I. CORNELIUSSEN.

AMUSEMENT DEVICE.

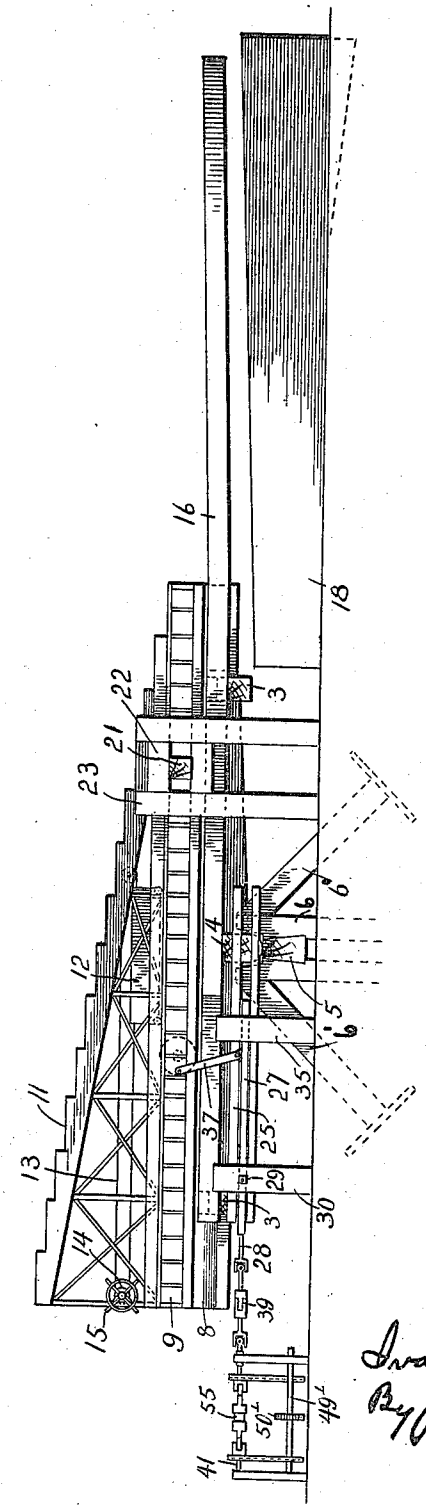
APPLICATION FILED NOV. 23, 1910.

987,859.

Patented Mar. 28, 1911.

5 SHEETS—SHEET 1.

FIG. 1.



WITNESSES:

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5 SHEETS—SHEET 2.

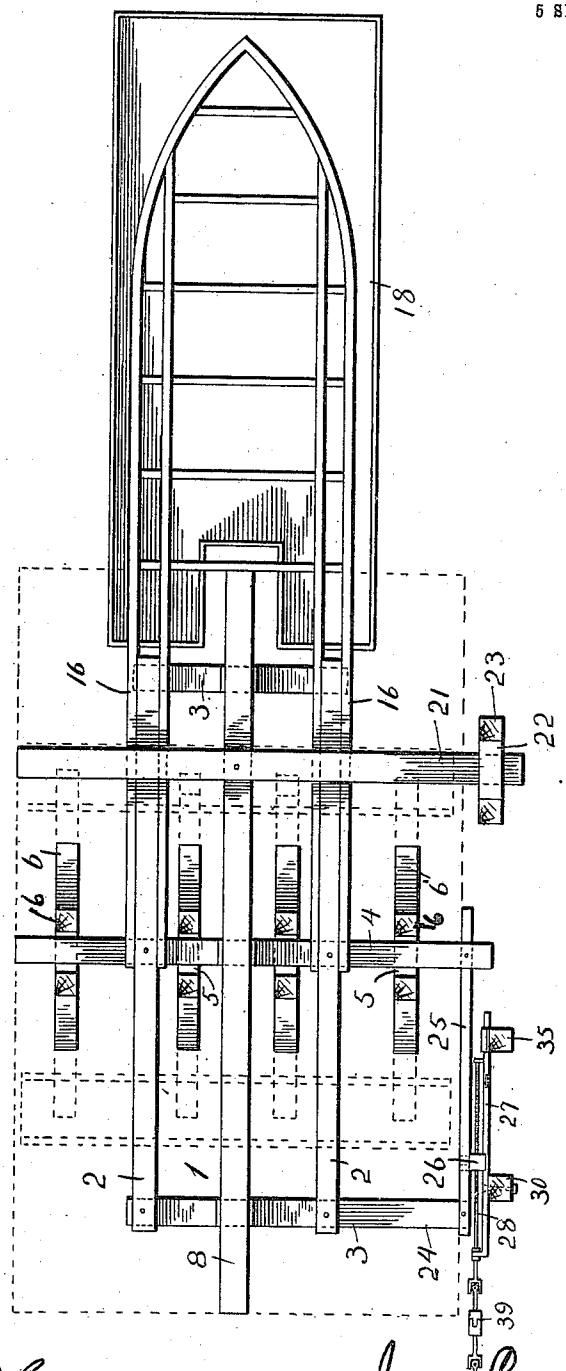

FIG. 2.

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5 SHEETS—SHEET 3.

FIG. 3.

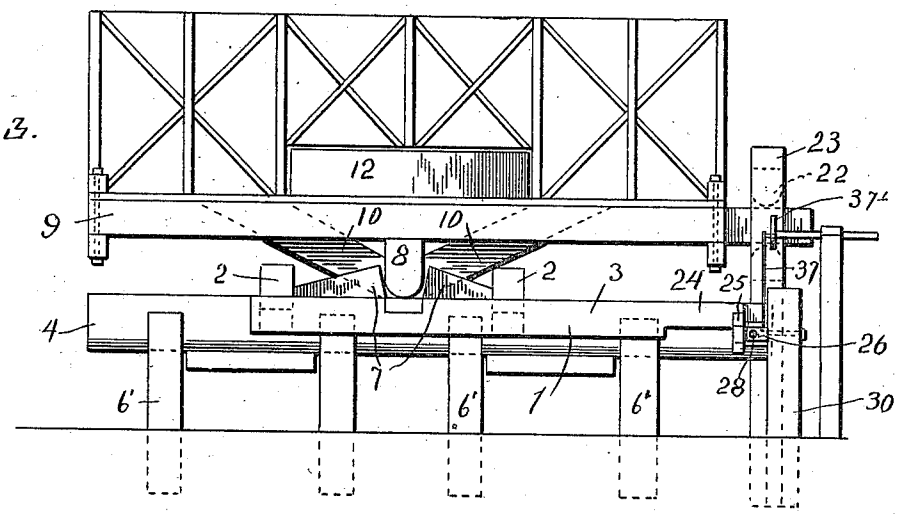


FIG. 4.

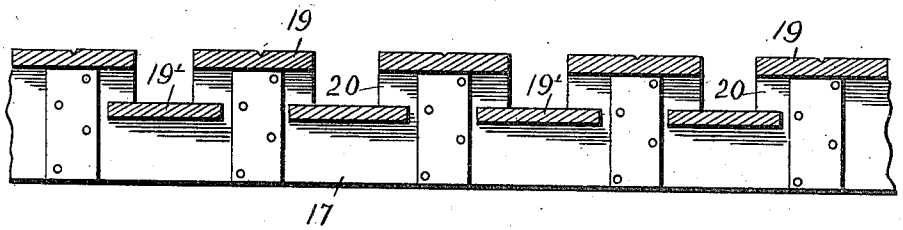
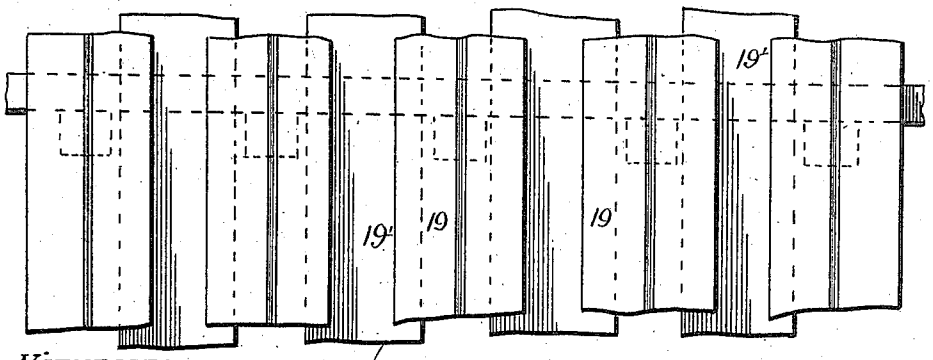


FIG. 5.



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5 SHEETS—SHEET 4.

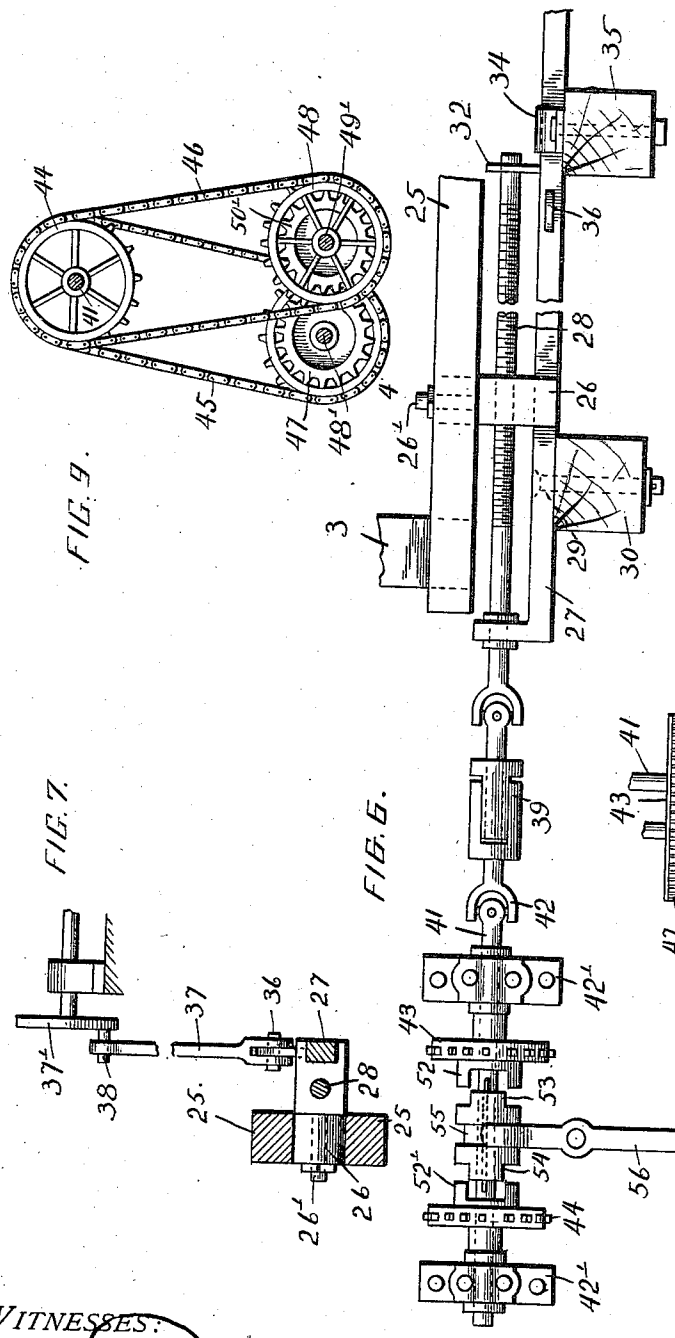

FIG. 9.

FIG. 7.

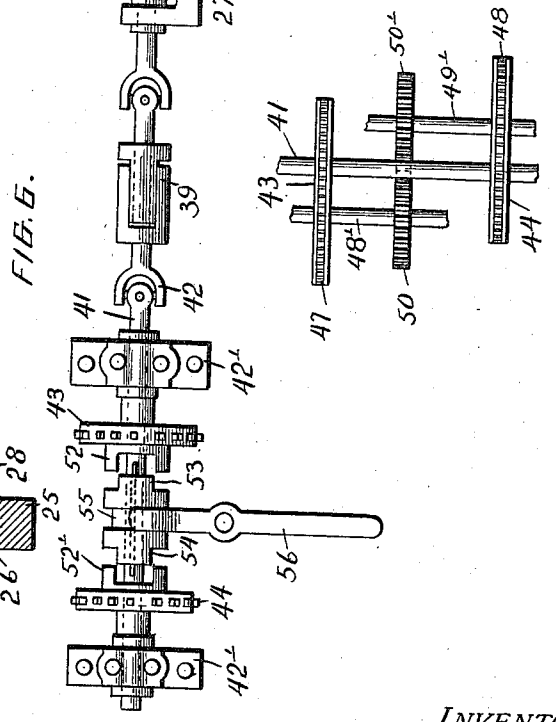

FIG. 8.

FIG. 6.

WITNESSES:

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5 SHEETS—SHEET 5.

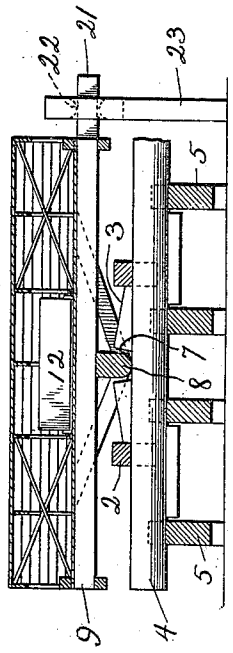

FIG. 11.

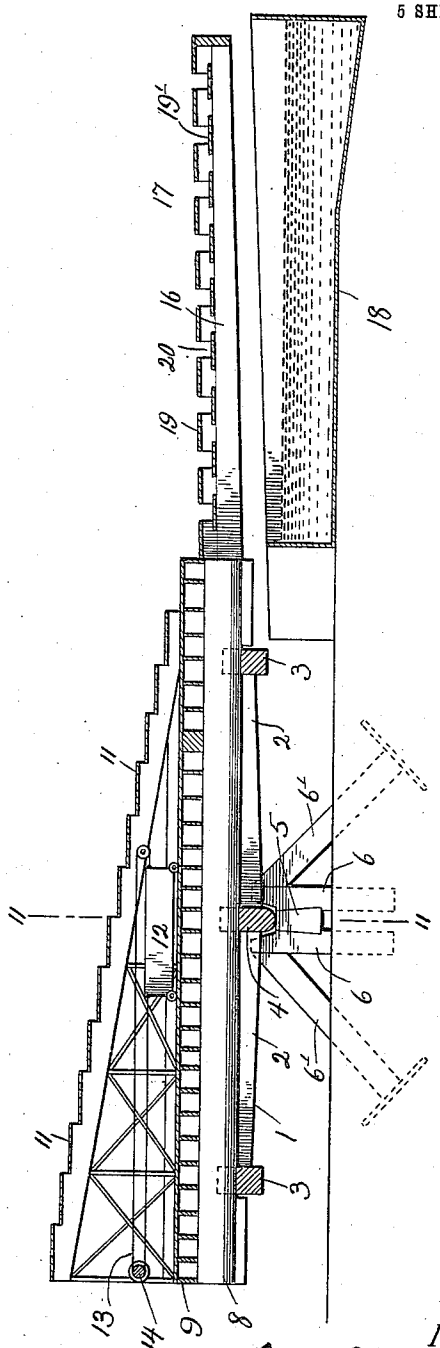

FIG. 10.

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UNITED STATES PATENT OFFICE.

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AMUSEMENT DEVICE.

987,859. Specification of Letters Patent. Patented Mar. 28, 1911.

Application filed November 23, 1910. Serial No. 593,841.

To all whom it may concern:

Be it known that I, IVAR CORNELIUSSEN, a citizen of the United States, residing at Galveston, in the county of Galveston and State of Texas, have invented new and useful Improvements in Amusement Devices, of which the following is a specification.

My invention relates to amusement devices, and pertains more particularly to structures which simulate the appearance and motion of a floating ship under way.

The object of my invention is to produce a structure of said character in resemblance of the shape and appearance of a portion of a ship, which is loosely mounted upon longitudinal and transverse bearings upon which same is adapted to be rocked simultaneously in imitation of the motion of a ship at sea.

A further object thereof is to provide a water tank in which the forward or bow portion of my structure is loosely carried and adapted to be rocked.

Another object of my invention is to provide an adjustable ballast upon the frame which may be conveniently shifted in position to compensate for the location of the passengers thereon.

A still further object is to provide means for imparting a rocking and pitching motion to such structure, and for regulating and controlling the degree of such motion, and for other purposes to be hereinafter described and set forth.

To these ends, my invention includes the combination and arrangement of component parts to be hereinafter described and more particularly pointed out in the claims.

In the accompanying drawings, in which like reference characters indicate similar parts, Figure 1 is a side elevation of my invention; Fig. 2 is a plan view of the frame thereof with the deck and superstructure removed; Fig. 3 is a rear elevation; Fig. 4 is a sectional view of the plank end of the deck; Fig. 5 is a plan view of the same; Fig. 6 is a plan view of the lever for rocking the structure and means for adjusting the thrust thereof; Fig. 7 is a transverse sectional view of said lever and adjusting means; Fig. 8 is a plan view and Fig. 9 is a side view of the driving wheels and gearing by which the adjustment of said lever is accomplished; Fig. 10 is a longitudinal sectional view taken on the line 10—10 of Fig. 2; Fig. 11 is a transverse sectional view taken on the line 11—11 of Fig. 10.

My invention includes, generally, a rectangular frame of heavy timbers mounted on a transverse rocker shaft, a longitudinal rocker shaft suitably mounted on said frame, a frame and platform for passengers constructed on said longitudinal shaft, a weighted ballast adjustably carried on said superstructure, a driving mechanism for imparting a pitching motion to said transverse pivoted frame, a transverse bar carried on said superstructure anchored at one end adapted to tilt said superstructure laterally on its longitudinal bearings as it rocks on the transverse bearings to simulate the rolling motion of a ship, a lever for rocking said structures having a longitudinally adjustable connection therewith whereby the thrust is regulated and the degree of rocking motion of the main and superstructures thus controlled, a water tank in which the forward part of the structure is carried, and many details of such parts whereby the purposes and objects of my invention are attained.

Referring now to the drawings, 1 indicates a rectangular frame comprising the longitudinal members 2 and transverse members 3, which is mounted medial of its longitudinal members on the transverse rocker shaft 4. Said rocker shaft is mounted on two or more suitable bearings 5 suitably supported between piles 6 firmly anchored in the ground and braced against displacement by ties 6′. Each of the transverse members 3 of the frame 1, intermediate of its ends, is provided with a bearing socket 7 in which the longitudinal rocking shaft 8 is mounted, said bearings being flared or wider at their mouth than at the base to accommodate the motion of the shaft, and are also suitably braced and reinforced to prevent displacement. Upon said longitudinal shaft 8, the deck or platform 9 is erected and suitably supported by truss beams 10, and upon such platform the seats 11 for passengers are mounted.

As shown in Figs. 1 and 3 of the drawings, an adjustable ballast box 12 mounted on suitable wheels and containing sand or

other heavy substances is carried on the platform 9, and is adapted to be shifted longitudinally thereon by means of the cable 13 attached at each end thereto and passed over the drum 14 which is operated by the wheel 15 to move the ballast forward or back to trim the balance of the platform. Said ballast box is held against lateral displacement by guides.

Forward of the passenger platform 9 and secured upon the rocking frame 1 by longitudinal beams 16, I provide an auxiliary deck or platform 17, in resemblance of the deck of a ship, which is carried in a tank 18 adapted to contain water through which it rocks and rolls while in motion. The flooring of said extension deck is laid of longitudinal strips 19 overlapping on a higher plane similar strips 19′, having an open space 20 between, through which the water in the tank may wash, which construction is more clearly shown in Figs. 4 and 5 of the drawings.

Suitable means are provided and hereinafter described for rocking the frame 1 on the transverse shaft 4, which would impart a pitching motion thereto, and I also provide a transverse bar 21 secured upon the upper platform 9 forward of the transverse rocker shaft 4, one end of which is elongated and projects beyond the side of the frame and is loosely confined between stays 22 secured between posts or piles 23 securely anchored, which will cause the upper platform 9 to dip to one side as the frame 1 rocks upon its transverse bearings.

Having thus described the main frame and superstructure of my device and the manner in which the former is pivotally mounted on its transverse bearings, and the latter is pivotally mounted on longitudinal bearings on said main structure, I will now proceed to describe the means by which said structures may be rocked upon their bearings and the degree of such motion controlled.

A laterally projecting extension or arm 24 is secured upon the rear transverse member 3 of the main frame 1 which is connected with the transverse rocker shaft 4 by the longitudinal bifurcated bar 25 on which the sliding block 26 is carried and secured by the pin 26′, the outer end of said block being slidably secured to the lever 27. Intermediate of said rod 25 and lever 27, the block is pierced longitudinally and interiorly screw-threaded to receive the screw threaded shaft 28 hereinafter described. The lever 27 is pivotally fulcrumed at 29 on the rigid standard 30, and at one end is provided with the angle head 31 and on the opposite side of the pivot therefrom is provided with an ear 32 both of which are pierced longitudinally to provide bearings for the screw-shaft 28, and between which the block 26 is adapted to travel. Adjacent to the opposite or free end of the lever, it is secured against lateral displacement by the guide 34 mounted on the standard 35. The lever 27, adjacent to its free end, is connected at 36 by the pitman 37 with the driving wheel 37′ to which it is eccentrically attached at 38 and by the rotation of which is imparted an oscillating action to the lever which is transmitted to the frame 1 of the ship structure through the block 26 and the bifurcated bar 25 secured thereon, and it will be appreciated that the degree of motion imparted to the frame will be regulated by the longitudinal adjustment of the block 26 on the lever, and that the motion to the frame 1 is avoided when the block is brought into alinement with the fulcrum of the lever.

As before mentioned, the block 26 may be adjusted longitudinally upon the lever by turning the screw threaded shaft 28, before mentioned, and I will now proceed to describe the mechanism by which said shaft is turned in either direction. At the inner end of the shaft, it is attached to the slip joint 39 by the double knuckle joint 40, and on the opposite end, the slip joint is connected with the shaft 41 by the similar knuckle joint 42. The shaft 41 is mounted on journal boxes 42′, between which are loosely mounted on said shaft the sprocket wheels 43 and 44 which are driven in opposite directions by the chains 45 and 46 which are oppositely driven by sprocket wheels 47 and 48 driven by the shafts 48′ and 49′, on which the gear wheels 50 and 50′ are rigidly mounted on the opposite sides of the shaft 51, thus being driven in opposite directions. The sprocket wheels 43 and 44 mounted on the shaft 41 are provided with oppositely arranged clutch members 52 and 52′ adapted to engage coöperating clutch members 53 and 54 on the opposite ends of the slidable sleeve 55 splined on the shaft 41 intermediate of the loosely mounted sprocket wheels, and said sleeve is adapted to be shifted longitudinally on the shaft to alternately engage the oppositely turning sprocket wheels 43 and 44 by the lever 56, and the screw shaft 28 thus turned in opposite directions. By such action, the block 26 may be shifted longitudinally on the lever 27, and the radius of tilting or rocking of the frame 1 regulated from inaction when the block is adjacent to the fulcrum to that imparted by the outer portion of the oscillating lever.

A screen 58 may be stretched in front of the ship structure upon which moving pictures of the ocean may be displayed.

It will be apparent from the foregoing description and by reference to the accompanying drawings that the oscillation of the lever will impart a graduated rocking motion to the main frame 1 of my ship structure on its transverse bearings, that the superstructure will be rocked transversely on its longitudinal bearings mounted on said main frame, that the even balance of the structure may be adjusted by the movable ballast box, that the forward deck structure carried on the main frame and extending into a tank of water will simulate the appearance of a ship afloat, that the means for rocking said frame may be regulated by the longitudinal adjustment of the block connecting the lever and the frame, and it will be appreciated that the parts and combinations comprising my invention may be varied within a wide range from the specific exemplification shown without departing from the spirit and scope thereof.

Having thus described my invention, what I claim as new and desire to be secured by Letters Patent, is—

1. The combination with a rocking frame mounted on transverse bearings, of a superstructure longitudinally pivoted on said rocking frame, means for rocking said frame on its transverse bearings, and means for anchoring one side of said superstructure to laterally roll same on its longitudinal pivot when rocking with said frame, substantially as described.

2. The combination with a rocking frame mounted on transverse bearings, of a superstructure pivotally mounted on longitudinal bearings carried on said frame, and a longitudinally adjustable weighted ballast carried on said superstructure adapted to trim the balance of said frame on its bearings, substantially as described.

3. The combination with a rocking frame mounted on transverse bearings, of a superstructure longitudinally pivoted on said rocking frame, means for rocking said frame on its transverse bearings, and a projecting arm on said superstructure loosely held in a rigid keeper adapted to laterally roll same on its longitudinal pivot when rocking with said frame, substantially as described.

4. The combination with a rocking frame mounted on transverse bearings, of an elongated platform carried thereon, and a water tank beneath said platform in which same is adapted to oscillate, substantially as described.

5. The combination with a rocking frame mounted on transverse bearings, of an elongated platform constructed of open flooring carried thereon, and means adapted to rock said frame and oscillate the platform in the tank, substantially as described.

6. The combination with a longitudinal frame pivotally mounted on transverse bearings, of a pivoted lever adapted to rock said frame, and an adjustable coupling between said frame and lever by which the degree of motion imparted to the frame is regulated, substantially as described.

7. The combination with a longitudinal frame pivotally mounted on transverse bearings, of a pivoted lever adapted to rock said frame, a longitudinally adjustable coupling between the frame and lever, means for adjusting the position of said coupling, and means for oscillating said lever, substantially as described.

8. The combination with a longitudinal frame pivotally mounted on transverse bearings, of a pivoted lever adapted to rock said frame, a coupling block slidably attached to said frame and lever, and a screw threaded shaft longitudinally piercing said coupling block, means for revolving said shaft to shift the position of said block, and means for oscillating said lever, substantially as described.

9. The combination with a longitudinal frame pivotally mounted on transverse bearings, of a pivoted lever adapted to rock said frame, a coupling block slidably carried on said frame and lever, a longitudinal screw-threaded shaft mounted on said lever and engaging threads on said block, a flexible shaft connected with said screw threaded shaft having oppositely turning driven wheels loosely carried thereon provided with oppositely arranged clutch members, a longitudinally adjustable clutch rigidly carried on said shaft between the wheels, means for shifting said clutch into alternate engagement with said wheels to revolve the shaft in opposite directions, and means for driving said wheels, substantially as described.

10. The combination with a longitudinal frame pivotally mounted on a transverse bearing shaft, of a superstructure pivotally mounted on longitudinal bearings carried on said frame, a bifurcated longitudinal bar secured on said frame between one end thereof and its transverse bearing shaft, a pivoted lever adapted to rock said frame, a coupling block slidably carried on said lever and longitudinal bar, a longitudinal screw-threaded shaft mounted on said lever and engaging threads on said coupling block, an inflexible shaft connected with said screw-threaded shaft by an intermediate flexible shaft, oppositely driven sprocket wheels loosely mounted on said inflexible shaft having oppositely arranged clutch members, a longitudinally adjustable clutch rigidly

carried on said inflexible shaft between said wheels, means for shifting said clutch into alternate engagement with said wheels to revolve the shaft in opposite directions, and a driving shaft having sprocket wheels oppositely geared therewith, and chains connecting said sprocket wheels with the first mentioned sprocket wheels on the driven shaft, substantially as described.

IVAR CORNELIUSSEN.

Witnesses:
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GEO. H. WIENGES.