United States Patent [19]

Sell

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[54] **SKI BAR**

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[52] **U.S. Cl.** ..... **114/235 WS;** 114/235

[51] **Int. Cl.** **B63b 21/56**

[58] **Field of Search** ..... 114/235 R, 235 A, 235 WS, 114/230, 218

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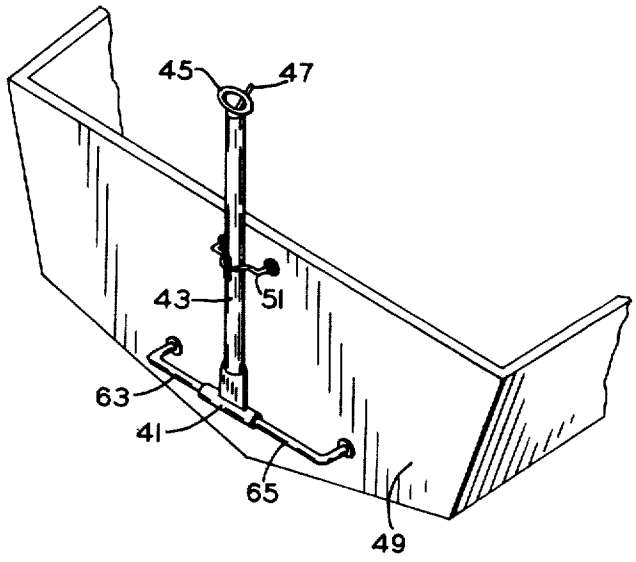
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Assistant Examiner—Charles E. Frankfort
Attorney, Agent, or Firm—Albert L. Jeffers; Roger M. Rickert

[57] **ABSTRACT**

An accessory for attachment to a power boat for providing a relatively high, easy release, tow rope attachment point above the general level of the boat stern is disclosed in two embodiments both of which have a ring with a stud adjacent thereto to allow a tow rope bight to pass through the ring and over the stud with the ring preventing inadvertent detachment of the tow rope from the stud. The stud and ring are connected to a sleeve which in one preferred embodiment accepts a pair of at least L-shape members passing therethrough for attaching the ring and stud to the boat.

6 Claims, 7 Drawing Figures



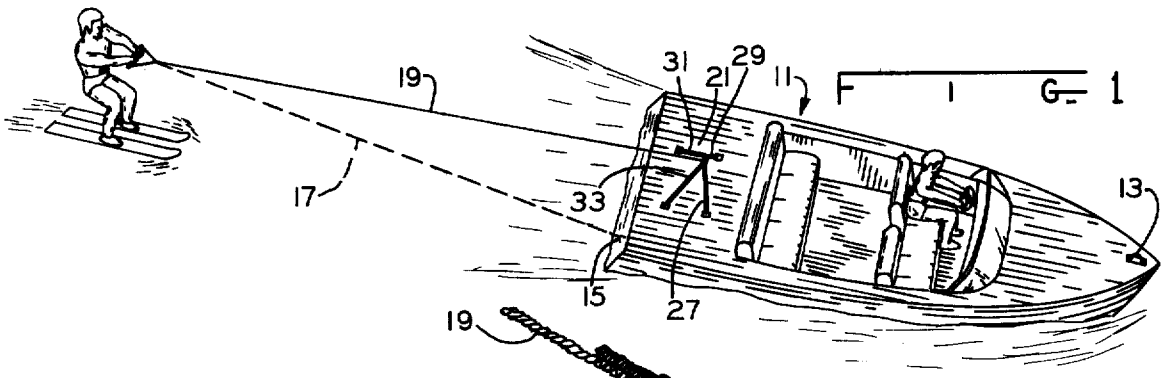


FIG 1

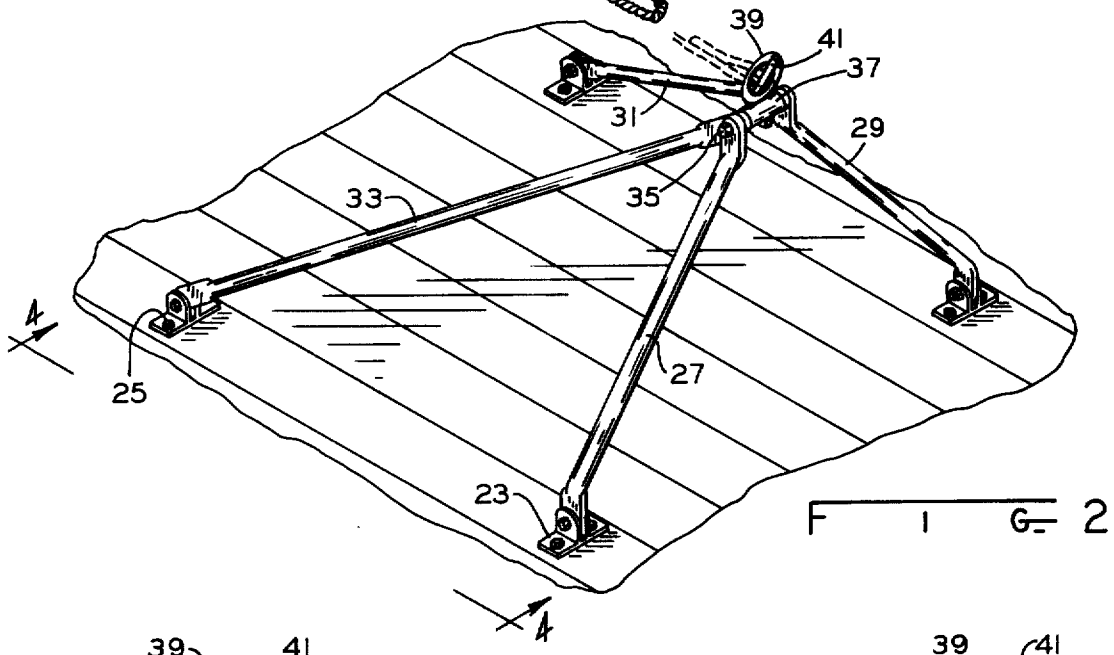


FIG 2

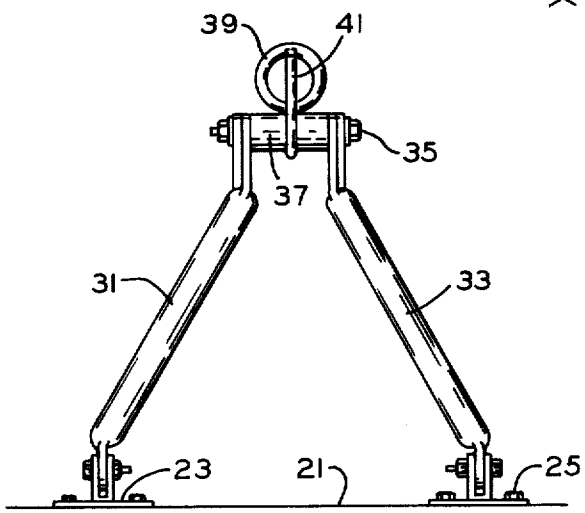


FIG 3

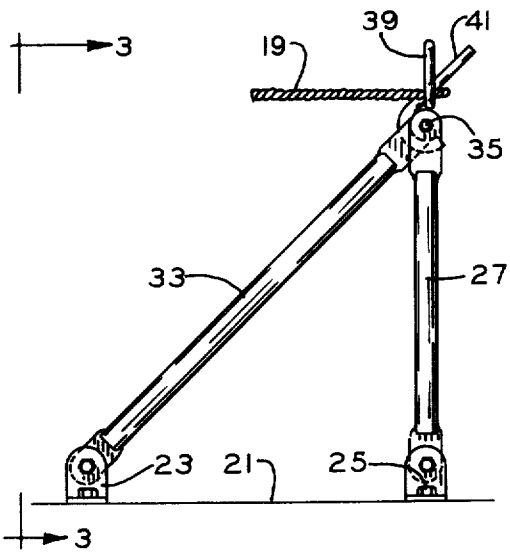


FIG 4

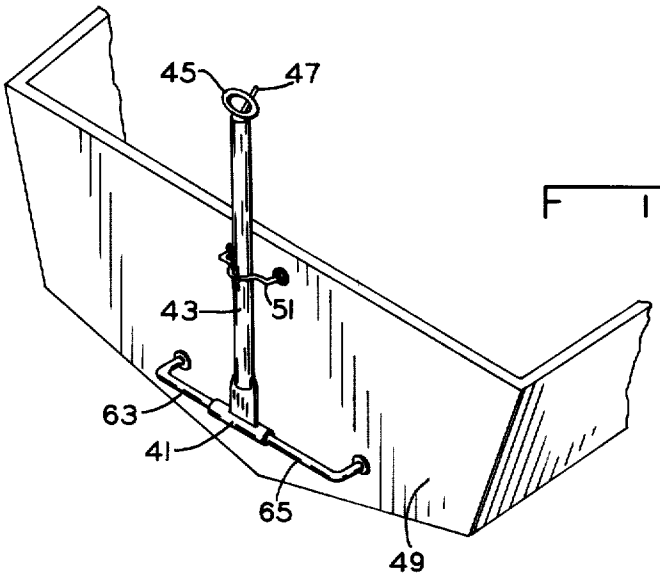


FIG 5

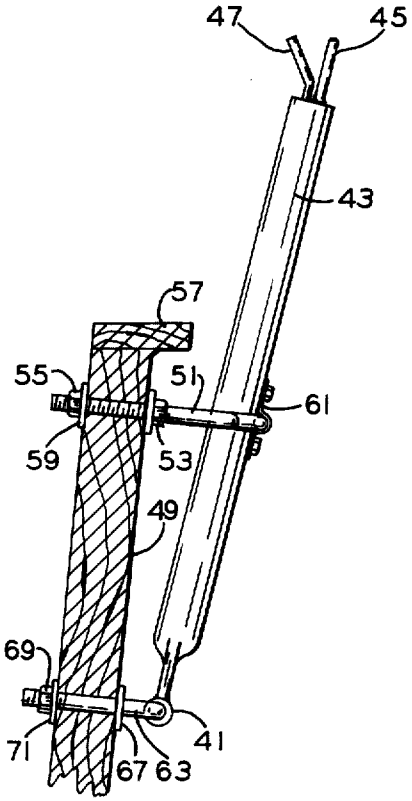


FIG 6

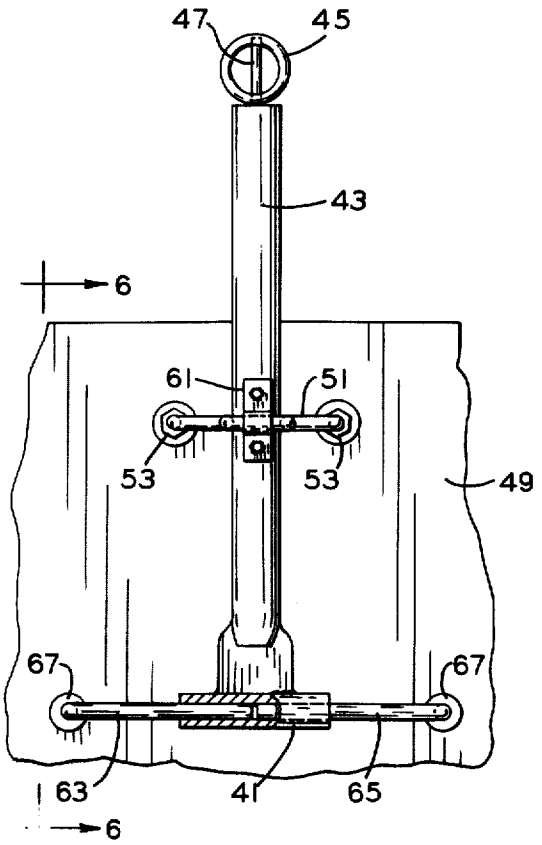


FIG 7

SKI BAR

BACKGROUND OF THE INVENTION

The present invention relates to a device for attaching a tow rope to a water craft and more particularly for attaching such a tow rope to a power boat for towing water skiers and the like.

In recent years, water skiing has become a particularly popular sport and typically skiers are towed by attaching a tow rope to a so-called bow eye which in addition to being located on the bow of the craft are generally found on the stern and used for removing the craft from the water by hoist as well as for mooring purposes, Such attachment points are low and near the water line and become even lower when the high powered boats are in a planing attitude. Desirably the direction of pull for the skiers should be somewhat upwardly relative to the water line and one known attempt to provide such a preferable tow rope attachment point has been to employ a large horizontal bar supported by a pair of vertical members extending upwardly from a special inside mounting arrangement built into the floor and frame of the craft, thus taking up valuable floor space, obstructing vision and making covering of the craft with a tarp during periods of nonuse, difficult. This type of installation, of course, requires a different mounting arrangement for different makes and models.

It is therefore one object of the present invention to provide a tow rope attachment device of nearly universal applicability.

Another object of the present invention is to provide a relatively high, easy release tow rope attachment point.

A further object of the present invention is to provide a structure for towing skiers and the like which need not be removed when covering the boat for storage, for example, with a tarp.

Still another object of the present invention is to provide a tow rope attachment device which avoids floor mounting problems yet provides the desirably high point of pull for water skiers.

A still further object of the present invention is to provide a ski bar characterized by its economies of manufacture and installation.

SUMMARY OF THE INVENTION

The foregoing as well as numerous other objects and advantages of the present invention are achieved by providing in a first embodiment a tow rope attachment device comprising four arms, pairs of which are of equal length and one end of each of which may be attached to an exterior surface of a boat. The other ends of each such arm are attached together and to a rope lug comprising a sleeve supported ring and stud which allows a tow rope loop to be passed through the ring and over the stud with the ring then holding the loop in place. A similar sleeve, ring and stud arrangement is present in the second embodiment where, however, the ring and stud are supported on and separated from the sleeve by an elongated tubular member which in turn mounts to a stern side wall by means passing through the sleeve and by a generally U-shaped member which adjustably clamps the elongated tubular member to the stern side wall at a location intermediate the ends thereof.

The subject matter which I regard as my invention is particularly pointed out and distinctly claimed in the concluding portion of this specification. My invention itself, however, together with further objects and advantages thereof may best be understood by reference to the following description taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWING

FIG. **1** is a perspective view of a power boat towing a water skier by prior art techniques and according to the teachings of the present invention.

FIG. **2** is an enlarged perspective view of a portion of FIG. **1.**

FIG. **3** is a front plan view of the ski bar of FIG. **2.**

FIG. **4** is a side plan view of the ski bar of FIG. **2.**

FIG. **5** is a perspective view illustrating another embodiment of the present invention attached to a stern side wall of a power boat.

FIG. **6** is a partially cut away side view of the embodiment of FIG. **5.**

FIG. **7** is a partially cut away end view of the embodiment of FIG. **5.**

DESCRIPTION OF THE PREFERRED EMBODIMENT

In FIG. **1** a power boat **11** typically has a bow eye **13** which is a U bolt type structure used for mooring and frequently for lifting the boat out of the water. A generally similar bow eye **15** will be found typically in pairs either on the stern deck, or the transom or stern side wall. Many skiers use this rear bow eye **15** as a point of attachment for a ski rope such as **17.** As will be readily understood from FIG. **1,** this tow rope **17** is substantially lower at its point of attachment **15** than at the skier location and thus the effect of the tow rope is to pull the skier somewhat downwardly rather than up and forward. This poor angle of attach situation could be substantially improved if the point of pull could be moved upwardly as illustrated by the tow rope **19.** This is accomplished in the present invention by the tow bar **21** the details of which may be more readily seen in FIGS. **2, 3** and **4.**

Considering now FIG. **2,** an exterior surface of a boat such as a stern deck **21** has attached thereto four T-shaped brackets such as **23** by bolts such as **25** passing through the deck and optionally through backing plates beneath the deck. Each T-shaped attachment bracket **23** functions to attach one end of each of the arms **27,** 29, 31 and **33** to the exterior surface of the boat. The other ends of each of these arms are joined by a bolt **35** which also passes axially through a sleeve **37** of a rope lug. Each arm such as **27** comprises a tubular member flattened at opposite end thereof and provided with a hole in each flattened end with the flattened ends being bent to extend obliquely to the remaining portion of the member and parallel to the other flattened end as most readily observed in FIG. **3.** The pair of arms **27** and **29** are of equal length and the pair of arms **31** and **33** are of equal length but as most readily seen in FIG. **4** the arm **27** is shorter than the arm **33** with the arm **33** being less than double the length of the arm **27.**

The rope lug, in addition to the sleeve **37,** includes a ring **39** one edge of which is attached to a lateral surface of the sleeve and a stud **41** attached to the sleeve lateral surface and extending therefrom adjacent thereto and inclined relative to the ring **39** whereby a

tow rope bight or loop as illustrated in FIG. 2 may be passed through the ring 39 and over the stud 41 so that the ring prevents the inadvertent detachment of the tow rope from the stud, for example, when the rope 19 is slack.

As depicted in FIGS. 2 through 4 the arm 27 is about 7 tenths the length of the arm 33 and is mounted on the stern deck of the boat. It would clearly be possible to, for example, mount two of the arms on the stern deck and two of the arms on the transom or stern side wall of the boat and additionally it would be possible to make the arm 27 greater than 7 tenths the length of the arm 33 and mount both arms on the stern side wall and slightly reposition the rope lug by loosening the bolt 35 which passes axially through apertures in a pair of arms, the sleeve, and apertures in the other pair of arms so that the stud 41 is again inclined in the direction of boat movement. The ring and stud arrangement has the ring 39 in a vertical attitude for convenience only since the rope 19 will not easily become inadvertently detached regardless of the direction of pull on the rope lug.

While the embodiment of FIGS. 1 through 4 may be either deck or side wall mounted, the embodiment of FIGS. 5 through 7 is limited to side wall mounting preferably on the stern side wall. The embodiment of FIGS. 5 through 7 has basically the same ring and stud structure as discussed earlier and the ring and stud are connected to a sleeve 41 by an elongated tubular member 43. While a stud 47 is illustrated in FIGS. 5, 6 and 7, it should be clear that the ring 45 could be welded to the side of the tubular member 43 and inclined thereto so that the tow rope could be passed through the ring 45 and over the tubular member 43 itself in which case the member 43 would function as the stud 47.

The elongated tubular member 43 is attached to the transom or stern side wall 49 of the boat by a generally U-shaped bolt 51 which lies generally intermediate the ends of the elongated tubular member. The U-shaped bolt 51 is threaded at opposite ends thereof with those opposite ends adapted to attachably pass through holes in the stern sidewall and to be clamped thereto in a preferred position. Thus as illustrated in FIG. 6, the U bolt 51 is threaded for a considerably greater length than is merely necessary for clamping it to the side wall 49 and the nuts 53 and 55 may be set to a preferred position so as to, for example, avoid an overhanging deck portion such as 57. Washers or another type of backing plate 59 may be provided as desired. The U bolt is defomed near its center to conform to the tubular member and additional clamp 61 functions to clamp U-shaped bolt deformed portion to the tubular member.

Near the other end of the tubular member, a pair of L-shaped members 63 and 65 each threaded near one end thereof attachably pass through the stern side wall and into the sleeve 41 which accepts through each of its opposite ends the ends of the L-shaped members remote from the threaded ends. The L-shaped members could be attached to the stern end by nuts similar to those used to attach the U bolt 51 or the L-shaped members may be provided with a flange 67 and but a single nut 69 and washer or other backing plate 71. The elongated tubular member 43 is flattened near the lower end thereof and welded to the sleeve 41 with the two L-shaped members 63 and 65 passing through the sleeve for attaching the sleeve to the boat.

From the foregoing it is clearly seen that the present invention provides a ring with a stud adjacent to the ring which allows a tow rope bight to be passed through the ring and over the stud with the ring preventing inadvertent detachment of the tow rope from the stud. The ring and stud are connected to a sleeve which sleeve is in turn attached to the boat by some means passing through the sleeve.

Thus while the present invention has been described with respect to two preferred embodiments, numerous modifications will suggest themselves to those of ordinary skill in the art and accordingly the scope of the present invention is to be measured by that of the appended claims.

I claim:

1. An accessory for attachment to a stern side wall of a power boat for providing a relatively high, easy release tow rope attachment point above the general level of the boat stern comprising:
   - an elongated tubular member;
   - a ring affixed to the tubular member near one end thereof through which a tow rope bight may be passed;
   - means near the other end of the tubular member for attaching the said other end to the stern side wall comprising a pair of at least L-shaped members each threaded near one end thereof and adapted to attachably pass through the stern side wall; and
   - means intermediate the tubular member ends for attaching the tubular member to the stern side wall near the upper edge thereof.

2. The accessory of claim 1 wherein the last mentioned means comprises a generally U-shaped bolt threaded at opposite ends thereof with the opposite ends adapted to attachably pass through the stern side wall and to be clamped thereto at a preferred position.

3. The accessory of claim 2 wherein the U-shaped bolt is deformed near the center thereof to conform to the tubular member and further comprising means for clamping the U-shaped bolt deformed portion to the tubular member.

4. The accessory of claim 1 further comprising a sleeve attached to the tubular member and adapted to accept through each of it's opposed ends the ends of the L-shaped members remote from the threaded ends.

5. An accessory for attachment to a power boat for providing a relatively high, easy release tow rope attachment point above the general level of the boat stern comprising:
   - an elongated tubular member flattened near one end thereof,
   - a sleeve attached to the flattened end of said tubular member,
   - a ring, a stud adjacent the ring whereby a tow rope bight may be passed through the ring and over the stud with the ring preventing inadvertent detachment of the tow rope from the stud, the ring and stud being connected to the elongated tubular member, and means passing through the sleeve for attaching the ring and stud to the boat comprising a pair of at least L-shaped members each threaded near one end thereof and adapted to attachably pass through the boat stern side wall, the sleeve accepting through each of it's opposed ends the end of the L-shaped members remote from the threaded ends.

6. An accessory for attachment to a stern side wall of a power boat for providing a relatively high, easy release tow rope attachment point above the general level of the boat stern and comprising:

an elongated tubular member flattened near one end thereof;

a ring affixed to the tubular member near the other end thereof;

a stud supported on the tubular member adjacent the ring whereby a tow rope bight may be passed through the ring and over the stud with the ring preventing inadvertent detachment of the tow rope from the stud;

U-bolt means intermediate the tubular member ends for attaching the tubular member to the stern side wall near the upper edge thereof;

and means attaching the flattened end of the tubular member to the stern side wall including a pair of at least L-shaped members each threaded near one end thereof and adapted to attachably pass through the stern side wall.

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