May 15, 1962 L. G. VANDERFELTZ ET AL 3,034,470

TOW ROPE HITCHES FOR ATTACHMENT TO BOATS

Filed Sept. 1, 1960 2 Sheets-Sheet 1

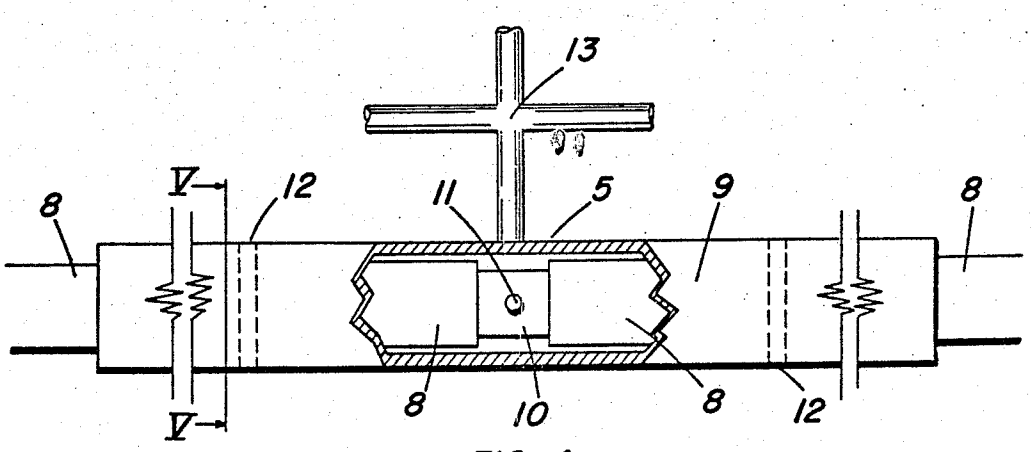


FIG. 4

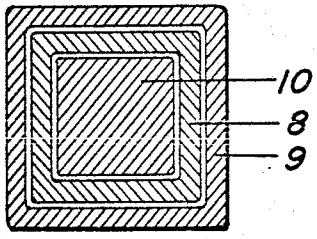


FIG. 5

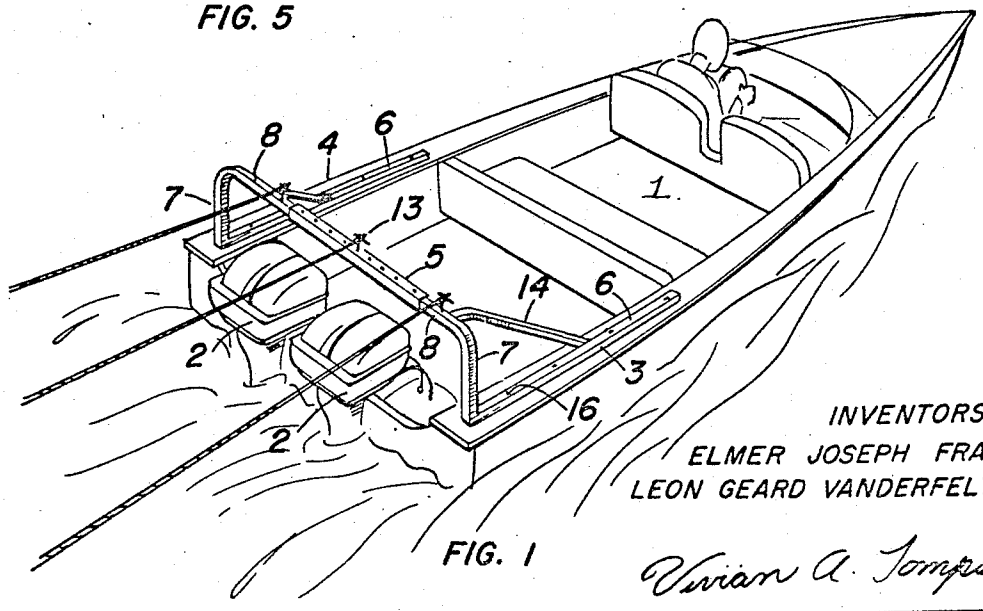


FIG. 1

INVENTORS
ELMER JOSEPH FRANK
LEON GEARD VANDERFELTZ

Vivian A. Tompson
AGENT

May 15, 1962 L. G. VANDERFELTZ ET AL 3,034,470

TOW ROPE HITCHES FOR ATTACHMENT TO BOATS

Filed Sept. 1, 1960 2 Sheets-Sheet 2

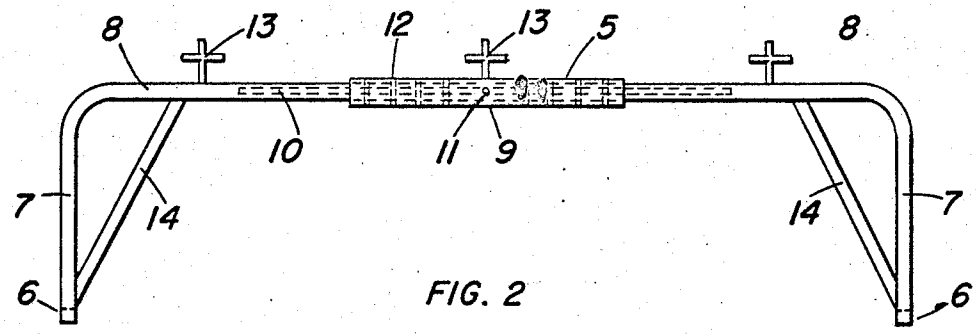


FIG. 2

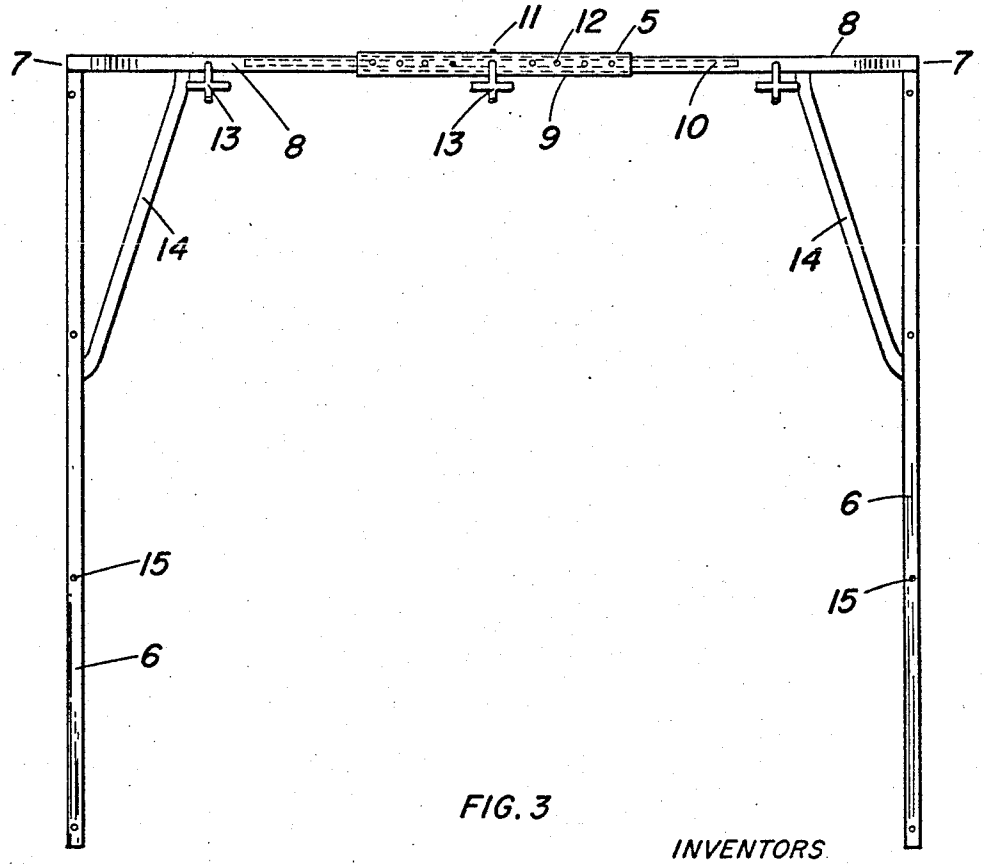


FIG. 3

INVENTORS
ELMER JOSEPH FRANK
LEON GEARD VANDERFELTZ
Vivian A. Tompson

AGENT

United States Patent Office 3,034,470 Patented May 15, 1962

3,034,470

TOW ROPE HITCHES FOR ATTACHMENT TO BOATS

Leon Geard Vanderfeltz, 1831 W. Main St., and Elmer Joseph Frank, 1016 Fairmount Court, both of Jefferson City, Mo.

Filed Sept. 1, 1960, Ser. No. 53,403
6 Claims. (Cl. 114—235)

This invention relates to water ski tow rope hitches, particularly for use with boats having a power operated propeller at the stern thereof, with emphasis on the outboard motor type boats.

At the present time there is no adequate means provided on outboard motor boats to permit the attachment of a tow line to be used in towing water skiers, or surfboard riders. It is common practice to attach the tow line directly to the rear of the boat or to a bar which surrounds the outboard motor. This latter type of attachment interferes with the motor in its raised position, unless the bar is hinged so it also may be raised.

The primary object of this invention is to provide a hitch for tow lines so that they will not become entangled in the propeller blades when in use and will also enable the user to raise the motor out of the water without any unnecessary adjustment to the towing hitch.

A further object is to provide an adjustable hitch which may be attached to boats of various widths.

Another object is to provide a fixed attachment for the tow lines to the boat.

And a still further object is to enable a person in the boat to pull a tow line in without having to reach way out beyond the motor.

Further objects and advantages of this invention will become more apparent from the following description.

A preferred embodiment of the invention is illustrated in the accompanying drawing, in which:

FIG. 1 is a perspective view showing our device in use on a boat.

FIG. 2 is a posterior view of the device.

FIG. 3 is a top plan view.

FIG. 4 is an enlarged anterior view, partly cut away, to show details of the adjustable width mechanism.

FIG. 5 is a sectional view along line V—V of FIG. 4.

In the drawing, attention is called to FIG. 1 wherein reference numeral 1 indicates a boat on which outboard motors 2 are mounted.

Our invention consists of three main sections. Two lateral sections, 3 and 4, are similar to each other but mirror images. Lateral sections 3 and 4 are joined together by the third main center section 5.

Lateral sections 3 and 4 are formed of metal tubing and consist of a side bar 6, a vertical bar 7, extending upwardly at a right angle from side bar 6, and a horizontal bar 8 bent at approximately 90° from vertical bar 7 and perpendicular to the center line of the boat. An angle brace 14 extends from side bar 6 to horizontal bar 8.

Center section 5, as best seen in FIG. 4, is formed of an outer tubular sleeve 9 and an inner solid rod 10. The outer dimension of rod 10 is smaller than the inner dimension of the sleeve 9, leaving a space completely surrounding rod 10, which is slightly greater than the wall thickness of horizontal bar 8. Rod 10 is of a greater length than sleeve 9 and projects outwardly at either end of sleeve 9. Rod 10 and sleeve 9 are joined together at their respective centers by any conventional, as for example, as illustrated in the drawing, by bolt 11.

Extending through both sleeve 9 and rod 10 are a series of aligned apertures 12. Also extending through horizontal bar 8 is a similar series of apertures. In the assembled position the horizontal bar 8 is telescoped within the outer sleeve 9 and telescoped over the inner rod 10.

The extended portion of rod 10 acts as a guide in joining the main parts together, and in use greatly strengthens the hitch. The extent to which the horizontal bar 8 extends within the outer sleeve 9 can be varied according to the width of the boat. When a suitable width is determined bolts are placed through the aligned apertures 12, securely fastening the lateral sections to the main central section.

Hooks 13 are attached along horizontal bar 8 and to sleeve 9. These hooks are bent in a forward direction and provide rope anchor attachments for the tow lines. Multiple hooks are employed to provide adequate separation of the towlines to prevent entanglement.

Side bar 6 is formed with a series of apertures 15 to be used in attaching the device to the sides of the boat. We employ bolts 16 to firmly secure the invention to the boat but any other conventional means could be used. The position of the side bars can be varied. We have placed it in a position where the center section bar is located directly over the motors 2. The height of the vertical bar 7 is great enough to provide sufficient space under the center section to allow the motors to be raised out of the water.

The position of the invention upon the boat does not necessarily have to be located as shown in FIG. 1 but may be placed along the sides of the boat wherever desired. An alternative position, that is also very desirable, is to place side bars 6 so that the rear portion of the hitch projects outwardly at the rear of the boat so that center section bar 5 is located above and to the rear of the motors 2.

In the accompanying drawing the tubing and solid rod have been illustrated as having a square cross-section. This form has merely been used by way of illustration and not to limit the shape of these parts. Alternative cross-sections might be round, rectangular, or polygonal. The material employed may be metals such as aluminum, magnesium, iron, steel, or any other strong durable material.

The water ski tow line fastening hitch of the present invention has provided a strong and stable means of attaching tow lines to the boat. The device keeps the tow lines separated and away from the propellers of the boat. In so doing, the device does not interfere with the motor in any position.

Various changes and modifications may be made without departing from the spirit of the invention and all of such changes are contemplated as may come within the scope of the claims.

What we claimed is:

1. A water towing assembly for boats having a power operated propeller at the stern thereof, said assembly comprising two lateral sections, tubular in form, similar but mirror images, each having a side bar for attachment to the sides of a boat, which extends in a horizontal plane and is parallel to, the similar member of the other lateral section, a vertical bar extending upwardly from an end of the side bar, and a horizontal bar attached at the other end of the vertical bar and extending in a direction to meet the horizontal bar of the opposite side in a straight line, this line being in a plane above and perpendicular to said horizontal side bar; and an adjustable lengthening means joining together the two horizontal bars, the line formed by the horizontal bars and joining means being in a plane above the said power operating means of the boat.

2. A tow assembly as set forth in claim 1 wherein said means comprises an outer tubular sleeve and an inner solid rod spaced from the outer tubular sleeve and extending beyond said tubular sleeve, the horizontal bar telescoping over the solid rod and telescoping within the tubular sleeve.

3. A tow assembly as set forth in claim 2 wherein the

tubular horizontal bar, the outer tubular sleeve and the inner solid rod have a series of equally spaced aligned apertures to receive bolts which will secure said lateral sections to said joining means, enabling the distance between the two parallel side bars to be increased or decreased by sliding said horizontal bar between the solid rod and outer tubular sleeve a desired distance.

4. The combination as set forth in claim 3 wherein the outer tubular sleeve and inner solid rod have means securing them together to prevent them from separating.

5. A tow assembly as set forth in claim 4 wherein the tubular sleeve has a hook attached thereto to provide means for attaching the tow lines.

6. A water towing assembly for boats having a power operated propeller at the stern thereof, said assembly comprising two lateral sections, tubular in form, similar but mirror images, and each having a horizontal bar extending in a direction to meet the other horizontal bar in a straight line; and a central joining means of adjustable length, said means comprising an outer tubular sleeve, an inner solid rod spaced from said outer tubular sleeve with central means for securing them together, said inner solid rod extending beyond said outer tubular sleeve, the horizontal bars telescoping, one at each end, over the extended solid rod and within the outer tubular sleeve, the horizontal bars being slidable within the outer tubular sleeve to a desired distance, a series of equally spaced aligned apertures extending through the outer tubular sleeve, the horizontal bar, the solid rod, and back through the horizontal bar and tubular sleeve, securing means extending through said apertures to keep the horizontal bar in a fixed relation to said central joining means when the horizontal bars are telescoped the desired distance within the tubular sleeve, and means attached to the tubular sleeve to provide a rope attachment for towing.

References Cited in the file of this patent

UNITED STATES PATENTS

1,273,064	Huber	July 16, 1918
1,779,192	Signer	Oct. 21, 1930
2,385,608	Castagna	Sept. 25, 1945
2,569,086	Zenk	Sept. 25, 1951
2,899,925	Meek	Aug. 18, 1959
2,907,295	Delaney	Oct. 6, 1959
2,929,348	Jackson	Mar. 22, 1960