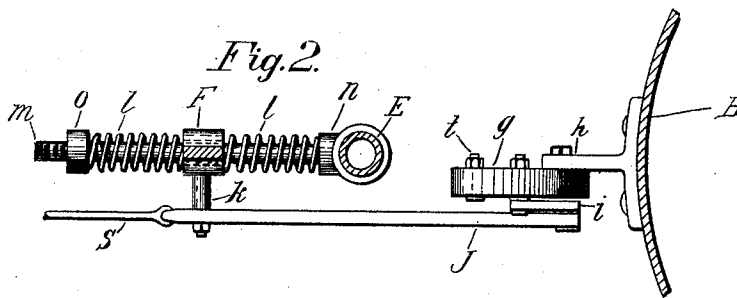
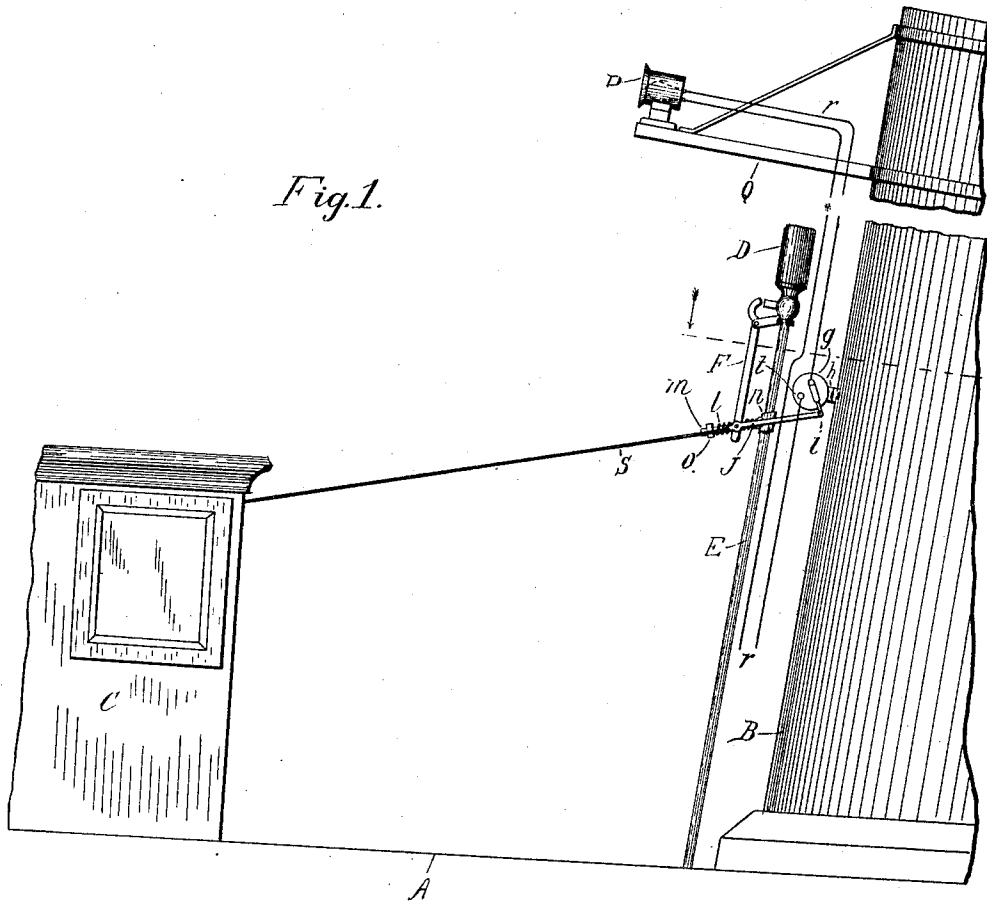


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SIGNALING.

APPLICATION FILED SEPT. 9, 1907.

1,003,067.

Patented Sept. 12, 1911.



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DONALD ROBERTSON, OF OAKLAND, CALIFORNIA.

SIGNALING.

1,003,067.

Specification of Letters Patent. Patented Sept. 12, 1911.

Application filed September 9, 1907. Serial No. 391,953.

To all whom it may concern:

Be it known that I, DONALD ROBERTSON, a subject of Great Britain, residing at the city of Oakland, county of Alameda, State of California, have invented a new and useful Improvement in Signaling, of which the following is a specification.

My invention is applicable particularly to that class of vessels wherein whistle and light can be conveniently used for signaling purposes, and consists to combine these two factors in such a manner that both can be operated conjointly for the purpose above mentioned, all of which will be more fully described hereinafter and more particularly pointed out in the claim at the end hereof.

The object of my invention is to provide vessels of the class mentioned with simple and effective means to better understand signaling and avoid, or note therewith, mistakes which very often occur in such cases.

In order that my invention may be better understood I will refer to the accompanying drawings, which form part of this specification in which,—

Figure 1 is a broken elevation of a ship showing the upper part thereof, equipped with my invention. Fig. 2 is a cross section taken from dotted line 1 to 1 of Fig. 1 looking in the direction of the arrow, showing particularly an enlarged plan view of same.

Similar letters of reference denote like parts throughout the drawing.

A represents a portion of the hurricane-deck of a vessel or ship; B the smoke-stack broken away; C the cabin—also shown broken away, and D the whistle mounted upon pipe E and provided with its usual operating lever F, all of which are of an ordinary construction and operated in the usual manner.

g is a switch in the electric circuit formed by the wires r and including the headlight P. The switch may be mounted on bracket h secured to the smoke stack or other part adjacent to the whistle. The switch arm i is connected by a link J to whistle lever F, and a cord S extends from one of these parts to the pilot house or cabin C. Thus a pull upon the cord blows the whistle and positively closes the switch thereby lighting the light. The positive closing of the switch is essential, as, where a spring is depended on for this purpose, it may fail, whereas in my

apparatus a failure to give this signal is impossible. The lower end of lever F is forked and straddles a rod m which may be secured to the whistle pipe E by fitting n or other means desired. Upon the outer end of rod m is a spring l bearing against the fork of lever F and against a nut O on the rod, by which its tension is adjusted. This spring returns lever F to its normal position when cord S is released and at the same time opens switch g, thereby cutting off the signals. Upon the inner end of rod m is a second spring l which serves as an effective buffer for the lever F, on its return stroke under the action of spring l, thus cushioning the parts and preventing injury. k is a stud on the fork of lever F, for connection of link J, as seen in Fig. 2.

With the above described arrangement and combination if signaling is desired the operator pulls the cord S which is connected to rod J as already mentioned, thus moving at the same time lever F of the whistle and cross-bar i to the transmitting post t of the switch allowing thereby the whistle and light to give simultaneously the desired signal, and by the combined sound and light thus produced there can be no misunderstanding. However if mistake should occur the same can be quickly noted with my system.

It will thus be seen that I have provided a very simple, reliable, and convenient device for the purpose mentioned, and it is thought the numerous advantages of my invention will be readily appreciated by those skilled in the art.

What I claim and desire to secure by United States Letters Patent is,—

In a combined electric light and whistle signal for vessels, in combination with the whistle and its operating lever, and the electric circuit, light and switch, a rigid link positively connecting the whistle and switch levers, a rod mounted on the whistle pipe contiguous to the whistle lever, and two springs on said rod and applied to said lever to resist its movement in both directions, and a nut for adjusting the tension of said springs and the position of said levers.

Signed this 3rd day of September, 1907.

DONALD ROBERTSON.

Witnesses:

GEORGE A. BUHLINGER,
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