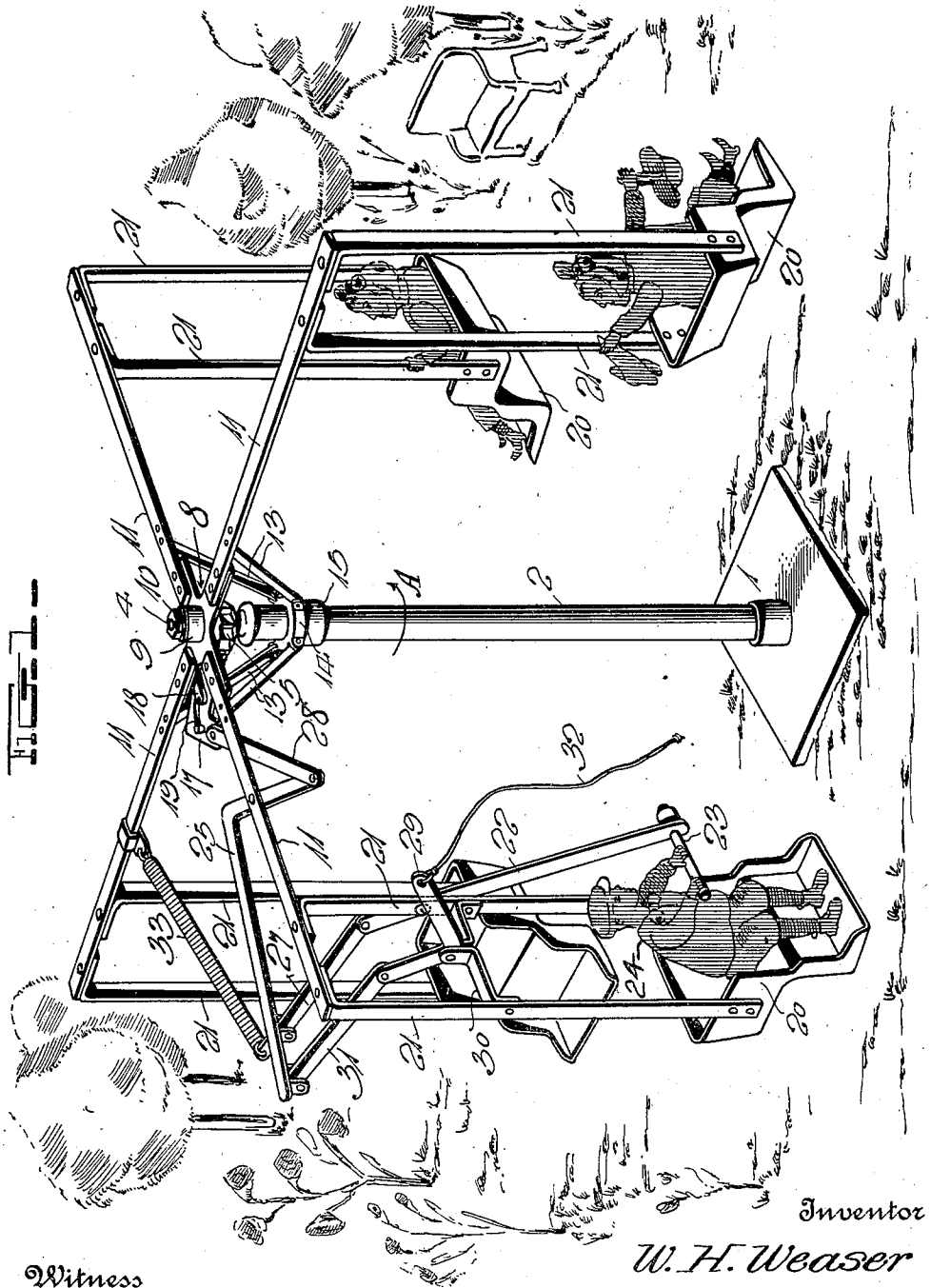
Feb. 27, 1923. 1,447,110.

W. H. WEASER.

MERRY-GO-ROUND.

FILED NOV. 14, 1921.

2 SHEETS—SHEET 1.



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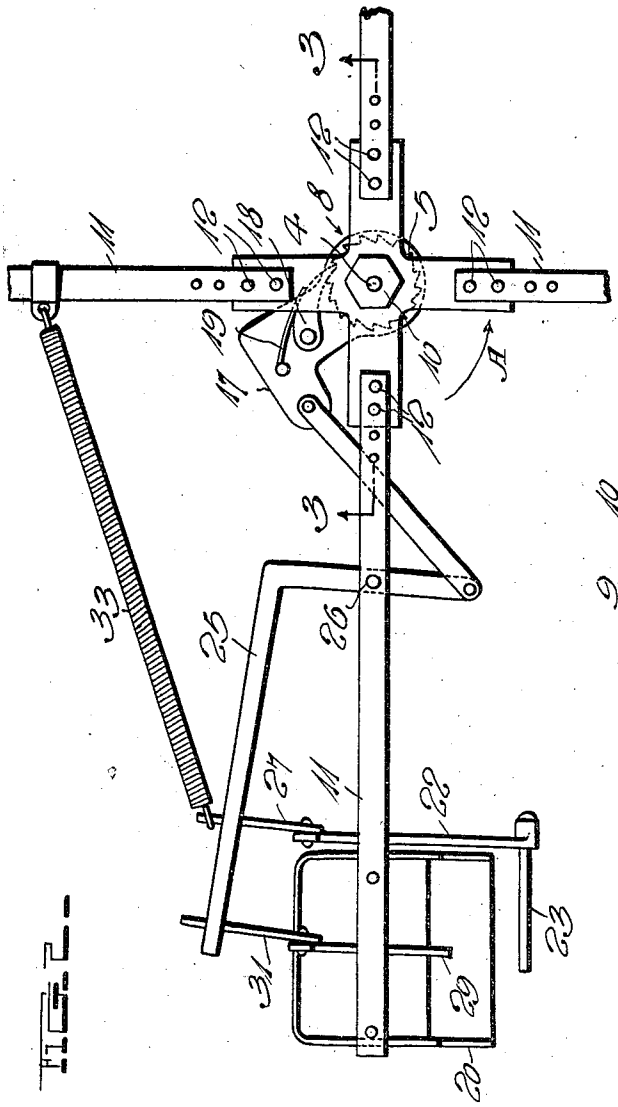
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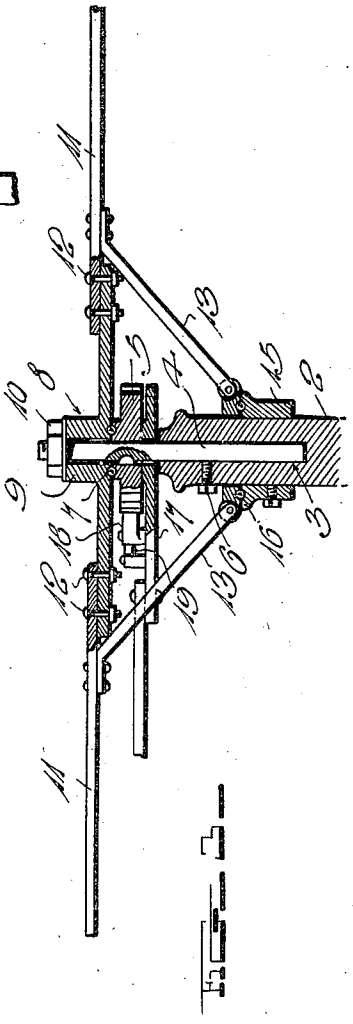
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UNITED STATES PATENT OFFICE.

WILLIAM H. WEASER, OF PITTSFIELD, MASSACHUSETTS.

MERRY-GO-ROUND.

Application filed November 14, 1921. Serial No. 515,034.

To all whom it may concern:

Be it known that I, WILLIAM H. WEASER, a citizen of the United States, residing at Pittsfield, in the county of Berkshire and State of Massachusetts, have invented certain new and useful Improvements in Merry-Go-Rounds; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved merry-go-round which is especially, but not necessarily designed for use by children, the same being such in construction that it is manually operated by one of the occupants either by a hand rope or lever arranged in convenient reach of the operator.

The principal object of the invention is to generally improve upon devices of this class by providing one of extreme simplicity and durability which is well balanced and so constructed that it is very easy for a single child to propel the same.

Another object of the invention is to provide a pleasure device of this class which embodies a novel arrangement of levers and links for imparting a rather speedy rotation to the seat carrier without requiring the operator to exert himself to such a degree as to become readily tired.

Another object of the invention is to provide a merry-go-round which embodies a standard with a rotary carrier mounted on the upper end thereof, this carrier embodying radial arms which support the individual seats, these arms being formed of light weight metal but being braced by novel means which does not interfere with free rotation of the carrier and insures strength and durability.

A further object of the invention is to provide a structure wherein the various parts may be easily and readily detached from one another to enable repairs to be easily made.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and which like numerals are employed to designate like parts throughout the same:

Figure 1 is a perspective view of a merry-go-round constructed in accordance with this invention.

Figure 2 is a top plan view thereof.

Figure 3 is a sectional view, with parts in elevation, showing the details of construction more clearly.

Referring to the drawings, the numeral 1 designates a base from which a standard 2 rises, this standard being formed in its upper end with a socket 3. Removably arranged in this socket is a shaft 4 which extends above the upper end of the standard and has a ratchet 5 keyed or otherwise permanently secured thereto to render it stationary. To prevent rotation of the shaft, a set-screw 6 is employed. By carefully examining the sectional view appearing in Fig. 3, it will be seen that the ratchet 5 is specially constructed so as to accommodate ball bearings 7 which are interposed between it and a spider 8 constituting a part of the seat-carrier. This spider embodies a hub 9 which is rotatably mounted on the shaft 4 and is held in place by a nut 10. With this arrangement, it will be seen that the entire carrier can be removed whenever necessary or desired. The carrier in addition to embodying this spider, includes a plurality of radial seat-supporting arms 11 which are bolted or otherwise secured to the outer ends of the spider arms as indicated at 12. As before set forth, these arms are constructed as light in weight as is possible to insure strength yet not to interfere with the free rotation of the carrier. However, to insure against any breakage which may occur and to prevent the arms from bending, I employ a number of diagonal braces 13 which are secured at their upper ends to the carrier arms and are attached at their lower ends to a collar 14 which surrounds the standard below the aforesaid set-screw 6. An adjustable stop 15 co-operates with this collar 14 to prevent the same from sliding down on the standard and permits it to be elevated to render the carrier arms horizontal in case they bend downwardly under the strain to which they are subjected. In order to insure free rotation of the carrier and bracing means, ball bearings 16 are interposed between the collar 14 and adjustable stop.

A substantially L-shaped arm 17 is rotatably mounted on the shaft 4 between the

upper end of the standard and said ratchet and this arm serves to carry a pawl 18 which is designed for co-operation with the teeth of the ratchet. A flat spring 19 serves to hold the dog in engagement with the ratchet.

A plurality of seats 20 are supported from the outer ends of the aforesaid carrier arms by means of vertically disposed spaced side bars 21 and at least one of these seats is designed to be occupied by the operator, that is, the person who constitutes the power for manually actuating the device. Of course, if found advisable, one or more of the remaining seats could be equipped with operating means to enable the work to be equally divided among the several occupants. For the sake of clearness, a single operating structure has been shown. By referring to the seat equipped with this operating means, it will be seen that said means comprises a lever 22 which is pivoted intermediate its ends on the inner vertical side bar 21 of the seat under consideration. At its lower end, this lever is equipped with a horizontal handle 23 designed to be grasped by the operator 24. A second and L-shaped lever 25 is pivoted at 26 on the intermediate portion of the adjacent carrier arm and a link 27 serves as a connection between the two levers. A second and shorter link 28 is pivotally connected to the short arm of the L-shaped lever and to the dog-carrying member 17 and it is obvious that by grasping the handle and exerting a pull toward the seat, a rotary motion will be imparted to the carrier and seat. It will be found convenient to operate the device by means of a rope in some instances and to permit this end to be accomplished, I employ a bell-crank 29 and dispose this, by means of brackets 30 between the vertical side bars of the operator's seat, and connect this bell-crank with the aforesaid L-shaped lever 25 through the medium of a link 31. A rope 32 is connected to the remaining arm of this bell-crank and depends into convenient reach of the operator. If desired, the handle 23 may be such that it can be swung out of the way of the operator when the rope is being used, any suitable construction being employed for enabling this result to be obtained. For the purpose of maintaining the parts in the position shown in the drawings, I make use of a relatively large coiled spring 33 which is connected with one of the elements of the operating means and the succeeding carrying arm.

The operation of the device is as follows: Assuming that the operator is in the seat on which the operating means is arranged and further assuming that the parts are in the position shown in the drawings, it will be seen that when the operator grasps the handle 23 and exerts a pull toward himself, the links and levers will momentarily be locked and act as a unit to exert a push against the ratchet. Inasmuch as the last named element is fixed, it is obvious that the rotary head or carrier will be moved in the direction of the arrow A. During this motion, the dog will ride over the ratchet teeth and the operating means being connected with the carrier, it will be moved around with the latter so that when the operator desires to obtain another "pull," this can be done because the parts are in a convenient position to permit it. The coiled spring referred to serves to automatically return the parts with which it co-acts to their normal positions. The operation will be exactly the same if the pull rope is used.

By carefully considering the description in connection with the drawings, persons familiar with devices of this class will doubtless be able to obtain a clear understanding of the invention. Therefore, a more lengthy and detailed description is deemed unnecessary.

Since probably the best results may be obtained with the construction and arrangement herein shown and described, this is taken as the preferred embodiment of the invention. However, I wish it to be understood that minor changes coming within the scope of the invention as claimed may be resorted to if desired, such for instance as the omission of the base and the setting of the standard into the ground.

I claim:

1. An apparatus of the class described comprising a vertical standard, a rotary seat carrying device mounted upon the upper end portion of said standard, a ratchet fixed with respect to said carrying device, a pawl for engaging said ratchet, a carrying member for said pawl pivotally mounted and when swung in one direction moving the pawl about said ratchet and when swung in the other direction causing said pawl to impart rotary movement to the seat carrier through the medium of said ratchet, a substantially L-shaped lever pivotally connected with the seat-carrying device, a link pivotally connected with said pawl carrying member and one end of said lever, a pivotally mounted operating lever, and a connection between said levers.

2. An apparatus of the class described comprising a vertical standard, a rotary seat carrying device mounted on the upper end of said standard, said carrying device embodying a plurality of radial arms, side bars connected with the outer ends of said arms and depending therefrom, seats supported by said side bars, a ratchet fixed with respect to said carrying device, a pawl co-operative with said ratchet and movable around the latter, a carrying member for said pawl, a substantially L-shaped lever pivotally con-

nected with one of said radial arms, a link pivotally connected with said lever and member, an operating lever pivoted on one of said side bars, and a connection between said levers.

3. An apparatus of the class described comprising a vertical standard, a rotary seat carrier mounted on the upper end of said standard and including a plurality of radial seat-supporting arms, spaced vertical side bars connected with the outer ends of the arms and depending therefrom, seats mounted between said bars, brackets connected with the side bars of one of the seats, a bell-crank lever pivotally connected with said brackets, a pull rope connected with one of the arms of said lever, a second and substantially L-shaped lever pivotally connected with the adjacent carrier arm, a connection between said levers, pawl and ratchet means associated with the standard and carrier for imparting rotation to the latter when the rops is pulled, and co-acting means between said L-shaped lever and pawl and ratchet mechanism.

In testimony whereof I have hereunto set my hand.

WILLIAM H. WEASER.