

No. 696,621.

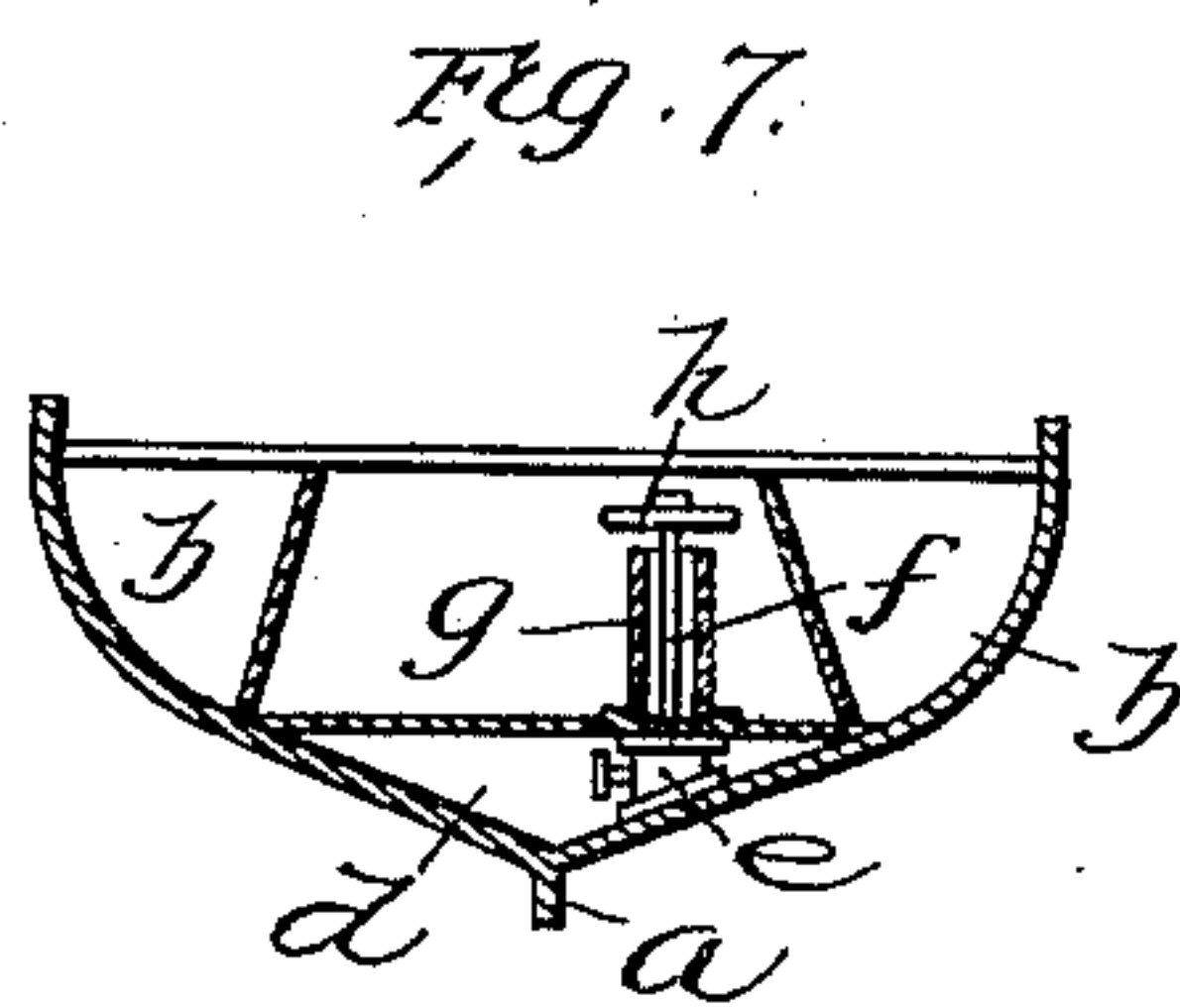
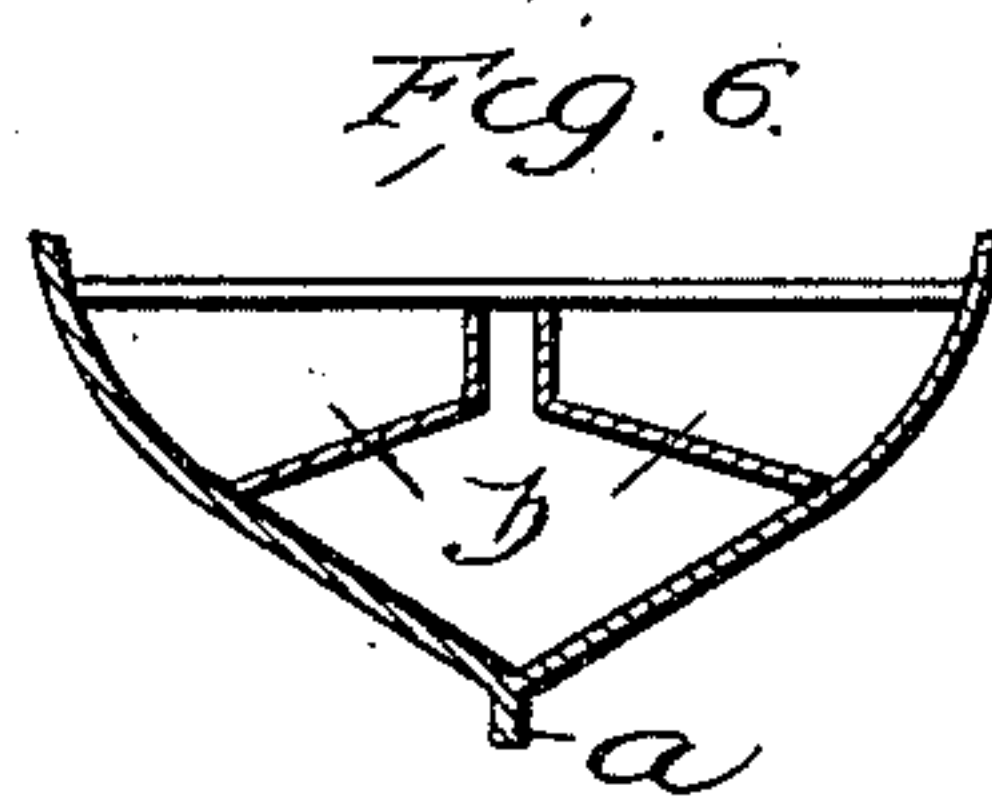
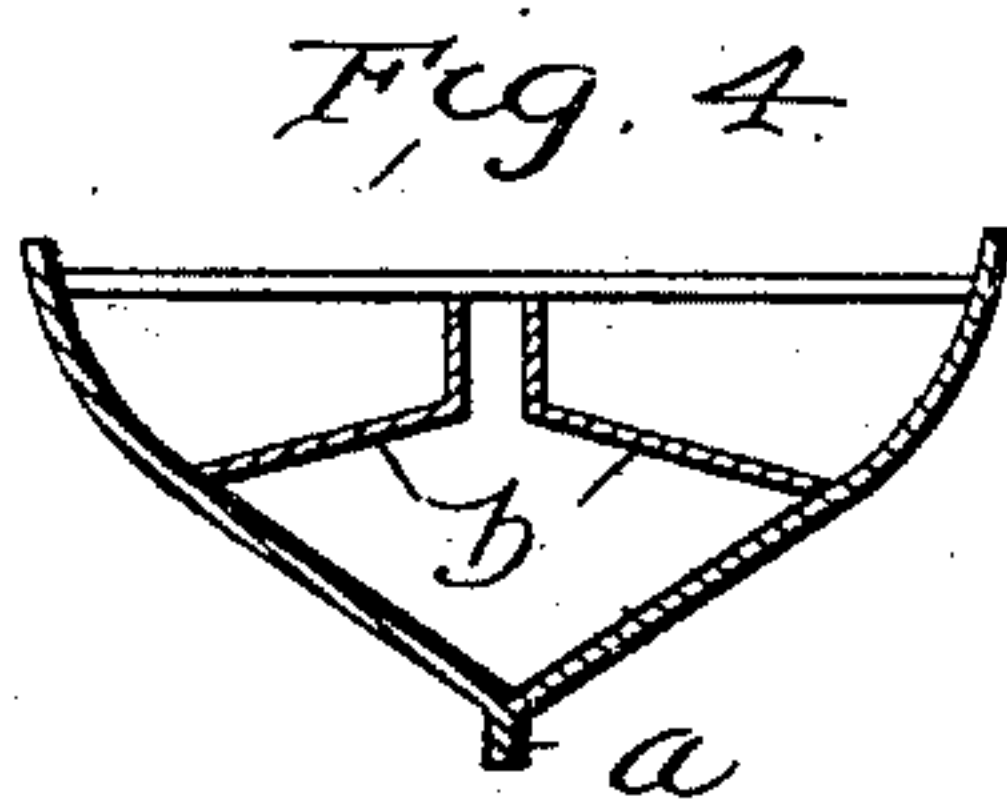
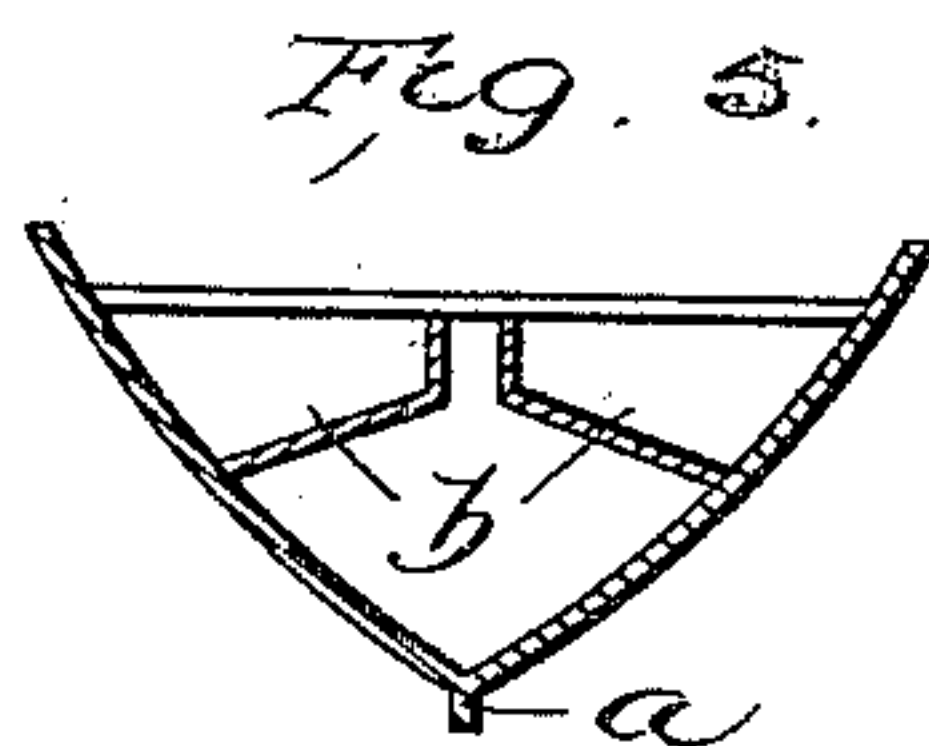
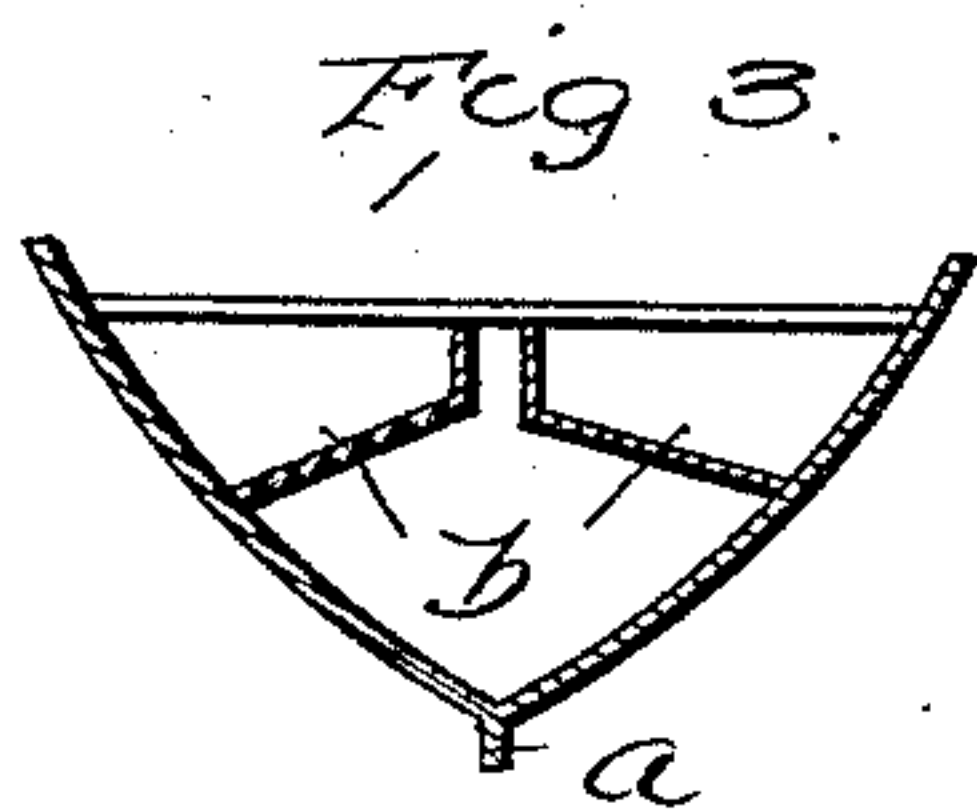
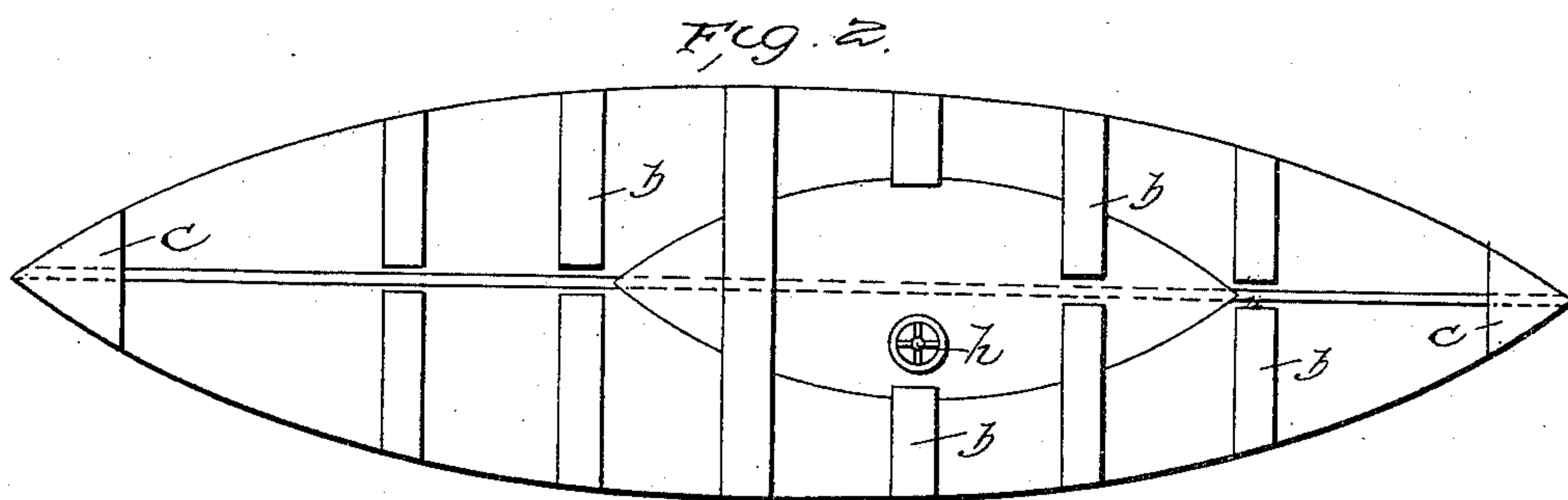
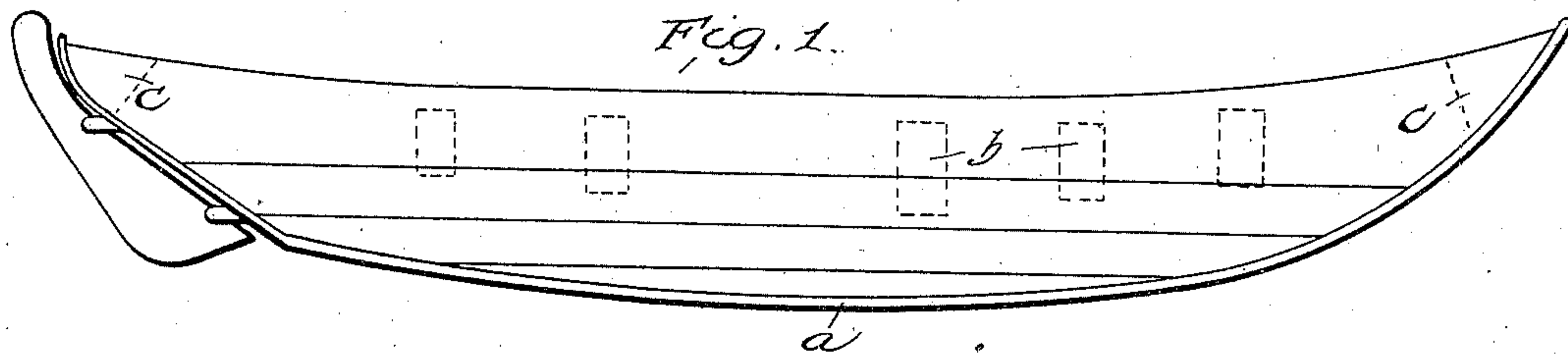
Patented Apr. 1, 1902.

C. E. BAARSEN.

LIFE BOAT, &c.

(Application filed Mar. 15, 1901.)

(No Model.)



Attest:

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Inventor,
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Attys.

UNITED STATES PATENT OFFICE.

CARL EMIL BAARSEN, OF BERGEN, NORWAY.

LIFE-BOAT, &c.

SPECIFICATION forming part of Letters Patent No. 696,621, dated April 1, 1902.

Application filed March 15, 1901. Serial No. 51,314. (No model.)

To all whom it may concern:

Be it known that I, CARL EMIL BAARSEN, a subject of the King of Sweden and Norway, residing at Bergen, Norway, have invented
5 new and useful Improvements in Life-Boats, of which the following is a specification.

The object of my invention is to provide a boat of special shape in combination with a special arrangement of air-chambers and bal-
10 last-tank. It has been shown by several thorough trials that boats provided with my improvements possess in a particularly high degree the self-righting properties which are especially desirable in the case of life-boats
15 and fishing-boats.

The improvements described can be applied to any boat; but in the accompanying drawings the invention is shown as applied to a Norwegian norlandish fishing-boat—a
20 so-called "ottring."

In the accompanying drawings, Figure 1 is a side view of a boat constructed according to my invention. Fig. 2 is a plan, and Figs. 3, 4, 5, 6, and 7 are sections, of the boat on
25 its different frames.

The keel of my improved boat is proportionally short, deepest midships and higher fore and aft, and the bottom of the boat is deeper midships than fore and aft. By this
30 construction the boat is very easy to handle.

A further and most important feature of my invention is the special arrangement of the air-chambers. A Norwegian norland boat has the defect that when capsized it im-
35 mediately turns bottom upward and remains in that position, the cause being that the boat is long, narrow, and low. When a Norwegian lister boat or a bark is upset, it will not turn over, as the norland boat, but is filled with
40 water and goes to the bottom, owing to the boat being short, broad, and deep.

According to my invention the air-chambers are placed beneath, say, five thwarts in such a manner that the highest or deepest
45 end of the chamber follows the frame from the thwart down to the bilge of the boat and goes farther in a sloping direction midships and up under the thwart. All chambers should be made of iron plates.

50 The advantage of my improved boat is that should it be upset it will not turn over with

the keel upward, but will rest with the sails on the water. The air-chambers at the stem and stern prevent the boat from turning with the keel upward. The side chambers keep
55 the boat from sinking, and if by a quick action of the crew the shroud is cut to windward the mast will fall overboard and the boat immediately right itself.

Should the boat be upset and a breaker
60 throw the boat around with the keel upward, the chambers placed in the stem and stern will right the boat. If the crew are secured or fastened in the boat, they will be saved.

The chambers will carry the boat full of
65 water and sufficient sailing-ballast. If fixed ballast is preferred, the boat will be safer, because the air-chambers will then naturally act upward and the ballast downward, and a breaker will then scarcely have power to
70 turn the boat over. Under such circumstances the loose ballast will roll out of the boat and lighten it, so that the air-chambers and the fixed ballast will more quickly right the boat.
75

Fig. 1 illustrates the form of the boat above described, with its curved keel *a*, which also allows for the great depth of the boat midships.

From Figs. 3, 4, 5, 6, and 7 it will be seen
80 how the air-chambers *b b* are arranged under each thwart in two parts, while the air-chambers *c* in the stem and stern may be in one part, as shown in Fig. 1. The air-chambers *b b* may communicate with each other, there-
85 by forming a single casing across the boat under the thwarts.

Figs. 2 and 7 show the arrangement of a bal-
last-tank *d* in the bottom of the boat. This tank is placed midships and can be filled with
90 water as soon as the boat is launched by opening a stop-cock *e* in the bottom of the boat. The stop-cock is situated on one side of the keel and may be opened and shut by a rod *f*, which passes through a pipe *g* and is provided
95 with a handle *h*, arranged under the thwart.

It is the special form of the boat, in combination with the arrangement of the air-chambers partly just underneath the thwarts and partly in the stem and stern of the boat,
100 which give the boat its self-righting properties, and it is the combined arrangement of

these parts, substantially as described and shown, which forms the object of this invention.

Having now described my invention, what
5 I claim as new, and desire to secure by Letters Patent, is—

In combination, the curved keel, air-chambers beneath the thwarts as well as in the upper part of the stem and stern, and a bal-
10 last-tank midship provided with stop-cock,

rod and handle, said ballast-tank being in the bottom of the boat and controlled by said stop-cock, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

CARL EMIL BAARSEN.

Witnesses:

KATHINKA PAULSEN,
AXEL LAHN.