

V. ENGELHARDT & P. McALISTER.

LIFE BOAT.

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1,096,100.

Patented May 12, 1914.

Fig 1.

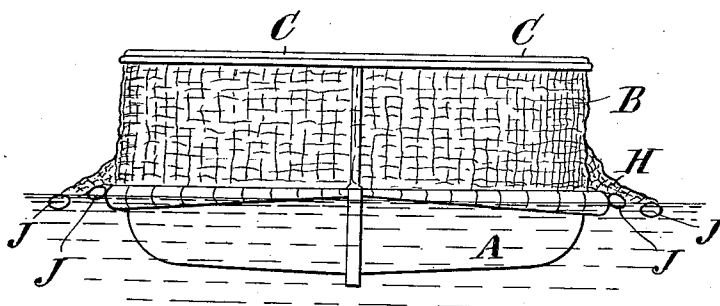


Fig 2.

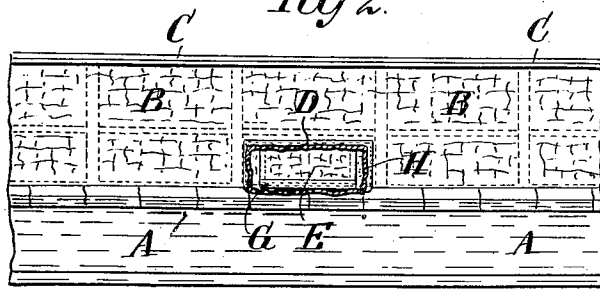
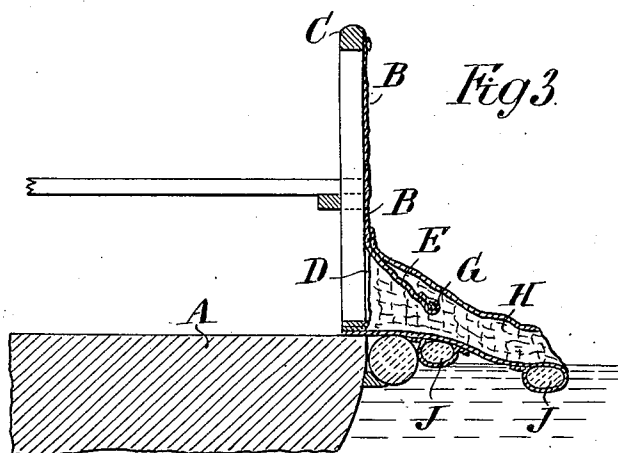


Fig 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

VALDEMAR ENGELHARDT, OF COPENHAGEN, DENMARK, AND PETER McALISTER,
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LIFE-BOAT.

1,096,100.

Specification of Letters Patent.

Patented May 12, 1914.

Application filed December 29, 1913. Serial No. 809,413.

To all whom it may concern:

Be it known that we, VALDEMAR ENGELHARDT, a subject of the King of Denmark, and residing at Copenhagen, Denmark, and
5 PETER McALISTER, a subject of the King of the United Kingdom of Great Britain and Ireland, and residing at Sand Point, Dumbarton, in the county of Dumbarton, Scotland, have invented a new and useful Improvement in Connection with Life-Boats; and we do hereby declare the following to be a full, clear, and exact description of the same.

The invention relates to life-boats in which canvas-bulwarks supporting rails are connected to a lower buoyant structure in such-wise that the rail may be fixed in a raised position or lowered to expand or contract the canvas-bulwarks.

15 The invention has for its object to provide improved freeing ports for the discharge of deck water through the raised bulwarks, such that while the water is freely discharged, its ingress by way of the discharge apertures is minimized or prevented.

20 According to the invention there is provided toward the lower edge of the canvas bulwarks a series of apertures preferably rectangular and, it may be, supported by frames. Each aperture is closed in known manner by a flap valve (which may be weighted) opening outward. Attached to (or attached to the bulwark adjacent to) each aperture is a canvas trunk of the same
30 or similar contour as the aperture, and of a length approximately equal to the height of the bulwark above the aperture. To the lower side of this trunk is secured a float (or floats) such for example as a batten of cork or other buoyant material. The upper edge of the trunk may be weighted. It is clear that in operation the weight of the discharging water will cause the trunk to expand and permit its free exit. On the
45 other hand, when the boat is struck by a wave, or when there is an inward surge of water, the float, rising therewith will cause the trunk to collapse or fold upon itself, thus effectively minimizing ingress of water to the usual flap valve, and so its entrance into the boat.

50 It will be apparent that the invention is applicable to decked liftboats generally, that is, not only to those having collapsible can-

vas bulwarks, but also to those in which the bulwarks are rigid and formed in one with the lower structure.

By way of example the invention is shown in the accompanying drawings as applied to a decked lifeboat of the type referred to, Figure 1 being an end elevation thereof, while Figs. 2 and 3 are respectively a side elevation partly in section, and a transverse section of parts thereof sufficient to show one of the improved freeing ports, Fig. 3 being to a larger scale.

As shown the lifeboat comprises a lower buoyant structure A having canvas bulwarks B extending between an upper supporting rail C and the deck, the rail being connected to the structure in known manner so that it may be fixed in a raised position or lowered to expand or contract the canvas bulwarks.

In carrying out the invention there is provided toward the lower edge of the canvas bulwarks B an aperture D rectangular in form, the edges of which may be stiffened by a rigid frame, and it is to be understood that there is preferably a series of such apertures. Each aperture D is closed by a flap valve E opening outward and consisting preferably of canvas attached along its upper edge to the canvas bulwark B. The valve is weighted by a rod G secured to the lower edge of the flap. A canvas trunk H of the same or similar contour as the aperture D is so attached to the bulwark B as to surround the aperture D. This trunk is of a length approximately equal to the height of the bulwark above the aperture. To the lower side of this trunk H are secured floats J of cork or other buoyant material. If desired the upper edge of the trunk may be weighted.

Normally the trunk will lie on the surface of the water in a collapsed condition after the manner shown in Fig. 1, but, should a sea be shipped it is clear that the weight of that water when it reaches the freeing port, will lift the flap valve E and cause the trunk to expand, thereby insuring a free and expeditious discharge of such water as shown in Fig. 3. On the other hand should the boat be struck by a wave, or when there is a surge of water up the side thereof, the floats on the trunk H will raise the trunk and cause it to fold upon itself, or against the bulwark B, in a collapsed condition, thus

the ingress of water through the trunk to the flap valve and so its entrance into the boat is effectively minimized.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent:

1. An improved freeing port for the discharge of water through the bulwarks of decked life-boats, comprising an aperture toward the lower edge of the bulwarks, an outwardly opening flap valve closing the said aperture, a flexible trunk of similar contour as the aperture so secured to the bulwark as to surround the aperture, and a float secured to the lower side of the said trunk.

2. An improved freeing port for the discharge of water through the bulwarks of decked life-boats, comprising an aperture toward the lower edge of the bulwarks, an

outwardly opening flap valve closing the said aperture, a flexible trunk of similar contour as the aperture so secured to the bulwark as to surround the aperture, a float secured to the lower side of the said trunk, and a weight secured to the upper edge of the trunk.

In testimony whereof we affix our signatures in presence of two witnesses.

VALDEMAR ENGELHARDT.
P. McALISTER.

Witnesses as to the signature of Valdemar Engelhardt:

CECIL V. SCHON,
VIGGO BLOM.

Witnesses as to the signature of Peter McAlister:

PETER MCANDREW,
JOHN B. MACKIE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."