

(No Model.)

J. B. DAVIDS.
MARINE VESSEL.

No. 509,463.

Patented Nov. 28, 1893.

Fig. 1.

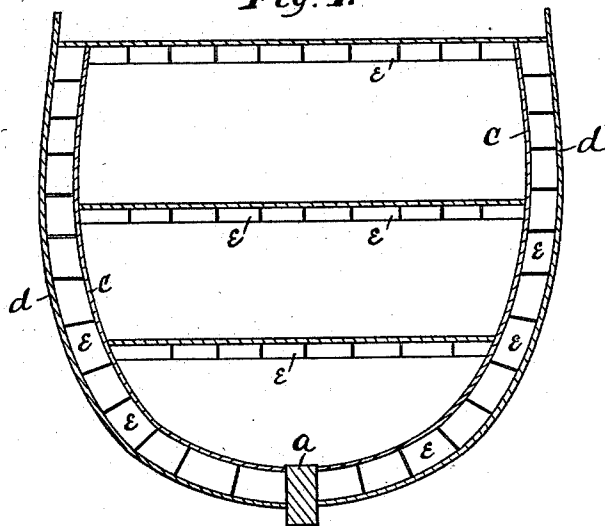


Fig. 2.

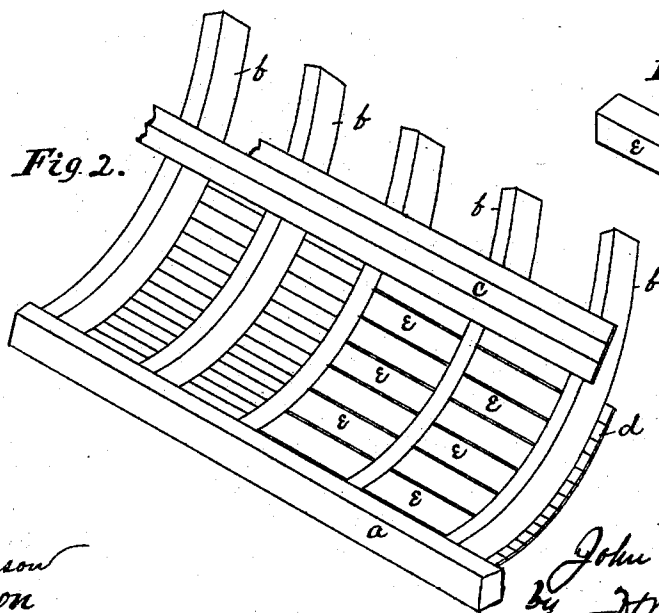
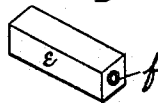


Fig. 3.



Witnesses
Fred A. Mason
C. O. Mason

Inventor
John B. Davids
by J. M. Mason
Atty.

UNITED STATES PATENT OFFICE.

JOHN B. DAVIDS, OF NORTH DARTMOUTH, MASSACHUSETTS, ASSIGNOR TO
E. M. CHISHOLM DAVIDS, OF SAME PLACE.

MARINE VESSEL.

SPECIFICATION forming part of Letters Patent No. 509,463, dated November 28, 1893.

Application filed October 3, 1892. Serial No. 447,742. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. DAVIDS, a citizen of the United States, residing at North Dartmouth, in the county of Bristol and State
5 of Massachusetts, have invented certain new and useful Improvements in Marine Vessels, of which the following is a specification.

The object of my invention is to render such vessels unsinkable; and to this end my invention consists in providing a large number
10 of independent air reservoirs made of non corrosive material, and placing them between the outside and inside planking of the vessel, and between the ribs thereof; and in other
15 practically waste spaces.

The accompanying drawings illustrate my invention, in which—

Figure 1. represents a view in transverse vertical section of a vessel provided with my
20 invention. Fig. 2. represents a view in perspective of a portion of one side of the same, showing a portion of the inside planking broken away; and Fig. 3. represents a view in perspective of one of the air reservoirs.

25 *a*, represents the keelson, and *b*, the ribs of a vessel.

d, is the outside planking and *c*, the inside planking thereof.

30 *e*, represents an air-tight reservoir, made of non corrosive material, such as aluminium or its alloys, and adapted to fit in the spaces between the outside and inside planking, and between the ribs of the vessel, a series of

them, occupying the space between two ribs, so that, should one or more of them become
35 ruptured, by collision or other cause, there would still remain a sufficient number airtight, to keep the vessel from sinking, even when she becomes filled with water. The reservoirs *e*, are preferably made with a screw
40 cap *f*, and nozzle, sunk in a recess, so that the outside of the screw cap shall be flush with the surface of the reservoir. The nozzle is also preferably provided with an inwardly opening valve, in order that more
45 than one atmosphere can be put into the reservoirs, if deemed necessary, to prevent them from collapsing by the pressure of the water, when the vessel becomes filled.

Having thus described my invention, what
50 I claim, and desire to secure by Letters Patent, is—

In combination with a marine vessel, a series of independent air reservoirs, composed of non corrosive material, and adapted to fit
55 in the spaces between the inside and outside planking of said vessel; between the deck beam; and other practically waste spaces, which would become filled with water, when the vessel was partially or wholly submerged,
60 as and for the purpose described.

JOHN B. DAVIDS.

Witnesses:

JAMES C. HITCH,
HENRY W. MASON.

Correction in Letters Patent No. 509,463.

It is hereby certified that in Letters Patent No. 509,463, granted November 28, 1893, upon the application of John B. Davids, of North Dartmouth, Massachusetts, for an improvement in "Marine Vessels," an error appears in the printed specification requiring the following correction, viz.: In line 58, the word "beam" should read *beams*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 2d day of January A. D. 1894.

[SEAL.]

JNO. M. REYNOLDS,
Assistant Secretary of the Interior.

Countersigned:

JOHN S. SEYMOUR.
Commissioner of Patents.