Aug. 20, 1963 J. W. RAYMOND 3,101,203

WHEELING ATTACHMENT FOR BOATS

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Fig. 1.

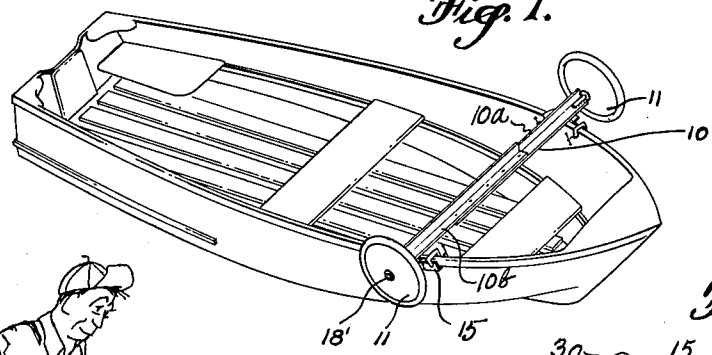


Fig. 2.

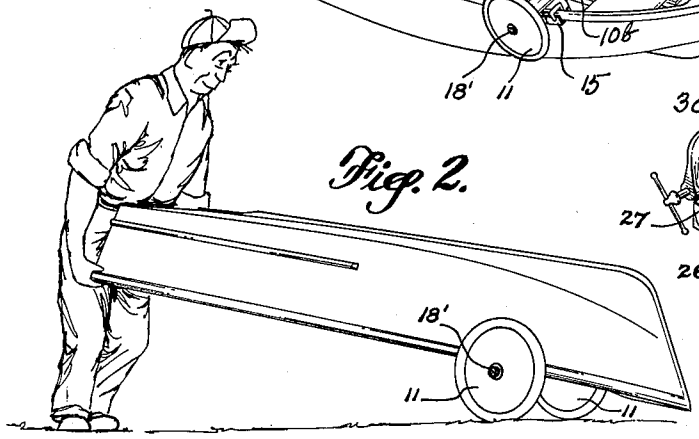


Fig. 4.

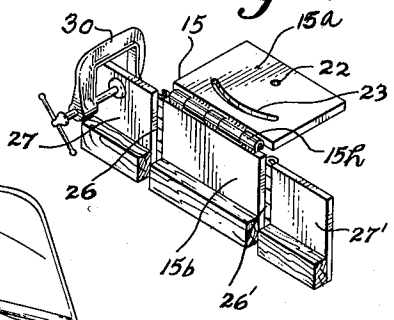


Fig. 3.

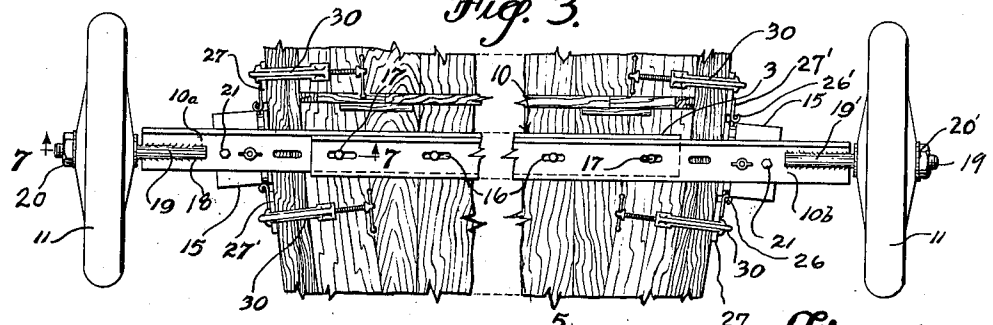


Fig. 5.

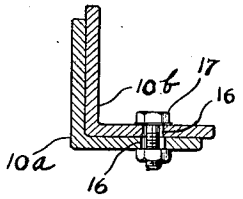


Fig. 7.

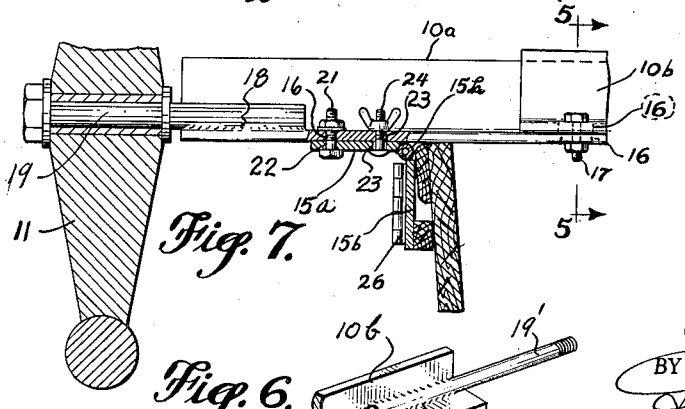


Fig. 6.

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Fig. 8

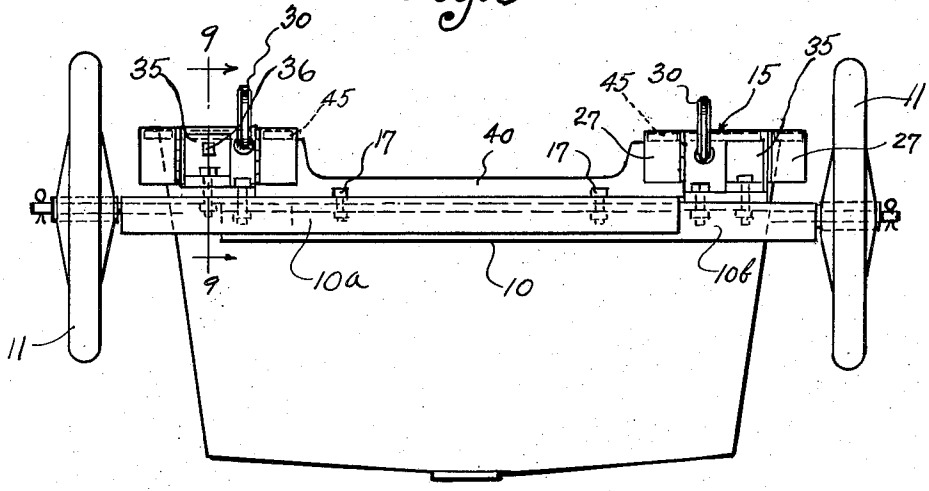


Fig. 9

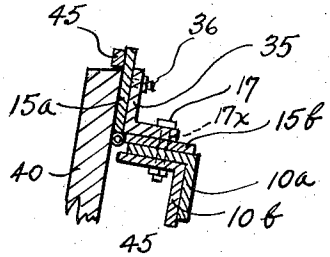
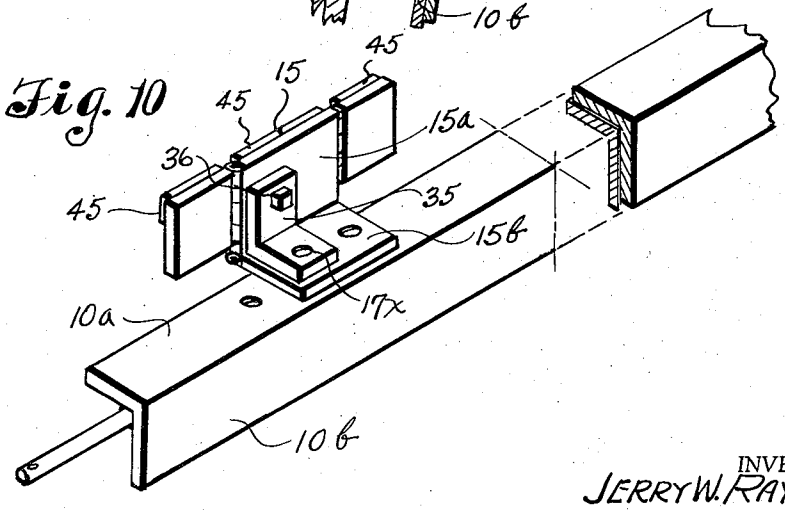


Fig. 10



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WHEELING ATTACHMENT FOR BOATS

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5 Claims. (Cl. 280—35)

This invention relates to wheeling attachments designed for ready application to boats, as for example, to such boats as those which are to be powered by outboard motors and also to those which may be propelled manually by means of oars.

More specifically stated the present invention relates to a wheeling attachment for boats that comprises a cross-axle that is equipped with novel means for its fixed attachment transversely across the gunwales of a boat and which mounts paired wheels at its ends whereby the boat may be supported after the fashion of a wheelbarrow, for easy rolling on a surface such as, for example, a launching ramp leading to or from a body of water.

Many boat owners and users transport their pleasure boats on trailers or car tops to lakes or other bodies of water and upon their arrival or departure therefrom are required to carry, drag or roll them to and from the water. This is a somewhat difficult task, especially if the boat is heavy; when the distance of portage is substantial and when it has to be done by one person.

In view of the above disadvantages of boating, it has been the principal object of this invention to provide a readily portable attachment device that is easily applicable to a boat to serve as a means whereby the boat may be wheeled, wheel-barrow fashion, on a surface leading between the body of water and boat carrier and which may be readily detached and collapsed for its convenient storage for transportation.

It is also an object of this invention to provide an attachment device of the character and for the purposes above stated, that is characterized by use of a telescopically adjustable cross-axle, equipped at its opposite ends with stub axles on which wheels are removably mounted and also with axle securing plates that may be fitted flatly against the sidewalls or gunwales of the boat then readily and adequately secured thereto by hand clamps thus to functionally secure said attachment device to the boat.

It is also an object of this invention to provide a modified form of attachment device within the scope of this invention that may be readily applied for use to the transom wall of the boat.

Further objects and advantages of the present invention reside in the details of construction and combination of its parts and in the manner of their application and use, as will hereinafter be fully described.

In accomplishing the above mentioned and other objects, of this invention, I have provided the improved details of construction, the preferred forms of which are illustrated in the accompanying drawings, wherein:

FIG. 1 is a perspective view of a boat as equipped with a wheeling attachment embodying the improvements of the present invention.

FIG. 2 is a view illustrating the manner of wheeling a boat when equipped with the present attachment device.

FIG. 3 is an enlarged top view of the attachment device as functionally secured to a boat.

FIG. 4 is a perspective view of one of the clamp plates whereby the cross-axle is secured at its ends to the gunwales of the boat.

FIG. 5 is an enlarged cross-sectional view of the axle taken on line 5—5 in FIG. 7.

FIG. 6 is a perspective view of an end portion of the cross-axle, showing the wheel mounting spindle rod as welded thereto.

FIG. 7 is a vertical section of a part of the cross-axle taken on line 7—7 in FIG. 3.

FIG. 8 is a rear end view of a boat equipped with a cross-axle assembly as modified for its attachment to the transom wall of the boat.

FIG. 9 is an enlarged cross-section on line 9—9 in FIG. 8.

FIG. 10 is a perspective view of a fragmental end portion of the modified cross axle of FIG. 8.

Referring more in detail to the drawings:

The attachment device of this invention, in a presently preferred form, comprises a cross-axle that in FIGS. 1 and 3 is designated in its entirety by reference numeral 10 and which is equipped at its opposite ends with paired wheels 11—11 on which the boat may be wheeled on a ramp or roadway between water and boat carrier vehicle.

The usual place of application of the cross-axle is across the gunwales of the prow portion of the boat as in FIG. 1 but may be at any other position which may be desired by the boat handler. Fixed adjustably to the opposite end portions of the cross-axle 10 are its securing plates 15 each of which is like that shown in FIG. 4; there being one of these employed at each end of the axle.

The cross-axle 10 is made up of two angle iron bars, 10*a* and 10*b*, that are nested together as shown in FIG. 5 for telescopic adjustment to suit the length of axle required to accommodate any particular boat. Each of the angle bars 10*a* and 10*b* is formed at regularly spaced intervals in its base flange with bolt holes 16 in the form of elongated slots, adapted to be registered with those of the other to receive bolts 17 therethrough to secure the axle in any of its possible length adjustments. At their outer ends the bars 10*a* and 10*b* have short lengths of spindle forming rod 19—19′ seated lengthwise of and welded in the angle thereof and extended beyond their outer ends. These spindle rods are securely welded in place as indicated at 18 in FIGS. 3 and 6 and mount the wheels 11—11 thereon. These wheels may be of any suitable form of construction and in various diameters to best serve the requirement. Cotter keys may be applied through or nuts may be threaded onto the spindle rod ends, as at 20 in FIG. 3 to hold the wheels when functionally applied to the axle.

Each of the axle securing plates, designated in its entirety by numeral 15 in FIG. 4 is of novel formation in that it comprises two rectangular plates of substantially the same dimensions, designated respectively by numerals 15*a* and 15*b*. These plates have longitudinal edges hingedly joined as at 15*h*. The preferred mode of attachment of the axle securing plates 15 to the angle bars is as has been shown best in FIG. 3 wherein it is observed that the plates 15*a* transversely underlie and are disposed flatly against the corresponding angle bar and each is pivotally attached hereto by a single bolt 21 passed through a hole 22 formed in the plate near its outer edge and through one of the bolt holes 16 as formed in the outer end portion of the horizontal flange of the angle bar. Each plate 15*a* also is formed with an arcuate slot 23 that is centered in the center of bolt hole 22 and is designed to receive a securing bolt 24 upwardly therethrough, as in FIG. 7. This bolt then passes upwardly through a selected hole 16 of the axle bar flange for the securement of the angular position of plate 15.

Hingedly attached to the opposite end edges of plate 15*b*, as in FIG. 4, by hinges 26 and 26′ are wing plates 27 and 27′ to be employed in a manner and for a purpose presently to be explained.

In the assembly of the parts comprising the cross-axle and the application of the cross-axle to a boat as shown in FIGS. 1 and 3, the two angle bars 10*a* and 10*b* are first nested together and adjusted endwise relative to each other to give the axle a proper or desired length and then are secured in that adjustment by two or more bolts 17 applied through registering slot holes 16 thereof. The bolts

21 which hold the axle securing plates 15 are then applied to the ends of the cross-axle at such positions that the horizontal plates 15*a* as secured thereby will overlie the gunwales of the boat and the plates 15*b* with wing plates 27—27′ at their opposite ends can be adjusted flatly against the inside or outside faces of the converging gunwales, as has been shown in FIG. 3. The plate securing bolts 24 are then applied through the plate slots 23 of plates 15*a* and through holes 16 in the horizontal flanges of the axle bars 10*a* and 10*b* and the nuts as applied thereto are tightened to secure the plates 15 against any turning. Then U-clamps, as at 30 in FIG. 3, are applied over the gunwales and wing plates 27—27′ as shown in FIG. 3 and turned tight thus to secure the plates 15 and hold the cross-axle 10 rigidly attached to the boat. The wheels 11—11 are then applied to and secured on the axle spindles. The boat may then be inverted for wheeling as in FIG. 2 and this may be done by one person supporting the boat at its stern end. In this inverted position the boat may be quite easily pushed or pulled along a surface.

It is to be understood that in the application of the securing plates 15 to the axle, if desired they may be so applied that the plates 15*b*, 27 and 27′ will engage the insides of the gunwales and the plates 15*a* extend across their top edges.

It is also understood that the adjustment of the nested axle forming bars 10*a* and 10*b* may be extended to various distances as may be required to keep the wheels free and clear of the gunwales regardless of their convergence or divergence, and also that the attachment plates 15 may be adjusted inwardly or outwardly from the gunwales to accommodate different gunwale contours.

In the application of the cross-axle 10 of FIG. 8 to the transom wall 40 or rear end wall of a boat, it is preferred that the two bars 10*a*—10*b* be first telescopically adjusted and joined as previously explained by bolts 17 to provide an axle of the desired length. Then the two plates 15 with or without the hinged wings are applied and secured to the axle by bolts or the like in spaced relationship for their intended attachment to the transom wall. The axle is then placed in position and the C-clamps 30, as employed in FIG. 3, are applied in the manner illustrated in FIG. 8 to secure the axle to the transom wall. Suitable wheels 11—11 are applied to the ends of the axle in the same way as previously described and the boat then inverted and rolled on the supporting road or ramp surface as previously explained, to the place of use, storage, launching or transportation of the boat.

In this particular application of the axle, the two nested angle bars 10*a* and 10*b* are faced toward the wall as will be understood by reference to FIG. 9 and in order to retain the hinge connections of the parts 15*a* and 15*b* rigid, short lengths of angle iron, as at 35 are bolted thereto as well shown in FIGS. 9 and 10. In doing this, bolts 36 may be applied through holes 17*x* provided in flanges of the axle forming angle bars.

The C-clamps employed for securement of the axle may be applied as shown in FIG. 8 or in other positions, depending on the requirement or features of the particular boat.

Attention is also directed to the provision of stop bars 45 applied to the outer edge portions of the plates, as

shown in FIGS. 9 and 10, to seat against edges of the transom wall or gunwales to supplement the holding facilities or the clamps 30.

What I claim as new is:

1. A wheeling attachment for a boat, comprising a cross-axle with wheel mounting spindles extending from its opposite ends, wheels mounted on said spindles and axle attaching plates fixed to opposite end portions of said cross-axle; each of said attaching plates comprises two hingedly joined sections, one of which is applied transversely of and flatly against a flange of the corresponding end portion of said cross-axle and the other section is adapted to be adjusted to flatly engage against a sidewall surface of the boat, and means for its securement thereto for the functional mounting of the cross-axle.

2. A boat wheeling attachment of the character described comprising an axle adapted to be laid across the gunwales of a boat for its securement thereto, wheel mounting spindles extending outwardly from opposite end portions of said axle, wheels mounted on said spindles; said axle comprising two angle iron bars with inner end portions overlapped in nested relationship, for telescopic adjustment, means joining said bars rigidly in adjustment, axle attaching plates applied to the opposite end portions of said cross-axle; each plate comprising a pair of hingedly joined portions with one portion disposed flatly against the horizontal flange of the corresponding angle bar and pivoted thereto for angular adjustment and the other being substantially vertical and adapted for flatly engaging the side surface of the corresponding gunwale for axle holding securement thereto.

3. A boat wheeling attachment according to claim 2 wherein said vertical portions of the axle attaching plates are rectangular and have flat wings hingedly attached to their opposite ends for disposition flatly against vertical faces of the gunwales, and wherein C-clamps secure said wings to the gunwales.

4. A device according to claim 3 wherein the vertical portions of said attaching plates and the wing plates are equipped along the outer edges of their inside faces with retaining cleats for abutment against the gunwale strips.

5. A boat wheeling attachment comprising a cross-axle adapted to be extended across the transom wall of a boat; said axle comprising two telescopically nested angle iron bars joined in rigid connection, wheel mounting spindles extended from the outer ends of said cross-axle, ground wheels mounted on said spindles, mounting plates at opposite ends of said axle, each plate having hingedly joined portions with one fixed rigidly to the horizontal flange of the cross-axle, and its other portion flatly engaging the transom wall of the boat adjacent its top edge, C-clamps applied to said wall and latter mentioned portions of said plates to secure the position of the axle and short lengths of angle bars applied to the angle formed by the hinged portions of said plates and fixed rigidly thereto to maintain the rigidity of the axle relative to the transom wall.

References Cited in the file of this patent

UNITED STATES PATENTS

1,543,626	Stansbury	June 23, 1925
2,848,243	Young	Aug. 19, 1958