Sept. 7, 1954 H. A. WILSON 2,688,494

BOAT BEACHING GEAR

Filed May 8, 1950

FIG. 1

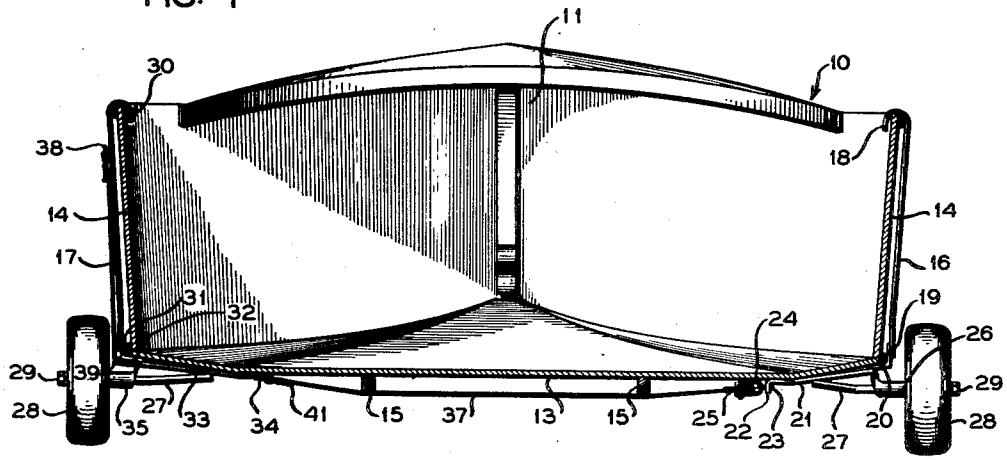


FIG. 2

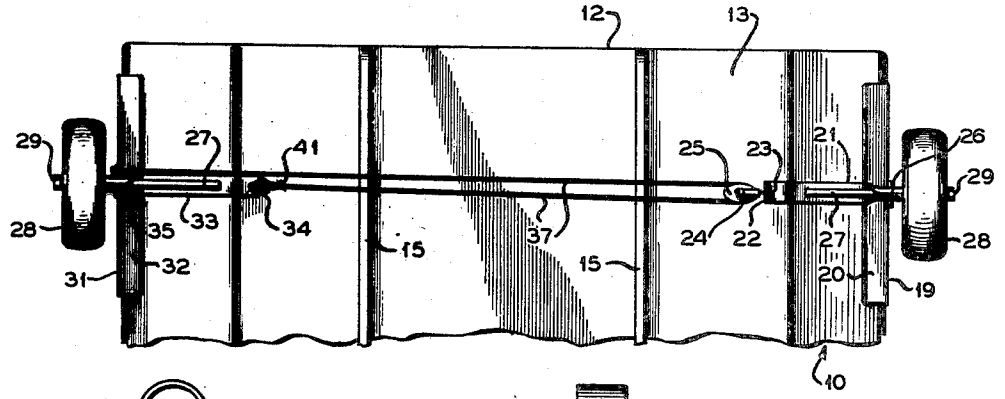


FIG. 3

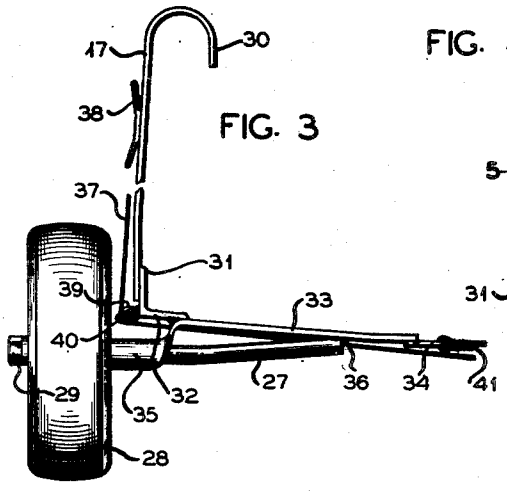


FIG. 4

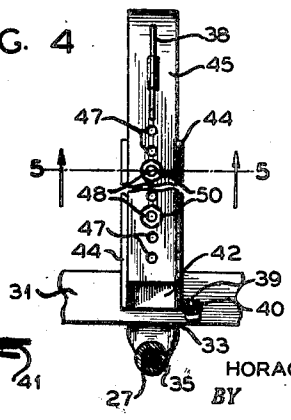
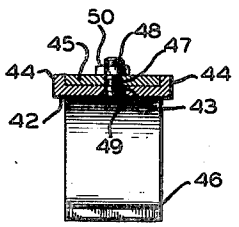


FIG. 5



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BOAT BEACHING GEAR

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This invention relates to boat beaching gear and more particularly to gear which can be conveniently applied to comparatively small boats whereby the beaching thereof may be readily accomplished without undue effort or additional equipment.

Devices of this character as presently manufactured are heavy in weight and generally cumbersome. The use thereof is burdensome by reason of difficulties of both installation and removal and, in most instances, the boat must be provided with appropriate brackets or clamps which present problems of installation and which are unsightly, impairing the lines and freedom of movement of the boat.

It is accordingly a major object of the present invention to provide boat beaching gear which will be particularly light in weight and which may be easily installed upon a boat or removed therefrom.

It is a further object of the invention to provide boat beaching gear of the class set forth which may be mounted or installed upon a boat without any necessity for brackets, clamps, or other fastening means.

It is a still further object of the present invention to provide boat beaching gear which may be conveniently installed or mounted upon a boat by an occupant thereof, while the boat is afloat, without any necessity for the individual performing the installation leaving the boat or otherwise getting wet.

It is a further object of the present invention to provide boat beaching gear of the class set forth which will be adaptable and adjustable, within a relatively wide range, for use upon boats of different sizes.

It is a still further object of the invention to provide boat beaching gear which may be conveniently mounted or installed upon a boat without any possibility of marring or otherwise damaging the portion of the boat upon which the device is supported.

It is a further object of the present invention to provide boat beaching gear of the class set forth which may be compactly collapsed and conveniently placed within the boat, when not in use, and which will not occupy any substantial amount of space.

It is a still further object of the present invention to provide boat beaching gear which will be strong and durable, which may be economically manufactured, and which will have no complicated parts or mechanism which may get out of order.

Further objects and advantages of the invention will be apparent from the following description taken in conjunction with the accompanying drawing, wherein:

Fig. 1 is a transverse sectional view taken through a boat and illustrating one embodiment of the novel boat beaching gear of the present invention mounted thereupon;

Fig. 2 is a fragmentary plan view of a portion of the bottom of a boat, illustrating the boat beaching gear of Fig. 1 attached thereto;

Fig. 3, an enlarged elevational view of one of the side members forming part of the gear;

Fig. 4, a side elevational view, also on a somewhat enlarged scale, of a modified form of side member, parts being broken away; and

Fig. 5, a detail transverse sectional view taken on the line 5—5 of Fig. 4.

There has been illustrated in the drawing, somewhat diagrammatically, a boat 10 of conventional design and including a bow 11 and stern 12. The boat further includes a relatively flat bottom 13 and inclined sides or chines 14. Rub strakes or molding strips may be provided, on the outer surfaces of the sides 14 adjacent the extremities thereof, and the bottom 13 may include a plurality of the usual supporting runners or skegs 15, all as is well known in this art. It will be understood, however, that neither the boat illustrated nor the particular design thereof forms any part of the present invention and that the boat beaching gear illustrated may be modified without any alteration of the inventive concept thereof to conveniently fit or for ready mounting upon a boat without regard to the lines or design thereof.

Preferably the boat beaching gear per se comprises a pair of hook-like side members 16 and 17 intended for engagement upon opposite sides of the gunwale of the boat 10, substantially adjacent the stern 12 thereof. These side members are relatively narrow in width and may be fabricated from any suitable light weight metal. The member 16 will be described as the right hand member and is intended to be supported upon the right hand side of the boat, however, these side members are interchangeable and the device may be mounted with equal facility adjacent the forward or central portion of the boat, as circumstances may require or direct.

The upper extremity of the side member 16 is inwardly and downwardly directed, as indicated at 18, and is intended to be hooked or hung upon the side or chine 14 of the boat. An angle iron supporting bracket 19, of somewhat greater length than the width of the side member, is riveted, welded or otherwise fixedly secured to the lower extremity of the side member 16 on the inner face thereof, the length of the side member being such that the hook-like upper extremity 18 will snugly engage the upper edge of the side 14 and the adjoining molding while the meeting corner of the bottom 13 and the side 14 will rest upon the horizontally disposed portion 20 of the angle bracket 19. A horizontally disposed arm 21, con-

stituting a wheel supporting bracket, is riveted, welded or otherwise fixedly secured to the under surface of the arm 20 of the bracket 19, the inner extremity of the arm 21 terminating in a downwardly directed portion 22. The portion 22 is suitably apertured for the reception of a pin 23 upon which is supported the clevis 24 of a pulley 25, for a purpose to be hereinafter more fully described.

The outer extremity of the arm 21 terminates in a tubular bearing or support 26 for a stub axle 27 upon which is supported a wheel 28, a suitable fastening means, such as a nut or the like 29, being provided to retain the wheel upon the axle and to permit disassembly or demounting thereof. The inner extremity of the axle 27 is welded or otherwise secured to the under surface of the arm 21.

The side member 16 is generally complementary to the side member 17 and includes an inwardly and downwardly directed upper extremity 30 intended to be hooked or hung upon the opposite side or chine 14 of the boat in a position directly opposed to the side member 16. An angle iron supporting bracket 31, substantially identical to the bracket 19, is riveted, welded or otherwise secured to the lower extremity of the side member 17 on the inner face thereof, the meeting corner of the bottom 13 and side 14 of the boat resting upon the horizontally disposed portion 32 of the bracket 31.

A horizontally disposed supporting arm 33, constituting a wheel supporting bracket and generally similar to the supporting arm 21, is riveted, welded or otherwise fixedly secured to the under surface of the arm 32 of the bracket 31, the inner extremity of the arm 33 being provided with an eye or the like 34, rigidly secured thereto as by welding or other suitable means, for a purpose to be hereinafter more fully described.

The outer extremity of the arm 33 terminates in a tubular bearing or support 35, identical to the bearing 26, and apertured for the reception of a stub axle 27 upon which is supported a wheel 28, suitable fastening means, such as a nut or the like 29, being provided for retaining the wheel in position upon the axle and permitting demounting thereof. The inner extremity of the stub axle 27 is welded or otherwise secured to the under surface of the arm 33 as indicated more particularly at 36 in Fig. 3 of the drawing.

A flexible line or rope 37 is employed, to provide a securing connection or linkage between the opposed side members 16 and 17 and the structure associated therewith. The side member 17 is provided with a suitable cleat 38, welded or otherwise rigidly secured thereto, and the angle member 31 is provided with a suitable pulley 39, welded or otherwise secured to the outer face thereof, to assist in ready manipulation or adjustment of the rope 37. Preferably the pulley 39, which is supported within a bracket 40, is of the so-called "awning" type whereby disengagement of rope and pulley cannot be accomplished inadvertently, it being necessary to thread the rope through a suitable aperture in the pulley supporting structure.

Installation of the boat beaching gear of the present invention is particulraly simple. The extremity 41 of the rope 37 is secured to the loop 34 on the supporting arm 33 (see Fig. 3 of the drawing) and the opposite extremity of the rope is then threaded through the pulleys 25 and 39. The side member 16 is then positioned upon a side of the boat, for example adjacent the stern thereof, and the rope 37 is swung or otherwise permitted to pass beneath the boat, it being borne in mind that this rope is of sufficient length to provide ample looseness to permit of ready clearance of the bottom and opposite side of the boat as well as propeller, outboard motor, or the like.

The side member 17 is then positioned upon the opposite side of the boat in opposed relationship to the side member 16 and the rope 37 is then tightened, thus securing the side members and associated structure in position. When appropriate tension has been reached, insofar as the rope 37 is concerned, the rope is secured upon the cleat 38. The boat may then be brought to shore and readily beached, the beaching gear remaining securely in position until manually removed.

After the boat has been again floated, removal of the beaching gear is a simple reversal of the process described hereabove, and installation or removal may be easily accomplished by a single occupant of the boat without undue effort or necessity for leaving the boat.

It will be obvious that the lengths of the side member and angular or other inclination thereof should be complementary to the design of the boat upon which the gear is intended to be used. Ready modification of the device can be accomplished, to provide custom-built gear for each and every boat.

There has been illustrated in Figs. 4 and 5 of the drawing a modification of the side member 16 which will permit of extensibility thereof to compensate for boats having sides of different heights, thus to provide beaching gear which may be employed upon several different sizes of boats, within a certain range. In this modified form of the device the side member comprises a channel shaped fixed lower portion 42 provided with a plurality of spaced apertures 43 and including side walls 44. The angle bracket 31, carrying the wheel supporting bracket 33, is secured to the lower extremity of the channel member 42. An upper side member 45, terminating in an inwardly and downwardly directed extremity 46 is positioned between the side walls 44 of the lower member for vertically adjustable movement. The upper side member is provided with a plurality of spaced apertures 47, similar to the apertures 43 in the lower side member and adapted for alignment therewith. To securely retain the upper and lower side members in adjusted position, fastening elements 48 are provided, positioned within aligned apertures 43 and 47. Preferably these fastening members 48 include heads 49 which are countersunk into the inner face of the channel member 42 so as to obviate any possibility of marring the adjacent surface of the side of the boat. Suitable nuts 50 are provided, intended for engagement with the threaded fastening elements 48, whereby the upper and lower side members may be securely maintained in adjusted position.

It will be readily apparent that, with the modified form of side member structure described hereabove, boat beaching gear has been provided which will readily fit upon or accommodate boats of different sizes insofar as height of side is concerned.

The boat beaching gear of the present invention is particularly light in weight and easy to mount. When removed from the boat, when the vessel is afloat, it may be placed to one side and will not occupy any particularly great amount of space. Installation, or removal, presents no prob-

lem and may be accomplished by a single individual, or occupant of the boat, without requiring undue effort or providing any necessity for leaving the boat. The device is extremely durable, having no part or parts that are subjected to any particular degree of stress or wear, is susceptible of unusually long life, and may be manufactured with great economy. It is especially adapted for use upon boats of different widths, without alteration of any character, and may be readily adjusted insofar as the height of the side of the boat, upon which it is used, is concerned.

It will be obvious to those skilled in the art that various changes may be made in the invention without departing from the spirit and scope thereof and therefore the invention is not limited by that which is shown in the drawing and described in the specification but only as indicated in the appended claims.

What is claimed is:

1. Gear for application to an open top boat without modification of the structure thereof comprising a pair of units, each unit including a side member for application to the outside of a boat and including an inwardly extending hook for engaging and embracing the top edge of a side of the boat without modification of the boat, an elongated member located below said hook and secured to said side member so that portions of said elongated member extend rearwardly and forwardly of the hook for engaging the side and bottom of the boat, a supporting arm fixed to said elongated member intermediate the ends thereof for location beneath the bottom of the boat, a wheel rotatably mounted on said supporting arm adjacent the end thereof for operation outwardly of the boat's outline when the device is mounted on a boat whereby the wheel may contact the ground below and outwardly of the boat's outline, and tension means connecting said units, said tension means including an actuating portion extending to the upper end of one of said side members along said side member whereby the tension may be applied by an occupant of the boat and means to secure the tension means in tense condition.

2. Gear for application to an open top boat without modification of the structure thereof comprising a pair of units, each unit including a side member for application to the outside of a boat and including an inwardly extending hook for engaging and embracing the top edge of a side of the boat without modification of the boat, an elongated member located below said hook and secured to said side member so that portions of said elongated member extend rearwardly and forwardly of the hook for engaging the side and bottom of the boat, a supporting arm fixed to said elongated member intermediate the ends thereof for location beneath the bottom of the boat, a wheel rotatably mounted on said supporting arm adjacent the end thereof for operation outwardly of the boat's outline when the device is mounted on a boat whereby the wheel may contact the ground below and outwardly of the boat's outline, and tension means connecting said units, said tension means including an actuating portion extending to the upper end of one of said side members along said side member whereby the tension may be applied by an occupant of the boat and means to secure the tension means in tense condition and means for adjusting the length of the said side members whereby the distance between said hook and the

longitudinal member on each unit may be varied for accommodating boats of different sizes.

3. Gear for application to an open top boat without modification of the structure thereof comprising a pair of units, each unit including a side member for application to the outside of a boat and including an inwardly extending hook for engaging and embracing the top edge of a side of the boat without modification of the boat, an elongated member located below said hook and secured to said side member so that portions of said elongated member extend rearwardly and forwardly of the hook for engaging the side and bottom of the boat, a supporting arm fixed to said elongated member intermediate the ends thereof for location beneath the bottom of the boat, a wheel rotatably mounted on said supporting arm adjacent the end thereof for operation outwardly of the boat's outline when the device is mounted on a boat whereby the wheel may contact the ground below and outwardly of the boat's outline, and tension means connecting said units, said tension means including, a cable having one end secured to the supporting arm of one of said units, a pulley on the supporting arm of the other unit, said cable extending from the said supporting arm of said unit through the pulley on the other unit and then from said pulley to the said one unit and up along the side member of said one unit, and means on the said side member of said one unit above the water line for securing the cable in tensed condition, whereby the gear may be applied or removed while the boat is in the water.

4. Gear for application to an open top boat without modification of the structure thereof comprising a pair of units, each unit including a side member for application to the outside of a boat and including an inwardly extending hook for engaging and embracing the top edge of a side of the boat without modification of the boat, an elongated member located below said hook and secured to said side member so that portions of said elongated member extend rearwardly and forwardly of the hook for engaging the side and bottom of the boat, a wheel rotatably mounted on the said members of each of said units for contacting the ground below the boat when the units are mounted on a boat, and tension means connecting said units including an actuating portion extending to the upper end of one of said side members and along said side member whereby the tension may be applied by an occupant of the boat, and means to secure the tension means in tense condition.

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