March 20, 1962 R. H. MARTINSON 3,025,825

WEED, ETC., GUARD FOR OUTBOARD MOTORS

Filed May 24, 1960

Fig. 1

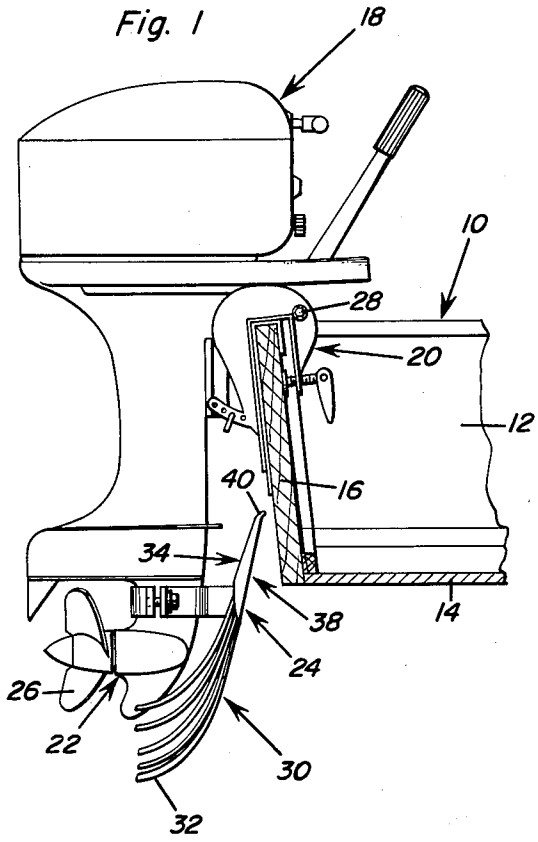


Fig. 2

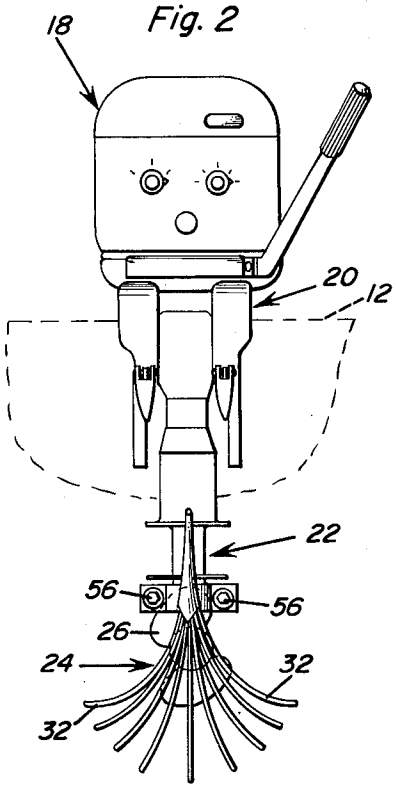
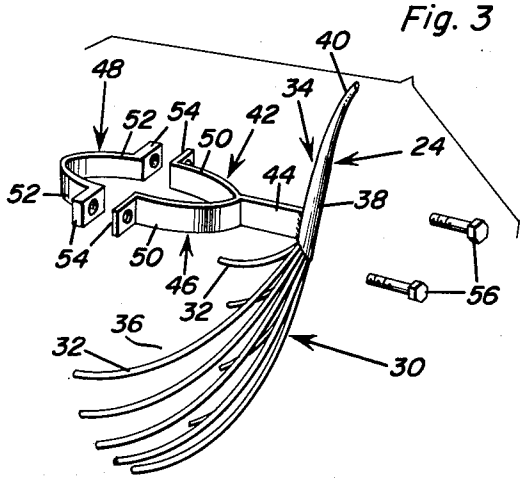


Fig. 3



Royden H. Martinson

INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

United States Patent Office 3,025,825 Patented Mar. 20, 1962

3,025,825

WEED, ETC., GUARD FOR OUTBOARD MOTORS

Royden H. Martinson, 107 S. 5th Ave. West,
Lake Mills, Iowa

Filed May 24, 1960, Ser. No. 31,431
5 Claims. (Cl. 115—42)

This invention relates to a novel and useful weed guard for outboard motors of the type having a vertically extending lower unit with a propulsion unit carried by the lower end thereof, and more particularly relates to a weed guard adapted for securement to the lower unit of an outboard motor forwardly of the propulsion unit therefor. The weed guard includes a fan-shaped member having a plurality of arms with the arms being fixedly secured together at one end and disposed in outwardly divergent relation at the other end. The weed guard is adapted for securement to the lower unit of an outboard motor with the end thereof having the arms fixedly secured together disposed uppermost and the outwardly divergent ends of the arms disposed lowermost with the frame member inclined forwardly and upwardly relative to the outboard motor lower unit to which it is secured.

Many boat owners, and particularly fishermen, occasionally have to operate their boats equipped with outboard motors in water areas having a large amount of water vegetation and the like such as seaweed suspended in the water adjacent the surface thereof. Operation of the conventional type of outboard motor having a propeller therefor, through water of this type can prove to be a nuisance inasmuch as the spinning propeller is highly susceptible to becoming entangled with long strings of the water vegetation. When the propeller becomes thus entangled, the efficiency of the latter is greatly reduced and it is necessary to stop the outboard motor and the boat so that the former may be lifted clear of the water and the weeds removed from the propeller.

Besides often encountering water having water vegetation therein, fishermen and the like frequently desire to operate their boats in relatively shallow water with the result being that the bottom end of the lower unit of the outboard motor occasionally will strike a submerged object such as portions of the bottom or upwardly projecting rocks and the like. The weed guard of the instant invention is adapted not only to greatly reduce the possibility of the propulsion unit of the outboard motor becoming fouled with weeds, but it is also adapted to project below the lower extremities of the lower unit of the outboard motor and be positioned forwardly thereof so that the weed guard itself will strike the submerged objects rather than the lower unit of the outboard motor. Of course, the weed guard is carried by the lower unit of the outboard motor itself and therefore it must be constructed of a material having inherent resilient properties thereby absorbing most of the shock of an underwater object being struck due to forward movement of the boat carrying the motor to which the weed guard is secured.

The main object of this invention is to provide a weed guard for outboard motors that may be mounted on the lower unit of an outboard motor and positioned forwardly thereof and in alignment with the propulsion unit of the outboard motor so that the propulsion unit of the outboard motor will not become fouled with marine vegetation.

A further object of this invention, in accordance with the immediately preceding object, is to provide a weed guard that will also project below the lower extremity of the lower unit of an outboard motor and be constructed of a resilient material whereby a submerged object in alignment with the movement of the lower portion of the

lower unit of the outboard motor will be engaged by the resilient weed guard rather than the lower unit of the outboard motor itself thus enabling the weed guard to absorb a considerable portion of the impact and to pivot the outboard motor to raise the lower unit thereof above the submerged object.

Still another object of this invention is to provide a weed guard in accordance with the preceding objects which will offer a minimum amount of resistance to its passage through water.

A further object of this invention is to construct the arms of the fan-shaped member of a material sufficiently rigid to resist bending under light impact but sufficiently resilient to bend appreciably upon heavy impact so that extremely heavy impacts may be more readily absorbed thereby.

A final object to be specifically enumerated herein is to provide a device which will conform to conventional forms of manufacture, be of simple construction and easy to secure to various types of outboard motors so as to provide a device that will be economically feasible, durable in construction and simple to use.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a side elevational view of the aft portion of a boat shown with a conventional form of outboard motor secured thereto and the weed guard of the instant invention mounted upon the lower unit of the outboard motor, the boat being shown in longitudinal section;

FIGURE 2 is a front end elevational view of the outboard motor as shown in FIGURE 1, the transom of the boat being shown in phantom lines; and

FIGURE 3 is an exploded perspective view of the weed guard.

Referring now more specifically to the drawings the numeral **10** generally designates the aft portion of a boat including a side **12**, a bottom **14** and a transom **16**. A conventional form of outboard motor generally referred to by the reference numeral **18** is shown mounted upon the transom **16** of the boat **10** by means of a mounting bracket generally referred to by the reference numeral **20** and the lower unit of the outboard motor **18** is generally referred to by the reference numeral **22** and has a weed guard generally designated by the reference numeral **24** rigidly secured thereto in horizontal alignment with the propeller **26** of the lower unit **22**. The outboard motor **18** is pivotally secured to the clamping assembly **20** by means of a pivot bolt **28** for movement about a transversely extending and horizontally disposed axis.

The weed guard **24** includes a generally fan-shaped frame member generally designated by the reference numeral **30** which includes a plurality of arms or tongs **32**. The arms **32** have their upper ends fixedly secured together by a securing means generally designated by the reference numeral **34**. The lower ends of the arms **32** are outwardly divergent and curve rearwardly as can best be seen in FIGURE 1 of the drawings. The centermost of the arms **32** is contained substantially entirely in a vertical plane and the free ends of the arms **32** positioned on either side thereof are curved outwardly therefrom and outwardly from the next adjacent arm **32** toward the centermost arm **32**. Thus, it may be seen that the free ends of the arms **32** form a rearwardly opening recess **36** forwardly of and in alignment with the propeller **26** of the lower unit **22**.

The securing means **34** completely encloses the upper ends of the arms **32** and may be of any convenient construction although it is most desirable to provide a solid

member 38 in which the upper ends of the arms 32 are embedded. In this manner, the weed guard may be more readily and effectively streamlined to present minimum resistance to the water through which it passes. It will be noted that the fan-shaped frame member 30 is upwardly and forwardly inclined relative to the vertical extent of the lower unit 22. The upper end of the member 38 is curved forwardly as at 40 to assist the movement of weeds and the like engaged thereby downwardly along the fan-shaped frame member 30.

The weed guard 24 is secured to the lower unit 22 of the outboard motor 18 by means of a bracket assembly generally referred to by the reference numeral 42 which includes a rearwardly projecting mounting flange 44 fixed secured to the member 38 and terminating at its rear end in a rearwardly opening generally U-shaped horizontally disposed member generally designated by the reference numeral 46. A forwardly opening and generally U-shaped horizontally disposed member 48 is also provided and the two members 46 and 48 are adapted to frictionally engage and embrace the lower unit 22. The free ends of the legs 50 of the member 46 and the legs 52 of the member 48 are each provided with apertured mounting lugs 54 which are formed on the free ends of the corresponding legs and are outturned to receive the threaded fasteners 56 therethrough for rigidly securing the weed guard 24 to the outboard motor 18.

In operation, the U-shaped members 46 and 48 are secured together by means of the fasteners 56 in frictional engagement with and embracing relation about the lower unit 22 as illustrated in FIGURE 1 of the drawings. Upon forward movement of the boat 10 any weeds or marine vegetation near the surface of the water will be engaged by the weed guard 24 and slide down the arms 32 of the latter to pass beneath the propeller 26 of the outboard motor 18. Should the weed guard strike a submerged object, if the speed is not too great, the impact of the weed guard with the submerged object will merely pivot the outboard motor about the pivot bolt 28 to raise the lower unit 22 above the submerged object. However, if the speed of the boat 10 is relatively high, the resilient arms 32 of the weed guard 24 will flex appreciably to absorb a greater portion of the impact as the outboard 18 is pivoted about the pivot pin 28.

It is to be noted that the solid member 38 having the upper ends of the arms 32 embedded therein provides an extremely rigid device for the purpose intended and also provides a convenient handle by which a person may carry the lower unit of the outboard motor 18 and also that the frame member 30 may be constructed whereby it may be secured in horizontal alignment with the propeller 26 to completely screen the arc through which the blades of the propeller travel or in a manner whereby the frame member 30 may be positioned in a slightly lower position as illustrated in FIGURES 1 and 2. Further, the extreme simplicity of the construction of the guard 10 and its universal mounting means readily adapting the guard for securement to substantially every

type of conventional outboard motor provides a relatively inexpensive attachment which may be used to an advantage by substantially every outboard motor owner.

The foregoing is considered as illustrative only of the principles of the invention. Further, 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 and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. In combination with an outboard motor secured to the transom of a boat and of the type having a lower unit, a weed guard comprising a fan-shaped frame member including a plurality of arms, means fixedly securing said arms together at one end and the other ends of said arms being outwardly divergent, means carried by said securing means and mounting said guard on said lower unit forwardly of the latter and inclined relative thereto with said securing means disposed uppermost and said arms depending rearwardly therefrom, the lower ends of said arms curving rearwardly to form a rearwardly opening recess forwardly of and aligned with the propulsion unit of said lower unit, said securing means comprising an elongated rigid member completely enclosing the upper ends of said arms, inclined upwardly and forwardly and extending upwardly between the lower unit and the transom of said boat above the surface of the water and the bottom of said boat in order that marine growth such as sea weed and the like will be prevented from becoming entangled with said lower unit.

2. The combination of claim 1 wherein said arms are constructed of a resilient metallic material.

3. The combination of claim 1 wherein said arms are constructed of a resilient metallic material, said mounting means including a rearwardly projecting mounting flange carried by said rigid member and terminating at its rear end in a rearwardly opening generally U-shaped horizontally disposed member adapted to frictionally engage and partially embrace said lower unit from the front, a forwardly opening generally U-shaped and horizontally disposed member adapted to frictionally engage and partially embrace said lower unit from the rear, and means securing the free ends of the corresponding legs of said U-shaped members together for rigidly mounting said frame member to said lower unit.

4. The combination of claim 1 wherein the upper end of said rigid member is curved slightly forwardly.

5. The combination of claim 1 wherein said rigid member is solid and the upper ends of said arms are embedded therein.

References Cited in the file of this patent

UNITED STATES PATENTS

2,468,890	Moore	May 3, 1949
2,597,551	Van Nort	May 20, 1952