Dec. 1, 1959 E. N. FORCE 2,915,259

WATER SKI ROPE REEL

Filed Dec. 26, 1957

Fig. 1.

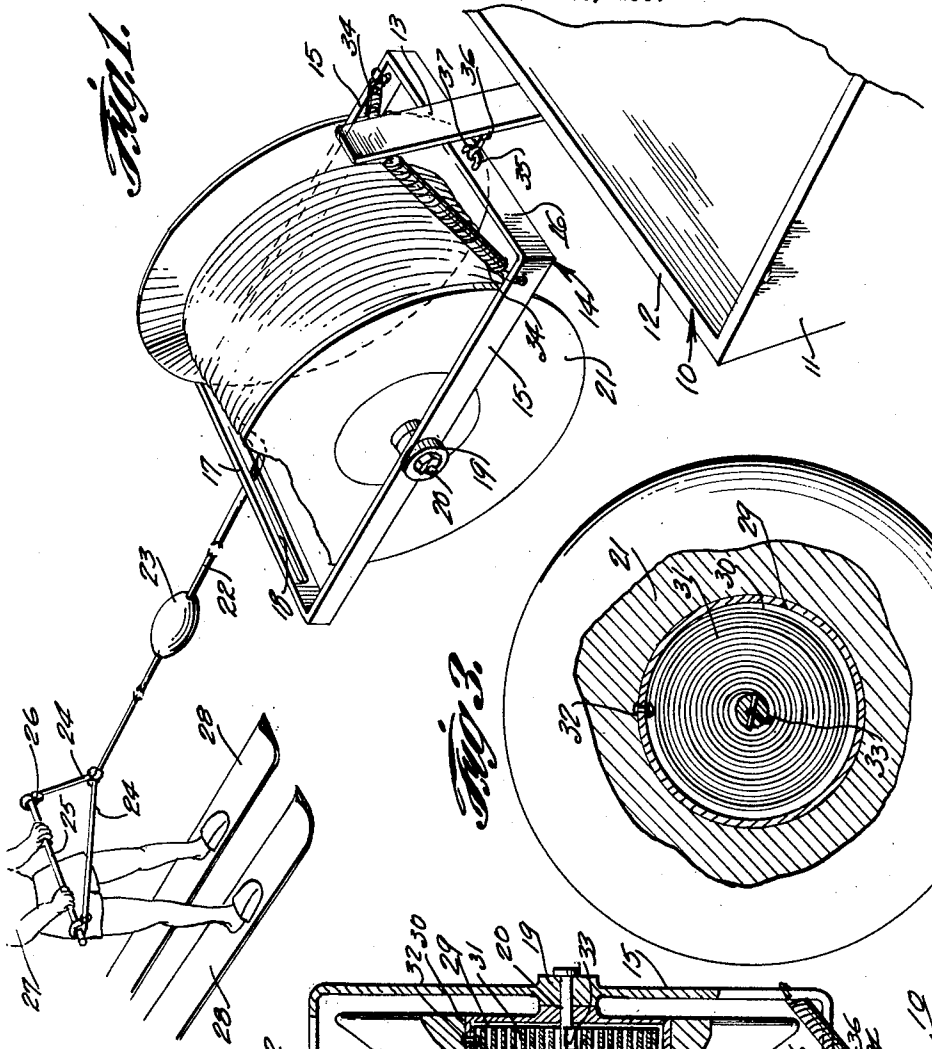
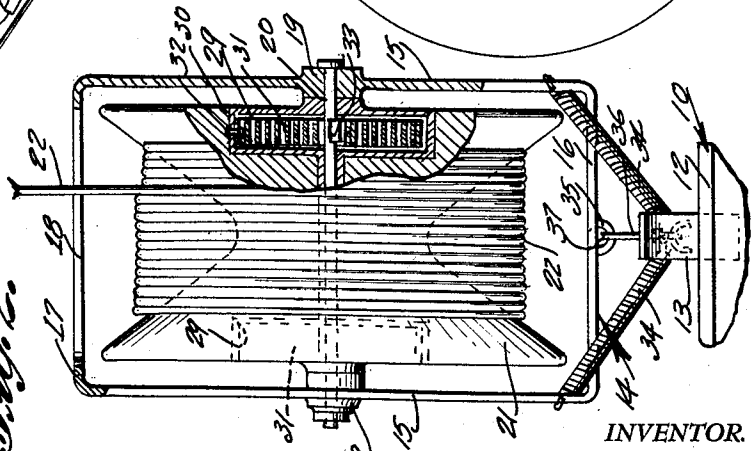


Fig. 3.

Fig. 2.



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United States Patent Office

2,915,259

Patented Dec. 1, 1959

2,915,259

WATER SKI ROPE REEL

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Application December 26, 1957, Serial No. 705,251

1 Claim. (Cl. 242—107)

This invention relates to a water skiing accessory, and more particularly to a device for automatically reeling in the ski rope after the water skier lets go of the rope.

The object of the invention is to provide a device which will automatically reel in a ski rope when the user lets go of the rope, so that the rope will not remain in extended position in the water when it is not being used.

Another object of the invention is to provide a water ski rope reel which includes a spring wound member that will automatically wind up the rope when the skier lets go thereof, so that there will be less likelihood of other boats accidentally running over or passing over an extended ski rope, and wherein the possibility of ski ropes becoming wrapped around propellers of outboard motors will also be minimized or prevented.

A further object of the invention is to provide a water ski rope reel which is extremely simple and inexpensive to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings, forming a part of this application, and in which like numerals are used to designate like parts throughout the same.

Figure 1 is a perspective view of the water ski rope reel of the present invention.

Figure 2 is a plan view of the device, with parts broken away and in section.

Figure 3 is a vertical sectional view taken through the reel and showing the mounting and connection of one of the rewind spring members.

Referring in detail to the drawings, the numeral 10 indicates a portion of a boat which includes sides 11 and a rear wall or stern 12, Figure 1. The numeral 13 indicates an upstanding bar which is connected to the stern 12 in any suitable manner, and arranged rearwardly of the bar 13 is a rectangular open frame 14. The frame 14 includes a pair of spaced parallel arms 15, a front member 16, and a back member 17, and as shown in the drawings, the back member 17 is provided with a slot or cutout 18 for a purpose to be later described.

The intermediate portion of the arms 15 are provided with bearings 19 which serve to support an axle or shaft 20, and a reel or spool 21 is mounted on the axle 20. The numeral 22 indicates a rope which is trained around the reel 21, and a portion of the rope 22 extends through the slot 18 in the back member 17 of the frame 14. A float 23 is connected to the rear end of the rope 22, Figure 1, and cables 24 are arranged rearwardly of the float 23 and lead to a cross piece 25 which is adapted to be gripped by the hands 26 of the skier 27, as for example when a ski 28 is being used.

The sides of the reel 21 are provided with recesses 29, and mounted in each recess 29 is a casing or compartment like housing 30. Arranged in each casing 30 is a rewind spring member 31, and the outer end of each spring member 31 is anchored to the casing 30 as at 32 while the inner end of the spring member 31 is connected to the axle 20 as at 33.

There is further provided a pair of spaced apart coil springs 34, and the coil springs 34 have their front ends connected to the upper portion of the bar 13, while the rear ends of the coil springs 34 are anchored to the front of the arms 15, as shown in Figure 1. The numeral 35 indicates an eyelet or bracket which extends forwardly from the front member 16, and a support member 36 extends rearwardly from the bar 13 and has a hook 37 which engages the eyelet 35.

From the foregoing, it is apparent that there has been provided a device which is especially suitable for use by skiers and the like and wherein when pressure is released on the ski rope, the ski rope will be automatically wound on the reel 21 so that the ski rope 22 will not remain extended in the water when it is not being used.

In use, the bar 13 is adapted to be secured to the stern 12 of the boat 10, and the support member 36 has its hook portion 37 arranged in engagement with the eyelet 35 on the front of the frame 14. The rope 22 which is trained over the reel 21, extends through the slot 18 in the back 17, and the rope 22 has a float 23 thereon, and there is further provided the members 24 which are connected to the hand piece 25. It will be seen that with a person such as the person 27 in the position of Figure 1, the member 25 is gripped by the hands 26 and this will cause the rope 22 to unwind from the reel 21 and at the same time this will cause the spring members 31 to wind up and then when the boat 10 moves forwardly, the person 27 will be moved along on the ski 28 in the usual manner. However, when a person releases his or her grip on the member 25, the spring members 31 will cause the reel 21 to rotate and this will have the effect of winding the rope 22 on the reel 21 so that a long length of rope will not remain extended in the water.

The parts can be made of any suitable material and in different shapes or sizes. The bar 13 is arranged contiguous to the stern 12 of the boat and the coil springs 34 slant upward as shown in the drawings so as to hold the reel at an angle when not used and which will pull down straight when in use. The hook arrangement permits up or down or sideways freedom of the reel. The parts can be made, for example, so that the reel or spool can be made of any suitable material such as wood, aluminum or the like. The spring members 31 are in the nature of steel band springs, and these spring members are inserted in the sides of the reel 21 as previously described. Suitable bearings are provided for the axle 20. The slot 18 constitutes a guide and stop member for the rope 22. The eyelet 35 and support member 36 constitute a clamp, and the casings 30 provide a cover for the spring members 31. The axle 20 can be retained in place by any suitable means such as stop nuts on the ends thereof.

Thus, it will be seen that there has been provided a water ski rope reel which will automatically reel in a ski rope such as the rope 22 whereby the rope will be retracted back to the boat such as the boat 10 after a water skier lets go of the rope. Furthermore, the device of the present invention will improve water skiing for amateurs and the reel will save time and eliminate such difficulties as other boats running into and breaking ropes and this happens quite often on rivers and small lakes and the device will also prevent ropes from becoming wrapped around propellers of outboard motors. The device is constructed so that as the boat pulls away from the skier to the full length of the rope 22, the spring members 31 will tighten up and when the skier lets go of the rope, the pressure will release and as the spring members 31 loosen, the reel or spool 21 will wind up the rope and run easily on the axle 20 to within any distance of the boat by adjusting the float 23 which will be caught by the rope guide and stop member defined by the slot 18 in the end portion 17 of the frame.

The two stiff coil springs 34 are hooked to the arms 15 and to the clamp bar 13 so as to keep the reel out of the water and yet permit the water ski rope reel to turn with the skier.

Furthermore, the device of the present invention will also relieve a person from the necessity of standing up in the boat to retrieve the rope and the device is made so that it will float if it happens to be dropped in the water and wherein the device is adapted to be made of a material which is not subject or effected by rusting or corrosion. The device can be readily attached to any type of boat and can be conveniently changed from one boat to another.

The above description of the invention is for illustrative purposes only and it is understood that modifications may be made in the construction within the scope and spirit of the following claim.

I claim:

A device of the character described comprising an upright bar adapted to be connected to the stern of a boat, a rectangular open frame arranged rearwardly of said bar and embodying a pair of spaced apart arms and spaced parallel front and back members, there being a longitudinally disposed slot in said back member, an eyelet extending forwardly from said front member, a support member extending rearwardly from said bar and having a hook thereon engaging said eyelet, a pair of spaced apart coil springs extending between said arms and the upper portion of said bar, said coil springs having their front ends connected to the upper portion of the bar while the rear ends of the coil springs are anchored to the front of the arms, bearings on the intermediate portions of said arms, an axle extending through said bearings, a reel mounted on said axle, there being recesses in the sides of said reel, casings in said recesses, spring members positioned in said casings and having their outer ends connected to said casings and their inner ends connected to said axle, a rope trained over said reel and extending through the slot in the back member of the frame, said slot constituting a guide and stop member for the rope, said coil springs serving to keep the reel out of the water and permitting the reel to turn with the skier.

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