(No Model.)

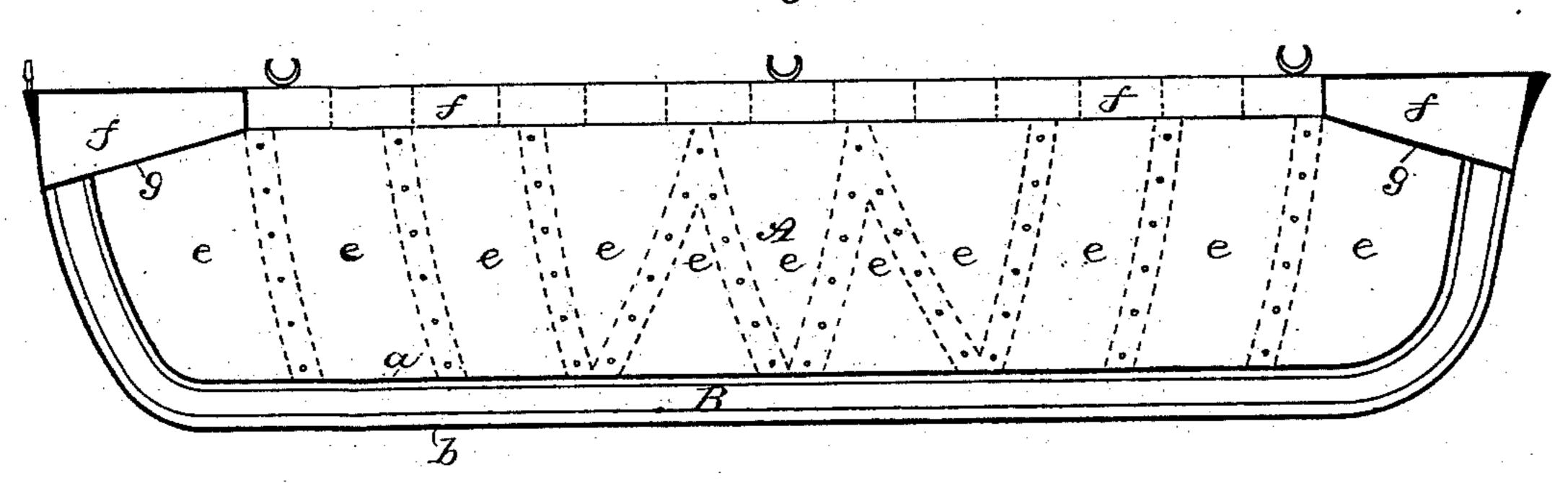
## F. VAUGHAN.

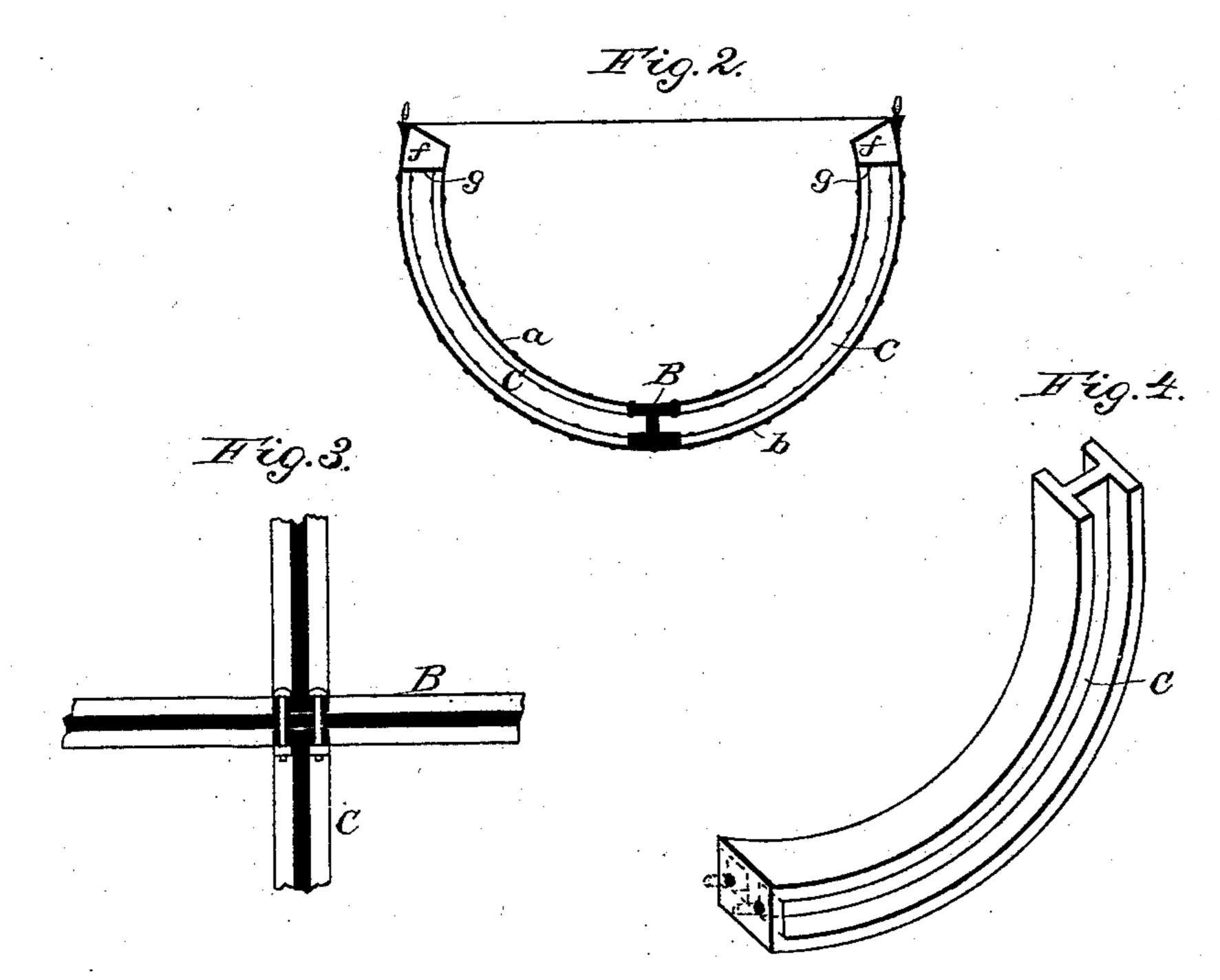
LIFE BOAT.

No. 273,197

Patented Feb. 27, 1883.

Fig. 1.





Witnesses:

M. S.D. H. Caines

Inventor:

Frank Vaughan per Howard a Luow Atti

## United States Patent Office.

FRANK VAUGHAN, OF ELIZABETH CITY, NORTH CAROLINA.

## LIFE-BOAT.

SPECIFICATION forming part of Letters Patent No. 273,197, dated February 27, 1883.

Application filed September 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, Frank Vaughan, a citizen of the United States, residing at Elizabeth City, in the county of Pasquotank and State of North Carolina, have invented certain new and useful Improvements in Life-Boats, of which the following is a specification, reference being had therein to the ac-

companying drawings.

My invention relates to an improvement in life-boats; and it consists in constructing a life-boat of an inner and an outer metallic shell, of placing between them, at the bottom of the boat, a metallic keel, stem and stern post, formed of a single piece, of securing to the said keel singularly-constructed ribs, and of bolting the ribs and keel to the metallic shells, whereby the spaces between them are formed into air-chambers, and in further providing the boat with a series of air-chambers along its gunwales, all to be more fully set forth hereinafter.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of my invention. Fig. 2 is a vertical cross-section of the same. Figs. 3 and 4 are detailed views of the keel and ribs.

A represents a life-boat composed of the inner and outer metallic shells, a b, between 30 which, at the bottom, extends the keel B, formed of metal, and preferably I-shaped in cross-section. This keel is bent up at its extremities, and forms also the stem and stern posts, as shown. Extending at right angles 35 to the keel B are the ribs C, which are of simi-

lar construction as the keel, and are secured thereto by bolts c and nuts d, as shown at Fig. 3. The shells a b are riveted or otherwise secured to the keel and ribs. By having the keel, stem and stern posts formed in one 40 solid piece and the ribs of metal secured thereto, great strength and rigidity are given to the boat, and at the same time extreme lightness is secured. The spaces between the ribs form air-chambers e. Around the gun- 45 wales and at the stem and stern I provide, also, a further series of air-chambers, f, separated from the chambers e by the shell g, as shown. By this construction, even should the gunwales be stove, no water will be admitted into 50 the boat by reason thereof. In practice I propose to make the lower flange of the keel heavier than the upper one, so as to serve as ballast for the boat.

What I claim is—

A life-boat composed of an inner and outer shell, a metallic keel, stem and stern post, formed integrally and located between said shells, metallic ribs bolted to the keel, the shells being secured to the keel and ribs, forming air-chambers between them, the boat being further provided with an independent series of air-chambers along the gunwales between the shells, substantially as specified.

In testimony whereof I hereby affix my sig- 65 nature in presence of two witnesses.

FRANK VAUGHAN.

Witnesses:

P. PRINTZ, W. J. OSGOOD.