OUTBOARD MOTOR MOUNT

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FIG. 1

FIG. 2

FIG. 3

FIG. 4

FIG. 5

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OUTBOARD MOTOR MOUNT

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This invention relates to a mount for supporting a typical outboard motor on the back or transom of a boat and more specifically aims to provide a novel, improved and relatively inexpensive mount having many advantages over known types of mounts.

Ordinarily, an outboard motor is removably clamped to the boat transom, but more recently several types of mounts have become available, having as their purpose the provision of an intervening support enabling swinging of the motor between an upright or normal operating position and a transport or generally horizontal position clear of the water. Mounts of this type are desirable for many reasons, such as to elevate the motor in shallows or in weedy conditions, to transport the motor when rowing, etc., to afford access to the motor propeller and so forth.

Although these purposes have been served generally by the prior art, these former mounts leave much to be desired in the way of simplicity, initial cost, ease of operation and installation. Accordingly, the present invention has for its principal objects the provision of a simplified low-cost design providing for easy installation, the use of pin and slot means for not only pivoting the motor but for enabling bodily shifting thereof as incidents to locking and unlocking same from operating and transport positions, plus provision for readily adapting the structure to different types of boats.

The foregoing and other important objects and desirable features inherent in and encompassed by the invention will become apparent as a preferred embodiment thereof is disclosed, by way of example, in the following description and accompanying sheet of drawings, several figures of which are described below.

Figure 1 is a fragmentary elevation of the mount in use as carrying an outboard motor in operating position on the transom of a boat.

Figure 2 illustrates the same structure but shows the transport position.

Figure 3 is an enlarged plan of the mount, absent the motor.

Figure 4 is a section on the line 4--4 of Figure 3 and shows in full lines an upwardly shifted position of the motor-carrying element and in dotted lines another position of said element.

Figure 5 is similar to Figure 4 but shows in full and dotted lines two other positions of the motor-carrying element in its change between operating and transport positions.

Those familiar with the art will recognize the rear part or transom of a boat at 10 and a typical outboard motor at 12. Since this much of the disclosure is or may be regarded as conventional, details will be omitted and the ensuing description will proceed with descriptive terminology based on the rearward location of the motor and the further recognition that the transom is transverse to the fore-and-aft length of the boat. The details of the improved mount, designated as a whole by the numeral 14, will be related location-wise to the fore-and-aft and transverse dispositions just noted, but it should be understood that this is for clarity and brevity and not for the purpose of unduly limiting the scope of invention.

The mount 14 is made up of a forward support or bracket 16 of U shape as seen from above, having a transverse bight 18, including means such as bolts 20 for affixation to the transom 10, and a pair of transversely spaced apart rearwardly extending legs 22. The support is preferably of a one-piece sheet steel structure, the bight 18 being suitably apertured for the bolts 20 and the legs 22 assuming a rectangular upright plate-like character. The heads of the bolts 20 may be countersunk if desired. However, any form of affixation may be used.

The legs 22 have a pair of transversely aligned upper apertures 24 which carry an upper rod or pintle 26, which may be removably retained as by cotter pins 28. These legs further have a plurality of pairs of lower apertures 30, any selected aligned pair of which may carry a removable lower rod or pintle 32, retained as by cotter pins 34. As will become clear later, the plurality of lower apertures afford several fore-and-aft settings or adjustable means for the lower rod 32.

The motor-carrying part of the mount 14 comprises a rearward bracket or element 36 having a transverse bight 38 and a pair of forwardly extending legs 40. This element, like the element 16, is preferably of sheet steel and the bight 38 may be appropriately apertured to support a block 42 to which the motor 12 is clamped by its conventional clamp means. The legs 40 are generally rectangular and plate-like and are transversely spaced apart so that they lie respectively laterally inwardly of and alongside the support legs 22.

The bracket legs 40 respectively have upper transversely aligned L-shaped slots 44, each having an upright or first part 46 and a second rearwardly extending part 48, and these slots receive the upper rod or pintle 26. The legs 40 further have transversely aligned lower notches 50 which open downwardly to receive the lower rod 32 in operating position (Figure 1), at which time the upper rod is at the upper ends of the upright slot parts 46 and the lower rod is at the upper ends of the notches 50. Thus, the bracket 36 is releasably locked in its operating position and the motor and boat may be operated just as if the motor were carried directly on the transom without the intervention of the mount 14. However, this mount serves many useful purposes, as will be brought out presently.

When the bracket 36, carrying the motor 12, is shifted upwardly (full lines, Figure 4) via the upright slot parts 46, the lower notches 50 become freed from the lower rod 32 and the bracket may be swung rearwardly so that the lower front ramp-like corners 52 of the bracket legs 40 clear the rod 32, after which the lifting effort on the bracket and motor may be relaxed, and the bracket will drop to the dotted-line position of Figure 4, wherein the bracket is now supported exclusively by the upper rod 26 and the upper ends of the slot parts 46. This effects a pivotal connection between the support 16 and bracket 36 and the latter may be swung upwardly and rearwardly to ultimately assume its transport position (Figure 2).

Dotted lines in Figure 5 show the approach of the upwardly and rearwardly swinging bracket 36 to a pretransport condition (full lines, Figure 5) in which the slot parts 46 have become horizontal and the slot parts 48 are generally upright, in other words, a condition approximately 90° away from that of Figure 1. As the bracket 36 progresses from the dotted position of Figure 5 to the full-line position of that figure, pivoting on the rod 26 still occurs at the upper (now forward)
ends of the slot parts 46, after which the bracket is shifted bodily forwardly until the rod 26 now registers with the supporting rod (not illustrated) of the design. Whereupon the bracket will drop to the transport position of Figure 2, the rod 26 now occupying the closed ends of the slot parts 48. When this occurs, the upper front corner portions of the legs 49, as at 54, abut rear face portions of the bight 18 in areas below the axis of the rod 26 and these portions form 54 thus constitute engageable portions cooperative upon downward shifting of the bracket 36 from the full-line position of Figure 5 to the transport position (Figure 2) to lock the bracket against tipping out of a transport position. It should be observed at this point that there is a slight rearward and upward angle to the now generally upright slot parts 48, and this accentuates the locking phase of the mechanism as will be obvious.

When it is desired to return the bracket 36 and motor to operating position, the bracket is lifted via the slot parts 48 to release the portions 50 and 32 to attain first the full-line position and then the dotted-line position of Figure 5, the bracket shifting rearwardly and downwardly so that the rod 26 seats in the closed (now forward) ends of the slot parts 46. The bracket then swings downwardly and forwardly to the dotted-line position of Figure 4 and at this point the ramp portions 52 at the lower front corners of the legs 49 become effective to ride up over the rod 32 so as to facilitate re-engagement of this rod by the notch 50, and thereupon the bracket will drop from the full-line position of Figure 4 to the operating position of Figure 1. Thus, the rod 26 and rod 32 function as lock means engageable to retain the operating position of the bracket 36 and disengageable to enable swinging of the bracket and motor out of operating position. This lock means is engageable when the bracket 36 shifts downwardly to operating position and is releaseable when the bracket is lifted from said operating position. The other lock means, made up of the leg portions 54 and rear face portions of the bight 18, is engageable when the bracket 36, after being pivoted upwardly and rearwardly, is moved downwardly and is releaseable when the bracket is in lifting position, thereby to be returned to operating position. These lock means are intricate in structure and need not be furnished as additional moveable components. Also, the pin and slot means 32-44 enables not only pivoting of the bracket 36 but also bidirectional shifting in two angularly related paths.

Since transverse in various boars the relative to their bottoms, the motor may not occupy the proper status in operating position if its status were dependent entirely on one location of the rod 32. Hence, adjustment is provided here by means of selectively realocating the rod 32 among the several pairs of lower apertures 36. This avoids the need for complicated adjustable means between the support 16 and transom 10.

The mount may be manufactured in a variety of sizes to accommodate motors of different sizes. Likewise, on the basis of the present disclosure and present and subsequent development of the art, other alterations may be made in the preferred embodiment of the invention without departure from the spirit and scope of the invention.

What is claimed is:

1. A motor mount for carrying an outboard motor on a boat comprising: a U-shaped support having a transom-engaging bight and a pair of transversely spaced apart rearwardly extending plate-like upright legs and lower and upper rods spanning and carried by said legs; and a U-shaped bracket having a motor-carrying bight and a pair of transversely spaced apart forwardly extending plate-like upright legs lying respectively alongside the support legs and having transversely aligned upper L-shaped slots and transversely aligned lower downwardly opening notches; each slot having a first upright part and a second rearwardly extending part, said slots receiving the upper rod to carry the bracket for swinging between a normal position disposing the motor upright and a transport position disposing the motor generally horizontally, said bracket in its normal position being carried by the upper rod via the upper ends of the upright slot parts and by the lower rod via the upper ends of the notches, and said bracket being shiftable upwardly from the upright slot parts to free the notches from the lower rod to enable rearward and upward swinging of the bracket so that the upright slot becomes generally horizontal and the second slot becomes generally vertical, followed by forward shifting of said bracket via said upright slot parts and then by downward shifting via said second slot part to engage said transport position; and said support and bracket respectively having portions thereon engageable forwardly of and below said upper rod upon said forward and downward shifting of the bracket to lock the bracket in said transport position, and said portions being disengageable upon upward and rearward shifting, the bracket for downward and forward swinging to reengage the notches and lower rod in said normal position.

2. The invention defined in claim 1, in which: each bracket leg has a lower forward ramp portion ahead of the respective notch and adapted to engage the lower rod when the bracket approaches in normal position so as to facilitate re-engagement of said notches and lower rod.

3. The invention defined in claim 1, in which: the support legs respectively have a plurality of pairs of lower transversely aligned apertures affording a plurality of fore-and-aft spaced apart settings, and the lower rod is selectively receivable by any aligned pair of said apertures for varying its fore-and-aft relation to the support bight.

4. A motor mount for carrying an outboard motor on a boat comprising: a U-shaped transom-engaging element and a rearwardly extending leg and lower and upper pintles carried by said leg; and a bracket having a motor-carrying element and a forwardly extending leg lying alongside the support leg and having an upper L-shaped slot and a lower downwardly opening notch; said slot having a first upright part and a second rearwardly extending part and receiving the upper pintle to carry the bracket for swinging between a normal position disposing the motor upright and a transport position disposing the motor generally horizontally; and said slot engaging the lower rod via the upper end of the rearwardly extending part and the lower rod via the upper end of the notch, and said bracket being shiftable upwardly via the upper slot part to free the notch from the lower pintle to enable rearward and upward swinging of the bracket so that the upright slot becomes generally horizontal and the second slot becomes generally vertical, followed by forward shifting of said bracket via said upright slot part and then by downward shifting via said second slot part to assume said transport position; and said support and bracket respectively having portions thereon engageable forwardly of and below said upper rod upon said forward and downward shifting of the bracket to lock the bracket in said transport position, and said portions being disengageable upon upward and rearward shifting of the bracket to provide for re-engagement of said notch and lower pintle.

5. The invention defined in claim 4, in which: the bracket leg has a lower forward ramp portion ahead of the notch and adapted to engage the lower pintle when the bracket approaches in normal position so as to facilitate re-engagement of said notch and lower pintle.

6. The invention defined in claim 4, in which: the support legs have a plurality of lower transverse apertures affording a plurality of fore-and-aft spaced apart set-
tings, and the lower pintle is selectively receivable by any one of said apertures for varying its fore-and-aft relation to the support element.

7. The invention defined in claim 4, in which the second slot part, in the transport position of the bracket, is inclined upwardly and rearwardly so as to cause the bracket, when shifting downwardly on the upper rod, to also shift forwardly to improve inter-engagement of said portions.

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