

B. E. MATSON.

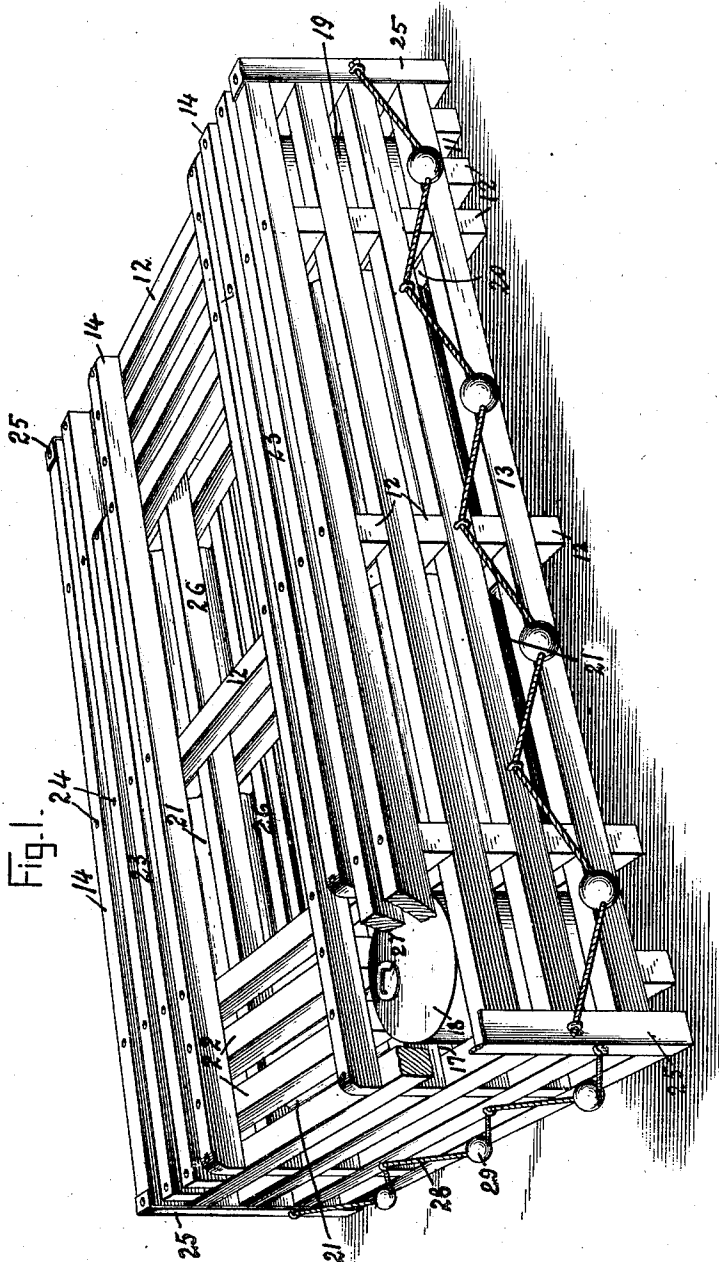
LIFE RAFT.

APPLICATION FILED AUG. 7, 1912.

1,049,250.

Patented Dec. 31, 1912.

3 SHEETS—SHEET 1.



WITNESSES

C. H. Reichertsch.
B. Joffe

INVENTOR

Berthe E. Matson.

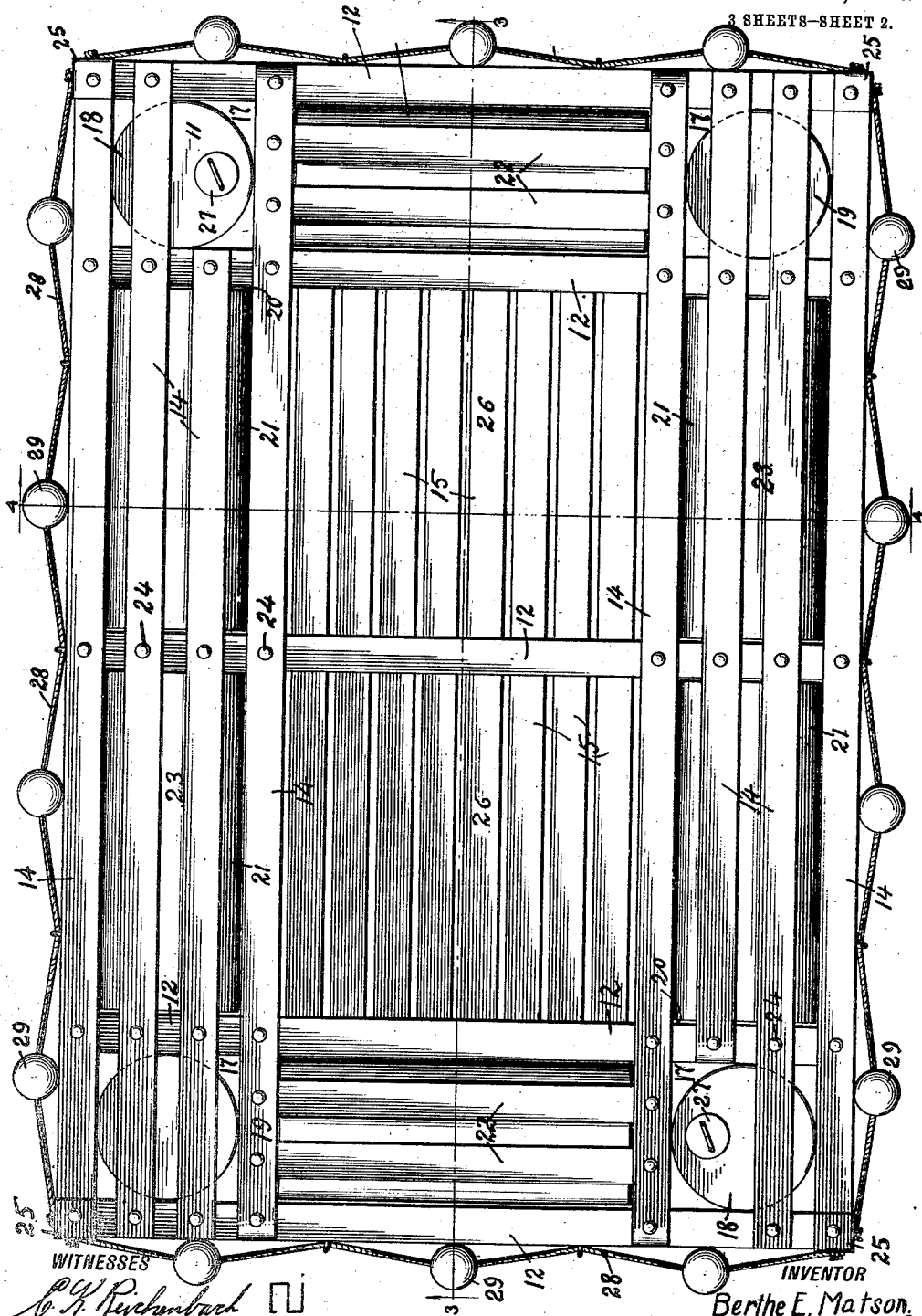
BY *Mumford*
ATTORNEYS

B. E. MATSON.
LIFE RAFT.
APPLICATION FILED AUG. 7, 1912.

1,049,250.

Patented Dec. 31, 1912.

3 SHEETS-SHEET 2.



WITNESSES
R. H. Reichenbach
W. J. Goff

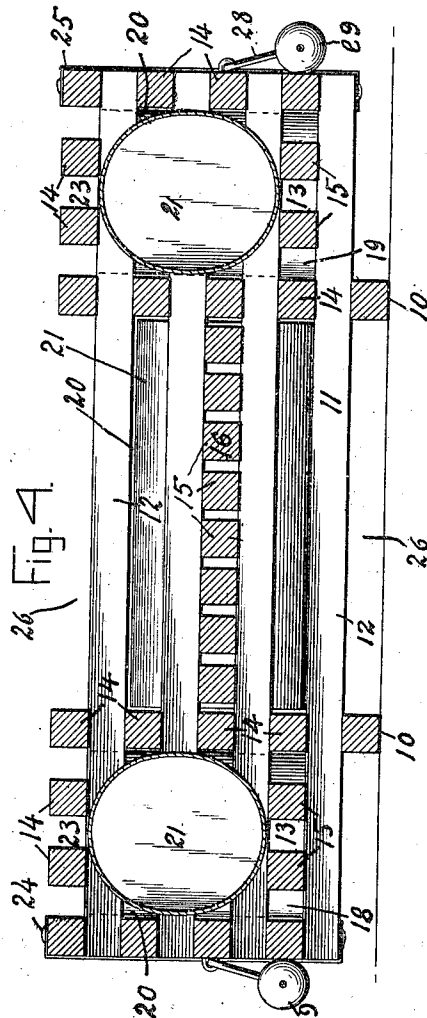
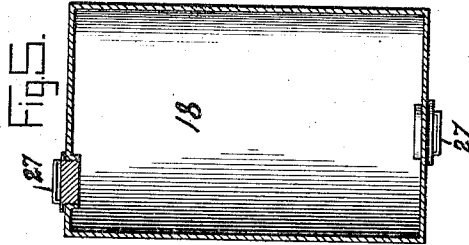
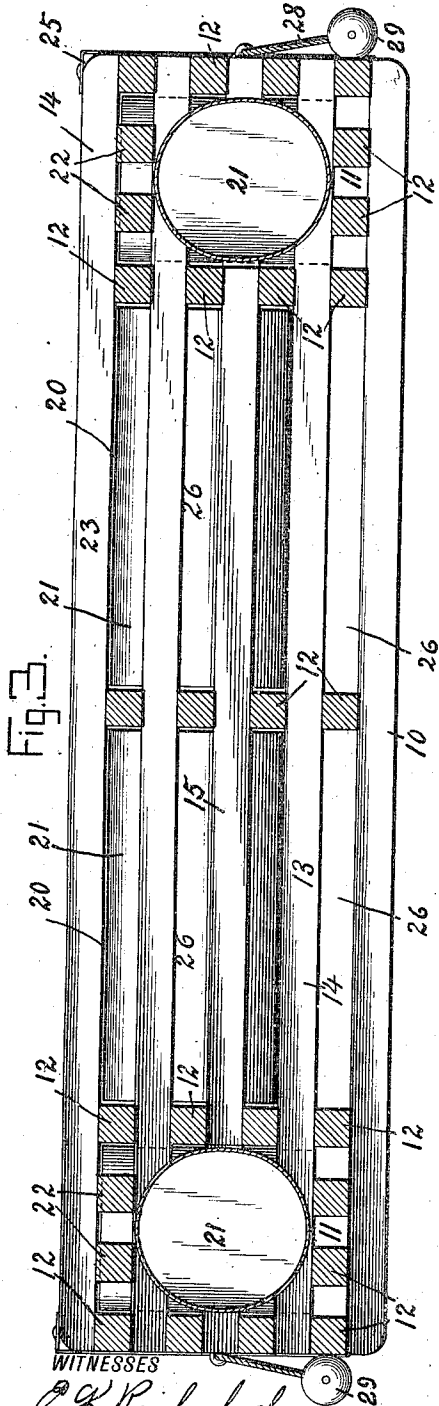
Fig. 2.

INVENTOR
Berthe E. Matson.
BY *Mumford Co*
ATTORNEYS

1,049,250.

Patented Dec. 31, 1912.

3 SHEETS-SHEET 3.



WITNESSES
C. K. Reichertsch.
C. D. Jaffe

INVENTOR
Berthe E. Matson.
BY *Mum Co*
ATTORNEYS

UNITED STATES PATENT OFFICE.

BERTHE EMELIE MATSON, OF BOSTON, MASSACHUSETTS.

LIFE-RAFT.

1,049,250.

Specification of Letters Patent.

Patented Dec. 31, 1912.

Application filed August 7, 1912. Serial No. 713,736.

To all whom it may concern:

Be it known that I, BERTHE E. MATSON, a citizen of the Republic of France, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and Improved Life-Raft, of which the following is a full, clear, and exact description.

This invention relates to life rafts carried by marine vessels, and has reference more particularly to a device of that class which is formed by a plurality of buoyant members, and airtight and food tanks crated in said buoyant members, all forming the raft.

An object of the invention is to provide a life raft, safe, simple and rigid in construction, and equally efficient when being launched either side up.

Another object of the invention is to provide a life raft formed by a plurality of buoyant members inclosing a plurality of air and food compartments evenly spaced and crated by the buoyant members, and in consequence guaranteed from injury by the buoyant members.

The invention consists of the construction and novel combination of parts to be more fully described hereinafter and particularly set forth in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of an embodiment of my invention, with parts of the frame or crate cut away, showing the food tank; Fig. 2 is a plan of the same; Fig. 3 is a longitudinal section on the line 3—3 of Fig. 2; Fig. 4 is a transverse section on the line 4—4 of Fig. 2; and Fig. 5 is a vertical section through the food tank.

Before proceeding to a more detailed description of my invention, it is to be understood that the shape of the raft, its relative size, and the shape of the air and food tanks, may be varied in accordance with special conditions and special requirements, without departing from the underlying spirit of the invention.

Referring more particularly to the drawings, 10 are longitudinal buoyant runners formed at the lower part of the raft, and by means of which the raft is launched

from the deck of a ship into the water. Normally to the runners and at each end of them a horizontal transverse grating 11 is formed by a series of transverse buoyant bars 12, similar bars being placed midway between and parallel to the grates 11 to reinforce the middle of the runners. Directly on the transverse grating and supported by it are at each end longitudinal gratings 13 formed by a series of longitudinal buoyant bars parallel to the runners. Two of the longitudinal bars 14 formed at the ends of each of the longitudinal grates are of the same length as the runners of the raft, while the inner longitudinal buoyant bars 15 forming the same longitudinal grate only run between the first transverse bars 11 forming the transverse grate and over the transverse bars 11. Supported by this longitudinal series of buoyant bars is a series of transverse buoyant bars 12 parallel and in vertical alinement with the transverse bars 12 forming the ends of the transverse grating 11 and the middle transverse bar 12 lying in the plane of said grates. In contact with the above stated series of transverse buoyant bars and supported by the same is another series of longitudinal bars 14 parallel to and in vertical alinement with the longitudinal bars forming the ends of the longitudinal gratings 13 and between the two inner of said longitudinal bars a series of longitudinal buoyant bars 15 extend between the same points as the above stated bars 15 and form a grated floor 16, the purpose of which will appear later.

The transverse longitudinal series following the above described series forming the floor are similar in every respect to the two below it as described, and in consequence of this structure, as can be seen from the drawings, a series of housings is formed at the end borders of the raft. In the four corner housings 17 vertical airtight tanks are placed, two of said tanks 18 diagonally opposite being for food, and the other two tanks 19 similarly opposite being for air. In the other horizontal housings 20 formed between the said vertical housings, tanks 21 are placed. As it can be seen from the drawings, the vertical tanks as well as the transversely placed tanks are resting upon the transverse grates 11, while the longitudinally placed tanks rest on the longitudinal gratings 13 and in consequence of a differ-

ent level than the transverse horizontal tanks; the purpose of this will be explained later.

Directly over the transverse horizontal tanks and on the last mentioned longitudinal series of buoyant bars, another transverse series of buoyant bars is placed as the one last mentioned with the exception that a plurality of bars 22 is placed between the pieces at the end of those forming a grate and over the horizontal transversely placed tanks and clearing the corners for the projecting vertical tanks placed in the corner housing. Supported by this transverse series and directly over the vertical tanks and longitudinally placed horizontal tanks, two longitudinal grates 23 are placed formed of the same number of longitudinal buoyant bars 14 as the longitudinal grates at the base, the difference in the grates being that all the longitudinal bars of these grates are of the same length with the exception of those registering with the apertures in the food tanks.

All of the longitudinal and transverse series of buoyant bars forming the raft are suitably bound by bolts 24, and metallic corners 25 are provided at the ends of the raft to protect the extremities of the bars from injury in launching as well as in the floating of the raft. As it is seen from the drawings and the description, the grated floor 16 becomes a central floor surrounded by the housing containing the tanks and divided in the middle by the transverse bars reinforcing the raft, and by this construction of the grated floor space or room 26 is formed for persons to rest in when the raft is launched. The food tanks 18 are provided at both ends with watertight plugs 27 through which the food is introduced and extracted. It must be remarked that the same structure of a raft will be formed of grated walls forming at each side and end parallelepipeds in mesh with each other and having longitudinal reinforcing bars forming a grated floor and transverse reinforcing bars reinforcing the structure and dividing the forward passenger inclosure into two equal parts. The raft is also provided on its borders with a life rope 28 forming loops and each is provided with a float 29. The purpose of this line is to afford the persons in the water to be able to see the line supported by the floats and grip the same.

When the raft is to be launched from the deck of the ship it will first slide on the deck on its runners 10 and then overboard into the water, and it is easily seen that due to the impulse received it would fall into the water with the runners down, but if it falls with the runners up the raft will project as much above the water level as with the runners down, because, as it was above

stated, the horizontal transverse tanks have their axis below the longitudinal horizontal tanks, and in consequence the center of buoyancy of the device is practically in the center of the device, and as the food tanks are accessible from both sides and the raft provided with safe room 26 at both faces, the efficiency of the raft is the same.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A device of the class described, comprising a plurality of buoyant members arranged in a plurality of longitudinal and transverse series forming a frame with a centrally-arranged passenger-receiving inclosure, and a continuous series of tank-receiving inclosures at the borders of said frame, one of said longitudinal series forming a central floor in said frame, thereby making said passenger-receiving inclosure accessible at both faces of said frame.

2. A device of the class described, comprising at each side series of longitudinal buoyant bars and at each end series of transverse buoyant bars, said longitudinal and transverse series consecutively superposing each other, a continuous series of housings at the borders formed by said superposed longitudinal and transverse buoyant bars, and a plurality of food and air tanks inclosed in said housings and said tanks firmly held in said housings by said consecutive superposed longitudinal and transverse buoyant bars and whereby said tanks are protected from injury.

3. A device of the class described, comprising at each side a parallelepiped formed by buoyant grated walls, and at each end a parallelepiped similarly formed and in mesh with the said parallelepiped at the sides, a central floor formed by a series of longitudinal buoyant bars supported by the inner walls of said parallelepipeds at the end, a transverse series of longitudinal buoyant bars reinforcing the structure and supported by the inner walls of said parallelepipeds at the sides, a central passenger receiving inclosure at both faces formed by said central floor and said inner walls of said side and end parallelepipeds, a plurality of housings in said parallelepipeds formed by the meshing of said end and side parallelepipeds and the reinforcing bars, and a plurality of food and air tanks inclosed in said housings and rigidly supported in the same.

4. A device of the class described, comprising at each side a parallelepiped formed of longitudinal grated walls, and at each end a parallelepiped also formed of transverse grated walls and meshing with the said walls of said side parallelepiped, vertical housings at each corner formed by the meshing of said parallelepipeds, transverse buoyant bars reinforcing and connecting

the said side parallelepipeds and in mesh with the same, and horizontal housings formed in said side and end parallelepipeds by the meshing of said side and end parallelepipeds and said transverse bars.

5 A device of the class described, comprising at each side series of longitudinal buoyant bars, and at each end series of transverse buoyant bars, said longitudinal and transverse series consecutively superposing each other, a plurality of housings formed at the borders, by said superposed transverse horizontal and longitudinal

buoyant series, and air tanks contained in each of said housings, said side tanks having their axis in a plane different from said end tanks, whereby the center of buoyancy of the device is practically in the center of the device. 15

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 20

BERTHE EMELIE MATSON.

Witnesses:

JOHN GARDNER,
EDWARD J. KELLEY.