

F. DILLON.
BOAT AND LIKE VESSEL.
APPLICATION FILED APR. 1, 1910.

1,005,698.

Patented Oct. 10, 1911.

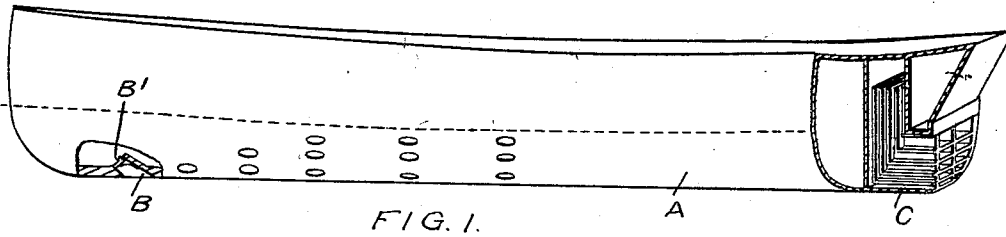


FIG. 1.

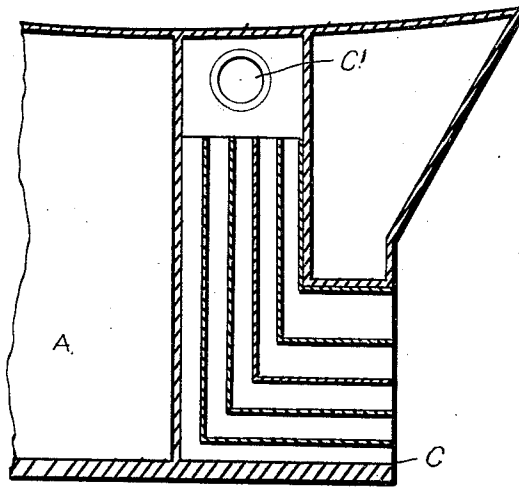


FIG. 2.

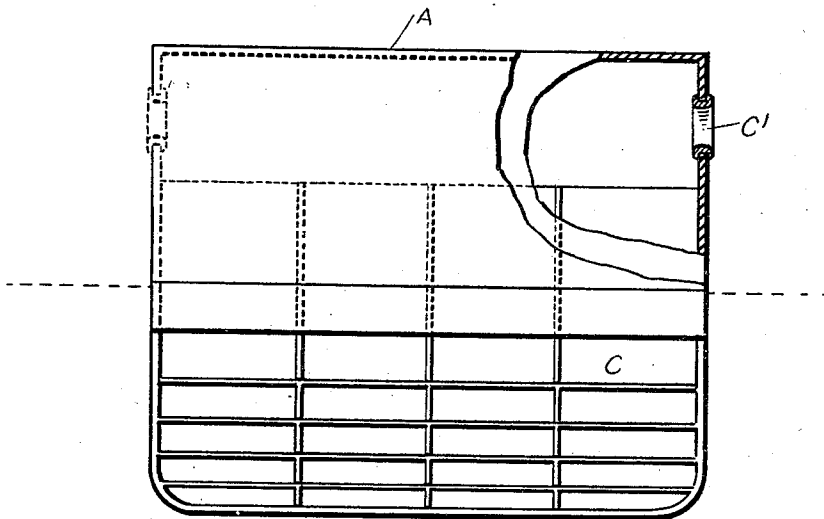


FIG. 3.

WITNESSES.
H. T. S. Young.
W. Smith

INVENTOR.
F. DILLON.
By *Frederick H. Hetherington* ATTORNEY

UNITED STATES PATENT OFFICE.

FRANCIS DILLON, OF DILLON PORT, ONTARIO, CANADA.

BOAT AND LIKE VESSEL.

1,005,698.

Specification of Letters Patent.

Patented Oct. 10, 1911.

Application filed April 1, 1910. Serial No. 552,920.

To all whom it may concern:

Be it known that I, FRANCIS DILLON, of Dillon Port, in the district of Parry Sound, in the Province of Ontario, Canada, have
5 invented certain new and useful Improvements in Boats and Like Vessels, of which the following is the specification.

My invention relates to improvements in boats and like vessels, and the object of the
10 invention is to devise a construction of boat in which the skin friction of the water upon the hull will be reduced to a minimum.

A further object is to make the stern of the vessel of such a construction as will obviate any suction or drag on the stern of the
15 boat, which has a tendency to impede its rapid progress.

To effect these objects I have constructed my boat with a series of openings in the hull
20 closed by valves, such openings being designed to allow of the air from the interior of the hull to be drawn under water along the hull of the boat beneath the water sternward and a compartment formed in the
25 stern of the boat and provided with conduits extending downwardly from the upper portion of the compartment and then rearwardly out through the stern of the boat, openings being provided in the side
30 of the compartment for admission of air, so that the air may pass through the conduits sternward, as hereinafter more particularly explained.

Figure 1, is a perspective view of a boat
35 constructed according to my invention, portion of the bow being broken away to show the form of air passage-way for the bow portion of the boat. Fig. 2, is a longitudinal section through the stern portion of the
40 boat. Fig. 3, is a view from the stern of the boat partially broken away.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the hull of the boat.

45 B are a series of openings arranged on an incline from the interior of the hull to the exterior thereof beneath the water line. The openings are provided with a suitable valve B'. The progress of the boat forward
50 causes the valve to open and a passage of air to pass downwardly and outwardly along the surface of the hull of the boat beneath the water line. When the boat is sta-

tionary the valves automatically close. I do not describe the construction of the valve
55 as it forms no feature of my invention. There are various types of valves, which may be applied with equal facility. I prefer, however, to make the openings B toward the bow portion of the boat suitably
60 interspersed over the hull. By this means the film of air passes between the hull and the water and materially reduces the skin friction on the surface of the hull, and increases the rapidity of the boat.

The stern is as will be seen constructed with no overhanging portion, but is arranged with a compartment C, which is closed at the top and is provided with air
70 inlets C' at the side. It is, of course, not necessary that these inlets are at the side as they might be at the top also. The compartment is also divided into a plurality of right angular conduits or passage-ways
75 extending from a point near the top of the compartment to the stern of the boat, such conduits being arranged adjacent to each other both laterally and vertically. These conduits form a passage for the air from
80 the compartment out through the stern of the vessel and serve to prevent the suction, which is incident to an ordinary vessel from having any influence upon the stern of the vessel.

Although I have described in detail my
85 invention it will, of course, be understood that the forms of passage-ways, valves and the positioning of the same may be altered without departing from the spirit of my invention.

What I claim as my invention is:

In a boat having a square stern, an air compartment rectangular in form and extending from the top of the hull vertically
95 downwardly and then sternward, and provided with an orifice above the water line for the admission of air and divided throughout its length by continuous partitions partially vertical and partially horizontal into a series of adjacent compart-
100 ments lateral and longitudinal to each other as and for the purpose specified.

FRANCIS DILLON.

Witnesses:

I. P. MEEKS,
HENRY THOMPSON.