

May 25, 1943.

N. G. MARGOLIN ET AL

2,320,288

LIFE RAFT

Filed April 1, 1942

2 Sheets-Sheet 1

FIG. 1.

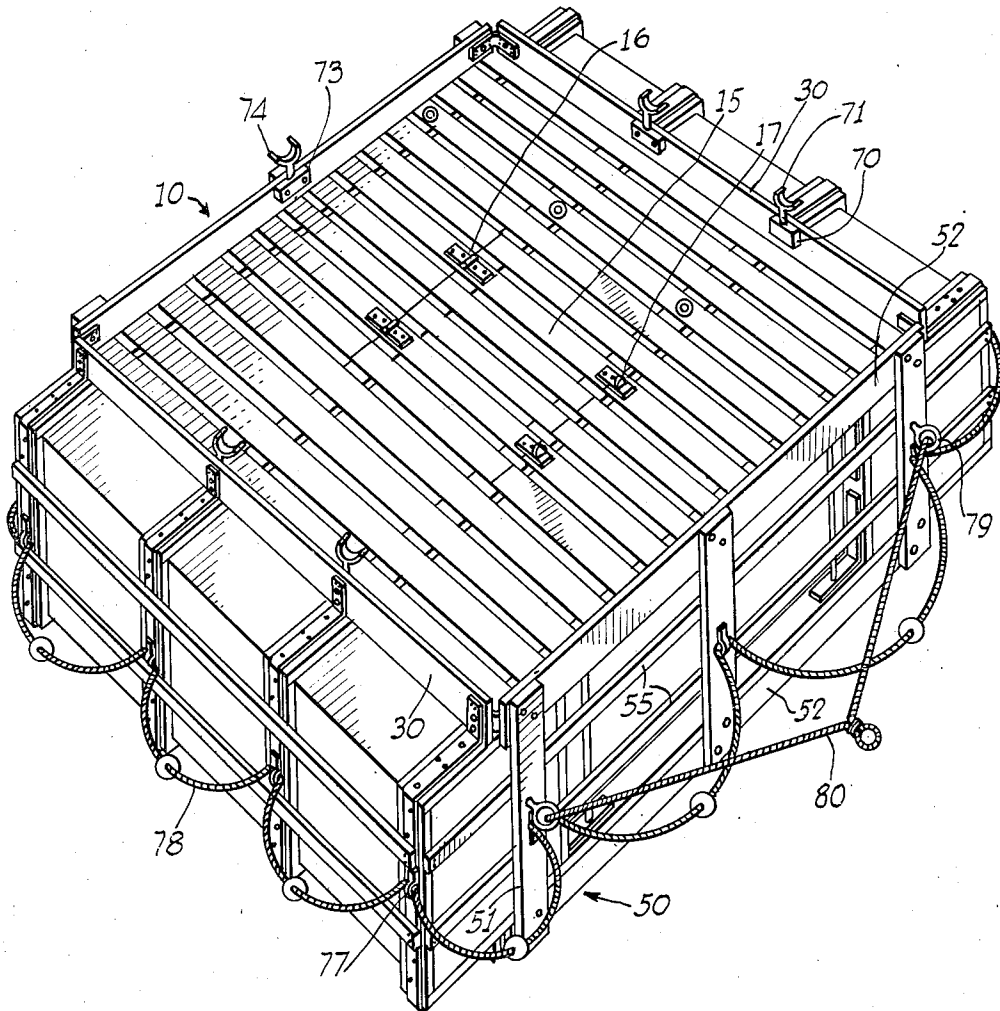
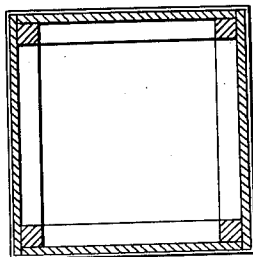


FIG. 4.



INVENTORS.
NATHAN G. MARGOLIN
AND WALTER P. WELLS.

BY

Carl Miller
ATTORNEY

May 25, 1943.

N. G. MARGOLIN ET AL

2,320,288

LIFE RAFT

Filed April 1, 1942

2 Sheets-Sheet 2

FIG. 2.

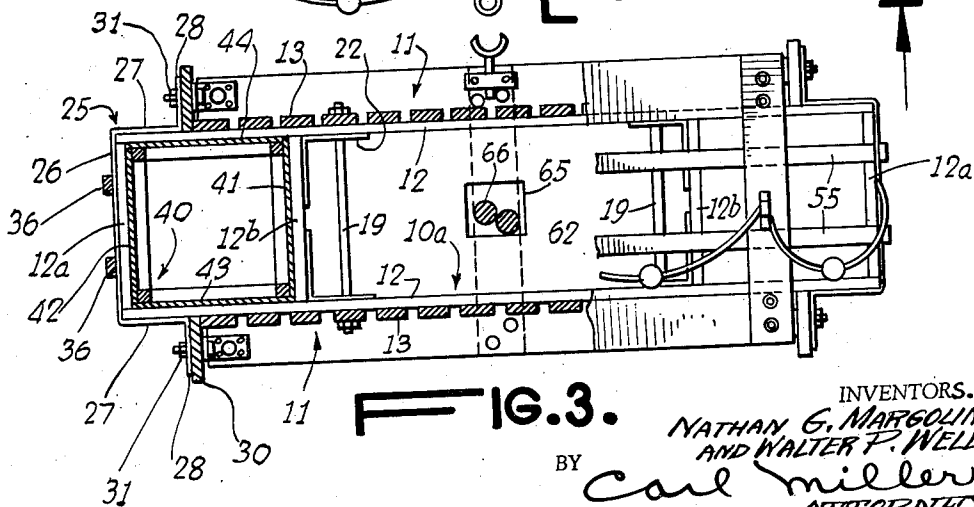
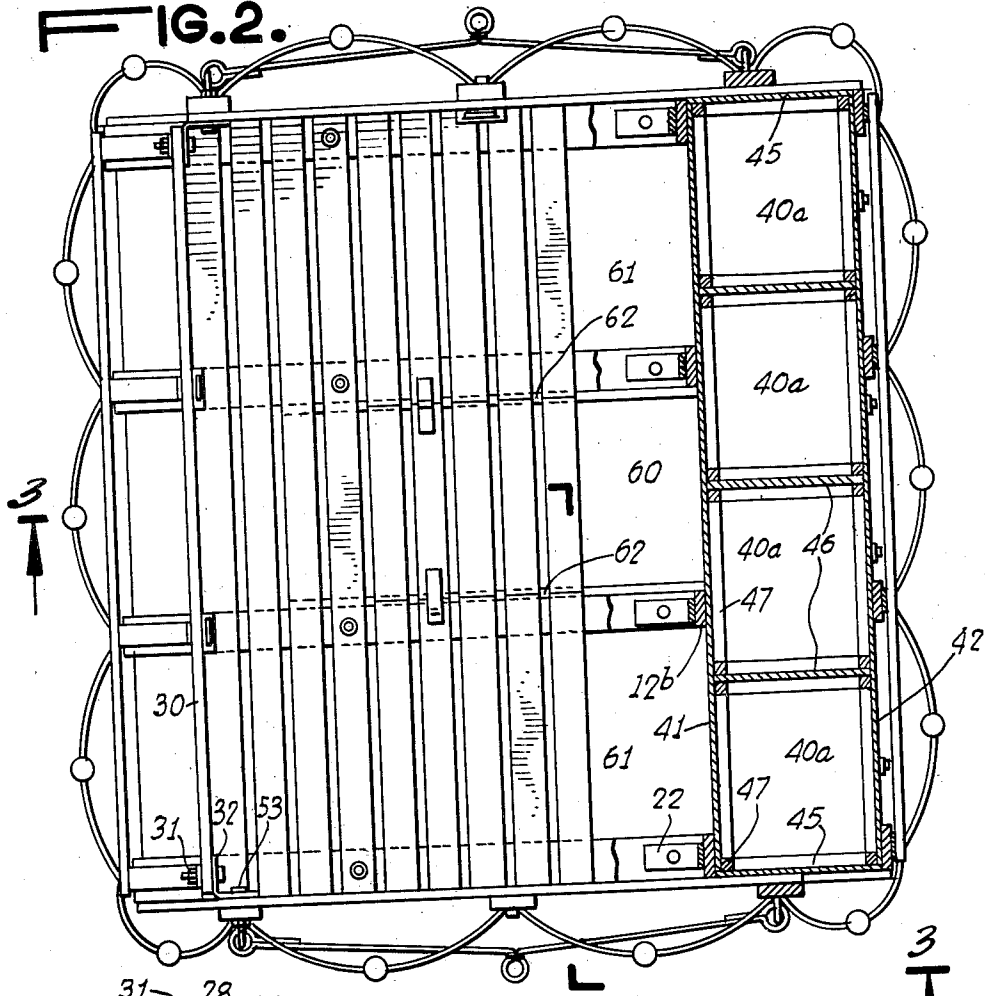


FIG. 3.

INVENTORS.
NATHAN G. MARGOLIN
AND WALTER F. WELLS.
BY *Carl Miller*
ATTORNEY,

UNITED STATES PATENT OFFICE

2,320,288

LIFE RAFT

Nathan G. Margolin, Brooklyn, N. Y., and Walter
F. Wells, Nutley, N. J.

Application April 1, 1942, Serial No. 437,218

1 Claim. (Cl. 9—11)

This invention relates to life rafts. It is particularly directed to a life raft.

An object of this invention is to provide a life raft provided with kapok filled pontoons and hatches between the pontoons.

A further object of this invention is to provide a raft which is symmetrically constructed about a horizontal plane passing through the mid-section of the raft, so that the raft may be used with either side up.

A still further object of this invention is to provide a raft of the character described, having improved means to support the oars and boat hooks.

Still another object of this invention is to provide a raft which may be easily handled, which is strong and durable in construction, which is relatively inexpensive to manufacture, and which shall yet be practical and efficient to a high degree in use.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the following claim.

In the accompany drawings, in which is shown one of various possible illustrative embodiments of this invention.

Fig. 1 is a top perspective view of a raft embodying the invention;

Fig. 2 is a top plan view thereof with parts broken away and in cross-section;

Fig. 3 is a cross-sectional view taken on line 3—3 of Fig. 2; and

Fig. 4 is a cross-sectional view through one of the pontoons.

Referring now in detail to the drawings, 10 designates a life raft embodying the invention. As will appear hereinafter, the raft 10 is symmetrical about a horizontal plane passing through the mid-section of the raft and also about a longitudinal vertical plane passing through the mid section of the raft.

The raft 10 comprises a plurality of parallel, spaced, aligned frames 10a, each comprising transverse, horizontal, top and bottom members 12 interconnected by vertical end members 12a and vertical members 12b, disposed inwardly of the outer ends of members 12. The framing members 12, 12a, 12b may be constructed of 1½ inch by 6 inch spruce planks.

The frames 10a are interconnected by flooring 11, comprising longitudinal boards 13 which may be of 1¼ inch by 4 inch spruce. The flooring 11 terminates short of the outer ends of the frames 10a, as illustrated in Fig. 3 of the drawings. The flooring 11 constitutes platforms, and the raft may be used with either platform at the top.

Each of the floors may be formed with a trap door 15, hinged as at one end 16, and adapted to be latched in closed position, as at 17. The flooring may be interconnected by vertical through bolts 19 passing through the frames 10a. Each of the vertical struts 12b may be braced to the members 12 by metal angle members 22, through which the bolts 19 pass.

It will be noted that there is a pair of bolts 19 on each frame 10a, and that said bolts are disposed inwardly of the struts 12b. The end struts 12a are firmly fixed to the ends of members 12 by metal straps 25. Each metal strap 25 comprises a vertical portion 26 contacting strut 12a, and the ends of members 12. Extending from vertical portion 26 of each strap 25, are horizontal portions 27 contacting members 12, and extending outwardly from portions 27 are vertical portions 28, disposed adjacent the outer ends of the floor 11.

Fixed to the ends of the flooring 11 are vertical rails 30 contacting the portions 28 of straps 25 and bolted thereto by bolts 31. Attached to the ends of rails 30 are angle shaped straps 32, fixed to members 30 by the bolts 31, for the purpose hereinafter appearing.

Attached to the end vertical struts 12a are a pair of horizontal grab rails 36. Supported by the frames 10a are a pair of horizontal, longitudinally extending pontoons 40. Each pontoon is supported between the struts 12a and 12b and top and bottom members 12. The pontoons 40 each comprise a vertical inner wall 41, a vertical outer wall 42, a bottom horizontal wall 43 and a top horizontal wall 44 and end walls 45.

Each of the pontoons is divided into compartments 40a by transverse vertical bulkheads 46. All pontoon seams are coated with phenol waterproof glue, and the seams are additionally screwed. Within each of the horizontal and vertical corners of the compartments 40a, is a corner piece 47 of soft pine or other wood, glued and screwed to the walls of the pontoon. All seams of the pontoon are preferably covered by canvas, and the walls of the pontoon are preferably made of weldwood.

At the front and rear ends of the pontoon are

similar, symmetrically disposed, end members 50. The end members 50 comprise vertical boards or planks 51, the upper and lower ends of which are interconnected by horizontal rails 52 aligned with the rails 30 and attached to arms of the angle arms 32, as by bolts 53. Attached to the inner side of the vertical members 51 are horizontal grab rails 55 additionally attached at the ends thereof to the vertical struts 12a of the end frames 10a. All adjoining wood surfaces between the pontoon members 12, 12a, 12b, as well as grab rails 55, are glued.

The space within the raft between the pontoons and the end members 50 are divided into a central hatch 60 and front and rear hatches 61, by a pair of transverse bulkheads 60. The trap doors 15 are located between the bulkheads 62 so as to give access to the hatch 60. The bulkheads 62 however are formed with central square openings 65 through which oars 66 may be passed so as to be supported thereon. Other articles may be passed into the slits 61 through the opening 65.

Attached to the inner sides of each of the side rails 30 are a pair of blocks 70 supporting oarlocks 71 with chains. The rails 52 at the rear of the raft may have attached thereto blocks 73 supporting centrally located oarlocks 74 with chains.

Attached to the vertical portions 26 of straps 25 and to the vertical boards 51 of the end members 50 are eyes 77 to support a seineline 78 all around the raft. On each of the end members 50 are a pair of eyes 79 to support a hemp bridle 80. The pontoons may be filled with kapok if desired. Supplies may be inserted into the locker or hatch 60 and into the hatches 61. The bulkheads 62 are likewise preferably made of weld-wood.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described our invention, we claim as new and desire to secure by Letters Patent:

A raft comprising a plurality of parallel, vertical, transverse frames, each frame comprising top and bottom horizontal, parallel members interconnected by vertical end struts and vertical struts disposed inwardly of the end struts, spaced straps securing said end struts to said vertical struts, each strap having end portions projecting in a plane normal to said top and bottom flooring, said frames being interconnected by top and bottom longitudinal flooring, a pair of pontoons mounted on said frames, each pontoon being disposed between the top and bottom members of said frames and the outer struts, and the struts disposed inwardly of the outer struts, the space between the pontoons and the flooring being divided into compartments by transverse bulkheads, said bulkheads being formed with aligned openings, a pair of front and rear end members attached to the front and rear frames, rails secured to said strap end portions, and oarlocks on said rails.

NATHAN G. MARGOLIN.
WALTER P. WELLS.