Feb. 10, 1959 C. T. JOHNSON 2,872,889

WATER SKI TOW DEVICE

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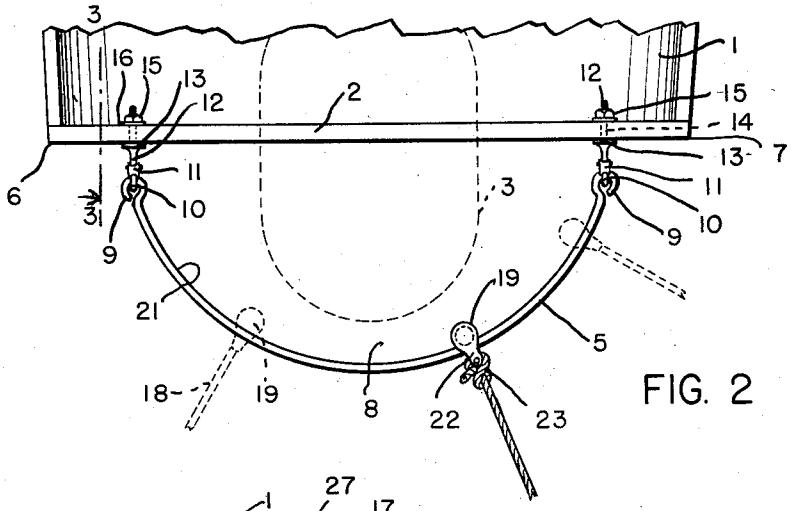



FIG. 2

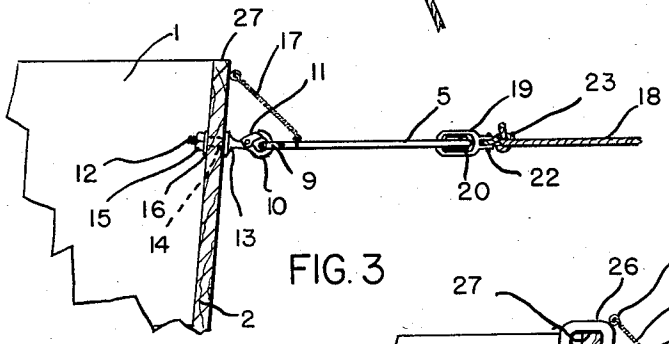



FIG. 3

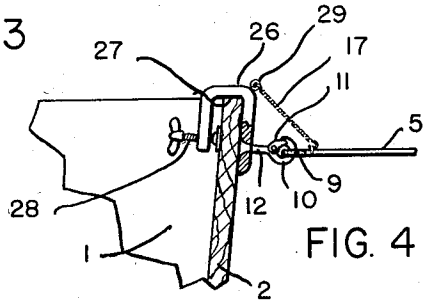



FIG. 4

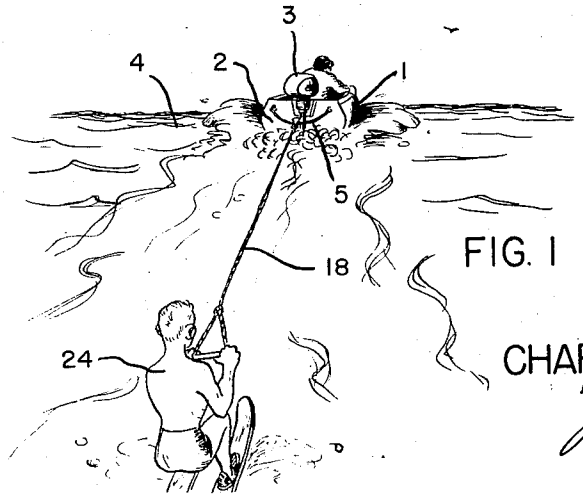



FIG. 1

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# WATER SKI TOW DEVICE

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7 Claims. (Cl. 114—235)

This invention relates to a towing device for use on boats such as outboard motorboats and the like which are commonly used to tow surfboard riders and water skiers in the well known aquatic sports.

At the present time there is no adequate means provided on common outboard motorboats and the like to permit the attachment of a tow line to be used in towing water skiers and surfboard riders. It is common practice for the end of the tow rope to be fastened to any accessible part of the boat on or near the transom thereof. The usual attachment is either to a corner bracket between the transom or the boat hull or to a hand hold which may be provided on the transom for use in putting the boat into and out of the water.

The conventional attaching means for tow lines to a boat has resulted in many accidents for the tow line is attached, usually, to one corner of the rear end of the boat and the pull on the boat is uneven during the course of the rider's movements from side to side and the boat's turning corners. Often the combination of boat turning and angle of pull on the tow rope will cause the motorboat to upset. Such an accident has resulted in loss of life, in injuries, and in motor damage. The primary consideration in the present invention is to provide a device for attaching a tow line to a boat transom to equalize the pull irrespective of the angle at which the towing is taking place relative to the direction of the travel of the boat so as to prevent boat upsets and loss of life.

Another object of this invention is to provide such a means which will eliminate injuries to persons who may be riding in a boat which is towing water skiers when such a boat is accidentally capsized, and to prevent motor damage when a boat is capsized and the hot motor, plunged into the water and parts become water soaked and quickly cooled resulting in cracks.

Another object of this invention is to provide a simple and inexpensive towing device which can be mounted on a boat transom.

Another more specific object of this invention is to provide an arcuately shaped tow bar, a pulley member carried on the bar, the pulley being adapted to receive one end of a tow rope, and means at each end of the bar to secure same to a boat transom adjacent the opposed edges thereof whereby towing stresses are equalized along the center line of the boat irrespective of the angle of tow, and whereby a tow rope cannot interfere with the motor operation and whereby aquatic safety is materially enhanced.

Another object is to provide an arcuate tow bar which is removable relative to the boat transom to permit the device to be stored when it is not in use.

These and other objects and advantages of my invention will become more apparent as the description proceeds.

In the accompanying drawing forming a part of this application:



Fig. 1 is a perspective view showing my device in use.

Fig. 2 is a top plan view of my device mounted on a boat transom.

Fig. 3 is a sectional view on the line 3—3 of Fig. 2.

Fig. 4 is a view similar to Fig. 3 showing a modified means for mounting the tow bar on the boat transom.

In the drawing the reference numeral 1 indicates a boat having a transom 2 on which an outboard motor 3 may be carried to push the boat through water 4.

In my invention I employ a tow bar 5 in combination with the boat transom 2, and tow bar 5 being substantially uniformly arcuate in shape, as shown, and preferably extending from adjacent one lateral edge 6 of the transom to adjacent the opposite lateral edge 7 as shown providing a relatively large open area 8 between the boat transom and the tow bar 5, as shown in Fig. 2, so that the motor 3 may be carried on the boat transom and the tow bar will not interfere with the mounting or removal of the motor relative to the transom.

As shown in Figs. 2 and 3, the tow bar 5 may be mounted on the transom 2 by means of a pair of eyes 9—9, one formed at each end of the arcuate tow bar 5, each of the eyes being received in a hook 10 which is provided with a spring controlled safety catch 11 to prevent the removal of the hooks 10 from the eyes 9 unintentionally. The hooks 10—10 each have a shank 12 extending therefrom towards the transom and an enlarged bearing portion 13 which abuts the transom. The shanks 12 of the hooks extend through suitable openings 14 in the transom and are threaded on their ends to receive a nut 15 and washer 16 whereby the hooks may be firmly mounted in the transom. As shown in the drawing the hooks 10 are preferably mounted adjacent the opposed lateral edges of the transom so as not to interfere with the outboard motor 3 and to provide the most adequate safe towing capacity. The hooks 10 are mounted below the upper edges of the transom somewhat, as shown in the drawings, so that the line of pull or stress when towing is substantially below the upper edge of the transom.

I prefer to mount a spring 17 or the like between the opposed ends of the tow bar 5 and the upper edge of the transom, as shown, to support the tow bar in a substantially horizontal position yet permit its pivoting on the hooks 10 when required during towing operations.

In order to most efficiently mount the tow rope 18, I have provided a pulley 19 having a roller 20 which rides on the inner walls 21 of the tow bar 5. The pulley has a suitable clevis 22 to which the rope may be secured as at 23.

In operation, when a water skier 24 or surfboard rider is being towed by the rope 18 he may shift his position laterally of the boat readily, and the pulley 19 will travel around the arcuate bar 5 as shown in dotted lines Fig. 2 so that the stress on the tow rope is always toward the center line of the boat.

The tow rope will never apply stress across the center line, which stress has been known to frequently upset a boat accidentally.

In Fig. 4, I have shown a modified form of my invention which permits the use of my tow bar in combination with a boat transom without drilling holes 14 through the transom. The device shown in Fig. 4 will permit the use of a rented boat for safe water skiing purposes without damaging or modifying the boat in any way. The device can be readily installed on or removed from the boat transom 2 as desired.

In this modification of the invention the shank 12 of the hook is anchored in a substantially U-shaped clamping bracket 26 which is placed over the upper edge 27 of the transom. A clamping bolt 28 is provided on the

inner edge of the clamping frame **26** to permit the clamp **26** to be securely fastened to the boat transom as shown. The spring **17** is secured to the clamp **26** as at **29** to support the tow bar **5**. Obviously, the operation of the modified form of my device will be the same as for the device shown in Figs. 2 and 3.

In view of the above it is deemed readily apparent aquatic accidents will be reduced materially when surfboard riders and water skiers are towed with my towing device. There will be less accidental drownings, and injuries because of the fact that upsetting of the boat will be eliminated.

Having thus described my invention, what I claim is:

1. In combination with a boat transom, means for towing water skiers and the like comprising: an arcuately shaped tow bar, and means for pivotally mounting said tow bar at each of its ends at a fixed point on said transom with one end of said tow bar near each lateral edge of said transom.

2. In combination with a boat transom, means for towing water skiers and the like comprising: a pair of hook members secured to said transom near opposite lateral edges thereof, an arcuate tow bar having an eye formed at each end thereof, one of said eyes being pivotally mounted on each of said hooks, means to retain said eyes in said hooks, and a pulley carried on said tow bar between said eyes to ride on said bar, and means on said pulley to receive one end of a tow rope.

3. In combination with a boat transom, means to tow water skiers and the like comprising: an arcuately shaped tow bar having an eye at each end thereof, a pulley carried on said tow bar between said eyes to travel therebetween, means on said pulley to receive one end of a tow rope, and means securing said eyes to said transom adjacent opposite lateral edges thereof whereby towing stresses are toward the center line of the boat when said device is in use.

4. In combination with a boat transom means for towing water skiers and the like behind a boat comprising: an arcuately shaped tow bar, and means pivotally mounting said tow bar on said transom with one end of said tow bar pivotally connected at a fixed point to said transom near each lateral edge of said transom and said bar being arched rearwardly of said transom.



5. In combination with a boat transom, means for towing water skiers and the like comprising: a pair of mounting members fixedly secured to said transom near opposite edges thereof, an arcuate tow bar pivotally carried by said mounting members for pivotal movement about fixed points, and a pulley carried on said tow bar to ride between said mounting members, and means on said pulley to receive one end of a tow line.

6. Means to tow water skiers and the like comprising a boat having a transom, an arcuately shaped tow bar having an eye at each end thereof, a pulley carried on said tow bar between said eyes to travel therebetween, means on said pulley to receive one end of a tow rope, and means pivotally securing said eyes to the transom of said boat at fixed points adjacent opposite lateral edges of the transom whereby towing stresses will be toward the center line of the boat when said device is in use.

7. In means for towing water skiers and the like, the combination of a boat having a transom, an arcuately shaped tow bar, and means pivotally mounting said tow bar at each of its ends at a fixed point on the transom of said boat with one end of the tow bar near each lateral edge of the transom.

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