Oct. 15, 1940. H. H. LUCE 2,218,264

BOAT

Filed March 25, 1938

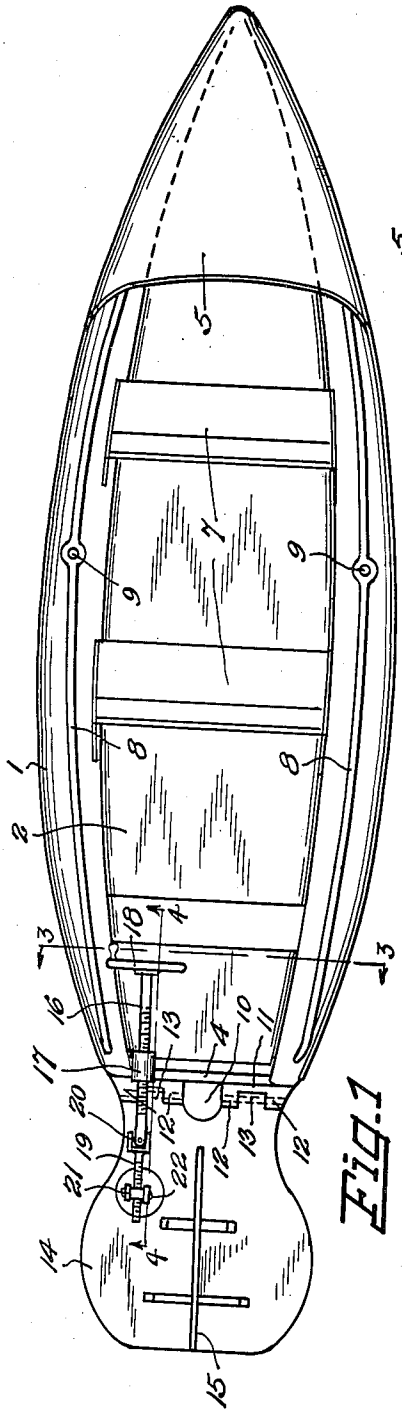


Fig. 1

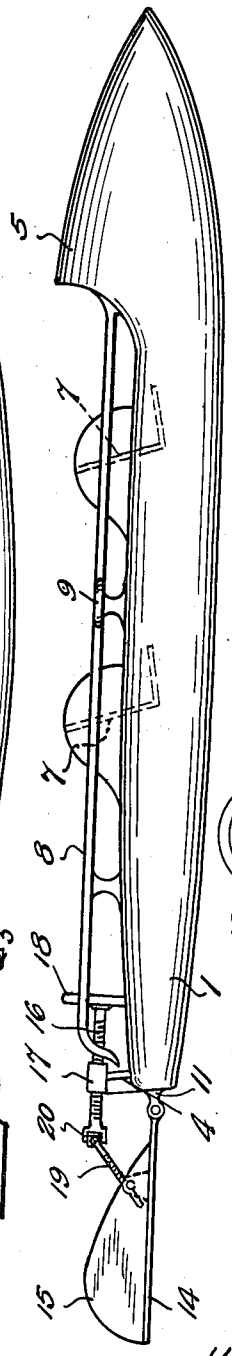


Fig. 2

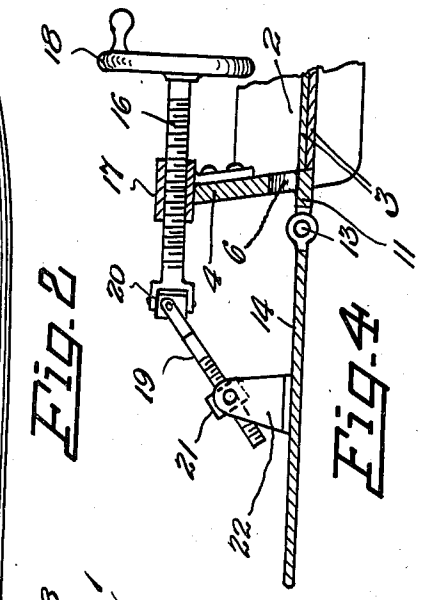


Fig. 4

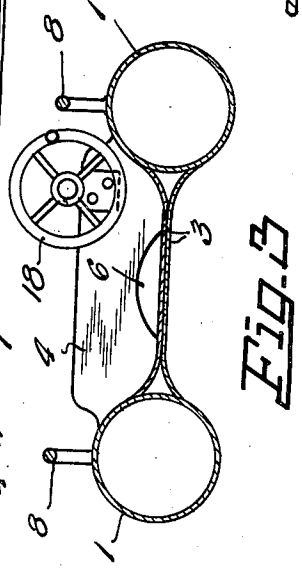


Fig. 3

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BOAT

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1 Claim. (Cl. 9—3)

This invention relates to boats and has as one of its objects to provide a boat which is so constructed that it will be very buoyant and also so constructed that it will not be liable to tip over.

Another object of the invention is to so form the boat that it will have a minimum draft and thus be capable of being used in shallow water.

Another object of the invention is to provide the boat with a rear horizontally extending fin which may be vertically adjusted and disposed at such an angle that the boat may be caused to be high riding and skim along the water or low riding and settle to a relatively low depth, this being under the control of the operator of the boat who will adjust the fin according to the speed at which the boat is driven.

Another object of the invention is to provide the boat with a hull having a hood at its front serving to permit the boat to be driven through the water at high speed without causing water to be thrown into the boat.

Another object of the invention is to provide a boat having a hull consisting of hollow side walls resembling pontoons and a floor consisting of superposed metal sheets extending between the walls and having their marginal edges welded to the side walls. It will thus be seen that the boat is of a simplified construction and, at the same time, very durable and seaworthy.

The invention is illustrated in the accompanying drawing, wherein:

Fig. 1 is a top plan view of the improved boat.

Fig. 2 is a side elevation of the boat.

Fig. 3 is a sectional view taken transversely through the boat along the line 3—3 of Fig. 1.

Fig. 4 is a view on an enlarged scale taken along the line 4—4 of Fig. 1 and illustrating the adjusting means for the rear fin.

This improved boat has side walls 1 which may be of metal or any other material desired and are of tubular formation and entirely closed so that they will be airtight and thus constitute hollow floats or pontoons extending the full length of the boat and serving to support the boat in water and prevent it from tipping over. The hollow walls taper toward their ends and are curved longitudinally so that the boat will have the proper configuration to present an attractive appearance and cause it to move easily through the water when driven forwardly. A floor 2 extends between the side walls and consists of strong metal plates 3 which are in face to face engagement with each other and have their side edge portions diverging from each other, as shown in Fig. 3, and welded to confronting inner portions of the side walls 1. A rear wall 4 extends between rear ends of the side walls and the forward end portion of the boat is provided with a hood 5 formed of sheet metal and united to the forward portions of the side walls. A drain opening or scupper 6 is formed through the rear wall and since the floor 2 is above the water, any water which may dash over the hood at the bow of the boat and enter the boat can flow out at the rear. Seats 7 extend transversely across the boat between the side walls and along the side walls there have been provided rails 8 having sockets 9 to receive oar locks. An inboard motor may be installed in any desired manner or an outboard motor used and attached to the rear wall 4 with its shaft extending through the opening or passage 10.

This opening or passage 10 is formed midway the ends of the mounting 11 which extends across the boat under the rear wall and level with the floor 2, as shown in Fig. 4. Referring to Figs. 1 and 4, it will be seen that the mounting 11 carries hinge ears 12 to which are pivotally connected ears 13 of a fin 14. This fin is formed of stiff sheet metal and reinforced by a vertically disposed longitudinally extending web 15. The fin extends horizontally back of the boat and, upon referring to Fig. 1, it will be seen that the web is of reduced width adjacent its front end and then gradually increases in width to a point near its rear end and is then again reduced in width. This is accomplished by forming the side edges of the fin as reverse curves and causes the fin to assume such outline that when its rear end is depressed it may engage the water and serve very effectively to create drag which will tilt the stern of the boat upwardly and cause the bow to be depressed to such an extent that it will counteract the upward thrust under the bow and cause the boat to travel through the water substantially horizontal to the surface thereof. By changing the angle of the fin the extent to which it engages the water may be controlled and the boat kept on a level keel or the bow may be allowed to lift and thus cause the boat to skim along the surface of the water.

Adjustment of the fin is to be controlled by the occupant of the boat and in order to do so there has been provided a shaft 16 which is threaded through a bearing 17 fixed to the rear wall 4. A hand wheel 18 is provided at the front or inner end of the shaft 16 and the rear end of the shaft is connected with a shaft 19 by a universal joint 20. A nut 21 is pivoted to a bracket 22 rising from the fin 14 and through this nut

is threaded the shaft 19. The shaft 19 turns with the shaft 16 and as it is turned the fin will be caused to swing vertically to angularly adjusted positions where it will be held as strain is longitudinally of the shafts 16 and 19 and the shafts cannot be shifted longitudinally without being turned. The fin acts in a manner similar to the horizontal stabilizer of the tail assemblage of an air plane and the web 15 will act not only as a reinforcement for the fin but also as a vertical stabilizer which is acted upon by air currents and will thus assist in maintaining the boat in a straight path. A suitable rudder and control therefor may be provided if an inboard motor is used but if an outboard motor is employed, steering is accomplished in the usual manner.

Having thus described the invention, what I claim is:

A boat comprising a hull having elongated tubular side walls closed at their ends and bowed longitudinally and tapered towards their front and rear ends with their forward end portions converging and intersecting at the front end of the boat, a floor extending between the side walls midway the depth of the hull and consisting of upper and lower plies having their marginal portions diverging and united to the side walls in vertical spaced relation to each other, forward portions of the bottom and the side walls being curved upwardly, a rear wall extending across the bottom between rear end portions of the side walls and united thereto, and a hood for the forward portion of the boat extending transversely between the side walls and over the same and being curved longitudinally and transversely and intersecting with the front ends of the side walls and merging with surfaces of the outer side portions of the side walls.

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