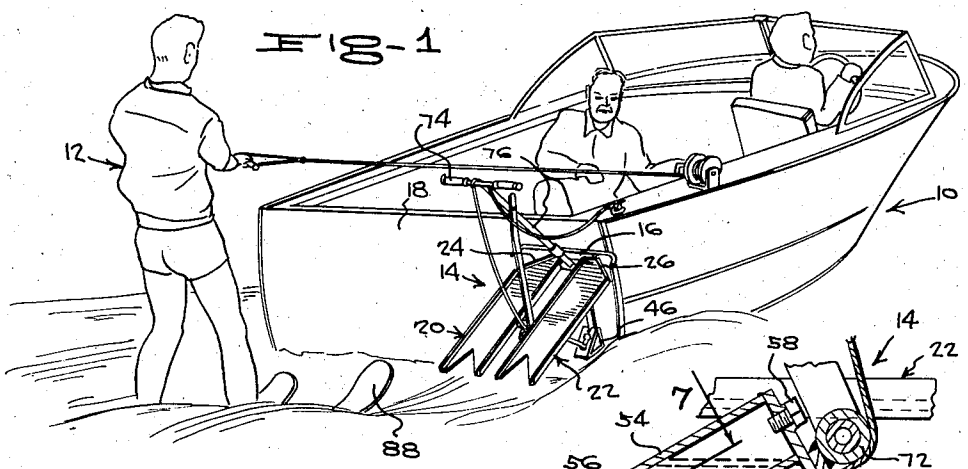
April 28, 1959 W. R. CORRELL 2,883,684

WATER SKIER LAUNCHING APPARATUS

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Fig-1



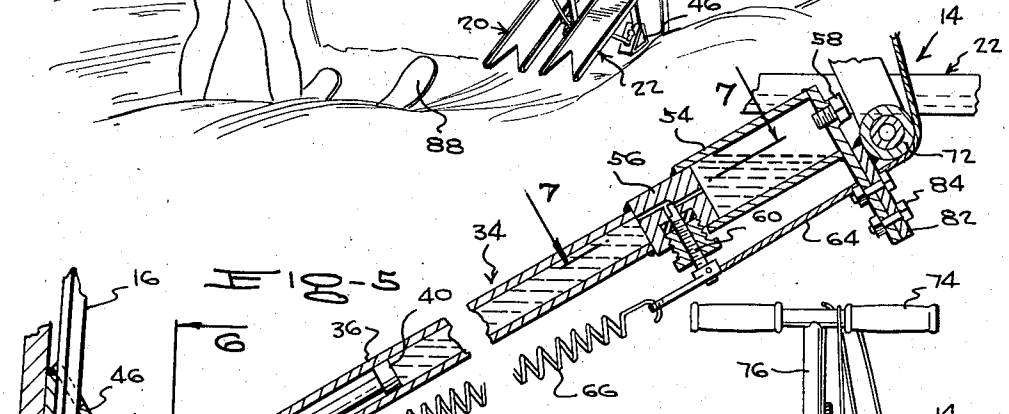


Fig-5

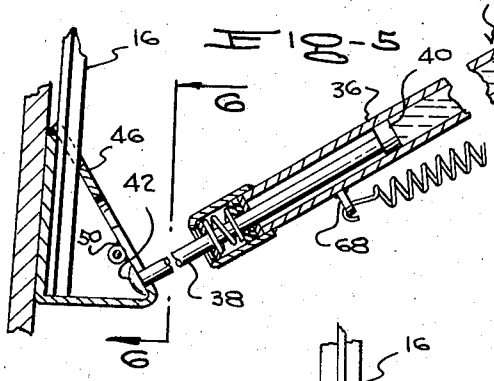


Fig-4

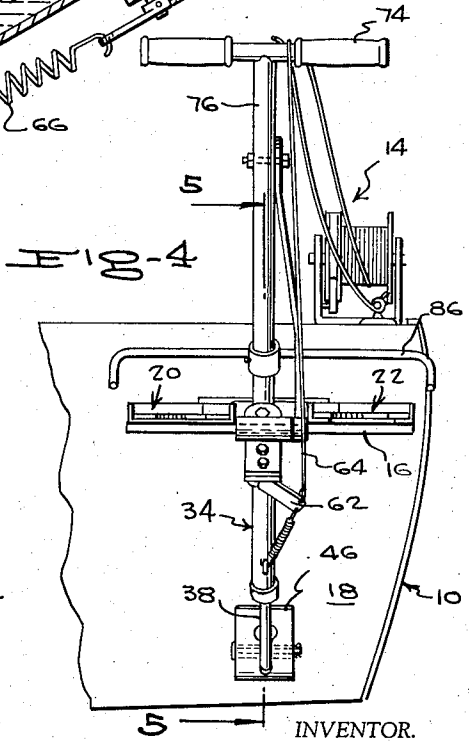


Fig-6

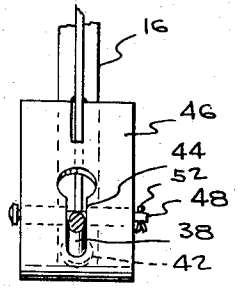
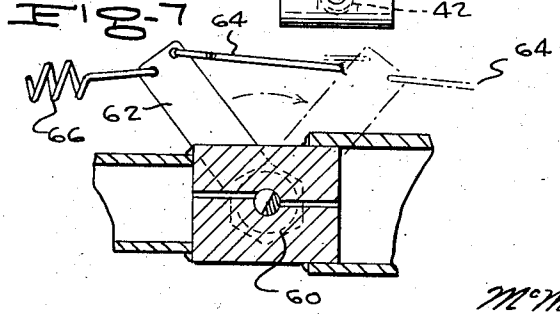


Fig-7



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April 28, 1959 W. R. CORRELL 2,883,684

WATER SKIER LAUNCHING APPARATUS

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FIG-3

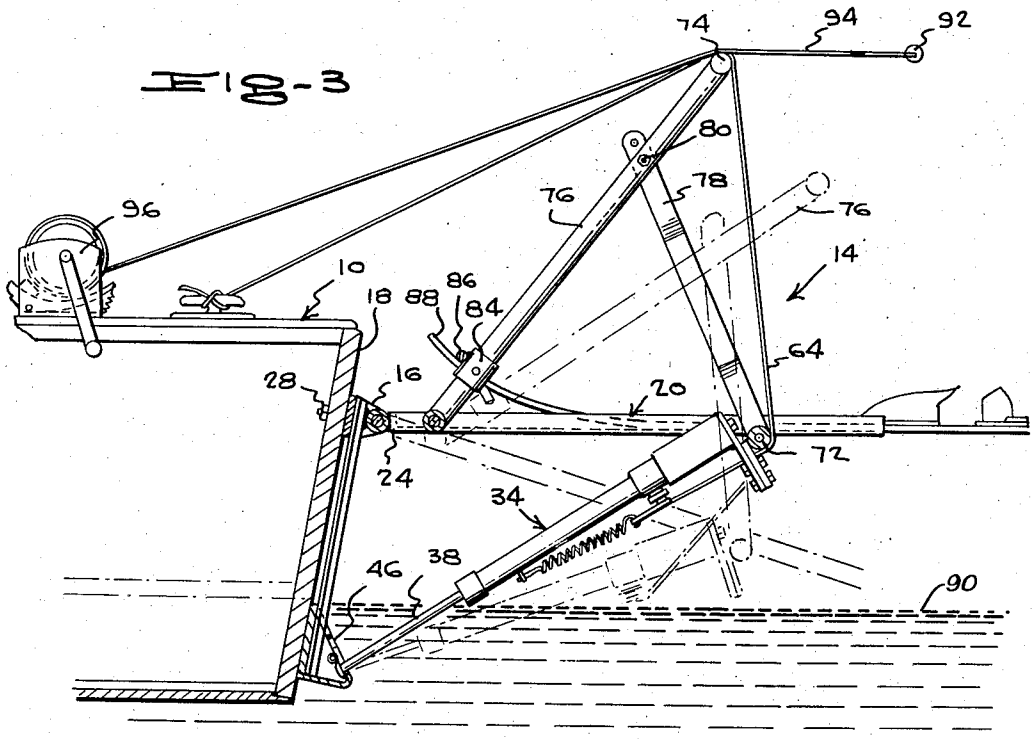
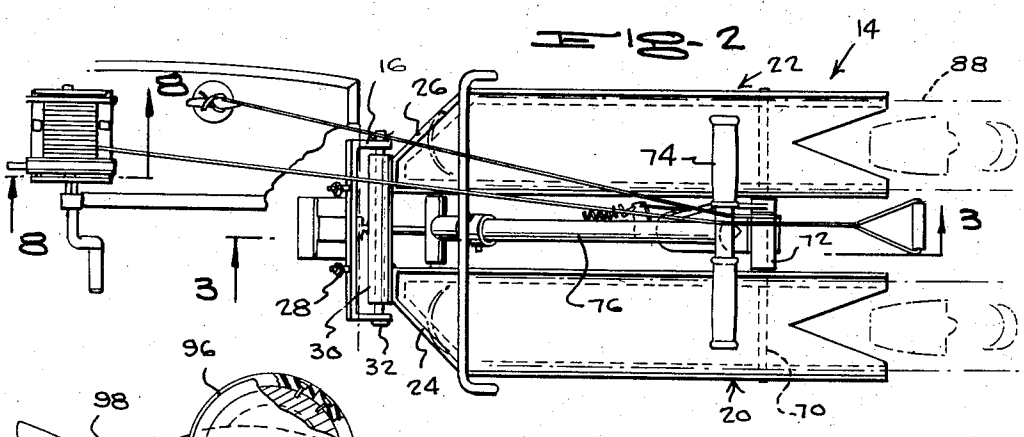


FIG-2



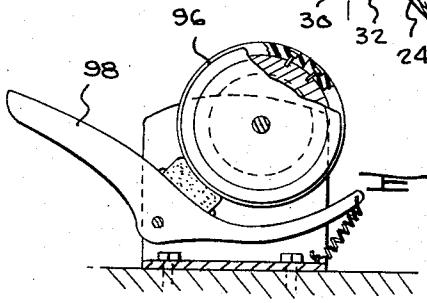


FIG-8

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2,883,684

WATER SKIER LAUNCHING APPARATUS

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Application November 29, 1957, Serial No. 699,541

4 Claims. (Cl. 9—21)

The present invention relates to an apparatus for launching a water skier from a boat.

An object of the present invention is to provide an apparatus for launching a water skier from a boat which is adaptable for installation upon any size boat of the type used to tow a water skier.

Another object fo the present invention is to provide a water skier launching apparatus which is positive in operation, one which may be moved to the launching position by either an individual within the boat which is to tow the skier or may be actuated by the water skier prior to launching.

A further object of the present invention is to provide a water skier launching apparatus which is of simple structure, one sturdy in construction and having long wearing characteristics, one which is readily attached to and detached from the transom of a boat, and one which is highly effective in action.

These and other objects and advantages of the present invention will be fully apparent from the following description when taken in connection with the annexed drawings, in which:

Figure 1 is an isometric view of the launching apparatus of the present invention, as shown attached to the transom of a boat;

Figure 2 is a plan view of the apparatus of the present invention, a portion of the boat being shown broken away;

Figure 3 is an elevational view partially in section taken on the line 3—3 of Figure 2;

Figure 4 is an elevational view of the assembly shown in Figures 2 and 3;

Figure 5 is a sectional view, on an enlarged scale, taken on the line 5—5 of Figure 4;

Figure 6 is a view partially in section taken on the line 6—6 of Figure 5;

Figure 7 is a sectional view, on an enlarged scale, taken on the line 7—7 of Figure 5; and

Figure 8 is a view partially in section, on an enlarged scale, taken on the line 8—8 of Figure 2.

Referring in greater detail to the drawings in which like numerals indicate like parts throughout the several views, the reference numeral **10** indicates a boat of the pleasure type commonly used to tow a water skier **12** therebehind. The apparatus of the present invention is designated generally by the reference numeral **14** and includes a support member **16**, of T-shape configuration adapted for attachment exteriorly of and in upright relation with respect to the transom **18** of a boat such as is shown in Figure 1 and designated by the numeral **10**. A pair of horizontally disposed launching platforms **20** and **22** are arranged in lateral spaced relation and positioned so that the adjacent leading ends **24** and **26**, respectively, are adjacent to and connected to the upper end of the support member **16**. Bolts, at least two in number and designated by the reference numeral **28** in Figures 2 and 3, are used to secure the apparatus **14** to the transom **18**, such bolts **28** being above the water line of the boat **10**.

The leading ends **24** and **26** of the platforms **20** and **22** are secured in spaced relation by means of a tubular member **30** disposed in a horizontal plane and having extending therethrough a pivot pin **32**, the ends of which are journaled in the legs of the U-shaped top portion of the support member **16**, as shown most clearly in Figure 2. The tubular member **30** is rotatable about the pin **32** so that the platforms **20** and **22** have vertical pivotal joint movement about the pin **32** as a common horizontal axis.

A hydraulic contractile and extensile brace is designated by the reference numeral **34** and is shown in section in Figure 5. The brace **34** includes a lower cylinder member **36** having a piston therein on one end of an actuating rod **38**, the piston being designated by the reference numeral **40**. A head **42** on the other end of the actuating rod **38** is insertable through and withdrawable from the enlarged one end portion of a bayonet slot **44** provided in a triangular support means **46** carried on the lower end of the support member **16**. A transversely extending locking pin **48** is insertable into suitable trunnions **50** provided within the support means **46** at a point within the latter transversely of the slot **44** between the narrow end of the latter and the enlarged portion. Insertion of the pin **48** in the trunnion **50** and locking of the latter therein by means of a cotter pin **52** extending through one end of the pin **48** effectively prevents the inadvertent removal of the rod **38** from its engagement with the support means **46**.

The brace **34** has an upper cylinder member **54** of a larger diameter than the lower cylinder member **36**. A valve housing **56** connects the cylinder member **36** to the member **54**. The cylinder member **54** is provided with a filler opening closed normally by a plug **58**, as shown in Figure 5. The brace means of the present invention, is normally in the extended or extensile position with hydraulic fluid filling the interior of the lower cylinder member **34**. A partially rotatable valve **60** is operable within the plug **56** to control the flow of hydraulic fluid from the cylinder member **34** to the cylinder member **54** and return when opened. The valve **60** constitutes hand actuable releasable latch means on the brace **34** for retaining the brace **34** in its extensile position.

Control means is provided by the present invention operatively connected to such latch means for regulating the rate of release of the latch means to thereby control the rate of descent of the platforms **20** and **22** from the horizontal position shown in Figures 3 and 4 to the downwardly sloping position shown in Figure 1 for the launching therefrom of the skier **12**. This control means consists in an operating lever **62** secured to the valve stem of the valve **60** and swingable from the full line position to the dotted line position in Figure 7 in response to the application of a pulling force to a control cable **64**. Spring means is operatively connected to the lever **62** for urging the latter to the position in which the brace **34** retains the platforms **20** and **22** in the horizontal position. Specifically, this spring means consists in a coil spring **66** having one end attached to the free end of the lever **62** and the other end attached to a lug **68** which projects from the underside of the lower cylinder member **36** inwardly of the lower end of the latter.

A bar **70** extends transversely of the platforms **20** and **22**, as shown in Figure 2 in dotted lines, and carries thereon a sleeve member **72** interposed between the platforms **20** and **22** and serving as a spacer for the latter. The control cable **64** extends from the valve lever **62** around the sleeve member **72** and thence upwardly over a horizontally disposed handle bar **74** which is carried by the upper end of a handle **76** positioned in spaced relation above the platforms **20** and **22** and carried by the platforms **20** and **22** for grasping by the hands of the skier

12 when the latter is supported in an upright position on the platforms 20 and 22.

A brace 78 extends from the sleeve member 72 to the handle 76 intermediate the ends of the latter and is detachably secured thereto by a nut and bolt assembly 80. The upper end of the upper cylinder member 54 is secured to an attachment plate 82 by means of other bolt and nut assemblies 84, the plate 82 being secured by welding to the sleeve member 72, as shown most clearly in Figure 5. A collar 84 carrier on the handle 76 inwardly of the lower end of the latter has welded to it an outspread inverted U-shaped bar member 86 which has its free ends projecting downwardly on each side of the handle 76 and forming a retaining means for the upwardly curved forward end portions of a pair of water skis 88 which are shown in full lines in Figure 3 resting upon the platforms of the present invention, such skis 88 being shown in dotted lines in Figure 2.

In use, the water skiing launching apparatus is attached to the transom 18 of the boat 10 and the platforms 20 and 22 are manually moved to the horizontal position. This may be done by holding the valve 60 in the open position by pulling on the cable 64 from a position within the boat 10. The pulling force applied to the cable 64 will serve to shift the brace 34 and platforms 20 and 22 from the dotted line position shown in Figure 3 to the full line position. The handle 76 is secured to the platforms for movement therewith and it also will move from its dotted line position to the full line position. With the platforms 20 and 22 in the horizontal position and the skis 88 resting thereon with their forward portions underlying the bar member 86, the water skier 12 moves from the boat 10 around the handle 76 and attaches the skis 88 to his feet. The cable 64 is in slack condition and a pulling force applied to the cable 64 again opens the valve 60 and permits flow of the hydraulic fluid from the lower cylinder member 36 to the upper cylinder member 54. This release of the latch means on the brace means permits the platforms to be movable under the weight of the skier 12 when supported upon the platforms from the horizontal position to the downwardly sloping position in which the rear portions of the skis 88 are supported upon the surface of the body of water, such surface being designated by the reference numeral 90 in Figure 3. The skier 12 then transfers his grip from the handle bar 74 to a hand grip 92 on the free end of a pulling cable 94 which has a portion wound abount a winch 96 mounted upon the boat 10. An individual within the boat 10 then releases the towing cable 94 slowly from the winch 96 by disengagement of the brake mechanism associated with the winch 96, there being provided a hand actuable lever 98 for release of such brake mechanism. As the cable 94 is released from the winch 96, the skier 12 trails behind the boat 10 and falls to the rearward of the boat 10 to such position as he desires.

The winch 96 forms a means by which the skier 12 may be brought forwardly to a side of the boat, and with power in the boat 10 reduced, the skier may glide forwardly to the gunwale of the boat and seat himself thereon while another individual in the boat removes his skis 88 from his feet.

Using the water skier launching apparatus of the present invention as above described enables the skier to become water-borne without getting wet and the platforms may be quickly and easily turned from their downwardly sloping position after the launching of the skier to the horizontal position for the launching of a second and other following skiers as desired.

While only a preferred embodiment of the present invention has been shown and described, other embodiments are contemplated and numerous changes and modifications may be made therein without departing from the spirit of the invention as set forth in the appended claims.

What is claimed is:

1. Water skier launching apparatus comprising a support member adaped for attachment exteriorly of and in upright relation with respect to a boat transom, a pair of horizontally disposed launching platforms arranged in lateral spaced relation positioned so that the adjacent leading ends are adjacent to the upper end of said support member, said leading ends of said platforms being connected to the upper end of said support member for vertical pivotal joint movement of said platforms about a common horizontal axis, a hydraulic contractile and extensile brace means normally in the extensile position extending from said platforms to the lower end of said support member for holding said platforms in the horizontal position, said brace means being shiftable to the contractile position to pivot the trailing ends of said platforms from the horizontal position to a downwardly sloping position toward the surface of a body of water, and hand actuable releasable latch means on said brace means for retaining the latter in its extensile position, said platforms upon release of said latch means being movable to the downwardly sloping position under the weight of a skier when supported on said platforms.

2. Water skier launching apparatus comprising a support member adapted for attachment exteriorly of and in upright relation with respect to a boat transom, a pair of horizontally disposed launching platforms arranged in lateral spaced relation positioned so that the adjacent leading ends are adjacent to the upper end of said support member, said leading ends of said platforms being connected to the upper end of said support member for vertical pivotal joint movement of said platforms about a common horizontal axis, a hydraulic contractile and extensile brace means normally in the extensile position extending from said platforms to the lower end of said support member for holding said platforms in the horizontal position, said brace means being shiftable to the contractile position to pivot the trailing ends of said platforms from the horizontal position to a downwardly sloping position toward the surface of a body of water, hand actuable releasable latch means on said brace means for retaining the latter in its extensile position, said platforms upon release of said latch means being movable to the downwardly sloping position under the weight of a skier when supported on said platforms, and a handle positioned in spaced relation above said platforms and carried by the latter for grasping by the hands of a skier when supported in an upright position on said platforms.

3. Water skier launching apparatus comprising a support member adapted for attachment exteriorly of and in upright relation with respect to a boat transom, a pair of horizontally disposed launching platforms arranged in lateral spaced relation positioned so that the adjacent leading ends are adjacent to the upper end of said support member, said leading ends of said platforms being connected to the upper end of said support member for vertical pivotal joint movement of said platforms about a common horizontal axis, a hydraulic contractile and extensile brace means normally in the extensile position extending from said platforms to the lower end of said support member for holding said platforms in the horizontal position, said brace means being shiftable to the contractile position to pivot the trailing ends of said platforms from the horizontal position to a downwardly sloping position toward the surface of a body of water, hand actuable releasable latch means on said brace means for retaining the latter in its extensile position, said platforms upon release of said latch means being movable to the downwardly sloping position under the weight of a skier when supported on said platforms, a handle positioned in spaced relation above said platforms and carried by the latter for grasping by the hands of a skier when supported in an upright position on said platforms, and control means operatively connected to said latch means for regulating the rate of release of said latch

means to thereby control the rate of descent of said platforms from the horizontal position to the downwardly sloping position.

4. Water skier launching apparatus comprising a support member adapted for attachment exteriorly of and in upright relation with respect to a boat transom, a pair of horizontally disposed launching platforms arranged in lateral spaced relation positioned so that the adjacent leading ends are adjacent to the upper end of said support member, said leading ends of said platforms being connected to the upper end of said support member for vertical pivotal joint movement of said platforms about a common horizontal axis, a hydraulic contractile and extensile brace means normally in the extensile position extending from said platforms to the lower end of said support member for holding said platforms in the horizontal position, said brace means being shiftable to the contractile position to pivot the trailing ends of said platforms from the horizontal position to a downwardly sloping position toward the surface of a body of water, hand actuable releasable latch means on said brace means for retaining the latter in its extensile position, said platforms upon release of said latch means being movable to the downwardly sloping position under the weight of a skier when supported on said platforms, a handle positioned in spaced relation above said platforms and carried by the latter for grasping by the hands of a skier when supported in an upright position on said platforms, control means operatively connected to said latch means for regulating the rate of release of said latch means to thereby control the rate of descent of said platforms from the horizontal position to the downwardly sloping position, and spring means operatively connected to said latch means for urging the latter to the retaining position.

No references cited.