July 16, 1963 J. E. BROWNING 3,097,374

ALUMINUM LIFE FLOAT WITH PLYWOOD PLATFORM

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FIG. 1

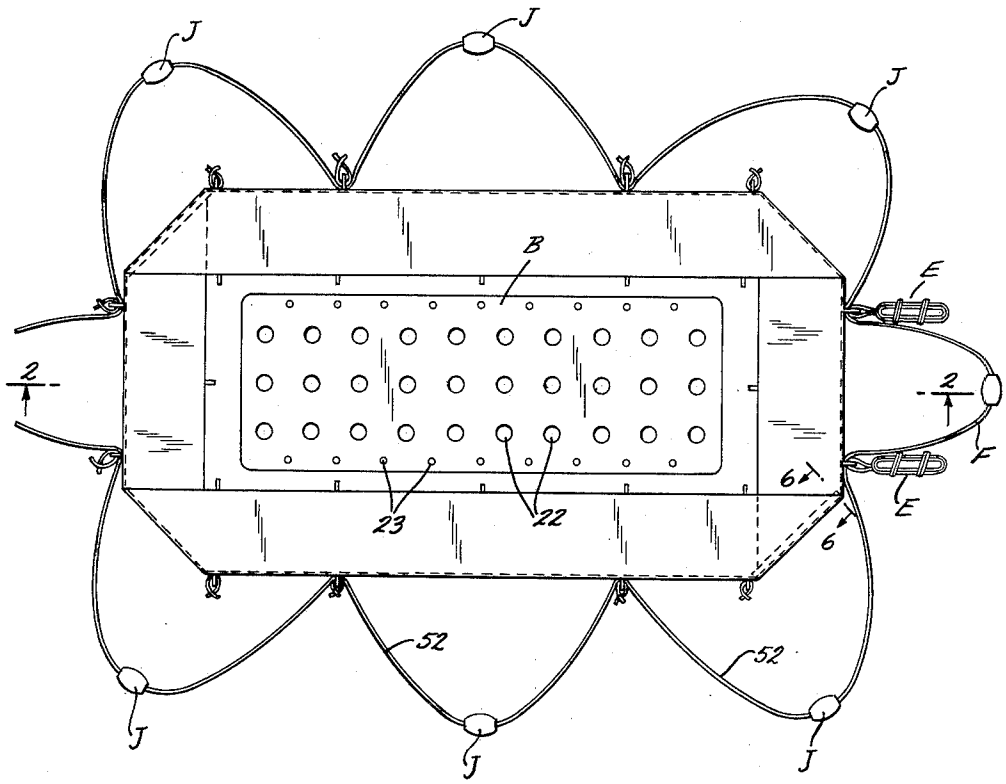
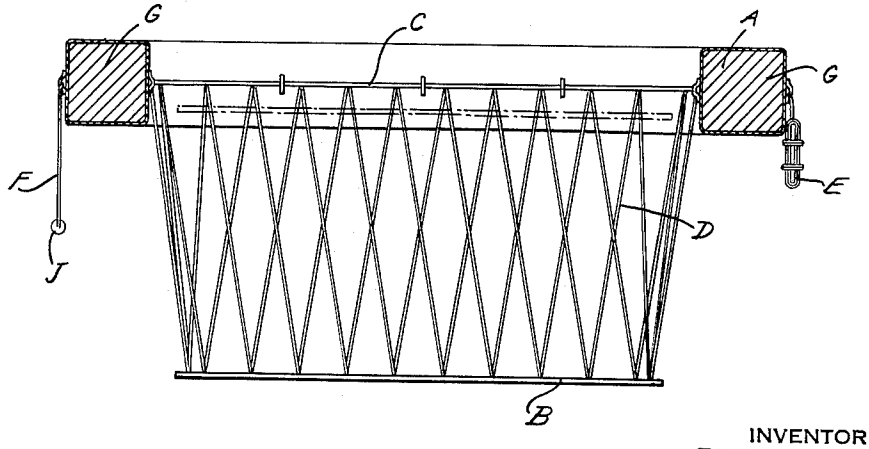


FIG. 2



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FIG. 3

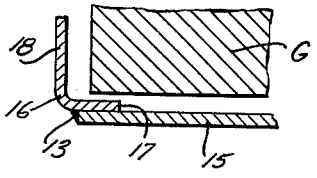


FIG. 4

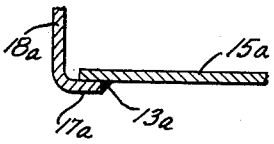


FIG. 5

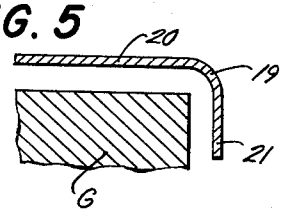


FIG. 6

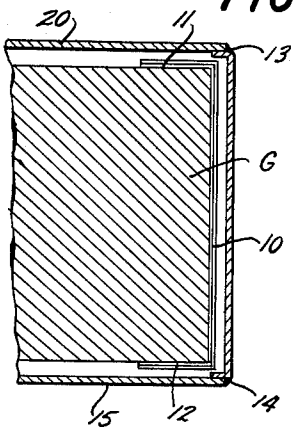
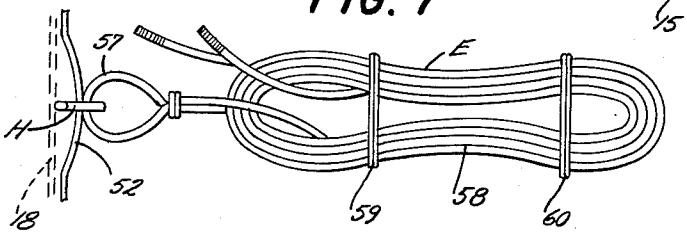


FIG. 7



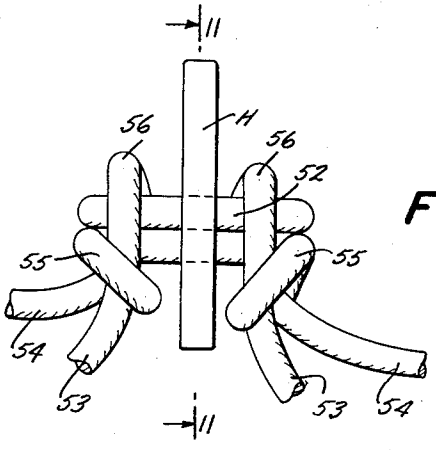


FIG. 8

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FIG. 9

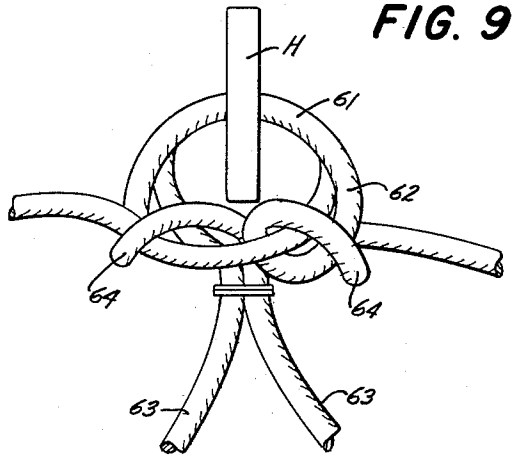
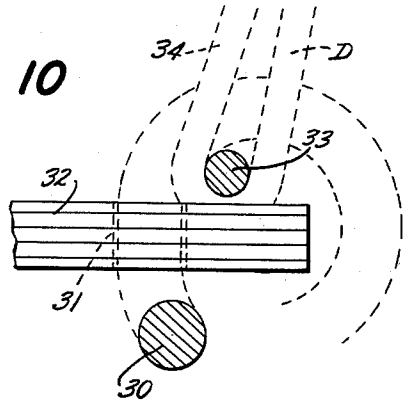


FIG. 10



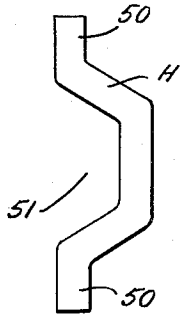


FIG. 11

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3,097,374

ALUMINUM LIFE FLOAT WITH PLYWOOD PLATFORM

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1 Claim. (Cl. 9—11)

The present invention relates to an aluminum life float construction with a plywood platform.

It is among the objects of the present invention to provide a simple life float arrangement made of aluminum which may be readily stacked and stored upon a ship deck and which will be reliable in operation and which is capable of supporting a relatively large number of people, ranging up to seven to fifteen persons, in case of disaster or accident at sea.

It is another object to provide a simple, lightweight aluminum life float construction which may be utilized as an auxiliary life saving means on vessels and which will have high buoyancy and permit extra life saving capacity, with a minimum of space consumption during normal operation of the vessel.

Still further objects and advantages will appear in the more detailed description set forth below, it being understood, however, that this more detailed description is given by way of illustration and explanation only and not by way of limitation, since various changes therein may be made by those skilled in the art without departing from the scope and spirit of the present invention.

In accomplishing the above objects according to one embodiment of the present invention there is provided a rectangular ring member or shell formed of aluminum foil or thin aluminum metal which may enclose expanded or porous styrene in block form or in rod form which may be of the type known as "Styrofoam" or "Dylite."

The enclosure is desirably formed of aluminum plates which are welded together so as to enclose the styrene in its porous expanded condition and this rectangular frame is desirably centrally provided with a pendant platform of plywood which is suspended by a large number of ropes or cords hitched together by diagonal connections on the internal face of the rectangular frame.

By varying the dimensions of the float from 7'6" in length and 4' in width with a cross-sectional area of 10½' x 10½', it is readily possible to supply a float which will securely support from seven up to fifteen persons.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described, and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which fall within the scope of the claim hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:

FIGURE 1 is a top plan view of the float showing the outside frame and the interior plywood platform.

FIG. 2 is a transverse, sectional view upon the line 2—2 of FIG. 1, showing the float upon the water and with the platform in loading position.

FIG. 3 is a transverse sectional view taken of one of the corners of the float as indicated in FIG. 2, showing the manner of joining the exterior aluminum enclosure.

FIG. 4 is a sectional view similar to FIG. 3 of an alternative corner construction.

FIG. 5 is an upper corner construction shown in small scale at FIG. 5 in FIG. 2.

FIG. 6 is a transverse sectional view taken upon the line 6—6 of FIG. 1 and upon an enlarged scale as compared to FIG. 1.

FIG. 7 is a side elevational view diagrammatically illustrating how the pendants of FIG. 1 are attached to the side of the aluminum frame.

FIG. 8 is a top elevational view showing the method of attaching the life line and pendants to the interior clips which are shown in small scale in FIGS. 1 and 2.

FIG. 9 is an alternative method of attaching the life line and pendants to the clips shown in small scale in FIGS. 1 and 2.

FIG. 10 is a transverse sectional view upon a large scale showing the attachment of the diagonal net support for the platform attached to the interior of the aluminum frame.

FIG. 11 is a transverse vertical sectional view taken upon the line 11—11 of FIG. 8.

Referring to FIGS. 1 and 2 there is shown a rectangular or encircling enclosure A provided with a central plywood platform B.

The plywood platform is suspended by an interior rod or engagement C to a diagonal system of manila or sisal ropes which are connected to the interior of the frame A at the top and to the sides of the plywood platform D at the bottom.

Around the platform there will be a series of pendants and floats with float lines indicated at E and F, respectively.

Referring specifically to the interior filler material G this consists of blocks or rods of suspended porous styrene which cannot be penetrated by liquid or gas and which is the form known as "Styrofoam" or "Koppers Dylite" having a minimum density of 1.2 lbs. per cubic foot and a maximum density of 2 lbs. per cubic foot with a preferred size of 10" x 10" with the various blocks either sealed together or welded together.

These blocks indicated at G are wrapped at their outer sides by a double layer of aluminum foil 10 which is extended at 11 and 12 over the top and bottom faces of the block G.

These blocks are positioned interiorly of the aluminum plate structure with about ¼–1/16 spacing, the aluminum preferably being of 14 gauge and having welded corners as indicated at 13 and 14 in FIG. 6.

As shown in FIG. 3, for example, the bottom plate 15 may be welded at 13 to the corner 16 of the inturned portion 17 of the side plate 18. As an alternative construction the bottom plate 15*a* may be welded at 13*a* to the inturned flange 17*a* having the main plate member 18*a* (see FIG. 4).

The other corners as indicated at 19 in FIG. 5 are formed by bending the top plate 20 and side plate 21, as indicated, and the continuous portion extending from 20 to 21 is desirably on the inside of the frame structure A.

The platform B is preferably provided with a large number of large openings 22 and small openings 23 which will permit water to pass therethrough and these openings may be placed on 6" centers and may consist of 2" diameter holes.

The outer openings 23 as shown in FIG. 2 may be utilized for attachment of the diagonal rope members D.

The rope member D at its upper end has a line 30 extending through the opening 31 in the rod or frame member 32. This platform line 30 loops around the net line 33 and is connected to the loops 34 of the diagonal rope members D. Both the top and bottom may be similarly connected.

In connection with the side clips H which are mounted on the outside face of the walls 18 by the feet 50, there is left the opening 51 through which the rope loop 52 may extend.

As shown, the life lines and pendants 53 and 54 may

be connected by the overhand knots 55 to the loop portions 56 to give a permanent connection.

As shown in FIG. 7, the life line ropes 52 extend along the side walls 18 being held in position by the clips H with the loops 57 of FIG. 7 also holding the pendants E in position.

As indicated the pendants E consist of the coiled roping 58 tied together by the encircling members 59 and 60.

In the alternative construction shown in FIG. 9 the clip H receives the loop 61 of the life line 62 with the pendant 63 being engaged thereto by the knots 64. This is an alternative method of attaching the life line 52 and the pendants to the sides of the aluminum foil containing the porous or expanded styrene.

The floats J are attached to the life line.

The applicant has provided a simple, compact aluminum life float construction with a plywood platform which may be readily stacked and stored on a ship deck with minimum space consumption and which may be readily floated and which for its relatively light weight and small size has a high capacity for carrying a large number of persons, from seven to fifteen, depending upon its dimensions.

While there has been herein described a preferred form of the invention, it should be understood that the same may be altered in details and in relative arrangement of parts within the scope of the appended claim.

Having now particularly described and ascertained the nature of the invention, and in what manner the same is to be performed:

What is claimed is:

An aluminum life float with a plywood platform comprising a horizontal rectangular floating structure, a plywood platform suspended therefrom, said structure including a rectangular tubular metal member formed of thin sheet aluminum of rectangular cross section, a plurality of rectangular expanded polystyrene blocks placed in end to end contact and extending as continuous columns in and through the sides of the structure, said blocks being of smaller dimensions than the rectangular cross section so as to leave a spacing between the outer faces of the blocks and inside faces of the thin sheet aluminum and thin flexible foil covering on said polystyrene blocks along the outside faces and adjacent top and bottom faces thereof, said thin sheet aluminum being readily dented and said polystyrene being protected against damage and rupture upon denting of the aluminum by said spacing and said foil covering, said suspension of the plywood platform consisting of a plurality of rope members attached midway of the height to the inside vertical faces of the rectangular structure, said platform being of smaller length and width than the interior opening of the structure and said ropes extending obliquely inwardly from the structure to the platform.

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