

R. J. McKELVEY.
TURN TABLE.
APPLICATION FILED JAN. 2, 1913.

1,056,812.

Patented Mar. 25, 1913.

2 SHEETS—SHEET 1.

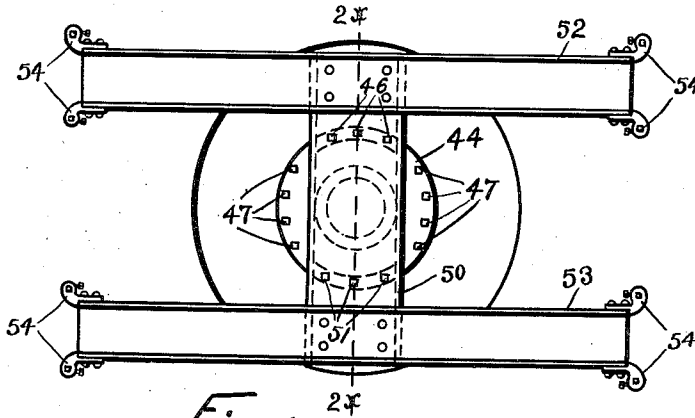


Fig. 1.

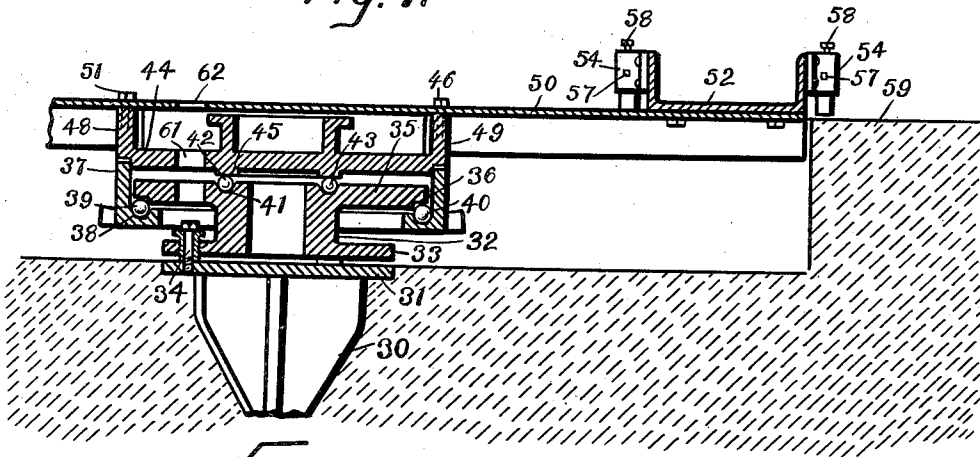


Fig. 2.

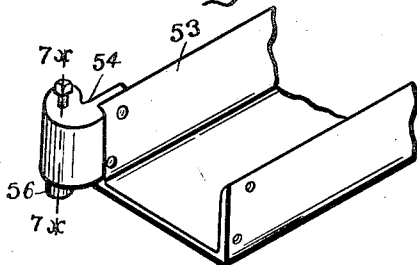


Fig. 3.

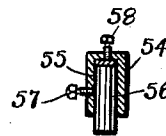


Fig. 7.

Witnesses
Lena M. Ash.
Eric Oschinger

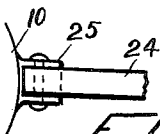
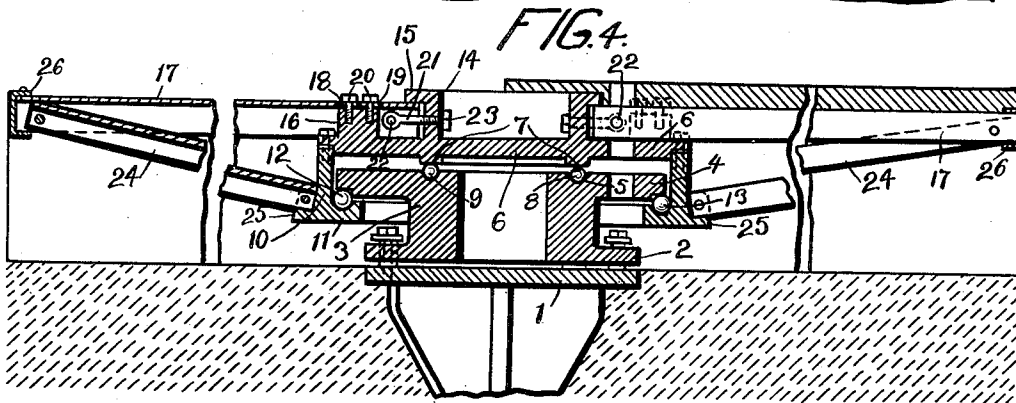
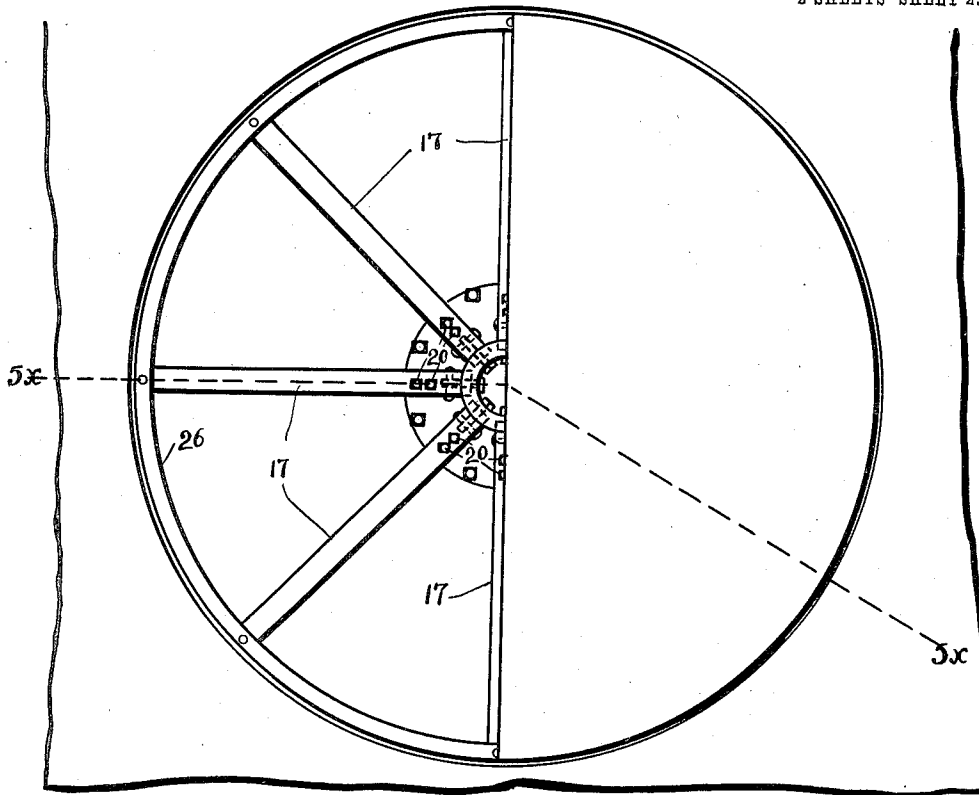
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Witnesses

FIG. 6.

Lena M. Ash.
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FIG. 5.

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UNITED STATES PATENT OFFICE.

ROBERT J. McKELVEY, OF ROCHESTER, NEW YORK.

TURN-TABLE.

1,056,812.

Specification of Letters Patent.

Patented Mar. 25, 1913.

Application filed January 2, 1913. Serial No. 739,868.

To all whom it may concern:

Be it known that I, ROBERT J. McKELVEY, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Turn-Tables, of which the following is a specification.

The object of this invention is to provide a cheap, strong and easily constructed turn table for use in connection with garages for turning automobiles. It may also be applied to other purposes as well.

Another object of the invention is to support the turn table from a central base or foundation that is easily constructed and installed.

The invention herein disclosed is an improvement on that shown in my prior Patent 935,045 issued Sept. 28, 1909.

These and other objects of my invention will be fully illustrated in the drawings, described in the specification and pointed out in the claims at the end thereof.

In the accompanying drawings, Figure 1 is a top plan view of the turn table constructed with channel iron runways instead of a platform. Fig. 2 is a vertical sectional elevation taken on the line 2*-2* in Fig. 1. Fig. 3 is a perspective view of the end of one of the channel runways. Fig. 4 is a top plan view of the turn table with a modified form of the platform. Fig. 5 is a vertical sectional elevation taken on the line 5*-5* in Fig. 4. Fig. 6 is a detail view of one of the supporting brackets of the turn table. Fig. 7 is a vertical sectional elevation on the line 7*-7* in Fig. 3.

The turn table construction includes a foundation 1 embedded preferably in cement or concrete, to the top of which is bolted a pedestal 2 having a central stem 3 integral therewith and a ring plate 4 integral with said pedestal. On the ring plate 4 is the ball race 5. Mounted to rotate upon the circular plate 4 is the circular plate 6, which plate is provided with a ball race 7. Between the ball races 7 and 8 are provided a string of balls, the balls 8 and 9 being shown in connection therewith. Bolted to the circular plate 6 is the annular shell 10, which shell has the flange 11 thereon, which flange engages under the circular plate 4. The circular plate 4 is recessed at its lower outer edge with an annular recess, so that between said plate 4 and the flange 11 an annular

ball race is formed in which is carried an annular string of balls, the balls 12 and 13 appearing in the drawings.

Concentric with the plate 6 and integral therewith is the ring 14 having the flange 15 thereon. Also mounted upon the plate 6 are the lugs 16. Bolted to the lugs 16 are the channels 17, which channels are slotted at 18 and 19 to permit the engagement of the bolts 20 therewith. The slots 18 and 19 are elongated so as to permit a limited movement of the channels 17 upon the lugs 16 without interfering with the bolts 20 by which they are clamped in place after the adjustment has been made.

Mounted on each of the channels 17 is the stud 22 to which the eye bolt 21 is fastened, which eye bolt passes through the ring 14 and has the nut 23 threaded on the inner end thereof, by which the longitudinal adjustment of the channel members 17 may be positively secured.

Provided upon the annular shell 10 are pockets 25. The channels 24 are provided with their inner ends engaging with the pockets 25 and their outer ends being engaged with the channels 17. These channels 24 act as the compression members of a truss for supporting the channels 17. By tightening up on the nut 23 the channels 17 may be drawn inward, causing the outer end thereof to swing up to a horizontal position or beyond, so that it may even assume a dish shape if so desired.

The channels 17 and 24 are arranged radially around the turn table at suitable intervals, as is indicated in Fig. 1. The outer ends of the channels 17 are embraced by the circular channel 26 which is bolted to each of the channels 17 in turn. The platform of the turn table may be built upon the channels 17 and the whole turn table will be contained within the pit, as is indicated in Fig. 5, the top of the platform coming flush with the top of the pit or the floor surrounding the pit.

The foregoing description applies to the parts shown in Figs. 4, 5 and 6. The preferred form however is shown in Figs. 1, 2, 3 and 4, and this I will now describe. In this form the foundation 30 is provided embedded in cement or concrete surmounted by a plate 31. On this plate is bolted the pedestal 32 having the plate 33 thereon by which it is fastened to the plate 31 by means of the bolts 34. On top of the pedestal is

the circular plate 35, which plate is recessed on its lower outer edge with the annular recess 36. Surrounding this plate is the shell 37 having a ball race 38 therein, between 5 which ball race 38 and the annular recess 36 is interposed a string of balls, the balls 39 and 40 showing as indicated in Fig. 2. On top of the plate 35 is provided the annular ball race 41 in which is placed a string of 10 balls, the balls 42 and 43 appearing therein. On top of the shell 37 is placed the plate 44 having the ball race 45 thereon which co-operates with the race 41 to inclose the string of balls shown at 42 and 43. This 15 plate is bolted to the shell 37 by the bolts indicated at 47, 47. As indicated in Fig. 2, a slight clearance is provided between the shell 37 and the plate 44 and as the ball races wear, this wear may be taken up by 20 tightening the bolts 47 and drawing the plate and the shell correspondingly closer together. On top of the plate 44 are provided the lugs 48 and 49 placed diametrically opposite each other as shown in Fig. 25 2. Embracing these lugs and fastened thereto is the inverted channel 50, which channel is bolted to the lugs by means of the bolts 46 and 51. Bolted to the outer ends of the channel 50 are the runway channels 30 52 and 53 which are parallel to each other and which channels are intended to be some distance between centers, as are the wheels of an automobile. On the outer corners of each of these channels I provide a bracket 54 35 having a socket 55 therein in which is placed a rubber buffer 56, which buffer is clamped in place by means of a screw 57 and it may be adjusted vertically by means of the screw 58. This buffer is intended to overhang 40 the floor 59 surrounding the turn table pit, so that when the load comes on the turn table and causes it to tilt, any further tilting will be arrested by the contact between the buffers and the surrounding floor.

45 The parts of my construction are assembled as follows: The foundation 30 and 31 is first put in place. The shell 37 is then placed around the foundation and the balls are placed therein. The pedestal 32 is then 50 placed in position inside of the shell and the bolts 34 are screwed down to hold it in place by means of a socket wrench inserted through the openings 60. The balls are then placed in position in the race 41 and the 55 plate 44 is then placed in position and is fastened to the shell 37 by means of the bolts 47.

As is illustrated in Fig. 2, the plate 44 is provided with one or more openings 61 therein through which access is permitted to the 60 bolts 34 with a socket wrench. A similar opening 62 is also provided in the channel 50 which is supported on top of the plate 44, thus making all of the parts accessible for easy and ready adjustment. It will also be 65 seen that the turn table mount which I have

described will directly operate to prevent tilting of the turn table platform or runways. If the load comes on the turn table on the right as shown in Fig. 2, the turn table will rock down on the right around the 70 center of the balls 43 and compress the balls 43 and 39, tilting upward on the left. If the load comes on the left the system will rock around the center shown by the ball 42, tilting down on the left and up on the right, 75 compressing the ball 40. As the clearance in either case is very limited, there will be practically no tilting of either the turn table platform or the channel runways.

Having thus described my invention, what I claim as new and patentable is as follows: 80

1. In a turn table construction, the combination of a base, a pedestal mounted thereon having an overhanging flange, a collar 85 surrounding said overhanging flange and having a flange extending hereunder, a plate fastened to said collar above the overhanging flange, a circular roller bearing interposed between the overhanging flange and the plate, and another circular roller 90 bearing interposed between the overhanging flange and the underhanging flange, permitting the collar and the plate to revolve around the pedestal while remaining firmly fastened thereto. 95

2. In a turn table, the combination of a 95 base, a pedestal having a narrow circular flange on the bottom thereof and a broad circular flange on the top thereof, a collar having a flange on the lower side thereof with 100 an opening therein capable of passing the narrow flange on the pedestal but incapable of passing the broad flange on the pedestal.

3: In a turn table, the combination of a 105 base, a pedestal having a narrow circular flange on the bottom thereof and a broad circular flange on the top thereof, a collar having a flange on the lower side thereof with an opening therein capable of passing 110 the narrow flange on the pedestal but incapable of passing the broad flange on the pedestal, a plate fastened to said collar so that said plate and the collar and its flange 115 embrace the broad flange on said pedestal, a pair of lugs on said plate placed diametrically opposite each other, an inverted channel placed on said lugs and fastened thereto, parallel channel runways on the opposite 120 ends of said inverted channel, and brackets having rubber buffers extending downwardly therefrom at the corners of each of said channel runways.

4. In a turn table, the combination of a 125 base, a stationary pedestal mounted thereon having a broad overhanging circular flange, a circular shell engaging with said flange both above and below to prevent tilting 130 thereon and adapted to rotate around said flange, a pair of runways supported from said shell and adapted to rotate therewith.

5. In a turn table, the combination of a base, a pedestal having a broad circular flange on the top thereof, a collar surrounding said flange and having an annular flange extending inwardly under the flange of the pedestal, a plate on top of said collar covering the flange of the pedestal, ball bearings interposed between said pedestal and said plate and between said pedestal and said inwardly extending flange of the collar.

6. In a turn table, the combination of a base, a pedestal having a broad circular flange on the top thereof, a collar surrounding said flange and having an annular flange extending inwardly under the flange of the pedestal, a plate on top of said collar covering the flange of the pedestal, ball bearings interposed between said pedestal and said plate and between said pedestal and said inwardly extending flange of the collar, means for adjustably drawing said collar and said plate together to take up wear and lost motion in said ball bearings.

7. In a turn table, the combination of a

base, a stationary pedestal mounted thereon having a broad overhanging circular flange, a circular shell engaging with said flange both above and below to prevent tilting thereon and adapted to rotate around said flange, said shell being composed of parts that are adapted to be adjusted toward and away from each other so as to cause them to snugly fit the broad overhanging circular flange of the pedestal.

8. In a turn table, the combination of a base, a stationary pedestal mounted thereon having a broad overhanging circular flange, a circular shell engaging with said flange both above and below to prevent tilting thereon and adapted to rotate around said flange.

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

ROBERT J. McKELVEY.

Witnesses:

LENA M. ASH,
ALICE M. JOHANNES.