April 4, 1961 N. P. S. STRAUSSLER 2,977,606

BOAT

Filed April 21, 1958

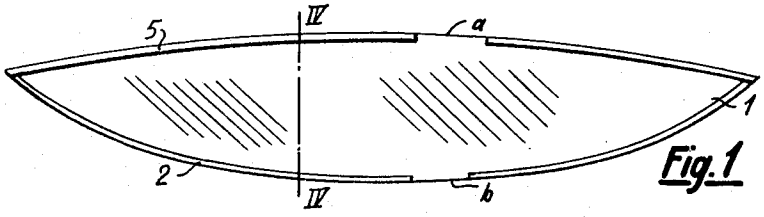


Fig. 1

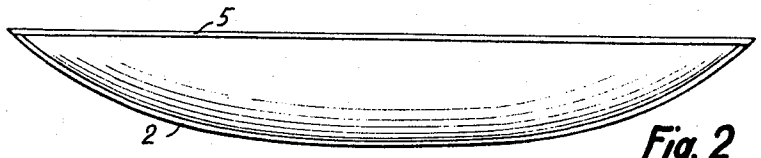


Fig. 2

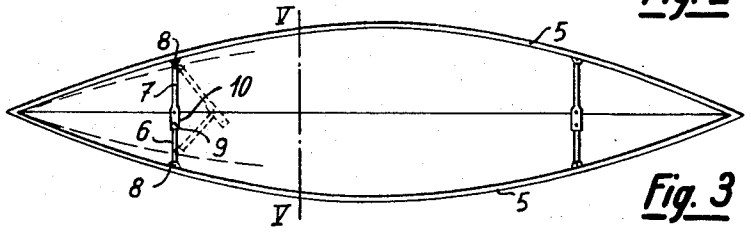


Fig. 3

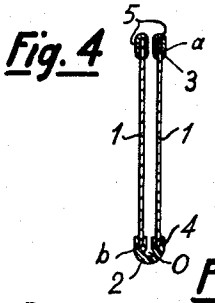


Fig. 4

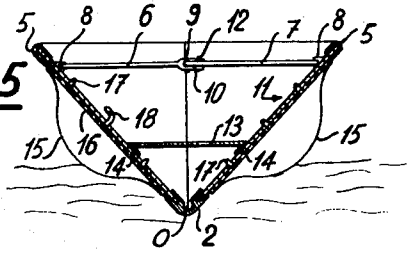


Fig. 5

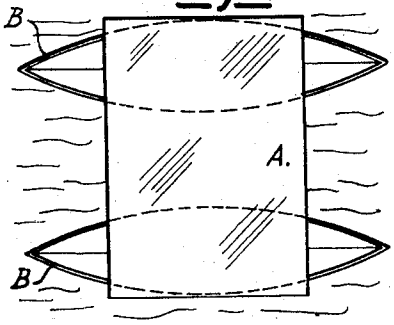


Fig. 6

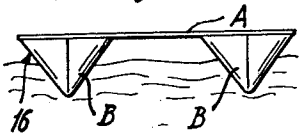


Fig. 7

INVENTOR

NICHOLAS PETER SORRELL
STRAUSSLER

BY Irwin S. Thompson
ATTY.

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BOAT

Nicholas Peter Sorrell Straussler, 2 Blvd. du Theatre, Geneva, Switzerland

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4 Claims. (Cl. 9—2)

The present invention has for its object a boat which is characterized by the fact that it comprises two plane side boards tapered at their ends and connected one to the other along their lower edge by an impervious joint, holding means being provided in order to hold the two said boards in a defined position one with respect to the other, and by the fact that a float is fixed against the outer face of each of said boards.

The annexed drawing shows diagrammatically and by way of example one embodiment of the boat object of the invention.

Fig. 1 is side view of the boat in the folded condition, the two side boards being applied one against the other.

Fig. 2 is a side view of the boat open, the side boards being in operating position.

Fig. 3 is a plan view of the boat.

Fig. 4 is a sectional view along line IV—IV of Fig. 1.

Fig. 5 is a sectional view along line V—V of Fig. 3.

Fig. 6 is a top view of a raft.

Fig. 7 is an end view of said raft.

According to the annexed drawings, the boat comprises two plane side boards 1 of a semi-flexible material such as plywood, a synthetic plastic material, glass fiber, or other similar material. The two boards 1 are identical and have the same tapered outline at their two ends. The upper edge *a* is slightly convex whereas the lower edge *b* is slightly convex in its central part and more highly curved in its end parts, as clearly shown in Fig. 1.

The lower edges *b* of the two boards 1 are hinged one with respect to the other by means of a continuous impervious joint 2. The said joint is of a pliant and elastic material such as natural or synthetic reinforced rubber or other material sufficiently flexible to constitute a continuous articulation, but sufficiently strong to resist the stresses and wear through abrasions to which the said joint is normally subjected during use of the boat.

The said impervious joint 2 is constituted by a shaped piece having the general form of a U each wing of which is provided with a longitudinal groove 4 in which is engaged the edge *b* of a board 1 (Fig. 2). The center portion of the joint 2 has an unfilled hollow portion O enabling the large angular movement to be made without stress upon the material. The edge *a* of each board 1 engages in the groove 3 of a protection member 5 having a generally U-shaped cross section.

The boat is furthermore provided with holding devices which tend to hold the two boards 1 in the open position (Figs. 3 and 5). The said devices are each constituted by two levers 6, 7 hinged at 8 by one of their ends to the inner face of each board 1, their other ends being hinged one to the other at 9. A lug 10 integral with one of the levers defines their open position, the latter then forming a knuckle-joint. A safety peg 12 is provided in order to ensure the open position of each lever 6, 7 and avoid any possibility of inopportune closure of the two boards one against the other through a break of the knuckle-joint formed by the levers 6 and 7. As shown in Fig. 3, the two boards 1 in the open position have a V shape the opening of which, in the central part of the boat, is larger than in its end parts.

A floor-board 13 constitutes the bottom of the boat. said floor-board 13 is formed by plane elements, for example, in plywood which rest on supports 14 fixed to the inner faces 11 of the boards 1.

In order to confer satisfactory stability to the boat, floats 15 are secured to the outer walls of the side boards 1. The said floats are each constituted by a cylindrically shaped bag, elongated and tapered at its ends. Each bag has a cross section of a generally semi-circular shape. The plane wall 16 of the semi-cylinder is reinforced and provided with fixing members 17 for securing the float to the board 1. A valve 18 passing through the board 1 allows one to inflate the float from inside the boat and of deflating the same.

The trials carried out have proved that a boat such as the one described has an excellent stability and constitutes a pleasure boat, ideal for camping, for example. Indeed, its transport in the folded state (the two boards 1 being folded back one against the other and the floats 15 being deflated) offers no difficulty, all the more so that its weight is very light in comparison with the weight of all known folding boats comprising a rigid hull and that, moreover, its constitutional elements are plane.

An embodiment of a folding boat according to the invention has been described by way of example and with reference to the annexed drawing, but it is obvious that many varied forms may be provided.

Thus, for example, the side floats 15 instead of being removable as described above may be permanently fixed to the side boards 1. In another embodiment, the said floats could be of light metal such as aluminum or of wood for example. The said rigid floats may be fixed rigidly or in a removable manner to the side boards 1.

In another embodiment of the boat according to the invention, the two side boards could be rigidly connected one with the other and in an impervious manner, by means of a joint constituted by a generally triangular shaped member, rigidly fixed to the boards 1 inside the boat, along the edges *b*. In such a case, the boat cannot be folded, but preserves all its lightness. It is obvious that such a non-folding boat is also provided with rigid or inflatable floats fixed rigidly or in a removable manner to the outer walls of the side boards 1.

In another embodiment, each holding device or spreading device could be constituted by a single lever hinged to one of the side boards and bearing against the other board.

Figs. 6 and 7 illustrate a raft built of a removable floor A, connecting rigidly two hulls B of a boat, disposed parallelly one to the other, said hulls B are in all points like the boat described with reference to Figs. 1 to 5, however their side boards 16 are not provided with floats. This kind of raft enables the quick realisation of a pontoon with the help of foldable members which are easily transportable in a very little volume.

I claim:

1. A folding boat comprising a hull formed of two plane sideboards tapered at their ends, an impervious joint connecting said two sideboards one to the other along their lower edges, means for holding the upper edges of said sideboards away one from the other, said impervious joint being in the form of a hinge having a curved axis and made of a shaped piece of supple and elastic material, said hinge having a U-shaped cross section, the central part of said U-shaped cross section having a constant thickness, an unfilled hollow portion in said central part, a longitudinal groove formed in the

end of each of the wings of said U-shaped hinge, said lower edges of said two sideboards engaging said grooves, whereby said two sideboards are connected one to the other in a watertight manner along the whole length of their lower edges by means of said hinge which enables the folding and the unfolding of said folding boat.

2. A folding boat as claimed in claim 1 and comprising further a float fastened on the outer face of each of the said sideboards of said hull.

3. A folding boat as claimed in claim 2 and in which said floats are each of elongated shape and tapered at both ends, said floats having a cross section of a general semicircular shape.

4. A folding boat as claimed in claim 3 in which said floats are removably fastened to said outer faces of said plane sideboards.

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