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OUTBOARD MOTOR MOUNTING APPARATUS

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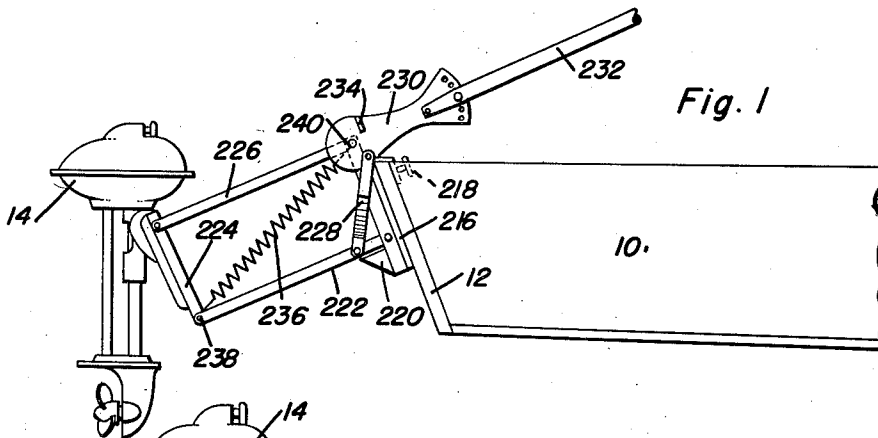


Fig. 1

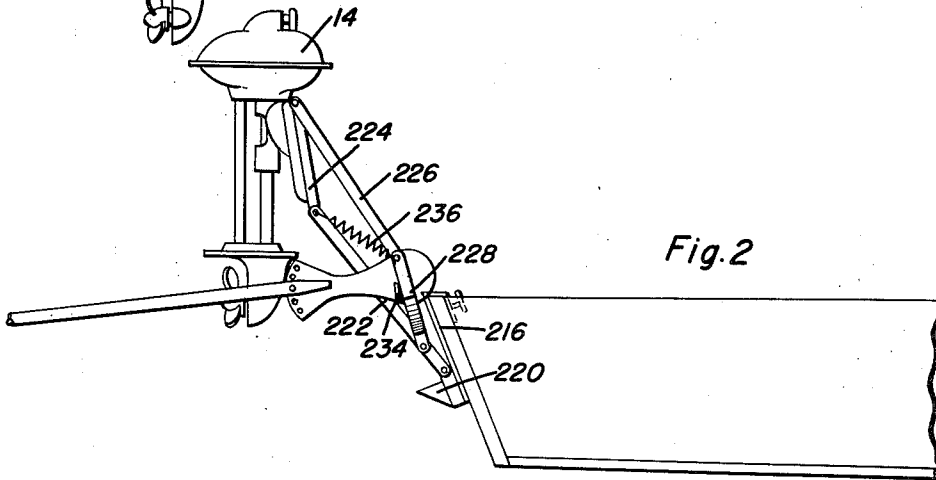


Fig. 2

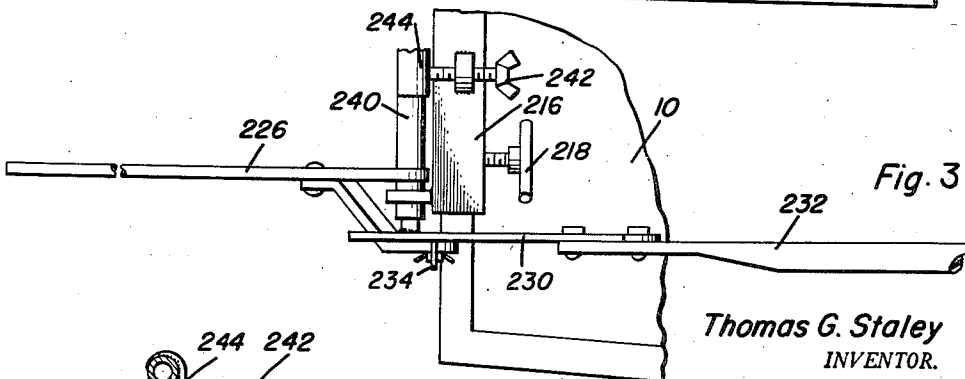


Fig. 3

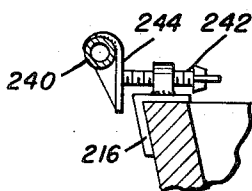


Fig. 4

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OUTBOARD MOTOR MOUNTING APPARATUS

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4 Claims. (Cl. 115—41)

This invention relates to apparatus for mounting and protecting outboard motors and the like and entails improvements over the copending application Serial No. 327,193, filed December 22, 1952, now Pat. No. 2,713,843, for Variable Depth Motor Mount.

The primary object of this invention resides in the provision of means for protectively mounting motors about the stern transom of a boat so that the propeller will be located behind the boat instead of under the boat. Means are provided for adjustably positioning the motor at a given height relative to the stern transom of the boat while further means are provided for enabling the motor to be steered or raised at will.

A further object of the invention is to provide means for attaining instantaneous ungraduated draft adjustment of a motor driven propeller at the will of the operator of a boat while under way.

Yet another object of the invention is to provide a motor mounting arrangement mounting arms so arranged that when the propeller draft is at an optimum depth for proper performance, the arms will be substantially parallel to the thrust yet which will when the motor is raised provide an upward vertical component or force vector which will tend to hold the motor in a raised position against the weight of the motor.

The various features of this invention provide control mechanism allowing an operator of a boat to feel his way through shallow water by enabling him to raise his propeller to clear obstacles and lowering it again so as to provide propulsion for the boat after the obstacle has been passed while also providing an extremely sensitive steering mechanism for the mounting arrangement.

Other advantages of this construction reside in the fact that the motor may be located a distance behind the stern of a boat outside and away from the boat, thus removing noise, fumes, noxious exhaust gases and the dripping of gasoline and oil into the boat, thus providing greater comfort and safety for the occupants thereof by reducing the fire hazard resulting from the operation of a gasoline motor.

The forms of the invention employ novel means for raising an outboard motor for dry docking and employing resilient means for holding the motor in a raised position past the top dead center of rotation of the mounting arrangement.

While other and various objects will become readily apparent in view of the following description of the various embodiments of the invention, it should be quite apparent from the foregoing that this invention provides new and useful arrangements of parts.

The foregoing objects and advantages of the invention together with various ancillary objects and features which will become apparent as the following description proceeds are attained by these motor mounting arrangements, preferred embodiments of which have been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a side elevational view of a resilient mounting arrangement for holding an outboard motor in a raised position when it is so desired;

Figure 2 is a side elevational view of the invention with the outboard motor shown in a raised position and with the operating lever reversed;

Figure 3 is a plan view of a portion of the invention; and

Figure 4 is a sectional detail view illustrating the construction of a stop member utilized for limiting the lowermost position of the motor.

With continuing reference to the accompanying drawings wherein like reference numerals designate similar parts throughout the various views, reference numeral 10 generally designates a boat having a stern transom 12. The arrangement of parts to be henceforth described are for the purpose of mounting an outboard motor, such as that generally indicated by reference numeral 14 in a suitable manner whereby the motor 14 is provided with the greatest amount of protection while simple control means are provided for steering and raising or lowering of the motor.

A mounting plate 216 is attached by threaded clamp fasteners 218 to the transom 12 of the boat 10. Attached to the mounting plate 216 is an angularly extending stop member 220 which is adapted to be engaged by a link 222 of a parallelogram linkage including links 224, 226 and 228 which are pivotally attached to each other, or to an operating member 230 provided with an operating lever 232. The operating member 230 carries a stop 234 and a coil spring 236 is terminally attached to the pin connection 238 forming the pivotal connection between the links 222 and 224 and to the shaft or pin 240 about which the operating member 230 is pivotally mounted and to which the link 226 is attached. The link 224 forms the false transom to which the outboard motor 14 is detachably secured.

With the operating lever 232 in the position as is shown in Figure 1, the link 222 will engage the stop 220 to hold the motor in its limited lowered position. However, when it is desired to raise the motor 14 as for dry docking, the lever 232 may be reversed and the spring will then assist in raising the motor to a raised position with the stop 234 engaging the link 228, as is shown in Figure 2. An adjustable stop member 242 is attached to the mounting plate 216 for engagement with a stop 244 to provide an adjusted lowered position.

From the foregoing, the construction and operation of the device will be readily understood, and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. An adjustable mounting device adapted for supporting an outboard motor from the stern transom of a boat, said device comprising a mounting plate, means securable to the boat transom, a horizontally disposed shaft mounted on said plate means, a parallelogram linkage constituting an outboard motor support means pivotally attached to said shaft and plate means at one end whereby the plate means forms one side of the linkage, an operating member secured to said shaft, a link eccentrically pivoted at one end to said operating member and at its other end to said linkage adjacent its connection to said plate means, resilient means connected between said linkage and operating means to assist in moving said linkage to its upper position during actuation of said operating member.

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2. The device of claim 1 including stop means on each of said plate means and operating members to limit movement of the linkage between upper and lower positions, said link being engaged by the stop means on said operating member to hold said linkage in its said upper position. 5

3. An adjustable mounting device adapted for supporting an outboard motor from the stern transom of a boat comprising a mounting plate means securable to the boat transom, a false transom, a linkage pivotally connected to said false transom and said mounting plate means, means for holding said false transom at an adjustable height relative to the stern transom, resilient means to urge upward said stern mounting plate to an elevated position, said first recited means comprising a shaft, an operating member mounted on said shaft, a link eccentrically pivotally connected to said operating member and pivotally connected to said linkage, said link cooperating with said resilient means to retain said false transom in an elevated position, and stop means on said linkage for limiting the lowermost position of said false transom. 10 20

4. An adjustable mounting device adapted for supporting an outboard motor from the stern transom of a boat comprising a mounting plate means securable to the boat transom, a false transom, a linkage pivotally connected to said false transom and said mounting plate means, means for holding said false transom at an adjustable height 25

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relative to the stern transom, resilient means to urge said mounting plate to an elevated position, said first recited means comprising a shaft, an operating member mounted on said shaft, a link eccentrically pivotally connected to said operating member and pivotally connected to said linkage, said link cooperating with said resilient means to retain said false transom in an elevated position, a stop member on said operating member engageable with said link for limiting the eccentric link after it goes past dead center in its upper position to limit the uppermost position of said false transom.

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