

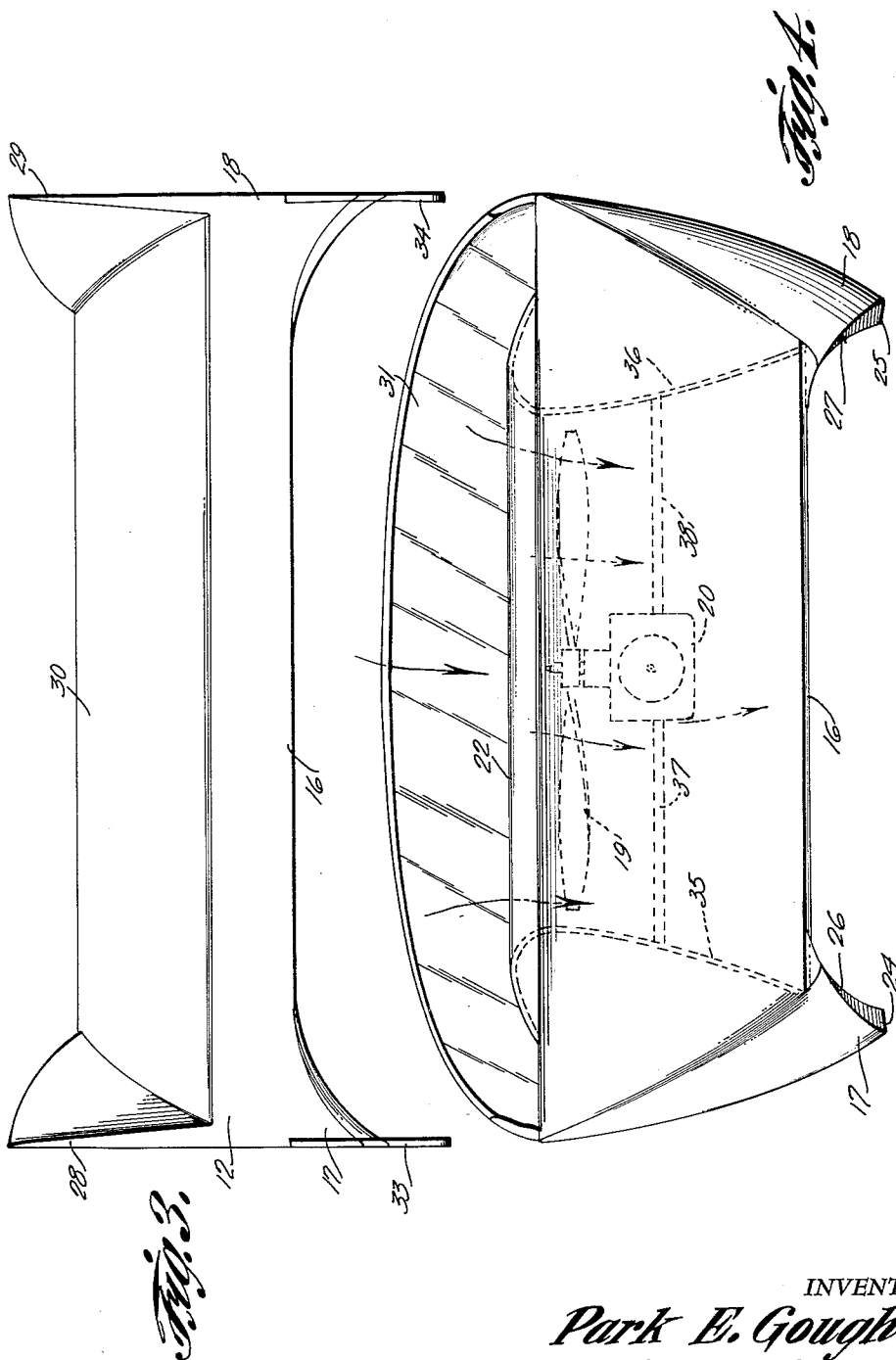
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P. E. GOUGH
JET TUNNEL BOAT

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INVENTOR.
Park E. Gough
BY *Victor J. Evans & Co.*

ATTORNEYS

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JET TUNNEL BOAT

Park E. Gough, 919 Hawthorne Drive, Moses Lake, Wash.
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This invention relates to boats of the V-bottom type, and in particular a boat having twin parallel hulls with a continuous tunnel extended across the bottom and throughout the length of the boat, as defined by arcuate side walls, with a fan mounted in a horizontal position in the bow of the boat for urging the bow upwardly, and the fan being positioned to discharge through a jet opening into the tunnel below the bottom of the boat, whereby the air of the fan is discharged at the stern of the boat providing jet propelling means.

The purpose of this invention is to provide a boat wherein a fan in the bow pulls the bow upwardly and wherein air from the fan provides the propelling or driving force of the boat.

Various types of boats have been provided with air tunnel formations to provide jet action and different means have been provided for drawing the bow of the boat upwardly from the water; however, applicant has discovered a boat design wherein air discharged from a fan for pulling the bow of the boat upwardly is also used for propelling the boat.

The object of this invention is, therefore, to provide an improved boat design wherein a driving force is obtained without the use of paddle wheels, propellers, and the like operating in the water.

Another object of the invention is to provide a jet action tunnel boat wherein the bow of the boat is urged upwardly by impelling means and wherein the boat is urged forwardly by jet action obtained from the discharge of said impelling means.

A further object of the invention is to provide a jet action tunnel boat wherein the same element provides lifting and driving power in which the boat is of a simple and economical construction.

With these and other objects and advantages in view the invention embodies a boat having a continuous concave or open channel extended longitudinally therethrough with a horizontally disposed propeller driven by a power unit in the bow and with the propeller discharging through a jet opening into the tunnel or channel in the lower part of the boat.

Other features and advantages of the invention will appear from the following description taken in connection with the drawing, wherein:

FIGURE 1 is a longitudinal section through the hull of the boat showing the relative positions of the power unit, jet opening, and tunnel.

FIGURE 2 is a plan view showing a portion of the boat with parts broken away.

FIGURE 3 is an elevational view looking toward the stern of the boat.

FIGURE 4 is an elevational view looking toward the bow of the boat.

Referring now to the drawing wherein like reference characters denote corresponding parts the improved jet tunnel boat of this invention includes an elongated body 10, rectangularly shaped in plan, having a bow 11, a stern 12, an intermediate open compartment 13 having seats 14 and 15 therein and a longitudinally disposed tunnel 16 extended from the bow to the stern and having arcuate side walls 17 and 18, and a fan 19 carried and operated by a power unit 20 positioned in a pressure compartment 21 having an air foil 22 extended around the upper edge, and the compartment being provided

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with a throat or jet opening 23 through which air from the fan 19 is discharged into the tunnel 16.

The side walls 17 and 18 of the boat extend straight downwardly at the stern as shown in FIGURE 3 and the surfaces taper inwardly, as shown in FIGURE 4, near the bow 11 providing flat surfaces or runners 24 and 25 that stabilize the boat when in motion and that support the boat on the land, and from the surfaces 24 and 25 the inner surfaces of the tunnel 16 curve inwardly, as shown in the points 26 and 27 providing arcuate surfaces that blend into the roof or upper surface of the tunnel or channel.

The side walls 17 and 18 extend upwardly providing fins 28 and 29 and inner surfaces of the fins meet with an arcuate stern deck surface 30, as shown in FIGURES 1 and 3.

The boat may be provided with a windshield 31, a steering wheel 32, and rudders 33 and 34 pivotally mounted at the sides and on the stern.

The compartment 21 is provided with arcuate side walls 35 and 36 and the power unit is supported by struts 37 and 38 from the side walls. The side walls 35 and 36 blend into the inner arcuate edge of the air foil 22, as shown in FIGURE 4.

The tunnel or channel 16 is provided with an upper surface formed by a panel 39 which extends from the stern to a point 40 and from the point 40 the panel 39 is connected by an inclined section 41 to the bow of the boat. The jet opening or throat 23 of the compartment 21 is positioned in the panel 39 and extends from a point 42 to an arcuate surface 43. The panel 39 extends across the intermediate portion of the hull of the boat and, at the sides, the panel blends into the surfaces 26 and 27 forming the side walls or wings 17 and 18.

With the parts designed and assembled as illustrated and described the power unit 20, which may be an internal combustion engine, motor, or the like is started whereby the propeller 19 is rotated, drawing air downwardly and pulling the bow of the boat upwardly with air circulated in the path of the arrows 44, being discharged through the jet opening 23 into the tunnel 16 and discharged from the tunnel 16 at the stern of the boat. The jet action of air passing through the opening 23 drives the boat forward. Air rushing through the throat or opening 23 creates a pressure drop and the boat is forced forward due to differential of air pressures that exists between the throat and the power compartment.

It will be understood that modifications, within the scope of the appended claims, may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

1. A jet tunnel boat comprising an elongated hull having a concave surface providing a tunnel in the under surface and extended from the bow to the stern, a power compartment with an opening therein positioned in the bow of the hull, and a seat compartment in the intermediate portion rearwardly of the power compartment, a circular horizontally disposed air foil extended around the opening of the power compartment in the bow, a power unit in the power compartment, a horizontally disposed propeller carried by and operated by the power unit, said propeller being positioned in the opening in the power compartment, steering means at the stern, and said power compartment having a panel mounted therein and forming a jet opening in the lower surface providing communicating means between the power compartment and tunnel.

2. A jet action tunnel boat comprising an elongated hull having a continuous longitudinally disposed tunnel in the under surface, a power compartment having an

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opening in the upper portion positioned in the bow of the hull, a seat compartment spaced rearwardly of the power compartment, the power compartment having a passage extended therefrom into the tunnel, a circular horizontally disposed air foil extended around the opening in the upper part of the power compartment, a horizontally disposed fan positioned in the opening in the upper part of the power compartment, and means for rotating the fan.

3. In a jet propelled boat, the combination which comprises an elongated hull having a longitudinally disposed tunnel extending continuously in the under surface, a power compartment having an opening in the upper part positioned in the bow of the boat and having an opening in the lower portion, a circular horizontally disposed airfoil mounted on the bow contiguous with the opening in the upper part of the power compartment, an inclined angularly disposed panel mounted in said power compartment and forming the opening in the lower portion of said power compartment, providing communi-

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cation means between the power compartment and tunnel, an engine mounted the power compartment, a fan actuated by the engine and positioned in the opening in the upper part of the power compartment, and steering means at the stern of the boat, said propeller being positioned to draw air downwardly, lifting the bow of the boat upwardly, and to discharge the air through the opening between the power compartment and tunnel, whereby the air is discharged at the stern of the boat providing propelling means therefor.

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