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PATENTED AUG. 27, 1907.

W. C. MATTESON.
TRUCK AND TURN TABLE FOR ORE CARS.
APPLICATION FILED MAY 7, 1907.

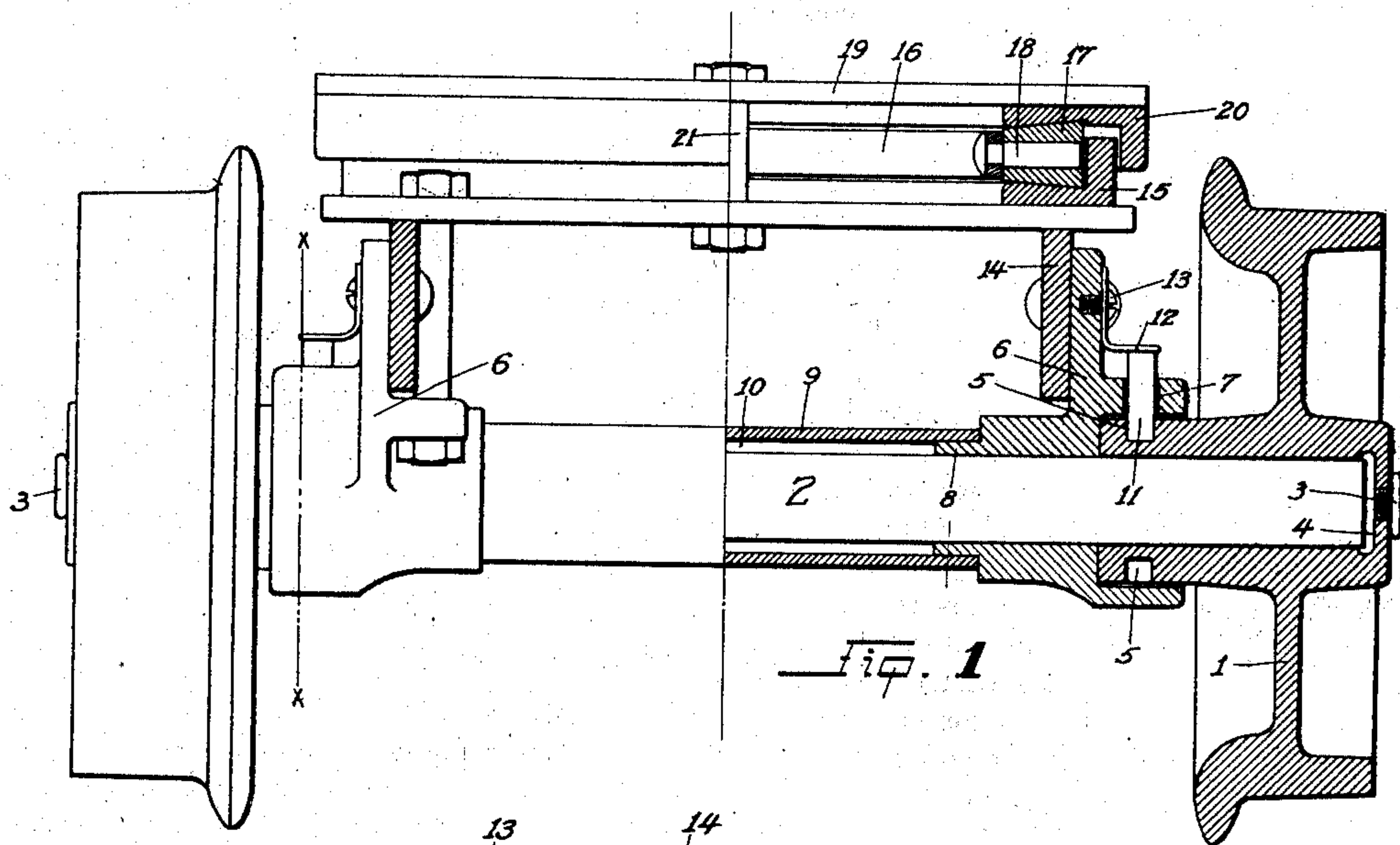


Fig. 1

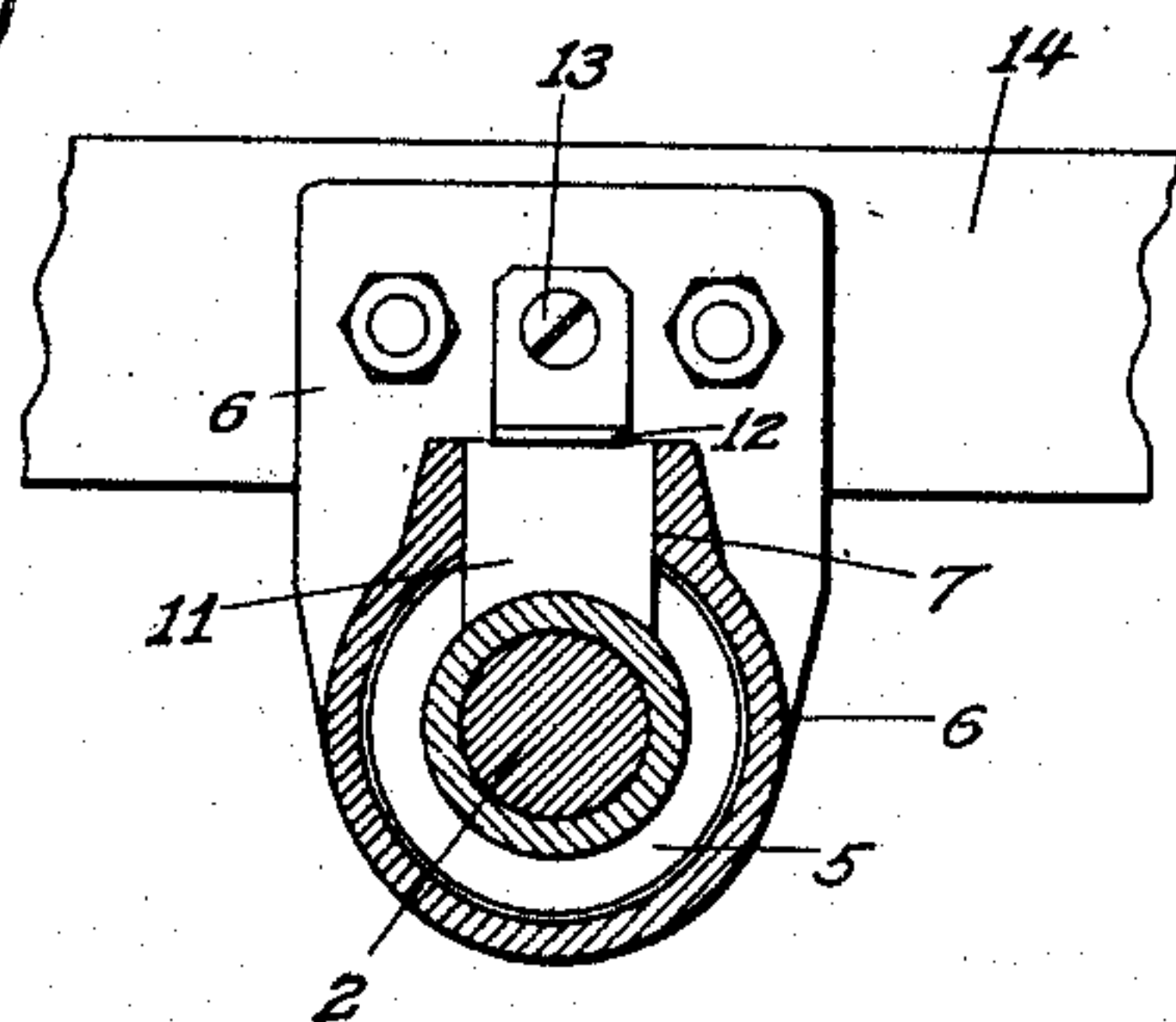


Fig. 2

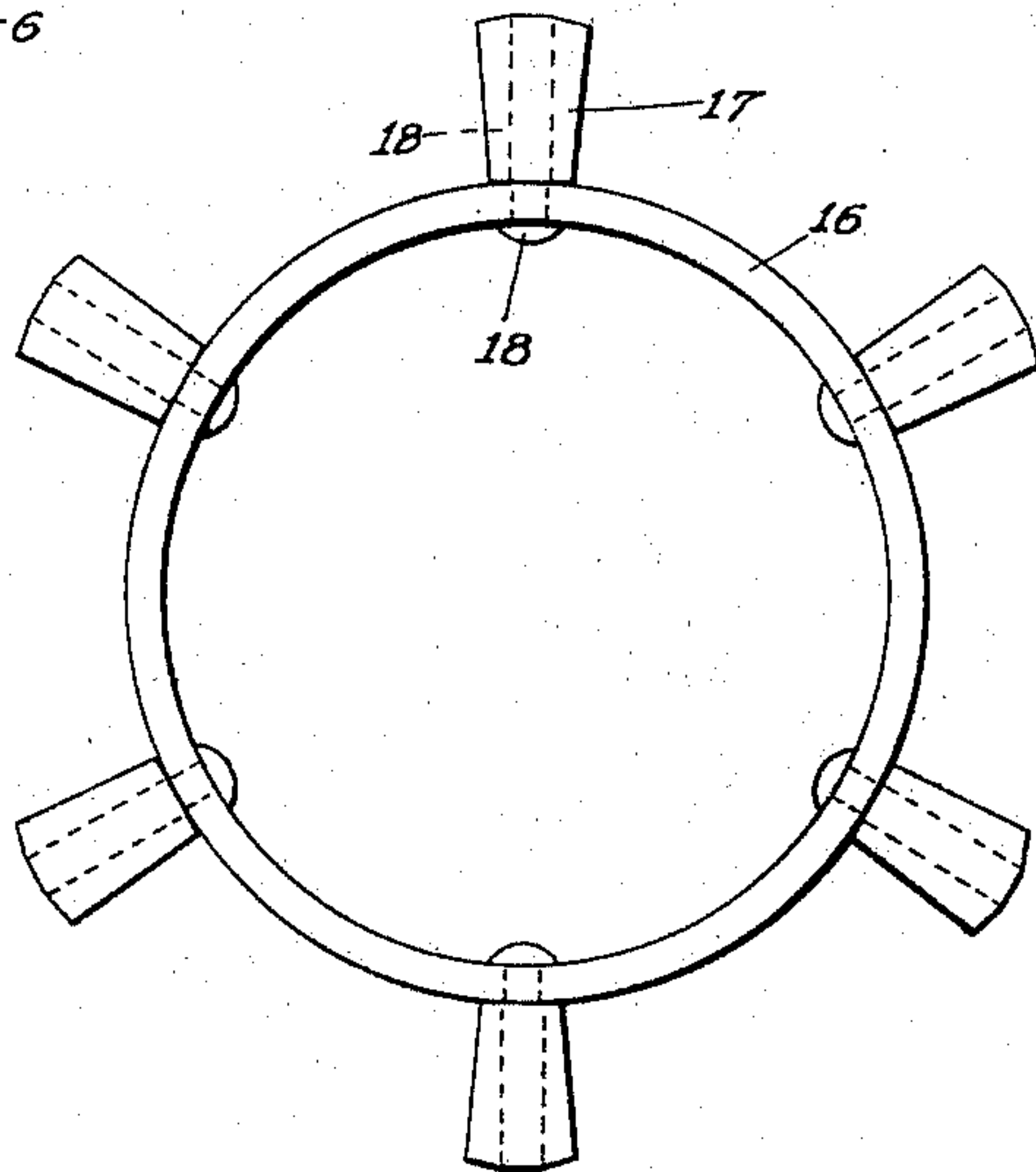


Fig. 3

Witnesses

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WALTER C. MATTESON, OF STOCKTON, CALIFORNIA.

TRUCK AND TURN-TABLE FOR ORE-CARS.

No. 864,321.

Specification of Letters Patent.

Patented Aug. 27, 1907.

Application filed May 7, 1907. Serial No. 372,303.

To all whom it may concern:

Be it known that I, WALTER C. MATTESON, a citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, have invented certain new and useful Improvements in Trucks and Turn-Tables for Ore-Cars; and I do declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in ore cars, and particularly to the trucks and turn tables thereof, my object being to construct a truck which will produce the least possible wear and friction on the wheel bearings and other parts. Also to produce a means of easy and effective lubrication and general ease of movement, and also an easy means for removing and replacing the several parts. These objects I accomplish by means of the general construction and relative arrangement of parts as will appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is an end elevation, partly in section, of my improved truck. Fig. 2 is a sectional view of a portion of the device taken on a line *xx* of Fig. 1. Fig. 3 is a top plan view of the turn table roller mechanism employed in the improved structure.

Referring more particularly to the reference numerals on the drawings 1—1 represents one pair of the wheels of the car, the same being mounted on a plain axle 2. The hubs of said wheels are closed at their outer ends and provided with relatively small screw plugs 3, there being spaces 4 disposed between the ends of the axle 2 and the closed ends of said hubs for the purpose as will appear.

Formed in the outer faces of the hubs near their inner ends are annular channels 5, the said inner ends of said hubs fitting into dolly boxes 6 provided with annular channels 7 coinciding with the slots 5, said dolly-boxes being secured to the supporting frame 14 of the car and being provided with inner annular shoulders 8, there being a sleeve 9 disposed over said shoulders, thereby leaving a space 10 between said sleeves and the intermediate portion of the axle 2. Disposed in the slots 7 and extending through the annular channel 5 are pins 11 which lock said wheels 1 into the dolly-boxes 6, and thus also incidentally lock wheels upon the axle. Small spring clips 12 maintain the position of said pins 11 while the position of said clips is regulated by means of screws 13. Secured to the top plate 14^a of the frame 14 is a turn table constructed as follows:— Fastened to the top 14^a of said frame 14 is an angle iron ring 15. 16 is a ring having frusto conical rollers 17

mounted on pins 18 extending outwardly from the ring 16, said rollers being arranged to operate within the ring 15, the bottom of said ring being shaped to conform to the frusto conical shape of the said rollers and upon which they rotate. Secured to the under side of a top plate 19 is an angle iron ring 20 bearing on the rollers 17 and conforming to the shape thereof, the outer side of said ring depending over or telescoping the outside of the ring 15. The plates 19 and 14^a are joined together by means of a king bolt 21, thus binding all the parts just described firmly together.

In practice the construction of the device as described presents the following advantages:—The dolly boxes 6 and pins 11 in combination with the outer closed ends of the hubs lock the axle loosely within the hubs of the wheels and the annular channels 5 following the periphery of the hubs permit of an absolute freedom of motion of both the wheels and axle, thus minimizing the friction and wear, while the construction of the pins 11 and springs 12 permit of an easy removal and replacing of the wheels, yet holding them securely in position when in use. The spaces 4 and plugs 3 present an admirable means for lubrication, while the space 10 can also be filled with oil, thus permitting of the whole axle and wheels being freely lubricated. The construction of the rings 16 and rollers 18 running free between the rings 15 and 20 impart an extreme freedom of motion to the car and will also work any dirt or obstruction to the center space between the plates 19 and 14^a, thus keeping the turn table proper free therefrom. The telescoping of the rings 20 and 15 also aid in keeping obstructions away from the rollers.

Thus it will be seen that I have produced a device which substantially fulfills all the objects of the invention as set forth herein.

While in this specification I set forth the present and preferred detail of construction of the device, still in practice many small deviations from such detail may be resorted to within the scope of the appended claims without departing from the spirit of my invention.

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

1. In an ore car, dolly boxes secured to the frame of the car and having annular shoulders on their inner ends and annular bearings in their outer ends, an axle journaled in said dolly boxes, wheels mounted for rotation on said axle and with hubs closed at their outer ends and engaging the bearings of the dolly boxes at their inner ends, said hubs having annular channels within said bearings and said dolly boxes having slots communicating with said channels, pins movably disposed in said slots and extending into said channels, and a sleeve engaging the shoulders of the dolly boxes and connecting the same.
2. In an ore car, dolly boxes secured to the frame of the car and with annular bearings in their outer ends, an axle journaled in said dolly boxes, wheels mounted for rotation on said axle and with hubs closed at their outer ends and engaging the bearings of the dolly boxes at their

inner ends, said hubs having annular channels within said bearings and said dolly boxes having slots communicating with said channels, pins movably disposed in said slots and extending into said channels, and yieldable means for connecting said pins to said dolly boxes.

3. In an ore car dolly-boxes secured to the supporting frame of the car, offset shoulders on the inner ends of said dolly-boxes, a sleeve mounted on said shoulders, an axle loosely disposed in said dolly boxes, wheels loosely mounted on said axles and rotatably secured in said dolly-boxes, and means retaining said axle in said loose position, as set forth.

4. In an ore car a supporting frame, a turn table disposed on the top thereof and consisting of two angle iron rings one telescoped within the other, rollers disposed between said rings, a top plate on the upper ring, and a

king bolt binding said top plate to said supporting frame, as set forth.

5. In an ore car a supporting frame, an angle iron ring secured to the top thereof, a smaller ring having outwardly disposed pins therefrom, rollers on said pins bearing in said first named ring, an angle iron ring bearing on the top of said rollers and telescoping said lower ring, a top plate secured to said top ring, and a king bolt joining said top plate to said supporting frame, as set forth.

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

WALTER C. MATTESON.

Witnesses:

PERCY S. WEBSTER,
FRANK H. CARTER.