

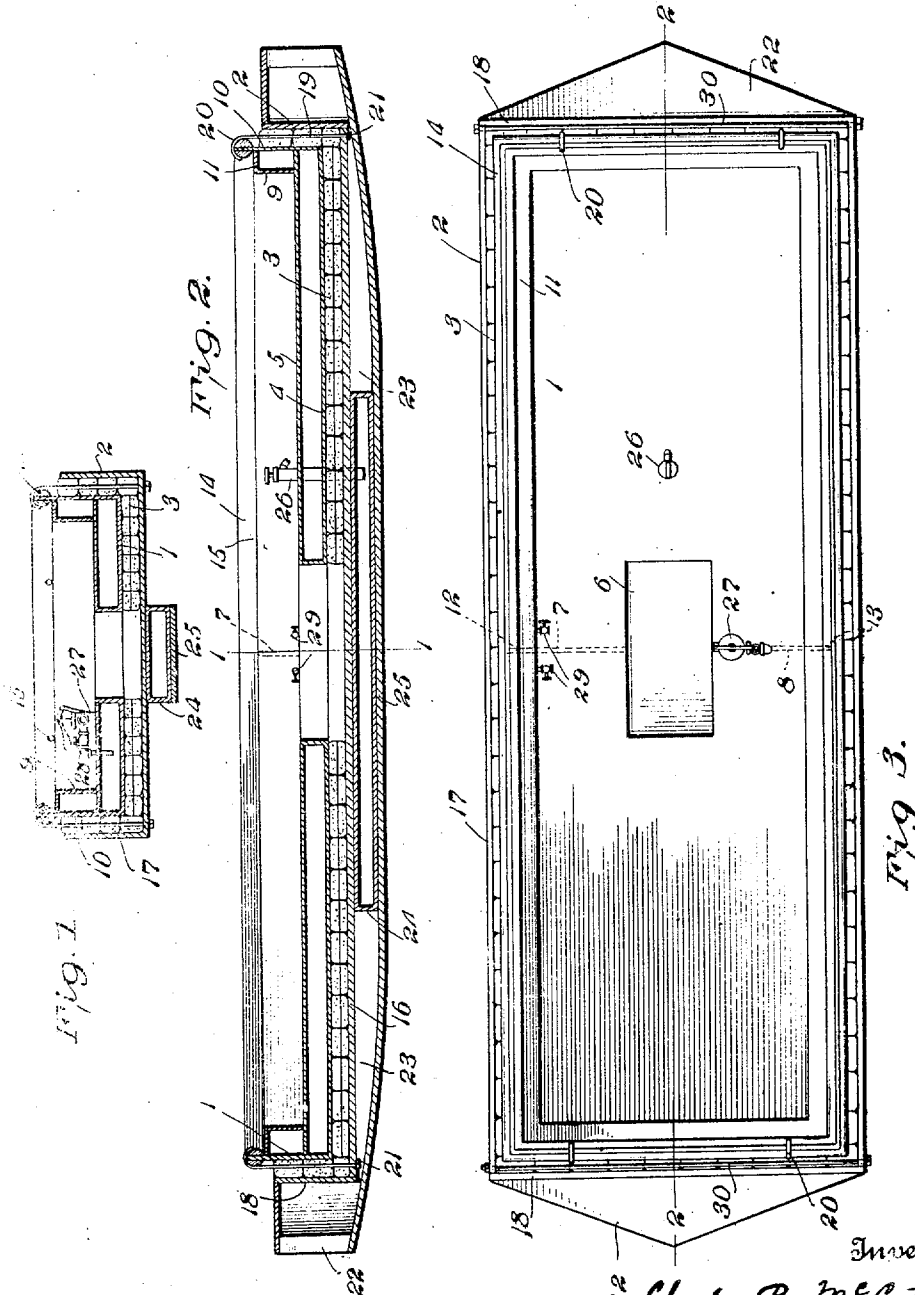
C. R. McCOTTER.

LIFE RAFT.

APPLICATION FILED APR. 7. 1911.

1,019,982.

Patented Mar. 12, 1912.



Witnesses
J. Adolph Bishop
O. J. Brown

Inventor
Charles R. McCotter
By
Foster, Freeman, Watson & Co.
Attorneys

UNITED STATES PATENT OFFICE.

CHARLES R. McCOTTER, OF JACKSONVILLE, FLORIDA, ASSIGNOR OF ONE-HALF TO
GEORGE S. PHILLIPS, OF JACKSONVILLE, FLORIDA.

LIFE-RAFT.

1,019,982.

Specification of Letters Patent.

Patented Mar. 12, 1912.

Application filed April 7, 1911. Serial No. 619,599.

To all whom it may concern:

Be it known that I, CHARLES R. McCOTTER, a citizen of the United States, and resident of Jacksonville, county of Duval, State of Florida, have invented certain new and useful Improvements in Life-Rafts, of which the following is a specification.

This invention relates to life rafts such as are used on vessels to aid in the escape of the occupants in case of shipwreck or other accidents.

It has been my purpose to make a raft which will have the requisite buoyancy, which will stand exposure to weather without deteriorating and becoming useless and which will include means for safe-guarding against any such injury as will cause it to sink.

The novel features of the invention will be apparent from the following description taken in connection with the drawings.

In the drawings: Figure 1 is a cross section of a device embodying my invention taken on the line 1—1 of Fig. 2; Fig. 2 is a longitudinal section on the line 2—2 of Fig. 3; and Fig. 3 is a plan view of the device.

As shown in these drawings my raft includes a main body portion 1 made of non-corrodible metal and including water-tight compartments as hereinafter described, an outer casing 2 made of wood and an intermediate packing or layer 3 of buoyant material such as cork life preservers. The body portion is preferably made rectangular in form as shown, and its bottom is made up of double separated walls 4 and 5 leaving an air space between them, and at the center of the raft there is an opening 6 through these bottom plates for the purpose of drainage. The air-tight chamber inclosed by the bottom plates is preferably divided into separate compartments by partitions, such as the partitions 7 and 8 shown in dotted lines in Fig. 3 extending from the central opening 6 to the side walls. The purpose of separating the compartments by water-tight partitions will be obvious to those skilled in the art, and it will be clear that if one compartment leaks the others may remain water-tight and thus support the raft. Around the margins of the bottom plate 5 I place the upwardly extending spaced double walls 9 and 10 having a cover

plate 11 extending across from the top of the plate 9 and connecting with the plate 10 so as to form a water-tight space around the sides of the raft above the bottom. This space is divided into separate compartments by partitions 12 and 13 shown in dotted lines in Fig. 3, and it will be understood that additional divisions may be made if desired. All of the parts above described are made of non-corrodible metal such, for instance, as copper, and I make the joints between the several plates forming this body portion by brazing or other means not including the use of solder, since the soldered joint in a device of this kind is apt to become leaky. The side plates 10 extend above the top of the plates 9 so as to form a rim around the raft and this extension is strengthened by a strip 14 around its top preferably made of wood, and immediately above the plate 11 holes 15 are preferably provided at intervals for the purpose of drainage.

The outer casing 2 is preferably made of wood, such as spruce, and it is in box-like form fitting around the main body portion with a small space between. It includes the bottom plate 16 which is smooth, but which may be provided with holes at intervals to permit the escape of water through the side walls 17 and the end walls 18. Between this outer casing and the main body portion I place a filling of buoyant material such as cork, and this cork may for protection be covered with wire netting. I may use as the filling material a series of my life preservers, such as disclosed in my Patent No. 989,172, dated April 11, 1911, in which sections of cork are covered with copper wire gauze. The cork packing is not only buoyant and thus tends to support the raft, but it constitutes a good buffer or protection for the inner metal body portion preventing injury to it due to collisions with other things such as floating wreckage. The body portion 1 is secured in place within the outer casing 2 by means of bolts 19 having hooked upper ends 20 extending over the top edge of the side plate 10 and having a screw-threaded nut 21 below the bottom plate 16 of the outer casing. It will be observed that these bolts can be loosened so as to remove the main body portion 1 or may be tightened to properly hold it in position.

With each end of the casing 2 I preferably provide an extension 22 coming to a point so as to give to the raft more or less of a boat-like form and so that it will not present a square end to the action of the waves.

Along the center of the raft at the bottom, I place a keel 23, and in a cut-away portion in the center of the keel I place a fresh water metal tank 24 of practically the same width as the keel so that it constitutes part of the keel. An outer facing or board 25 is placed over the tank 24 as a protection and extends from one end of the raft to the other constituting the outer face of the keel. A pump 26 extends down through the raft into the fresh water tank 24 in the keel so as to draw up water for the use of the passengers on the raft. It will be observed that the fresh water tank being in the keel is normally under water and consequently the weight of the fresh water does not have any tendency to make the raft sink.

In order to remove any water which may, by an accident to the device, leak into the lower compartment over the floor of the raft I make use of a pump 27 which may be connected to valved pipe connections 28 leading down into the lower compartment. On the inner side of the upper compartment formed by the side walls 9 and 10 I place valved outlets 29 at any convenient and suitable place so as to permit any water which may accidentally enter the compartments to be drained out. These compartments being ordinarily above water may be drained by placing the weight on the raft at one end, thus elevating the other end and allowing the water within the compartments simply to run out of the outlet 29, the valve being opened for that purpose or, if necessary, these outlets may be connected to the pump 27 so as to pump the water out.

It will be observed that in the above construction there are a series of air-tight compartments which furnish a safe-guard against the sinking of the raft, since if one happens to be punctured or broken the others will sustain the weight, and if one simply leaks the water may be pumped out of it. In addition to this safe-guard the surrounding casing and life preservers not only protect the metal body from shock, but also support the raft owing to their buoyant effect. The wooden portions of the device are preferably made of spruce which is a light wood and the protecting casing may be strengthened by bolts 30 passing from one side to the other.

The opening 6 in the center of the body portion is made large enough to permit any waves or water which come over the sides of the raft to pass out to the sea again being in actual construction 13 by 26 inches. The outer casing is preferably provided in its bottom with holes to permit the escape of

this water, and it will be understood that the water will pass out through or between the cork life preservers surrounding the hole 6. By this construction the raft will be self-bailing.

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

1. In a life raft, the combination with a body portion comprising a series of separate water-tight compartments made of non-corrodible metal, of a wooden casing around the sides and bottom of said body portion to protect the same, a lining of life preservers between said casing and body portion, and means for securing said compartments in place in said casing.

2. A life raft comprising a unitary body portion of non-corrodible metal having separated double walls at the bottom and sides forming water-tight compartments, a passageway being provided through said bottom for drainage purposes, water-tight partitions connecting said separated walls to form separated air chambers or compartments, and valved outlets from said side compartments for draining the same.

3. A life raft comprising a unitary body portion of non-corrodible metal having separated double walls throughout the bottom portion forming a water-tight air chamber the joints being brazed, and double side walls extending upwardly from said bottom forming air-tight chambers, means for draining said side compartments, and means for pumping water from said bottom compartment.

4. In a life raft the combination with a body portion of non-corrodible metal comprising a series of united water-tight compartments, of a removable box-like protecting casing fitting around the sides and bottom of said body portion, and means for securing said casing in place.

5. In a life raft the combination with a body portion of non-corrodible metal comprising a series of connected water-tight compartments, of a removable box-like protecting casing fitting around the sides and bottom of said body portion, a lining of buoyant material between said casing and body, and means for securing said casing in place.

6. In a life raft the combination with a body portion of non-corrodible metal comprising a series of water-tight compartments, of a removable box-like protecting casing fitting around the sides and bottom of said body portion, means for securing said casing in place, a fresh water tank secured along the bottom of said casing as a keel, and means for protecting said tank.

7. In a life raft in combination a unitary body portion consisting of a series of water-tight compartments, and a detachable pro-

protecting casing substantially like the body portion in contour and inclosing the sides and bottom of said body portion.

8. In a life raft the combination with a 5 body portion comprising a series of water tight compartments, of a protecting casing fitting around the sides and bottom of said body portion, means for detachably connecting said body portion and casing, a 10 keel and a water tank secured below the body portion intermediate the ends of the keel and constituting a portion thereof.

9. In a life raft the combination with a unitary body structure comprising water 15 tight compartments, of a detachable protecting casing fitting around a portion of said body, a keel having a portion thereof cut away and a water tank seated within said cutaway portion.

20 10. In a life raft, in combination, a unitary body portion consisting of a series of

water tight compartments, a detachable protecting casing fitting around the sides and bottom of said body portion and a lining of buoyant material between said casing and 25 body portion.

11. In a life raft, the combination with a unitary body portion comprising a series of water tight compartments, of a detachable protecting casing fitting around the sides 30 and bottom of said body portion, a lining of buoyant material between the casing and body portion, a keel having a portion thereof cut away and a water tank seated within said cutaway portion. 35

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES R. McCOTTER.

Witnesses:

JOHN M. COIT,

ARTHUR L. BRYANT.