

(No Model.)

F. VAUGHAN.
SELF BAILING BOAT.

No. 270,519.

Patented Jan. 9, 1883.

Fig. 1.

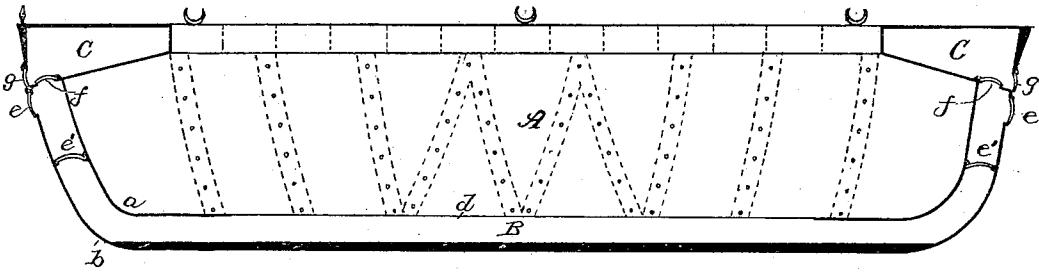
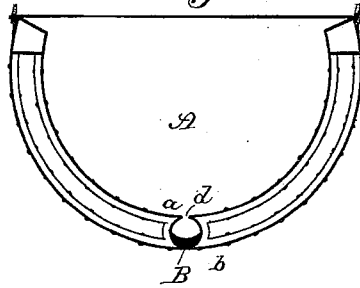


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

FRANK VAUGHAN, OF ELIZABETH CITY, NORTH CAROLINA.

SELF-BAILING BOAT.

SPECIFICATION forming part of Letters Patent No. 270,519, dated January 9, 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 Devices for Bailing Boats, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improvement in self-bailing life-boats; and it consists in substituting a partially-open tube for the keel, stem and stern posts, in providing the said tube with suitable valves near its extremities to allow the discharge of water that has been shipped; and it further consists in providing reservoirs at stem and stern, at the extremities of the tube, and connecting them therewith, whereby the water which cannot be discharged during the continuance of a single swell from either end can be discharged into the reservoirs, from whence it will quickly pass outward, thus preventing an overplus of water and consequent surging in the tube.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of my invention. Fig. 2 is a vertical cross-section of the same.

A represents a life-boat of any suitable construction, between the inner and outer shells, *a b*, of which, along the bottom and in place of a keel, extends a tube, B, which is bent up at the extremities, and forms also the stem and stern posts. This tube is provided with the open slot *d* in its upper side, of suitable length, through which slot all the water passes that is shipped by the boat when laboring in a heavy sea into the tube B. The tube is provided at the extremities with suitably-arranged outward valves, *e*, and with check-valves *e'*, arranged as shown, by means of which the water is discharged from the tube as the boat rises and falls on the waves, as will be readily understood.

Situated at the extremities of the boat, flush with the gunwales thereof, are the reservoirs C, which communicate with the ends of the tube B by means of the valves *f*, which valves serve to allow the water that is not discharged from the tube directly overboard to pass into

the reservoirs. The object of the reservoirs is to receive the overplus of water and prevent it from surging back into the boat when too large a quantity is shipped to be discharged quickly through the valves *e*. By means of these reservoirs the operation of the tube is greatly facilitated, as it is quickly relieved of an overplus of water. The bottom side of the straight portion of the tube B is considerably thickened, so that it is enabled to act as a ballast-keel and aid in keeping the boat right side up.

Having thus described my invention, I claim—

1. In a life-boat, the bilge-water-discharging apparatus, consisting of the tube B, having its bottom thickened, as shown, and formed with a slot, *d*, for the admission of water into the tube, and having its ends turned upwardly to form the stem and stern posts of the boat, the said bent portions being provided with outboard discharge-valves *e* and check-valves *e'*, whereby the water shipped into the boat and entering the tube through the slot is discharged by the motion of the boat, substantially as described.

2. In a life-boat, the reservoirs *c*, situated at the bow and stern on a level with the gunwale, provided with outboard-valves *g* and inlet-valves *f*, which communicate with the tube B, whereby the overplus of water in the said tube is permitted to enter the reservoirs and to be discharged through the outboard-valves, substantially as set forth.

3. The combination, in a life-boat, with the tube B, formed with the slot *d*, and having its extremities turned upwardly, and provided with outboard-valves *e* and check-valves *e'*, of the reservoirs *c*, situated at the bow and stern of the boat on a level with the gunwale, and provided with outboard-valves *g* and inlet-valves *f*, which communicate with tube B, whereby the overplus of water in the tube is made to pass out, substantially as specified.

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

FRANK VAUGHAN.

Witnesses:

P. PRINTZ,
W. J. OSGOOD.