March 11, 1930. R. HAUGAN 1,750,593

HYDROPNEUMATIC GLIDER

Filed March 26, 1929 2 Sheets-Sheet 1

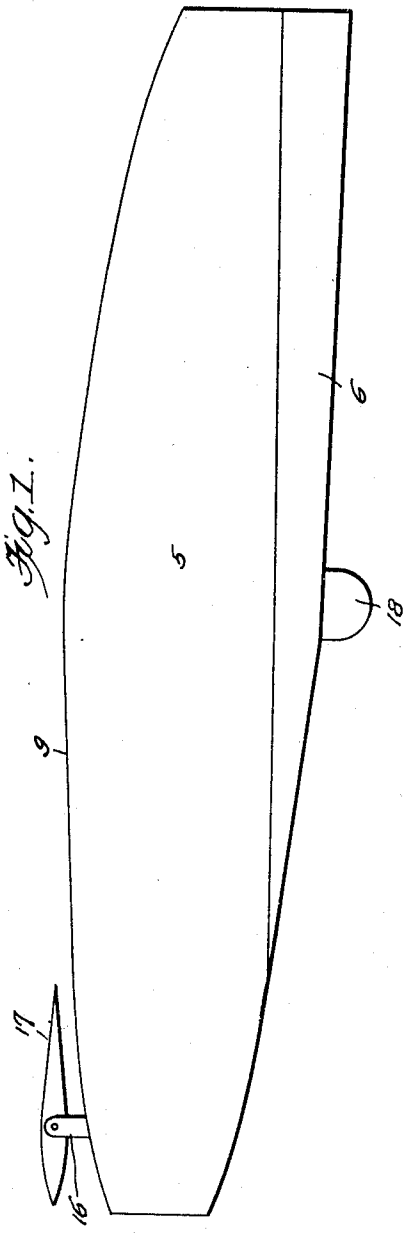


Fig. 1.

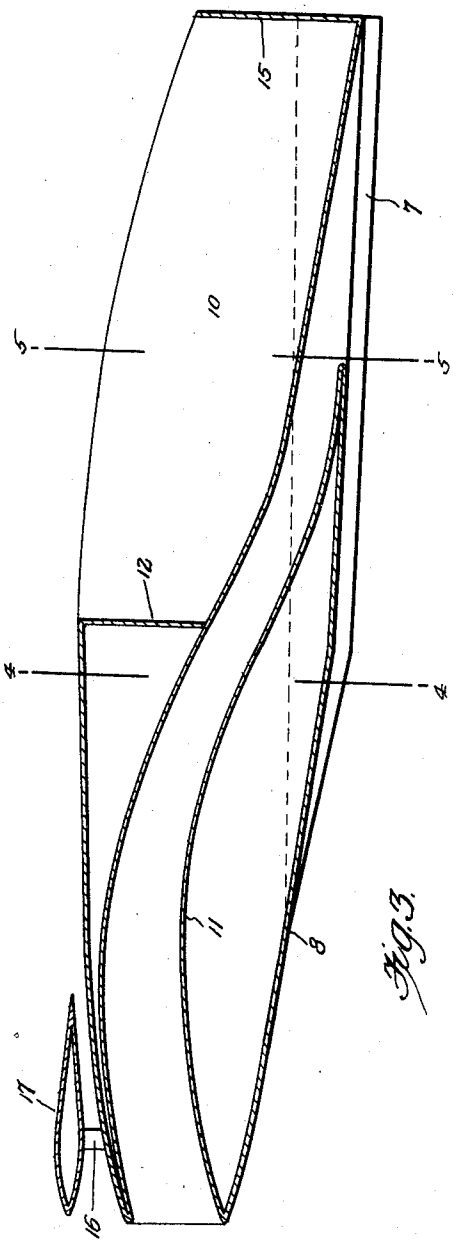


Fig. 3.

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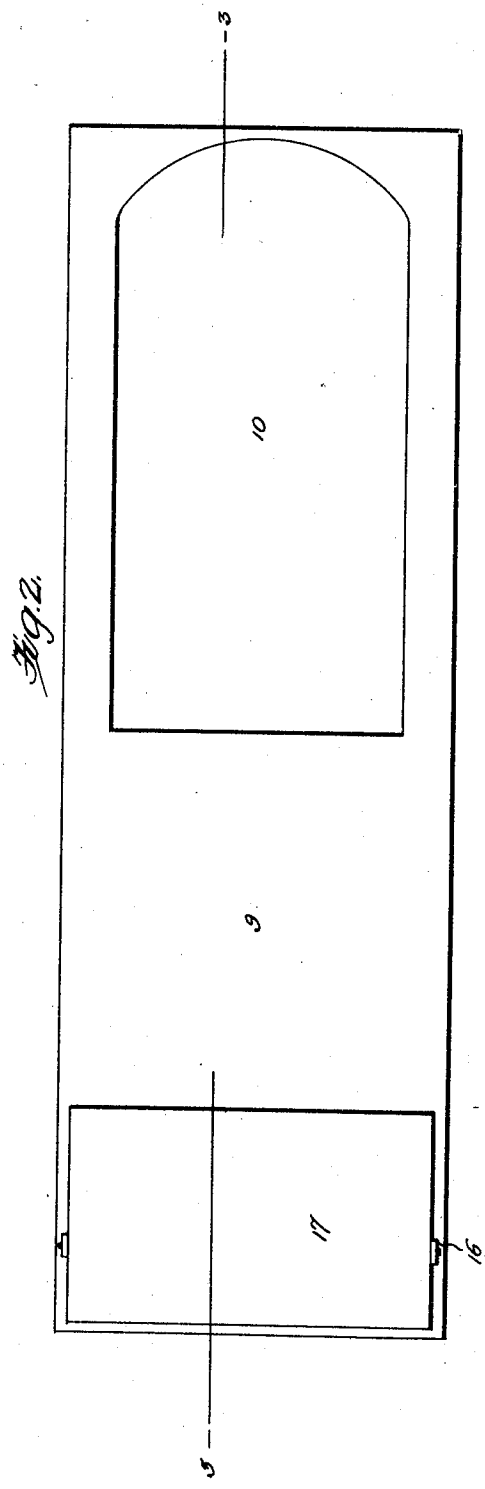


Fig. 2.

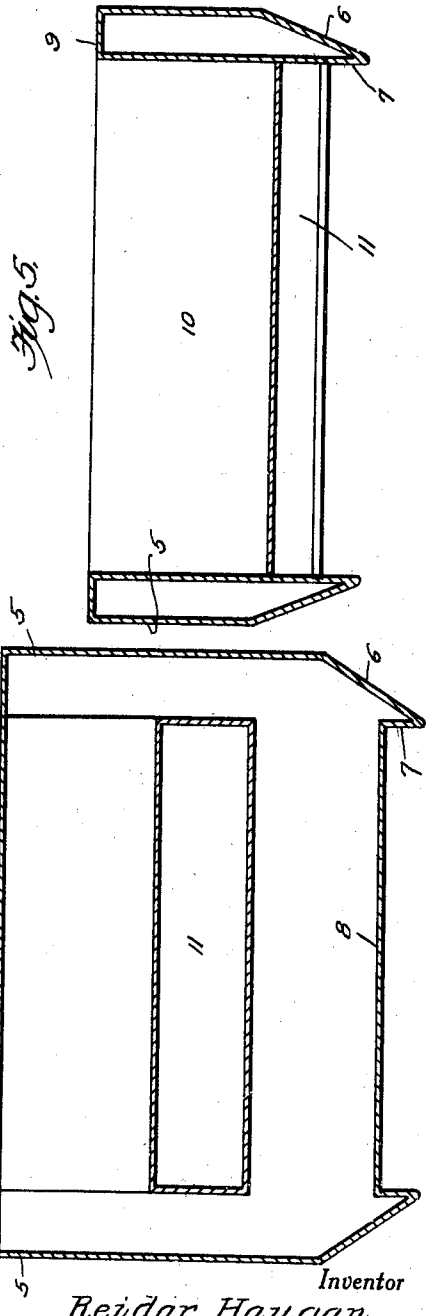


Fig. 5.

Fig. 4.

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UNITED STATES PATENT OFFICE

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HYDROPNEUMATIC GLIDER

Application filed March 26, 1929. Serial No. 350,042.

The present invention relates to a glider for use with outboard motors for racing and pleasure purposes.

The main object is to make use of the air resistance by making the boat use the air, that is, take the air in from the front and expel it under the bottom of the rear end, and thus the air helps to lift the boat, thereby eliminating water friction to a great extent.

Another very important object of the invention resides in the provision of a glider of this nature which may be constructed of light weight machine metal and will glide on the very surface of the water, to eliminate, as far as possible, water friction.

Another very important object of the invention resides in the provision of a boat of this nature which is simple in its construction, inexpensive to manufacture, thoroughly efficient and reliable in use, and otherwise well adapted to the purpose for which it is designed.

With the above and numerous other objects in view, as will appear as the description proceeds, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing:

Figure 1 is a side elevation of the boat embodying features of my invention.

Figure 2 is a top plan view thereof.

Figure 3 is a vertical longitudinal section therethrough taken substantially on the line 3—3 of Figure 2.

Figure 4 is a vertical transverse section, taken substantially on the line 4—4 of Figure 3, and

Figure 5 is a vertical transverse section, taken substantially on the line 5—5 of Figure 3.

Referring to the drawing in detail, it will be seen that numerals 5 denote a pair of vertical side plates, which from points adjacent the forward ends thereof have their lower portions flanged inwardly and downwardly as at 6, and merging or fixed to upstanding plates 7, with bottom 8 thereacross, forming a cross piece, in which will be formed an air pocket as will be hereinafter more fully described. A deck 9 extends across the upper edges of the forward portions of the side plates 5 and also at the rear thereof but at the rear is cut away to form a passenger compartment 10. A terminal or tube 11 extends from the front end of the boat and is curved upwardly and then downwardly and terminates in the rear end of the air pocket trough 7. The bottom 8 slants upwardly and forwardly from an intermediate portion as clearly seen in Figure 3. A hanger plate 12 from the forward edge of the compartment deck assists in supporting an intermediate portion of the tube 11. As this plate moves forwardly, air is trapped in the forward end of the tube and taken to the trough 7 to form an air pocket under the major portion of the boat to eliminate water friction as much as possible.

A backing plate 15, is provided across the rear ends of the side plates 5 and rises from the rear upper portion of the tube 11. The rear end of the lower portion of the tube 11 merges into the rear edge of the body 8.

A pair of bracket arms 16 rise from the sides of the front portion of the projection 9 and support therebetween a stream line wing 17, which assists in keeping the glider level.

A keel 18 is provided to depend from the bottom 8. The spaces between the tube 11 and the sides and top and bottom are all air tight so that the craft is unsinkable.

It is thought that the construction, operation, utility and advantages of this invention will not be quite apparent to those skilled in this art, without a more detailed description thereof. The present embodiment of the invention has been disclosed in detail merely for the purpose of exemplification, since in actual practice it attains the features of advantage enumerated as desirable in the statement of the invention and the above description.

It is apparent that changes in the details of construction, and in the combination and arrangement of parts may be resorted to, without departing from the spirit or scope

of the invention as hereinafter claimed or sacrificing any of its advantages.

Having thus described my invention, what is claimed as new is:

A glider of the character described comprising opposed side walls having a portion of their lower ends turned inwardly, said portions being remote from the forward end of each side wall and terminating in vertical upturned ends, a bottom wall connecting the upturned end and the forward lower edges of the side walls, an upwardly and downwardly curved air conducting tube extending from the front of the glider and terminating under the rear thereof, and an upper wall connecting the forward portions of the upper end of the side plates and having a downturned rear end portion connected to the tube for supporting same.

In testimony whereof I affix my signature.

REIDAR HAUGAN.