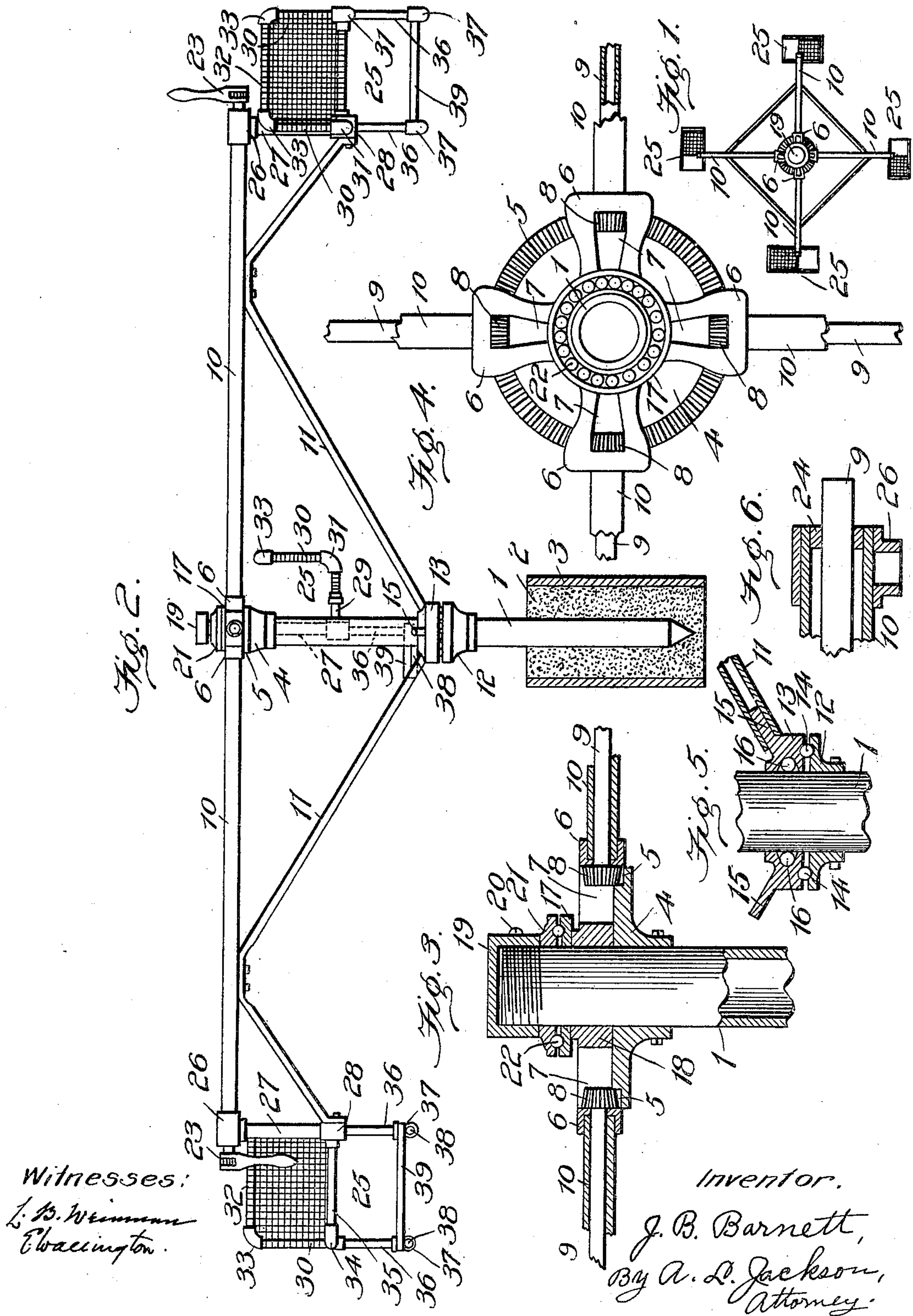


No. 820,339.

PATENTED MAY 8, 1906.

J. B. BARNETT.
MERRY-GO-ROUND.

APPLICATION FILED JULY 15, 1905.



Witnesses:
L. B. Weimann
Chas. W. W. W.

Inventor.
J. B. Barnett,
By A. L. Jackson,
Attorney.

UNITED STATES PATENT OFFICE.

JOHN B. BARNETT, OF FORT WORTH, TEXAS, ASSIGNOR OF ONE-HALF
TO W. C. FORBESS, THREE-EIGHTHS TO WILLIAM CAPPS, AND ONE-
EIGHTH TO G. H. CLIFFORD, ALL OF FORT WORTH, TEXAS.

MERRY-GO-ROUND.

No. 820,339.

Specification of Letters Patent.

Patented May 8, 1906.

Application filed July 15, 1905. Serial No. 269,861.

To all whom it may concern:

Be it known that I, JOHN B. BARNETT, a citizen of the United States, residing at Fort Worth, Texas, have invented a new and Improved Merry-Go-Round, of which the following is a specification.

This invention relates to new and useful improvements in merry-go-rounds, and more particularly to such devices which may be operated by hand; and the object is to provide a merry-go-round which can be easily operated and which is simple in construction and which is durable and in which the parts cannot be disarranged by ordinary usage.

Other objects and advantages will be fully explained in the following description, and the invention will be more particularly pointed out in the claims.

Reference is had to the accompanying drawings; which form a part of this application and specification.

Figure 1 is a plan view of a merry-go-round on a small scale. Fig. 2 is a side elevation of the same, on a larger scale, with one of the arms removed. Fig. 3 is a vertical section of the cap and other parts adjacent to the cap, showing the ball-bearings and the bevel-gearing. Fig. 4 is a broken plan view with the cap and the upper ball-bearing plate removed. Fig. 5 is a vertical section of the supporting-collar and the ball-bearing collar for the braces. Fig. 6 is a broken sectional view of the outer ends of the frame-arms.

Similar characters of reference are used to indicate the same parts throughout the several views.

This merry-go-round is provided with a central shaft or pintle 1, which may be inserted four or five feet in a bed of plastic material 2 in a tiling casing 3. A gear-plate 4 is riveted to the shaft 1 and has beveled gear 5 on the upper side. A spider having any suitable number of arms 6 is mounted above the gear-plate 4. The arms 6 have recesses 7 therein for the beveled pinions 8, which mesh with gear 5. The spider-arms 6 constitute bearings for the inner ends of the power-transmitting shafts 9 and also supports for the frame-arms 10. The frame-arms 10 have their inner ends secured in the spider-arms 6. The outer ends of the power-transmitting shafts 9 have bearings in the frame-arms 10. The central shaft 1, the frame-arms 10, and

the shafts 9 are all preferably constructed of metal pipe, which construction affords strength, durability, and lightness. The arms 10 are provided with braces 11, which are also made of pipe. These braces 11 brace the arms 10 against downward motion. A ball-bearing collar 12 is riveted to the shaft 1, and the braces 11 are attached to a ball-bearing collar 13, which is mounted above the collar 12, with balls 14 disposed between the collars 12 and 13, these collars having annular grooves for the balls 14. The collars have outwardly and upwardly projecting lugs 15 formed integral therewith, and the braces 11 are placed on these lugs. Nothing will be needed to hold the braces on the lugs, because the pressure will be on or against the collar 13, and the upper ends of braces 11 being riveted to the arms 10 the braces 11 cannot be moved without taking the rivets out of the upper ends thereof. The device is thus provided with brace-supporting collars, one rigid with the central shaft and the other rotatable, with balls interposed to prevent friction. The rotatable collar 13 is provided with ball-bearings 16 to bear against the shaft 1 to prevent friction of the collar 13 against the shaft 1. A ball-bearing plate 17 is mounted on the spider 18 to rotate with the spider. A cap 19 is screwed down on the pipe-shaft 1 and held in place thereon by a set-screw 20. A second ball-bearing plate 21 is mounted above the plate 17, and balls 22 are placed between the plates 17 and 21 to prevent friction of the plate 17 against the plate 21. With the construction the friction is taken from the gearing 5 and 8, except the ordinary friction of the gearing. This is one of the advantages of the device herein described. The device is driven by means of ratchets 23 of ordinary construction, mounted on the outer ends of the pipe-shafts 9. Any convenient number of ratchets may be used. It will be understood that the ratchets may be used as cranks.

Seats are hung on the outer ends of the frame-arms 10, and friction in the frame-arms with shafts 9 is prevented by brass collars 24, as shown in Fig. 6. The seats are provided with pipe-frames. The frames are coupled together as ordinary pipe-couplings are, and backs and seats of woven wire may be provided. A T-pipe 26 is mounted on the

end of each pipe 10. A pipe 27 couples with the T of the connection 26 and projects downward. A T-pipe connection 28 is mounted on the pipe or frame-piece 27. The T-pipe 28 has a side outlet, so that the chair or seat has two connections with the hanger 27. The side frame 29 of the chair has connection with the outlet of the T 28. The seat-frame pieces 29 are connected to the back upright frame-pieces 30 by L's 31. Upright frame-pieces 30 are connected with top back-frame piece 32 by L's 33. The outside corner of the chair is provided with an L-pipe 34, which has a side outlet. The outside seat-frame piece 29 connects with an L 31 and with an outlet-L 34. The front seat-frame piece 35 connects with an outlet-L 34 and with the T 28. The back of the chair and the seat of the chair may be covered with woven wire or other suitable material. A light and strong frame is thus provided. A foot-rest 39 is also provided. Pipe frame-pieces 36 connect with the L-outlet 34 and with the T 28 and L's 37, and rods or pipes 38 connect with the L's 37 and project horizontally forward, and a foot-rest 39 is placed on the rods 38. The braces 11 have extensions which are riveted to the connections 28. The seats or chairs are thus provided with braces.

Various changes may be made in the construction of the device herein described without departing from my invention.

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

1. A merry-go-round comprising a central shaft, a collar rigidly mounted on said shaft and having a circular cog-rack thereon, a spider rotatably mounted on said collar and provided with a plurality of radiating bearing-arms, frame-arms secured in said bearing-arms, power-transmitting shafts mounted in said frame-arms and engaging the bearings of said bearing-arms, bevel-pinions carried by said shafts and engaging said rack, means for driving said shafts, chairs suspended from said frame-arms, braces for said frame-arms and chairs, and brace-supports engaging said central shaft and consisting of a rotatable collar and a non-rotating collar and ball-bearings interposed.

2. A merry-go-round having a central shaft, a collar rigidly mounted on said shaft and provided with a circular rack thereon, a spider mounted on said collar and provided

with a plurality of radiating bearing-arms, hollow frame-arms screwed into said bearing-arms, power-transmitting shafts journaled in said frame-arms and the bearings of said bearing-arms, beveled pinions carried by said shafts and engaging said rack, and ball-bearings mounted on said central shaft to prevent friction caused by the upward pressure of said spider.

3. In a merry-go-round provided with a central stationary shaft and collar rigidly mounted thereon and carrying a circular rack; a spider mounted on said collar and provided with a plurality of radiating bearing-arms, radiating frame-arms secured in the bearings of said bearing-arms, power-transmitting shafts journaled in said frame-arms and in said bearing-arms and carrying pinions meshing with said rack, a plate mounted on said spider and rotating with said spider, a stationary plate above said rotating plate and rigid with said central shaft, ball-bearings interposed between said plates, and a cap screwed on said central shaft and made stationary therewith.

4. In a merry-go-round provided with a central stationary shaft and radiating arms carrying seats at the outer ends thereof operatively mounted on said shaft; gearing for driving said arms, hollow braces attached to said arms and said seats, supports for said braces consisting of a rotating collar and a non-rotating collar with ball-bearings interposed mounted on said shaft, and lugs formed integral with said rotating collar and projecting within the lower ends of said braces.

5. In a merry-go-round provided with a central stationary shaft and a circular rack stationary on said shaft; a spider mounted above said rack and provided with a plurality of bearing-arms, hollow radiating frame-pieces carried by said arms, said frame-pieces being provided with bearings in their outer ends, power-transmitting shafts journaled in said bearings and in the bearings of said bearing-arms and carrying beveled pinions meshing with said rack, means for driving said shafts, and ball-bearing devices for holding said spider in place.

In testimony whereof I set my hand, in the presence of two witnesses, this 7th day of July, 1905.

JOHN B. BARNETT.

Witnesses:

A. L. JACKSON,
J. W. STITT.