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PROPELLER GUARD AND RUDDER DEVICE

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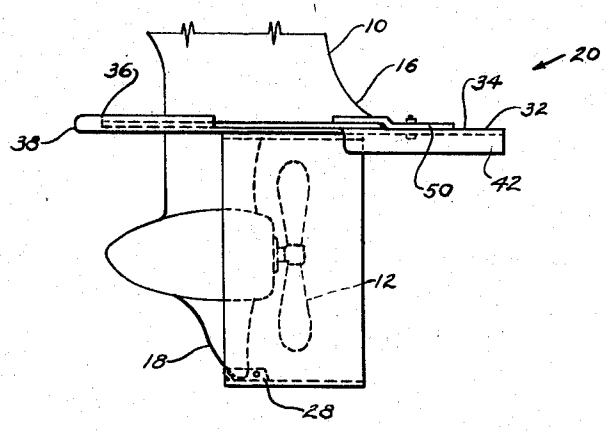


FIG - 1

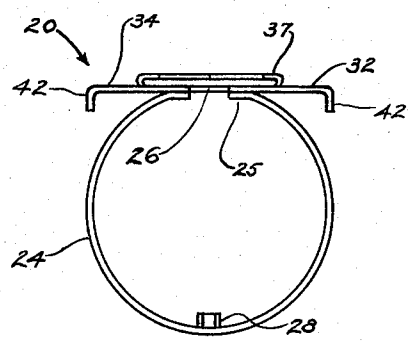


FIG - 3

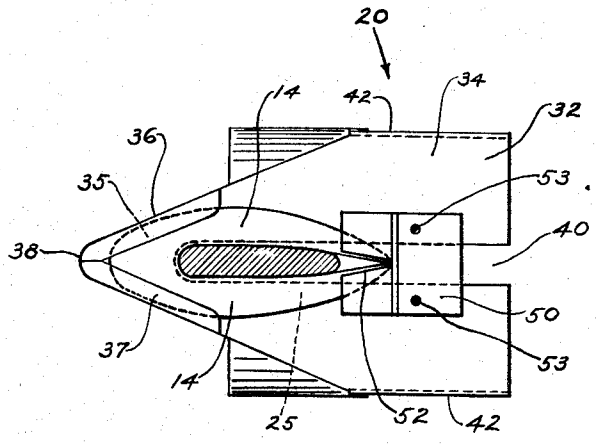


FIG - 2

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PROPELLER GUARD AND RUDDER DEVICE

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7 Claims. (Cl. 115—42)

This invention relates to a combination propeller guard and rudder means and has special reference to guards for propellers of outboard motors or the like.

An object of this invention is to provide an improved guard for use in protecting propellers from injury by any submerged materials or substances, such as rocks and stones, or logs and trees, and also to prevent interference with lines used in trolling or other fishing activities.

It is another object of this invention to provide a guard for outboard motor propellers which is so constructed to add the minimum amount of weight and drag consistent with full protection of the motor and propeller.

It is still another object of this invention to provide in a combination guard and rudder means with means for readily and quickly mounting it on an outboard motor.

It is a further object of this invention to provide in a combination guard for the propeller of outboard motors and a rudder means which is designed to adequately control the boat in different boating maneuvers.

It is still a further object of this invention to provide a guard for the propeller of an outboard motor which prevents the human body from coming into contact with such propellers thus preventing cutting and mutilation of persons in the water adjacent the boat.

The above and other objects, features, advantages and capabilities will become apparent from a detailed description of the accompanying drawing, in which I have illustrated the preferred form of my invention. However, I do not wish to be limited to the particular form except as hereinafter described in the appended claims.

Figure 1 is a side elevational view of the improved combined propeller guard and rudder means mounted on the lower portion of an outboard motor body.

Figure 2 is a plan view of the combined propeller guard and rudder means as shown in Figure 1.

Figure 3 is an elevation view of the rear of the combined guard and rudder device.

Referring to the drawing in detail, **10** designates the lower portion of a conventional outboard motor, the propeller thereof being shown at **12**. Above the propeller **12**, the motor body is formed with the usual horizontal glider ribs **14**, **14** and with the vertical trailing rib or vane **16**. The body of the motor is likewise formed forwardly of the propeller **12** with the vertical leading rib **18**.

The combined propeller guard and rudder means is designated generally at **20**. The guard **24** comprises a relatively large open ended cylindrical body member of the same diameter throughout its length. The top of the body member **24** is formed with a longitudinal slot **26** extending its complete length for a purpose set forth hereinafter. A notch **28** is formed on the bottom of the body member **24** adjacent the front thereof receiving the lower end of the vertical leading rib **18** of the

outboard motor for aiding in holding the outboard motor in proper position in the body member **24**.

The rudder means **20** also comprises a horizontal plate **32** which is of rectangular shape at its approximately rear one third as at **34**, while the approximately front two thirds of the plate **32** is tapered as at **36** to a front point **38**. The plate **32** is provided with a longitudinal slot **40** extending from its rear end to contiguous its front end **38**. The upper ends **25** of the cylindrical member **24** are secured by appropriate means to the under side of the plate **32** intermediate the ends thereof thus aligning the slot **26** in the cylindrical member **24** with the slot **40** in the plate **32**. Plate **32** is provided with a depending flange **42**, **42** on the opposite sides at the rear one third **34** of plate **32**.

The body of outboard motor is moved into the slot **40** of plate **32** with the horizontal glider ribs **14** thereof engaging the top surface of the plate **32** contiguous the slot **40**. The body of the outboard motor is moved to the front of the slot **40** and at such a position the propeller **12** is axially disposed within the cylindrical body **24**, and the lower end of the vertical leading rib **18** is received in the notch **28** on the bottom of the member **24**. The rear portions of the ribs **14** on the motor body are received into recess means **35** on the front of plate **32** formed by bent over flange means **37** thereof to aid in mounting the guard in the motor body.

A securing means **50** is provided with a notch **52** in its front end. The front portion of the ribs **14** fit into the notch **52** of the securing means **50** for aid in holding the propeller **12** of the motor within the member **24**. The securing means **50** is seamed to top of the plate **32** by bolt and nut means **53**. The securing means **50** is easily dismantled from the guard and rudder device so that the guard can be readily demounted from the outboard motor.

The cylindrical guard **24** protects the propeller **12** from being damaged by unknown objects in the water. The cylindrical guard **24** offers a minimum drag to the water so that the efficiency of operation of the outboard motor is not materially reduced. The rear of plate **32** prevents the water thrust by the propeller **12** from rapidly rising to the surface of the water thus increasing the thrust of the propeller and reducing the turbulence created by the propeller.

The rudder device **20** which comprises the plate **32** and its depending flanges **42** tends to lift the boat upwards in the water thus providing a buoyancy to the boat and reducing the drag of the guard device **24** in the water. The flanges **42** in cooperation with the horizontal plate **32** aids in steering the boat more easily especially in turbulent waters at slow speeds.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiment is therefore, to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of equivalency of the claims are, therefore, intended to be embraced therein.

What is claimed is:

1. In a combination propeller guard and rudder means for attachment to an outboard motor body provided with a propeller, the guard comprising an open ended cylindrical conduit member adapted to house said propeller axially therein, the top of said conduit member formed with a longitudinal slot for receiving a first portion of the motor body, a means formed on the bottom of the conduit member for receiving a second portion of the motor body, rudder means comprising a plate provided

with spaced depending flanges mounted on the top of the conduit member, the plate of the rudder means provided with a longitudinal slot in alignment with the slot means in the conduit member for receiving the said first portion of the motor body, and means for detachably securing the rudder and guard means to the said first portion of the motor body.

2. In a device as set forth in claim 1 wherein the cylindrical conduit is provided with the same diameter throughout its entire length.

3. In a device as set forth in claim 1 wherein the flanges on the rudder means are spaced on the opposite edges of the plate.

4. In a device as set forth in claim 1 wherein the means for detachably securing the guard and rudder means to the first portion of the motor body comprises a bar means provided with a slot for receiving the said first portion of the motor body.

5. In a device as set forth in claim 1 wherein the rudder means comprises a horizontal plate which gradually

tapers at its front end and the flanges are formed on the opposite sides contiguous its rear end.

6. In a combination propeller guard and rudder means for attachment to an outboard motor body provided with a propeller, the guard comprising a tubular member adapted to house said propeller axially therein, the top of said tubular member provided with a slot means for receiving a portion of the motor body, the rudder means comprising a plate provided with spaced depending flanges mounted on the top of the tubular member, the plate of the rudder means provided with a slot in alignment with the slot means in the said member for receiving the said portion of the motor body.

7. In a device as set forth in claim 6 wherein the flanges on the rudder means are formed on the opposite sides of the plate adjacent its rear end.

References Cited in the file of this patent

UNITED STATES PATENTS

2,551,371 Grigg ---------- May 1, 1951