Jan. 29, 1963 F. L. WOLFE ETAL 3,075,488

BOAT

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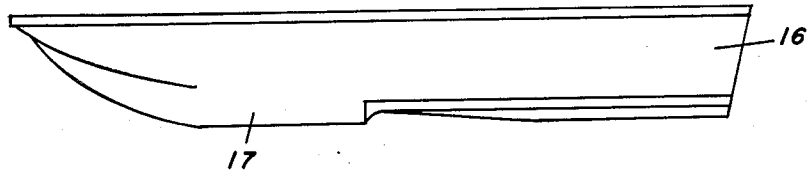


FIG. 1

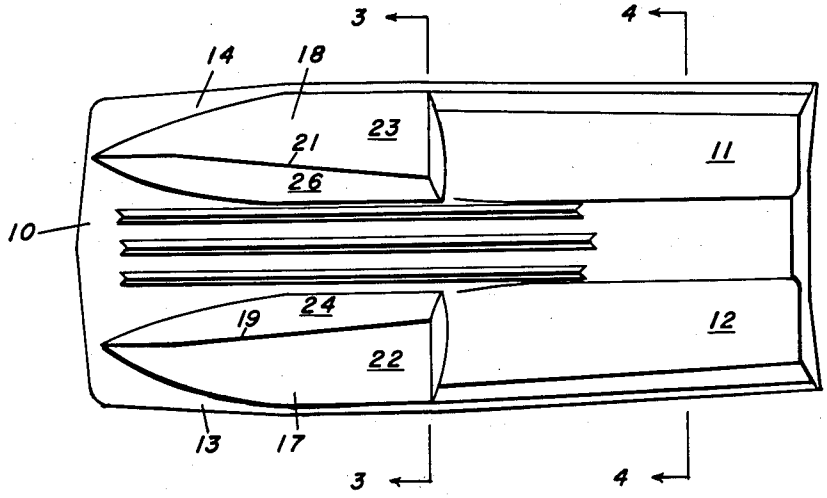


FIG. 2

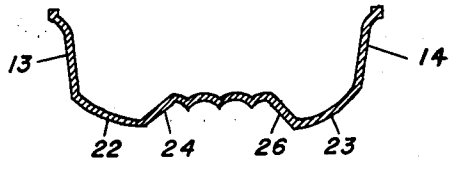
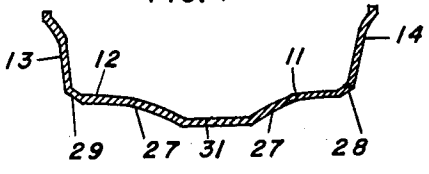


FIG. 3

FIG. 4



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3,075,488
BOAT

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This invention relates to boats of the planing type and has for its object the provision of a boat of the character designated which shall have maximum stability at high speeds and when turning, coupled with a minimum drag in water.

A further object of our invention is to provide a boat having two forward water piercing pontoons and a rear planing surface, whereby to afford a triangular arrangement of supporting surfaces with consequent greater stability.

A more specific object of our invention is to provide a boat having a relatively flat middle section extending from bow to stern with two pontoons spaced apart laterally and joined to the middle section to form the remainder of the bottom and the sides at the forward end of the hull, and side bottom portions joined to the middle section and to the rear of the pontoons and curved upwardly at their outboard sides to form the remainder of the hull with a triangular three point support.

In the accompanying drawing, forming a part of this application,

FIG. 1 is a side elevational view of our improved boat;

FIG. 2 is a bottom plan view thereof;

FIG. 3 is a sectional view taken along the line 3—3 of FIG. 2; and

FIG. 4 is a sectional view taken along the line 4—4 of FIG. 2.

Referring to the drawing for a better understanding of our invention, we show a hull which is relatively wide at its forward end. It consists of a central bottom portion 10 which is inclined upwardly toward the bow of the boat, after lateral portions 11 and 12, sides 13 and 14, and a transom 16.

At the forward end of the boat and extending rearwardly approximately half the length of the boat are two pontoons, or sponsons, 17 and 18, which are spaced apart, and terminate approximately amidship as shown in FIG. 2, and joined to the central bottom portion 10 and to the sides 13 and 14 of the hull. The bottoms of the sponsons extend below the plane of the central bottom portion 10 of the hull as shown in FIG. 1. The keels 19 and 21 of the sponsons are inclined inwardly front to rear with respect to the long axis of the hull thereby to provide easier turning. As shown in FIG. 2, the bottoms 22 and 23 and inboard sides 24 and 26 of both of the sponsons are drawn inwardly and upwardly to a point at their forward ends to provide pointed water piercing pontoon hulls.

As shown in FIG. 3 also, the surfaces of the bottoms 22 and 23 of the sponsons 17 and 18 are curved upwardly, or belled, to form forward planing surfaces, while the inboard sides 24 and 26 are turned upwardly at an angle to the horizontal to provide non trip chines or turning stabilizers.

Abaft of the sponsons 17 and 18, each of the lateral portions 11 and 12 of the bottom of the hull is curved inwardly, or made slightly concave, as shown at 27 in FIG. 4, to provide spoilage tunnels or escape passages for water disturbed by the sponsons 17 and 18 and prevent it from interfering with the propeller (not shown). The outboard surfaces are inclined upwardly at an angle, as shown at 28 and 29, to provide non trip chines. The after portion 31 of the central bottom portion of the hull is made flat to form an after planing surface which, as shown in FIG. 1, is approximately in the plane of the bottoms of the sponsons 17 and 18, and bears on the water at all times. By comparison of FIGS. 1, 3 and 4 it will be seen that the median forward portion of the hull bottom is above the plane of the bottoms of the sponsons 17 and 18, and is below the plane of the adjacent bottom portions of the hull at the after portion of the hull.

The triangular arrangement of the sponsons 17 and 18 forward and of the planing surface 31 at the rear, provides a triangular support for the craft which affords maximum stability and permits the use of higher horsepower which is very important in racing. When the boat is moving forward at high speed, the sponsons 17 and 18 hover over the water and the relatively small area of the after planing surface 31 provides the principal support for the boat with a minimum of drag and greater speed per horsepower employed. The drag on the after planing surface 31 is further reduced by the entrapment of air in the tunnel area formed by the pontoons, 17 and 18 and the raised central portion 10 funneling aft. As forward speed lessens, the hovering effect of the pontoons 17 and 18 decreases until the pontoons actually contact the water and become forward planing surfaces.

When the boat is turning at high speed, the keel of the sponson on the side toward the turn engages the water and is the assumed keel of the boat which is then riding on that sponson and half the after planing surface 31. The belled outboard surfaces 22 and 23 of the sponsons 17 and 18 act as non trip chines when turning. It will also be seen that with our improved boat all surfaces in contact with the water, at any attitude, are provided with non trip chines.

The length of the sponsons 17 and 18 relative to the overall length of the hull, or the distance from the rear of the pontoons to the rear of the after planing surface 31, is important in affording proper balance for the hull and to keep the forward planing surfaces on the sponsons 17 and 18 in a hovering attitude when moving at high speeds.

From the foregoing it will be apparent that we have devised a boat which has maximum stability at high speeds, especially when turning, coupled with a minimum of drag.

As many apparently widely different embodiments of this invention may be made without departing from the spirit and scope thereof, it is to be understood that the invention is not limited to the specific embodiment thereof except as defined in the appended claim.

What we claim is:

In a boat,

(*a*) a hull comprising a middle bottom section extending from bow to stern of the boat,

(*b*) two laterally spaced pontoons disposed at the forward end of the hull and forming an integral part of said hull,

(*c*) said pontoons extending rearwardly from the bow of the boat and terminating approximately amidship,

(*d*) said pontoons protruding below the plane of the adjacent bottom section of the hull,

(*e*) outboard sides on the pontoons belled outwardly and turned upwardly to form the sides of the hull,

(*f*) inboard sides on the pontoons turned upwardly at an angle to the horizontal and joined to the bottom section,

(*g*) a keel for each of the pontoons inclined inwardly front to rear to the long axis of the hull,

(*h*) side bottom portions joined to the middle section

and to the rear of the pontoons, said side bottom portions extending outwardly and upwardly to form the remainder of the bottom and the sides of the hull,

(*i*) the middle bottom section forming a flat planing surface at the rear of the hull lying in substantially the same plane as the bottoms of the pontoons.

References Cited in the file of this patent

UNITED STATES PATENTS

2,126,304	Apel et al.	Aug. 9, 1938
2,344,619	Lake	Mar. 21, 1944
2,474,667	Harvey	June 28, 1949
2,481,063	Apel	Sept. 6, 1949
2,515,005	Hickman	July 11, 1950
2,995,104	Mills	Aug. 8, 1961

FOREIGN PATENTS

25,825	France (French Addition Patent)	Feb. 13, 1923
498,214	Great Britain	Jan. 9, 1939
608,967	Great Britain	Sept. 23, 1948
1,053,535	France	Sept 30, 1953
212,729	Australia	Feb. 5, 1958
1,243,460	France	Sept. 5, 1960