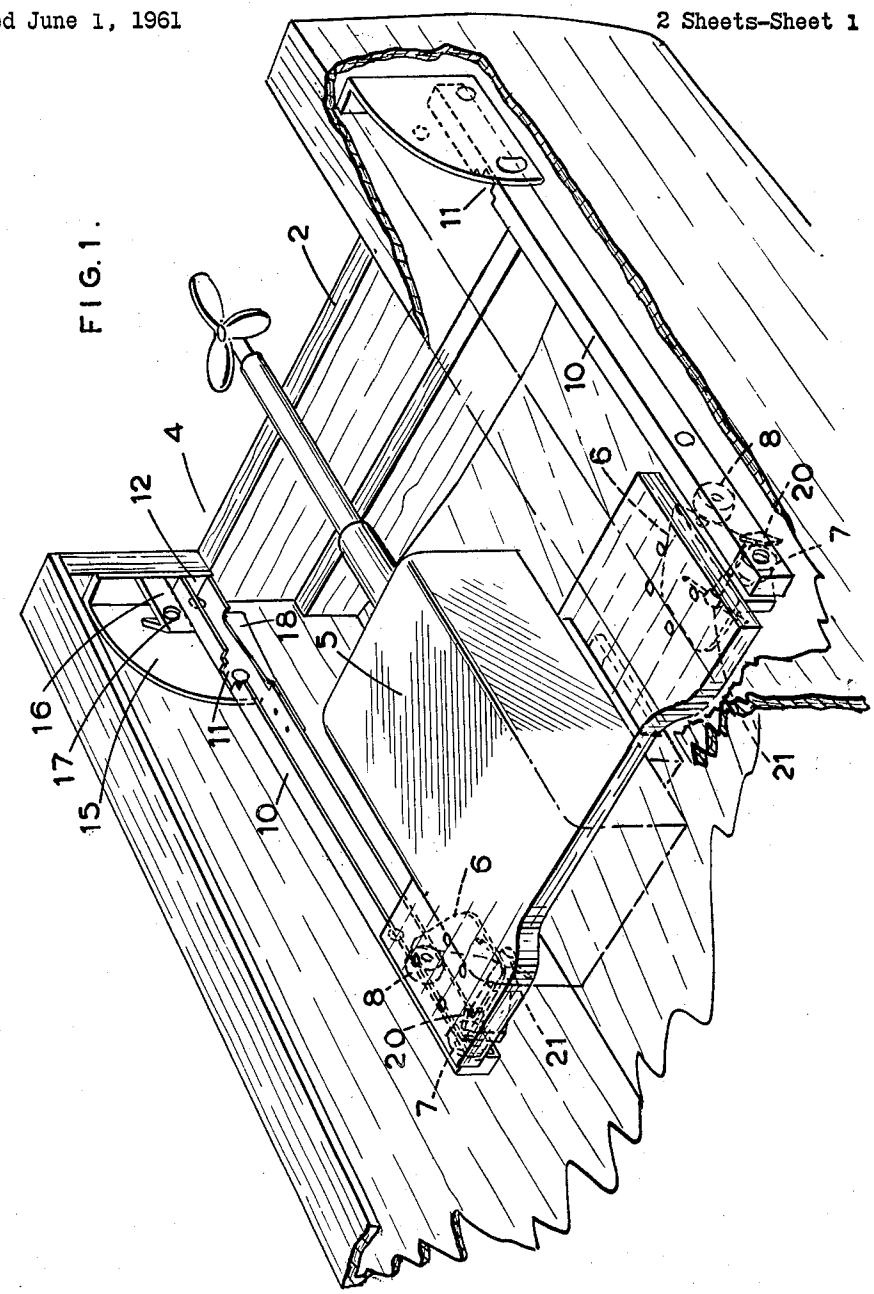
Nov. 13, 1962 L. C. JONES 3,063,404

APPARATUS FOR MOUNTING AN OUTBOARD MOTOR ON A BOAT

Filed June 1, 1961 2 Sheets-Sheet 1

FIG. 1.



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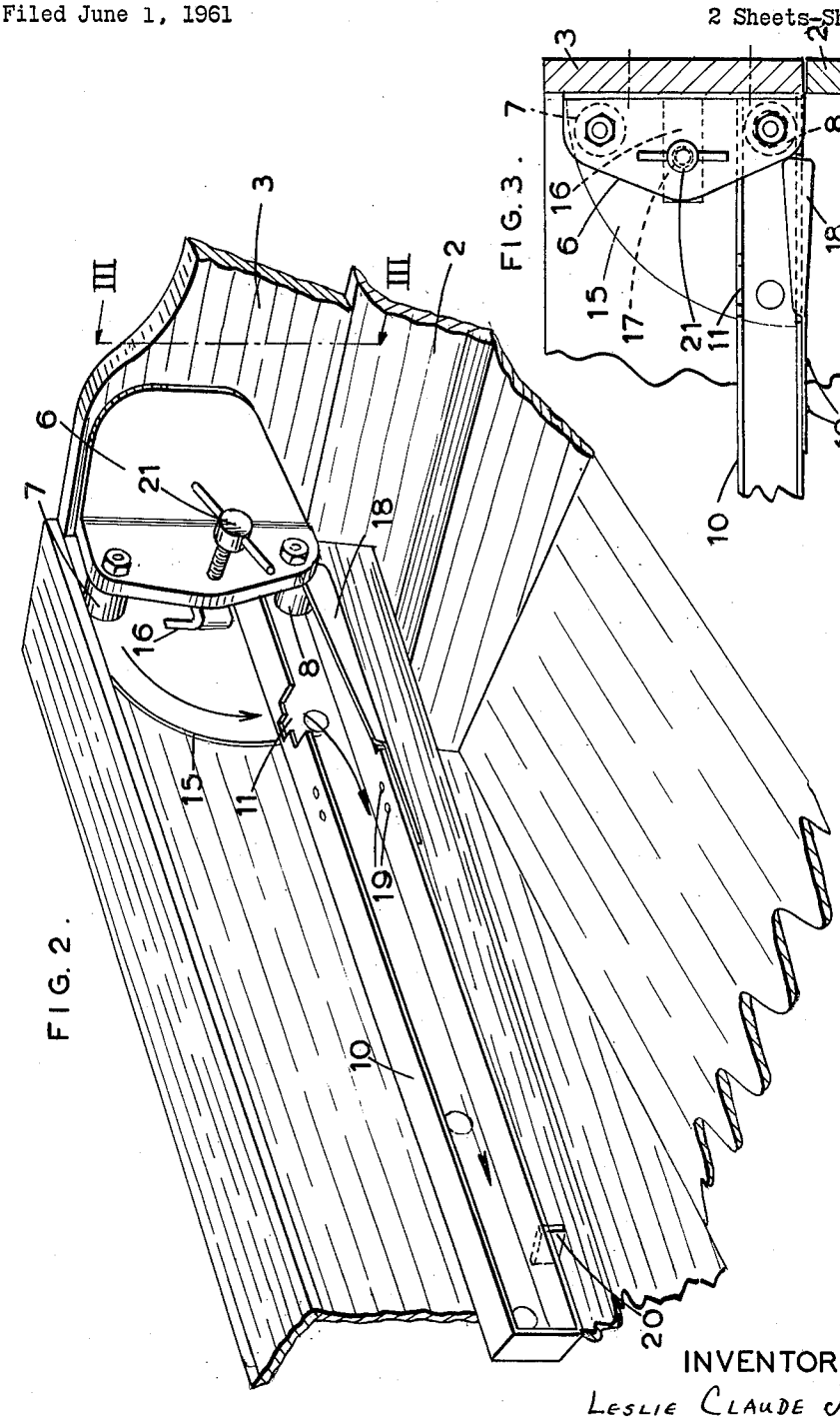


FIG. 2.

FIG. 3.

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APPARATUS FOR MOUNTING AN OUTBOARD MOTOR ON A BOAT

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13 Claims. (Cl. 115—41)

This invention relates to means for mounting an outboard motor on a boat.

It is usual for outboard motors to be releasably clamped to the transom of a boat so that it can be unshipped when the boat is to be taken out of the water. There is a present trend for large outboard motors which are of necessity relatively heavy and this makes them difficult to be man-handled in unshipping and in consequence some owners adapt the practice of leaving the motors on the boats when they are taken out of the water and transported on trailers. This, however, introduces complications in transporting the boats as the weight of the motor will be concentrated at the stern and in consequence the weight distribution of the trailer is not evenly spread. Further, there is considerable danger that the outboard motor left in its normal working position on the outside of the transom may become damaged as it is being transported.

It is an object of the present invention to provide improved means for mounting an outboard motor which will overcome these drawbacks.

According to the present invention an outboard motor is mounted on a member attachable to or forming part of the transom of the boat, said member being pivotally secured to the boat to enable the member with the outboard motor mounted thereon to be pivoted from its normal working position and moved inwardly of the boat so that the motor is disposed wholly or substantially wholly within the length of the boat.

The said member may be pivotally secured to the boat by means including a roller device and a roller guide device, one of the devices being secured to the said member and the other device being secured within the boat to enable the member to be pivoted from its normal working position into a substantially horizontal position and then moved inwardly of the boat with the roller device along the roller guide device.

Advantageously the roller device is secured to the said member and the roller guide device is secured to and lies within the boat.

The roller device may comprise rollers spaced transversely of the boat and the roller guide device may comprise roller guide rails spaced transversely of the boat.

The invention will be described with reference to the accompanying drawings in which:

FIGURE 1 is a diagrammatic perspective view of the stern section of the boat fitted with apparatus according to an embodiment of the invention, while

FIGURE 2 is a detail view showing the arrangement of the apparatus illustrated in FIGURE 1 at one side of the stern, and

FIGURE 3 is a side elevation partly in cross-section taken on the line III—III of FIGURE 2.

Referring now to the drawings, part of a transom 2 at the stern of a boat is cut away and a transom plate 3 fits into the cut away area 4 of the transom 2. An outboard motor generally designated 5 is fixed to the outboard side of the plate 3 by any suitable means. In its normal position the transom plate 3 fits into and substantially fills the cut away area 4, the outboard motor then being in a substantially vertical working position.

To the inboard side of the transom plate 3 are secured a pair of angle brackets 6 spaced transversely of the boat.

As shown, one angle of each bracket is secured to the transom plate 3 and the other angle projects forwardly therefrom. Each bracket 6 carries a pair of rollers 7 and 8 which are rotatably mounted on the forwardly projecting angle of the bracket, the rollers 7 of each bracket 6 being disposed above the other roller 8 in the normal position of the transom plate 3 as shown in FIGURES 2 and 3.

A pair of transversely spaced guide rails 10 are secured within and extend longitudinally of the boat and each guide rail has a channel-shape, the open side of the channel of one guide facing across the boat towards the open side of the channel of the other guide.

The stern ends of the guide rails 10 are each closed by a stop 12 and, in the normal position of the transom plate with the motor in its working position, each lower roller 8 is located in a channel-shaped guide abutting the stop 12 of the guide.

Thus both pairs of upper and lower rollers are now moving in the guides 10 and the transom plate 3 and motor 5 are moved inwardly of the boat until the motor is disposed wholly or substantially wholly within the boat, the guides 10 being of sufficient length to allow this.

The motor is returned to its working position by pushing the motor outwardly of the boat so that the rollers 7 and 8 move along the guides 10 until the upper rollers 7 reach the portions 11 of the guides and the lower rollers 8 abut the respective stops 12 whereupon the transom plate 3 and motor 5 can pivot about the lower rollers 8 to bring the motor back into its working position.

The end stops 12 of the guides 10 are preferably formed by the bent over ear portions of bracket members 15 secured to the sides of the boat. These bracket members 15 are each formed with a projecting lug 16 having an aperture or slot 17 into which fits an end of a thumbscrew bolt 21 carried by the bracket 6 at each side of the transom plate 3 in its substantially upright normal position.

A lug 20 is welded to the underside of each guide 10 near its forward end. The lug 20 can be engaged by the thumbscrew bolt 21 when the transom plate is moved to its forward position to lock the brackets 6 at the forward ends of the guides 10.

A spring abutment flap 18 is connected by rivets 19 to the underside of each guide 10 and serves to engage the lower roller 8 in the guides to hold it in its rearmost position. When the transom plate 3 is pivoted forwardly the flaps 18 are depressed to allow the rollers 8 to move along the guides 10.

I claim:

1. Apparatus for mounting an outboard motor at the stern of a boat comprising a member forming part of the transom of the boat, the motor being mounted on the member, the member being pivotally secured to the boat to enable it and the outboard motor mounted thereon to be pivoted from its normal working position and moved inwardly of the boat so that the motor is disposed substantially wholly within the length of the boat, the said member comprising a plate which, when the motor is in its normal working position, fits into and substantially fills a cut-away area in the transom of the boat, a pair of brackets spaced transversely of the boat and secured to the inboard side of the plate, each bracket carrying a pair of rollers which are rotatably mounted on the brackets, and guide rails positioned adjacent to opposite sides of the boat and extending longitudinally thereof for engagement by said rollers.

2. Apparatus for mounting an outboard motor at the stern of a boat comprising a member to which the motor is fixed, pivotal means connecting the member with the

boat to enable the member to pivot about a substantially horizontal axis from a position in which the motor is in a substantially vertical working position, and guide means whereby the member, together with the motor, can be slid forwardly of the boat until the motor is disposed substantially wholly within the length of the boat, the said pivotal means comprising a roller device secured to the member and the said guide means comprising roller guide rails secured transversely within the boat to enable the member to be pivoted about a substantially horizontal axis from its working position to a generally horizontal position and then moved inwardly of the boat with the roller device running in engagement with the roller guide rails.

3. Apparatus according to claim 1, wherein one of the rollers is mounted above the other roller on the bracket in the normal position of the plate, said lower roller engaging the adjacent guide rail.

4. Apparatus according to claim 3, wherein the upper roller of each bracket is positioned to be brought into engagement with a roller guide rail upon the plate being rotated about the axes of the rail engaging lower rollers, whereupon, the plate will then be in a substantially horizontal position.

5. Apparatus according to claim 2, wherein the roller guide rails comprise a pair of channel-sectioned members the open side of the channel of one guide facing across the boat towards the open side of the channel of the other guide.

6. Apparatus according to claim 5, wherein the guide rails are of such a length that the member on which the motor is mounted can be slid inwardly of the boat until the motor is disposed within the boat.

7. Apparatus according to claim 1, including means for locking the member on which the motor is mounted in its normal working position, and means for locking the member in position when the motor is disposed substantially wholly within the boat.

8. Apparatus for mounting an outboard motor at the stern of a boat, comprising a transverse plate member to which the outboard motor is attached and which plate member is pivotable from a position in alignment with the transom of the boat in which position the motor is intended to operate, the member being generally rectangular and having at its opposite sides pivotal means whereby it can be pivoted about a horizontal axis located near to and ahead of its lower edge, said pivotal means being displaceable slidably in a substantially horizontal plane forwardly of the boat to enable the member with the outboard motor mounted thereon to be pivoted from its normal working position and thereafter moved inwardly of the boat in a substantially horizontal plane.

9. Apparatus according to claim 8 wherein the pivotal means provided at each side of said plate member includes a roller rotatably carried with respect to said plate, said roller engaging a roller guide rail which extends longitudinally of the boat as said member is pivoted and moved inwardly of the boat.

10. Apparatus according to claim 8 wherein the pivotal means for the plate member are located near the sides of the boat whereby access to the motor when it is in its working position is unobstructed by said pivotal means.

11. In a boat, apparatus for mounting an outboard motor on the boat transom comprising an elongate transom plate disposed transversely of the boat and to which an outboard motor is to be attached, an angle bracket secured to the inner side of the said plate at each end of the latter, each bracket having a forwardly projecting flange, an upper roller and a lower roller secured to each bracket flange on the side of the flange adjacent to the near side of the boat, a channel track rail extending forwardly from the transom at each end of said transom plate, each track rail having an adjacent lower roller mounted therein for rolling movement therealong, said lower rollers forming pivot means at the bottom part of the transom plate, upon which to swing the plate inwardly and downwardly from a substantially vertical operative position to a substantially horizontal inoperative position wtih respect to an attached motor, said upper rollers entering the track rails to align horizontally with the adjacent lower rollers when the plate is swung to said inoperative position, whereby the plate and an attached motor may be slid substantially horizontally into, or out of, the boat, and means for securing the plate in its operative position and in its inwardly slid horizontal inoperative position.

12. The invention according to claim 11 wherein the last stated means comprises a thumb screw bolt threaded transversely through the forwardly projecting flange of each angle bracket and keeper lugs for engagement by the thumb screw bolt, there being a keeper lug secured adjacent to the rear end of each track rail for engagement by the thumb screw bolt when the transom plate is disposed vertically in operative motor supporting position, and another keeper lug secured to the track rail adjacent to the forward end of the latter for engagement by the thumb screw bolt when the transom plate is in its inwardly slid horizontal inoperative position.

13. The invention according to claim 11, with a spring latch element secured to each track rail adjacent to the rear or transom end thereof, said spring latch elements functioning to hold the lower rollers against movement in the track rails while the transom plate is being pivoted between its operative and inoperative positions, and the spring latch elements being movable to roller releasing positions to permit the lower rollers to move forwardly in the track rails.

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UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,063,404 November 13, 1962

Leslie Claude Jones

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 2, line 18, after "of the guide." insert the following paragraph:

> To bring the motor inboard, the transom plate 3 with the motor attached, is first pivoted about the lower rollers 8 which are located at the rear or stern end of the guide rails. As shown, and indicated by the arrows in FIG. 2, the upper rollers 7 will swing downwardly and pass through the cut-out portion 11 in the upper part or upper flange of the channel guides, thereby bringing the upper rollers into line with the rollers 8, within the guides. The transom plate 3 and the motor 5 are then pulled inwardly of the boat so that the upper rollers 7 and lower rollers 8 move along the guides or guide rails.

Signed and sealed this 12th day of November 1963.

(SEAL)
Attest:

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Attesting Officer

EDWIN L. REYNOLDS
Acting Commissioner of Patents