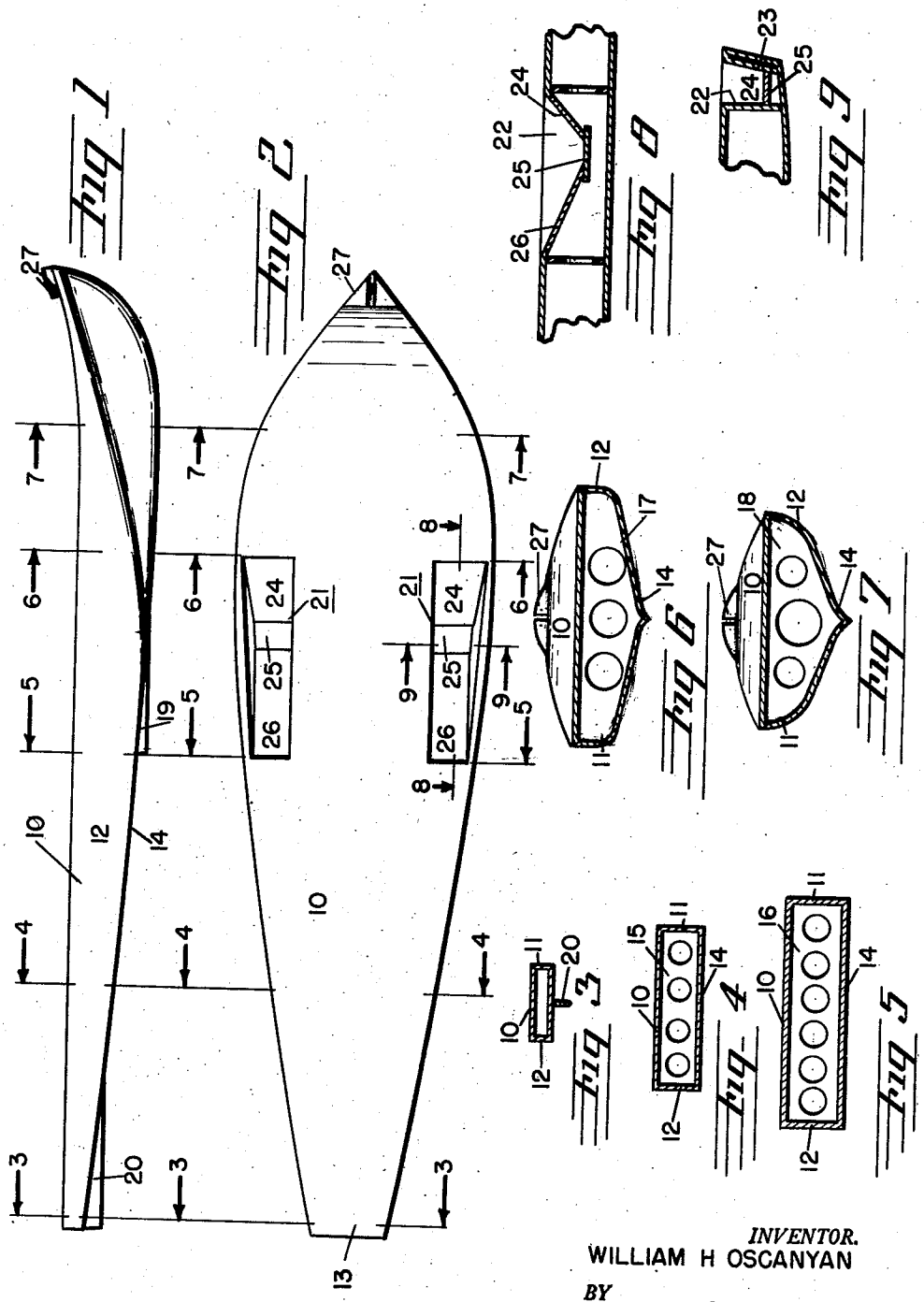
Aug. 10, 1954 W. H. OSCANYAN 2,685,696

WATER SCOOTER

Filed Dec. 26, 1951 2 Sheets-Sheet 1

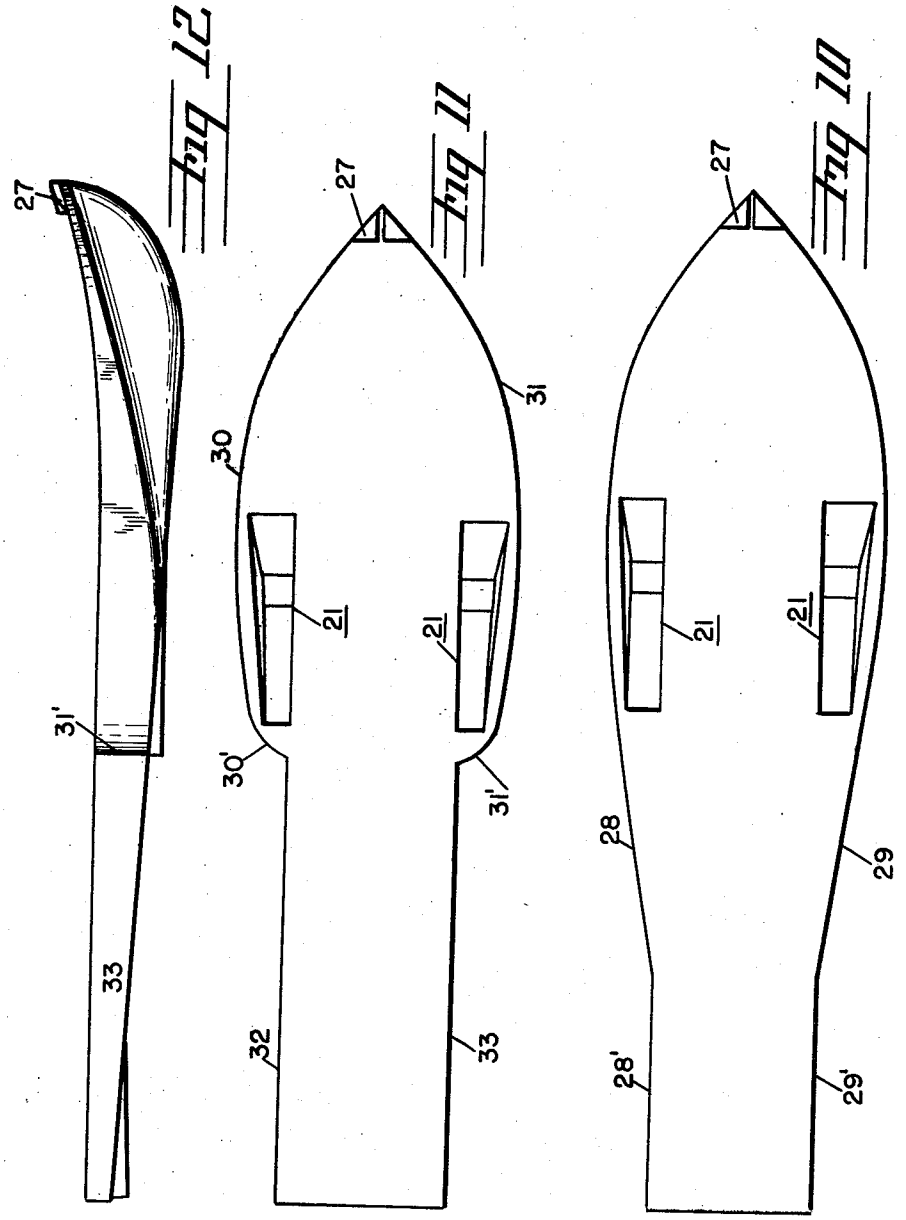


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WATER SCOOTER

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6 Claims. (Cl. 9—11)

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This invention relates in general to aquaplanes, water skis and similar water sport devices designed to be ridden when drawn along on the surface of the water.

More specifically, this invention relates to a board which, in a measure, combines the features of aquaplane and water skis as a ridable aquatic amusement device while also providing additional novel features including unusual maneuverability and which, for want of a better term, I designate as a "water scooter."

An object of the present invention is to provide a device of the character above indicated which will be ridable and maneuverable and which, even when towed at a moderate rate of speed in the water, thus for example, when towed by a boat powered with a 7½ horse power outboard motor, will offer opportunity for the development of water sport skill and will offer thrills to the rider without requiring the necessarily higher horse power motors to produce speeds heretofore found necessary for water skiing or aquaplaning, but which can also be operated with a moderate amount of skill at the customary water skiing high speeds if desired.

Another object of the invention is to provide a water scooter capable of being ridden and maneuvered preferably when the rider is in a sitting position, but also capable of being operated similarly by the rider in a standing position, with the latter position requiring slightly more skill.

A further object of the invention is to provide a novel water scooter for use on the surface of the water which, while being towed over the water, can be guided and maneuvered by the rider so as to be caused to follow various zig-zag paths and curves at various degrees of angularity with respect to the direction of travel of the towing boat and in this way offering opportunities for increased skill and thrills.

An important object of the invention is to provide an improved board capable of offering ample opportunities for thrilling water sports but the operation of which will not subject the rider to any dangerous hazards.

An additional object of the invention is to provide a water sport device of the type described which will be relatively simple and practical in construction and which can be manufactured for sale at moderate cost.

The means by which and the manner in which the above objects are attained with my invention, and the nature, construction and method of operation of my improved water scooter will be readily understood from the following description

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and explantion, in which reference is to be made to the accompanying drawings.

In the drawings, which are more or less diagrammatic:

Fig. 1 is a side elevation of one form in which my water scooter may be made;

Fig. 2 is a top plan view of the water scooter of Fig. 1;

Figs. 3, 4, 5, 6 and 7 are transverse sectional elevations taken on lines 3—3, 4—4, 5—5, 6—6 and 7—7 respectively of Figs. 1 and 2 and looking in the direction indicated by the arrows;

Fig. 8 is a section on line 8—8 of Fig. 2;

Fig. 9 is a section on line 9—9 of Fig. 2;

Fig. 10 is a plan view of a slightly modified form in which my water scooter may be made;

Fig. 11 is a plan view of a further modified form of my invention; and

Fig. 12 is a side elevation of the water scooter formed as shown in Fig. 11.

My water scooter may be made from a single solid block of light wood such as balsa wood, for example, or it may be made in the form of a hollow, completely enclosed and water tight structure either from molded plastic, aluminum, or from plywood secured to suitable interior reinforcing members so as to form a strong as well as a light weight buoyant and water tight structure. For the purpose of this description it is assumed that the water scooter as illustrated will be constructed of plywood, and this is probably my preferred construction, but my invention is not to be understood to be limited to the use of any particular material nor are the structural details to be understood as necessarily limited to those described and illustrated otherwise than as provided for in the claims.

In general my water scooter comprises an elongated buoyant structure the front half or front section of which is more or less boat-shaped and has a specially-shaped generally V-bottom bow portion resembling to a limited extend the bow of a boat by tapering forwardly to a prow and downwardly to a keel. The rear half constitutes the stern section and is reduced both in width and in depth relative to the front section and resembles an aquaplane or the like. The structure has a substantially flat top deck, but with the deck sloping upwardly near the bow and with a foot rest at each side near the rear of the front section and just inboard of the widest part of the structure. It will thus be seen that the device has in combination with the generally pointed bow portion a generally flat stern section.

Referring first to Figs. 1 to 7 inclusive, 10 indi-

cates the top deck, 11 and 12 the sides, 13 the stern end and 14 the bottom. Cross ribs 15, 16, 17 and 18, shown in Figs. 4, 5, 6 and 7 respectively, constitute supports for deck, sides and bottom, and preferably such ribs are made with spaced holes as shown in order to avoid any unnecessary weight in these members.

The general shape of the sides and bottom of the board will be apparent from Figs. 1 to 7 inclusive. It is to be noted that the downward inward slope of the sides decreases rearwardly and that the sides become substantially perpendicular to the deck in the rear portion of the front section and continue so to the stern end as apparent from Figs. 5, 4 and 3. The depth of the water scooter, from the top deck to the center line along the bottom, decreases, preferably constantly, from bow to stern end, as apparent from Fig. 1. The bottom flattens in cross section progressively rearwardly from the V-shaped bow. In the stern section of the scooter the bottom is substantially flat in cross section.

A center keel or fin 19 (Fig. 1) extends for a short distance on the bottom in the rear portion of the front section of the scooter and a second keel or fin 20 extends forward for a short distance from the stern end along the center line of the bottom.

The foot rests constitute a necessary and important feature of the present invention and, basically, comprise foot bearing surfaces 24 which are inclined downwardly and rearwardly from the top deck 10 at the rear of the front section and against which the operator's feet bear when he is seated on the stern section and by which the operator controls the maneuvering of the water scooter. In the preferred form illustrated, the foot rests comprise a pair of foot control recesses, indicated in general by the reference character 21, in the top deck at opposite sides of the water scooter and are positioned at the widest part of the water scooter, as previously mentioned and as shown in Fig. 2. Each foot control recess is formed with an inner substantially vertical side wall 22, preferably parallel to the longitudinal center line of the scooter, and an outer side wall 23 sloping obliquely upwardly and outwardly (Fig. 9), positioned slightly nearer to the inner side wall 22 at the rear of the foot control recess than at the front (Fig. 2), and located as closely as possible to the respective side wall of the water scooter. The bottom of the foot control recess comprises three sections, namely the foot bearing forward section 24 (Figs. 2 and 8) sloping upwardly and forwardly, a center or substantially horizontal section 25, and the aft section 26 sloping upwardly and rearwardly and preferably at a less angle of inclination than the forward section and consequently somewhat longer than the forward section. The reasons for this preferred shape for the foot control recesses will be understood presently.

In riding the water scooter in the customary and preferred sitting position, the operator sits on the stern section of the deck with the feet in the foot control recesses. The soles of the operator's feet are placed against the forward sections 24 of the foot control recesses respectively with the heels resting on the bottom sections 25. The rearwardly sloping aft sections 26 of the foot control recesses will then allow space and passageway for the back of the operator's legs.

A chock 27 (Fig. 7) is mounted on the front tip of the deck, and the tow rope (not shown), by which the water scooter and rider on the water

scooter are towed, passes through this chock at the start. The chock 27 is preferably specially shaped, as shown in the drawings, with each side sloping upwardly to the center in which the rope-holding slot is located. Thus the tow rope, when held down at deck level by the operator, can easily slide into the chock groove from either side, and, when the rope is raised above the deck level by the operator, will be lifted out of the chock groove.

At the start the operator causes the tow rope to move into the chock 27 and holds the tow rope handle or end down at the deck level. This causes the tow rope to stay in the chock and causes the water scooter to follow the towing boat in a straight path while the towing boat and water scooter gain speed. Preferably a tow rope of from 80 to 100 feet long is recommended since this will enable the operator, as soon as the water scooter attains moderate speed, to maneuver the water scooter outside of the wake and waves of the towing boat and to follow a wide range of oblique and zig-zag courses with ample opportunity for the development of skill and the attending water sport thrills. As soon as the water scooter attains sufficient speed to enable the operator to maintain balance the operator raises his end of the tow rope. This lifts the rope out of the chock 27 and the water scooter is then maneuverable according to the desire and skill of of the operator. Foot pressure in the foot control recesses enables the rider to pivot the water scooter at the point where he is seated.

As will be evident, the power which propels the water scooter is transmitted from the tow rope through the operator's points of contact with the ski board. The greater proportion of the power in any event will of course be transmitted through the soles of the operator's feet. For this purpose the upwardly sloping forward sections 24 of the foot control recesses provide a proper as well as comfortable brace for the operator's feet. Turning of the ski board may be accomplished in several ways. Leaning to one side or applying more downward pressure by the foot on one side than on the other, so as to cause the water scooter to tip to one side, will cause the water scooter to turn to that side since the lower side at the wide middle portion of the water scooter will create greater resistance to the water than the raised opposite side of the wide middle portion. A sharp flat turn at high speed can be made by the operator (in sitting position) by a side thrust in the desired direction by both feet, urging the feet against the respective side walls of the foot rests.

The center keel or stabilizer 19 reduces the tendency for the water scooter to skid when making a turn, and the rear keel or stabilizer 20 prevents any tendency to steer too far and to have the water scooter turn end for end during a sharp curve. The formation of the bottom of the water scooter, thus the stern section with the bottom flat in cross section and the bottom contour of the front section, enables the water scooter to present a planing surface to the water, the angle of which planing surface can be adjusted to the speed by the extent of backward lean on the part of the operator, and the contour of the bow enables the bow to be lifted to a limited extent under the control of the operator when skimming over the water.

While the foot control recesses 21 provide a firm and comfortable foot hold and keep the feet from slipping inadvertently sidewise out of the

foot control recesses no part of the foot rests extends above the top deck of the bow or front section. Thus, in the event of the overturning of the water scooter, the operator can slip freely away from the board. There is nothing on which or by which the operator can be caught when slipping off of the scooter and there is nothing on the scooter from which the operator might receive injury.

In the slightly modified form of my water scooter shown in Fig. 10 the sides **28** and **29**, instead of converging constantly towards each other throughout the stern section of the water scooter, are formed with a break about half way in the stern section so that the remaining portions **28'** and **29'** then extend parallel to each other to the stern end. As a result the water scooter of Fig. 10 has a wider stern section than that of Fig. 2. In all other respects the water scooter of Fig. 10 and the water scooter of Fig. 2 are the same, and the side walls **28, 28', 29, 29'** of the water scooter of Fig. 10 are perpendicular to the top deck preferably throughout the entire extent.

In the modified form of my water scooter illustrated in Figs. 11 and 12 the side walls **30** and **31** of the front section of the water scooter are brought in towards each other as shown at **30'** and **31'** at the rear of the front section immediately behind the foot control recesses. The side walls **32** and **33** of the stern section of the water scooter are parallel to each other throughout their entire extent to the stern end of the water scooter. The abrupt change in the width of the water scooter immediately aft of the foot control recesses, in this modified form of my water scooter, intensifies somewhat the turning effect produced by the tipping of the water scooter to one side or the other, but in all other respects the water scooter in this modified form is the same as the water scooter of Fig. 2.

Other minor modifications could be made in my water scooter without departing from the principle of my invention and within the scope of the claims. It is essential, however, in the carrying out of my invention that foot control recesses be provided at the sides, at the widest part of the water scooter, preferably not aft of the longitudinal middle point, and that the stern section of the water scooter be considerably narrower than that portion of the front section in which the foot control recesses are located.

I claim:

1. A water scooter to be towed by a power boat and adapted to be ridden by an operator in seated position, comprising an elongated buoyant body having a generally V-bottom bow portion and a generally flat stern section, said bow portion including the widest part of said body and tapering forwardly to a prow and downwardly to a keel, said stern section having a substantially flat bottom extending contiguously and merging with the rear of the bottom of said bow portion, a top deck on said body including a seating surface over said stern section, and foot rest means on said body in front of said seating surface and approximately at the rear of said bow portion, said foot rest means being inclined upwardly and forwardly to accommodate the soles of the feet of an operator seated on said seating surface to transmit thrust to said body through the operator from a tow line, whereby said body may be driven and the direction of travel controlled by selective pressure on said foot rest means.

2. A water scooter to be towed by a power boat and adapted to be ridden by an operator in seated position, comprising an elongated buoyant body having a generally V-bottom bow portion and a generally flat stern section, said bow portion including the widest part of said body and tapering forwardly to a prow and downwardly to a keel, said stern section having a substantially flat bottom extending contiguously and merging with the rear of the bottom of said bow portion, and a continuous top deck on said body sloping upwardly at the front to said bow and having a seating surface on said stern section, said body having recesses opening through said top deck, said recesses being disposed in front of said seating surface and adjacent the juncture of said bow portion and stern section, foot rests in the forward ends of said recesses and sloping upwardly and forwardly to said top deck to accommodate the soles of the feet of an operator seated on said seating surface and to transmit thrust to said body through the operator from a tow line, said foot rests being disposed entirely below the top deck to free said deck of obstructions and permit the operator to slide therefrom, whereby said body may be driven and the direction of travel controlled by selective pressure on said foot rests.

3. A water scooter to be towed by a power boat and adapted to be ridden by an operator in seated position, comprising an elongated buoyant body having a generally V-bottom bow portion and a generally flat stern section, said bow portion including the widest part of said body and tapering forwardly to a prow and downwardly to a keel, said stern section being narrower than said widest part and having a substantially flat bottom extending contiguously and merging with the rear of the bottom of said bow portion, a deck on said body and having a seating surface on said stern section, foot rest means on said body in front of said seating surface and adjacent the juncture of said bow portion and stern section, said foot rest means sloping upwardly and forwardly to accommodate the soles of the feet of an operator seated on said seating surface and to transmit thrust to said body through the operator from a tow line, and a chock on said deck at said prow and having upwardly and inwardly sloping sides terminating in a central vertical open-topped slot with substantially parallel side walls for removably receiving a tow line to guide the body during the towing thereof.

4. A water scooter to be towed by a power boat and adapted to be ridden by an operator in seated position, comprising an elongated buoyant body having a generally V-bottom bow portion and a generally flat stern section, said bow portion including the widest part of said body and tapering forwardly to a prow and downwardly to a keel, said stern section being narrower than said widest part and having a substantially flat bottom extending contiguously and merging with the rear of the bottom of said bow portion, a continuous deck on said body sloping upwardly at the front to said bow and having a seating surface on said stern portion, said body having recesses opening through said top deck, said recesses being disposed in front of said seating surface and adjacent the juncture of said bow portion and stern section, foot rests in the forward ends of said recesses and sloping upwardly to said top deck to accommodate the soles of the feet of an operator seated on said seating surface and to transmit thrust to said body through the operator from a tow line, said foot rests being disposed entirely below the top deck to free said deck of obstructions and permit the operator to slide therefrom,

and a chock on said top deck at said prow and having upwardly and inwardly sloping sides terminating in a central vertical open-topped slot with substantially parallel side walls for removably receiving a tow line to guide the body during the towing thereof.

5. A water scooter to be towed by a power boat and adapted to be ridden by an operator in seated position, comprising an elongated buoyant body having a generally V-bottom bow portion and a generally flat stern section, said bow portion including the widest part of said body and tapering forwardly to a prow and downwardly to a keel, said stern section being narrower than said widest part and having a substantially flat bottom extending contiguously and merging with the rear of the bottom of said bow portion, a top deck on said body and having a seating surface on said stern section, foot rests on said body in front of said seating surface, said foot rests sloping upwardly and forwardly to accommodate the soles of the feet of an operator seated on said seating surface and to transmit thrust to said body through the operator from a tow line, said foot rests being disposed adjacent the sides of said body and the juncture of said bow portion and stern section to enable control of said body by selective pressure on said foot rests, a keel portion extending rearwardly from the bow portion keel and depending from the front of the stern section bottom to prevent lateral skidding of said body on the water when making turns, and a keel portion depending from the rear of the stern section bottom to prevent swinging of said body on the water when making turns.

6. A water scooter adapted to be ridden by an operator in seated position, comprising an elongated buoyant body having a generally V-bottom bow portion and a generally flat stern section, said bow portion including the widest part of said body and tapering forwardly to a prow and downwardly to a keel, said stern section being narrower than said widest part and having a substantially flat bottom extending contiguously and merging with the rear of the bottom of said bow portion, a continuous top deck on said body sloping upwardly at the front to said prow and having a

seating surface on said stern section, said body having recesses opening through said top deck, said recesses being disposed in front of said seating surface and adjacent the juncture of said bow portion and stern section, foot rests in the forward ends of said recesses and sloping upwardly and forwardly to said top deck to accommodate the soles of the feet of an operator seated on said seating surface and to transmit thrust to said body through the operator from a tow line, said foot rests being disposed entirely below the top deck to free said deck of obstructions and permit the operator to slide therefrom, a short keel extending rearwardly from the bow portion keel and depending from the front of said stern section bottom to prevent lateral skidding of said body on the water when making turns, a second short keel depending from the rear of said stern portion bottom to prevent swinging of said body on the water when making turns, and a chock on said top deck at said prow said chock having upwardly and inwardly sloping sides terminating in a central vertical open-topped slot having parallel side walls for removably receiving a tow line to guide said body directly from the tow line during the towing of said body.

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