

May 1, 1962

M. C. RIEK

3,031,692

BOAT

Filed Jan. 14, 1959

3 Sheets-Sheet 1

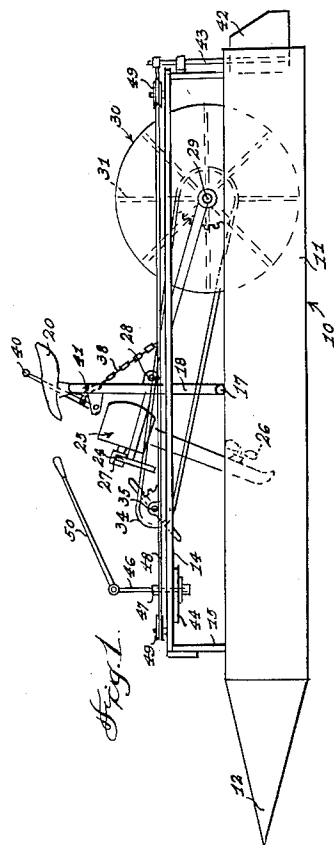


Fig. 1.

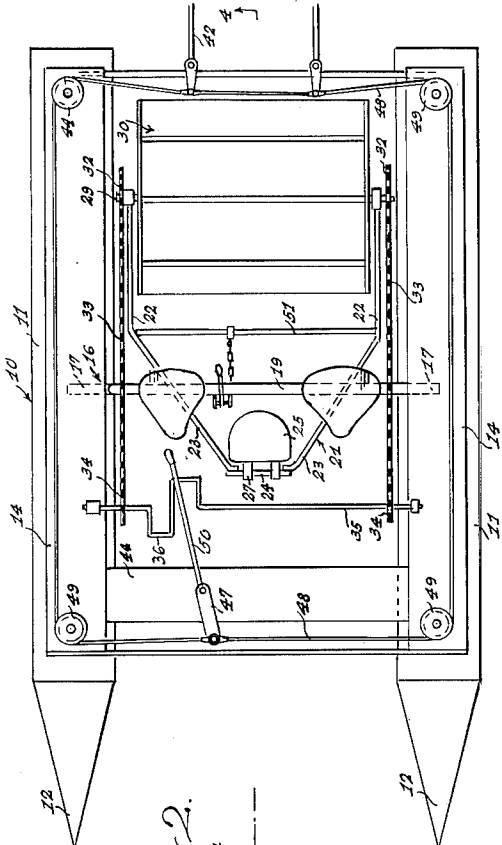


Fig. 2.

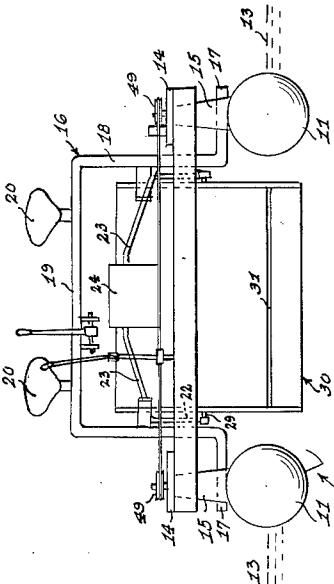


Fig. 3.

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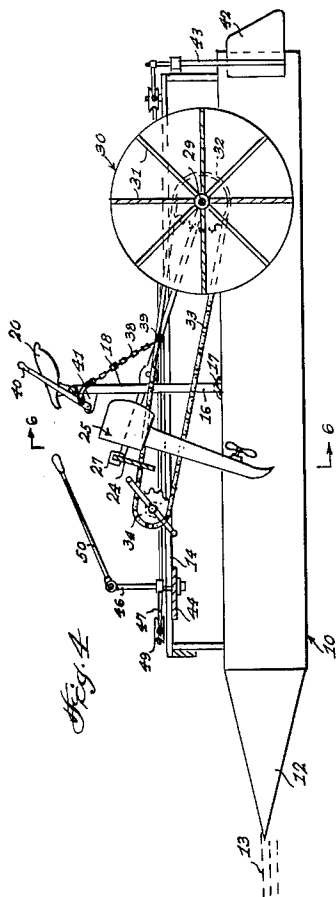
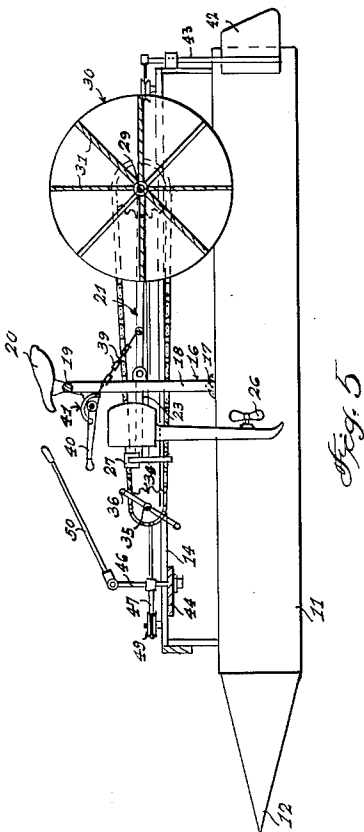
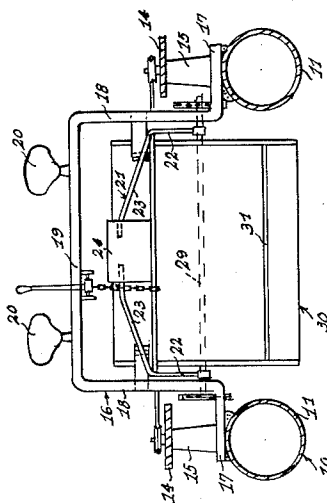
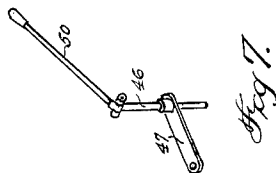
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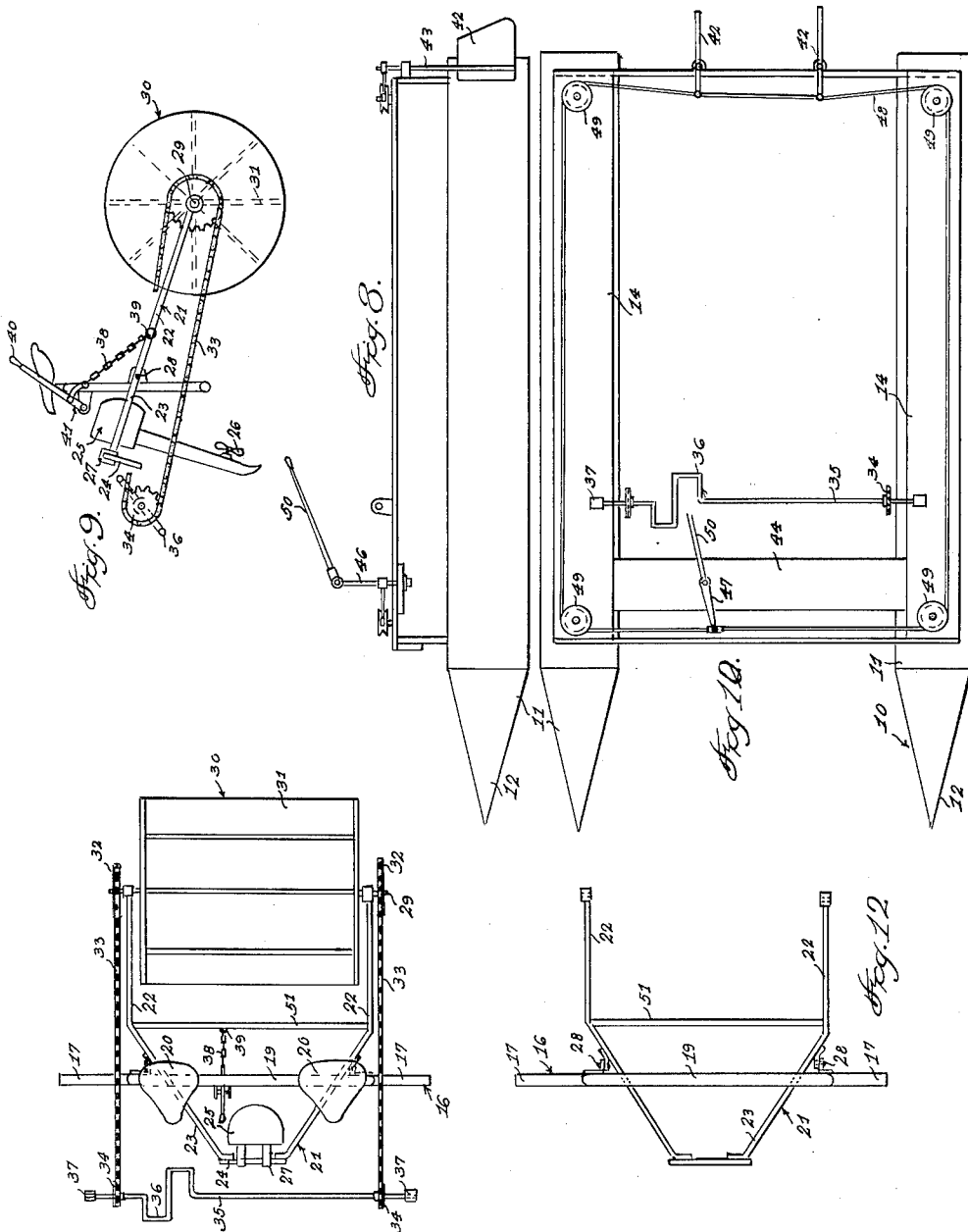
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BOAT

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6 Claims. (Cl. 9—1)

This invention relates to watercraft or a boat.

The object of the invention is to provide a boat-like device which can either be propelled by means of an outboard engine or motor, or else the device can be propelled by means of a paddle wheel which can be operated by a foot actuated mechanism.

Another object of the invention is to provide a boat which can be used for any desired purposes, as for example when a person desires to fish therefrom, and wherein the boat is constructed so that various types of fishing equipment or accessories can be conveniently used therefrom, the boat including a novel means for propelling the same.

A still further object of the invention is to provide a boat which includes a means for permitting the boat to be operated by an outboard engine or motor, or else the boat can be propelled by means of a foot actuated paddle wheel so that the user can selectively propel the boat with either of these mechanisms as desired.

A further object of the invention is to provide a boat which is especially suitable for use by fishermen, and wherein the boat of the present invention is extremely simple and inexpensive to manufacture.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings, forming a part of this application, and in which like numerals are used to designate like parts throughout the same:

FIGURE 1 is a side elevational view illustrating the boat of the present invention, and showing the outboard engine in raised position and the paddle wheel in lowered position;

FIGURE 2 is a plan view of the boat;

FIGURE 3 is a front elevational view of the boat;

FIGURE 4 is a longitudinal vertical sectional view taken through the boat, with the parts in the position of FIGURE 1, and taken on the line 4—4 of FIGURE 2;

FIGURE 5 is a view similar to FIGURE 4 but showing the outboard motor in lowered position and the paddle wheel in raised position;

FIGURE 6 is a sectional view taken on the line 6—6 of FIGURE 4;

FIGURE 7 is a perspective view illustrating a portion of the steering mechanism;

FIGURE 8 is a side elevational view illustrating the steering mechanism and rudders;

FIGURE 9 is a fragmentary elevational view showing the propelling mechanism;

FIGURE 10 is a plan view showing certain constructional details of the present invention;

FIGURE 11 is a plan view of the structure of FIGURE 9;

FIGURE 12 is a plan view illustrating the pivotally mounted or movable frame.

Referring in detail to the drawings, the numeral 10 indicates the boat of the present invention which is shown to comprise a pair of spaced parallel hollow pontoons 11, and the front ends of the pontoons 11 may be pointed as indicated by the numeral 12, the numeral 13 indicating the water line. Arranged above the pontoons 11 are horizontally disposed running boards 14, and the running boards 14 may be supported by braces 15. The numeral 16 indicates a stationary support member, FIGURE 6, and the support member 16 embodies a pair of horizontally disposed first sections 17 which are secured as by welding

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to the pontoons 11. The support member 16 further includes vertically disposed second sections 18 which extend upwardly from the first sections 17, and a horizontally disposed third section 19 extends between the upper ends of the sections 18 and is secured thereto or formed integral therewith. Seats such as the seats 20 are adapted to be suitably fastened to the third section 19, as shown in the drawings.

There is further provided a pivotally mounted or movable frame which is indicated generally by the numeral 21, FIGURE 12, and the frame 21 includes a pair of rearwardly disposed spaced parallel first portions 22 as well as forwardly disposed angularly arranged second portions 23. A transom 24 is connected to the front ends of the portions 23 in any suitable manner, and the numeral 25 indicates a conventional outboard motor or engine which is connected to the transom 24 as for example by means of a clamp 27, the motor 25 including the usual propeller 26. The second portions 23 of the frame 21 are pivotally connected to the second sections 18 of the stationary support member 16 by means of pivot connections 28.

Extending between the rear ends of the portions 22 of the movable frame 21 is a shaft 29 which has a paddle wheel 30 connected thereto, and the paddle wheel 30 includes a plurality of radially disposed blades or paddles 31. A sprocket or pulley 32 is connected to each end of the shaft 29, and chains or endless belts 33 engage the members 32. These chains 33 also engage sprockets or pulleys 34 on a crank 35, and the crank 35 includes pedals or foot engaging portions 36. The ends of the crank 35 engage suitable bearings 37 which may be affixed contiguous to the running boards 14.

A means is provided for pivoting the frame 21 so that the boat 10 can either be propelled by the motor 25, or else it can be propelled by the foot operated paddle wheel 30, and this means comprises a chain or cable 38 which is connected to the frame 21 as at 39, and the chain 38 is also connected to a manually operable handle or lever 40 which is provided with a locking mechanism 41. Thus, by manually moving the handle 40, the parts can be moved from a position such as for example that shown in FIGURE 9 so that the paddle wheel 30 can be raised and the engine 24 can be lowered to operative position, or vice versa. Thus, the boat 10 can either be propelled by means of the motor 25, as for example when the parts are in the position of FIGURE 5, or else when the parts are in the position of FIGURE 4, the paddles 36 can be operated by the person's feet so as to rotate the paddle wheel 30 whereby the boat can be driven by the paddle wheel.

It is to be noted that when the engine 25 is being used for propelling the boat 10, the paddle wheel 30 is above the water line 13, and similarly when the paddle wheel 30 is being used as the motive force, the propeller 26 of the engine 25 is above the water line 13 so that it will be seen that either one of these two driving mechanisms can be used selectively as desired.

There is further provided a means for steering the boat, and this means comprises a pair of spaced apart rudders 42. These rudders 42 may be secured to movable rods 43, and the rudders 42 are arranged between the rear ends of the pontoons 11. A horizontally disposed crosspiece 44 extends between the running boards 14 and is connected thereto, and a rod 45 is journaled in the crosspiece 44, there being a link 47 connected to the rod 46. The link 47 is movable and is also connected to an endless cable or line 48, and the cable 48 is trained over guide pulleys 49, the cable 48 being also connected to the rod 43 so that by moving a handle or lever 50 which is connected to the rod 46, it will be seen that the rudders 42 can be

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pivoted or moved so as to provide a means for conveniently steering the boat.

From the foregoing, it is apparent that there has been provided a boat which is especially suitable for use by fishermen, and one or more persons may sit on the seats 20. The pontoons 11 maintain the boat afloat, and various types of fishing equipment can be conveniently stored or carried on the running boards 14 or other parts of the boat. The handle 50 can be conveniently used for steering the boat, and this member 50 can either be operated by knee pressure or by hand pressure, and when the member 50 is moved, the rod 46 will turn so as to move the link 47. Since the link 47 is connected to the cable 43, it will be seen that the cable 43 will move so as to pivot the rudders 42 so that a convenient means of steering the boat is provided.

When the parts are in the position of FIGURE 1 or FIGURE 4 for example, a person sitting on the proper seat 20 can arrange his or her feet in engagement with the pedals 36 and by moving the legs, the crank 35 will be rotated. Since the crank 35 carries the sprockets 34, it will be seen that with the chains 33 trained over the sprockets 34 and also trained over the sprockets 32 on the shaft 29, this rotation of the crank 35 will cause rotation of the shaft 29. Since the paddle wheel 30 is connected to the shaft 29, the paddle wheel 30 will be rotated or turned so that when the paddle wheel is in lowered position, the crank can be operated by the foot pedals to rotate the paddle wheel so that the boat can be conveniently propelled or driven through the water by the action of the paddle wheel.

When desired the boat can be driven through the water by means of the outboard motor 25, and when the motor 25 is being used for propelling the boat, the paddle wheel 30 is in raised position above the water line 13. To move the motor 25 to operative or lowered position, it is only necessary to grip the handle 40 and move forwardly on this handle 40 so that the chains 38 will raise or pivot the frame 21 on the pivot pins 28, the pivot pins or mountings 28 providing a pivotal connection between the movable frame 21 and the stationary support member 16. Thus, when the frame 21 pivots, the paddle wheel 30 will move to raised position and the propeller portion 26 of the motor 25 will move to lowered position so that by turning on the motor 25, the propeller 26 can be used to move or propel the boat through the water. A suitable locking mechanism 41 can be used for maintaining the motor 25 or the paddle wheel 30 in lowered position.

The parts can be made of any suitable material and in different shapes or sizes.

The device may be provided with suitable floor boards where desired or required, and suitable braces can also be used where necessary.

The frame 21 provides a rockable support for the motor 25 as well as the paddle wheel 30, and this frame is provided with a brace 51. The motor 25 is connected to the transom 24, and the support member 16 provides a support for the seats 20 as well as providing a mounting for the pivotally supported frame 21. The lever 50 is used for controlling the rudders 42 and the members 33 may either be endless chains trained over sprockets 32 and 34, or else the members 33 may be endless belts, in which case the members 32 and 34 may be pulleys.

Some of the advantages and uses of the boat of the present invention are as follows. Ordinary boat noises can be eliminated since the device can be foot propelled as for example while casting and both hands will be free to cast.

The rocking frame 21 supports the motor 25 as well as the paddle wheel 30, and by moving the handle 40, the frame 21 is actuated so that either the motor 25 or the paddle wheel 30 can be used as the propelling mechanism.

The rudder control lever 50 is positioned to be conveniently controlled with either the knees or hands and this control is used whether the motor or paddle wheel

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is being used. The motor 25 is rigidly mounted on the transom 24 and is not used for steering the craft. The two seats 20 are arranged in side-by-side relation with respect to each other and are spaced from each other. The running boards 14 provide sufficient clearance or space for tackle boxes, coolers and the like.

Some of the further advantages of the craft of the present invention over other devices used for casting and trolling are as follows. When the device is operated by the foot pedals, the device or boat will move silently and preferably a V-belt drive is used and the paddle wheel may be made of a suitable material such as aluminium so that the paddle wheel will operate in seven inches of water for example and is highly maneuverable. Both occupants of the craft sit abreast and do not interfere with one another while casting and the device can be operated with or against the wind without the use of the hands. The device never needs bailing out and pontoons will stand up even during landing operations and when the device is anchored to rocky shores. It cannot sink in the roughest water since the pontoons are air and watertight. Furthermore, the combination of the outboard power in connection with the pedal power provides silent propulsion of the craft for casting and outboard power for propulsion when going from place to place.

Minor changes in shape, size and rearrangement of details within the field of invention claimed may be resorted to in actual practice, if desired.

I claim:

1. In a boat, a pair of spaced parallel pontoons, horizontally disposed running boards supported above said pontoons; a stationary support member including lower horizontally disposed first sections secured to said pontoons, vertically disposed second sections extending upwardly from said first sections, and a horizontally disposed third section extending between the upper ends of said second sections; a movable frame including a pair of rearwardly disposed spaced parallel first portions, a pair of angularly arranged second portions arranged forwardly of said first portions, a transom connected to the front ends of said second portions, an outboard motor connected to said transom, the second portions of said frame being pivotally connected to the second sections of said support member, a shaft extending between said first portions, and a paddle wheel connected to said shaft.

2. The structure as defined in claim 1, and further including means for pivoting said frame so that when the motor is in lowered position the paddle wheel is in raised position, and wherein when the motor is in raised position, the paddle wheel is in lowered position.

3. The structure as defined in claim 1, and further including means for rotating said paddle wheel.

4. The structure as defined in claim 1, and further including seats on the third section of said support member.

5. In a boat, a pair of spaced parallel pontoons, horizontally disposed running boards supported above said pontoons; a stationary support member including lower horizontally disposed first sections secured to said pontoons, vertically disposed second sections extending upwardly from said first sections, and a horizontally disposed third section extending between the upper ends of said second sections; a movable frame including a pair of rearwardly disposed spaced parallel first portions, a pair of angularly arranged second portions arranged forwardly of said first portions, a transom connected to the front ends of said second portions, a motor connected to said transom, the second portions of said frame being pivotally connected to the second sections of said support member, a shaft extending between said first portions, a paddle wheel connected to said shaft, means for pivoting said frame so that when the motor is in lowered position, the paddle wheel is in raised position, and wherein when the motor is in raised position, the paddle wheel is in lowered position, means for rotating said paddle wheel, said last named means comprising a crank, foot engaging

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pedals on said crank, means connecting said crank to said shaft, seats supported on the third section of said support member, and means for steering the boat.

6. In a boat, a pair of spaced parallel pontoons, horizontally disposed running boards supported above said pontoons; a stationary support member including lower horizontally disposed first sections secured to said pontoons, vertically disposed second sections extending upwardly from said first sections, a horizontally disposed third section extending between the upper ends of said second sections; a movable frame including a pair of rearwardly disposed spaced parallel first portions, a pair of angularly arranged second portions arranged forwardly of said first portions, a transom connected to the front ends of said second portions, a motor connected to said transom, the second portions of said frame being pivotally connected to the second sections of said support member, a shaft extending between the rear ends of said first portions, a paddle wheel connected to said shaft, means for pivoting said frame so that when the motor is in lowered position, the paddle wheel is in raised position, and wherein when the motor is in raised position, the

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paddle wheel is in lowered position, means for rotating said paddle wheel, said last named means comprising a crank, foot engaging pedals on said crank, means connecting said crank to said shaft, seats supported on the third section of said support member, means for steering the boat, said last named means embodying movable rods and a pair of spaced apart rudders arranged between the rear ends of said pontoons and secured to said last named rods, and a movable member engageable either by a person's knees or hands for moving the rudders.

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