May 2, 1939. W. A. EDWARDS 2,156,938

MOTORBOAT

Filed Aug. 4, 1938

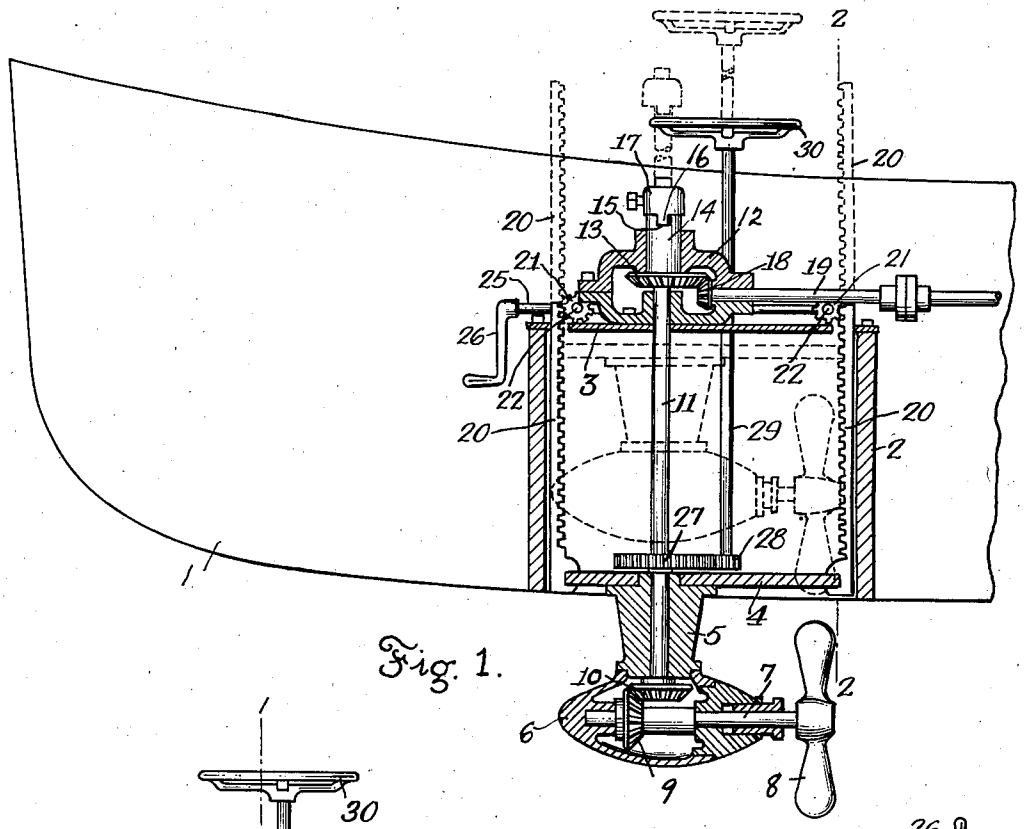


Fig. 1.

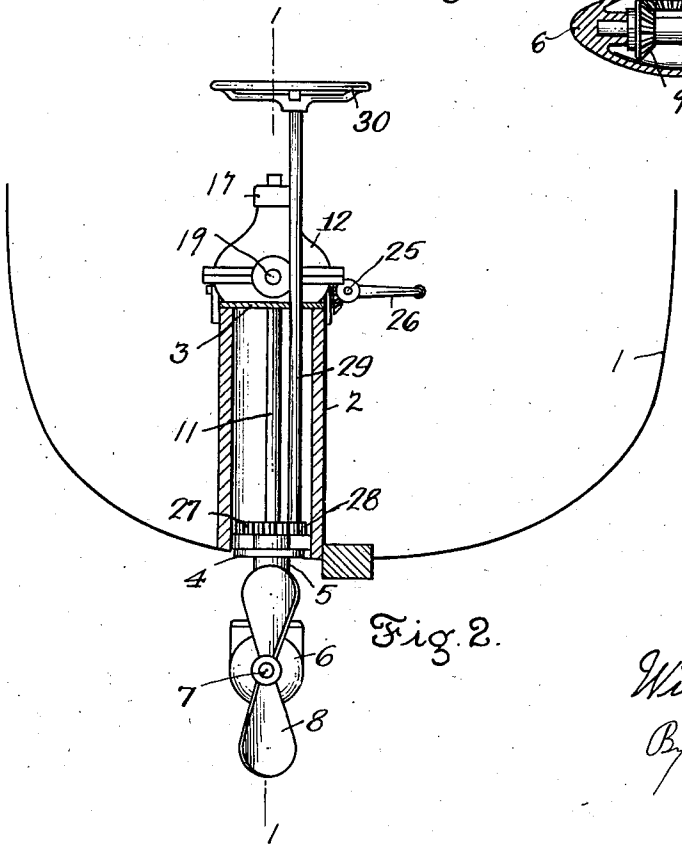


Fig. 2.

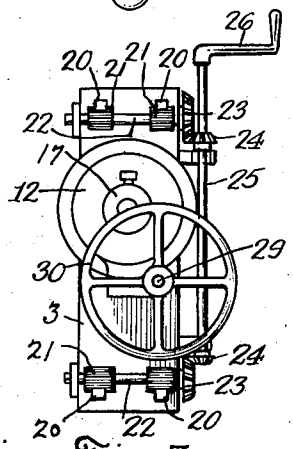


Fig. 3.

Inventor:
Wilbert A. Edwards
By Chapin & Ferguson
Attorney.

Patented May 2, 1939 2,156,938

UNITED STATES PATENT OFFICE

2,156,938

MOTORBOAT

Wilbert A. Edwards, Reedville, Va.

Application August 4, 1938, Serial No. 223,065

3 Claims. (Cl. 115—35)

This invention relates to improvements in motor boats and has for its object to provide a boat constructed with a well, which may be at the bow or stern, and into which the propeller and propeller housing can be raised when the boat is in shallow water when used as a pleasure boat, and also when used as a fishing boat, to keep the net out of the propeller in the event that the net should come under the boat.

A further object of my invention is to provide the propeller gear housing so mounted that it can be revolved for the purpose of steering the boat if desired, or the propeller gear housing can be made stationary, if desired, so that it will not revolve, in which event the steering can be done with a rudder. When the propeller is used for steering the boat, it should be placed as near the bow of the boat as possible, although it could be placed equally as near the stern, but when the steering is done with a rudder, the propeller can be placed in any position.

A further object of my invention is to provide simple and efficient mechanism for raising and lowering the propeller housing and propeller.

The invention consists of the novel construction and arrangement of the parts and combination of parts hereinafter more fully set forth in the following specification and pointed out in detail in the appended claims.

In the accompanying drawing:

Figure 1 is a section taken on the line 1—1 of Figure 2.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a detail plan view of the housing and operative parts.

Referring to the accompanying drawing, forming part of this specification, and in which like reference numerals designate like parts throughout the several views thereof, 1 designates the bow of a boat in which is mounted the well 2 having a covering 3 secured thereon. Vertically movable within the well 2 is a base 4 in which is secured the propeller gear housing hanger 5, the propeller housing 6 being secured to the lower end of the said hanger 5. Within the propeller gear housing 6 is mounted the propeller shaft 7 having a propeller 8 on the outer end thereof. The inner end of the propeller shaft 7 is provided with a bevel-gear 9 in mesh with the bevel-gear 10 on the lower end of the vertical drive shaft 11. The said shaft 11 projects up through the gear housing 12 and is provided with a bevel-gear 13 loosely mounted thereon and within said housing 12. The said bevel-gear 13 is connected to a sleeve 14 having a slot 15 in its upper surface which is adapted to receive the male end 16 of the clutch 17 which latter is rigidly secured to the shaft 11. The bevel-gear 13 is in mesh with a bevel-gear 18 on the engine shaft 19. The base 4 is mounted in the lower ends of the racks 20 on opposite sides of the well 2. These racks 20 mesh with the pinions 21 on the shafts 22. The said shafts 22 each have a bevel-gear 23 on one end thereof in mesh with the bevel-gears 24 on the shaft 25. The said shaft 25 is provided with a crank handle 26 on one end thereof. By turning the crank handle 26, the base 4 and consequently the propeller housing and propeller will be raised into the well 2, as shown by dotted lines in Figure 1 of the drawing, at the same time raising the shaft 11 so that the clutch 17 will be disconnected from the sleeve 14 so that the shaft 11 will not be revolved even though the engine be running. By turning the crank 26 in the opposite direction, the base 4 and propeller gear housing 6 and propeller will be lowered to the position shown in Figure 1 of the drawing, at the same time causing the clutch 17 to mesh with the sleeve 14 so that the said shaft 11 can be driven to revolve the propeller for operating the boat. The hanger 5 is provided on its upper surface with a gear wheel 27 in mesh with a small gear wheel 28 on the shaft 29 which latter is provided with a wheel 30 on its upper end. By revolving the wheel 30 the hanger 5 can be turned in any direction so that the boat can be steered by the propeller, if desired. This means of steering can be dispensed with and a rudder used for steering.

Having thus described my invention, what I claim is:

1. The combination with a boat having a well therein with an opening in the bottom thereof, a cover on the top of said well, a base movable up and down in said well, a propeller gear housing suspended from said base, a shaft projecting into said propeller housing, a propeller on the outer end of said shaft, a bevel-gear on the inner end of said shaft, a gear housing on the top of said well cover, a vertical shaft projecting through the housing on the top of said well cover and into the propeller gear housing, a bevel-gear on the lower end of said vertical shaft in mesh with the bevel-gear on the propeller shaft, a clutch member loosely mounted on the vertical shaft and having its lower end projecting into the housing on the well cover and provided with a bevel-gear thereon, a clutch member rigidly mounted on said vertical shaft and adapted to cooperate with the loosely mounted clutch member to revolve said vertical shaft, and an engine shaft projecting

into the housing on the well cover and a bevel-gear on the inner end of said engine shaft in mesh with the bevel-gear on the inner end of the loosely mounted clutch member.

2. The combination with a boat having a well therein with an open bottom, a base movable vertically in said well, means for raising and lowering said base in said well, a propeller housing hung from said base, a shaft projecting into said housing and having a bevel-gear on its inner end, a propeller mounted on the outer end of said shaft, a gear housing mounted on the top of said well cover, a vertical shaft having its lower end projecting into the propeller housing and provided with a bevel-gear in mesh with a gear on the propeller shaft and its upper end projecting through the gear housing on the cover of said well, a clutch member loosely mounted on the vertical shaft and having its lower end projecting into the gear housing on the well cover and provided with a bevel-gear on its inner end, a clutch member rigidly secured to the vertical shaft and adapted to cooperate with the loosely mounted clutch member, and an engine shaft projecting into the gear housing on the well cover and having a bevel-gear on its inner end in mesh with the bevel-gear on the loosely mounted member of said clutch.

3. The combination with a boat having a well therein with an open bottom, a base movable vertically in said well, a cover for said well, racks projecting into said well on opposite sides thereof and secured at their lower ends to said base, pinions mounted on the cover of said well and in mesh with the said racks, a bevel-gear on one end of each of the pinion shafts, a shaft mounted on the side of said well and having bevel-gears thereon in mesh with the bevel-gears on the pinion shafts, a crank for turning the shaft mounted on the side of said well, a propeller gear housing revolubly hung from the bottom of said base, means for revolving said propeller gear housing, a propeller shaft projecting into the propeller housing, a propeller on the outer end of said propeller shaft, a vertical shaft having its lower end projecting into the propeller gear housing, a gear housing mounted on the top of the well cover, a clutch member loosely mounted on the vertical shaft and having its lower end projecting into the last mentioned housing and having a bevel-gear on its lower end, a clutch member rigidly secured to the said vertical shaft and adapted to cooperate with the loosely mounted clutch member to cause the vertical shaft to revolve, and an engine shaft projecting into the housing on the well cover and having a bevel-gear thereon in mesh with the bevel-gear on the loosely mounted clutch member.

WILBERT A. EDWARDS.