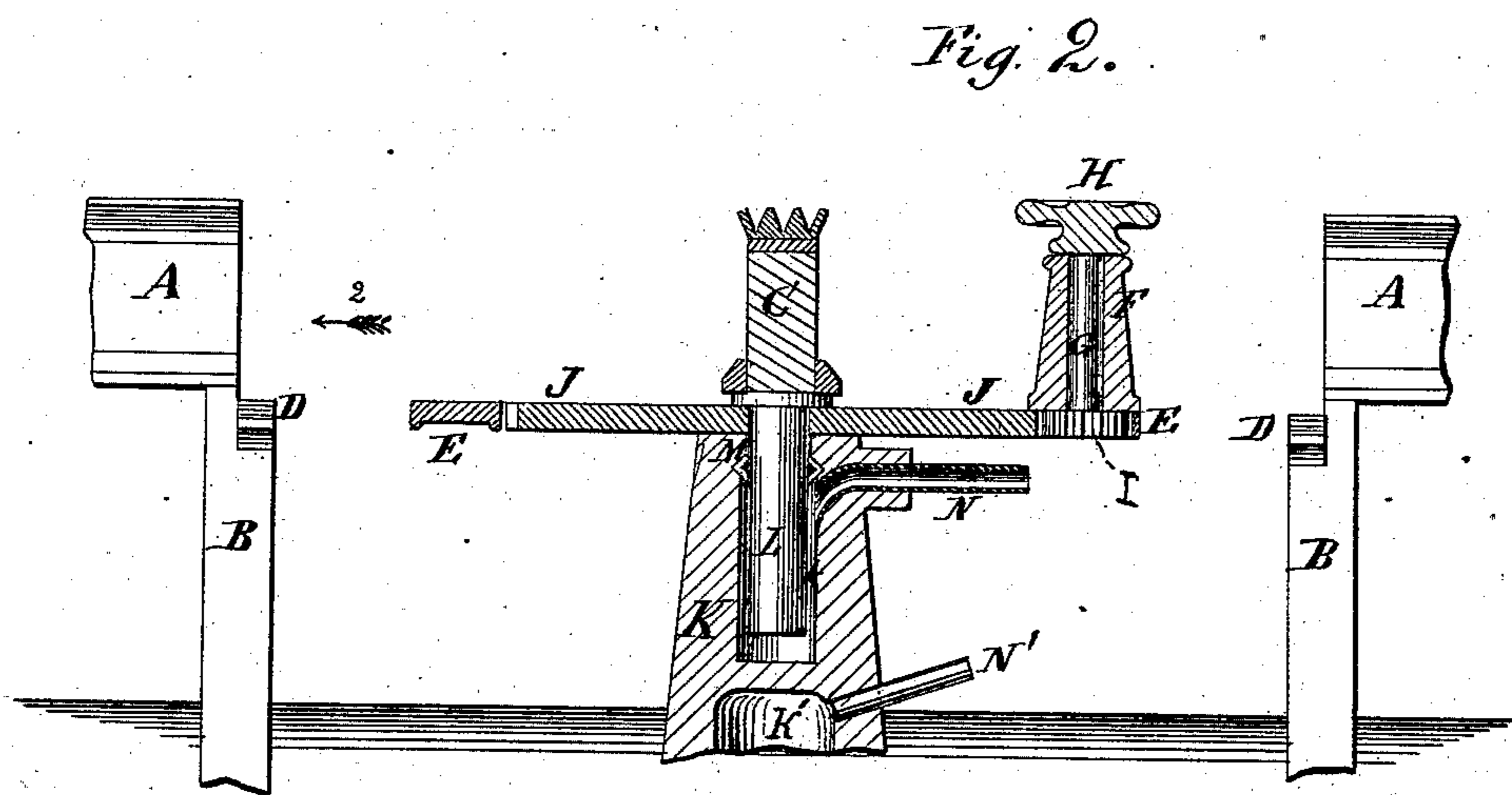
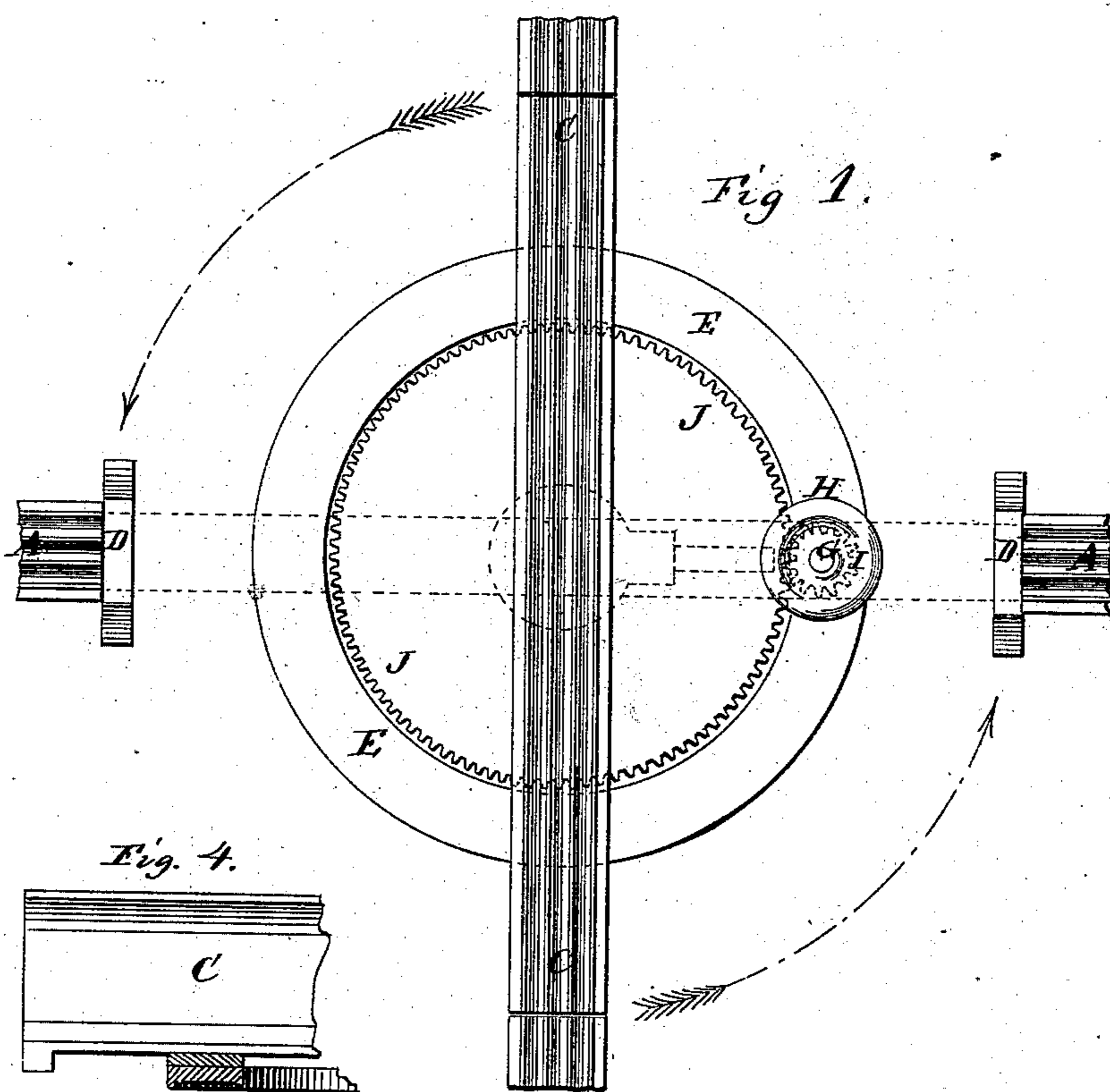


C. DONKERSLEY.
Elevated-Railway Turn-Table.

No. 225,002.

Patented Mar. 2, 1880.



Witnesses:
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UNITED STATES PATENT OFFICE.

CORNELIUS DONKERSLEY, OF NEW YORK, N. Y.

ELEVATED-RAILWAY TURN-TABLE.

SPECIFICATION forming part of Letters Patent No. 225,002, dated March 2, 1880.

Application filed June 14, 1879.

To all whom it may concern:

Be it known that I, CORNELIUS DONKERSLEY, of New York, in the county of New York and State of New York, have invented a new and useful Improvement in Turn-Tables for Elevated Railways, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a top view of my improved turn-table. Fig. 2 is a cross-section of the same. Fig. 3 is a detail view, looking in the direction of arrow 2. Fig. 4 is a detail side view of the end of the turn-table rail.

This invention relates to turn-tables adapted, mainly, for use on elevated single-rail railways, and provided with hydraulic or other power for raising the table so that it can be turned in any desired position.

The invention consists, principally, in the use of a fixed catch or catches on the turn-table or its supports, in combination with a suitable power for lifting the table out of contact with the fixed catches, so that it may be readily turned to another line of rails, and there be locked fast, without danger of shifting; and it further consists in certain details of construction whereby this main feature of my invention is carried out, which will be hereinafter more fully described, and then pointed out in the claims.

The method I have adopted of carrying out my invention is shown in the appended drawings, in which A represents the ends of the rails of the track upon the opposite sides of the turn-table, and B are the columns upon which the said ends A are supported. The ends of the rails A only extend to the middle part of the upper ends of the columns B, leaving the other parts of the said upper ends projecting as shoulders, to receive the ends of the turn-table rail C and support the said rail while the engine or car may be passing to or from the said turn-table.

To the upper ends of the columns B are attached catches D, the upper corners of which are beveled, and which have shallow notches formed in their upper sides to receive and serve as seats for the ends of the turn-table rail C.

To the base of the turn-table rail C, and concentric with it, is attached a ring-plate, E,

to one side of which, and opposite the center of the turn-table rail C, is attached a standard, F. The standard F is perforated longitudinally to adapt it to serve as a bearing for a vertical shaft, G, which has a hand-wheel, H, attached to its upper end for convenience in operating it.

To the lower end of the shaft G is attached a small gear-wheel, I, the teeth of which mesh into the teeth of the large stationary gear J, placed within the ring-plate E and concentric with it, and which is securely attached to the top of the column K, that supports the turn-table.

To the center of the turn-table rail C is attached the upper end of a pivot, L, which passes through a hole in the stationary gear J and enters a socket, *k*, in the upper part of the column K. The upper part of the socket *k* in the column K is of the same size as the pivot L, to serve as a bearing for the said pivot, and the lower part of the said socket is enlarged, as shown in Fig. 2. In the surface of the socket of the column K, at the upper end of its enlargement, is formed a V-groove, in which is placed a ring-packing, M, which is made V-shaped in its cross-section, and is arranged with its edges resting against the pivot L. The socket of the column K is made deeper than the length of the pivot L, and with it, just below the upper end of its enlarged lower part, is connected the end of a tube, N, leading to a hydraulic pump, which pump is not shown in the drawings, as there is nothing new in its construction. The said pump is connected by a pipe, N', to an oil-reservoir, K', in the column K, from whence the oil is pumped into the upper chamber, *k*, to raise (as well as lubricate) the pivot L of the turn-table rail C. There should be a connection between the tube N and pipe N', or between the socket *k* and reservoir K', so that the liquid may be returned to said reservoir K when the table is to be lowered.

With this construction, when the turn-table rail C is in line with the rails A and has its ends in the notches of the catches D, and an engine or car has been run upon it to be turned, oil or other suitable liquid from the reservoir K' is forced through the tube N into the socket of the column K, which oil compresses the

packing M snugly around the pivot L and forces the said pivot upward, raising the ends of the rail C out of the notches of the catches D, so that the turn-table can be turned by operating the hand-wheel H. As the turn-table completes a half-revolution the ends of the rail C slide up the beveled ends of the catches D and sink into the notches of the said catches, locking the rail C in line with the rails A, so that the engine or car can be run from the said turn-table to the said rails in safety.

With this arrangement of fixed catches combined with a suitable lifting device to raise the table out of contact with said fixed catches there is no possibility of the catches being accidentally unlocked, which movable catches are always liable to, as with my invention it is impossible for the table to be moved until it has been lifted clear of the catches.

I have thus shown one method of practically embodying my invention, but do not wish to limit myself to the exact construction described, as the main feature of my invention—to wit, the use of fixed catches with a suitable power to lift the turn-table out of contact with said fixed catches—may be varied in many ways without changing the essence of my invention.

I do not wish to be understood as claiming, broadly, the use of a hydraulic or similar power for raising a turn-table, as I am aware that this has been proposed before.

I am also aware that a track structure of a turn-table provided with operating-shafts and pinions to engage a fixed gear for the purpose of turning said turn-table is not new.

I am also aware that it has been proposed

to lift the rail of a turn-table out of a fixed socket, to allow of the turning of said turn-table; but in this case the vertical motion of the rail was independent of the motion of the table.

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

1. A turn-table having a locking device consisting of two parts, the one connected with the track being fixed, and the other forming part of or attached to the table, so as to be incapable of motion without it, in combination with mechanism for elevating the entire turn-table and that part of the locking device attached to or forming part of it, substantially as and for the purpose specified.

2. The combination, with a turning spindle, L, and the mechanism for elevating the same and the track supported thereon, of the locking device herein described, consisting of the fixed catches D D and the rail C, said rail being constructed to interlock with the catches and to separate from one catch and lock with the other only by the movement of the spindle on which the rail turns, substantially as and for the purpose specified.

3. The combination of a pillar, K, bearing the fixed gear J, with the rail C, provided with the ring-plate E, carrying the hand-wheel H and pinion I, all constructed and arranged to operate substantially as described.

CORNELIUS DONKERSLEY.

Witnesses:

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