W. H. WILLIAMS.

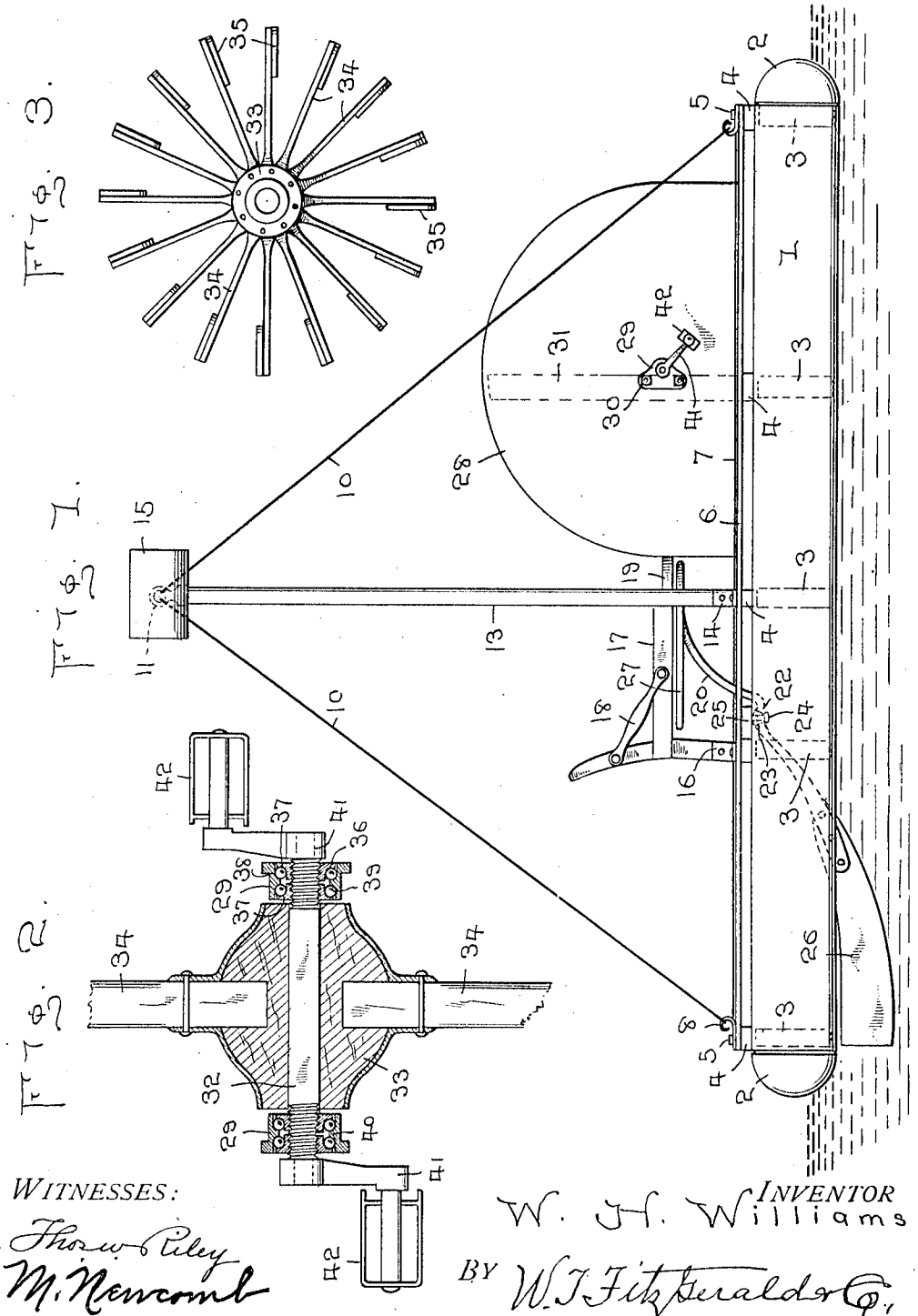
BOAT.

APPLICATION FILED JAN. 30, 1912.

1,026,336.

Patented May 14, 1912.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 4.

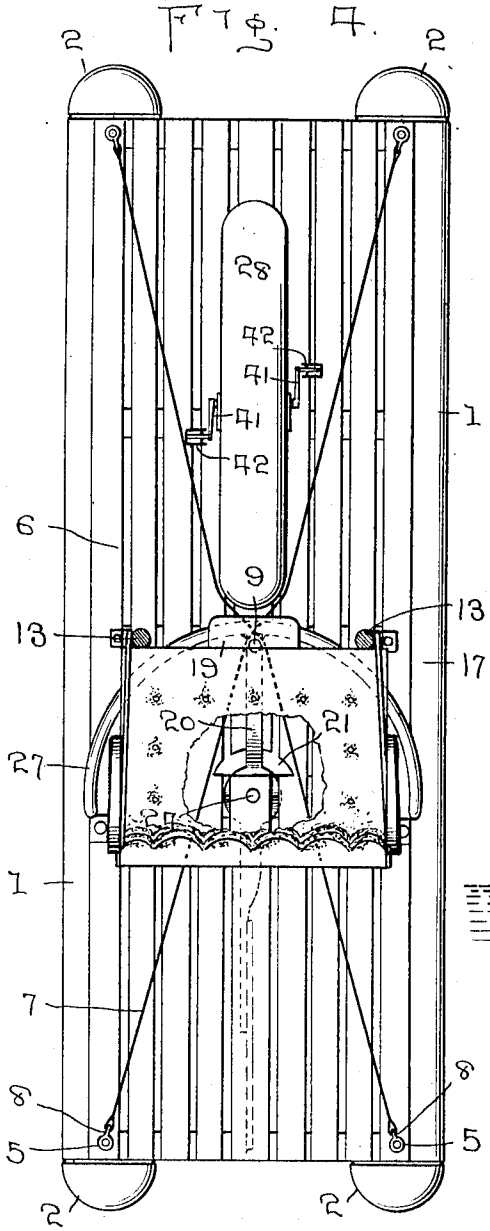
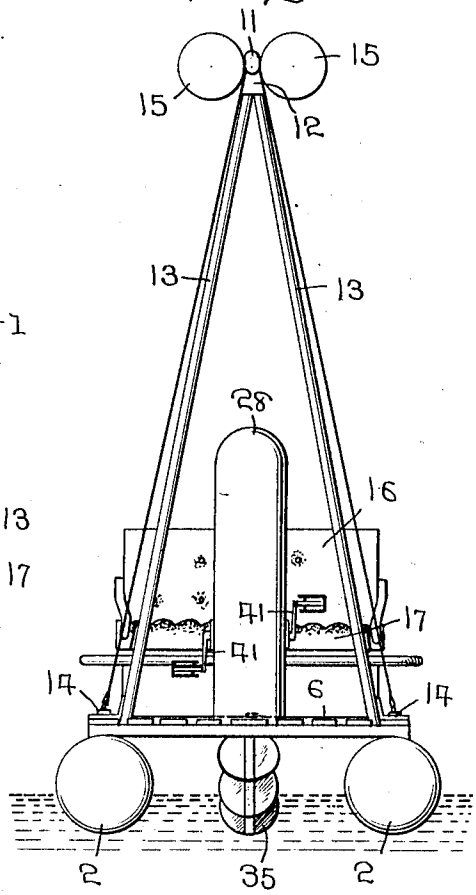


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM H. WILLIAMS, OF STATESBORO, GEORGIA.

BOAT.

1,026,336. Specification of Letters Patent. Patented May 14, 1912.

Application filed January 30, 1912. Serial No. 674,310.

To all whom it may concern:

Be it known that I, WILLIAM H. WILLIAMS, a citizen of the United States, residing at Statesboro, in the county of Bulloch and State of Georgia, have invented certain new and useful Improvements in Boats; and I do hereby 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 boats and more particularly to that class of boats having paddle wheels operated by pedals.

An object of this invention is to provide a boat of the above stated character which will be light in construction and easy to operate.

Another object is to construct a boat of the above stated character having parallel buoys along each side to steady the boat and prevent capsizing of the same.

Another object is to construct a boat of this nature having rudder controlling means positioned beneath the operator's seat, for controlling the rudder without the necessity of the operator leaving his seat.

Further objects and advantages will be hereinafter set forth and pointed out in the specification and claims.

Referring to the drawings which form a part of this application, Figure 1 represents a side elevation of the complete boat in water. Fig. 2 is a sectional view through the propelling mechanism and bearing means for the same. Fig. 3 is a detail view of the paddle wheel. Fig. 4 is a top plan view of the boat, the upper ends of the posts 13, the auxiliary buoys and the bracing wires for the posts being removed, and, Fig. 5 is a front elevation of the complete boat.

Referring more particularly to the drawings in which similar reference characters designate corresponding parts throughout the several views, 1 represents the buoys which are preferably in the form of long hollow empty tubes having rounded caps 2 upon their opposite ends to close said ends. The buoys 1 are strengthened and reinforced by the rings 3 positioned at spaced distances within said buoys.

The buoys 1 are connected and held parallel to one another and spaced from each other by the joists 4, which have their opposite ends secured to the buoys 1 near the opposite ends thereof and at the center of said buoys and between the ends and center of the buoys 1 and are held in proper position upon the buoys 1 by means of bolts 5 or the like passed therethrough and through the buoys and the ring 3. The flooring strips 6 are secured upon the joist 4 and extend from end to end or longitudinally of the boat.

The boat is braced by means of the cross wires 7 extending diagonally across the flooring strips 6 from corner to corner of the flooring of the boat, with their ends secured over the hooks 8 carried by the bolts 5, the wire 7 crossing at about the center of the floor and passing, at this point, around the short center post 9 carried upon the center flooring strip 6 about midway its length. Bracing wires 10 also have their lower ends engaged over the hooks 8 while their upper ends are secured in a ring 11 carried by a cap 12 secured over the upper ends of the slanting posts 13. The slanting posts 13 have their lower ends secured to the side flooring strips 6, as shown at 14, and converge toward their upper ends to receive the cap 12. The cap 12 also has secured upon its opposite sides the hollow empty members 15, which are preferably of cylindrical form in cross section and have their ends closed. It will be evident that the small hollow empty members 15 will serve as buoys should the boat capsize, for the reason that should the boat rock far enough to either side to raise one of the buoys 1 out of the water, the hollow empty member 15 upon the other side will strike the water and prevent further movement of the boat in that direction. It will also be evident that the boat may be readily returned to its proper position, returning the second buoy 1 to the water, to right the boat.

Secured to the flooring strips 6 slightly rearwardly of the posts 13 is a back 16 for the operator's seat 17, the seat projecting in a forward direction from the back 16 and being braced by the arms 18 having opposite

ends secured to the sides of the seat 17 and back 16. The small extension seat 19 projects from the main seat 17, between the posts 13. The seat 19 is adapted to accommodate a child operator and is slightly lower than the seat 17 which is especially adapted to accommodate an adult.

Beneath the seats 17 and 19 is a rearwardly and downwardly curved rudder carrying arm 20 which projects through an opening 21 in the flooring strips 6 and has its central portion 22 broadened with a rounded cross ridge upon its upper face and a vertical bolt opening 23 therethrough. A bolt 24 is passed through this opening 23 and into a block 25 upon the under side of the strips 6 slightly rearwardly of the opening 21, the rounded cross ridge on the upper side of the central portion 22 bearing against the block 25 to steady the rudder. The opening 23 is preferably tapered downwardly to permit proper swinging of the rudder carrying arm 20, to raise or lower the rudder 26 carried upon the lower end of said rudder carrying arm 20. Secured centrally to the upper end of the rudder carrying arm 20, is a semi-circular operating handle 27, which is normally in a horizontal position beneath the seats 17 and 19, said handle projecting beyond the sides and front edges of the seats to be readily grasped by the operator for raising or lowering the rudder 26 or swinging the latter to either side to guide the boat.

Positioned upon the forward portion of the flooring strips 6, forwardly of the posts 13, is a paddle wheel casing 28 which extends to adjacent the forward edge of the extension seat 19. Secured in the opposite sides of the casing 28 are the bearing sleeves 29 which are secured in position by the bolts 30 passed through their flanges, through the sides of the casing 28 and into the strengthening arch 31 positioned transversely within the casing 28. A shaft 32 is passed through the casing 28 and through the bearing sleeves 29 and has a hub 33 rigidly mounted thereupon between the bearing sleeves 29. The spokes or pedal carrying arms 34 have their inner ends secured in the hub 33 and project radially therefrom with the paddles 35 upon their outer or free ends.

The ends of the shaft 32, passing through the bearing sleeves 29 are threaded and have the opposed bearing collars 36 positioned on said threaded portions with runways 37 adapted for coöperation with the runways 38 formed in the bearing sleeves 29 to accommodate bearing balls 39 to reduce friction to the minimum. The runways 37 are provided in the collars 36 by cutting away one edge of each collar while the runways 38 in the bearing sleeves 29 are formed by reducing the thickness of said sleeves at their opposite edges, leaving the central ridge 40 around the interior of each sleeve. It will be seen that as the bearing collars 36 are opposed to one another and positioned within the opposite edges of the bearing sleeves 29, the bearing balls 39 are properly held in their coöperating runways 37 and 38.

Positioned upon the extremities of the shaft 32 outwardly of the casing 28 and the bearing sleeves 29, and oppositely directed, are the right angled pedal carrying arms 41 which have the paddle operating pedals 42 positioned upon their free or right angled portions.

It will be apparent that the operator positioned upon the seat 17 or the extension seat 19 may readily revolve the shaft 32 to manipulate the paddles 35 by operating the pedals 42 by means of his feet. The rudder 26 may also be raised, lowered or turned, by the operator, as desired, by grasping the controlling handle 37 and moving the same in the proper direction, without leaving his seat.

It will thus be seen that I have provided a boat of extremely simple construction and which will be light in weight and easy to operate, and also one which may be readily guided by the operator while positioned upon his seat. It will also be evident that should the boat capsize it may be readily returned to its proper position.

What I claim is:

1. A boat comprising buoys, means for reinforcing the buoys, means connecting the buoys and having their ends secured to the buoys and the buoy reinforcing means, flooring strips secured to the buoy connecting means, a seat positioned upon the flooring strips, posts projecting upwardly from the flooring strips, auxiliary buoys carried by the posts, bracing means connecting the posts and the flooring strips, a paddle wheel for propelling the boat, means for supporting and protecting the paddle wheel, means for operating the paddle wheel, a rudder for the boat, and means positioned beneath the seat and projecting through and secured to the flooring strips for controlling the propeller.

2. A boat comprising buoys of cylindrical form in cross section and having rounded closed ends, means within the buoys for reinforcing the latter, joists secured to the buoys to hold the same in spaced parallel relation to one another, flooring strips secured across the joists, bracing wires secured diagonally above the flooring strips, a paddle wheel casing secured upon the flooring strips, a paddle wheel within the casing and working through a suitable opening in the flooring strips, a shaft for said paddle wheel, bearing means for the shaft, pedals upon the ends of the shaft out-

wardly of the casing and bearing means, a strengthening arch within the casing and over the paddle wheel, an operator's seat rearwardly of the casing, means for guiding the boat, and means beneath the seat for controlling the guiding means.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM H. WILLIAMS.

Witnesses:
W. E. WRIGHT,
W. T. FITZ GERALD.