

(No Model.)

W. D. DUNCAN.

SAFETY JACKET OR HOOD FOR VESSELS.

No. 373,133.

Patented Nov. 15, 1887.

Fig: 1.

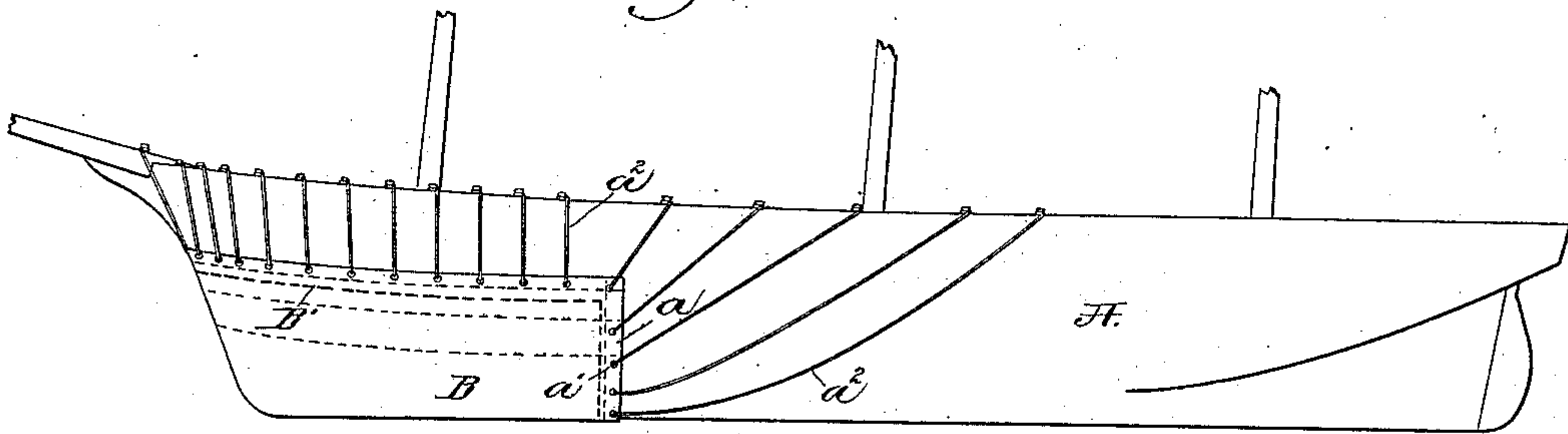
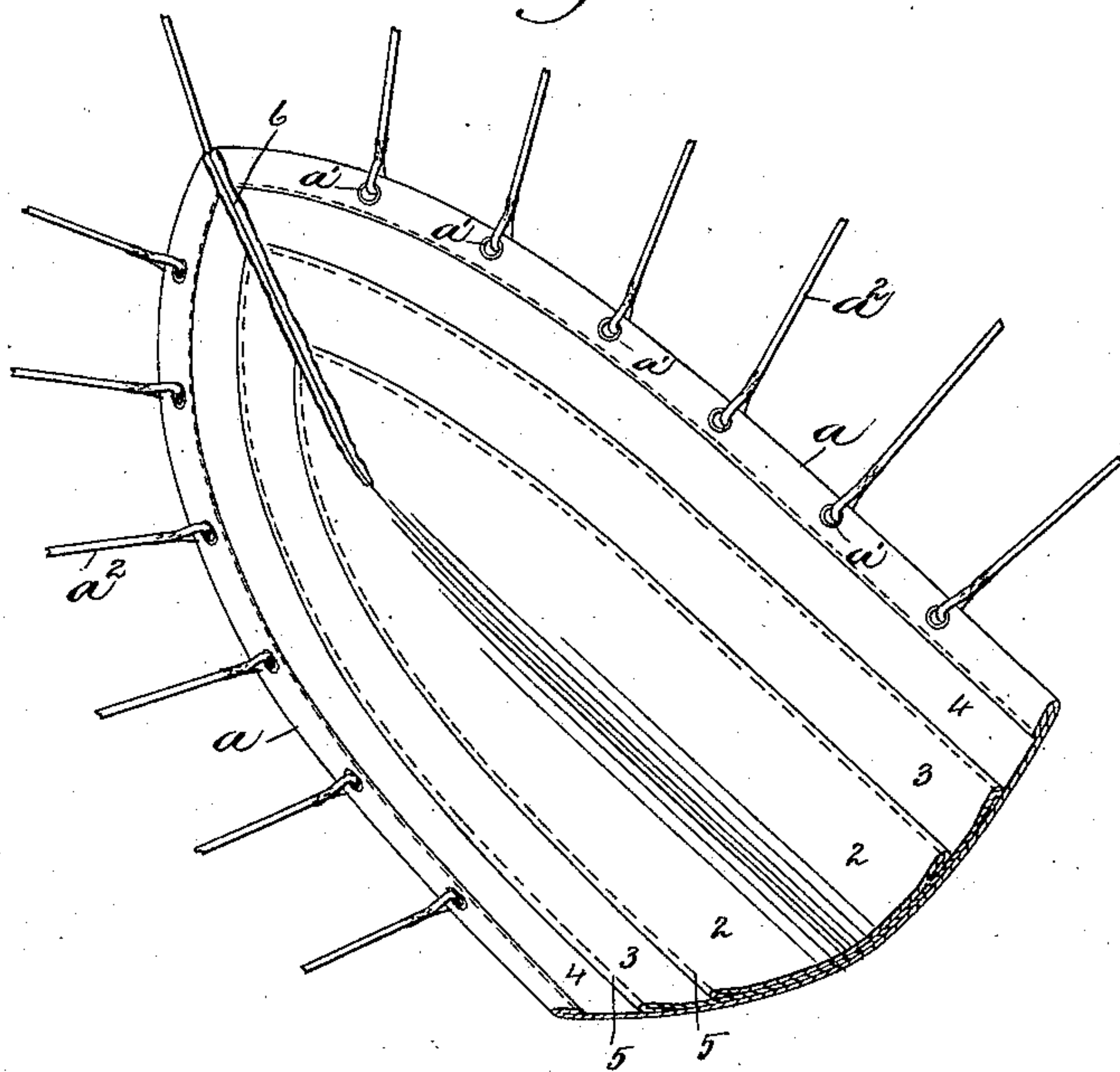


Fig: 2.



Witnesses.

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WILLIAM D. DUNCAN, OF BOSTON, MASSACHUSETTS.

SAFETY JACKET OR HOOD FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 373,133, dated November 15, 1887.

Application filed February 2, 1887. Serial No. 226,309. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. DUNCAN, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in
5 Jackets or Safety-Hoods for Vessels, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 In navigation it frequently happens that a vessel loses her course in time of fog or storm and runs upon a sunken ledge or rock along the coast, or is run upon the beach, thereby staving holes in her bottom near the bow.
15 Through the holes thus made in the bottom of the vessel the water pours until it fills the hold. In many cases the hole in the bottom of the vessel is too large to be effectually closed by the means ordinarily employed, and conse-
20 quently the vessel cannot be profitably rescued and taken to docks for repairs.

In accordance with my invention I provide for emergencies of the character referred to by providing for the vessel a flexible jacket or
25 safety-hood adapted to be drawn under and about one end, herein shown as the bow of the vessel, in which position it is securely fastened in suitable manner, the said jacket or safety-hood covering the keel and bow back of
30 the hole to be protected and to a point on the bow above the water-line.

My improved flexible jacket or safety-hood will preferably be made of three or more layers of No. 1 cotton duck sewed or otherwise
35 fastened together and cut or shaped according to the lines of the vessel, so that the said flexible jacket or safety-hood will fit the bow of the said vessel, the said jacket or safety-hood extending beyond the hole in the bottom of
40 the vessel.

Figure 1 is a side elevation of a vessel provided with my improved jacket or safety-hood, and Fig. 2 a view of the jacket or safety-hood detached to show the construction preferred
45 by me.

The flexible jacket or safety-hood is composed, preferably, of three layers, 2 3 4, of No. 1 cotton duck united, as shown, by stitching 5, the layers forming the jacket or safety-
50 hood, being cut obliquely or "on the bias" and united together, as at 6, to fit the bow, as

herein shown, of the vessel A above the water-line. By making the strengthening-layers 2 3 of lesser width than the outer or main layer, 4, the hood or leak-stopper is adapted to be
55 forced snugly at its edges against the vessel by the pressure of the water, and the said hood will also have the greatest resistance where the greatest strain will come, while due economy of material will be secured in the manu-
60 facture of the hood.

The outermost or bottom layer, 4, of duck is shown as folded upon itself at its sides and end (see Fig. 1) to form a fly, *a*, which is provided with eyelets *a'*, through which stay-ropes
65 *a''* are inserted and fastened, the said stay-ropes being fastened, as herein shown, to the sides or deck of the vessel after the jacket or safety-hood has been drawn over the bow of the ves-
70 sel.

The jacket or safety-hood, in practice, will be of such size that its sides will be above the water-line.

In order that my invention may be comprehended and its great advantage and utility
75 readily seen, let it be supposed that the vessel A, which may be a steamship or sailing-vessel of any type or class, has had a hole stove in her bow. In this condition divers, if the vessel is submerged, or nearly so, will apply the
80 jacket or safety-hood, as shown in the drawings, to fully cover the hole in the bow of the vessel, and thereafter the water will be pumped out and the vessel raised and started on her course by towing or otherwise.

85 The force of the water upon the jacket or safety-hood as the vessel cuts through the water is sufficient to press the flexible material of the jacket or safety-hood against the vessel close enough to practically prevent water en-
90 tering between the bow of the vessel and the jacket or safety-hood.

The cotton duck, when once wet, is substantially impervious to water, so that when the jacket or safety-hood has been placed over the
95 hole very little, if any, water can get into the vessel, and that which does can be easily removed by the pumps.

I do not desire to limit myself to the use of cotton duck, as it is evident other textile or
100 water-proof fabric might be used.

I have herein shown my improved jacket or

safety-hood as made of three layers of cotton duck; but I do not desire to limit myself to the precise number of layers, as a single layer might be used with advantage.

5 When my improved jacket or safety-hood is applied to iron vessels, the stay-ropes alone are depended upon to secure the said jacket or safety-hood in place; but when applied to wooden vessels a batten, B', will also be used,
10 it being nailed to the vessel near the upper and aft edges of the jacket or safety-hood.

I have herein shown the jacket or safety-hood as extended but a part of the length of the vessel, so as to cover only a portion of the bottom
15 near the bow; but I wish it to be understood that the said jacket or safety-hood may, if necessity requires it, be extended to completely cover the bottom of the vessel in the direction of its length; or the said jacket or safety-hood
20 may be drawn under the stern and extended toward the bow beyond the hole in the vessel, in which case the vessel, if an iron one, will proceed through the water stern foremost.

I claim—

25 1. As an improved article of manufacture, a

jacket or safety-hood for controlling leaks in vessels, consisting of two or more layers of cotton duck secured together, the strengthening layer or layers being of lesser width than the main or outer layer, whereby the greatest
30 resistance will be brought where the greatest force or strain will come, substantially as set forth.

2. As an improved article of manufacture, a jacket or safety-hood for controlling leaks in
35 vessels, consisting of two or more layers of cotton duck cut and fitted to substantially conform to the lines of a vessel and secured together, substantially as described, the said jacket or safety-hood being adapted to be
40 drawn under and about one end of the said vessel, substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two sub-
45 scribing witnesses.

WILLIAM D. DUNCAN.

Witnesses:

G. W. GREGORY,
F. CUTTER.