J. E. JOUETT & W. B. HOFF.

Safety-Buoy.

No. 205,751. Patented July 9, 1878.

Fig. 1

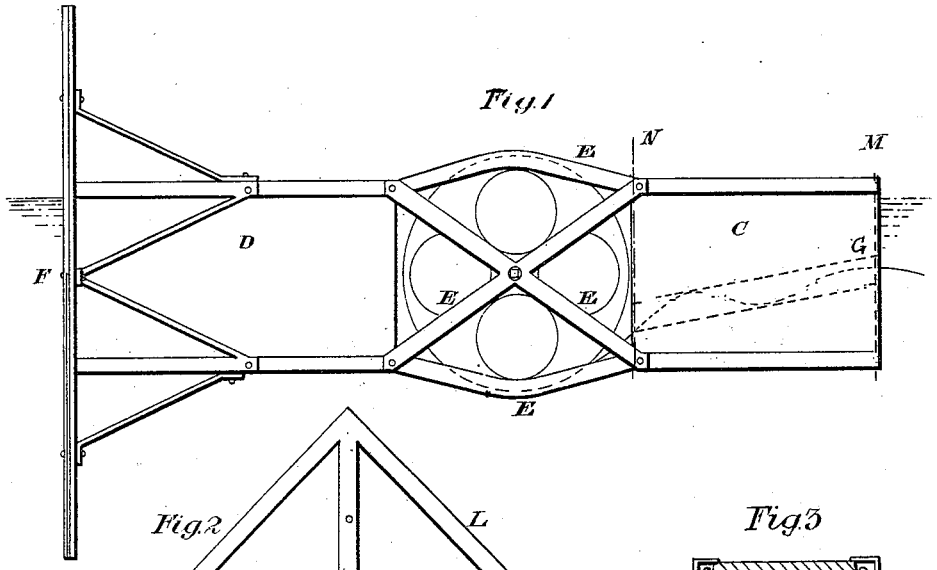


Fig. 2

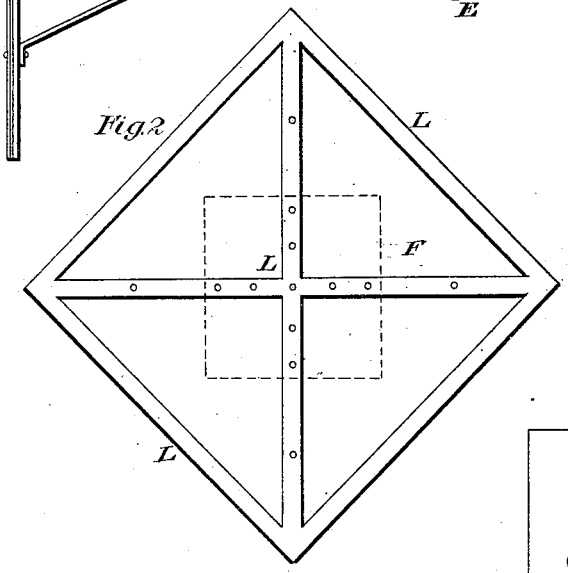


Fig. 3

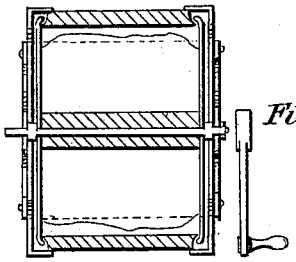


Fig. 6.

Fig. 5

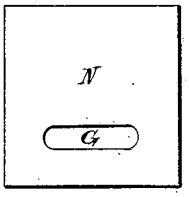


Fig. 4

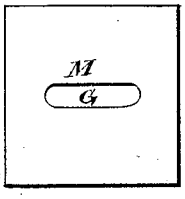
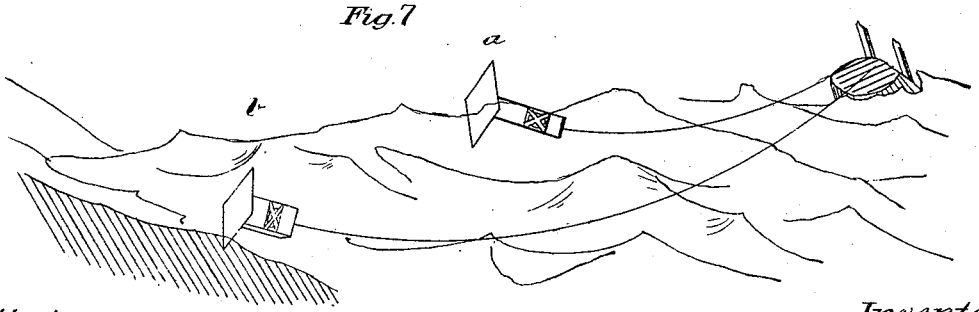


Fig. 7



Attest

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UNITED STATES PATENT OFFICE.

JAMES E. JOUETT AND WILLIAM BAINBRIDGE HOFF, OF WASHINGTON, D. C.

IMPROVEMENT IN SAFETY-BUOYS.

Specification forming part of Letters Patent No. **205,751**, dated July 9, 1878; application filed June 14, 1878.

To all whom it may concern:

Be it known that we, JAMES EDWARD JOUETT and WILLIAM BAINBRIDGE HOFF, of the city of Washington, in the District of Columbia, have invented a new and useful Improvement in Life-Saving Apparatus, said device to be known as a "Safety-Buoy," of which the following is a specification:

The invention relates to using the force of the wind and waves to connect two points in the sea by a line, and is applicable to the running of a line from a wreck to the shore, or to picking up a man or a vessel at sea by another vessel.

In the majority of cases vessels run aground on a lee shore, and are wrecked by the action of the wind and sea upon them when in this position. When vessels ground on a weather shore there can be but little sea, and the wind is favorable for their getting off. The position of danger, then, is grounding on a lee shore. A floating object, under these circumstances, will be quickly washed on shore by the action of the wind and surf which is setting in that direction. Upon stranding, in order to save life and property, it is of the first importance for the vessel to establish a communication between herself and the shore by line.

The greater portion of the coast-line of the world is not supplied with a life-saving service. Where there is no such service the line must come from the ship. As no device well known to seamen is supplied to vessels to carry out this object, any success in this direction must be looked upon as a happy accident permitted by circumstances.

Where there is a life-saving service a communication is established generally by throwing a shot carrying a line from a mortar on shore to the stranded vessel. There are the following objections, among others, to be urged against this method: First, the small object that the vessel presents as a target for the aim of the mortar; second, the small amount of line that can be carried out; third, the difficulty of carrying the mortar from place to place; fourth, the shortening of the trajectory when the line is thrown to windward, or the disturbing of the trajectory by the lee sag of the line.

Off many places—for instance, off Hatteras—there are outlying shoals. A vessel grounding on the weather side of these would be entirely without the reach of a mortar-shot. Any floating object thrown from the wreck, however, would be quickly washed across the shoal.

The stranding of a vessel in a blow is succeeded immediately by a scene of greater or less demoralization. Any device to serve at this time for getting a line ashore from the wreck must be entirely ready, require no assembling of material, and be simple in its action. Its highest feature of merit would be to have it equally powerful in the hands of the most ignorant passenger or in those of the most skilled sailor.

A summary of the foregoing remarks would show, first, that the lee shore is the position of danger; second, that when a vessel grounds on a lee shore, there are two forces setting constantly on shore—the wind and the surf; third, that any floating object would quickly be driven on shore by these forces; fourth, that a line communication is a primary necessity; that there are so many objections to mortar-firing that the line should come from the ship to the shore, and not vice versa; fifth, that simplicity and constant readiness are an essential in any device looking to connect a ship by line with the land.

The object of our invention is to furnish a means to carry this line from the vessel to the shore, and which shall have the feature of anchoring itself on the strand, to prevent it from being washed to seaward again.

The invention consists in a floating body or buoy so equipped and arranged as to be best acted upon by the sea and wind, and which shall by these means make progress through the water, carrying with it a line which shall be given or paid off from the buoy, so as to in no wise interfere with or hinder or prevent the progress of said buoy through the water. Furthermore, that this buoy shall be so equipped as to anchor itself on the beach.

In the accompanying drawing, in which similar letters of reference indicate like parts, Figure 1 represents a side elevation of the safety-buoy. The water-tight tanks C and D are connected rigidly together by the stays E E E E,

and contain between them the reel or other device for holding and giving off the line. This affair is equipped and governed for taking advantage of the propelling power of the wind and sea by the large shield or head F. This shield or head is shaped and strengthened, so as to readily catch in the strand and anchor the concern. The line is given off through a water-tight sleeve, G, in the water-tight compartment C, so as, with the shield or head, to keep the safety-buoy pointed fair for the shore and prevent fouling.

Fig. 2 is a view of the shield or head. Fig. 3 is a section through the reel. Fig. 4 is a section through M. Fig. 5 is a section through N. Fig. 6 shows the crank for winding on the line; Fig. 7, a view of the buoy in the surf—*a* coming ashore, *b* anchoring itself on the beach.

The operation of the device is as follows: The safety-buoy, being at all times ready on deck, is merely thrown over the lee side, the end of the line being retained aboard-ship. The action of the wind and sea will drive it toward the beach. The line is given off from the buoy, so that any fouling between the ship and buoy will not impede the buoy's progress. On reaching the beach the buoy sinks its shield in the sand or catches it in the rocks.

In picking up a man overboard, the buoy lies dead in the water near the man, who can lay hold of it. The line connects the buoy with the ship, the end, of course, being in all cases retained on board. The man can be hauled into the ship when circumstances would prevent the lowering of a boat.

We claim—

1. A life-buoy provided with the fore and aft air-compartments C and D and the intermediate open compartment, the latter being provided with the reel for carrying a line, by which construction the line is automatically unreeled as the buoy drifts, substantially as described.

2. A life-buoy provided with a head or shield constructed substantially as described, so as to be adapted to readily catch in the strand and anchor the buoy, substantially as shown.

3. A life-buoy constructed substantially as described, the after air-compartment of which is provided with a water-tight sleeve, through which the line passes from the reel, substantially as shown.

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Witnesses:
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