Feb. 21, 1928. 1,659,580

F. WELLER

MOUNTING FOR OUTBOARD MOTORS

Filed Oct. 22, 1927

Fig. 1

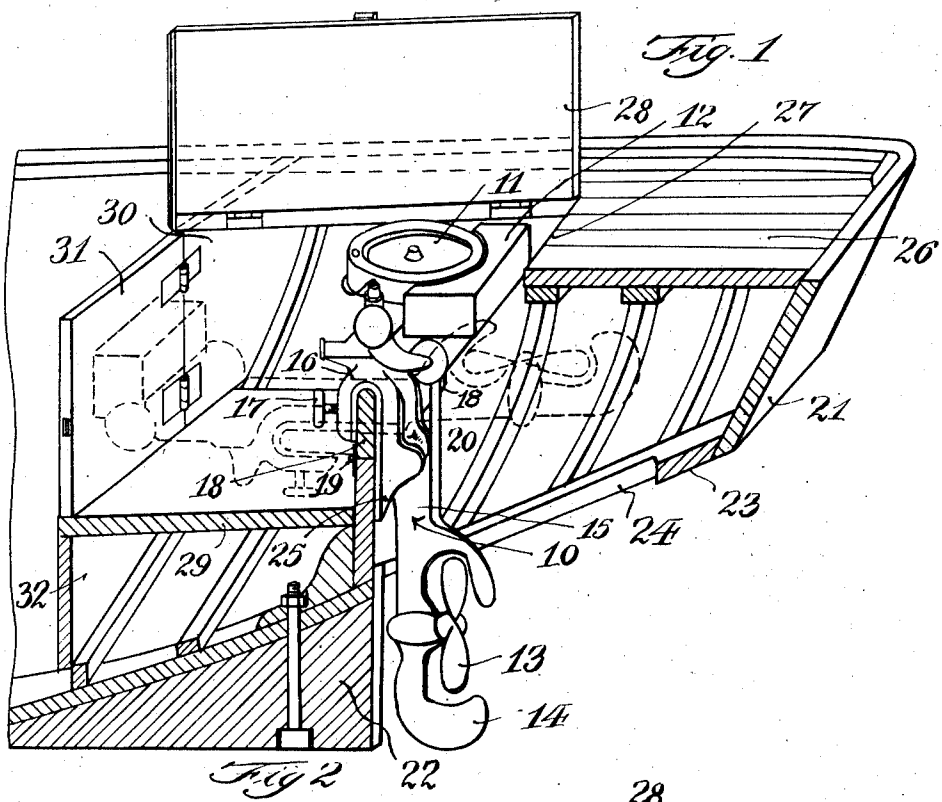
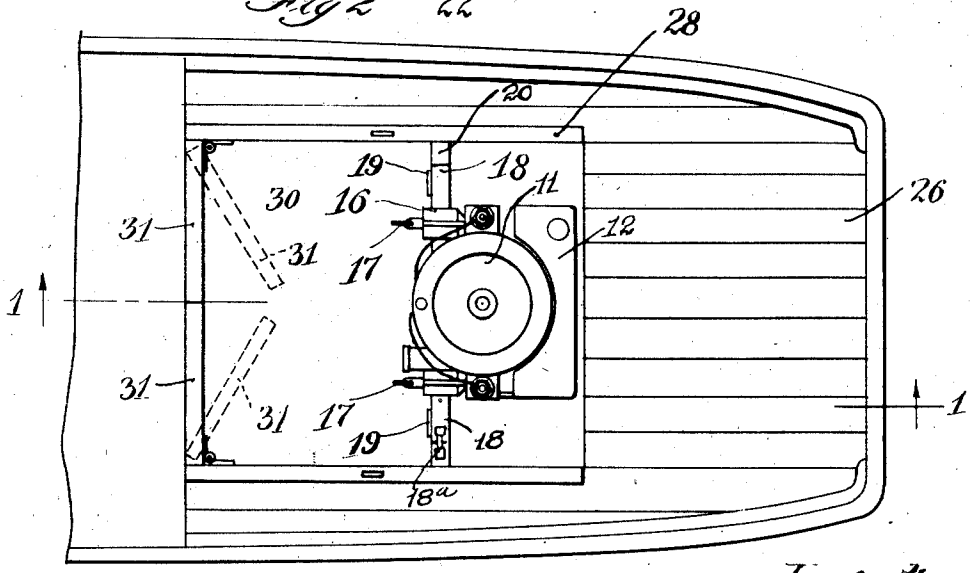


Fig 2



Inventor
Frank Weller
By Dominy & Dominy
Attys.

Patented Feb. 21, 1928. 1,659,580

UNITED STATES PATENT OFFICE.

FRANK WELLER, OF SAN DIEGO, CALIFORNIA.

MOUNTING FOR OUTBOARD MOTORS.

Application filed October 22, 1927. Serial No. 227,964.

In the use of outboard motors of the type now extensively employed in the propulsion of boats, it is the customary practice to clamp the motor to the stern-board of a boat, and entirely outside of and behind the hull, so that in this position, the motor is exposed to the action of the elements and is also exposed to tampering on the part of unauthorized persons. In these circumstances, it is either customary to bodily remove the motor for safe-keeping, or to cover it over with a rubber jacket or other protective covering, but either method of handling the motor is objectionable for obvious reasons.

Furthermore, the motor in full view at the stern of the boat presents a more or less unsightly appearance which is offensive to the nautical eye, in that it encumbers the stern of the boat with a protuberance which breaks the stern lines and impairs the appearance of the boat as a whole. In the use of outboard motors at the present time, it is seldom the practice to construct the boat to afford a mounting for the outboard motor which has heretofore been largely treated as an accessory feature to be applied to row boats or other craft of conventional design.

The object of the present invention is to so construct the stern of a boat as to afford an especially adapted mounting for the outboard motor which, according to the present invention, is in a sense built into or especially fitted to the boat itself, and is so concealed and protected that it may be treated as a constituent portion of the boat itself in much the same sense as a motor and propeller which are permanently built into the structure of a boat. At the same time, the present invention provides for the ready application of the motor to and its removal from the boat, so that the motor possesses all of the advantages of a unitary and self-contained power unit without any of the disadvantages which have heretofore accompanied the use of outboard motors.

Further objects and details will appear from a description of the invention in conjunction with the accompanying drawing.

Figure 1 is a perspective sectional view of the stern of a boat showing the motor in propelling position and indicating in dotted lines the position occupied by the motor when lifted; and

Fig. 2 is a deck plan view of the same.

The motor 10 is conventionally illustrated, since it may be of any usual and well known type now on the market, comprising, as is usual, a fly wheel 11, gasoline tank 12, and propeller 13 with a steering fin 14, the parts being carried by a vertically elongated shaft housing 15, which has secured thereto a hook-shaped bracket 16 carrying clamping screws 17 of the usual character. These features of the outboard motor are common in one form or another to various makes of motors now on the market, so that further or specific description thereof is deemed unnecessary.

In the present invention, the hook-shaped bracket, instead of being hooked over the stern-board of the boat, as is customarily the practice, is hooked over the upper edge of a supporting board 18 which is hinged at 19 to a water tight bulkhead 20 which traverses the hull of the boat at a point considerably in advance of the stern-board or transom 21, said bulkhead being located, in the present instance, at a point immediately above the stern post 22. The supporting board may be locked in vertical position by a latch 18ª or the like. The stern of the boat overhangs rearwardly from this point and the boat, as shown, is timbered to afford a rearwardly extending center beam or timber 23 which is provided with a longitudinally extending slot 24 of suitable width to permit the tilting of the shaft housing and propeller from the operating position shown in full lines into the housed position indicated in dotted lines.

When the motor is in its operating position, the foot 25 of the hook-shaped bracket will abut squarely against the bulkhead 20 so as to afford a firm contact against a rigid structural portion of the hull during operation, and it will be observed that the hinged board 18 need occupy the medial portion only of the bulkhead to afford a sufficient area for the rigid clamping of the hooked bracket in position. This portion only of the structure is hinged or otherwise tiltably mounted to provide the necessary mounting for the motor.

The overhanging stern portion of the hull is provided with a deck 26 which, as shown, is cut out at the line 27 slightly to the rear of the bulkhead to afford open access to the motor when in use, and the cut out portion of the deck on each side has hinged thereto a door 28 adapted to be lowered from the position indicated in full lines in the drawing to a position flush with the deck, so that

when the two doors are lowered to bring their edges together, they will, in unison, constitute a continuation of the rear deck structure and completely cover over the motor when in the housed position indicated in dotted lines.

The hull of the boat, in advance of the bulkhead 20, as shown, is provided with a flat forwardly extending seat 29 which preferably extends forward to the same degree as the doors 28, and, as shown, abuts on each side against a side bulkhead 30 of segmental formation which is fitted into the boat at this point. It will be understood that the drawing illustrates but one half of the hull structure and that the same structure is duplicated on each side. As shown, each segmental bulkhead 30 has hinged to its inner edge a door section 31, the two sections being of a size to completely close across the hull and wall off the rear portion of the hull in alignment with the side bulkheads, which latter may, if desired, be formed integrally with or as continuations of a forward center bulkhead 32 located beneath the seat 29. Obviously, the structural arrangement of the bulkheads and doors may be varied more or less to conform to the timbering of the stern of the boat, but in each case the parts will be proportioned and fitted in such a way as to afford the necessary space and clearance to permit the motor to be tilted from the upstanding position to the horizontal position, in which latter case the motor will rest upon and be supported by the seat with the propeller end of the motor lifted upwardly through the slot 24 and housed within the overhang of the boat.

The door sections 31 will be of the proper dimensions to swing rearwardly from the position indicated in full lines to a position at right angles thereto in which latter position they will underlie the hinged edges of the deck door sections 28, so that when thus adjusted and with the deck door sections swung clear back to lie upon the deck, the motor will be fully exposed, and the seat 29 will be open for occupancy by the operator or navigator of the boat.

When it is desired to house the motor, the door sections 30 will first be swung forward into the position indicated in the drawing after which the motor will be tilted into horizontal position with its upper end resting upon the seat 29, after which the door 28 may be swung down to rest upon the upper edge of the doors 31 to which they may be padlocked, thereby completely housing and enclosing the motor, so that it will not only be fully protected against the weather, but will also be protected against tampering or removal by unauthorized persons.

Furthermore, the motor when in operating position will occupy a unified relation to the boat, in a position in which it will not mar or disfigure the lines of the boat, but will, on the contrary, appear as a permanent or constituent portion thereof. At the same time, the arrangement is one which is peculiarly adaptable for use as auxiliary power on a sailing yacht, since the propeller may be bodily lifted from the water so as not to impede or interfere with the sailing qualities of the yacht, while the ever-hanging stern provides deck space and thus affords a hull form particularly desirable in the case of sailing yachts which must be designed to afford adequate deck space for the manipulation of sails and rigging.

I claim:

1. In combination with an outboard motor comprising a shaft housing, propeller and power elements and having an overhanging bracket, a boat hull constructed to afford an overhanging stern portion provided with a slot through the center of its lower wall for permitting the propeller with associated portions of the shaft housing to be swung from depending driving position below the overhang to a housed position within the overhang, and a transversely extending tiltable portion to which the overhanging bracket is secured to afford a tiltable mounting for the motor, substantially as described.

2. In combination with an outboard motor comprising a shaft housing, propeller and power elements and having an overhanging bracket, a boat hull constructed to afford an overhanging stern portion provided with a slot through the center of its lower wall for permitting the propeller with associated portions of the shaft housing to be swung from depending driving position below the overhang to a housed position within the overhang, a transversely extending tiltable portion to which the overhanging bracket is secured to afford a tiltable mounting for the motor, and a transverse bulkhead near the forward end of the overhanging portion of the hull to which the tiltable mounting is hinged, substantially as described.

3. In combination with an outboard motor comprising a shaft housing, propeller and power elements and having an overhanging bracket, a boat hull constructed to afford an overhanging stern portion provided with a slot through the center of its lower wall for permitting the propeller with associated portions of the shaft housing to be swung from depending driving position below the overhang to a housed position within the overhang, a transversely extending tiltable portion to which the overhanging bracket is secured to afford a tiltable mounting for the motor, a transverse bulkhead near the forward end of the overhanging portion of the hull to which the tiltable mounting is

hinged, and a seat extending forwardly from the bulkhead and adapted to afford a rest for the normally upper end of the motor when tilted to swing the propeller end upwardly through the slot in the overhang, substantially as described.

4. In combination with an outboard motor comprising a shaft housing, propeller and power elements and having an overhanging bracket, a boat hull constructed to afford an overhanging stern portion provided with a slot through the center of its lower wall for permitting the propeller with associated portions of the shaft housing to be swung from depending driving position below the overhang to a housed position within the overhang, a transversely extending tiltable portion to which the overhanging bracket is secured to afford a tiltable mounting for the motor, a transverse bulkhead near the forward end of the overhanging portion of the hull to which the tiltable mounting is hinged, a seat extending forwardly from the bulkhead and adapted to afford a rest for the normally upper end of the motor when tilted to swing the propeller end upwardly through the slot in the overhang, a deck extending over the overhanging portion of the hull, said deck being cut away above the seat, and a door adapted when closed to cover said cut away portion, substantially as described.

5. In combination with an outboard motor comprising a shaft housing, propeller and power elements and having an overhanging bracket, a boat hull constructed to afford an overhanging stern portion provided with a slot through the center of its lower wall for permitting the propeller with associated portions of the shaft housing to be swung from depending driving position below the overhang to a housed position within the overhang, a transversely extending tiltable portion to which the overhanging bracket is secured to afford a tiltable mounting for the motor, a transverse bulkhead near the forward end of the overhanging portion of the hull to which the tiltable mounting is hinged, a seat extending forwardly from the bulkhead and adapted to afford a rest for the normally upper end of the motor when tilted to swing the propeller end upwardly through the slot in the overhang, a deck extending over the overhanging portion of the hull, said deck being cut away above the seat, and co-operating door sections hinged respectively on opposite sides of the cut away portion and adapted to swing inwardly to close the cut away portion of the deck, substantially as described.

6. In combination with an outboard motor comprising a shaft housing, propeller and power elements and having an overhanging bracket, a boat hull constructed to afford an overhanging stern portion provided with a slot through the center of its lower wall for permitting the propeller with associated portions of the shaft housing to be swung from depending driving position below the overhang to a housed position within the overhang, a transversely extending tiltable portion to which the overhanging bracket is secured to afford a tiltable mounting for the motor, a transverse bulkhead near the forward end of the overhanging portion of the hull to which the tiltable mounting is hinged, a seat extending forwardly from the bulkhead and adapted to afford a rest for the normally upper end of the motor when tilted to swing the propeller end upwardly through the slot in the overhang, a deck extending over the overhanging portion of the hull, said deck being cut away above the seat, co-operating door sections hinged respectively on opposite sides of the cut away portion and adapted to swing inwardly to close the cut away portion of the deck, and door sections mounted in proximate relation to the forward ends of the first mentioned door sections and adapted to be moved into transverse relation thereto to close the forward end of the seat and effect a complete protective closure for the motor, substantially as described.

7. In combination with an outboard motor comprising a transmission housing having a propeller mounted at its lower end and power elements mounted at its upper end and having a hooked clamping bracket for suspending the motor, a boat hull having its stern portion formed to afford an overhang having a longitudinally extending slot formed centrally in its lower wall to permit upward swinging of the lower end of the transmission housing and the propeller carried thereby, a bulkhead extending transversely of the hull at the forward end of the overhanging portion, a board hinged to the upper portion of the bulkhead and affording a mounting for the motor bracket, a deck covering the overhanging stern of the hull and cut away at its forward end to expose the upper end of the motor when standing vertically, a pair of doors hinged to the side edges of the cut away portion and of a size when lowered to lie substantially flush with the deck and close the cut away portion thereof, a seat extending forwardly from the bulkhead at a level below the hinged bracket board and adapted to support the normally upper end of the motor when lowered into housed position, a bulkhead at the forward end of the seat, and door sections associated with said bulkhead and adapted when closed to co-act with the hinged portions in completely enclosing the housed motor, substantially as described.

8. In combination with an outboard motor comprising a transmission housing mounting a propeller at its normally lower

end and power elements at its normally upper end, and having a bracket for suspending the motor, a boat hull provided with means for engaging the bracket, the arrangement being adapted to afford a mounting for adjustably suspending the transmission housing, propeller and power elements, the hull being extended rearwardly of the motor mounting to provide an overhang provided with a longitudinally extending center slot through its lower wall of a size to permit the propeller end of the motor to be moved upwardly through the slot, substantially as described.

9. In combination with an outboard motor comprising a transmission housing mounting a propeller at its normally lower end and power elements at its normally upper end, and having a bracket for suspending the motor, a boat hull provided with means for engaging the bracket, the arrangement being adapted to afford a mounting for tiltably suspending the transmission housing, propeller and power elements, the hull being extended rearwardly of the motor mounting to provide an overhang provided with a longitudinally extending center slot through its lower wall of a size to permit the propeller end of the motor to be moved upwardly through the slot, a deck covering the overhang portion of the hull and cut away forwardly thereof to afford access to the motor, and means for closing the cut away portion of the deck, substantially as described.

10. In combination with an outboard motor comprising a transmission housing mounting a propeller at its normally lower end and power elements at its normally upper end, and having a bracket for suspending the motor, a boat hull provided with means for engaging the bracket, the arrangement being adapted to afford a mounting for tiltably suspending the transmission housing, propeller and power elements, the hull being extended rearwardly of the motor mounting to provide an overhang provided with a longitudinally extending center slot through its lower wall of a size to permit the propeller end of the motor to be swung upwardly through the slot, a deck covering the overhang portion of the hull and cut away forwardly thereof to afford access to the motor, means for closing the cut away portion of the deck, a seat extending forwardly of the motor mounting and affording a support for the normally upper end of the motor when tilted into horizontal position, and means co-acting with the first mentioned closing means for closing the space between said closing means and the seat for completely housing in the motor, substantially as described.

11. In combination with an outboard motor comprising a transmission housing, having a propeller mounted at the normally lower end, and power elements mounted at the upper end, a bracket secured to the motor, a hull provided with a cross bulkhead affording a mounting for the bracket, the motor being arranged to tilt with respect to the bulkhead to bring the motor from a vertical to a horizontal position, the hull being extended behind the bulkhead to provide an overhang provided with a longitudinally extending slot in its lower wall adapted to afford a clearance for the uplifting of the propeller end of the motor into the overhang, and the hull being further provided with adjustable means extending forwardly from the bulkhead for completely enclosing the motor when tilted to horizontal position, substantially as described.

FRANK WELLER.