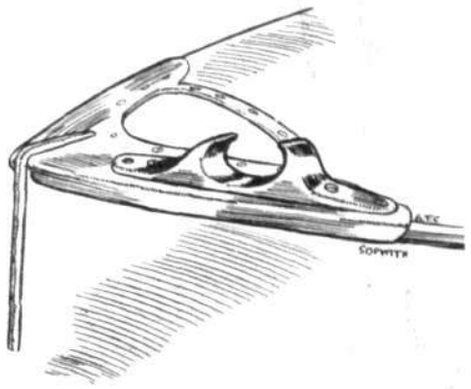
same results have been obtained by sheet brass channels screwed to the sides of the boat, as shown in one of the accompanying sketches.

The engine, a 200 h.p. Salmson, is mounted on pressed steel frames on very thick ash bearers, between the rear inner pair of the plane struts, whilst the radiator is mounted between the two front struts. The inter-plane struts are of ample size, and are all made of spruce, with the exception of the inner two rear struts which carry the engine bearers, and which have therefore been made of ash. The whole structure is further strengthened by two oblique struts running down to the forward portion of the boat.

The pilot's and passenger's seats are arranged side-by-side in an extremely roomy cockpit, the pilot occupying the right-hand seat. Control is by wheel on a single tube for *ailerons* and elevator, whilst the rudder is actuated by a pivoted foot-bar. A very complete set of instruments is mounted on a neat instrument board, in front of the pilot, whilst in the left-hand side of the boat, and in front of the passenger's seat, is mounted the wireless set driven by a motor cycle engine. The main petrol tank, which has a capacity sufficient for four and a half hours' flight, is situated in the boat behind the occupants. Petrol is forced from this tank to a smaller service tank between the engine and the radiator, whence it is fed by gravity to the engine. Under the pilot's and passenger's seats are carried two compressed air self-starters by means of which the engine may be started from the pilot's seat without the necessity of swinging the propeller, a performance which would be extremely difficult, if not actually impossible, on a machine of this type. The four tail booms form a V as seen in plan. These and their struts are made of spruce. The fixed tail plane is flat, and is braced by four steel tubes running from its outer edges to the lower tail boom. The elevator is divided in order to allow of sufficient movement of the rudder, which latter is of the balanced type. There is no vertical tail fin on this machine. It will be noticed that the lower main plane has a very pronounced dihedral angle, in order, no doubt, to allow the machine to roll considerably without fear of the lower planes touching the water, this being further prevented by wing-tip floats of similar construction to that of the boat.

Unfortunately Sopwith's were prevented, by lack of space, from exhibiting more than the one machine, and have had to be content with showing one of the main floats of their tractor hydro. This float is of similar construction, although of a different shape, to that of the boat. The workmanship in this float, as well as in that of the complete machine, is of the very highest quality. The float shown is of the single-step type, and has five watertight compartments, each fitted with a very neat inspection door. These, as will be seen from the accompanying sketch, have bevelled edges, and are screwed down with butterfly nuts, the opening in the deck being rubber faced in order to provide a watertight joint. The combined trolley and turntable on which this machine is mounted greatly



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Streamline snatch-cleat on the bow of the Sopwith bat boat.

facilitates the operation of running the machine from the hangar down to the water and *vice versa*, and would appear to be an absolutely necessary accessory for the easy handling ashore of so heavy a craft as this.

An item in the exhibit on this stand which attracts considerable attention is the actual Green engine used by Mr. Hawker in his waterplane flight round Britain last summer. This engine, it will be remembered, flew 1,043 miles in 55¾ hours, or actual flying time 21 hours and 44 mins., which is claimed to be a world's record.

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VIEW FROM ABOVE OF THE WIGHT SEAPLANE.—This photograph clearly shows the peculiar double cambered upper surface of the wings.