No. 814,116. PATENTED MAR. 6, 1906.

J. W. DALTON.

LIFE SAVING DEVICE.

APPLICATION FILED JUNE 27, 1905.

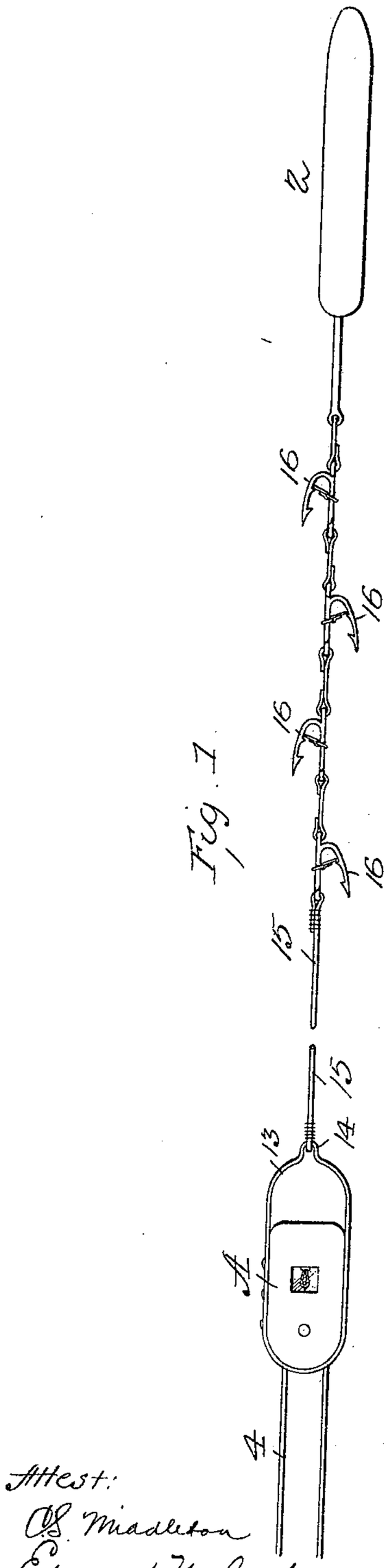

Fig. 1.

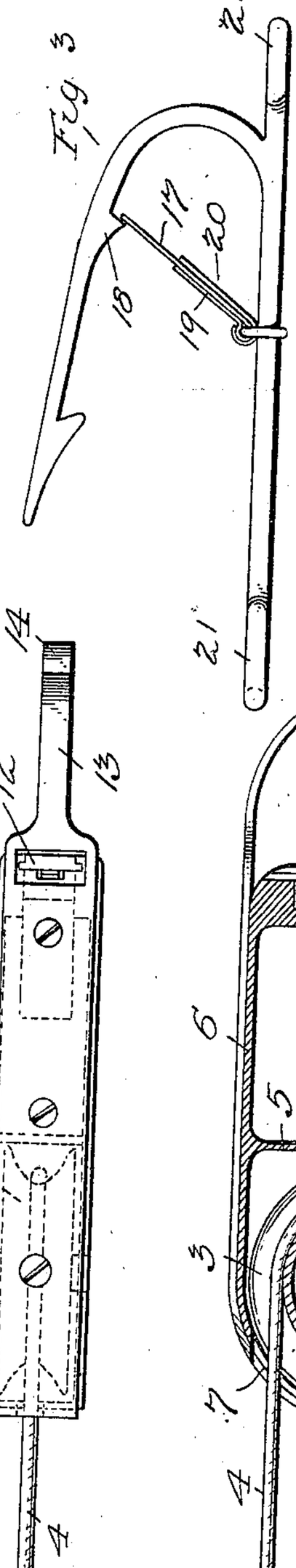

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 2.

Attest:

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UNITED STATES PATENT OFFICE.

JOHN W. DALTON, OF SANDWICH, MASSACHUSETTS.

LIFE-SAVING DEVICE.

No. 814,116. Specification of Letters Patent. Patented March 6, 1906.

Application filed June 27, 1905. Serial No. 267,235.

To all whom it may concern:

Be it known that I, JOHN W. DALTON, a citizen of the United States, residing at Sandwich, Massachusetts, have invented certain new and useful Improvements in Life-Saving Devices, of which the following is a specification.

My invention relates to life-saving apparatus, and particularly to that specific kind of apparatus which consists of a shot carrying a line and adapted to be thrown over the stranded ship for the purpose of making connection with the shore.

Heretofore, so far as I am aware, the shot which is thrown for this purpose carries a single light line which must be used by the people on board the ship for the purpose of drawing from the shore the heavier line or lines which are to be used to convey the crew or passengers from the ship to the shore. As the shot is ordinarily thrown over the ship and falling leaves the line thereon and as the line thrown is necessarily small and light, it often happens that it is difficult to find. Further, it sometimes happens that the crew are unable either from exhaustion or the condition existing on board the ship or because they are lashed in the rigging to draw the heavier lines from the shore to the ship.

My invention is devised for the purpose of obviating these difficulties, to enable the crew on board the ship more readily to find the line, to enable the life-saving crew on shore themselves to draw out the heavier line to the ship, and, further, to provide means whereby the ship end of the line thrown automatically attaches itself to the ship, and thus enables the life-saving crew to pull the heavier line off to the ship by means of the line thrown with the shot.

I have hereinafter fully described my invention and illustrated it in the accompanying drawings, in which—

Figure 1 shows the complete apparatus; Fig. 2, the illuminated block in horizontal section. Fig. 3 represents an elevation of the hook; Fig. 4, a top view thereof. Fig. 5 shows a top view of the block.

In the drawings a shot is indicated at 2 of ordinary construction, such as is adapted to be thrown with the line attached over the ship. At A is indicated the illuminated block provided with a sheave 3 and a line 4 thereon.

Referring to Fig. 2, which shows the parts more clearly, it will be seen that the block consists of a shell or casing 6, which may be made of sheet metal or any suitable material or materials, having in view at the same time strength and lightness.

In the rear end of the block is a compartment formed by the top, bottom, and end walls with a cross-partition 5, and in this is situated the sheave 3, turning upon a pin which has its bearings in the top and bottom. The sheave is made of light and strong material and with a deep groove adapted to receive not only the line 4 with which it is thrown, but also a heavier line which may be drawn through the sheave by means of the line 4. These lines pass through holes 7 in the rear end of the chamber. In the front end of the block is another chamber in which is located a light. This consists, preferably, of a storage battery 8, carrying an incandescent lamp 9. I prefer to arrange an opening for the introduction of this battery and lamp in the front end of the block, as indicated at 10, the front wall being rabbeted so as to receive the flange 11 on the battery fitting snugly into the rabbet. After the introduction of the battery and the lamp the opening is closed by means of a sliding door 12, provided with a suitable catch, whereby the battery is held securely in place.

The forward end of the block is provided with a bail 13, having a loop 14 for the attachment of the line which connects the block to the shot. This line, marked 15, may be of steel wire or any suitable material and is provided with hooks 16, which are set in different radial planes from the line, as illustrated in Fig. 1. These hooks are so set in order that whatever the position of the line they may make connection with a line, rail, or any part of the ship with which they may come in contact when the line is drawn back.

The hooks may be attached to the line in any convenient manner, and they are preferably provided with a barb. They should be made of the greatest possible strength consistent with lightness and pointed backward at an angle best adapted to catch upon anything with which they may come in contact.

In case the hook comes into contact with a line, something is required to retain it in place and prevent it from slipping off. For this purpose I have provided a spring-pawl 17, which is fixed to the shank of the hook at one end and has its free end bearing against a stud 18, formed on the inside of the hook. In order to prevent the pawl from being sprung

back over the stud, I provide one or two reinforcements, (indicated at 19 20.) One is ordinarily sufficient, but I have shown two. The hooks are connected together by links which engage loops 21 on the shanks of the hooks; but any other suitable means may be used, depending upon the material of which the line is made. The line may be made round or of strap metal.

The hooks are set at convenient distance asunder, and the line should be long enough between the last hook and the block to allow the block to come on board in case the hook catches on the side near the water-line.

Supposing the apparatus to be in the form described and to be thrown in the ordinary manner over the ship, the light visible through openings in the top and bottom of the block may be observed in the flight of the block, and thus the position of the line be approximately indicated or the block itself may be visible either in the water or when drawn upon the ship's deck. After the shot has been thrown, carrying with it the block and the line, the ends of the double line 4 being retained by the life-saving crew, they may draw upon this line and, pulling back the block, cause the hooks to catch, and thus hold the block securely while the life-saving crew can attach a stouter line to one part of the line 4, and thus draw it through the sheave, so that it may serve to carry out the life-saving boat or one of the life-saving crew to rescue or to aid in rescuing the people upon the ship-wrecked vessel.

I claim—

1. A life-saving device comprising a shot adapted to carry a life-line, a block connected to said shot, said block being provided with a sheave, a light line adapted to be carried by the shot in its flight and to carry a heavier line also over the said sheave, substantially as described.

2. A life-saving device comprising a shot adapted to carry a life-line, a block connected to said shot, said block being provided with a sheave, a light line adapted to be carried by the shot in its flight and to carry a heavier line also over the said sheave, said block being attached to the shot by flexible connection, substantially as described.

3. A life-saving device comprising a shot adapted to carry a life-line, a block connected to said shot, said block being provided with a sheave, a light line adapted to be carried by the shot in its flight and to carry a heavier line also over the said sheave, said block being attached to the shot by flexible connection having hooks thereon, substantially as described.

4. A life-saving device, consisting of a shot and a block connected therewith, said block being provided with a light, and a sheave and with a line running over said sheave, substantially as described.

5. An attachment for a life-saving device, consisting of hooks secured to the device thrown, set in different planes, and projecting backward, said hooks being provided with interior spring-pawls, arranged to bear on the studs on the interior of the hooks, substantially as described.

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

JOHN W. DALTON.

Witnesses:

HENRY E. COOPER,

C. S. MIDDLETON.