No. 736,643. PATENTED AUG. 18, 1903.

J. M. SHERMAN.

MERRY-GO-ROUND.

APPLICATION FILED OCT. 29, 1902.

NO MODEL.

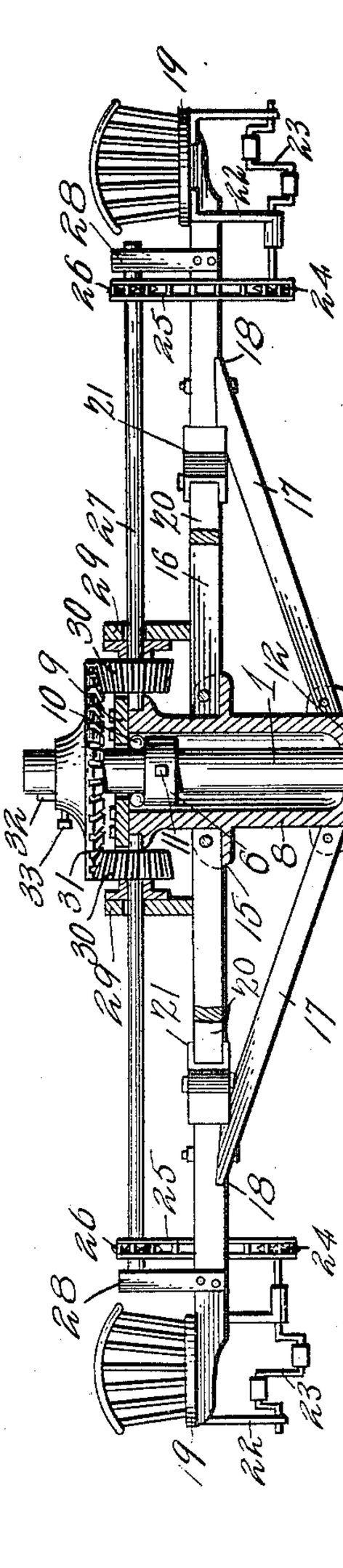

Fig. 1.

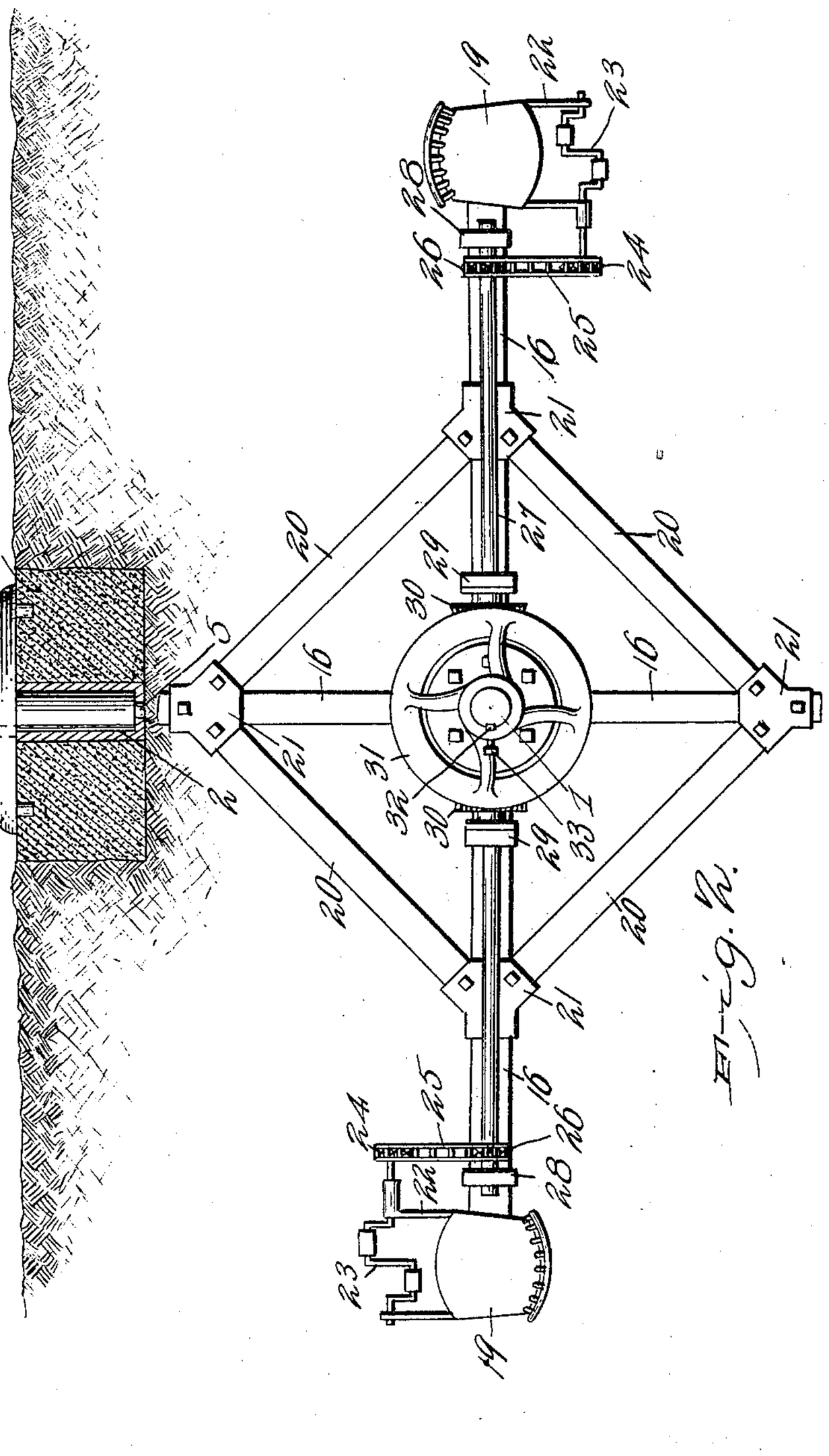

Fig. 2.

Witnesses
E. F. Stewart
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by Church & Co
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No. 736,643. Patented August 18, 1903.

UNITED STATES PATENT OFFICE.

JAMES M. SHERMAN, OF COLUMBIA, MISSOURI.

MERRY-GO-ROUND.

SPECIFICATION forming part of Letters Patent No. 736,643, dated August 18, 1903.

Application filed October 29, 1902. Serial No. 129,305. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. SHERMAN, a citizen of the United States, residing at Columbia, in the county of Boone and State of Missouri, have invented a new and useful Merry-Go-Round, of which the following is a specification.

The invention relates to improvements in merry-go-rounds.

The object of the present invention is to provide a simple, inexpensive, and efficient merry-go-round designed to be arranged on a lawn or other convenient place and adapted to accommodate a number of children and capable of being operated by one or two of them.

A further object of the invention is to provide an apparatus of this character which will be firmly supported and which will not require balancing in order to operate properly.

The invention consists in the construction and novel combination and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a vertical sectional view of a merry-go-round constructed in accordance with this invention. Fig. 2 is a plan view of the same.

Like numerals of reference designate corresponding parts in both figures of the drawings.

1 designates a vertical shaft or spindle having its lower end fitted within a socket 2 of a base 3, and the latter, which is preferably circular, as shown, is arranged upon a bed 4 of cement, artificial stone, or other plastic material. The bed 4 of plastic material has its upper face flush with the surface of the ground and the base 3 is provided with depending projections 4^a, which are embedded in the cement. The socket extends entirely through the bed of cement and is provided at its bottom with a drain-opening 5 to permit any water accumulating in the socket to drain therefrom and soak into the ground. The vertical shaft or spindle, which is provided at its upper end with a rigid collar 6, is detachably secured in the socket of the base by means of a wedge or key 7 and is adapted to be readily removed therefrom to permit the merry-go-round to be detached and removed to a suitable place for storing or housing it when desired. Mounted upon the shaft or spindle is a rotary frame or casting 8, having a vertical tubular body portion to receive the shaft 1 and provided at its upper end with an inwardly-extending annular flange 9, preferably formed by a detachable top plate which is bolted or otherwise secured to the top of the frame 8. An annular series of antifriction-balls 10 is interposed between the flange 9 and the collar 6, which is secured to the shaft 1 by a clamping-screw 11 or other suitable means. The rotary frame 8 is also provided at its lower portion with an interior annular flange 12, spaced from the lower end of the frame 8 and from a detachable plate 13, constructed similar to the top plate and extending inward to form a flange. An annular series of antifriction-balls 14 is interposed between the lower portion of the rotary frame and arranged in the ball-race formed by the lower annular flange 12 and the bottom plate 13. The rotary frame is also provided at its upper portion with upper recesses 15, formed by perforated ears and lower connecting webs or flanges, the ears being arranged in pairs and receiving fastening devices for securing the inner ends of horizontal arms 16 to the rotary frame. The lower perforated ears are arranged in pairs and receive the lower ends of inclined braces 17 and are secured to the same by suitable fastening devices. The braces extend upward and outward from the lower portion of the rotary frame and are bolted or otherwise secured to the lower faces of the arms at 18, in suitable recesses thereof; but the horizontal arms and the supporting-braces may be constructed in any other desired manner. The horizontal arms, which are preferably four in number, support seats 19 at their outer ends and are connected between their ends by horizontal braces 20, secured at their terminals to suitable castings or plates 21. The seats 19 or other suitable supports for the accommodation of children are suitably secured to the arms and are provided with suitable bearings 22, extending downward and outward and receiving crank-shafts 23, having sprocket-wheels 24 at their inner ends. The sprocket-wheels 24 are connected by sprocket-chains 25 with similar sprocket-wheels 26 of opposite shafts 27, jour-

naled in suitable bearings 28 and 29 of the adjacent arms. Only two shafts 27 are employed; but each of the arms may be provided with a shaft, if desired. The shafts are connected at their inner ends with beveled gears 30, which mesh with a horizontal gear 31, fixed to the upper end of the vertical shaft 1 by means of a key 32 and a clamping-screw 33 or other suitable fastening device. When the crank-shafts, which are provided with suitable pedals, are rotated, the gears 30 will revolve around the fixed horizontal gear-wheel and the frame 8 with its seat-carrying arms will be rotated on the shaft. Any desired number of arms may be employed and by extending the rotary frame 8 downward and employing the bottom bearing one or more of the seats may be occupied and the merry-go-round may be properly operated without having all of its seats filled and without being otherwise balanced by arranging the occupants opposite each other. The inner ends of the upper horizontal shafts 27 are journaled in suitable bearings of the rotary frame, as clearly illustrated in Fig. 1 of the drawings. The parts may be readily separated when desired, and when the top plate is removed the rotary frame will drop down far enough to expose the fixed collar or the shaft may be entirely withdrawn without removing the collar.

It will be seen that the merry-go-round is exceedingly simple and inexpensive in construction, that it possesses great strength and durability, and that it is adapted to be readily operated. It will also be apparent that the rotary frame is firmly braced and that there is no liability of unbalancing the merry-go-round should the seats be only partly filled.

What is claimed is—

In a merry-go-round, the combination with a suitable base, of a vertical shaft carried thereby, a bevel-gear mounted on the shaft and having teeth on its lower face, a suitable framework mounted for rotation on the shaft below the bevel-gear and provided with a seat, a horizontal shaft carried by the framework and provided with a bevel-gear lying beneath and in mesh with the gear on the vertical shaft, a crank-shaft mounted in suitable bearings and adapted to be operated by the occupant of the seat, and operative connections between the crank-shaft and horizontal shaft for driving the latter.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES M. SHERMAN.

Witnesses:
HUGH M. HALL,
P. M. THOMAS.