H. A. MYERS.

AMUSEMENT DEVICE.

APPLICATION FILED AUG. 9, 1915.

1,198,749.

Patented Sept. 19, 1916.

2 SHEETS—SHEET 1.

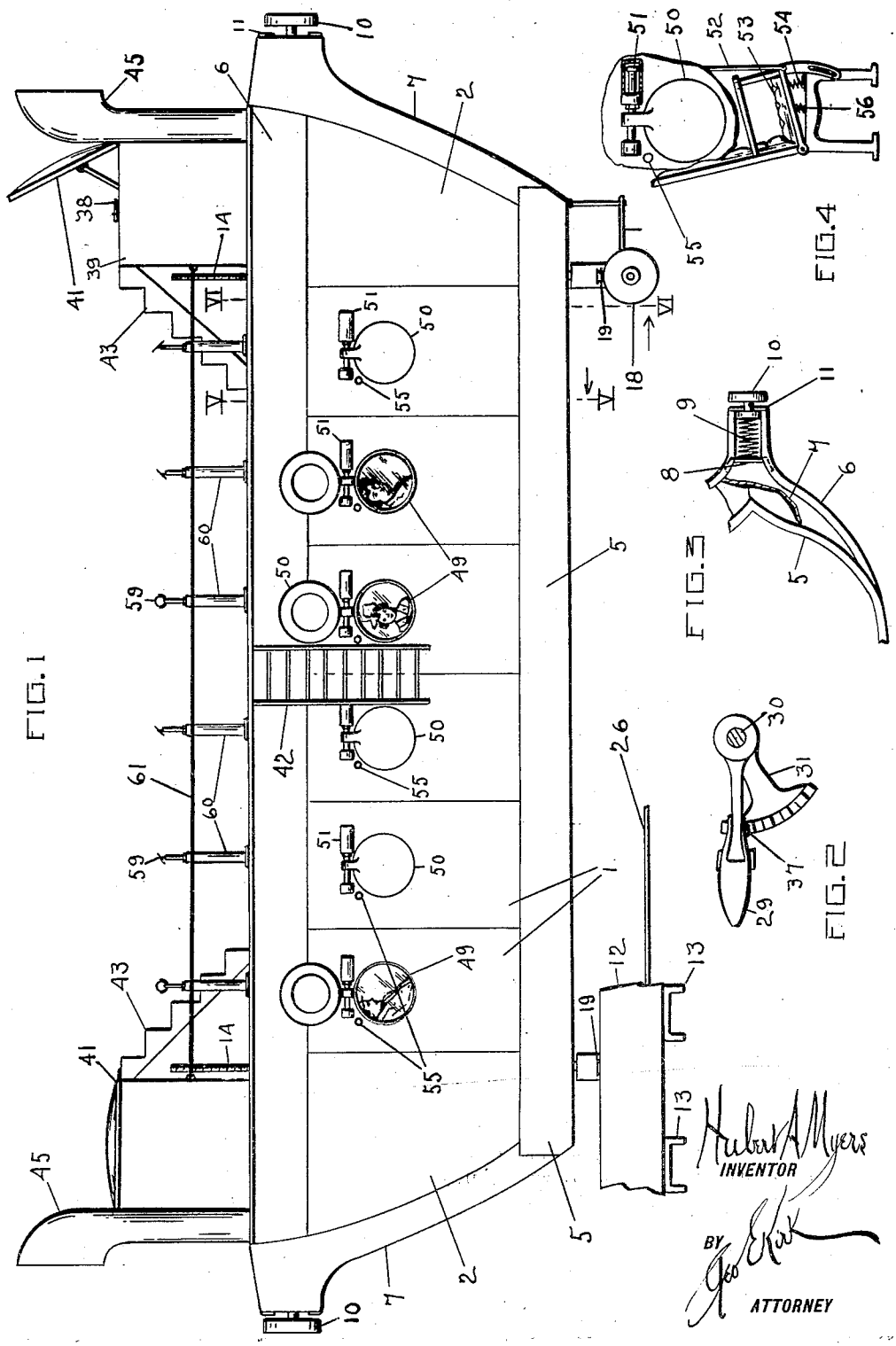

FIG. 1

FIG. 4

FIG. 3

FIG. 2

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2 SHEETS—SHEET 2.

FIG. 5

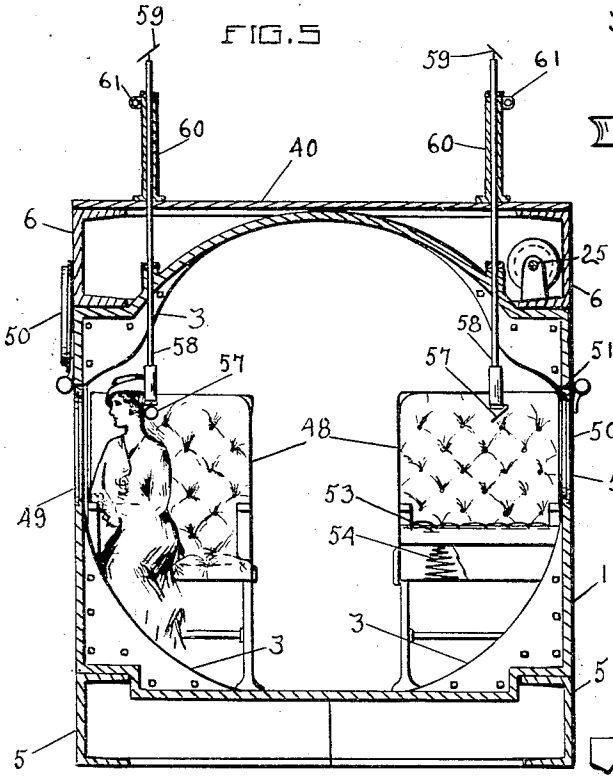


FIG. 7

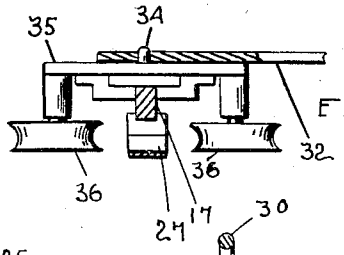


FIG. 8

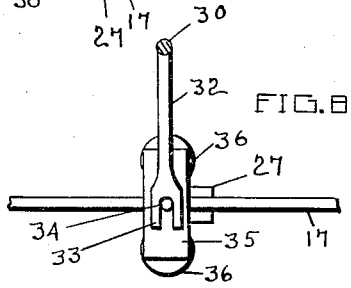


FIG. 9

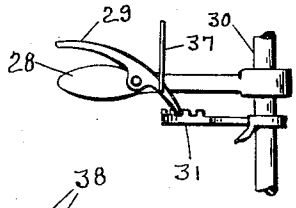


FIG. 10

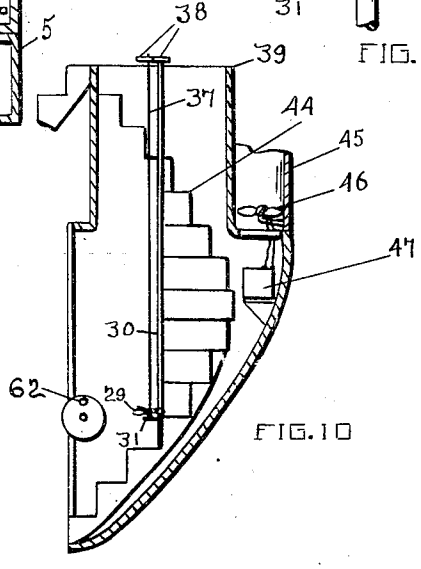
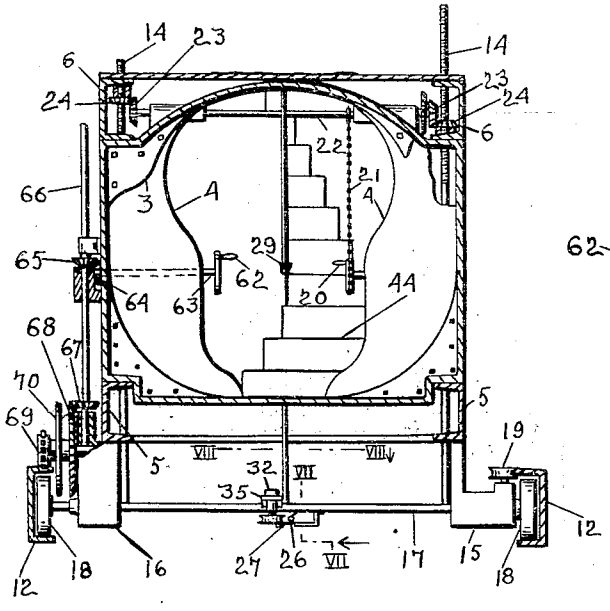


FIG. 6



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UNITED STATES PATENT OFFICE.

HUBERT A. MYERS, OF TOLEDO, OHIO.

AMUSEMENT DEVICE.

1,198,749. Specification of Letters Patent. Patented Sept. 19, 1916.

Application filed August 9, 1915. Serial No. 44,435.

To all whom it may concern:

Be it known that I, HUBERT A. MYERS, a citizen of the United States of America, residing at Toledo, Lucas county, Ohio, have invented new and useful Amusement Devices, of which the following is a specification.

This invention relates to a housing device and the transporting thereof.

This invention has utility when incorporated in an entertainment or amusement device, say for sub-aqueous travel and observation.

Referring to the drawings: Figure 1 is a side elevation of an embodiment of the invention in a submarine boat or chamber amusement device; Fig. 2 is a detail view of the drive control handle in plan; Fig. 3 is a fragmentary plan view of the end frame housing for the chamber sections; Fig. 4 is a view of one of the seats with its sight opening and closure control connections; Fig. 5 is a section on the line V—V, Fig. 1, looking in the direction of the arrow; Fig. 6 is a section on the line VI—VI, Fig. 1, looking in the direction of the arrow; Fig. 7 is a section on the line VII—VII, Fig. 6, looking in the direction of the arrow; Fig. 8 is a section on the line VIII—VIII, Fig. 6, looking in the direction of the arrow; Fig. 9 is a side elevation of the control handle of Fig. 2; and Fig. 10 is a central vertical section through a terminal section of the chamber.

The submersible chamber comprises the intermediate transverse sections 1 similar to each other and the terminal sections 2, which are also similar and may be connected to the desired number of intermediate sections in assembling an amusement submarine of the elected capacity. These sections may be stiffened by the webbings 3, 4, through which bolts may extend in drawing the packed joints of the sections together for a structure sufficiently tight to exclude water.

In the event the sections are of cast metal, longitudinal rigidity may be given thereto by the channels 5, 6, seating in the assembled sections and shaped thereabout with the additional terminal stiffening therebetween of the pointed nose boiler plate members 7, thus giving a complete protective wrought metal nesting for the cast sectional chamber. Between the narrowed portions of the channels 6, plate 8, Fig. 3, may hold the compression spring 9 to thrust the bumper head 10 against the retaining lips 11. Accordingly in any travel of the chamber on the tracks 12 anchored by the ties 13, should there be concussion between cars or chambers and other objects, such blows are directly received and taken up in the wrought metal nesting, thereby saving the chamber proper from possible rupture.

The chamber or car is anchored or sustained by the rods 14 having screw thread engagement with the channels 6, the lower portions thereof being rectangular or polygonal to key these rods against rotation as to the chamber and terminal sections 2 thereof through which they extend. The lower ends of these rods 14 carry the bearing blocks 15, 16, through which the square axle 17 extends to carry the traction wheels 18 loose thereon and free to travel in the channel tracks 12 with slight freedom, allowing the chamber a slight yielding motion. Guide rollers 19 preclude any binding action occurring between the wheels and track. For raising and lowering the chamber as to the track, say for varying the submergence at landing or adjusting to tide or water level conditions, the hand wheel 20, through the sprocket chain 21 may rotate the shaft 22, pinions 23 in mesh with the gears 24 threaded on the rods 14, to give the rods longitudinal travel as to the chamber. The longitudinal shaft 25 has driving connection between the end shafts 22 for uniform action of all the rods 14.

In normal travel of the chamber, the driving means or traveling cable 26 in its taut pulling will have pinch engagement in the jaws 27 fast with the axle 17. For interrupting travel of the chamber as effected through the cable 26, the handle 28, with its lever 29 may be gripped, thus freeing the rod 30 from locked engagement with the sector 31, so that the rod 30 with its arm 32 may be shifted to have the fork 33 move the pin 34 to slide the block 35 and rollers 36 against the cable 26 to crowd the cable

26 out of the jaws 27 so that no driving action is transmitted from the cable 26 to the chamber. The rod 37 from the lever 29 may extend upward to the arm 38 to permit shifting of this cable 26 from the top of the entrance hatchway 39 within reaching distance of the deck 40. The hatches or top openings in the terminal sections 2 may be closed by the doors 41.

Extrance to the vessel may be by the stairway 42 up the side from a dock or mooring place, to the deck 40, thence via steps 43 to the top of the opening 39, descent in which may be had by a spiral stairway 44 about the drive control shaft 30.

For effective air circulation, the terminal funnels 45 may be provided normally extending to protrude above the water, even with the chamber submerged. Circulation may be aided by placing fans 46 driven by the batteries 47 in the funnels 45.

For the accommodation of amusement seekers, the chamber sections 1 may have seats 48. Adjacent each seat 48 may be provided a port hole or sight opening 49 having a closure 50 rigidly connected to which is an arm 51 extending within the chamber and having connection through link 52 with the movable or hinged seat bottom 53. When a seat 48 is unoccupied, a spring 54 below the bottom thereof urges the bottom 53 upward to close the transparency containing sight opening or window 49 by swinging the closure 50 in position thereover. In the emergency of a window breaking, the first action of the observer would be to flee, and the closure 50 at once acts to cure the leakage.

In addition to the lateral sight openings for observers to witness under water life and conditions as illuminated by the search lights 55 turned on by the switches 56 or occupied seats, there may be above water observation through the series of periscopes, disposed one for each seat and comprising the reflectors or mirrors 57 swiveled on the upwardly extending tubes 58 directing light rays from the upper reflectors or mirrors 59 to the lower mirrors 57. The tubes 58 may be adjusted vertically by forcing up and down in their packed mountings, and may be rotated to variously direct the upper mirrors 59, thereby permitting adjustment by an observer to many positions. Posts 60 on the deck 40, may carry the guide or side rails 61 surrounding the deck.

The amusement device may be readily handled by a single conductor who may also be instructor as to the sights to be viewed. The progress of travel of the chamber is easily controlled by clutching or releasing the cable 26. The auxiliary propelling device for emergency operation may be operated from the hand wheel 62, when power means are not provided. Hand wheel 62, through the shaft 63 and pinion 64 rotates the pinion 65 on the square shaft 66, which shaft 66 may slide through this gear or pinion 65. Fast on the shaft 66 is the pinion 67 in mesh with the gear 68 having fast therewith the pin carrying wheel 69 in mesh with the openings in the top flange of the track 12, whereby a second positive driving means for the chamber is provided. To preclude binding of the device as to the track 12, the loose disk 70 corresponds in function with the guide rollers 19.

The device is positively maintained in its position, even during submergence, and the extent of submergence may be positively varied by the hand wheel 20. Accordingly the device may normally float or normally sink and still be safely operable herein. The funnels maintain air circulation and outside communication at all times. The port holes or lateral observation windows have self acting insurance against any flooding of the chamber.

What is claimed and it is desired to secure by Letters Patent is:

1. A submersible vessel having a passenger carrying region comprising similar annular sections, an anchoring device for the vessel, and rigid means for moving the vessel into submerged position toward the anchoring device.

2. A submersible vessel, a track therefor, and means operable from the vessel for adjusting the vessel toward and from the track.

3. A submersible amusement chamber, alternative driving means therefor, and a controller for connecting and disconnecting the chamber from one of the driving means.

4. A submersible amusement chamber and a plurality of independent positive driving means for the chamber.

5. A submersible amusement closed bottom chamber and submerged positive lifting means for the chamber independently of the longitudinal travel of the chamber.

6. A submersible chamber provided with an upwardly extending exit opening, the ceiling of said chamber extending to communicate with said opening, a deck forming an exterior platform adjacent the opening, and a fixed chamber anchoring and directing way.

7. A controllable submersible amusement device comprising a chamber, a directing way therefor, means for determining the position of the chamber as to the way, normal driving means for the chamber, emergency driving means for the chamber, observer's seats in the chamber, lateral and periscopic view openings for the observers,

and connections for the seats to the respective lateral openings for closing said openings when the observer leaves the seat.

8. A closed bottom submersible vessel, positive position determining means for maintaining the vessel location, and an adjusting device for the vessel as to the means.

9. A closed bottom submersible chamber, positive actuating and submergence fixing means therefor, and an adjusting device for the vessel as to the means.

In witness whereof I affix my signature.

HUBERT A. MYERS.