March 5, 1946. H. J. BEAN 2,396,148

LIFESAVING AND SPORTING RAFT

Filed Nov. 9, 1943 2 Sheets-Sheet 1

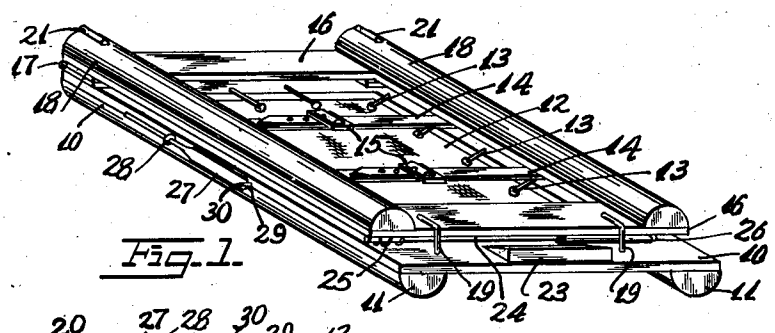


Fig. 1.

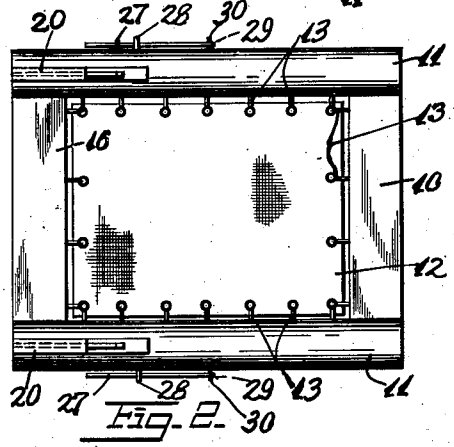


Fig. 2.

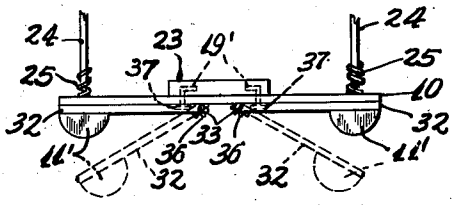


Fig. 6.

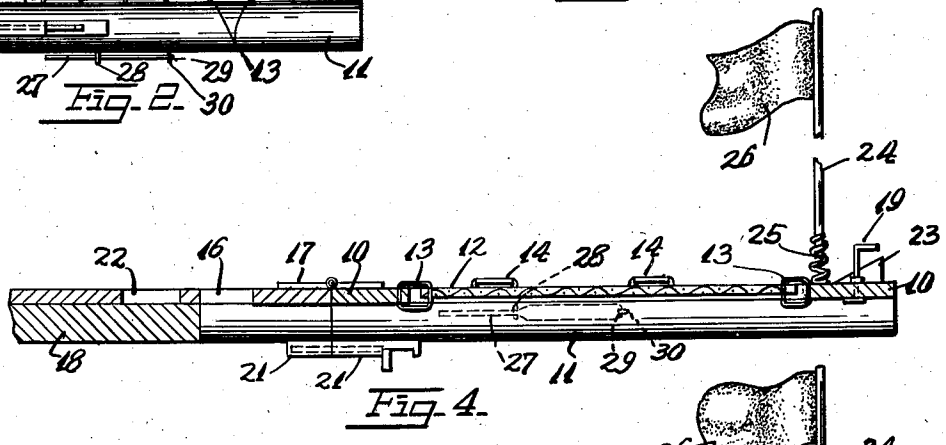


Fig. 4.

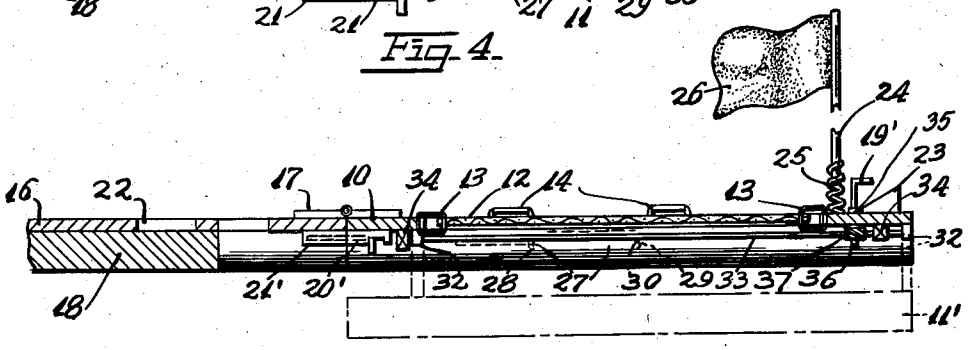


Fig. 7.

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LIFESAVING AND SPORTING RAFT

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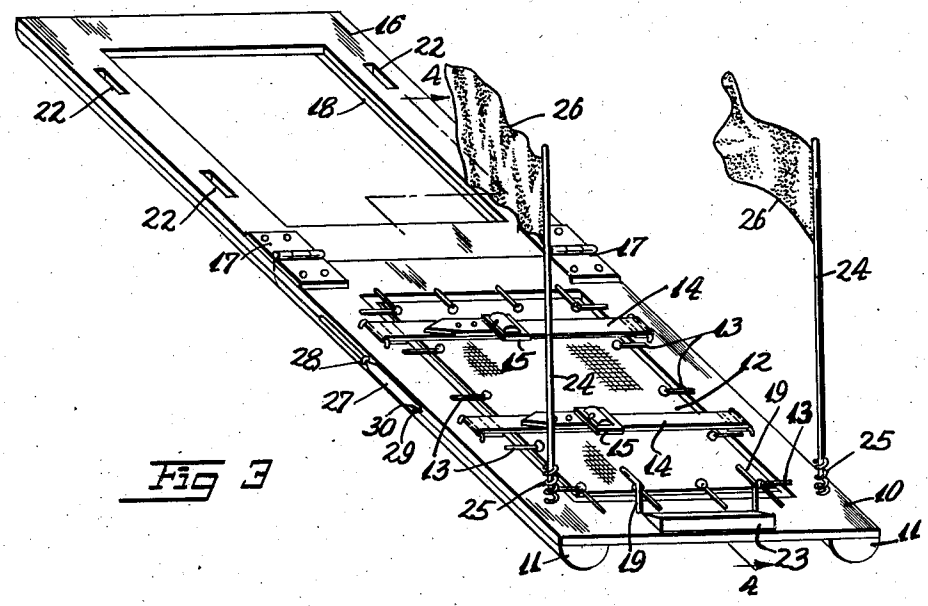


Fig. 3

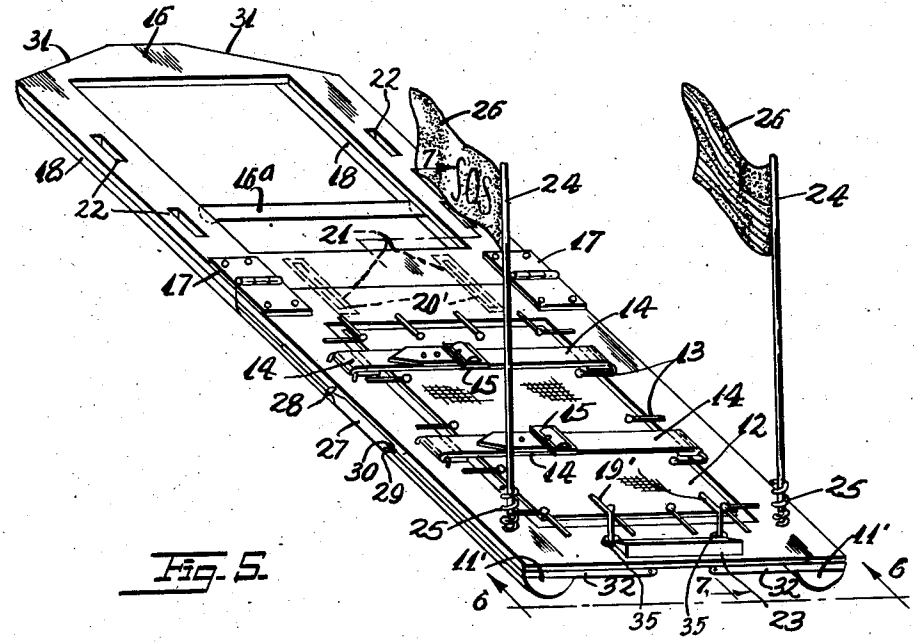


Fig. 5.

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UNITED STATES PATENT OFFICE

2,396,148

LIFESAVING AND SPORTING RAFT

Harry J. Bean, Brooklyn, N. Y.

Application November 9, 1943, Serial No. 509,547

2 Claims. (Cl. 9—11)

This invention relates to new and useful improvements in a life saving and sporting raft.

More specifically, the invention proposes the construction of a novel foldable raft adapted to amuse adults and children at beaches and the like and which can be provided in numbers aboard ship providing a novel device for saving lives in the event the ship meets with disaster while at sea.

Another object of the invention proposes to characterize the raft by a head section and a foot section having adjacent ends pivotally connected together to be foldable into a superimposed position in a manner to reduce the overall size of the raft to permit a number of them to be stored within a minimum of space.

A still further object of the invention proposes a means for locking the sections in an end aligned position and to provide the bottom of the sections with floats along the sides thereof in a manner to support and float the weight of one or more persons.

It is another object of this invention to movably support the floats of the head section and to provide means for adjusting the position of these floats relative to the head section in a manner to vary the floated position of the raft on the surface of the water.

Still another object of this invention proposes the construction of a life saving and sporting raft which is simple and durable and which can be manufactured and sold at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of a life saving and sporting raft constructed in accordance with this invention and in its folded condition.

Fig. 2 is a bottom plan view of Fig. 1.

Fig. 3 is a perspective view of the raft in its operative open condition.

Fig. 4 is a partial vertical sectional view taken on the line 4—4 of Fig. 3.

Fig. 5 is a view similar to Fig. 3 but illustrating a life saving and sporting raft constructed in accordance with a modification of this invention.

Fig. 6 is an end elevational view looking in the direction of the line 6—6 of Fig. 5.

Fig. 7 is a partial vertical sectional view taken on the line 7—7 of Fig. 5.

The life saving and sporting raft, according to this invention, includes a head section rectangular frame 10. This frame 10 is constructed of wood and is provided along its bottom face at the sides thereof with semi-cylindrical floats 11.

Semi-cylindrical hollow floats 18, made of any suitable material such as cork or aluminum and of water-tight construction are attached to the frame to render the raft buoyant.

A blanket 12 is positioned in the opening of the frame 10 and is held in position by means of rings 13 disposed between the adjacent edges of the frame 10 and the blanket 12. More specifically, the rings are engaged through openings in the edge of the blanket 12 and through complementary aligned openings formed in the adjacent edges of the frame 10. Straps 14 have their outer edges attached to the sides of the top face of the frame 10 and their inner edges closable by means of buckles 15. The straps 14 are spaced longitudinally of the frame 10.

A foot section rectangular frame 16 is pivotally attached to one end of the head section frame 10 by hinges 17. The frame 16 is also constructed of wood and is provided on its bottom face at the sides thereof with semi-cylindrical floats 18 of rubber tubing, cork, aluminum or any kind of floating material. The hinges 17 permit the frame 16 to be folded to a superimposed position upon the head section frame 10 as shown in Fig. 1. The frame 10 adjacent the free end of the frame 16 is provided with turnably mounted latches 19 engageable over the free edge of the frame 16 to retain the frame 16 in its folded position on the frame 10.

The latches 19 may be turned to the inoperative position shown in Fig. 3 and then the frame section 16 may be pivoted to the end aligned position with relation to the frame 10 as shown in Fig. 3. The frames 10 and 16 may be locked in this end aligned position by means of slidably mounted bolts 20 mounted upon the bottom faces of the floats 11 of the frame 10 and engageable with complementary keepers 21 mounted on the bottom face of the floats 18 of the frame 16. The sides of the frame 16 are formed with grip openings 22. As shown in Fig. 4 these grip openings extend only through the frame 16 and have their bottom ends closed by means of the top faces of the floats 18. These openings 22 provide a recess for accommodating the bulging clamps of the straps 14.

A small inclined block 23 is positioned adjacent the outer end of the frame 10 and a person laying on the raft is to rest his head on the inclined block 23. Flag poles 24 have their bottom edges attached to coil springs 25 which are in

turn mounted upon the top face of the frame 10 adjacent the outer edge thereof. Flags 26 are mounted on the top ends of the flag poles 24. The springs 25 retain the poles 24 in their normal vertical position shown in Fig. 3. However, when the frame 16 is pivoted to its superimposed position on the frame 10, the flag poles 24 are bent downwards laterally of the frame 10 to assume a position between the adjacent faces of the frames 10 and 16 and be retained in an inoperative position thereby, see Fig. 1.

Paddles 27 are provided for propelling the raft across the surface of the water. These paddles 27 are supported upon the sides of the frame 10 by having their handles slidably passed through eye members 28 mounted on the sides of the frame 10. The bottom ends of the paddles 27 are formed with slots 29 engageable with springs 30 also mounted upon the sides of the frame 10 to assist in supporting the paddles in an inoperative position extended horizontally along the sides of the frame 10. The paddles 27 are removed by disengaging the spring members 30 from the slots 29 and by then disengaging the handles from the eye members 28.

The manner of using the life saving and sporting float is as follows:

The frame sections 10 and 16 will be in the inoperative folded position shown in Fig. 1. To open the raft, the latches 19 are turned to an inoperative position and the frame section 16 is pivoted to an end aligned position with the frame section 10. The bolts 20 are engaged with the keepers 21 and the sections of the raft are locked in their operative position. The raft is picked up by gripping the same with one hand at one side and with the other hand at the other side thereof, so that the raft can be launched with the individual prone thereon, after which the person may turn face up if desired and the safety belt 14 can be fastened across the chest and waist, while the person's feet are upon the float rest. When the frame section 16 was pivoted to its operative position the flag poles 24 immediately snapped from their inoperative position extended laterally of the frame 10 to an operative position extended vertically of the frame 10.

A person may then stretch out on the raft with his head resting on the inclined block 23. If desired, the person may sit up and release the belt across his chest lower both feet into the water between the foot rest and the frame, pick up the paddles on both sides and row, at the same time allow the feet in the water to maneuver the float in any desired direction.

In the modification of the invention shown in Figs. 5 to 7, the construction of the raft is similar to that previously described except that the frame section 16 has its outer corners cut away as at 31, means being provided for adjustably mounting the floats 11' of the frame 10 for hinge movement relative to the frame and to provide a reinforcement for the frame section 16.

Each float 11' is mounted on the outer end of a pair of arms 32. These arms 32 extend inwards to the vicinity of the center of the frame 10 and have their inner ends attached to a rod 33 extended the length of the frame 10. The rod 33 is turnably supported in spaced brackets 34 mounted on the bottom face of the frame 10.

The latches 19' are turnably extended through frame 10 and held in position by means of collars 35 mounted on the latches 19' and which engage the faces of the frame 10. The bottom end of the latches 19' are provided with small worm pinions 36 which mesh with complementary worm pinions 37 mounted on the rods 33. Thus, when the latches 19' are turned the rods 33 will be turned through the medium of the pinions 36 and 37. This turning of the rods 33 will raise and lower the floats 11', depending upon the direction in which the latches 19' are turned.

In view of the fact that the floats 11' in this form of the invention do not maintain a fixed position the keepers 20' are mounted on the bottom face of the frame 10 and the bolts 21' with which the keepers 20' are engageable, are mounted on the bottom face of the frame 16. In other respects this form of the invention is similar to that previously described and like reference numerals identify like parts in each of the several views.

The flags 24 may also be eliminated when the device is used for sporting purpose and when a visible means for observation is not required.

It is to be understood that either the frame 16 or the frame 10, or both frames of the life saving raft may be shaped to terminate in a pointed end with curved walls.

Of the two flags 26, one is preferably a national flag and the other an S. O. S. flag used as a signal. The flags may also be used as sails for moving the raft.

Suitable blankets may be provided at both sides of the raft. The raft may be in large and small sizes to accommodate adults as well as children and they may be kept at suitable locations and in every berth of ships.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A life saving and sporting raft, comprising a head section rectangular frame having semi-cylindrical floats along its sides, a foot section rectangular frame having semi-cylindrical floats along its sides and being hingedly connected with said head section and movable from an end aligned position to a superimposed position, latch means for releasably holding said sections in their end aligned positions, and a blanket secured across the opening of said head section, said floats of said head section being movably mounted to move down and up relative to said head section, and means for adjusting said movable floats to various positions.

2. A life saving and sporting raft, comprising a head section rectangular frame having semi-cylindrical floats along its sides, a foot section rectangular frame having semi-cylindrical floats along its sides and being hingedly connected with said head section and movable from an end aligned position to a superimposed position, latch means for releasably holding said sections in their end aligned positions, and a blanket secured across the opening of said head section, said floats of said head section being movably mounted to move down and up relative to said head section, and means for adjusting said movable floats to various positions, said latter means being controlled by latches used for maintaining the frame sections in their superimposed position.

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