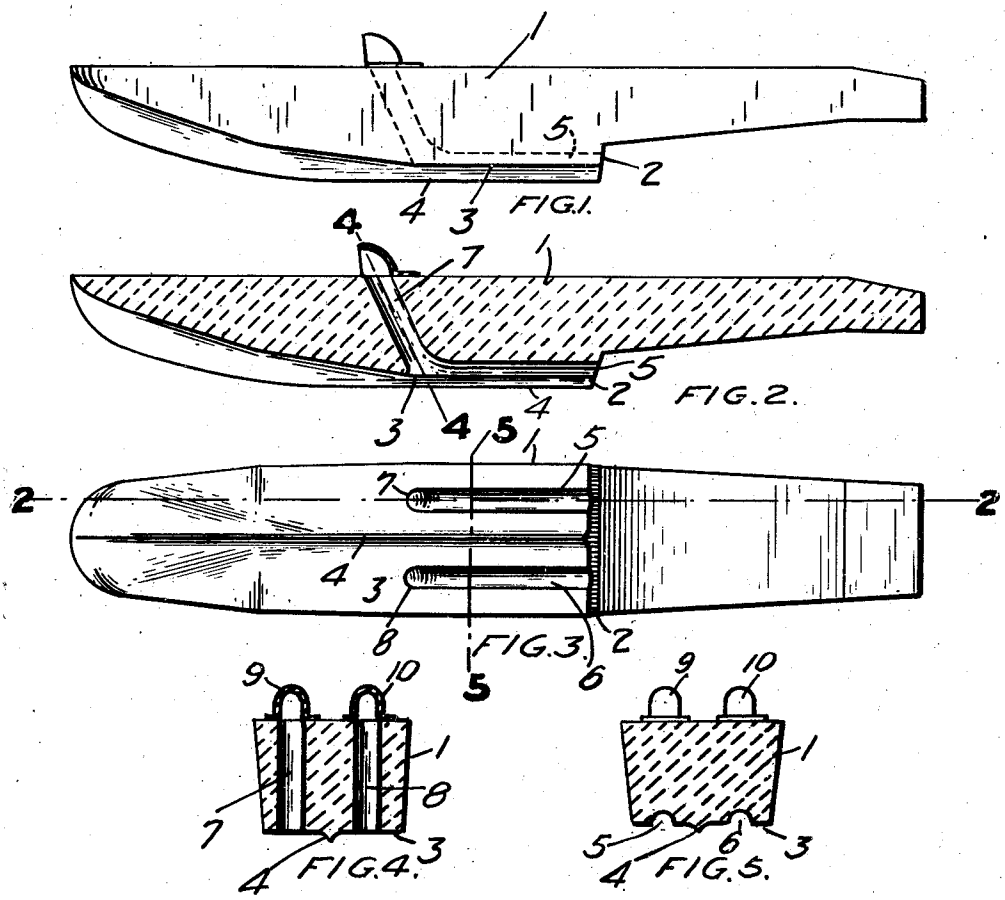
June 30, 1931. J. HONE 1,812,265

PONTOON FOR SEAPLANES AND LIKE BODIES

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PONTOON FOR SEAPLANES AND LIKE BODIES

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My invention relates to improvements in pontoons for seaplanes and like bodies, and the object of the invention is to devise means for minimizing the water resistance on the pontoons due to suction and skin friction during the forward lifting movement of the plane as it rises into the air, and it consists essentially of the arrangement and construction of parts all as hereinafter more particularly explained.

Fig. 1 is a side elevation of the body of a pontoon.

Fig. 2 is a longitudinal sectional view on line 2—2 Fig. 3.

Fig. 3 is an inverted plan view of the pontoon body.

Fig. 4 is a cross sectional view on line 4—4 Fig. 2.

Fig. 5 is a cross sectional view on line 5—5 Fig. 3.

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

1 indicates a pontoon body the general structure of which is that commonly employed having a flat bottom with a stepped portion as indicated at 2. The flat bottom 3 of the pontoon is preferably provided with a keel rib 4 extending from the front end. 5 and 6 are grooves formed in the bottom 3 extending forwardly from the step 2.

7 and 8 are orifices forming ducts extending through the pontoon body from the upper to the lower face thereof and located on each side of the longitudinal centre of the body and in a line with the groove 6. The orifices 7 and 8 are preferably inclined in the forward direction as clearly indicated in Fig. 2 and are provided at their upper ends with forwardly directed cowls 9 and 10.

When the plane starts to move forward over the surface of the water the forward motion of the pontoon serves to drive air into the open mouths of the cowls forcing such air downwardly through the orifices 7 and 8 into the grooves 5 and 6. This air is forced by this means with sufficient pressure to distribute itself over the bottom of the pontoon and thereby relieve the pontoon from the frictional contact of the water, and at the same time, breaks the suction which would necessarily take place at the rear of the step 2 by feeding the air under pressure through the grooves into this space.

Although I have described my invention as applied to pontoon bodies, it will of course, be understood that it might be equally well applied to hydroplane motor boat, and flying boat hulls, to minimize skin friction and suction in a similar manner to that above described.

From this description it will be seen that I have devised very simple means whereby the frictional contact of the water upon the bottom of the plane and the suction taking place at the step is relieved so that the plane will move forward more easily and prevent any drag as it rises from the surface of the water.

What I claim as my invention is:

In a seaplane pontoon body having a horizontal stepped bottom, of an open groove or channel extending forward from the rise of the step at each side of the longitudinal centre of the pontoon, and a duct communicating with each groove extending through the pontoon body to the upper face thereof, and means for directing air into the upper end of each duct as the pontoon body travels forward.

JOHN HONE.