UNITED STATES PATENT OFFICE

WILLIAM H. OWEN, OF IDALOU, TEXAS, ASSIGNOR OF ONE-FOURTH TO WILLIAM GROAT, OF IDALOU, TEXAS, AND ONE-FOURTH TO J. W. HUFF, OF LUBBOCK COUNTY, TEXAS

NONSINKABLE HULL FOR VESSELS

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The present invention relates to a non-sinkable hull for vessels and aims to provide a hull of this character having a series of air containing cells, compartments, or chambers therein constructed and arranged in such a manner that the walls of each cell or compartment will support other cells or compartments so as to eliminate damage to a great extent to a great number of compartments in case of damage to the hull.

Another object of the invention is to provide a series of cells or compartments in the hull of a vessel around and below the water level, each cell or compartment having lint cotton, or like material, tightly packed therein and air forced therein under pressure.

A further object of the invention is the provision of an air line to each cell or compartment, each of said lines having an air gauge and check valve thereon so that all cells or compartments may be regulated to contain the same pressure therein and to permit the determining without delay what cells are leaking or have been damaged in case of an accident.

It is also an object of the invention to provide a novel and improved hull of this character which is substantial in construction, may be easily constructed during the constructing of a hull of a vessel, and which will be thoroughly efficient and practical in use.

With the foregoing and other objects in view, which will be apparent as the description proceeds, the invention resides in the construction and arrangement of parts, as hereinafter described and claimed, it being understood that changes can be made within the scope of what is claimed, without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a horizontal section taken through the upper series of cells or compartments,

Figure 2 is a like section taken through the lower cells or compartments, and

Figure 3 is a vertical cross section taken on line 3—3 of Figure 1.

In carrying out the invention, the hull 10 is constructed with the usual side walls 11, and bottom wall 12. Spaced from the bottom wall 12 to extend across the hull and attached to the side walls 11 is a partition 13 the center portion of which forms a floor. Between the horizontal partition 13 and the bottom 12 are a series of longitudinally extending walls or partitions 14, between which and the sides of the vessel are diagonal partition plates 15, providing compartments 16 triangular in cross section. The partition plates 15 are arranged so that the corners of each compartment connect at the corners of contiguous compartments, thus providing a rigid structure for the hull which will reduce to a great extent the collapsing or damaging of a great number of compartments when a severe blow or shock occurs at the walls of the hull of the vessel. By referring to Figure 2 of the drawings, it can be seen how each compartment is reinforced or supported against damage by other compartments.

Supported upon the partition or floor 13 at each side of the hull and at each end thereof are longitudinal and diagonal partitions 19 and 20 respectively providing compartments 18 triangular in cross section. There are no compartments 18 in the center of the vessel but only at the sides and ends of the hull thereof, thereby providing a longitudinal chamber or room at the center of the hull of which the central portion of the partition 13 forms the floor. The longitudinal partitions 19 extend the full length of the hull and the diagonal partitions between the same and the sides of the vessel form the triangularly shaped compartments. It will be noted at the ends of the hull the triangularly shaped compartments are arranged at right angles to those at the side walls so that in case the bow or stern of the vessel strikes an object or is struck by an object, the undamaged compartments will support the hull being braced against water pressure in the damaged compartments.

Each of the compartments is filled with lint cotton, or like material, packed in very tightly, and connected to each of the compartments is an air line 22 which extends to a point above the floor 13 at the center of the hull. Each air line is provided with an air...
horizontal partition at opposite sides of the center of the hull and extending slightly above the water line, horizontal partitions connecting the upper ends of the last mentioned longitudinal partitions to leave an open space at the center of the hull above the lower horizontal partition, and diagonal partitions between the aforesaid longitudinal and transverse partitions to form a large number of compartments triangular in cross-section around the vessel at the water line; together with pipe lines leading from the compartments to the open space or room at the center of the hull between the compartments at the water line.

In testimony whereof, I have affixed my signature.

WILLIAM H. OWEN.