(No Model.) 2 Sheets—Sheet 1.

J. A. CRISS.

MARINE ROUNDABOUT.

No. 484,409. Patented Oct. 18, 1892.

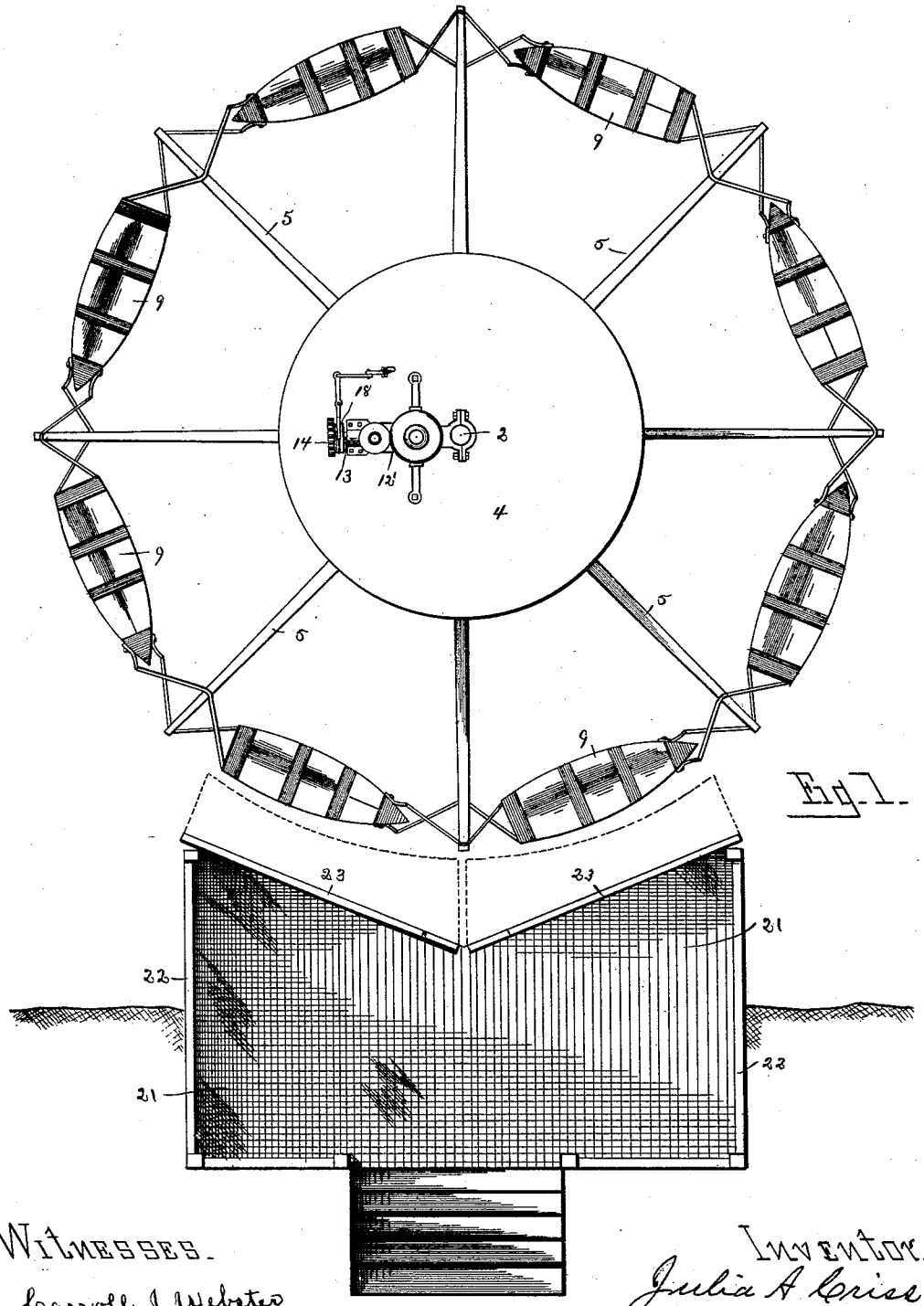

Fig. 1.

Witnesses.
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(No Model.) 2 Sheets—Sheet 2.

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MARINE ROUNDABOUT.

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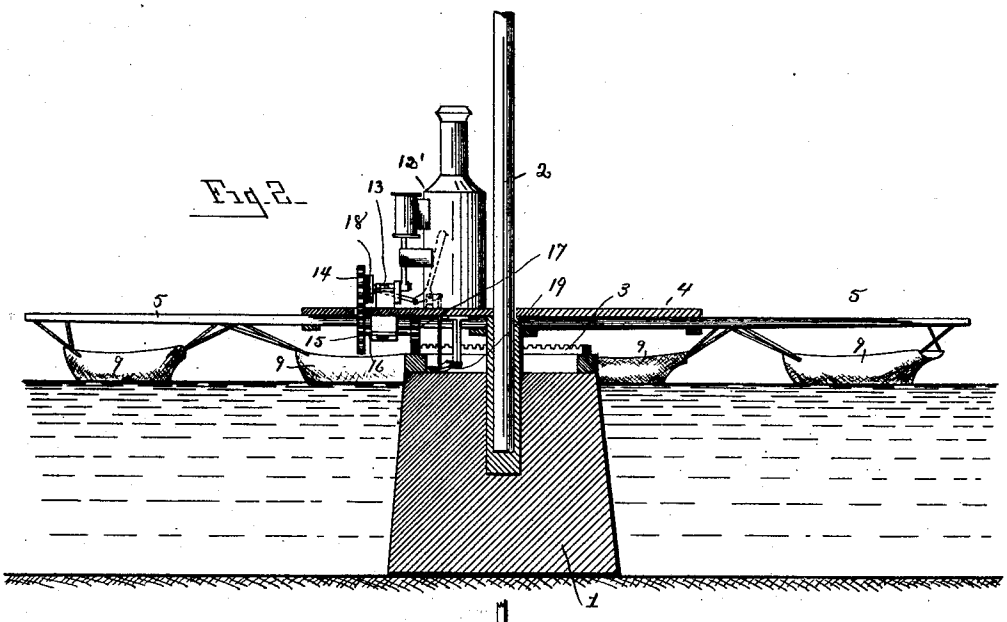
Fig. 2.



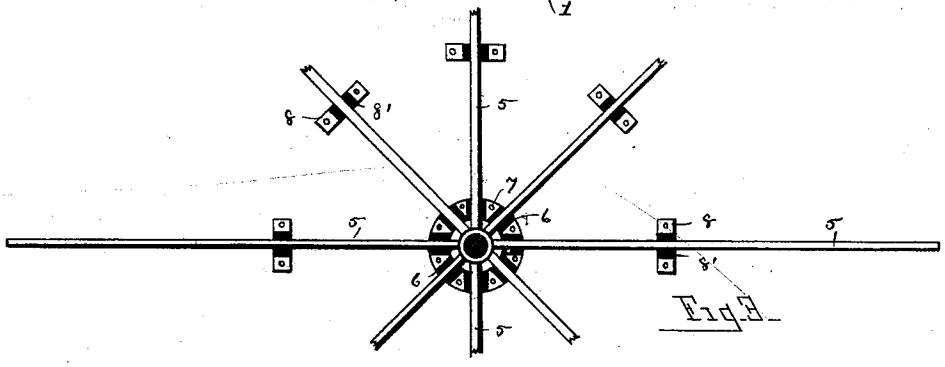


Fig. 3.

Fig. 4.

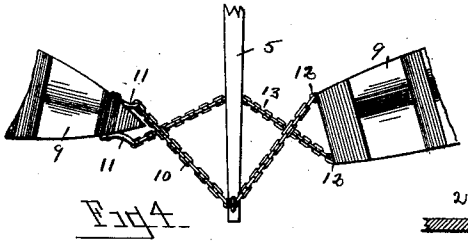
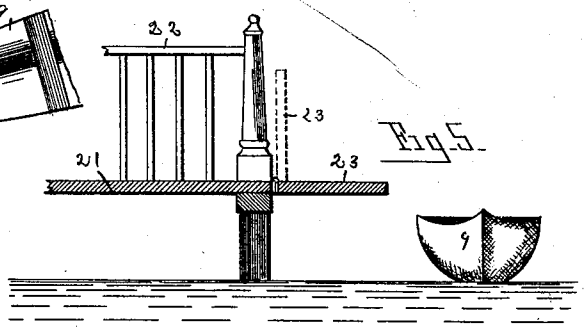


Fig. 5.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JULIA A. CRISS, OF AKRON, OHIO.

MARINE ROUNDABOUT.

SPECIFICATION forming part of Letters Patent No. 484,409, dated October 18, 1892.

Application filed April 9, 1892. Serial No. 428,541. (No model.)

To all whom it may concern:

Be it known that I, JULIA A. CRISS, of Akron, county of Summit, and State of Ohio, have invented certain new and useful Improvements in a Marine Roundabout; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

My invention relates to a marine roundabout, and has especial relation to an apparatus for pleasure-riding.

The object of the invention is to produce a roundabout in which the conveyances for the passengers shall be in the form of boats and supported upon the water, with provision whereby there shall be allowed a free motion analogous to the motion of a boat subjected to the motion of the waves and rollers as the boats are moved in the water, and with an absolute provision to prevent tipping.

A further object is to provide against a sudden jerk to the boats when starting by providing resilient buffers for the arms to which the boats are attached.

A further object is to provide a clutch mechanism upon the driving-shaft and a brake mechanism coacting with the clutch, whereby the power may be cut off and the brake applied by one operation in stopping the revolution of the boats.

A further object is to provide a platform to allow of entering the boats, with a vertically-foldable section to act as a gate when the boats are loaded to prevent patrons from accidentally stepping off the platform into the water.

The invention consists in the parts and combination of parts hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a plan view of the entire apparatus. Fig. 2 is a longitudinal vertical sectional view of the same, omitting the foldable platform. Fig. 3 is a sectional detail plan view showing the arms and the buffers for receiving the impact of a sudden jerk by the power mechanism. Fig. 4 is a detail plan view of a section of arm with the chains connected therewith and with the prow and stern of two boats. Fig. 5 is a vertical section of the platform, showing the railing at the side and the foldable part lowered in full lines and folded or raised in dotted lines.

In constructing an apparatus of this character the pleasure of riding is measured by the degree of imitation given to the motion of the boat propelled in the ordinary way. I have therefore provided a fastening for the boats that will allow of an undulatory as well as lateral movement in exact imitation of the motion of the boat propelled in the water. It is also necessary to guard against sudden jerks to the boats in starting, as well as to provide for checking the momentum in stopping, without inconvenience to the passengers, which I have accomplished by a system of gearing from the engine, whereby the clutch and brake may be simultaneously operated. I have also provided a foldable section of platform, which when extended reaches within convenient proximity to two or more of the boats and when folded insures safety from being precipitated into the water.

1 designates a foundation of sufficient solidity to sustain all the parts, from which extends a vertical standard 2, to which may be attached guys or framing to support the arms, if desired. This being a matter of minor detail needs no further illustration.

Upon the top of the foundation is secured an annular rack-bar 3, and above the same is erected a platform 4, of circular form, having a plurality of radial arms 5, secured at their inner ends in recesses 6, formed in a plate 7, secured upon the under side of the platform and midway the length of the arms in stops 8, secured to the platform, there being preferably resilient buffers 8′ upon each side of the arms to receive any sudden jerk and cushion the impact. The buffers 8′, which may be of any preferred material, such as rubber or coiled springs, bear against each side of the arms 5 and against the plates, so as to take up the jar on either side of the said arms.

To the outer ends of arms 5 are secured a plurality of boats 9 in the following manner: A chain, cable, or rope 10 is secured to a hanger 11, secured to the inner side of the

forward end of the boat. The chain is then secured upon the top side of an arm 5 at the outer end and the opposite end of the chain is secured to hanger 12 upon the stern of the next preceding boat, there being a chain 13 secured at one end to a hanger 11 upon the outer side of the front end of the boat, and from crossing below chain 10 is secured an arm 5, some distance from the end and upon the under side, and from thence across and beneath chain 10 and secured to a hanger 12 upon the outside of the stern of the next succeeding boat, this arrangement being carried out until all the boats are secured. It will be seen that by crossing the chains I positively guard against the boats tipping too far, and that by securing the chain attached to the inner sides of the boats higher (or upon the top of the arm) than the chains secured to the outer sides I cause a draft upon the boats higher upon the inner side than the outer, thereby overcoming the inclination of the boats due to centrifugal movement.

12′ designates an upright engine mounted upon the platform and communicating power to a shaft 13, upon which is a gear 14, meshing with a gear 15 upon shaft 16, having a pinion 17, which meshes with the annular rack-bar 3, whereby power transmitted from the engine to the shaft 13 is communicated to pinion 17, which, meshing with the rack-bar, revolves the platform, arms, and consequently the boats.

In order to cut off the power from the engine to the gear 14 when it is desired to stop the revolution of the platform and boats, there is a clutch 18 on shaft 13, and to check the momentum of the platform a brake 19 is connected with the clutch-lever, so that a movement to unclutch the power forces the brake-beam and brake to bear upon the top of the foundation, as shown, or it may bear upon the inner side of the annular rack-bar support 20, and as a consequence control the movement of the platform.

As the clutch and the clutch-lever may be of any of the well-known or preferred constructions, a detailed description of them is deemed unnecessary.

21 designates the wharf leading to the roundabout, having a railing 22 upon the sides and hinged sections 23, which when extended horizontally reach to within a convenient distance of the boats to allow the passengers to step into or out of the same, and when raised or folded at an angle of ninety degrees to the wharf act as a gate or barrier to prevent passengers from being precipitated into the water, a feature of great value, as the roundabout is calculated to attract the children who might otherwise carelessly approach too near the edge and be crowded off the wharf into the water.

From the foregoing it will be seen that I have provided a positive power for the propulsion of the boats with convenient means for checking their momentum, and also that all danger of tipping of the boats is avoided, and at the same time provision is made for a natural movement of the boats, whereby the safety and pleasure of the ride is insured.

It will be seen that I may substitute for the gear 14 and 15 an ordinary speed-gear, by which to vary the speed of travel of the boats at will. This modification being so obvious needs no illustration.

What I claim is—

1. In a roundabout, a foundation having an annular rack-bar, a revoluble platform, a power mechanism supported thereon, a train of gearing driven by the power, one of the gears meshing with the rack-bar, a clutch-and-brake mechanism for cutting off the power and frictionally stopping the revolution of the platform, radial arms upon the platform, and boats secured to the arms by crossed flexible connections.

2. In a roundabout, a foundation, a platform supported thereon, mechanism for revolving the platform, radial arms secured to the platform, having resilient buffers interposed between the arms and the fastenings upon the platform, and boats secured to the arms.

3. In a roundabout, a foundation, a platform supported thereon, a power mechanism upon the platform for revolving the same, radial arms secured to the platform, boats secured to the arms by a flexible connection attached at one end to the inner sides of two boats, the center portion of the flexible connection being attached to the outer end of an arm, and a flexible connection connected to the outer sides of the two boats and secured at the center upon the arms a distance from the end.

4. In a roundabout, a foundation, a platform supported thereon, radial arms secured to the platform, boats secured to the arms, a wharf, foldable sections hinged thereto of an area to extend horizontally to within close proximity to a portion of the boats and when folded at right angles to the wharf to prevent entrance to the boats, and mechanism upon the platform for revolving the same.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

JULIA A. CRISS.

Witnesses:
WILLIAM WEBSTER,
CARROLL J. WEBSTER.