June 5, 1956 M. P. VILLAR 2,748,740

CATAMARAN

Filed Sept. 24, 1954 2 Sheets-Sheet 1

Fig. 1

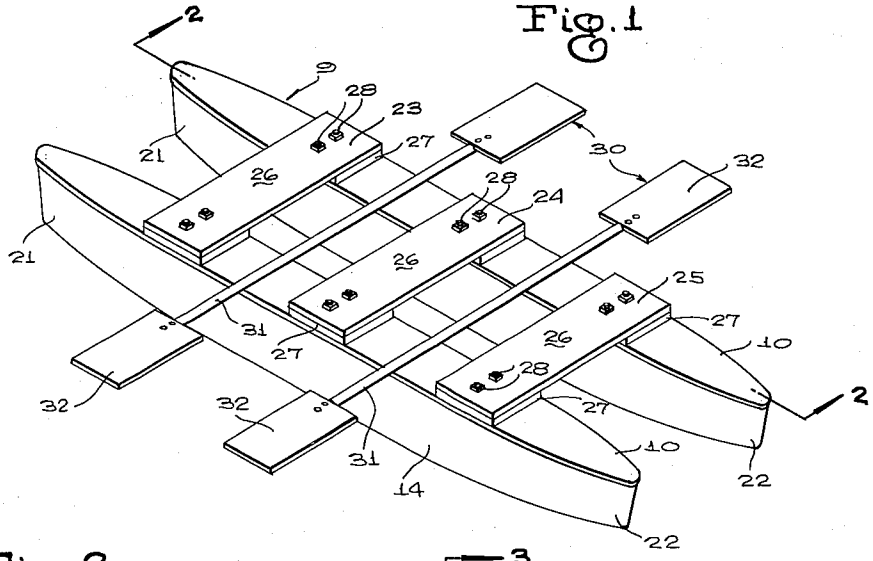


Fig. 2

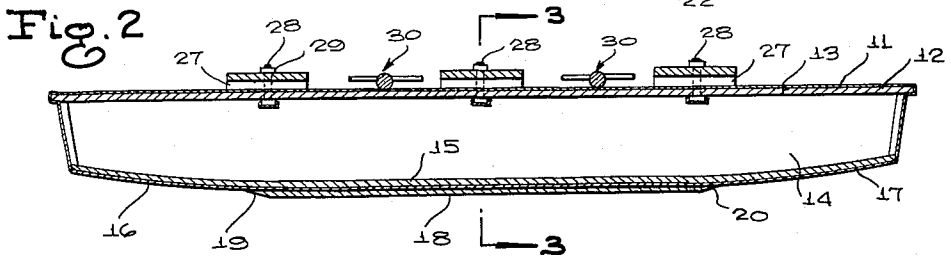


Fig. 3

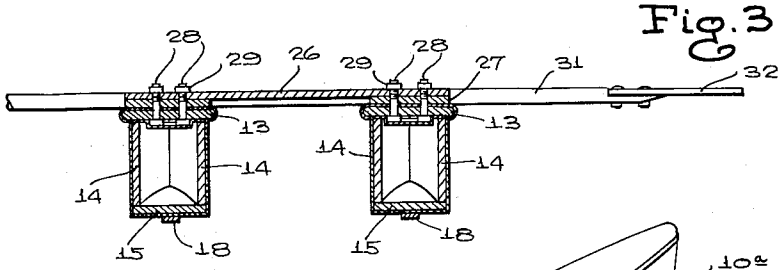
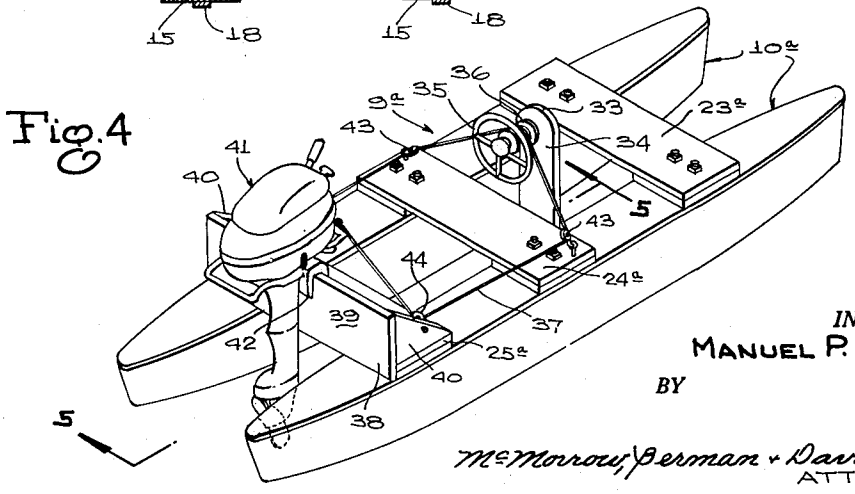


Fig. 4



INVENTOR.
MANUEL P. VILLAR
BY

McMorrow, Berman & Davidson
ATTORNEYS

June 5, 1956 M. P. VILLAR 2,748,740

CATAMARAN

Filed Sept. 24, 1954 2 Sheets-Sheet 2

Fig. 7

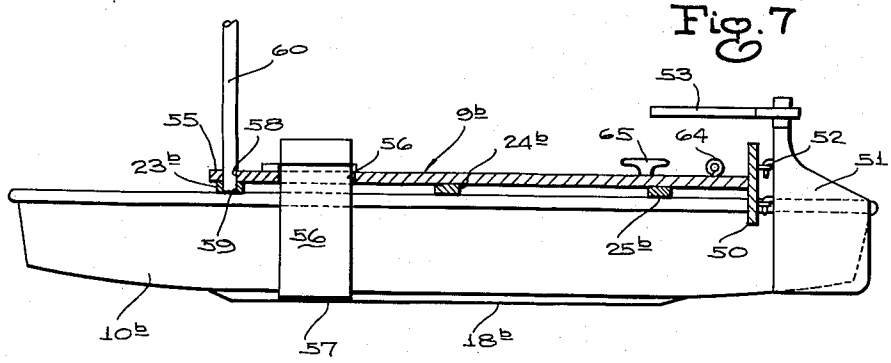


Fig. 5

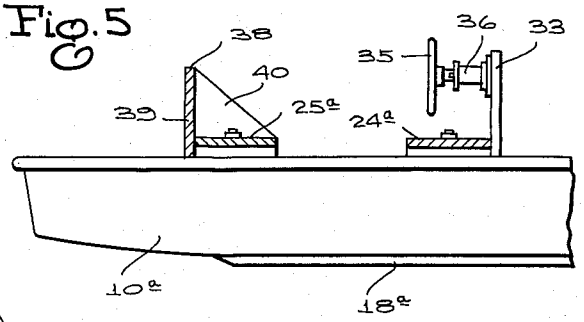


Fig. 6

INVENTOR.
MANUEL P. VILLAR

BY

McMorrow, Berman & Davidson
ATTORNEYS

United States Patent Office 2,748,740 Patented June 5, 1956

2,748,740

CATAMARAN

Manuel P. Villar, Coral Gables, Fla.

Application September 24, 1954, Serial No. 458,108

3 Claims. (Cl. 114—39)

This invention relates to improvements in catamaran boats, and the primary object of the invention is to provide an improved catamaran which is collapsible for purposes of transportation and storage and is convertible for use as a paddle boat, a motor boat, and a sail boat.

Another important object of the invention is to provide a more practical and efficient catamaran of the character indicated above which is extremely light in weight, is composed of a minimum number of simple parts, is easily and quickly convertible, and which can be made in rugged, serviceable, and attractive forms at relatively low cost.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawings, wherein, for purposes of illustration only, a specific form of the invention is set forth in detail.

Figure 1 is a top perspective view showing a paddle boat form of the invention including paddles;

Figure 2 is a vertical longitudinal section taken on the line 2—2 of Figure 1;

Figure 3 is a vertical transverse section taken on the line 3—3 of Figure 2;

Figure 4 is a top perspective view showing an outboard motor boat form of the invention;

Figure 5 is a fragmentary vertical longitudinal section taken on line 5—5 of Figure 4;

Figure 6 is a top perspective view of a sail boat form of the invention; and

Figure 7 is an enlarged fragmentary vertical longitudinal section taken on line 7—7 of Figure 6.

Referring in detail to the drawings, wherein like numerals designate like or corresponding parts throughout the several views, and first to Figures 1 through 3, the numeral 9 generally designates a paddle boat form of the invention.

The paddle boat catamaran 9 comprises a pair of similar closed pontoons 10, 10 which are in spaced parallel relation to each other. Each pontoon 10 is preferably made of plywood, with a fibre glass covering 11, but may be made of any other suitable light weight material. The hull 12 of each pontoon 10 comprises a flat top 13, opposed similar side walls 14, 14, and a flat bottom 15 which has slightly upwardly angulated front and rear end portions 16 and 17, respectively. A central keel strip 18 extends along the underside of the bottom 15 and terminates at its opposite ends in upwardly flared portions 19 and 20 which merge into the bottom end portions 16 and 17, respectively. The pontoons 10 are relatively narrow as compared to their length and major portions of the side walls 14, 14 intermediate the ends of the pontoons are parallel to each other and merge gradually into slightly tapered bow and stern portions 21 and 22, respectively.

The pontoons 10, 10 are spaced and connected together by forward, middle, and rear cross members 23, 24 and 25, respectively. Each of these cross members comprises an elongated plank 26 each of whose opposite ends overlies a pontoon and rests upon a combined spacer and reinforcing short plank 27 which rests directly upon the tops 13 of the pontoon hulls 12. The short planks 27 are preferably the same in length as the intermediatie part of the hull tops 13 and the same in width as the elongated planks 26.

The planks 26 and 27 are removably secured in place on the pontoon tops 13 by pairs of transversely spaced bolts 28, 28 passing upwardly through the hull tops 13 and having nuts 29 on their upper ends bearing upon the upper sides of the elongated planks 26, whereby the cross members 23, 24 and 25, which serve as seats for paddler occupants of the catamaran 9, are readily removable, so that the catamaran 9 can be quickly and easily disassembled and its components collapsed for compart storage or transportation.

As shown in Figures 1 and 2, the forward and rear seat cross members 23 and 25 are preferably located inwardly from and at the tapered bow and stern portions 21 and 22, respectively, of the hull 12, and the middle seat cross member 24 is located midway between the cross members 23 and 25.

Double bladed paddles 30 are preferably employed with the catamaran 9 and each paddle 30 preferably comprises an elongated relatively thin shaft 31 having similar elongated rectangular paddle blades 32 on its opposite ends.

Referring to Figures 4 and 5 of the drawings, there is shown a conversion of the catamaran 9 into an outboard motor driven catamaran 9*a*, comprising pontoons 10*a*, 10*a*, and forward, middle, and rear cross members 23*a*, 24*a*, and 25*a*, respectively. These components are the same as those of catamaran 9, except that in the case of catamaran 9*a* the middle cross member 24*a* has removably attached or added thereto a steering wheel post 33 in the form of an upright plank 34 which is fixed in suitable manner to the forward edge of the cross member 24*a* between the pontoons 10*a*, 10*a* and close to one pontoon 10*a*. A horizontal axis steering wheel 35, having a cable drum 36 thereon, projects rearwardly from the upper part of the port 33, and a steering cable 37 is wound on the drum 36. Further, to the rear cross member 25*a* is added a removable motor bracket 38 which is preferably in the form of a transversely elongated upright plate 39 resting upon the hull tops 13*a*, 13*a* behind the rear cross member 25*a* and secured at its ends to triangular braces 40, 40 which rest upon the top of the rear cross member 25*a*.

The cross members 24*a* and 25*a* may be complete replacements for the cross members 24 and 25, respectively, or may be constituted by the above described additions to the cross members 24 and 25.

A conventional outboard motor 41 is mounted between the pontoons 10*a*, 10*a* by engaging its mounting bracket 42 over the upper edge of the bracket plate 39. Opposite ends of the steering cable 37 run through laterally spaced edges 43, 43 on the middle cross member 24*a* and laterally spaced eyes 44, 44 on the rear cross member 25*a* and are secured to opposite sides of the motor 41, so that the catamaran 9*a* may be steered by swinging the motor 41, by rotating the steering wheel 35.

Referring to Figures 6 and 7 of the drawings, wherein is shown a conversion of the catamaran 9 of Figures 1 to 3 into a sailing catamaran 9*b*, the pontoons 10*b*, 10*b* which are similar to the pontoons 10, 10 and 10*a*, 10*a*, are spaced and connected by forward, middle, and rear cross members 23*b*, 24*b* and 25*b* which differ somewhat in form from the cross members 23, 24, 25 and 23*a*, 24*a* and 25*a* but are removably secured to the hull tops 13*b*, 13*b* by pairs of bolts 38, 38.

The cross members 23*b*, 24*b* and 25*b* are in the form of relatively narrow bars, upon which are laid platforms or decks 45, 45 wider than and overlying the pontoons

10*b*, 10*b* and projecting into the space between the pontoons. Each platform or deck **45** is an assembly of longitudinal, laterally spaced bars **46**, removably secured in place by bolts **33** which secure the cross members. Optionally, the decks **45**, **45** may be composed of the bars **46** and the cross members **23***b*, **24***b* and **25***b* and be both removable from the pontoons **10***b*, **10***b*, as a unit.

In the latter case the deck assembly will include a longitudinal center plank **48** laid upon and secured to the cross members **23***b*, **24***b*, and **25***b* between the decks **45**, **45** and having a rear portion **49** projecting rearwardly beyond the rear cross member **25***b*.

A rudder post **50** is secured to the rear end of the center plank **48** and extends above and below the center plank, and a rudder **51** is suitably pivoted, as indicated at **52**, to the rearward side of the post **50**. A tiller handle **53** on the upper end of the rudder **51** extends forwardly beyond the rudder post **50**.

A center board slot **54** is provided in a forward part of the center plank **48** and is spaced rearwardly from the forward end **55** thereof. A center board **56** is disposed in the slot **54**, and when down, has its lower end **57** preferably on a level with the keel strip **18***b*, as shown in Figure 7.

The center plank **48** and the forward cross member **23***b* have registered holes **58** and **59**, respectively, which form a socket for receiving the lower end of a removable mast **60**. On the mast **60** is suitably secured a triangular sail **61** which is also secured to a boom **62**. A sheet line **63** leads from the rear end of the boom **62**, through an eye **64** on a rear part of the center plank **48**, to fastening means **65** on the plank **48**.

What is claimed is:

1. In a catamaran, a pair of similar longitudinally elongated pontoons in laterally spaced relation, said pontoons having tops, a forward cross member, a middle cross member, and a rear cross member, each of said cross members consisting of a plank having opposite ends resting directly upon the pontoon tops at spaced intervals along the pontoons, and means removably securing the plank ends to the pontoon tops, longitudinal decks overlying and secured to said planks, said decks having lateral inward edges in spaced relation to each other, a longitudinal center plank secured to the planks between the laterally inward edges of the decks and located in the space between the pontoons, said center plank having forward and rear ends, a vertical rudder post plate fixed intermediate its ends on the rear end of the center plank, said rudder post plate having a rear side, and a rudder pivoted on the rear side of said post and having a forwardly projecting tiller handle.

2. In a catamaran, a pair of similar longitudinally elongated pontoons in laterally spaced relation, said pontoons having tops, a forward cross member, a middle cross member, and a rear cross member, each of said cross members consisting of a plank having opposite ends resting directly upon the pontoon tops at spaced intervals along the pontoons, and means removably securing the plank ends to the pontoon tops, longitudinal decks overlying and secured to said planks, said decks having lateral inward edges in spaced relation to each other, a longitudinal center plank secured to the planks between the laterally inward edges of the decks and located in the space between the pontoons, said center plank having forward and rear ends, a vertical rudder post plate fixed intermediate its ends on the rear end of the center plank, said rudder post plate having a rear side, and a rudder pivoted on the rear side of said post and having a forwardly projecting tiller handle, a mast socket in the forward end of the center plank, and a sail mast having a lower end removably engaged in said socket.

3. In a catamaran, a pair of similar longitudinally elongated pontoons in laterally spaced relation, said pontoons having tops, a forward cross member, a middle cross member, and a rear cross member, each of said cross members consisting of a plank having opposite ends resting directly upon the pontoon tops at spaced intervals along the pontoons, and means removably securing the plank ends to the pontoon tops, longitudinal decks overlying and secured to said planks, said decks having lateral inward edges in spaced relation to each other, a longitudinal center plank secured to the planks between the laterally inward edges of the decks and located in the space between the pontoons, said center plank having forward and rear ends, a vertical rudder post plate fixed intermediate its ends on the rear end of the center plank, said rudder post plate having a rear side, and a rudder pivoted on the rear side of said post and having a forwardly projecting tiller handle, a mast socket in the forward end of the center plank, and a sail mast having a lower end removably engaged in said socket, a boom on the mast, and a triangular sail secured to the boom and the mast.

References Cited in the file of this patent

UNITED STATES PATENTS

551,367	Cremer	Dec. 17, 1895
996,444	Yarrington	June 27, 1911
1,071,709	Cracroft	Sept. 2, 1913
1,715,312	Steele	May 28, 1929
2,712,293	O'Higgins	July 5, 1955

FOREIGN PATENTS

330,703	Italy	Oct. 22, 1935
660,148	Great Britain	Nov. 10, 1948