This invention relates to a sectional boat that can be readily disassembled for transportation and re-assembled for use.

It is an object of the invention to provide a strong collapsible boat construction.

Collapsible boats are not broadly new. I feel, however, that the construction that I have devised has great merit from the point of view of simplicity, ruggedness, strength, and cost of manufacture.

A sectional boat according to my invention comprises a plurality of mating sections, each with tubular housing means that aligns with similar tubular housing means on an adjacent section. Rods within the housing means extend between adjacent housings to maintain the mating sections in locked relation. To dis-assemble the boat the rods are slid within the housings to remove a free end thereof from one of two mating sections whereby to unlock the mating sections for disengagement. The sections, of course, can be caused to mate again and the rods actuated to traverse the two aligning housings whereby to again lock them in position.

The invention will be clearly understood after reference to the following detailed specification read in conjunction with the drawings.

In the drawings:
Figure 1 is a plan view of a boat according to the present invention broken away in portions to show construction.
Figure 2 is a side view of Figure 1.
Figure 3 is a sectional view on the line 3—3 of Figure 1.
Figure 4 is a detail illustrating the manner in which the upper edge of the boat is constructed.
Figure 5 is a detail illustrating the manner in which the mating sections are formed.
Figure 6 is a view similar to Figure 5, but illustrating the mating sections in locked engagement.
Figure 7 is a view illustrating detail of the locking of the mating sections.

Referring to the drawings, the numeral 10 generally indicates a sectional boat constructed in accordance with my invention. It comprises a plurality of mating sections 11, 12, 13, 14 and 15 which mate along lines that extend across the boat. The sections can be made from any suitable material such as aluminum, or reinforced moulded plastic.

A detail of the mating joint is illustrated in Figure 5, from which it will be seen that the sections are caused to mate by dropping the tongue and grooved marginal edge of one section over the complementary tongue and grooved marginal edge of the other. They are automatically locked in a direction extending longitudinally of the boat. Resilient seals 16 and 17 extend around the marginal edge of each of the mating sections to ensure that the joining is waterproof.

When the sections of the boat are in mating relation, they are locked in position by means of locking bars generally indicated by the numeral 18 that slide within housings 20 on the inside bottom of the boat. The housings 20 on adjacent sections form a continuous line from the front to the back of the boat as will be seen from Figure 1. There are in the embodiment illustrated nine series of housings on the inside of the boat extending from the back to the front of the boat. The number provided will, of course, depend on the strength required.

The free ends of the bars 18 mate as illustrated in Figures 5 and 6 and are designed such that they enter into mating relation as adjacent sections are placed one over the other as illustrated in Figure 5.

When the boat is in the assembled position, the bars 18 traverse the joints between the mating sections as illustrated in Figure 6 of the drawings. The bars 18 are, however, as previously indicated, slidtable within the housings 20 and can be withdrawn from the position illustrated in Figure 6 to a position where their mating connection with an adjacent bar overrides the mating joint of the adjacent sections whereby the sections can be disassembled one from the other.

It will be appreciated that the general contour of the bottom of the boat followed by the housings 20 will have to be substantially straight or substantially the arc of a large circle so that the locking bars 18 can reciprocate therein to the extent that they must to move from the locked to the unlocked position.

The bars 18 are caused to slide within the housings 20 on the inside of the boat by means of the turnbuckles 21 to each of which is rigidly attached a threaded bolt 22 and a threaded bolt 23. The turnbuckle is mounted for rotation and, as it is turned, the bolts 22 and 23 rotate to force the rods 20 along the threads thereof to the locked and unlocked positions. It will be noted that the thread on bolts 22 and 23 is in the opposite direction so that as the buckle is turned the rods on both sides of the turnbuckle will move either away from or towards it. When the rods have been all actuated to a locked position, a cable 24 is passed through a hole 25 in each turnbuckle 21 to lock them from rotation in use.

Numerals 26 refer to an air inflated balloon rim for the boat. When in a deflated position the solid hard rubber rim 27 thereof is slid sideways into the winged opening 27a in the upper edge of the aligned boat sections are illustrated in Figure 4 and the balloon-like edge is inflated through a valve that is not illustrated.

I have described the housed locking bars on the inside of the boat. As will be appreciated, the bars can take a variety of forms and on the outside of the boat I have illustrated an alternative form of locking bar. In this case, the bars do not interlock at their free ends, and instead of being actuated from a locked position from a point adjacent the middle of the housing, they are actuated from the ends.

I have illustrated bars 29 within housings 30 that are actuated from a locked position to the unlocked position, and vice versa, by means of bolts 31 threaded into blocks 32 in the end housings of a series. In Figure 7 the bars are illustrated in a locked position, that is, traversing the joint between the sections of the boat. To release the bars from this position it would be necessary to turn out the bolt 31 at the right-hand side of the illustration and tighten the bolt 31 at the left-hand side of the illustration to force the bars to a position where their free ends were in line with the joint between the sections.

Embodiments of my invention other than the one shown will be apparent to those skilled in the art. For example, it is not necessary that the housing means for rods should be aligned from the back to front of the boat. The housing means for each individual joint only need be aligned. Further, the joint in the boat could ex-
3 tend longitudinally thereof and the rod means could extend across it.

What I claim as my invention is:

1. A sectional boat comprising, a plurality of mating sections, locking bars traversing the joint between adjacent mating sections to lock adjacent sections in mating relation, said locking bars extending longitudinally of said boat and mating with an adjacent one, housing means on said sections for said locking bars, said locking bars being slidable within said housings from a position as aforesaid where they traverse the joint between adjacent mating sections to a piston where they do not traverse the said joint between said mating sections, said mating sections and said locking bars being separable when said locking bars are in said latter mentioned position.

2. A sectional boat claimed in claim 1, in which resilient seal means are provided between said mating sections.

3. A sectional boat as claimed in claim 1, having an air inflated rim extending substantially around its upper edge.

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