No. 800,926. PATENTED OCT. 3, 1905.

P. MAHONY.

LIFE SAVING APPARATUS.

APPLICATION FILED MAY 25, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

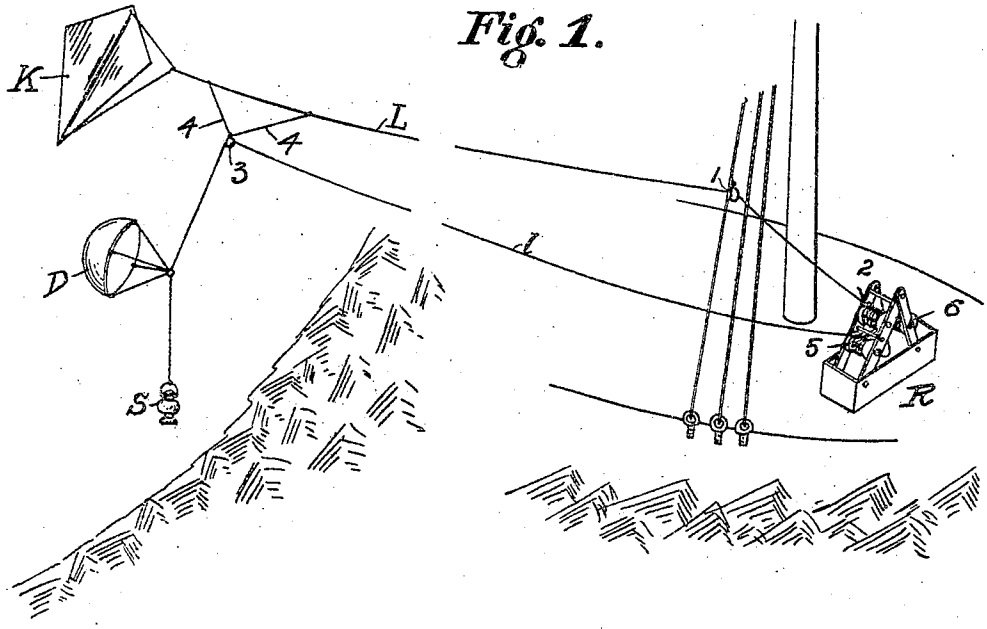
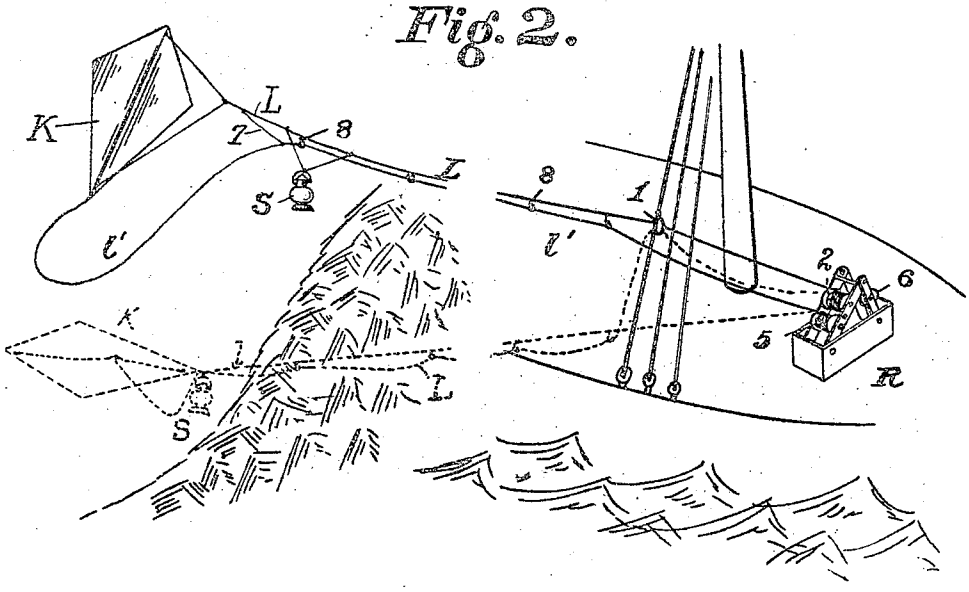


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

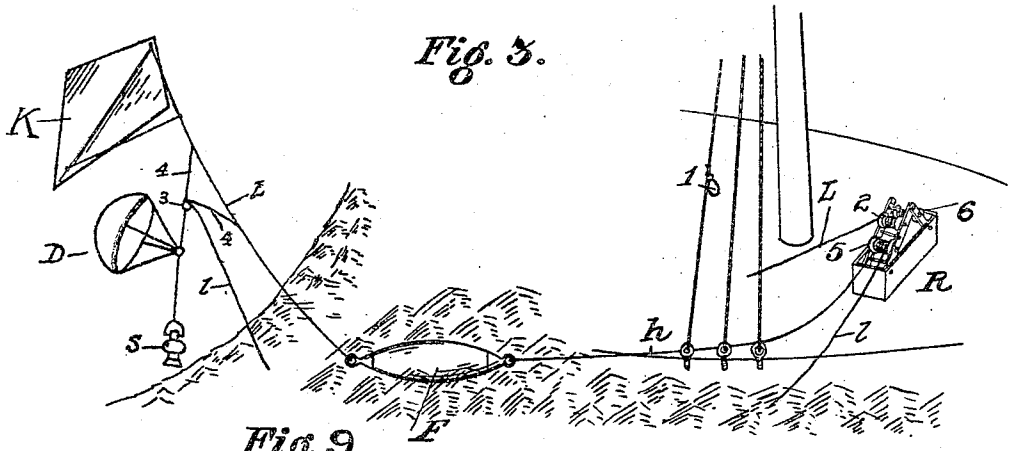


Fig. 9.

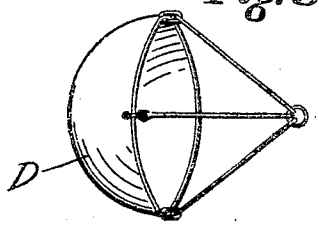


Fig. 10.

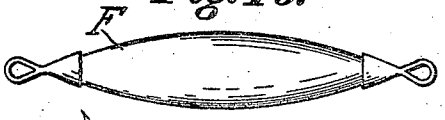


Fig. 4.

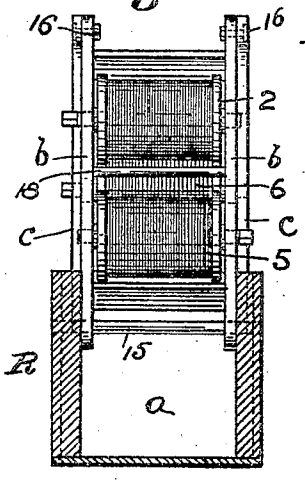


Fig. 6.



Fig. 7.

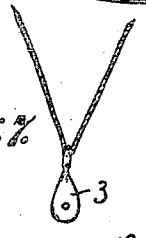


Fig. 5.

Fig. 8.



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UNITED STATES PATENT OFFICE.

PETER MAHONY, OF NEW YORK, N. Y.

LIFE-SAVING APPARATUS.

No. 800,926. Specification of Letters Patent. Patented Oct. 3, 1905.

Application filed May 25, 1904. Serial No. 209,635.

To all whom it may concern:

Be it known that I, PETER MAHONY, a citizen of the United States of America, residing at New York city, in the county of Kings and State of New York, have invented certain new and useful Improvements in Life-Saving Apparatus, of which the following is a specification.

My invention has reference to improvements in life-saving apparatus for use on board of ships and vessels wrecked on a lee shore, whereby the crew is enabled to establish communication with the shore in a quick, effective, and reliable manner and secure the running of a life-line or hawser from the ship to the shore at a time when the same cannot be done by any known means now in use, owing to the excessive force of the wind from the ship to the shore, whereby a line could not be shot from a gun or mortar, and the height or roughness of surf and sea or floating ice prevents the launching and successful passage of life-boats.

The nature of my invention will best be understood when described in connection with the accompanying drawings, in which—

Figure 1 represents a perspective view showing the kite and appurtenances flown from a vessel. Figs. 2 and 3 are similar views illustrating modified forms of the apparatus. Fig. 4 is a section on the line 4 4, Fig. 5, illustrating the reeling mechanism. Fig. 5 is a longitudinal section of the same. Figs. 6, 7, 8, 9, and 10 are detail veiws of the several appurtenances.

Similar letters and numerals of reference designate corresponding parts throughout the several views of the drawings.

Referring at present to Fig. 1 of the drawings, the letter K designates a kite of any approved construction having sufficient drawing and lifting powers. L is the kite-line, attached to the kite, as usual, and by which the kite is flown, the said line to be accurately measured and marked at every one hundred feet or less, so that when the line has reached the shore the distance from shore to ship will be accurately known on board the ship and subsequently communicated to the shore.

R, Figs. 1, 4, and 5, is a reeling device comprising a box *a*, having therein the frames *b* and *c*, of which frame *b* is hinged to the inside of the box, as at 15, and the frame *c* is hinged to the former frame at its top, as at 16, and its lower end is adapted to be secured to the sides of the box by studs 17 or the like. If the end of the frame *c* is disconnected, it can be turned inwardly about the pivot 16 and both frames folded into the box for storing away or for transportation, all the parts of said apparatus except the kite being stored in the box when not in use. The box when in use is screwed or nailed to the deck. In said frames are mounted reels 2, 5, and 6 for receiving the several lines. Between the reels 2 and 5 and secured to the opposite sides of the frame *d* is located a bar or rod 18, which serves as an abutment for a lever or stick used by the sailor to brake the reel 2 when necessary.

Referring to Fig. 1, *l* is a supplementary or communicating line attached to the kite-line L and reeled on the lower reel 5 of the reeling device R. S is a lantern or weight attached to the end of the line *l*, and D, Figs. 1 and 3, is a parachute-shaped wind-drag.

It must be borne in mind that whenever my life-saving apparatus is called into use the ship will invariably be listed to or from the shore, the deck on an incline, the wind blowing with terrific force, and the crew will experience great difficulty in moving about or doing anything necessary to be done on deck, making it necesssary to provide means to enable the crew to successfully launch the kite and prevent its being smashed or wrecked against the vessel or its rigging. To this end I provide the following means, reference being had to Fig. 1. The kite having been dismounted for packing and storage purposes is properly assembled in the cabin or in the most available place sheltered from the force of the wind. The kite being in position on the shore side of the ship, the end of the kite-line on reel 2 of reeling device R, (which latter has been made fast to the deck,) together with a pulley or tail block 1, having a tail-strap attached, Figs. 1 and 6, are carried up the rigging, provided it is standing. The pulley or tail block is then fastened to the rigging, the end of the kite-line L rove through the pulley carried down on deck and fastened to the place on the kite provided for the same. The kite-line is wound on reel 2. The kite now being in position, the officer in charge gives the word, when the men holding the kite lift it up above the rail, the man stationed at the kite-line L at the same time hauling on the same and paying out said line as the wind blows the kite clear of the ship and up until it flies on the line steady and strong. If the ship's spars and rigging are

not standing, the kite can be flown from the deck; but the chances of success are not so certain. The kite having flown off from the ship and toward the shore—say about three hundred and fifty feet—my invention provides for another pulley-block 3, secured in the bight of another cord 4, Figs. 1 and 7, thus providing two separate parts about four feet long, the ends of which are secured to the kite-line L, as shown in Fig. 1, having the pulley-block 3 suspended from the kite-line L about three feet. The communicating line *l* on reel 5 is then rove through the pulley-block 3, suspended from the kite-line and about four feet from the end of said line *l*. There is then attached the umbrella or parachute shaped wind-drag D, the purpose of which is to counteract the pressure of the wind on that part of the line *l* between the pulley-block 3 and the reel R. To the end of the line *l* is also attached a lantern S, properly weighted, to be used in the night or a weight to be used in the day-time. The kite now flying steady off from the ship and toward the shore with the communicating line *l*, the pulley-block 3, the wind-drag D, and the lantern or weight S adjusted and arrranged as hereinbefore described, the kite-line L and the communicating line *l* are paid out or slacked off together toward the shore, due care being taken to keep the kite flying steady and well up. As the kite approaches near to the shore the communicating line *l* is paid out a little faster, when the wind-drag and weighted lantern will descend. The kite having flown off until, as seen through glasses or by signals from the shore it has reached a point over the land that will enable the lantern or weight to be reached from the shore, the kite-line L is held fast and the communicating line *l* is slacked or paid out. The lantern or weight is lowered until it is reached and is caught by men on the shore. Both lines are then held fast on board the ship, and according to instructions attached to and sent out with the lantern or weight the communicating line *l* is hauled down, bringing with it the kite-line, until it is reached, when communication with the shore is established by two lines or cords by which a stronger and heavier line which is wound around the reel 6 temporarily in bearings on the adjustable frame in the reeling apparatus is hauled to the shore, after which a life-line or hawser and a whip can be hauled from the shore to the ship or from the ship to the shore, as circumstances direct.

For the purpose of further assuring a connection with the shore in case the line *l* should have parted through accident or carelessness in hauling it down or should become jammed or fouled, so that it will not lower the lantern or weight when desired, I carry as part of the outfit a float or drag F, Figs. 3 and 10, and a supplementary heavier line *h*, wound on a reel 6. In case of such accident to the line *l* I take the line L down from the rigging, sever the connection with the reel 2, and attach the line L to one end of the float F, while to the other end of the float I attach the supplementary line *h* and then throw the float F overboard, as indicated in Fig. 3. When the lines are jammed or fouled and the ends of both are accessible aboard the ship, I may of course disconnect both lines from their respective reels and attach said lines to one end of the float and the supplementary line *h* to the other end, as before. The kite will tow the float or drag to the shore and connection therewith be established by the line *h*, which has been paid out or slacked off from the drum 6, temporarily adjusted in bearings provided for the same in the reeling apparatus. The float or drag F is of just sufficient size and weight to hold the end of the line L to the water and present a minimum of area or surface to the action of cross-currents and made pointed at both ends for the purpose of enabling the kite to draw it easily through the water and in case of shift of wind or the lessening of the force thereof to permit said drag to be easily drawn back through the water toward the ship for the purpose of manipulating and steadying the kite in its flight to the shore.

In Fig. 2 I have illustrated a modified method of operating my life-saving apparatus, preferably to be used in daylight, although the same can be used at night by attaching a lantern to the kite-line L, as shown. The kite having been prepared for launching, as hereinbefore described, the line *l'* on lower reel 5, which line I will hereinafter term the "trip-line," is attached to the extreme lower point on the frame of the kite and about ten feet of the line drawn from the reel 5, and one end of a short cord 7, about three feet long and of about one-half the breaking strength of the trip-line *l'*, is attached to the trip-line *l'* at a point about ten feet from the end secured to the bottom of the kite. The other end of the short cord is then secured to the kite-line L about four feet from the face of the kite. The purpose of the short cord is to carry the pull or drag of the trip-line *l* from the reel 5 without pulling or straining on the bottom of the kite while in its flight toward the shore. The kite is released and started, as hereinbefore described, on its flight toward the shore, carrying with it the end of the trip-line *l'*, which is slacked off or paid out from the reel 5 the same time as the kite-line L. When the kite has flown off about three hundred and fifty feet, the trip-line *l'*, still being kept slack, is brought up to and suspended from the kite-line L by means of an open hank 8, Figs. 2 and 8, which is hooked into the loop of the stirrup-cord. The kite is then permitted to fly off, still keeping the trip-line *l'* slack. At about every

three hundred and fifty feet the trip-line *l'* is suspended from the kite-line by means of a hank 8 until it has reached the desired position over the land, when the trip-line is held fast aboardship and the kite-line L slacked off or paid out until the trip-line running through the hanks becomes taut, when as the strain is transferred to the small connecting-line 7 it will break, when the strain or pull of the kite being transferred to the trip-line secured to the bottom of the kite it will cause it to trip and fall to the ground, thereby establishing connection with the shore by two lines *l'* and L, as aforesaid.

By practical experiments made by me with the arrangement shown in Fig. 1 and in a gale of wind the end of the communicating line *l* was actually delivered at a point on the land over one thousand feet from the reel in less than fifteen minutes from the time the kite was released at the point of flight, and having secured the end of this line the same was hauled down until the kite-line was secured. I furthermore by apparatus adjusted and operated as described in connection with Fig. 2 have in a gale of wind actually caused a kite with the two lines L and *l* attached thereto at the first trial to fly off and drop to the ground when desired at one thousand and fifty measured feet from the kite to the reel in ten minutes from the time I released the kite on its flight.

I do not in this application specifically claim the arrangement of the trip-line with the kite-line as shown in Fig. 2, this arrangement forming the subject of a separate or divisional application.

What I claim as new is—

1. In a life-saving apparatus for ships, the combination of a kite, a kite-line attached thereto, a tail-block secured to the rigging through which tail-block the kite-line is rove, a reel-box and a frame adjustably mounted therein and carrying the kite-line reel.

2. In a life-saving apparatus for ships, the combination of a kite, a kite-line held on the ship and attached to the kite in the usual manner, a second line supported by said kite-line and held on board the ship and forming the means for establishing connection between the ship and the shore.

3. In a life-saving apparatus for ships, the combination of a kite, a kite-line held on the ship and attached to the kite in the usual manner and a second line supported by the kite-line at a suitable distance from the kite, its free end being weighted so that it can be lowered to the ground by paying it out from the ship faster than the kite-line.

4. In a life-saving apparatus for ships, the combination of a kite and a kite-line connected thereto and held on the ship, a block suspended from the kite-line at a suitable distance from the kite, the second or communicating line held on the ship and rove through said block, a weighted lantern or other weight attached to the second line, which when paid out faster than the kite-line drops to the shore and establishes communication between the shore and the ship.

5. In a life-saving apparatus for ships, the combination of a kite, a kite-line, a tail-block secured to the rigging through which tail-block the kite-line is rove and then connected to the kite in a usual manner, a block suspended from the said kite-line at a suitable distance from the kite, a reel-box adapted to be secured to the ship and containing an adjustable frame carrying the kite-line reel and also a second-line reel, the second line being rove through the block suspended from the kite-line, a wind-drag attached close to the end of the second line and a weighted lantern or other weight attached to the free end of the second line so that when the second line is paid out faster than the kite-line, the former is brought to the ground and communication is established between the ship and the shore.

6. The combination with a life-saving apparatus embodying a kite, a kite-line attached thereto and a second line; of a float or drag pointed at both ends and connected at one end to the ship end of said kite-line, and at the other end to a supplementary line carried aboard a ship and controlling said float or drag.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

PETER MAHONY.

Witnesses:

A. FABER DU FAUR, Jr.,

RAENA H. YUDIZKY.