H. F. SMITH.

LIFE SAVING APPARATUS.

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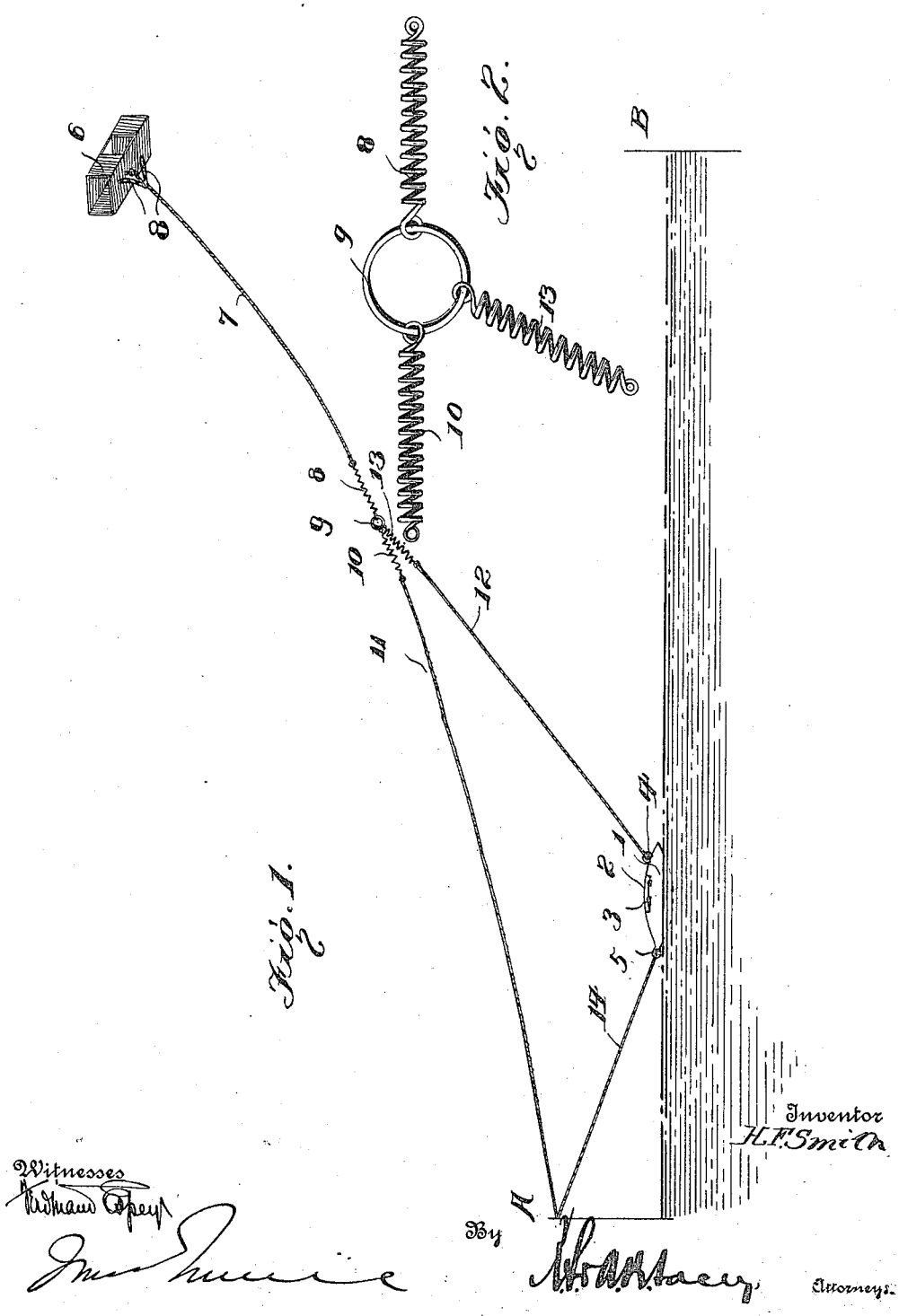
1,068,459. Patented July 29, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

HARRY F. SMITH, OF RICHMOND, VIRGINIA, ASSIGNOR OF ONE-HALF TO GEORGE J. HOOPER, OF RICHMOND, VIRGINIA.

LIFE-SAVING APPARATUS.

1,068,459. Specification of Letters Patent. Patented July 29, 1913.

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To all whom it may concern:

Be it known that I, HARRY F. SMITH, citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Life-Saving Apparatus, of which the following is a specification.

This invention relates to marine life saving devices and has as its object to provide a device by the use of which a line or rope may be sent from a wrecked vessel to the shore so that the paraphernalia of the breeches buoy or like device may be placed in position to transfer persons from the vessel to the shore, and which also may be used to transfer light baggage or mail from a vessel through the surf to the shore or from the shore to the vessel, as desired.

One aim of the invention is to provide, in apparatus of this class, an aerial traction device and a float arranged to be drawn thereby, means whereby the movement of the traction device may be controlled from the ship equipped with the apparatus and the float safely conveyed over rocks and shoals.

The invention also aims to provide means arranged to automatically relieve the traction ropes or cables of tension should the movement of the float be for any reason retarded.

For a full understanding of the invention reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a view illustrating the apparatus in use. Fig. 2 is a detail view illustrating a yieldable connection for the cables of the apparatus.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawing by the same reference characters.

In the accompanying drawing, for convenience in describing the construction and use of the apparatus, the reference character A, in the drawing, indicates the vessel which is equipped with the apparatus and B the shore to which the float of the apparatus is to be drawn.

The float mentioned above is indicated in general in the drawing by the reference numeral 1 and is preferably in the form of a hollow ellipsoidal body which may be of metal, wood, or other suitable material and which is provided in its upper side with a door 2 which may be hinged as at 3 or mounted in any other suitable manner. A ring 4 is located adjacent to the forward end of the body 1 upon the upper side of the body and a similar ring 5 is located at the rear end thereof. As stated above, the float is to be drawn over the surface of the water from the vessel to the shore by means of an aerial traction device which in the present instance is illustrated as in the form of a box kite 6, although any similar device of this type may be equally as well employed. A line or rope 7 is connected by means of branch ropes with the kite 6 and at its opposite end to one end of a spring which is connected to a ring 9. A spring 10 is also connected to this ring 9 and to its other end has connected one end of a rope 11 which is stored upon the vessel and may be paid out from a coil or from a suitable reel upon which it is wound. By this cable 11 the movement of the kite 6 may be controlled as will be readily understood so that the kite may be retarded in its movement, if desired. A rope or line 12 is connected at one end to the ring 4 upon the body 1 of the float and at its other end to one end of a spring 13 which in turn is connected to the ring 9. The float is in this manner connected with the kite 6 whereby as the kite travels from the vessel, it will draw the float across the surface of the water.

In order that the movement of the float may be controlled as it moves through the water, a cable 14 is connected to the ring 5 at the rear end of the float and leads to the vessel A where it may be stored in any suitable manner, preferably upon a reel. It will be understood at this point that the cable 14 may be so manipulated as to guide the float and keep the same in a straight course and is therefore particularly useful when the float is being drawn through whirlpools.

It will be apparent from inspection of Fig. 1 of the drawings that the cables 12 and 14 incline downwardly at an angle from the cabe 7 and vessel A, respectively, so that while the kite 6, in its movement, may draw the float, the float will not be supported out of the water. However, should it be necessary to transport the float over rocks, rapids, or shoals, the cable 14 may be drawn in, thereby tending to bring it and the cable 12

into alinement and in this manner the float will be lifted a greater or less distance above the surface of the water and after having passed over the rocks or shoals, may be again lowered by slackening the cable 14.

It will be apparent from the foregoing that the springs 8, 10 and 13 serve to relieve all of the cables of sudden tension should the float be retarded in its movement, and consequently breakage of the cables is not likely to occur.

From the foregoing it will be seen that there is provided an apparatus which may be conveniently and successfully employed in transporting persons from a wrecked vessel to shore or to an adjacent vessel and also for the transportation of mail and supplies of all kinds where it is impractical to convey the same in a small boat.

It will also be apparent that the kite may be made foldable or a collapsible balloon may be employed in its stead and that either of these aerial traction devices may be stored within the float 1 after the float has reached the shore or an adjacent vessel, and the float may then be drawn back to the vessel equipped with the apparatus by winding the cable 14.

It will be understood, of course, that if desired the rope or cable 14 may be dispensed with depending upon the conditions under which the apparatus is to be used.

It will also be apparent that there is provided an apparatus which will quickly convey a line from a wrecked vessel to the shore with certainty, which is not always true as concerns the use of a cannon or the like for firing a line to shore. Also it will be understood that in place of the kite 6 a balloon or other aerial traction device may be employed and that such device may be drawn back to the vessel, equipped with the apparatus, by winding the rope 11.

Having thus described the invention what is claimed as new is:—

1. In a life saving apparatus of the character described, a float, an aerial traction device, a line leading directly to the aerial traction device and formed in two sections, a linking member between the sections, resiliently yielding connections between the two sections of the line and said linking member, a line leading from the bow of the float to said first named line, and a yielding resilient connection between said last named line and the said linking member.

2. In a life saving apparatus of the character described, a float, an aerial traction device, a line leading directly to the traction device and formed in two sections, a ring-like linking member disposed between the sections, a spring connecting each section to the linking member, a float, a flexible connection leading from one end of the float to said line, and a spring disposed between and connecting the last named flexible connection to the said linking member.

3. In a life saving apparatus of the character described, a float, an aerial traction device, a line connected directly to the traction device and formed in sections, yielding connections between the sections of the line, a flexible connection extending from one end of the float to said line, and a spring between the line and the last named connection.

4. In life saving apparatus of the class described, a float, an aerial traction device, a line connected to the traction device, a line connected to the float, a ring, springs connected to the ring and to the said lines, and a stern line connected to the ring.

5. In life saving apparatus of the class described, a float, an aerial traction device, a line connected to the traction device, a line connected to the float, a ring, springs connected to the ring and to the said lines, a stern line connected to the ring, and a stern line connected to the float.

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

HARRY F. SMITH. [L. S.]

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