

Aug. 27, 1940.

W. TAYLOR
OUTBOARD MOTOR SUPPORT

Filed July 11, 1938

2,212,675

2 Sheets-Sheet 1

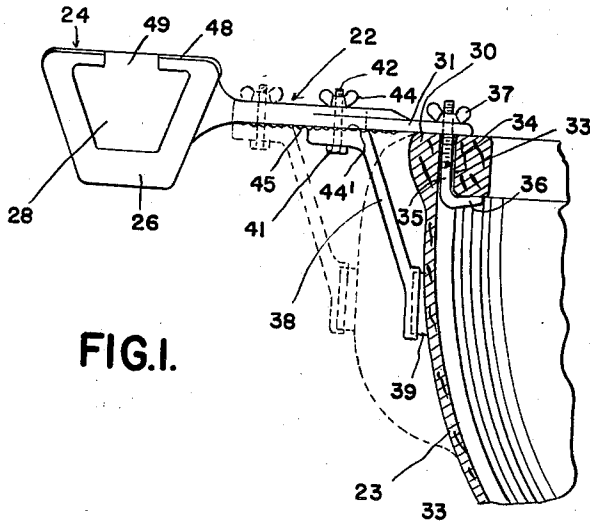


FIG. 1.

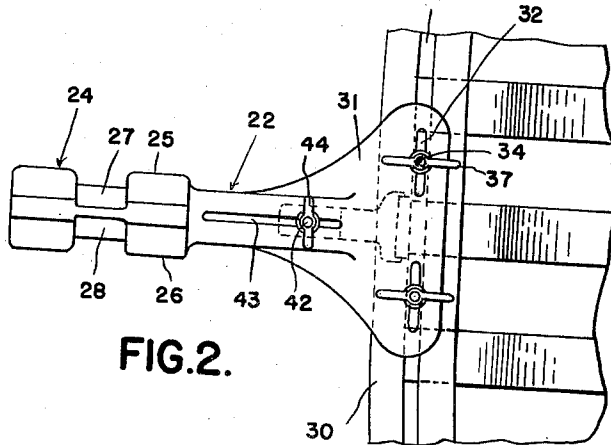


FIG. 2.

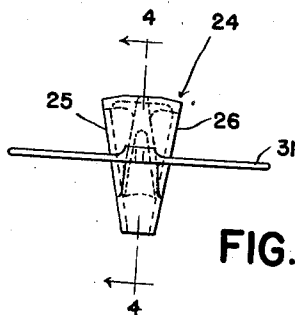


FIG. 3.

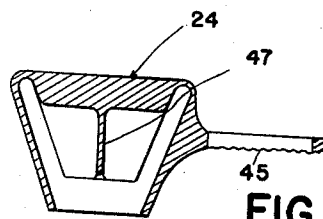


FIG. 4.

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2 Sheets-Sheet 2

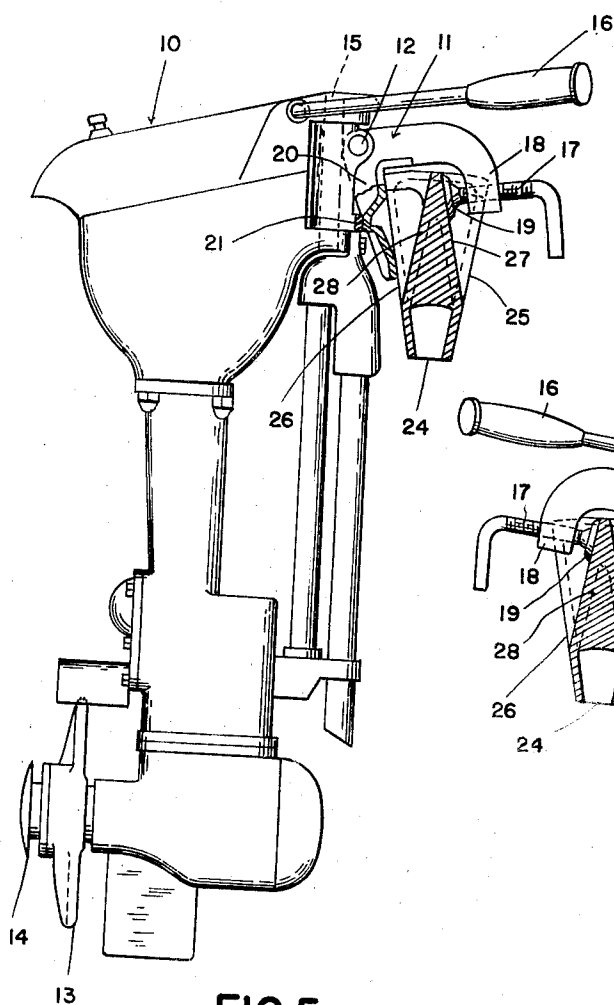


FIG. 5.

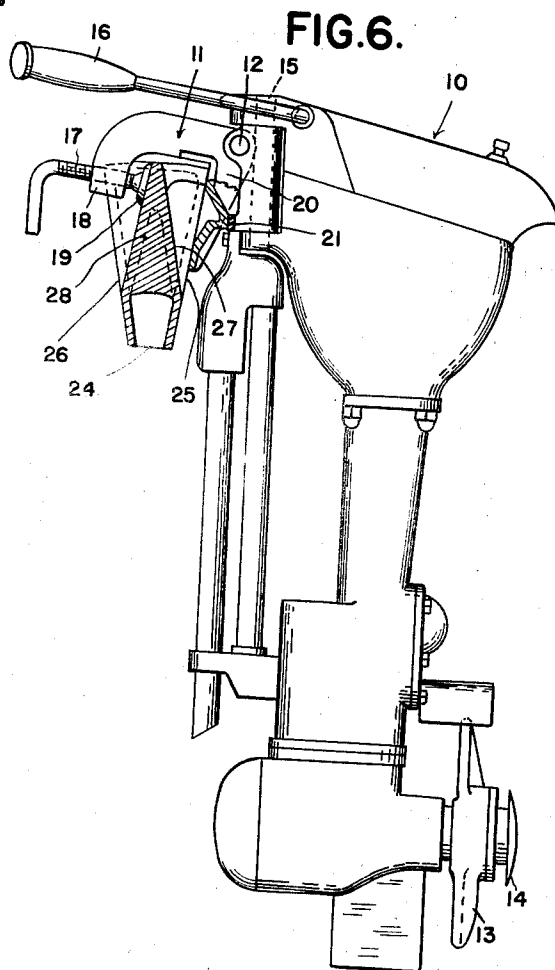


FIG. 6.

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UNITED STATES PATENT OFFICE

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OUTBOARD MOTOR SUPPORT

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Application July 11, 1938, Serial No. 218,679

5 Claims. (Cl. 248-4)

This invention relates generally to motor mountings and refers more particularly to an improved mounting for outboard motors.

One of the principal objects of the present invention is to provide a motor mounting bracket capable of being readily attached to a boat from which it is desired to suspend the motor and composed of a relatively few simple parts capable of being inexpensively manufactured.

Another advantageous feature of the present invention resides in the provision of an outboard motor mounting rendering it possible to quickly detachably mount the motor on either side of a boat for propelling the latter.

A further object of this invention consists in the provision of a mounting bracket of the character set forth so constructed that it offers no obstruction whatsoever to the space within the boat on which it is applied and capable of being readily adjusted to compensate for boats of different design.

A still further feature of the present invention consists in the provision of a mounting bracket for outboard motors of the type equipped with an attaching bracket having a clamping face inclined with reference to the motor, wherein the mounting bracket is attachable to either side of the boat and wherein the portion of the mounting bracket engaged by the motor attaching bracket is so constructed as to compensate for the angular relation between the motor and its bracket irrespective of which side of the boat the motor is placed. By virtue of this construction, it is not necessary to alter the transom angle between the motor and its bracket when the motor is shifted from one side of the boat to the other. As a matter of fact, the mounting bracket is so designed as to permit its use with motors wherein the transom angle is fixed and is incapable of being adjusted.

In addition to the foregoing, the present invention contemplates a bracket having a brace so constructed and arranged as to transfer the load on the bracket to the side of the boat to which the bracket is secured.

The foregoing, as well as other objects, will be made more apparent as this description proceeds, especially when considered in connection with the accompanying drawings, wherein:

Figure 1 is a fragmentary cross sectional view through a boat illustrating my improved bracket in elevation;

Figure 2 is a plan view of the construction shown in Figure 1;

Figure 3 is an end elevational view of the construction shown in Figure 1;

Figure 4 is a sectional view taken substantially on the plane indicated by the line 4-4 of Figure 3;

Figure 5 is a fragmentary sectional view illustrating the manner in which my improved mounting bracket supports an outboard motor at the proper angle at one side of the boat; and

Figure 6 is a similar view illustrating the manner in which the same bracket supports an outboard motor at the proper angle at the opposite side of the boat.

Although it will be apparent as this description proceeds that the mounting bracket forming the subject matter of this invention may be used to support various different types of outboard motors, nevertheless, for the purpose of illustration, I have shown an outboard motor in Figures 5 and 6 identical in construction to the outboard motor described in detail in my copending application Serial No. 161,652, filed August 30, 1937. Insofar as the present invention is concerned, it will suffice to point out that the motor 10 is pivotally connected to an attaching bracket 11 by means of a horizontally disposed pivot 12 in a manner such that the motor may be swung from its vertical or operative position shown in either Figures 5 or 6 to a position wherein the propeller 13 and associated cranking disc 14 are above the water level. In addition, it will be noted from both of the above figures that the motor 10 is oscillatable about a vertically extending pin 15 in response to manipulation of the control 16 which is conveniently located for manipulation by the operator. It will, of course, be understood that oscillating the motor in one direction or the other about the vertical pin 15 changes the direction of the axis of the propeller 13 and thereby controls the direction of movement of the boat.

The motor attaching bracket 11 is of substantially inverted U-shaped construction having a clamping screw 17 threaded into the outer leg 18 of the U and having a pad 19 at the inner end of the screw cooperating with the opposite leg 20 of the U to clamp the motor to a suitable mounting. Motors of the general type briefly described are usually installed on the transom provided at the back end of a boat and, since this transom is usually inclined at an angle in the neighborhood of approximately 10°, it is orthodox practice to correspondingly incline the motor attaching bracket with respect to the motor proper so that the latter will be supported in sub-

stantially a vertical position. It will be noted from either of Figures 5 or 6 that the motor attaching bracket 11 is inclined relative to the motor 10 and this angle of inclination is determined by a stop or abutment 21 secured to the leg 20 of the attaching bracket for engagement with the adjacent side of the motor 10. Although provision may be made for adjusting the angular relationship between the bracket 11 and motor 10 to compensate for different installations, nevertheless, I have shown a construction wherein this angle is predetermined to support the motor vertically from a transom having the standard angle of inclination of approximately 10°.

In some cases, it may be desirable or necessary to support the outboard motor from the side of the boat, and this is particularly true when it is desired to propel a canoe or similar craft. With this in view, I have provided a mounting bracket 22 characterized in that it offers the possibility of effectively supporting the motor 10 on either side of the boat 23 in a manner such that the motor 10 is suspended vertically without altering, or otherwise interfering with the angular relationship between the motor bracket 11 and the motor proper 10.

The bracket 22 is preferably cast from a relatively light metal, and the foregoing is accomplished by a unique shaped head 24 cast integral with the bracket. It will be observed from Figures 5 and 6 of the drawings that the head 24 is provided with opposed downwardly extending converging surfaces 25 and 26 having portions, in effect, depressed inwardly to form downwardly extending diverging surfaces 27 and 28. The above construction is such that the converging surface 26 is parallel to the diverging surface 27 and the converging surface 25 is parallel to the opposed diverging surface 28.

It will further be noted from Figures 5 and 6 that the leg 20 of the motor attaching bracket 11 is adapted to alternately abut the converging surfaces of the head and the pad 19 on the clamping screw 17 is adapted to alternately abut the diverging surfaces on the head. For example, when it is desired to support the motor on the right-hand side of the boat, the leg 20 of the motor attaching bracket 11 abuts the converging surface 26 and the pad 19 on the clamping screw 17 engages the parallel diverging surface 27. The angle of inclination of these surfaces is predetermined with respect to the angle of inclination between the motor attaching bracket 11 and the motor 10 so as to suspend the latter in a vertical position. On the other hand, when it is desired to support the motor on the opposite side of the boat, the leg 20 of the clamping screw 17 engages the parallel diverging surface 28. The angle of inclination of these surfaces is, of course, also predetermined in dependence upon the angular relationship between the motor attaching bracket 11 and the motor so that the latter will be supported in a vertical position on the left side of the boat, as well as on the right side.

The head 26 of the bracket 22 is, of course, adapted to be spaced laterally beyond the adjacent side of the boat and the inner end of the bracket is shown in Figures 1 and 2 as adapted to overlap the gunnel 30 of the boat. The inner end of the bracket is fashioned in the form of a plate 31 and the latter is formed with elongated slots 32 at spaced points adapted to register with the space 33 usually provided in the gunnel 30. Upon reference to Figure 1, it will be noted that

the plate 31 is clamped to the top of the boat by means of screws 34 having shank portions 35 extending upwardly between the rails of the gunnel through the slots 32 in the plate 31 and having hooked portions 36 extending laterally from the lower ends thereof for engagement with the undersides of the inner rail. Clamping nuts of the wing type 37 are preferably threaded upon the upper ends of the screws 34 to effect the necessary clamping action. It may be pointed out at this time that if the gunnel 30 is not of the particular construction illustrated, the same may be slotted to receive the screws 34. In any event, it will be noted that the bracket does not extend into the boat and, therefore, offers no obstruction.

The weight of the motor on the head 26 of the bracket 22 is transferred to the side of the boat by means of a brace 38 having the upper end secured to the bracket 22 at a point spaced outwardly from the side of the boat and having a rubber bumper 39 at the lower end adapted to engage the adjacent side of the boat. The upper end of the brace is secured to the bracket 22 by means of a clamping bolt 41 having a shank portion 42 extending upwardly through an elongated slot 43 in the bracket 22 and threaded for engagement by a suitable wing nut 44. The arrangement is such as to permit the brace to be adjusted lengthwise of the bracket in the manner shown in Figure 1 to compensate for boats having differently shaped sides. If desired, the upper end of the bracket may be formed with a series of teeth 44' extending transversely to the direction of adjustment and adapted to mesh with corresponding teeth 45 cast integral on the bottom of the bracket at opposite sides of the slot 43. The cooperating teeth will function to locate the brace in any one of its several adjusted positions.

In an effort to reduce the weight and cost of manufacture of the bracket, it will be noted that the head portion 24 is of hollow construction and is reinforced by a transverse rib 47 arranged centrally of the bracket in a manner to connect the diverging surfaces. Also, attention may be called to the fact at this time that the top flange 48 resulting from the formation of the diverging surfaces is cut away, as at 49, to permit the pad 19 at the inner end of the clamping screw to be readily inserted in place.

What I claim as my invention is:

1. A mounting for outboard motors having angularly disposed attaching brackets, comprising a bracket having a portion provided with opposed converging clamping surfaces and with opposed diverging clamping surfaces cooperating with the converging surfaces and with an outboard motor bracket to support the outboard motor in a substantially vertical position on either side of the bracket.

2. A mounting for outboard motors having angularly disposed attaching brackets, comprising a bracket provided with a portion having opposed converging surfaces and having opposed diverging surfaces, the converging surface at one side of the bracket being parallel with the diverging surface at the opposite side and the converging surface at the latter side being parallel with the diverging surface on the first named side to cooperate with the motor bracket to support the motor in a vertical position on either side of the mounting bracket.

3. A mounting for outboard motors having attaching brackets, comprising a bracket provided with a portion having opposed converging sur-

faces and having portions of the latter surfaces depressed to form opposed diverging surfaces, said surfaces cooperating with an attaching bracket on an outboard motor to provide for supporting the motor in a vertical position on either side of the bracket.

4. A mounting for outboard motors, comprising a bracket having two clamp engaging portions adapted to selectively cooperate with an outboard motor clamp to support an outboard motor in an upright position on either side of the bracket, one clamp engaging portion having opposed substantially parallel surfaces inclined at a predetermined transom angle and the other portion having opposed substantially parallel surfaces inclined in a direction opposite the direction of inclination of the first named surfaces at a predetermined transom angle.

5. A mounting for outboard motors, compris-

ing a bracket attachable to either side of a boat and having an enlarged head at the outer end thereof, said head having two clamp engaging portions adapted to selectively cooperate with an outboard motor clamp to support an outboard motor in a substantially vertical position at either the front side of the bracket or at the rear side of the bracket, one clamp engaging portion having opposed substantially parallel surfaces inclined at a predetermined transom angle and the other portion having opposed substantially parallel surfaces inclined in a direction opposite the direction of inclination of the surfaces aforesaid at substantially the same transom angle previously set forth, and a brace extending downwardly from a position adjacent the head of the bracket and having a portion engageable with the adjacent side of the boat.

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