Oct. 30, 1962 W. C. CONOVER 3,061,250

TRANSOM MOUNTING FOR AN OUTBOARD MOTOR

Filed July 5, 1960

Fig. 1

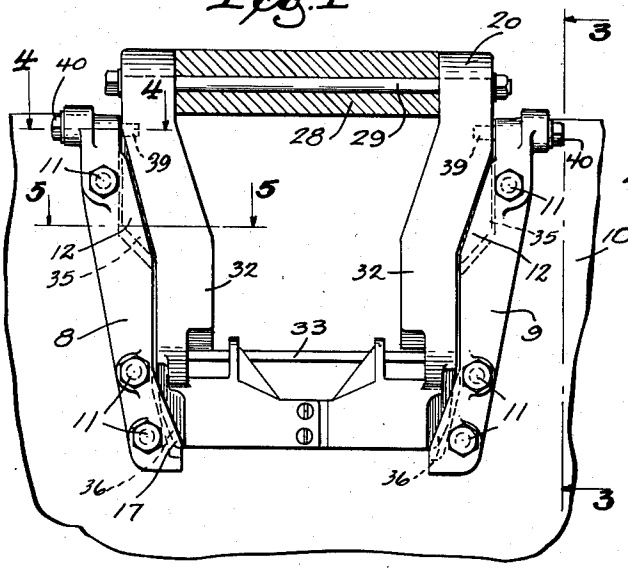


Fig. 3

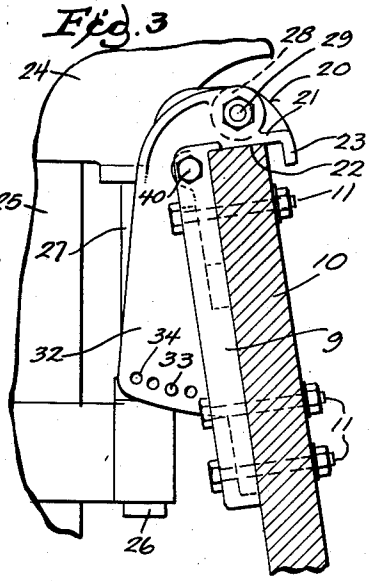


Fig. 2

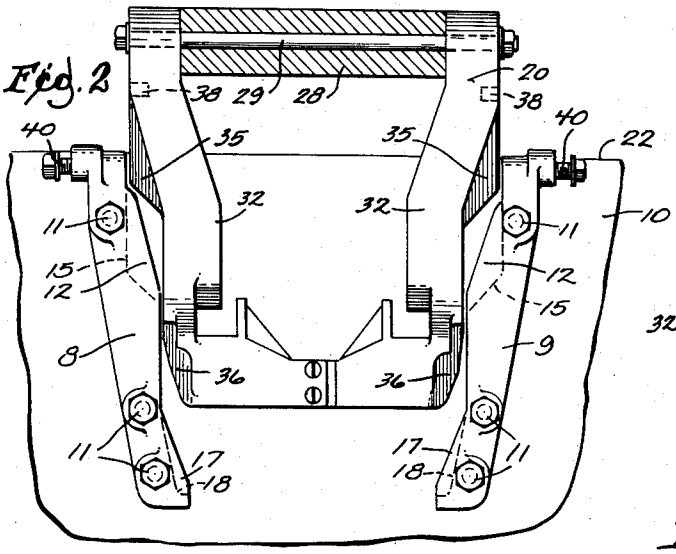


Fig. 6

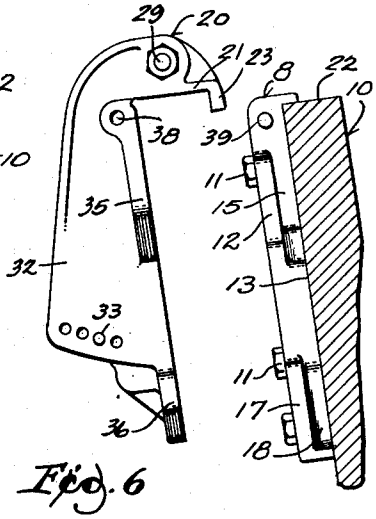


Fig. 7

Fig. 4

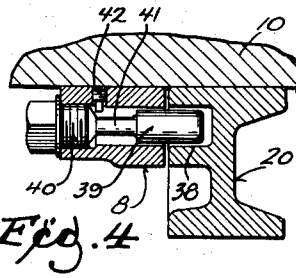
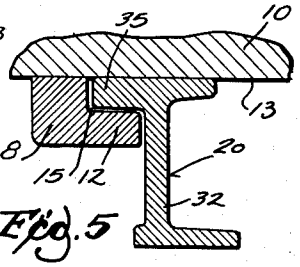


Fig. 5



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3,061,250

TRANSOM MOUNTING FOR AN OUTBOARD MOTOR

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4 Claims. (Cl. 248—4)

This invention relates to an improved transom mounting for an outboard motor.

In the past the transom brackets with respect to which outboard motors are pivoted for adjustment and for tilting have been attached by means of clamps to the transom of the boat upon which the motor is used. According to the present invention, the bracket is unchanged as to its pivotal connection with the motor but the clamps are omitted. In lieu thereof, the bracket has portions which are interlocked at a plurality of levels with fittings applied externally to the boat transom, the interlocking engagement and release of the outboard motor being effected by relative vertical movement, the parts which interlock at different levels preferably being also at different horizontal spacing from each other. While the bracket has no clamping connection with the interior face of the transom, I preferably retain a load supporting portion which rests on the top of the transom and interacts therewith to define a position of the bracket respecting the retaining fittings in which plungers connected with the retaining fittings can be advanced into sockets of the bracket to lock the parts against accidental separation.

In the drawings:

FIG. 1 is a view in rear elevation showing the retaining fittings applied to the back of a boat transom and also showing portions of the outboard motor bracket, the connection of the rest of the outboard motor being broken away axially of the pintle upon which the outboard motor is pivoted to the bracket.

FIG. 2 is a view similar to FIG. 1 showing the parts in relatively separated positions as they appear during application or removal of the outboard motor.

FIG. 3 is a fragmentary detail view taken on line 3—3 of FIG. 1 showing portions of the boat transom in section and showing portions of those outboard motor parts which are pivotally supported from the bracket.

FIG. 4 is a fragmentary detail view taken on line 4—4 of FIG. 1.

FIG. 5 is a fragmentary detail view taken on line 5—5 of FIG. 1.

FIG. 6 is a view in side elevation showing portions of the outboard motor bracket as separated from the transom fittings.

FIG. 7 is a view in side elevation of one of the transom fittings, portions of the transom being shown in section, and the fitting being illustrated from a point of view which is central respecting the transom.

In accordance with the invention, two transom fittings 8 and 9 are attached to the transom 10 by any permanent means of connection such as the bolts shown at 11. These transom fittings are allochiral.

The respective fittings 8 and 9 are convergent downwardly in the sense that, regardless of their external form, they are provided with opposed pairs of pockets which are desirably in closer proximity at the lower ends of the fittings than the pockets at the upper ends of the fittings. Each of the fittings 8 and 9 is provided with inwardly projecting flanges 12 which are spaced from the rear face 13 of transom 10 to define pockets at 15 shown in dotted lines in FIGS. 1, 2 and 3. Desirably, the flanges 12 are spaced below the upper ends of the fittings 8 and 9 in order not to interfere with the provision for releasably locking the parts together as hereinafter described.

Near the lower ends of the fittings 8 and 9, the fittings are provided with flanges 17 which are similarly spaced from the rear surface 13 of transom 10 to provide pockets 18 shown in dotted lines in FIG. 2 and shown in full in FIG. 7. The pockets 18 and the flanges 17 which form them are desirably offset inwardly toward each other from the pockets 15 and the flanges 12 which form them. The only objective in providing this offset is to make the outboard motor applicable and removable with relatively little vertical movement between it and the transom.

The part generally designated by reference character 20 is very similar to a conventional outboard motor transom bracket. It has a hook shaped portion 21 shown separately in FIG. 6 which engages over the upper margin 22 of the transom 10 in the conventional way. The hook 23 does not function during normal use of the outboard motor but is of value in providing temporary support during manipulation of the motor with respect to the transom. The outboard motor powerhead 24 and strut 25 are only fragmentarily illustrated in FIG. 3. They are provided with a steering pintle 26 which extends through a bearing sleeve 27 which has a supporting mounting provided by the transverse sleeve 28 pivoted on the horizontal pintle 29 whereby the entire outboard motor structure is tiltable with respect to its mounting bracket 20. The engagement of the transverse pintle 29 in the upper end portions of the mounting bracket 20 is conventional, as is the rest of the structure currently described. It is also conventional to provide a thrust member to and from which the outboard motor structure may tilt about the transverse pintle 29, such thrust member defining an upright position which may be adjusted in conformity with the inclination of the boat transom. Tilting of the motor from this thrust member permits the outboard motor propeller to be lifted out of the water when it is desired to beach the boat. It also permits the submerged parts to yield if a shoal or submerged obstacle is encountered. Merely by way of exemplifying an arrangement for this purpose, I have shown the transom bracket element 20 provided with laterally spaced rearwardly projecting parts at 32 between which there extends a bolt 33 selectively positioned in one of the holes 34 and abutted by the steering sleeve 27. It will be understood that the present invention is not concerned with the manner in which the outboard motor is mounted upon, or tiltable with respect to the bracket element 20 which replaces the conventional transom bracket but must still serve to support the outboard motor assembly.

The two side portions 32 of the replacement transom bracket 20 are provided at vertically spaced levels with laterally projecting flanges 35 and 36. The flanges 35 are relatively widely spaced and of such dimensions as to be receivable snugly into the pockets 15 of the fittings 8 and 9. The flanges 36 are less widely spaced and of such dimensions as to be receivable snugly into the pockets 18 of the fittings 8 and 9.

The upper pockets 15 as defined by the inwardly projecting flanges 12 constitute ways in which the upper laterally projecting flanges 35 of the transom bracket 20 are receivable for downward sliding movement and from which they may be released by upward sliding movement. Similiarly, the lower pockets 18 of the transom-connected fittings 8 and 9, as formed by flanges 17 constitute a set of ways into which the flanges 36 of transom bracket 20 are receivable for limited downward sliding movement concurrently with reception of the upper flanges 35 into the ways provided by the upper pockets 15.

It will be observed that the connection between the transom fittings **8** and **9** and the motor supporting bracket **20** is such as to attach the bracket to the transom near the top of the transom and also at a much lower level. Yet it is not necessary to raise the outboard motor to a height sufficient to bring the lower end of the bracket into registry with the top of the transom. On the contrary, as shown in FIG. 2, the parts are movable into a common vertical plane when the bracket member **20** is only slightly higher than the top of the transom. This is due to the fact that the pockets **18** are less widely spaced than the pockets **15**. Merely moving the bracket member **20** downwardly from the position of FIG. 2 to that of FIG. 1 will engage flanges **35** in brackets **15** and will concurrently engage flanges **36** in pockets **18**.

When the respective flanges are fully engaged in the respective pockets, the hook portion **21** of the supporting bracket **20** will engage the top of the transom. This or any other desired expedient may be used to locate sockets **38** of the bracket element **20** in registry with retractable plungers **39** with which the bracket elements **8** and **9** are provided. These plungers are preferably integral with the ends of captive bolts **40** screw threaded to the respective fittings **8** and **9** and having shank portions **41** providing the connection between the threaded bolt **40** and the plunger **39**. A retractable detent **42** extends into the gap between the threaded bolt and the plunger as shown in FIG. 4 to permit the bolt to be moved upon its threads through a range which will withdraw or engage its plunger portion **39** in the registering socket of the outboard motor supporting bracket **20**. FIG. 2 shows the respective bolts withdrawn to the limit permitted by the detent **42** while FIGS. 1 and 4 show the bolts advanced to lock the motor supporting bracket against accidental displacement from the transom fittings **8** and **9**.

The arrangement described provides an easily manipulated but very secure mounting for connecting an outboard motor to a boat transom and somewhat reduces the weight of the parts carried by the outboard motor. It further eliminates clamping means from the interior of the boat, thus avoiding marring the interior finish of the transom in the manner which has heretofore been objectionable.

I claim:

1. The combination with an outboard propulsion unit having a mounting bracket and a transverse pintle supporting said unit on the bracket, of transom bracket means externally applicable to a boat transom having laterally spaced parts integrally provided with means defining upper and lower ways, the said supporting bracket having upper and lower pairs of flange means slideable in said ways, the flange means of the mounting bracket and the ways of the transom bracket means being closer together in the lower pair than in the upper pair and the several ways all opening upwardly, at least one of the said transom bracket parts and a proximate portion of the outboard motor mounting bracket having complementary laterally movable pin and socket means for locking the mounting bracket against vertical displacement respecting the transom bracket parts, said pin and socket means being in registry for effective locking interaction when the flanges of the mounting bracket are engaged in the pockets provided by the flanges of the tansom bracket parts.

2. An outboard motor mounting comprising the combination of relatively fixed transom bracket fittings, each of which has integrally connected means providing an upper pocket and a lower pocket, the pockets of the respective fittings being spaced in pairs in which the pockets are oppositely directed and the pockets of the upper pair are spaced at a greater interval than the pockets of the lower pair, and a propulsion unit bracket having pairs of flanges complementary to the pockets and which have corresponding spacing in the respective pairs and corresponding vertical spacing between pairs, said pairs of flanges and the integrally connected means providing upper and lower pockets in said fittings constituting means substantially simultaneously engageable between the fittings and bracket adjacent the upper and lower sets of pockets for supporting and confining the propulsion unit bracket respecting the transom bracket fittings.

3. An outboard motor mounting comprising the combination of propulsion unit bracket means and transom bracket means relatively movable vertically for interconnection and disconnection, the said bracket means having integrally connected upper and lower complementary interlocking parts in upper and lower pairs at different lateral spacing in the respective pairs, the complementary parts of the upper and lower pairs being substantially simultaneously engageable and disengageable in the course of relative vertical movement between said brackets and constituting means for releasably securing the propulsion unit bracket means on the transom bracket means, the transom bracket means comprising laterally spaced integral generally upright fixtures upon which the respective parts of its said pairs are provided, the said parts of one of said brackets means comprising pocket forming means and the complementary parts of the other bracket means comprising flange means receivable in the pocket forming means in the relative downward movement of the propulsion unit bracket means with respect to the transom bracket means, the pocket forming means having means for limiting relative movement of the flange means with respect thereto, whereby to provide support for the propulsion unit bracket means from the transom bracket means.

4. In an outboard motor the combination with a propulsion unit bracket having a transverse pintle upon which a propulsion unit is pivotally mounted for tilting, said bracket having upper and lower pairs of laterally projecting flanges, the flanges of the upper pair being more widely spaced than the flanges of the lower pair, and transom bracket means having means for permanent connection to a boat transom and provided with two sets of ways at upper and lower levels, the ways of the upper set being spaced to receive the upper flanges of the propulsion unit bracket and the ways of the lower set being laterally spaced to receive the lower flanges of the propulsion unit bracket, the ways of both sets being open upwardly, the ways of both sets, and the complementary pairs of flanges, having complementary downwardly converging surfaces constituting means for wedging the first mentioned bracket in a fixed supported position in the transom bracket means when the respective flanges are engaged in the respective ways.

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Dedication

3,061,250.—*Warren C. Conover*, Waukegan, Ill. TRANSOM MOUNTING FOR AN OUTBOARD MOTOR. Patent dated Oct. 30, 1962. Dedication filed Apr. 6. 1970, by the assignee, *Outboard Marine Corporation.*

Hereby dedicates the remaining term of the patent to the Public.

[*Official Gazette August 18, 1970.*]