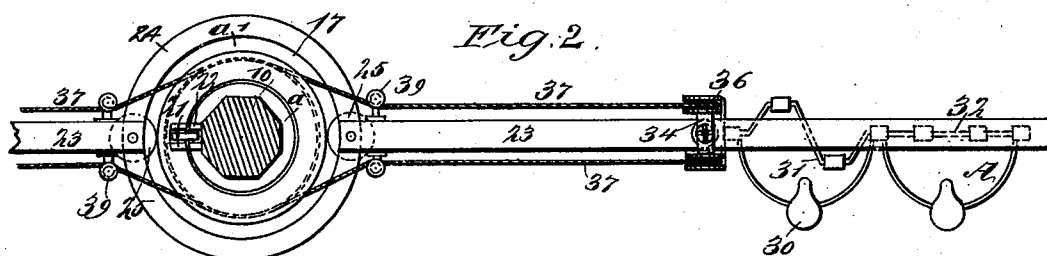
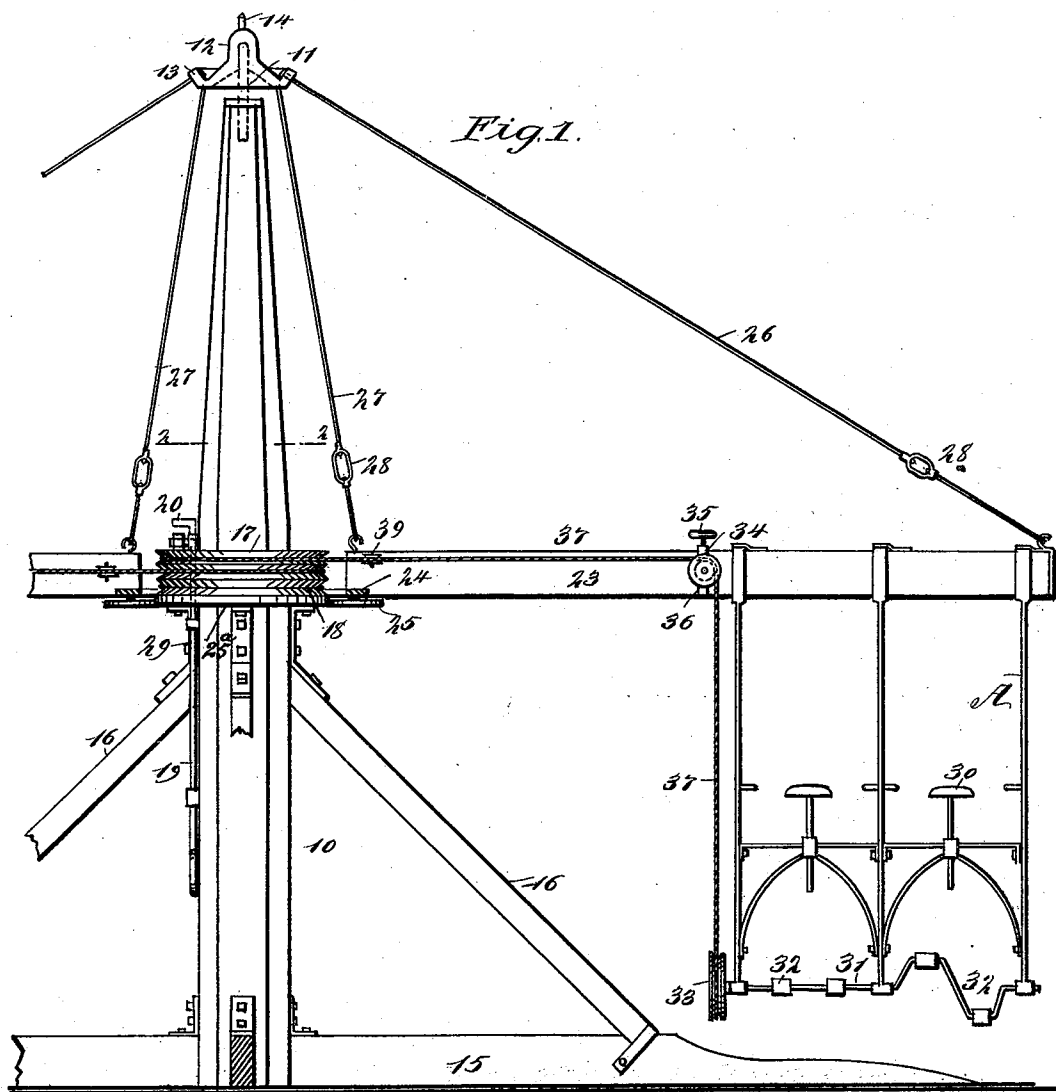


(No Model.)

M. T. WESTON.
CAROUSEL.

No. 510,747.

Patented Dec. 12, 1893.



WITNESSES:

J. M. Arde
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UNITED STATES PATENT OFFICE.

MILTON T. WESTON, OF KENTON, OHIO, ASSIGNOR OF ONE-HALF TO
METELLUS THOMSON, OF SAME PLACE.

CAROUSEL.

SPECIFICATION forming part of Letters Patent No. 510,747, dated December 12, 1893.

Application filed August 4, 1893. Serial No. 482,388. (No model.)

To all whom it may concern:

Be it known that I, MILTON T. WESTON, of Kenton, in the county of Hardin and State of Ohio, have invented a new and Improved
5 Carousel, of which the following is a full, clear, and exact description.

My invention relates to an improvement in carousels or merry-go-rounds, and it has for its object to so construct the machine that
10 shafts and gearing may be dispensed with in driving the same, and to provide a driving mechanism of exceedingly simple character, and which will render the machine exceedingly light and consequently readily manipulated.
15

A further object of the invention is to provide a novel means whereby the machine may be stopped whenever occasion may demand.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.
20

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures and letters of reference
25 indicate corresponding parts in all the views.

Figure 1 is a partial side elevation of the improved machine; and Fig. 2 is a horizontal section taken practically on the line 2—2 of Fig. 1.
30

In carrying out the invention a mast 10, of any desired material and of any approved shape is employed as a center. The mast is
35 preferably made polygonal in cross section, and is tapered longitudinally, being narrowest at its upper end. The mast is provided at its upper end with a pin 11, adapted to support a cap 12, which is usually of a conical shape, and is provided with a marginal
40 base flange 13, and a pin 14 at its top, the pin being adapted to engage with the center of a tent or awning, to assist in supporting the same over the machine. The mast at its foot
45 has secured to it a number of horizontal beams 15, and the beams are further connected with the mast through the medium of braces 16, suitably applied, the braces and the base beams being made detachable from the mast.
50 At a predetermined point in the length of the

mast a drum 17, is connected therewith. The drum is constructed in two sections, an inner section *a*, which is rigidly secured to the mast and surrounds the same, and an outer section *a'* capable of revolving upon the inner section, the two sections being connected by
55 tongues formed in one entering the grooves formed in the other, or by any equivalent mechanism. The outer section *a'*, is provided with a series of peripheral grooves 18, as shown best in Fig. 1, and the two sections are locked together when occasion may demand, thus rendering both of them stationary, through the medium of a lock lever 19,
60 of any approved construction. The form of lock lever shown in the drawings consists of a straight handle having guided movement upon the mast, the said handle being passed up through a suitable opening made in the inner section *a* of the drum, and at its upper
70 end the handle is provided with a head 20, located at a right angle to the handle, which head, when the two sections are to be rigidly connected, may be dropped between lugs 21 and 22, shown in Fig. 2, formed respectively
75 upon the upper face of the inner and outer sections of the drum. When the head is carried out of engagement with the lugs, the outer section will be free to turn upon the inner one; but as heretofore stated I do not
80 confine myself to the form of lock levers shown and above described.

A series of arms 23, corresponding in number to the number of grooves 18 in the drum, is connected together by means of a ring 24,
85 or a hub of any description, the ring or hub being held to turn loosely around the mast, and it is of greater diameter than the diameter of the drum. Friction rollers 25, are connected with the lower portion of the ring or
90 hub, and the said friction rollers travel upon a ring or track 25^a secured upon the mast below the drum. The arms are supported in a horizontal position, and at the same time are
95 free to turn, by rods or links, connected respectively with their outer and inner ends and the flange portions of the cap 12, the outer rods being designated as 26 and the inner ones as 27, and both of the rods are provided with turn buckles 28, or like devices,
100

whereby the arms may be raised or lowered as occasion may demand.

Instead of holding the outer section of the drum to the inner section by means of tongues and grooves as heretofore stated, the two sections may be held in proper relation by means of the ring or track 25^a, which in the drawings, Fig. 1, is shown as held securely to the mast, or in fixed horizontal position, by brackets 29. Each arm has rigidly secured to it and preferably pendent therefrom a carriage A of any approved construction, and the carriage may be made to seat one or more persons; the seats may be made in the form of saddles 30, as shown in the drawings, or they may have a different shape. Each carriage carries a crank shaft 31, and the crank shaft is provided with as many sets of pedal cranks 32, as there are seats in the carriage, one set of pedal cranks standing at a right angle to the other set; and each crank shaft, preferably at its inner end is provided with a grooved pulley 33, and near the carriage a frame or bracket 34, is mounted upon each arm, adjustable through the medium of a set screw 35, or its equivalent, and each bracket carries at each side an idler pulley 36. An endless cable 37 is passed over each pulley 33, of each carriage shaft, up over the idlers 36 on the arm to which the carriage is connected, and each cable is carried in direction of the mast in engagement with guide pulleys 39, located near the inner ends of the arms and around one of the grooves 18 in the outer section of the drum.

Thus it will be observed that the cables may be tightened whenever occasion may demand, through the medium of the adjusting screws 35, and that when the crank shafts of the carriages are operated upon, the cables, by frictional contact with the drum, both sections of the drum being stationary, will revolve the entire pivoted upper structure of the machine around the mast, and when the revolution of the upper structure is to be stopped, it is accomplished by carrying the lock lever out of engagement with the outer drum section and thereby permitting that section to turn freely around the mast.

Such a construction as has been herein described is not only simple, durable and economic, but it is exceedingly light, as all shafts and gearing are dispensed with with the exception of the crank shafts in the carriages, and consequently the friction of working is reduced to a minimum, although the machine is revolved by frictional driving devices.

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

1. In a carousel or like machine, the combination, with a mast, and a grooved drum secured to the mast, of arms pivotally supported by the mast and adapted to revolve around

the drum, carriages supported by the arms, drive shafts located in the carriages, and a belt connection between the carriage shafts and the drum, each belt traveling in a groove of the drum, substantially as and for the purpose specified.

2. In a carousel, or like machine, the combination, with a mast, a drum secured upon the mast and provided with peripheral grooves, and a cap pivoted upon the mast, of connected arms held to travel around the mast adjacent to the drum, supporting devices connecting the arms with the pivoted cap, and friction rollers carried by the arms and adapted to travel upon the periphery of the drum, carriages suspended from the arms, drive shafts located in the carriages, cables connecting the carriages with the drum, each cable being passed over a groove of the drum, and a take-up mechanism over which the cables also pass, substantially as shown and described.

3. In a carousel or merry-go-round, the combination, with a mast, a cap pivoted thereon, and a drum constructed in two sections, an inner section secured to the mast and an outer section peripherally grooved and capable of turning upon the inner section, and a locking device capable of connecting the two drum sections in a rigid manner, of connected arms held to revolve around the mast adjacent to the drum, friction rollers carried by the arms and engaging with a fixed guide upon the mast, supporting devices connecting the arms with the pivoted cap, carriages supported by the arms, drive shafts located in the carriages, and cables connecting the carriage shafts with the drum, each cable passing over a different groove in the drum, and guide pulleys over which the cables likewise pass, as and for the purpose specified.

4. In a carousel, or merry-go-round, the combination, with a mast, a cap pivoted thereon, and a drum constructed in two sections, an inner section secured to the mast and an outer peripherally grooved section capable of turning upon the inner section, and a locking device capable of connecting the two drum sections in a rigid manner, of connected arms held to revolve around the mast adjacent to the drum, friction rollers carried by the arms and engaging with a fixed guide upon the mast, supporting devices connecting the arms with the pivoted cap, carriages supported by the arms, a pulley located upon each carriage shaft, adjustable guide pulleys located upon the arms, and cables passed over the pulleys on the carriage shafts, over the guide pulleys and around the drum, each cable being located in a different groove in the drum, as and for the purpose set forth.

MILTON T. WESTON.

Witnesses:

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JAMES WATT.