Aug. 30, 1960 F. OGDEN ET AL 2,950,699

PONTOON BOATS

Filed Nov. 6, 1958

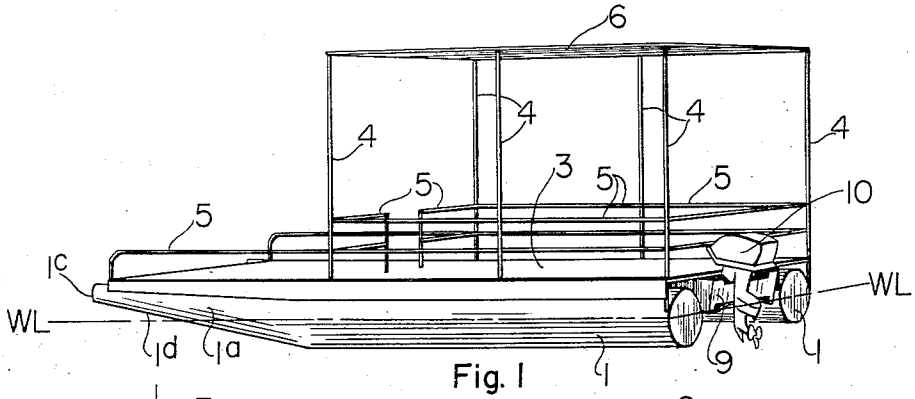


Fig. 1

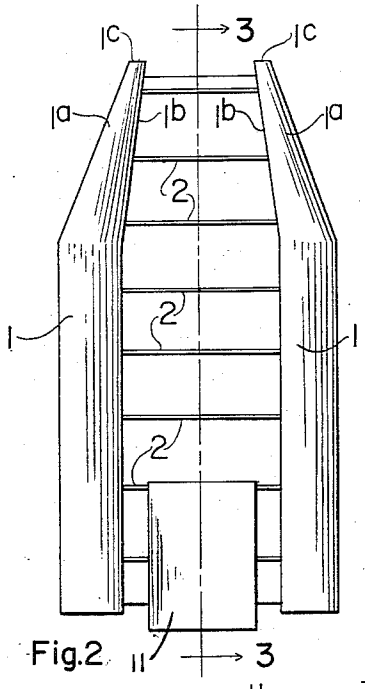


Fig. 2

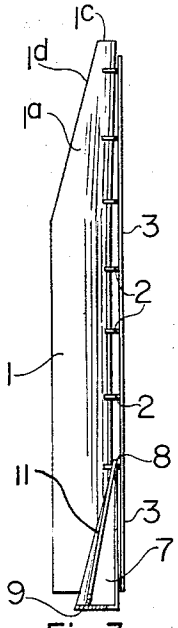


Fig. 3

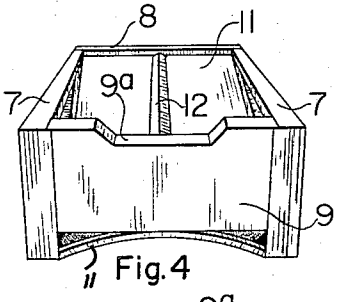


Fig. 4

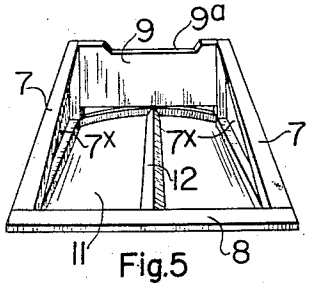


Fig. 5

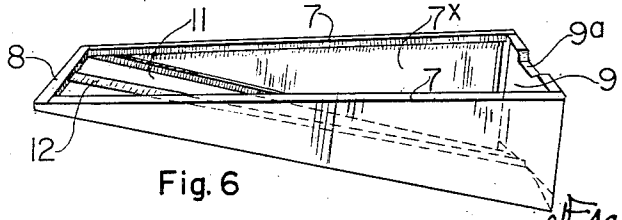


Fig. 6

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2,950,699

Patented Aug. 30, 1960

2,950,699

PONTOON BOATS

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Filed Nov. 6, 1958, Ser. No. 772,355

13 Claims. (Cl. 114—61)

Our invention relates to the construction of pontoon type boats designed to supply a demand for a dual pontoon, flat deck job so adaptable in use that with proper selection of pontoon size and power, it will serve with satisfaction the needs of the slow moving bank fisherman, the urban dweller who chooses to seek privacy and complete relaxation in a cover in rivers or lake, the family man who values safety and stability when he takes his family on an outing or picnic, the sportsman who wishes to indulge in water sports where speed and maneuverability are necessary, and the traveler who wants to move long distances quickly.

The principal object of our invention is to provide a boat of the above type so designed and constructed that it will ride through any weather or water condition without danger of capsizing or sinking; and due to its unique construction, can be manufactured and marketed at a price which would make it available to those of moderate means.

In developing a pontoon-type boat which would combine safety and comfort with speed, the main problem has been the control of the surge of water between the pontoons at high speeds; and in solving this problem we have designed a water control scoop which effectively controls this surge. To describe the function of this scoop, it may be said that it is a device to control, at all speeds, and with all loads, the constant level of the water as it goes into the propeller. This eliminates all splashing of water on the rear of the boat deck caused by rough water and prevents cavitation of the propeller at all times.

We will explain the invention with reference to the accompanying drawing, which illustrates one practical embodiment thereof, to enable others familiar with the art to adopt and use the same; and will summarize in the claims, the novel features of construction, and novel combinations of parts, for which protection is desired.

In said drawing:

Figure 1 is a perspective view of our novel pontoon-type boat.

Fig. 2 is a bottom plan view thereof.

Fig. 3 is a longitudinal section on the line 3—3, Fig. 2.

Fig. 4 is a rear perspective view of the scoop.

Fig. 5 is a front perspective view of the scoop.

Fig. 6 is a side perspective view of the scoop.

As shown, our novel pontoon-type boat preferably comprises a pair of spaced pontoons **1**, of preferably circular cross-section and of desired diameter and length, the same being closed at their rear ends. The forward ends or coves of the pontoons are progressively reduced in diameter as at **1***a* and are preferably slightly toed-in, as shown at **1***b* (Fig. 2) and terminate in a closed circular end **1***c*, the tops of the coves **1***a* being disposed substantially in the same horizontal plane as the tops of the main portion of the pontoons **1** while, as clearly shown in Figs. 1 and 3, the lower surfaces of the coves **1***a* slope forwardly and upwardly as at **1***d*. If desired, the small ends **1***c* of the coves **1***a* may be so formed that they extend several inches above the level of the tops of the cylindrical portions of the pontoons **1**, for the purpose of balance and for control of spray.

The pontoons **1**—**1***a* are secured in spaced relation by cross-bars **2** or the like, which are secured by welding or the like to the tops of the pontoons **1**—**1***a*, as indicated in Figs. 2 and 3, said bars being in fore and aft spaced relation and being adapted to support thereon a deck or flooring **3** (Figs. 1 and 3) of any desired type, uprights **4** being mounted on the flooring **3** (as shown in Fig. 1) to support hand rails **5**, and to support a roof **6** or the framework for a suitable awning.

The main portion of pontoons **1** are thus maintained in spaced parallel relation while the coves **1***a* are as shown slightly toed-in to prevent gathering of water between the pontoons **1**, from whence it would pass on underneath the boat in an uncontrolled gush, the toed-in coves **1***a* turning the water at the bow of the boat to the outside as in a conventional boat. The parts of the cove thus described are such that when in use and at normal speed the water strikes the cone of the coves **1***a* a substantial distance back of the noses **1***c*, which noses are normally disposed above the water level, as shown in Fig. 1.

According to our invention, we provide a water scoop, shown more particularly in Figs. 2, 4, 5 and 6, which is attached to the rear cross-bars **2** between the pontoons **1**, to control the level of the water into the propeller at all times regardless of load or speed, the scoop also serving to knock down or flatten any waves which may come under the boat, and to completely eliminate spray on the rear of the boat, or on the motor, the water-line WL on the rear of the pontoons (Fig. 1) clearly showing the amount of water the boat will normally draw.

As shown in Figs. 4, 5 and 6, the water scoop comprises a frame consisting of triangular side frames **7**, which are joined together at their front ends, i.e., their apices, by a cross-member **8**, and are connected together at their rear ends by a substantially rectangular transom member **9**, having its upper edge cut away at the center as at **9***a*, on which transom **9** the outboard motor **10** may be attached for propelling the boat, as shown in Fig. 1.

The scoop is attached to the under sides of the rear cross-bars **2** below the deck planking **3** with the bar **8** disposed forwardly and the transom **9** extending somewhat beyond the rear ends of the pontoons **1**, as shown in Figs. 1 and 3, the top of the scoop being disposed substantially parallel with and below the flooring **3**, while the bottoms of the frame members **7** extend to or slightly below the water line.

The bottom of the scoop is normally closed by a concave or slightly upwardly curved plate **11**, the same being secured to the sides **7** in any desired manner, the curvature flattening forwardly to meet the front cross-member **8**. If desired, a stiffening element **12** may be provided on the upper surface of the bottom **11** extending from the cross-member **8** to the transom **9**. The side members **7** may be formed of triangular frames which are filled-in by panels **7***x* in order to lighten the structure of the scoop.

The function of the scoop, when the boat is in motion, is to control at all speeds and with all loads the constant level of the water as it goes into the propeller of the motor **10**, thus eliminating all splashing of the water on the rear of the deck **3** caused by rough water, and preventing cavitation of the propeller at all times.

Our novel pontoon-type boat supplies a demand for a dual pontoon, flat deck boat so adaptable in use that with proper selection of pontoon size, and power, it will serve with satisfaction the needs of the slow moving bank fisherman. Anyone may use our craft with the secure knowledge that it is so designed and constructed that it will ride through any weather or water condition without chance of capsizing or sinking. Due to its unique construtions is can be manufactured and marketed at a

price which would make it available to those of moderate means.

Our novel boat utilizes the advantage of its sleek smooth line, and can be made in various lengths and widths, and the construction is such that relatively high speeds may be attained by proper selection of the power of motor **10**. The water lines WL on the ends of the pontoons **1** (Fig. 1) clearly show the amount of water the boat will normally draw. The concave bottom **11** of the water scoop tends to gather the water under the scoop passing into the propeller of motor **10**. The toe-in **1***b* of the coves **1***a* prevents the gathering of water between the pontoons **1** from whence it would pass on underneath the boat in an uncontrolled gush, and the coves turn in the water to the outside, as in a conventional boat.

We do not limit our invention to the exact form shown in the drawing, for obviously changes may be made therein within the scope of the claims.

We claim:

1. A pontoon-type boat comprising a pair of substantially parallel pontoons; means maintaining the pontoons in normal spaced relation; a water scoop disposed between the pontoons comprising parallel triangular side frames connected at their front apices by a cross-member disposed above the water-line, and connected at their rear ends by a transom adapted to carry an outboard motor having a propeller, a motor mounted on said transom and having a propeller, the bottom of the transom extending below the waterline, and said scoop and transom extending in rear of the said pontoons; and a downwardly and rearwardly sloping concave bottom for said scoop connected with the bottoms of said side frames and extending from said cross-member to the bottom of said transom, to control at all speeds and loads the constant level of the water going to the propeller, and preventing splashing of the water and cavitation of the propeller.

2. In a boat as set forth in claim 1, a flooring disposed upon the said cross-bars above said scoop.

3. In a boat as set forth in claim 1, the curvature of the bottom of the scoop flattening from the transom to the said cross-member.

4. In a boat as set forth in claim 1, a stiffening element on said scoop bottom extending from the cross-member to said transom.

5. A pontoon-type boat comprising a pair of substantially parallel pontoons; a series of cross-bars secured to the tops of said pontoons and maintaining same in normal spaced relation; a water scoop disposed between the pontoons and secured to the rear cross-bars, said scoop comprising a pair of parallel triangular side frames connected at their front apices by a cross-member disposed above the waterline, and connected at their rear ends by a transom adapted to carry an outboard motor having a propeller, a motor mounted on said transom and having a propeller, the bottom of the transom extending below the waterline, and said scoop and transom extending in rear of the said pontoons; the top of the scoop being disposed substantially parallel with the bottoms of said cross-bars; and a downwardly and rearwardly sloping concave bottom for said scoop connected with the bottoms of said side frames and extending from said cross-member to the bottom of said transom, to control at all speeds and loads the constant level of the water going to the propeller, and preventing splashing of the water and cavitation of the propeller.

6. In a boat as set forth in claim 5, a flooring disposed upon the said cross-bars above said scoop.

7. In a boat as set forth in claim 5, the curvature of the bottom of the scoop flattening from the transom to the said cross-member.

8. In a boat as set forth in claim 5, a stiffening element on said scoop bottom extending from the cross-member to said transom.

9. A pontoon-type boat comprising a pair of substantially parallel pontoons of substantially circular cross-section; a series of cross-bars secured to the tops of said pontoons and maintaining same in normal spaced relation; the forward ends of said pontoons progressively reducing in diameter and being slightly toed-in and extending upwardly and forwardly and terminating in circular closed ends having their tops disposed substantially in the plane of the tops of the main portions of the pontoons; a water scoop disposed between the pontoons and secured to the rear cross-bars, said scoop comprising a pair of parallel triangular side frames connected at their front apices by a cross-member disposed above the waterline, and connected at their rear ends by a transom adapted to carry an outboard motor having a propeller, a motor mounted on said transom and having a propeller, the bottom of the transom extending below the waterline and said scoop and transom extending in rear of the said pontoons; the top of the scoop being disposed substantially parallel with the bottoms of said cross-bars; and a downwardly and rearwardly sloping concave bottom for said scoop connected with the bottoms of said side frames and extending from said cross-member to the bottom of said transom, to control at all speeds and loads the constant level of the water going to the propeller, and preventing splashing of the water and cavitation of the propeller.

10. In a boat as set forth in claim 9, the tops of the closed ends of the reduced portions of the pontoons being disposed above the tops of the main portions of the pontoons.

11. In a boat as set forth in claim 9, a flooring disposed upon the said cross-bars above said scoop.

12. In a boat as set forth in claim 9, the curvature of the bottom of the scoop flattening from the transom to the said cross-member.

13. In a boat as set forth in claim 9, a stiffening element on said scoop bottom extending from the cross-member to said transom.

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