Jan. 28, 1941. S. JEROMOS 2,230,038

CORNER TURNTABLE FOR ROLLING BARRELS ON RAILS

Filed March 28, 1940 3 Sheets-Sheet 1

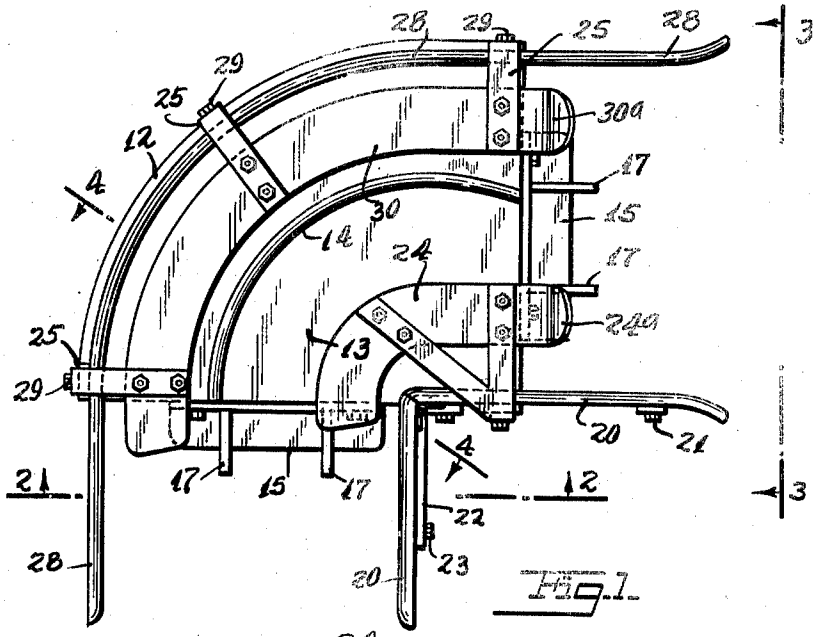


Fig. 1.

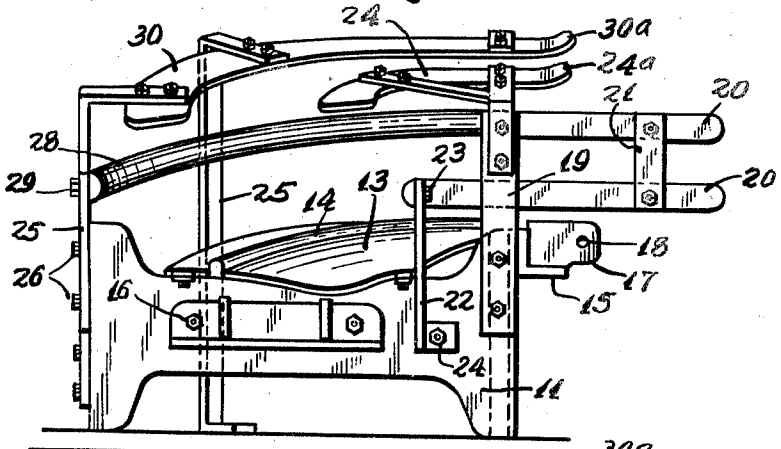


Fig. 2.

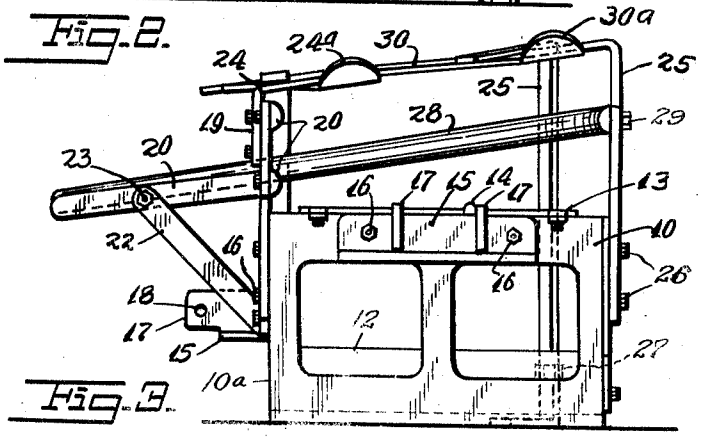


Fig. 3.

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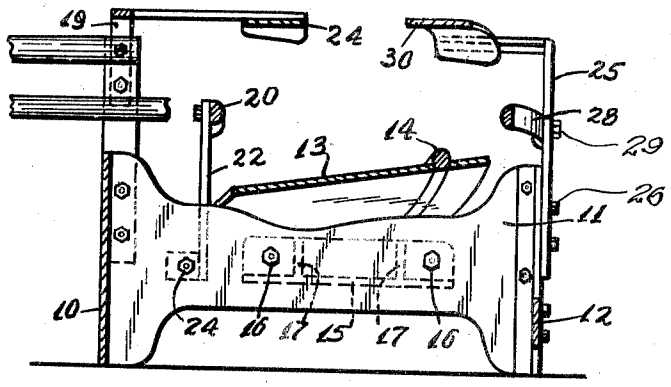


Fig. 4.

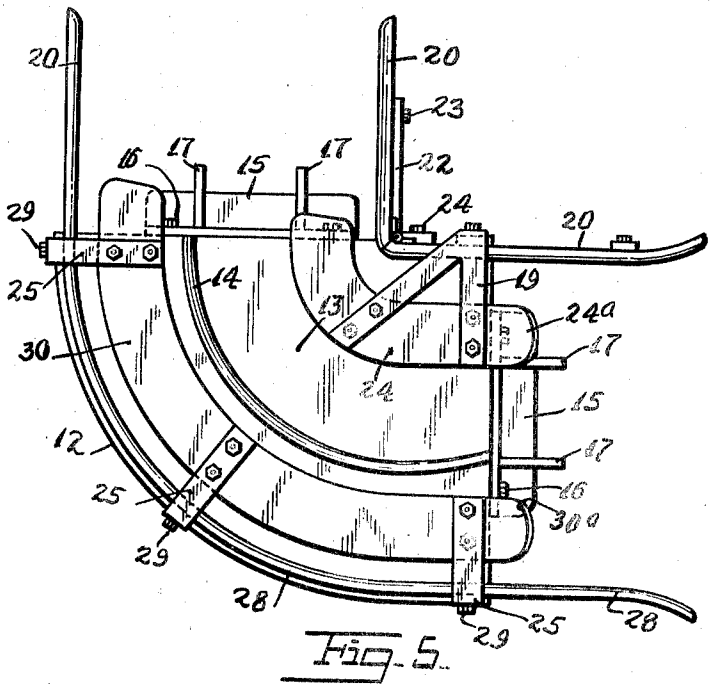


Fig. 5.

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Filed March 28, 1940 3 Sheets-Sheet 3

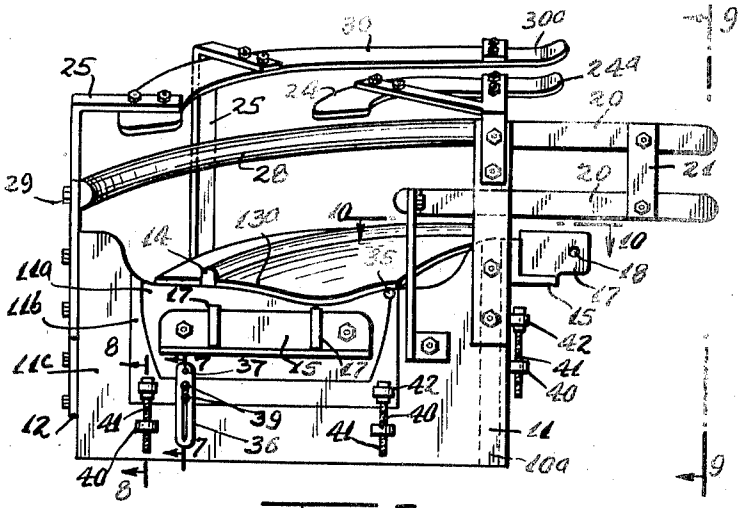


Fig. 6.

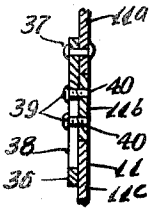


Fig. 7.

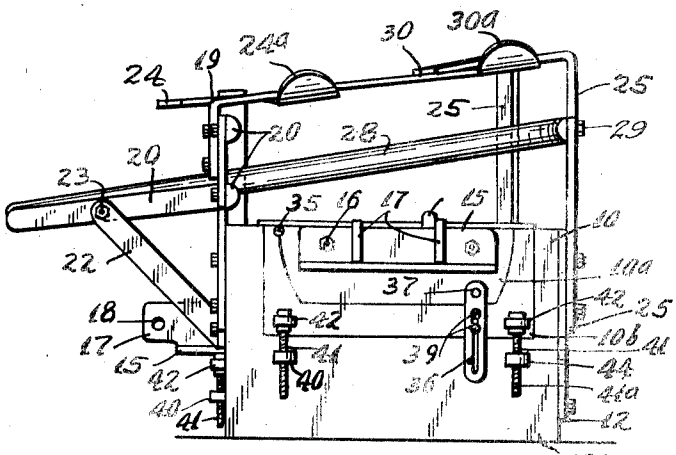


Fig. 9.

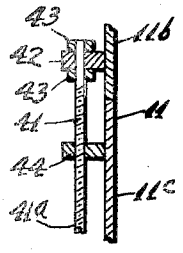


Fig. 8.

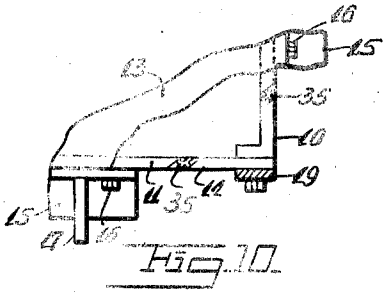


Fig. 10.

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Patented Jan. 28, 1941 2,230,038

UNITED STATES PATENT OFFICE

2,230,038

CORNER TURNTABLE FOR ROLLING BARRELS ON RAILS

Stephen Jeromos, New York, N. Y.

Application March 28, 1940, Serial No. 326,390

7 Claims. (Cl. 193—38)

This invention relates to new and useful improvements in a corner turntable for rolling barrels on rails.

More specifically, the invention proposes the construction of a corner turntable for rolling barrels on rails, and further proposes the construction of a device for use at breweries or other similar places for providing a convenient construction for conveying filled barrels from a storage room or the like to a loading platform.

Still further the invention concerns itself with the construction of a turntable adapted to be used in combination with rails upon which the barrels are adapted to roll to cause the barrels to be turned around corners, posts or other obstacles.

It is proposed to characterize the turntable by a pair of vertical wall members of different heights and arranged at right angles to each other and having their adjacent ends rigidly connected together in a manner to support a heavy sheet mounted on the top edges thereof and upon which the barrel is adapted to roll.

Still further it is proposed to provide the heavy sheet with a guide rail extending along the outer area of said sheet and arranged in an arc about the ends of the walls which are connected together for slightly lifting the outer end of the barrel to cause the same to be directed about the turn.

Still further it is proposed to provide the turntable with arcuate guard structures mounted along the inner and outer edges of this sheet to prevent the barrel from falling from the top face of the heavy sheet.

A still further object of the invention proposes a means for permitting the heavy sheet to be held in various elevated and inclined positions relative to the vertical wall portions to control the speed with which the barrel will negotiate the turn after reaching the turntable.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a plan view of a left hand turntable constructed in accordance with this invention.

Fig. 2 is an end elevational view looking in the direction of the line 2—2 of Fig. 1.

Fig. 3 is an end elevational view looking in the direction of the line 3—3 of Fig. 1.

Fig. 4 is a vertical sectional view on the line 4—4 of Fig. 1.

Fig. 5 is a view similar to Fig. 1 but illustrating a right hand turntable.

Fig. 6 is a view similar to Fig. 2 but illustrating a modification of the invention.

Fig. 7 is a vertical sectional view on the line 7—7 of Fig. 6.

Fig. 8 is a vertical sectional view on the line 8—8 of Fig. 6.

Fig. 9 is an elevational view looking in the direction of the line 9—9 of Fig. 6.

Fig. 10 is a horizontal sectional view on the line 10—10 of Fig. 6.

The corner turntable for rolling beer barrels on rails, according to this invention, includes a pair of vertical wall members 10 and 11. These wall members are extended at right angles to each other and the wall 10 is at the entrance end of the turntable and the wall 11 is at the discharge end of the turntable. The wall 10 at the entrance end is slightly higher than the wall 11 at the discharge end. The adjacent ends of the walls 10 and 11 are securely attached together. The end of the wall 10 adjacent the wall 11 is provided with an inwardly extending flange 10a which is securely welded or in any other manner attached to the adjacent face of the wall 10. The outer ends of the wall members 10 and 11 are connected together by means of an arcuate member 12 extended therebetween. This arcuate strip 12 has its ends securely attached to the outer ends of the walls 10 and 11.

A heavy sheet of metal 13 is mounted upon the top edges of the wall members 10 and 11. This heavy sheet 13 is arcuate in shape and has its ends securely attached to the top edges of the walls 10 and 11. The end of the sheet 13 adjacent the discharge end of the turntable, that is, above the wall member 11, has a section 13a of its inner area lower than the adjacent sections of its outer areas. The top edge of the wall 11 is cut to accommodate this lower area of the heavy sheet 13.

The heavy sheet 13 throughout its length is provided with a slope extending from the top edge of the higher wall member 10 to the top edge of the lower wall member 11. A guide rail 14 extends along the outer area of the sheet 13. This guide rail 14 is also arcuate in shape and is provided for slightly tilting the outer end of the barrel to cause the same to be turned as it moves from the entrance end of the discharge end of the turntable.

Foundation members are mounted on the front

faces of the vertical wall members 10 and 11 for connection with pairs of rails. Each of these foundation members comprises an L-shaped angle member 15 which is adapted to have one of its arms securely attached to the adjacent face of its respective wall member. This connection is accomplished by means of bolts 16. The free arms of the L-shaped angle members 15 extend horizontally from the face of the wall members 10 and 11. Vertically spaced lugs 17 are integrally formed upon the angle members 15 between the arms thereof and are provided with openings 18. These openings are adapted to accommodate bolts for securely attaching the ends of tracks, not shown on the drawings, to the entrance end and discharge end of the turntable. These rails are familiar to those skilled in the art and merely consist of strips of metal adapted to be attached to the lugs 17 with their width extended to and in face contact with the lugs. These rails are provided for conveying the barrels to the entrance end of the turntable and for carrying the barrels away from the discharge end of the turntable after they have completed the turn.

The rails are adapted to be attached to one of the faces of the lugs 17 so as to cause the outer rails to be aligned with the ends of the guide rail 14 for causing the outer end of the barrel to be rested upon the guide rail when entering the turntable and for causing the barrel to be accurately placed upon the outer rail when it has negotiated the turn and drops off the end of the guide rail 14.

Arcuate guard structures are provided along the inner and outer edge portions of the sheet 13 for holding the barrel in position upon the sheet and for causing the barrel to properly rest on the rails when passing from the discharge end of the turntable. The guard structure adjacent the inner end of the barrel comprises an upwardly extending bracket 19 having its bottom end securely attached to the front face of the wall member 11. A pair of superimposed guard rails 20 extend from the upwardly extended bracket 19 at the entrance end of the turntable. These guard rails 20 have their outer ends attached together by means of a connecting link 21. The topmost guard rail 20 extends only to the upwardly extending bracket 19. The lowermost guard rail 20 has its free end extended around the upwardly extending bracket 19 and projected beyond the face of the wall member and parallel to the rails extending to the discharge end of the turntable.

This end of the lowermost guard rail is supported by means of an upwardly inclined bracket 22. A bolt 23 securely attaches the top end of the bracket 22 to the free end of the guard rail 20. The bottom end of the bracket 22 is securely attached to the face of the wall 11 by means of a bolt 24. The top end of the upwardly extending bracket 19 is directed inwards and supports a top guard member 24 which extends parallel to the inner end of the sheet 13 and which is arranged in an arc about the bracket 19. This guard member 24 has its free end 24a directed upwards for causing the barrel to move downwards and rest upon the heavy sheet 13.

The arcuate guard structure mounted along the outer edge of the sheet 13 comprises a plurality of upwardly extending brackets 25. The brackets 25 adjacent the outer ends of the wall members 10 and 11 are securely attached to the outer ends of their respective wall members by means of bolts 26. The upwardly extending bracket 25 which is located between the brackets attached to the wall members has its intermediate portion securely attached to the arcuate strip by means of bolts 27. A guard rail 28 extends from the entrance end of the turntable to the discharge end thereof and is adapted to engage the outer end of the barrel for assisting same to negotiate the turn. This guard rail 28 is secured to the intermediate portions of the upwardly extending brackets 25 by means of bolts 29. The upper ends of the upwardly extending brackets 25 are directed inwards and support a top guard member 30. This guard member 30 is arranged at substantially the same height as the guard member 24 and is arranged in an arc parallel thereto. This guard member 30 also has its end 30a adjacent the entrance end of the turntable directed upwards for assisting the end 24a of the guard member 24 in causing the barrel to be engaged on the heavy sheet 13.

The construction shown in Fig. 1 is for causing a barrel to negotiate a left hand turn, and the construction shown in Fig. 5 is for causing a barrel to negotiate a right hand turn. These two turntables are identical in construction and differ from each other merely in providing a differently inclined surface for the heavy sheet 13 to direct the barrel in the direction for which it was constructed.

The operation of this form of the invention is as follows:

At a brewery or other establishment where it is desired to convey barrels from a storage room to a loading platform and where it is necessary for the barrels to negotiate turns, a plurality of turntables of the right or left hand construction are positioned at the points about which the barrels are to be turned. In connecting the turntables with the rails upon which the barrels are lowered the ends of the rails are secured to the lugs 17 of the foundation members for causing the barrels to be conveyed to the turntables. When the barrels are rolled on the rails they will enter the entrance end of the turntable which is slightly higher than the discharge end thereof, and will roll about the heavy sheet and discharge from the discharge end thereof and upon the rails attached thereto to continue their journey towards the loading platform.

According to the modification of the invention shown in Figs. 6–10 inclusive the construction of the turntable is similar to that previously described except for the provision of a means for holding the heavy sheet in various elevated and inclined positions relative to the wall members. In this form of the invention each of the wall members 10 and 11 is formed of separate sections. The wall member 10 consists of a section 10a which engages a section 10b, which in turn engages a section 10c. Likewise the wall member 11 comprises a section 11a which engages a section 11b, in turn engaging a section 11c. The sections 10a and 11a are identical in construction, the sections 10b and 11b are identical in construction, and the sections 10c and 11c are identical in construction.

A means is provided for holding the outer ends of the sections 10a and 11a in raised positions relative to the inner ends thereof to incline the outer edge of the heavy sheet 13 relative to the inner edge thereof. Each of these elevating means is identical in construction and comprises a hinge 35 arranged between the adjacent inner ends of the sections 10a and 11a and the sections

10b and 11b. These hinges 35 have their pivot pins arranged in a straight line relative to each other for permitting the outer end of the sections 10a and 11a to be pivoted. Means is provided for holding the outer ends of the sections 10a and 11a in a raised position relative to the sections 10b and 11b. This means comprises a vertically extended strip 36 which has its top end pivotally attached to its respective section 10a or 11a by means of a pin 37. Each strip 36 is provided with an elongated slot 38 through which a pair of screws 39 freely extend. These screws 39 are adapted to threadedly engage complementary openings 40 formed in the adjacent face of the sections 10b and 11b. These screws 39 are provided for clamping the strips 36 against the face of the respective wall members 10 and 11 for securely holding the outer end of the sections 10a and 11a raised.

A means is provided for holding the sections 10b and 11b in an elevated position relative to the sections 10c and 11c. Each of these means is identical in construction and comprises a pair of vertically extended screws 41 for each of the wall members 10 and 11. The top end of the screws 41 are rotatively extended through brackets 42 attached to the sections 10b and 11b. Collars 43 are securely attached to the screws 41 on opposite sides of the brackets 42 for rotatively holding the top end of the screws 41 in position within the brackets 42. Intermediate portions of the screw 41 engage through brackets 44 mounted upon the sections 11c. The free ends of the screws 41 are provided with inwardly extending cutouts 41a into which a screw driver or a similar device is adapted to be engaged for turning the screws 41 and causing the sections 10b and 11b to be elevated either simultaneously or individually relative to their respective sections 10c and 11c. In other respects this form of the invention is similar to the previous form.

It is to be understood that the guard rails 20 and 28 may be made of any desired material, size and shape and may also be provided with suitable wheels to contact the barrels, to insure smooth rolling of same.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

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

1. A corner turntable for rolling barrels on rails, comprising a pair of vertical wall members of different heights at right angles to each other and rigidly connected together at adjacent ends, an arcuate strip connecting together the outer ends of said wall members, a heavy sheet mounted across said vertical wall members and having a section at its inner area lower than a section of its outer area, a guide rail extending along the outer area of said sheet, foundation members on said vertical wall members for connection with a pair of rails, the outer of said rails being substantially aligned with said guide rail, and an arcuate guard structure mounted along the inner and outer edge portions of said sheet.

2. A corner turntable for rolling barrels on rails, comprising a pair of vertical wall members of different heights at right angles to each other and rigidly connected together at adjacent ends, an arcuate strip connecting together the outer ends of said wall members, a heavy sheet mounted across said vertical wall members and having a section of its inner area lower than a section of its outer area, a guide rail extending along the outer area of said sheet, foundation members on said vertical wall members for connection with a pair of rails, the outer of said rails being substantially aligned with said guide rail, and an arcuate guard structure mounted along the inner and outer edge portions of said sheet, one of said wall members being formed with a flange adapted to be securely attached to the adjacent faces of the other of said wall members for connecting together the adjacent ends thereof.

3. A corner turntable for rolling barrels on rails, comprising a pair of vertical wall members of different heights at right angles to each other and rigidly connected together at adjacent ends, an arcuate strip connecting together the outer ends of said wall members, a heavy sheet mounted across said vertical wall members and having a section at its inner area lower than a section of its outer area, a guide rail extending along the outer area of said sheet, foundation members on said vertical wall members for connection with a pair of rails, the outer of said rails being substantially aligned with said guide rail, and an arcuate guard structure mounted along the inner and outer edge portions of said sheet, each of said foundation members comprising an L-shaped angle member having one of its arms securely attached to the face of its adjacent wall member, said angle members having their free arms extended horizontally therefrom, and vertically extended lugs arranged between the arms of said angle members and to which said rails are adapted to be attached.

4. A corner turntable for rolling barrels on rails, comprising a pair of vertical wall members of different heights at right angles to each other and rigidly connected together at adjacent ends, an arcuate strip connecting together the outer ends of said wall members, a heavy sheet mounted across said vertical wall members and having a section at its inner area lower than a section of its outer area, a guide rail extending along the outer area of said sheet, foundation members on said vertical wall members for connection with a pair of rails, the outer of said rails being substantially aligned with said guide rail, and an arcuate guard structure mounted along the inner and outer edge portions of said sheet, said heavy sheet being arranged to cause said barrel to negotiate a left hand turn.

5. A corner turntable for rolling barrels on rails, comprising a pair of vertical wall members of different heights at right angles to each other and rigidly connected together at adjacent ends, an arcuate strip connecting together the outer ends of said wall members, a heavy sheet mounted across said vertical wall members and having a section at its inner area lower than a section of its outer area, a guide rail extending along the outer area of said sheet, foundation members on said vertical wall members for connection with a pair of rails, the outer of said rails being substantially aligned with said guide rail, and an arcuate guard structure mounted along the inner and outer edge portions of said sheet, said guard structure comprising guard rails for engaging the ends of said barrels and guard members for engaging the tops of said barrels to

properly hold the same in position upon said heavy sheet.

6. A corner turntable for rolling barrels on rails, comprising a pair of vertical wall members of different heights at right angles to each other and rigidly connected together at adjacent ends, an arcuate strip connecting together the outer ends of said wall members, a heavy sheet mounted across said vertical wall members and having a section at its inner area lower than a section of its outer area, a guide rail extending along the outer area of said sheet, foundation members on said vertical wall members for connection with a pair of rails, the outer of said rails being substantially aligned with said guide rail, and an arcuate guard structure mounted along the inner and outer edge portions of said sheet, said vertical wall members each having top portions which are separate from the main portions thereof, said top portions supporting said sheet, and means for holding said top portions in various elevated and inclined positions.

7. A corner turntable for rolling barrels on rails, comprising a pair of vertical wall members of different heights at right angles to each other and rigidly connected together at adjacent ends, an arcuate strip connecting together the outer ends of said wall members, a heavy sheet mounted across said vertical wall members and having a section at its inner area lower than a section of its outer area, a guide rail extending along the outer area of said sheet, foundation members on said vertical wall members for connection with a pair of rails, the outer of said rails being substantially aligned with said guide rail, and an arcuate guard structure mounted along the inner and outer edge portions of said sheet, said vertical wall members each having top portions which are separate from the main portions thereof, said top portions supporting said sheet, and means for holding said top portions in various elevated and inclined positions, said means being arranged adjacent the ends of said heavy sheet and individually adjustable or simultaneously adjustable as desired.

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