Sept. 29, 1970 L. E. LEVINSON 3,530,519

BOATS

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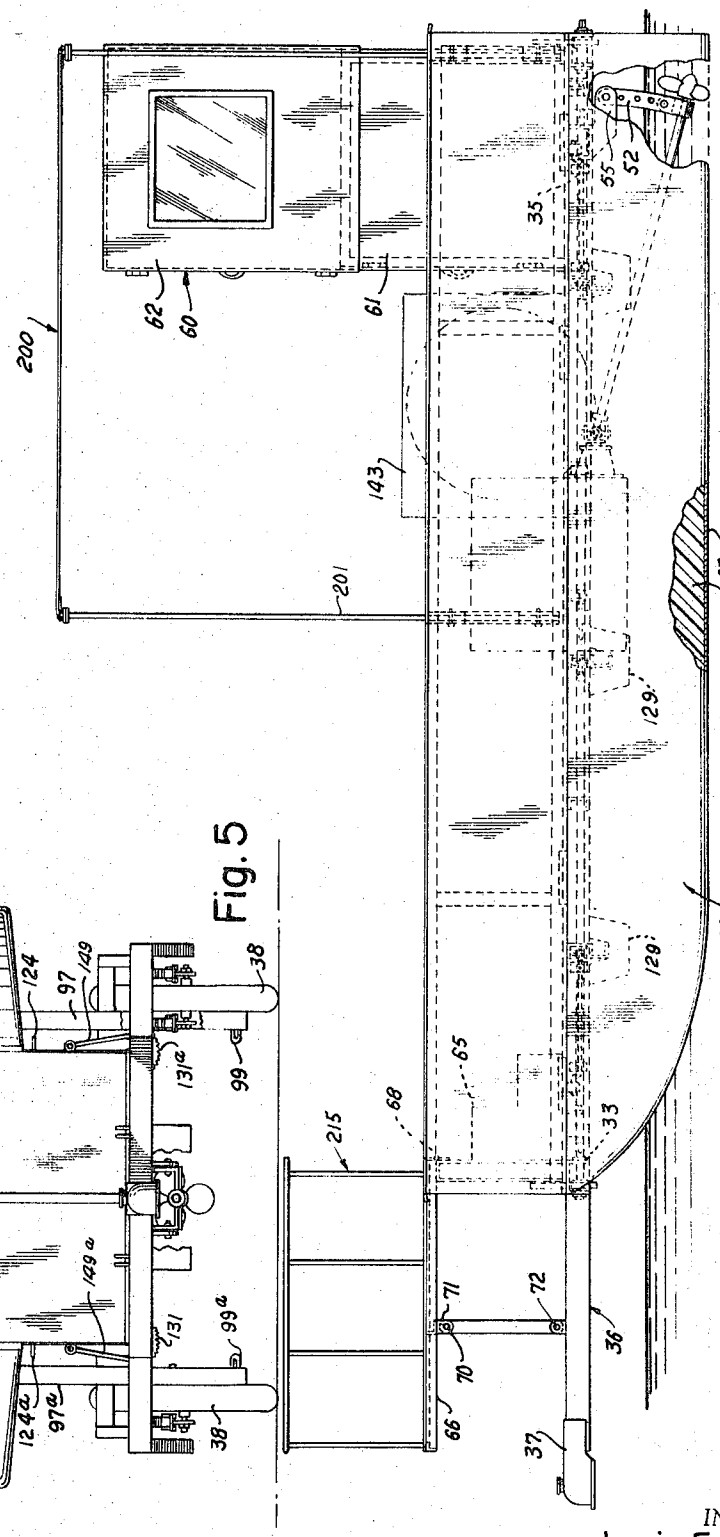


Fig. 1

Fig. 5

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BOATS

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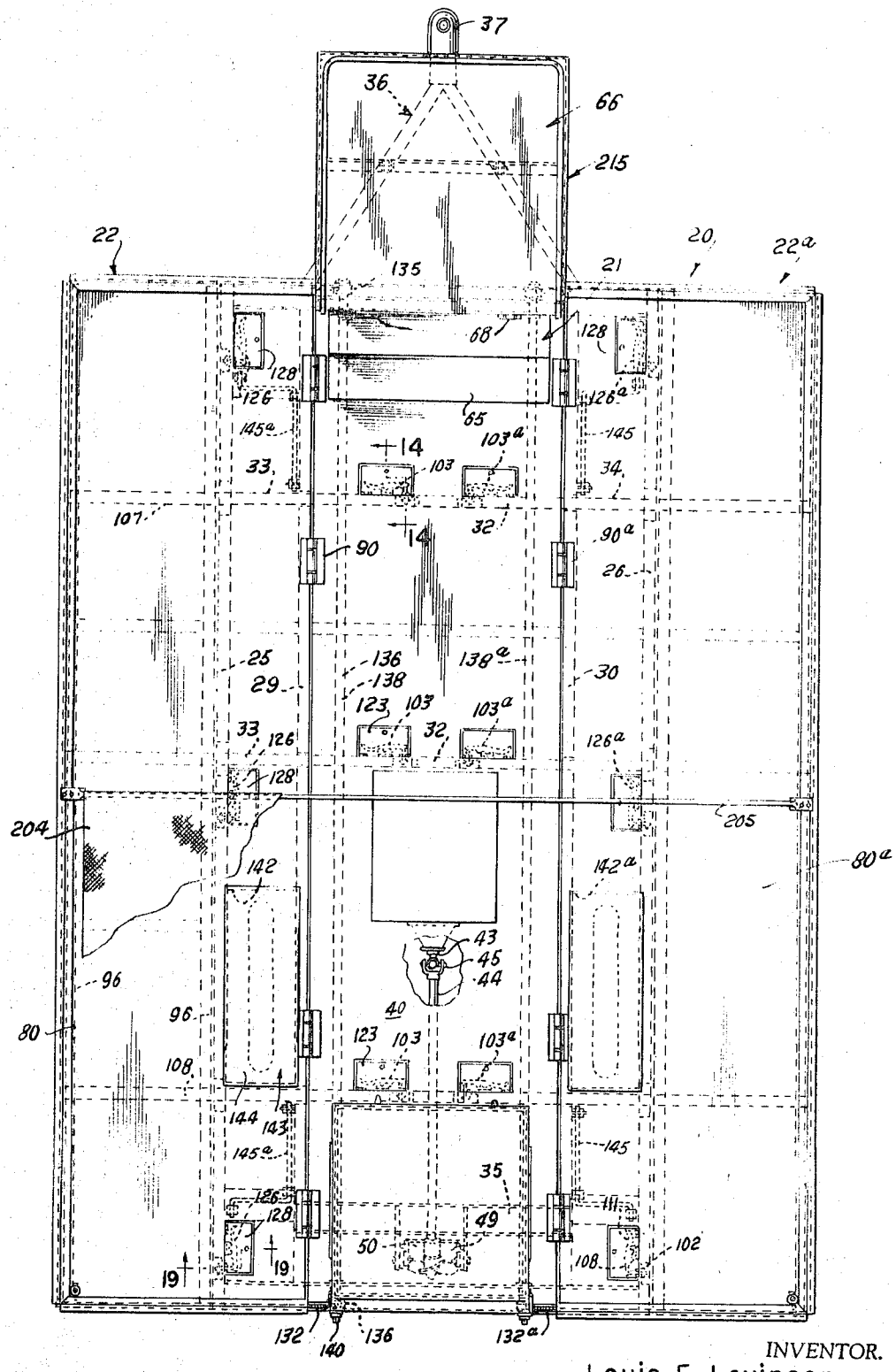


Fig. 2

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BOATS

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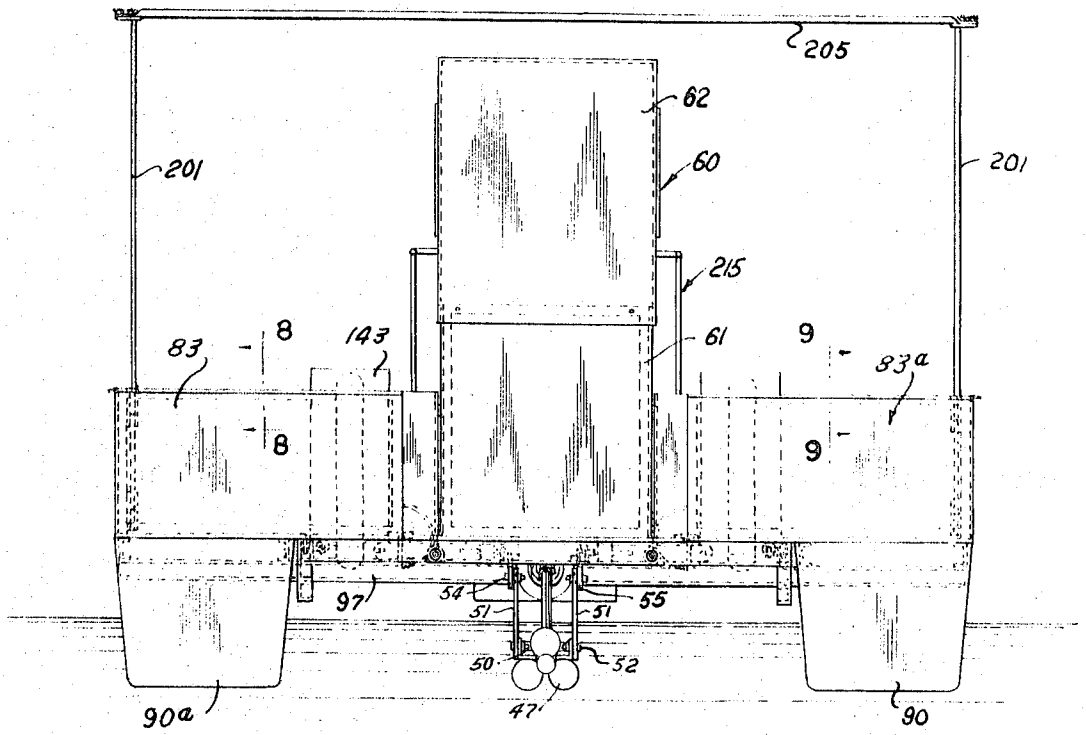


Fig.3

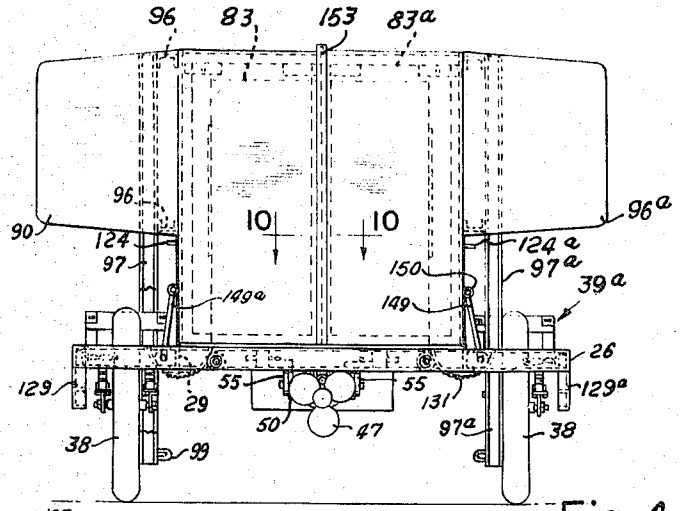


Fig.4

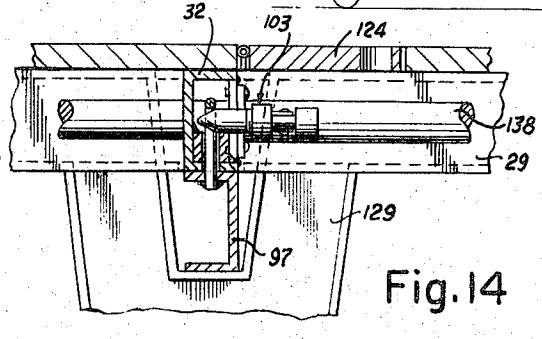


Fig.14

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BOATS

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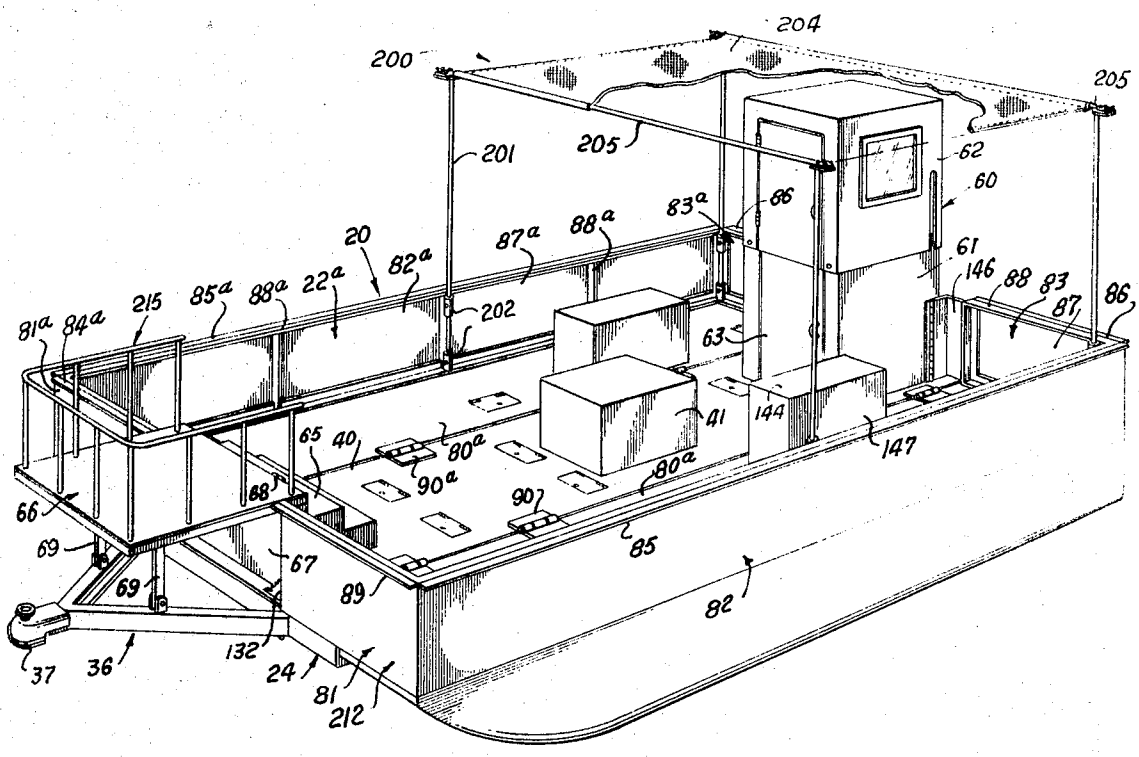


Fig. 6

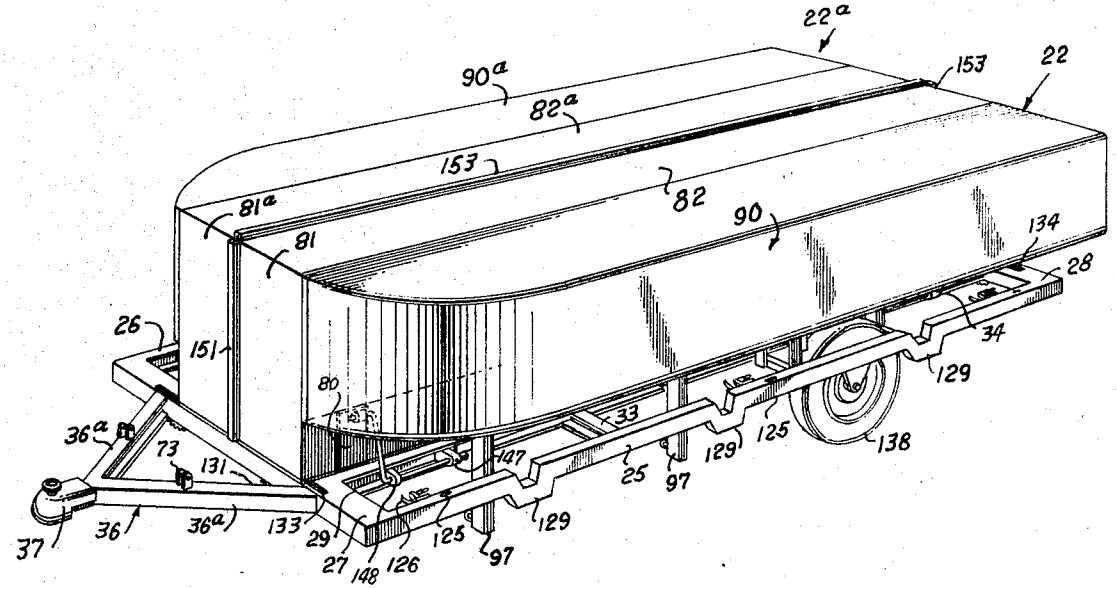


Fig. 7

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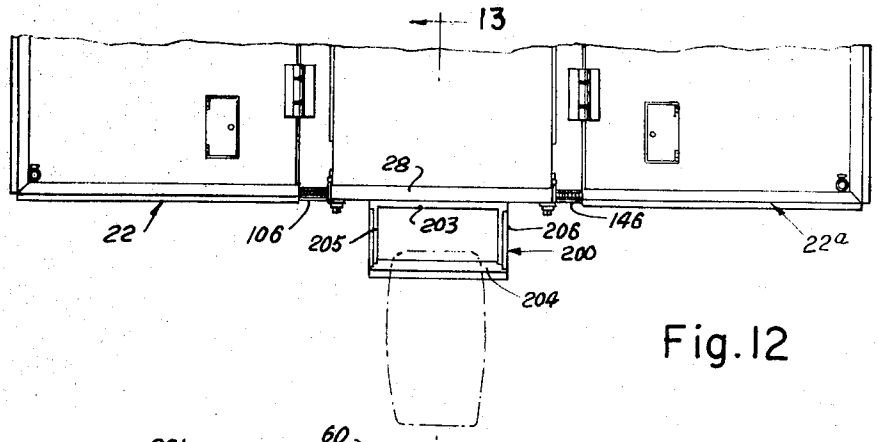


Fig. 12

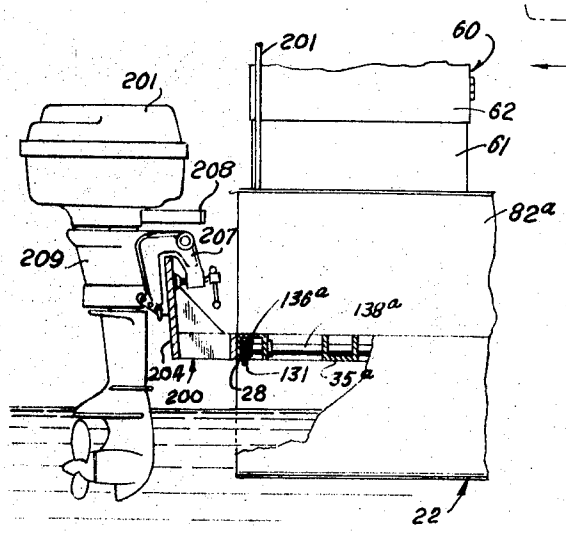


Fig. 13

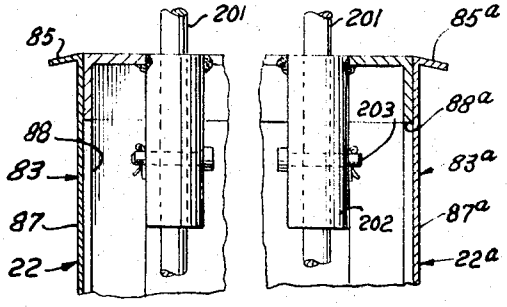


Fig. 8 Fig. 9

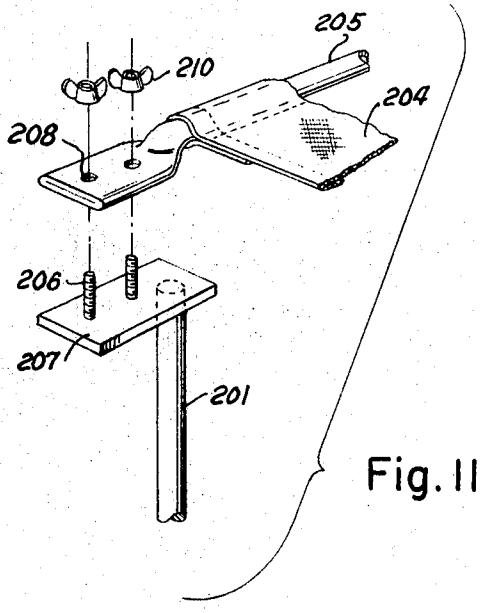


Fig. 11

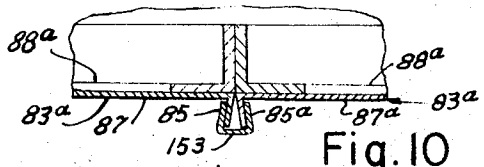


Fig. 10

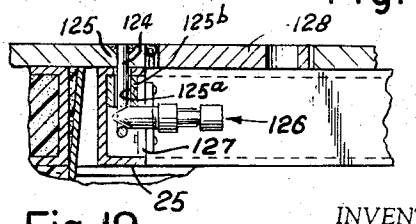


Fig. 19

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BOATS

Filed Sept. 12, 1968 6 Sheets-Sheet 6

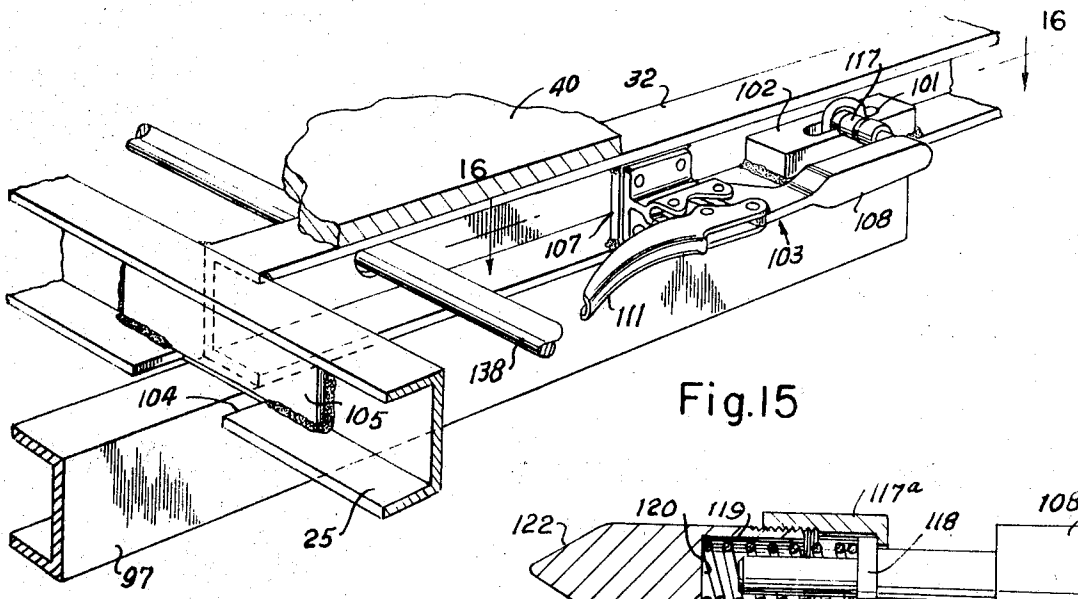


Fig.15

Fig.18

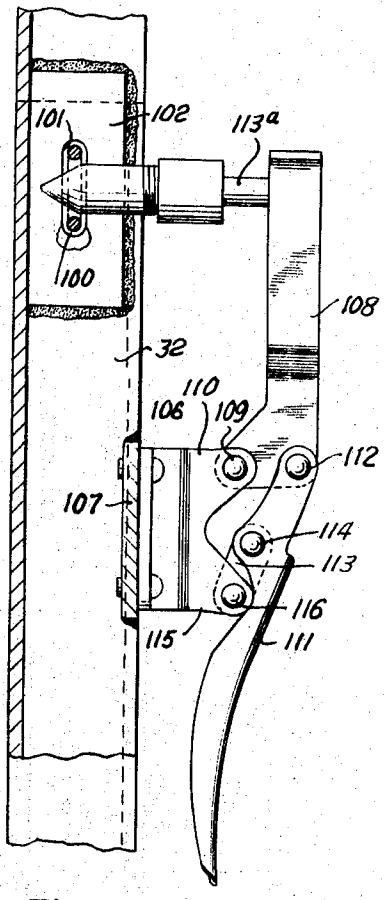


Fig.16

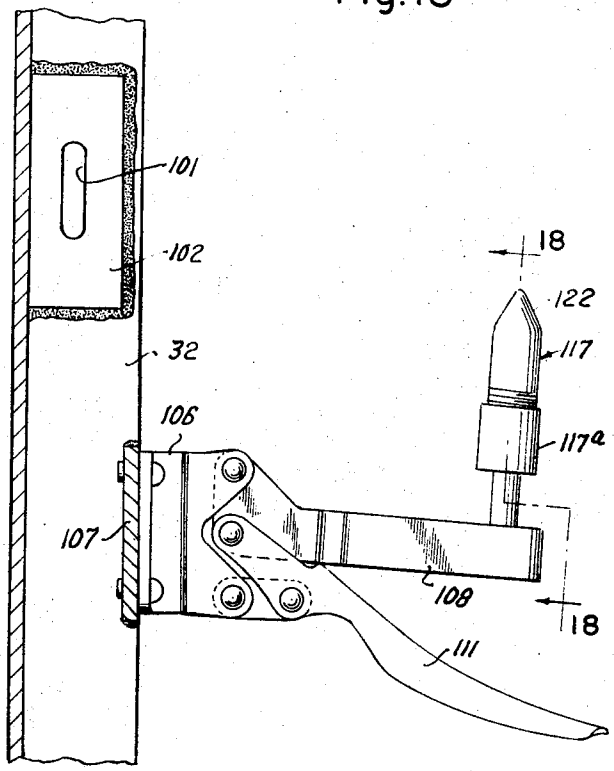


Fig.17

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United States Patent Office 3,530,519 Patented Sept. 29, 1970

3,530,519

BOATS

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Filed Sept. 12, 1968, Ser. No. 759,414
Int. Cl. B63b 7/00, 43/14
U.S. Cl. 9—1 19 Claims

ABSTRACT OF THE DISCLOSURE

A boat transportable over highways which has a central section and two side section provided at their outer side portions with pontoons, the side sections being pivotal on the central section about spaced longitudinal axes between extended positions wherein the pontoons support the central section above the surface of the water and upper retracted positions wherein the pontoons are spaced above the central section, the side sections and the central section forming a closed chamber when the side sections are in their retracted positions, the central section and the side sections providing a deck of relatively great width and area when the side sections are in their extended positions.

This invention relates to boats and more particularly to a boat which is transportable over land.

An object of this invention is to provide a new and improved boat of great stability and large deck area when afloat on water, but which is of relatively narrow width when placed in condition for transport over land.

Another object is to provide a boat whose maximum width, when placed in condition for transport over land, is within the legal permissible width established for vehicles which travel on highways.

Still another object is to provide a boat having retractable wheels whereby it may be moved over land by a towing vehicle.

A further object is to provide a boat having a central section and pair of longitudinal side sections pivotally secured to the central section for movement about longitudinal parallel axes between lower extended positions wherein the side sections extend outwardly of the central section and upper retracted positions wherein the side sections extend above the central section.

A still further object is to provide a boat of the type described wherein the side sections are provided with pontoons which extend outwardly and downwardly of the central section when the side sections are in their extended positions whereby the central section of the boat is maintained above the surface of the water and the boat is very stably afloat and the buoyancy provided by the pontoons permits great loads to be carried safely by the boat.

A still further object is to provide a boat wherein each of the side sections is provided with a side wall and transverse front and back end walls and the side sections, when pivoted to an upright position on the central section, form with the central section a closed chamber in which articles may be stored for transport.

Another object is to provide a boat of a type described, wherein the wheels are mounted on the central section laterally outwardly of the deck portion of the central section and are retractable into suitable downwardly open housings on the side sections.

An important object of the invention is to provide a boat of the type described wherein the height of the side wall of each side section is one-half the width of the deck portion of the central section of the boat whereby the side walls form a top wall over the deck portion of the central section when in their upper retracted positions.

Another object is to provide a boat of the type described having means for securing the side sections to one another when in their retracted positions and means for rigidly securing the side sections to the central section when in their extended positions.

Additional objects and advantages of the invention will be readily apparent from the reading of the following description of a device constructed in accordance with the invention, and reference to the accompanying drawings thereof, wherein:

FIG. 1 is a side view of a boat embodying the invention with some parts broken away, showing it afloat on water;

FIG. 2 is a top view of the boat, with portions broken away, and its side sections in their extended positions;

FIG. 3 is a rear end view of the boat in its floating position;

FIG. 4 is a rear end view of the boat showing the side sections in their retracted positions;

FIG. 5 is a front end view of the boat with its side sections in their retracted positions;

FIG. 6 is a perspective view, with some parts broken away, of the boat with the side sections in their extended position;

FIG. 7 is a perspective view of the boat with its side sections in their retracted positions;

FIG. 8 is a fragmentary sectional view taken on line **8—8** of FIG. 3;

FIG. 9 is a fragmentary sectional view taken on line **9—9** of FIG. 3;

FIG. 10 is an enlarged fragmentary sectional view taken on line **10—10** of FIG. 4;

FIG. 11 is a fragmentary exploded view showing the means for mounting a canopy over the boat;

FIG. 12 is a fragmentary top view showing a means for mounting an outboard motor on the boat;

FIG. 13 is a sectional view taken on line **13—13**;

FIG. 14 is an enlarged sectional view taken on line **14—14** of FIG. 2 of a latch assembly of the boat;

FIG. 15 is a fragmentary perspective view of the latch assembly shown in FIG. 14;

FIG. 16 is a sectional view taken on line **16—16** of FIG. 15;

FIG. 17 is a sectional view similar to FIG. 16, but showing the latch assembly in unlocked position;

FIG. 18 is an enlarged sectional view taken on line **18—18** of FIG. 17; and,

FIG. 19 is an enlarged sectional view taken on line **19—19** of FIG. 2.

Referring now to the drawings, the boat **20** embodying the invention includes a central section **21** and a pair of side sections **22** and **22***a* which are secured to the central section for pivotal movement about parallel longitudinal axes. The central section includes a rectangular frame **24** having outer longitudinal side members **25** and **26**, a front end member **27** and a rear end member **28** which are rigidly secured to one another, as by welding. The frame also includes a pair of longitudinal spaced brace members **29** and **30** which extend between and are welded to the frame end members, a plurality of spaced inner transverse brace members **32** which extend between the longitudinal brace members and are welded thereto, a plurality of spaced outer transverse brace members **33** which extend between and are welded to the longitudinal brace member **29** and the side frame member **25**, and a plurality of spaced transverse members **34** which extend between and are welded to the longitudinal brace member **30** and the side frame member **26**. The rear transverse brace member **35** extends between and is welded to the longitudinal brace members while the other transverse brace members extend the full width

of the frame and are welded to both the longitudinal brace members and the side frame members. A tow bar **36** having members **36***a* secured to the front end member has a hitch member **37** by means of which the boat may be towed by an automobile or other self-propelled vehicle.

The boat may travel over land on a pair of wheels **38** which are mounted for movement between their operative lower positions illustrated in FIGS. 5 and 7, and upper retracted positions above the frame by any suitable mount means **39** secured to the frame members in any suitable manner. Any suitable mount means **39**, for example, such as those disclosed in the patent to Louis E. Levinson, No. 3,090,793, issued Aug. 28, 1963, may be used.

The central section includes a planar deck member **40** of any suitable material as, for example, aluminum, and may be secured to the frame **24** by welding, screws, bolts or the like. If desired, of course, the deck could be formed of wood and the like.

In the form of the boat illustrated in FIGS. 1 through 6, an engine housing **41** is secured to the central section and may extend below the deck member and the frame so that the drive shaft **43** of the engine mounted in the housing is positioned below the deck member and may have a connector shaft **44** connected thereto by a suitable universal coupling **45**. The lower end of the connector shaft **44**, on whose bottom end a propeller **47** is mounted, extends rotatably through a bushing **49** welded or otherwise secured to a U-shaped bracket **50** whose arms are rigidly secured to bars **51** by bolts **52** which extend through suitable aligned apertures in the arms of the bracket **50** and the bars **52**. The upper ends of the bars are secured by bolts **54** to brackets **55** which are rigid with the transverse brace member **35** of the frame. The bars may have a number of vertically spaced apertures through which the bolts **52** may extend so that the vertical position of the propeller may be adjusted.

During the transport of the vehicle over land, the bracket **50** is disconnected from the arms **48** and the arms **48** themselves are disconnected from the brackets **55**. The bracket **50** may then be secured directly to the brackets **55** thus holding the propeller in the raised position illustrated in FIG. 5. If desired, of course, the propeller itself may be removed and disconnected from the shaft.

The deck member may have a room **60** mounted thereon which comprises a bottom rectangular section **61** over which is telescopical a top rectangular section **62**. The two sections may have forwardly opening doors **63**. The exact structure of the room being no part of this invention, it will not be described herein, but any suitable means, such as bolts, may be used to secure the top room section to the bottom room section when it is in its upper position. The room may be used as a dressing room or storage room and may be furnished with sanitary facilities.

The central section of the boat at its forward end may be provided with steps **65** and a harpoon deck **66** which is pivotally connected to the front wall **67**, which extends upwardly from the deck member **40**, by suitable hinges **68** so that the harpoon deck may be pivoted in a clockwise manner, FIG. 1, on the deck **40** when the boat is to be transported over land. The harpoon deck is held in its upper position, illustrated in FIGS. 1, 2 and 6, by a pair of bars **69** whose upper ends are secured by bolts **70** to downwardly extending lugs **71** of the harpoon deck and whose lower ends are securable by bolts **72** to the upwardly extending lugs **73** on the tow bar members **36***a*.

The side section **22** includes a rectangular deck member **80** which may be formed of a suitable metal, such as aluminum or the like, which are secured in any suitable manner, as by welding, bolts, or the like, a front wall **81**, a side wall **82**, and a rear wall **83**, which are provided with outwardly extending connector strips **84**, **85**, and **86**, respectively. Each of the walls includes a planar member **87** of metal and siutable frame **88** to which the metal planar member is secured in any suitable manner. The front wall **81** is positioned forwardly of the front wall **67** of the central section so that when the side section **22** is pivoted upwardly the front wall **81** may be free to move forwardly of the central section front wall **67**. Similarly, the rear wall **83** is positioned rearwardly of the rear wall of the top cabin section so that the rear wall **83** may move rearwardly of the cabin as the side section **22** is pivoted upwardly. The side section **22** is pivotedly connected to the central section by suitable hinges **90** secured to the deck members.

The pontoon **92** of the side section **22** is of any suitable structure and may include an outer metal shell **93** which is filled with an expanded or cellular plastic substance **94** which provides great buoyancy to the pontoon. The side section has a pair of longitudinal frame members **96** and a plurality of transverse members **97** welded to one another to which the shell and the deck member **80** are secured as by welding, screws, or the like.

The transverse frame members **97**, when the side section **22** is in its upper retracted position, have their lower end portions extending downwardly of the central frame and between the central frame members **25** and **29**, and when the side section is in its extended position, these lower end portions underlie the longitudinal frame member **29** and the brace frame members **32**. Each frame member **97** has an upper surface which abuts the bottom surface of the bottom flange of the longitudinal brace member **32** which it underlies and has a connector loop **99** which is adapted to extend upwardly through a slot **100** in the bottom flange of such frame member **32** and the slot **101** of a block **102** secured to the bottom flange.

The connector loops **99**, the block **102**, and the latch assemblies **103** mounted on each of the frame members **32**, are employed to rigidly secure the inner ends of the frame members **97** to the central section frame members **32** when the side section **22** is in its extended position. The bottom flange of the longitudinal brace member **25** is provided with slots **104**, in alignment with the frame members **97**, to permit their pivotal movement to positions underlying and contacting the transverse brace frame members **32**. Reinforcing bars **105** are preferably welded to the web of the member **25** which span such slots.

Each of the latch assemblies **103** includes a base **106** which is rigidly mounted, as by means of bolts, to brackets **107** welded to the brace frame member **32** with which the latch assembly is associated, a lever **108** which is pivotally mounted by a pin **109** on the outer end of the post **110** integral with the base, and a handle **111** pivotally connected to the rear end of the lever by a pin **112** and to the outer end of a link **113** by a pin **114**, the inner end of the link being connected to a post **115** of the base by a pin **116**. A rod **113***a* is secured, as by welding, to the outer end of the lever **108** and the forward end portion of the rod extends into an end recess **116***a* in a pin **117**. Forward movement of the pin on the rod is limited by the engagement of the internal annular flange of a retainer nut **117***a*, threaded on the inner end of the pin, with the external annular flange **118** on the rod. The pin is biased outwardly by a spring **119** which bears against the surfaces **120** and **121** of the pin and the flange of the rod, respectively. The pin has a frusto-conical or beveled forward end portion **122** which is movable into a connector loop **99** for engagement therewith and with the top surface of the block **102** of the brace member **32** on which the latch assembly is mounted. The pin **122** is, of course, somewhat loosely mounted on the rod, as is the lever on the post **110** and the handle on the link to permit some movement of the pin relative to the base and the frame member **32**. The locations of the axes of pivotal connections of the lever to the base, of the handle

to the link, and of the link to the base is such that when the handle lever is in its operative position, illustrated in FIG. 16, any force tending to move the outer end of the lever outwardly tends to lock the lever in its operative position. As the handle is pivoted inwardly toward the base, it moves the outer end of the lever and the pin **117** toward a loop **90** which extends through the slots in the bottom flange of the brace member **32** and the block **102** and, before it reaches its fully latched position, the movement of the pin **117** is arrested due to its wedging engagement with the arcuate portion of the loop and with the block. The spring **119** is then compressed as the outer end of the rod continues to move inwardly into the recess **116***a* of the pin as the lever completes its movement to its fully latched position. The spring now biases the pin inwardly through the connector loop thus holding the inner end of the brace member against downward movement. The spring also biases the lever outwardly and thus holds it in its operative latched or locked position. The deck member **40** of the central section of the boat above the latch assemblies **103** is provided with apertures closed by doors **123** which may be pivotally connected to the deck member in any suitable manner, as by hinges. The handles of the latch assemblies are accessible through these apertures when the doors are opened.

The deck member of the side section **22**, inwardly of the pontoon, has a plurality of connector loops **124** which are adapted to extend through the slots **125** and **125***a* in the top flange of the outer side member **25** and of blocks **125***b* secured to the top flange of the side member **25** when the side section is in its extended position. Latch assemblies **126** mounted on brackets **127** welded to the side member **25** are engageable with the blocks and such connector loops to releasably and rigidly secure the side section to the outer frame member **25**. The latch assemblies **126** being identical to the latch assemblies **103**, they will not be described further.

The deck member **82** is provided with apertures closable by doors **128** above the latch assemblies through which access may be had to the handles of the latch assemblies.

Since the transverse members **97** extend below the deck member **80**, the side member **25** of the frame **24** has depressed portions **129** providing upwardly opening recesses in which the transverse members are receivable when the side section **22** is moved to its extended position. These recesses may be of such dimensions that the engagement of the surfaces of the outer member **25** defining the forward and rear ends of the recesses with the transverse members **97** will help hold the side section against longitudinal movement relative to the central section.

The other side member **26** of the frame **24** has similar depressed portions **129***a* providing recesses in which the transverse members **97***a* of the frame **95***a* of the other side section **22***a* are receivable when the side section **22***a* is in its extended position.

If desired, the inner ends of the frame members **97** may be connected by longitudinal brace members, not shown, at their inner ends which would extend between adjacent pairs of frame members **97** and be welded thereto. While the side sections **22** and **22***a* have been shown as each having only three transverse members **97** and **97***a* and their associated locking means for rigidly securing the members **97** and **97***a* to the central section frame, it will be apparent that the number of these members and locking means may be varied as required by the length of the boat and to the wave and wind conditions to which it may be subjected. Similarly, more than three loops **124** and **124***a* and latching assemblies **126** and **126***a* may be provided.

The front and rear walls **81** and **83** have sector gears **131** and **132**, rigidly secured thereto in any suitable manner, whose common central axis is coincident with the longitudinal axis of pivotal movement of the section **22**. The sector gears are movable through suitable slots **133** and **134** of the front and rear frame members **27** and **28**, respectively, and are engageable by gears **135** and **136** rigidly secured to a shaft **138** which extends through suitable aligned apertures in the flanges of the front and rear frame members **27** and **28** and is suitably journaled therein. The shaft also extends through aligned apertures in the flanges of the channel member **32** and **35** of the frame.

The rear end of the shaft has a rectangular end portion **140** on which a suitable socket of an L-shaped handle may be positioned so that the operator may rotate the shaft by means of the handle to raise or lower the side sections.

The deck member **80** of the section **22** is provided with a downwardly opening aperture **142** in which the wheel mount **39** and the wheel on the left side of the boat may enter into a well or housing **143** secured in any suitable manner to the deck member. The well, of course, has a removable cover **144** so that access may be had to the wheel mount. The well, when it is covered, may be used as a seat.

The side section **22** is biased upwardly toward its retracted position by torsion bars **145** each of which has one end rigidly secured, as by a pin, welding, or the like, to a bracket **147** welded to the longitudinal frame member **29** and which extends rotatably through a bracket **148** also secured to the frame member **29**. Each torsion bar has an arm **149** provided with a roller **150** which engages the outer surface of the deck member **80**. The deck member **80** may have a reinforcing member **80***b* at the location of engagement of the roller therewith.

It will be apparent that as the side section pivots downwardly from its retracted to its extended position, the torsion bar yieldably resists such movement as it is twisted about its longitudinal axis. The torsion bars, therefore, exert an upward force on the side section **22** when it is in its extended position and the force necessary to be applied to the shaft **138** to move the side section **22** between its extended and retracted positions is thus reduced. The torsion bars thus facilitate the movement of the side section between its extended and retracted positions. While only two torsion bars **145** have been shown, it will be apparent that the number of torsion bars provided may be increased as desired, depending on the length and weight of the side section **22**.

The side section **22***a* of the boat and the means by which it is secured to the central section being identical to the side section **22** and the means by which the side section is secured to the central section, the elements of the section **22***a* and the means by which it is secured to the central section have been provided with the same reference numerals, to which the subscript "*a*" has been added, as the corresponding elements of the section **22** and the means by which it is secured to the central section.

Since the width of the cabin is less than the distance between the inner ends of the rear walls when the side sections are in their extended positions, a pair of angle members **146** are hingedly connected to the side walls of the cabin and are pivotable outwardly to close these spaces as easily seen in FIG. 6. The angle members are pivoted inwardly against the cabin and walls to permit upward pivotal movement of the side sections to their retracted positions.

The side sections, when they are in their upper retracted positions, may be held connected by channel connectors **151**, **152** and **153**, which engage the outwardly extending flanges of the adjacent walls of the side sections. For example, referring particularly to FIGS. 8, 9 and 10, the flanges **83** and **83***a* of the rear walls of the sections **22** and **22***a*, respectively, are adjacent one another as illustrated in FIG. 10, when the side sections are in their retracted positions and a channel shaped

lock member **153** is then slid downwardly over the two channel members and then holds the flanges against outward movement relative to each other. Similarly, the lock member **152** is slid over the flanges **84** and **84***a* of the side walls of the two sections and the lock member **153** is slid over the flanges **85** and **85**a of the front walls. The top lock member **152** may be made of sufficient length so as to extend over the top ends of the lock members **151** and **153** and thus prevent any rain from entering into the closed chamber formed by the three boat sections. If desired, of course, additional latching or locking means may be provided to hold the two sections of the boat in their retracted positions.

Assuming now that the boat is in its position illustrated in FIGS. 4, 5 and 7 and has been transported to the location at which it is to be launched, the lock strips **151**, **152** and **153** are then removed and the side sections are moved to their extended positions by use of an appropriate handle and the rotation of the shafts **138** and **138***a*. As the side sections are thus pivoted to their extended positions, the mounts **39** enter through the apertures **142** and **142***a* in the deck members **80** and **80***a* into the wells.

The connector loops **99** and **99***a* move upwardly through the slots in the bottom flanges of the brace members **32** and the blocks **102** and the loops **124** and **124***a* and of the blocks **125**b secured thereto move downwardly through the slots in the top flanges of the outer frame members **25** and **26** and of the blocks **125***b* secured thereto. The doors on the deck members **40**, **80** and **80***a* above the latch assemblies are then opened, the latch assemblies are then moved to their operative positions by appropriate movement of their handles to cause the pins of the latch assemblies rigidly to engage the connector loops **99** and **99***a*, **124** and **124***a* and the blocks through whose slots they extend and rigidly connect the side sections to the frame. Each of the side sections is thus rigidly connected to the frame of the central section at a plurality of laterally and longitudinally spaced locations. The boat is then moved down the ramp on its wheels until it is afloat.

The covers of the wells are now opened or removed and the wheels are moved to their retracted positions in the wells. The connector shaft **144** is then secured to the engine drive shaft and secured by means of the bracket **50** and the bars **51** to the brackets **55**. The harpoon deck may now be pivoted in a counter-clockwise direction, FIG. **1**, and secured in the forward horizontal position above the tow bar by means of the bars **69**. The top section of the room may then be raised to its upper position so that the room may then be used.

If desired, a canopy or shelter **200** may then be erected over the rear portion of the boat by inserting the vertical rods **201** in the tubular sockets **202** connected to the frames of the side walls of the two sections and rigidly securing the posts to the socket by means of pins **203**. A plastic or canvas sheet **204** of the canopy, which has front and rear rods **205** extending through the elongate passages provided by folding over end portions of the sheet and sewing them to the body of the sheet, is then connected to the top ends of the front and rear posts by means of threaded studs **206** mounted on the plates **207** on the upper ends of the posts which extend through the apertures **208** in the flattened end portions of the rods. Wing nuts **210** may then be threaded on the posts.

Any suitable rudder for steering the boat may be mounted on the rear end of the boat by any suitable brackets, not shown.

When it is desired to move the boat from the water and transport it over land, the above sequence of operations is reversed.

The maximum width of vehicles allowed to travel on the highways of most states is 8 feet and it is, therefore, required that the boat, when in its retracted condition, not have a width at any point along its length of more than 8 feet. In order to provide a boat having great stability and a maximum width of deck which is provided by the deck members of the three sections, it is preferred that each of the deck members be 4 feet wide, so that the boat when in its floating position has a deck 12 feet wide and the central vertical planes of the pontoons are spaced apart a distance of about nine feet. This wide spacing of the pontoons prevents the boat from being capsized under almost any extreme weather and wave conditions.

The walls of the two side sections are approximately 2 feet high so that when the side sections are moved to their retracted positions, the deck members **80** and **80***a* of the two side sections extend vertically, the combined width of the two side walls is approximately four feet and the side walls are parallel to and spaced four feet above the deck member **40** of the central section. The pontoons may have an effective height of nearly two feet each, i.e., two feet minus the thickness of the deck members **80** and **80***a*, so that the distance between the opposite bottom end surfaces of the pontoons, which are substantially vertical when the side sections are in their retracted positions, is eight feet or slightly less.

It will also be seen that the total area of the main deck, if the boat is 20 feet long, is 240 square feet so that a very large area is provided for the use of the occupants of the boat. In addition, the harpoon deck which may be four feet square, provides an additional deck area of sixteen square feet. The height of the railing **215** of the harpoon deck is less than four feet so that when the harpoon deck is pivotel to its retracted position, the railing will engage the deck member **40** and the side walls of the two side sections can move thereover as the side sections are pivoted to their upper retracted positions. In addition, since the pontoons, which are approximately 20 feet long, provide great buoyancy so that it may carry a very great load without sinking too deeply into the water.

It will also be apparent that various equipment and supplies may be transported in the chamber provided by the three sections of the boat when the boat is placed in condition for transport over land and that the provision of the lock members for the flanges of the walls of the two sections prevents precipitation from entering into such chamber.

Referring now particularly to FIGS 12 and 13, the boat **20** is shown modified by the provision of a mount frame **200** for an outboard motor **201**. The motor mount frame may comprise inner and outer members **203** and **204**, respectively, connected by side members **205** and **206**. The inner member **203** may be secured to the rear frame member **28** of the boat by welding and the outboard motor is securable to the outer member **204** by the usual clamp **207**. Suitable control cables will, of course, be connected to the handle **208** of the motor by means of which the motor may be rotated on its mount **209** by an occupant on the boat to steer the boat. The distance the transverse frame members **97** and **97***a* of the two side sections **22** and **22***a* extend below the central section frame may be shortened if desired in which case it may be necessary to reverse the longitudinal orientation of the latch assemblies **103** and **103***a* so that the levers **108** and **108***a* and the blocks **102** and **102***a* would be near to shafts **138** and **138***a*, respectively, and the handles **111** and **111***a* would be remote therefrom.

It will not be apparent that a new and improved boat has been illustrated and described which has a central section and two side sections pivotally connected to the central section and movable betwen upper vertical retracted positions and lower extended positions about longitudinal parallel spaced axes and that each of the sections may have a deck member approximately four feet wide, which deck members are in horizontal alignment when the side sections are pivoted to their lower extended positions.

It will further be seen that each of the side sections

at its laterally outer portion is provided with a pontoon or float means which extends downwardly and outwardly of the central section when the side sections are in their extended positions.

It will further be seen that the boat is provided with means for rigidly securing the side sections to the central section when the side sections are in their extended positions at a plurality of transversely and longitudinally spaced locations.

It will further be seen that, if desired, a cabin structure may be mounted on the deck member of the central section and that a deck may be provided at the front of the central section which is pivotal into a horizontal position over the tow bar secured to the front end of the central section.

It will further be seen that a boat has been illustrated and described which may be easily transported over highways since it has a maximum width within the prescribed legal limit for vehicles traveling on highways, and that notwithstanding this narrow width when being transported over the highways, the boat when placed in condition for floatation on water is of relatively great width and is buoyantly supported at laterally widely spaced locations along the outer side portions thereof to provide great stability for the boat.

It will further be seen that the latch assemblies and connector loops provide a quickly operable means for rigidly connecting and disconnecting the side sections to and from the central section and that the beveled configuration of the pins of the latch assemblies and the biasing action of their springs causes the pins to exert forces tending to hold the side sections in their extended positions.

It will also be seen that the side sections have frames which are rigidly securable to the frame of the central section by quick release and quick connect latch assemblies and connector loops.

It will also be apparent that, if desired, the side section transverse frame members **97** and **97***a* may similarly be connected to the outer frame members **29** and **30** by connector loops on either the central section frame members or the transverse members and slots and latch assemblies provided on the other members at the locations of the depressed portions or channels **29** of the outer side frame members.

The foregoing description of the invention is explanatory only, and changes in the details of the construction illustrated may be made by those skilled in the art without departing from the spirit of the invention.

What is claimed and desired to be secured by Letters Patent is:

1. A boat including: a horizontal central longitudinal section; a pair of longitudinal side sections pivotally connected to said central section on opposite sides thereof and pivotal in opposite directions between upper retracted positions wherein said side sections extend substantially perpendicularly from said central section and extended positions wherein said side sections extend outwardly of said central section and in horizontal alignment therewith, each of said side sections having a longitudinal float means along a laterally outward portion thereof which extends downwardly and outwardly of said central section when said side sections are in retracted positions; and cooperable means on said central section and said side sections for rigidly securing said side sections to said central section when said side sections are in said extended positions, said sections each having deck means of approximately equal widths and the height of each said float means being approximately half the width of said deck means, whereby the width of the boat when said side sections are in said extended positions is approximately one and one-half its width when said side sections are in said retracted positions, each of said deck means being approximately four feet in width and each of said float means is approximately two feet in height, said central section including a frame, said frame having side portions extending laterally outwardly of said axes of pivotal connection of said side sections; and, means for connecting said side sections to said side portions when said side sections are in said extended positions overlying said side portions.

2. The boat of claim **1**, wherein said float means extends outwardly and downwardly of said frame when said side sections are in said extended positions.

3. The boat of claim **2**, wherein each of said side sections has front, rear and side walls extending upwardly from its deck means, said walls of said side sections and said deck means of said side and central sections providing a closed chamber when said side sections are in said retracted positions.

4. The boat of claim **3**, wherein the top edges of said walls of said side sections are adjacent one another when said side sections are in said retracted positions, and means for connecting said walls of said sections to one another when said side sections are in said retracted positions.

5. The boat of claim **4**, and a pair of wheels on said frame of said central section positioned outwardly of said deck means on opposite sides thereof.

6. The boat of claim **5**, wherein said wheels are retractable upwardly of said frame and said side sections have downwardly opening housing means for receiving said wheels when they are retracted upwardly.

7. A boat including: a horizontal central longitudinal section; a pair of longitudinal side sections pivotally connected to said central section on opposite sides thereof and pivotal in opposite directions between upper retracted positions wherein said side sections extend substantially perpendicularly from said central section and extended positions wherein said side sections extend outwardly of said central section and in horizontal alignment therewith, each of said side sections having a longitudinal float means along a laterally outward portion thereof which extends downwardly and outwardly of said central section when said side sections are in retracted positions; and cooperable means on said central section and said side sections for rigidly securing said side sections to said central section when said side sections are in said extended positions said sections each having deck means of approximately equal widths and the height of each said float means being approximately half the width of said deck means, whereby the width of the boat when said side sections are in said extended positions is approximately one and one-half its width when said side sections are in said retracted positions, said central section including a frame, said frame having side portions extending laterally outwardly of said axes of pivotal connection of said side sections; and means for connecting said side sections to said side portions when said side sections are in said extended positions overlying said side portions.

8. The boat of claim **7**, wherein said float means extends outwardly and downwardly of said frame when said side sections are in said extended positions.

9. The boat of claim **8**, wherein each of said side sections has front, rear and side walls extending upwardly from its deck means, said walls of said side sections and said deck means of said side and central sections providing a closed chamber when said side sections are in said retracted positions.

10. The boat of claim **9**, wherein the top edges of said walls of said side sections are adjacent one another when said side sections are in said retracted positions, and means for connecting said walls of said sections to one another when said side sections are in said retracted positions.

11. The boat of claim **10**, and a pair of wheels on said frame of said central section positioned outwardly of said deck means on opposite sides thereof.

12. The boat of claim **11**, wherein said wheels are retractable upwardly of said frame and said side sections have downwardly opening housing means for receiving said wheels when they are retracted upwardly.

13. A boat including: a horizontal central longitudinal section; a pair of longitudinal side sections pivotally connecetd to said central section on opposite sides thereof and pivotal in opposite directions between upper retracted positions wherein said side sections extend substantially perpendicularly from said central section and extended positions wherein said side sections extend outwardly of said central section and in horizontal alignment therewith, each of said side sections having a longitudinal float means along a laterally outward portion thereof which extends downwardly and outwardly of said central section when said side sections are in retracted positions; and cooperable means on said central section and said side sections for rigidly securing said side sections to said central section when said side sections are in said extended positions, said section each having a deck means of approximately equal widths and the height of each said float means being approximately half the width of said deck means, whereby the width of the boat when said side sections are in said extended positions is approximately one and one-half its width when said side sections are in said retracted positions, each of said side sections having front, rear, and side walls extending upwardly from its deck means, said walls of said side sections and said deck means of said side and central sections providing a closed chamber when said side sections are in said retracted positions.

14. The boat of claim 13, wherein the top edges of said walls of said side sections are adjacent one another when said side sections are in said retracted positions, and means for connecting said walls of said sections to one another when said sections are in said retracted positions.

15. The boat of claim, 14, and a pair of wheels on said frame of said central section positioned outwardly of said deck means on opposite sides thereof.

16. A boat including: a horizontal central longitudinal section; a pair of longitudinal side sections pivotally connected to said central section on opposite sides thereof and pivotal in opposite directions between upper retracted positions wherein said side sections extend substantially perpendicularly from said central section and extended positions wherein said side sections extend outwardly of said central section and in horizontal alignment therewith, each of said side sections having a longitudinal float means along a laterally outward portion thereof which extends downwardly and outwardly of said central section when said side sections are in retracted positions; and cooperable means on said central section and said side sections for rigidly securing said side sections to said central section when said side sections are in said extended positions, each of said sections having a frame, and a deck means secured to said frame, said deck means of said sections lying in a substantially common horizontal plane when said side sections are in said extended positions, said frame of said central portion having side portions extending outwardly of its deck means and said frames of said side sections having portions underlying said frame of said central section; said cooperable means including means for securing said underlying portions to said frame of said central section.

17. The boat of claim 16, wherein said cooperable means includes means for securing said side sections to said side portions of said frame of said central section.

18. The boat of claim 17, and means operatively associated with said central section and said side sections biasing said sections toward said retracted positions.

19. The boat of claim 16, wherein said frame of said central section is provided with means for attaching said boat to a towing vehicle.

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