

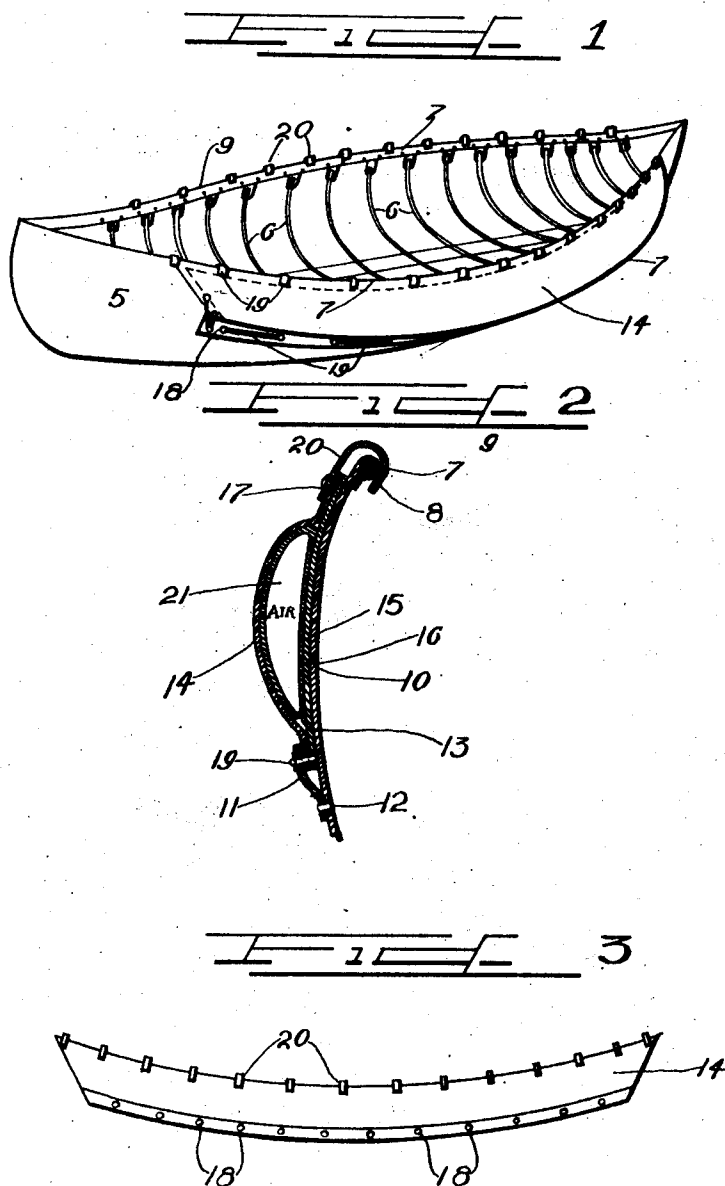
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BOAT

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INVENTOR

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UNITED STATES PATENT OFFICE.

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BOAT.

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The invention relates to improvements in boats and especially in such for example as row boats, skiffs, canoes and the like.

One of the objects is to increase the buoyancy of boats without very materially increasing the weight or dimensions of such crafts.

Another object is to materially stabilize boats by placing the buoyant members longitudinally thereof outside of and substantially parallel with the gunwales, and thus prevent "crankiness" of the vessel.

A further object is to provide an improved means of fastening buoyant members to boats.

A still further object is to reinforce the side walls of canvas boats by application thereto of at least two sheets of canvas comprising the container for the removable buoyant members.

And another object is to improve means for attaching buoyant members to boats.

Other objects, advantages and benefits of the invention will become apparent, to persons skilled in the art, from a consideration of the following description when taken in conjunction with the drawings, wherein:

Figure 1 is an isometric perspective of a boat showing the invention applied thereto;

Figure 2 is an enlarged cross section through one of the side walls of the boat and the buoyant member attached thereto; and

Figure 3 is a longitudinal and elevational view of one of the canvas attaching means.

In all the views the same reference characters indicate similar parts.

As shown on the drawings:

The invention is especially adaptable for use in connection with canvas boats although it may be used with benefit on boats made of wood, metal or other rigid material.

In the drawings I have shown a canvas boat 5, having metal ribs 6—6 and gunwales 7—7 in which there is a wire 8 covered with canvas, as at 9.

The wall 10 is of canvas and located outside of the ribs. Near the keel of the boat and substantially parallel with the gunwales of the boat, and one on each side, is a flap 11 secured to the wall 10 by stitching 12, or otherwise. This flap has grommets at intervals through its upper edge.

A pocket structure 13 is made of two sheets of fabric 14—15 to contain an elongated inflatable tube 16.

The sheets 14 and 15 are secured together

at their top edges as at 17 and separated at their lower edges. These lower edges have registering grommets 18 at intervals corresponding to the grommets in the flap 11 to receive the lacing cord 19. At intervals, hooks 20 are attached to the upper edges of the members 14 and 15 to hook over the gunwales 7—7, as clearly shown in Figure 1.

An elongate, imperforate, inflated tube 21 is to be contained in the pocket 13 formed by the sheets 14 and 15 and serves as the buoyant member.

The tube 21 may be made of rubber, similar to the inner tubes of automobile tires and may be inflated and deflated in the same manner.

The pocket members 14 and 15 are secured in place by the hooks 20. The tube 21 is then placed between the sheets and the lower edges of the sheets, 14 and 15, are laced together and to the flap 11 through the grommets.

The buoyant elements including the members heretofore described, may be quickly separated, the tube deflated and the parts folded or rolled into relatively small packages for transportation or storage.

I am aware that many changes may be made and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted hereon, otherwise than necessitated by the prior art.

I claim as my invention:

1. A buoyant element for a boat comprising an elongated inflatable tube, in combination with a boat; a fabric flap attached by its bottom edge to the boat substantially parallel with the gunwale of the boat and having attaching members at its top edge to engage a covering member and a covering member having cooperating attaching means near its bottom edge to secure it to said flap and having hooks at its top edge to secure it to the gunwale of the boat.

2. A detachable buoyant element for a boat comprising an elongated pocket having two sheets of fabric secured together at their upper edges, each sheet at its lower edge having fastening means normally disconnected; an elongated inflatable tube to be contained in the aforesaid pocket; means to secure the lower edges thereof together and to a boat to hold said tubes therein and hooks at intervals along the upper joined

edges of said pocket to secure said pocket to the gunwale of a boat.

3. A detachable buoyant element for a boat comprising an elongated pocket having
5 two sheets of fabric secured together at their upper edges, said sheets having cooperating grommets at intervals along their lower edges; an elongated inflatable tube to be contained in said pocket between said sheets;

an elongated flap having corresponding 10 grommets in its upper edge whereby to lace said sheets and flap together and means at the upper edges of said connected sheets for engagement with the upper longitudinal 15 edge of the boat.

In testimony whereof I have hereunto subscribed my name.

ERNEST H. HARPER.