(No Model.)

J. W. JONES.

BILGE WATER ALARM.

No. 427,873. Patented May 13, 1890.

Fig. 1.

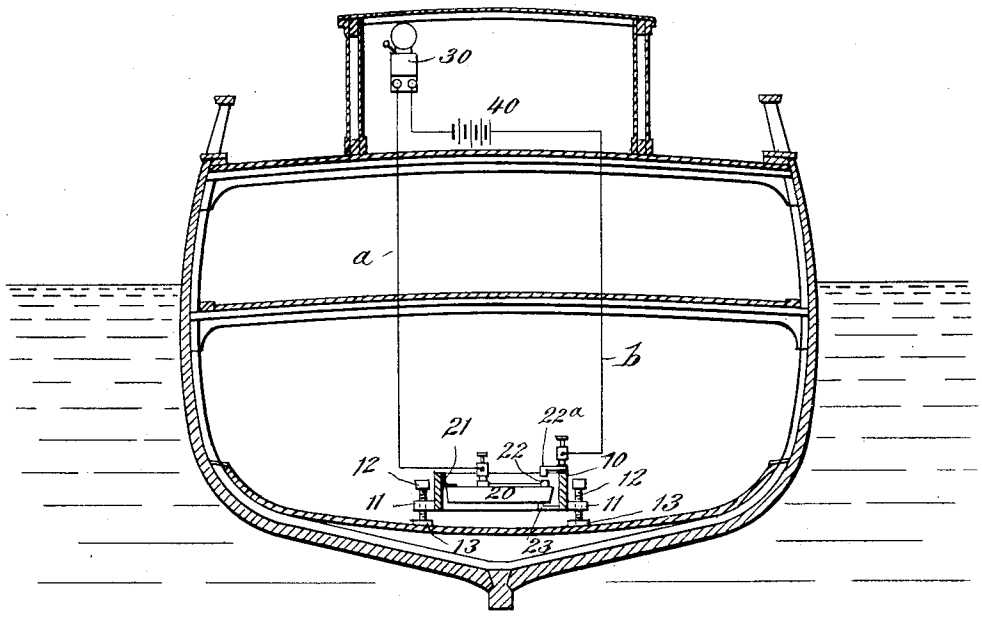
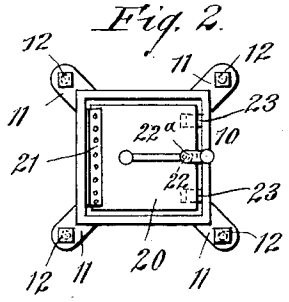


Fig. 2.



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BILGE-WATER ALARM.

SPECIFICATION forming part of Letters Patent No. 427,873, dated May 13, 1890.

Application filed May 1, 1889. Serial No. 309,157. (No model.)

To all whom it may concern:

Be it known that I, JAMES WALTER JONES, (known as "Commercial Jones,") of the city, county, and State of New York, have invented a new and Improved Bilge-Water Alarm, of which the following is a full, clear, and exact description.

The object of my present invention is to provide an attachment for vessels whereby when the bilge-water rises above a certain point or limit an alarm will be sounded; and to the end named the invention consists, essentially, of a float provided with an electrical contact-point, an electrical signaling apparatus, and a fixed contact-point, against which the float contact-point bears when the water rises above a certain predetermined height.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in both views.

Figure 1 is a cross-sectional view of a vessel, representing the same as it appears when provided with my bilge-water alarm, and Fig. 2 is a plan view of the float and its connections.

In constructing an apparatus such as the one forming the subject-matter of this application I provide a bottomless box-like structure 10, which is preferably formed with lugs 11, having threaded apertures that are engaged by adjusting-screws 12, said screws being mounted to turn in bed-plates 13. Within the box 10, I mount a float 20, which is connected to one side of the box by a hinge 21, such hinge being preferably made from some textile fabric which will not corrode or harden under the action of the water. The float 20 carries an electrical contact-point 22, to which there is led a wire *a*, that is in turn connected with an electric signaling-bell 30, and upon the box 10 is secured a second contact-point 22^a, which is in communication with a wire *b*, that also leads to the signal-bell 30, a battery being interposed at any proper point, as at 40.

From the construction above described it will be seen that when the water rises above a certain predetermined limit the float 20, which may be of cork or any other proper material, or which may be a hollow vessel, will be carried upward, and its contact-point 22 will bear against the fixed contact-point 22^a, thus closing the circuit and causing the sounding of an alarm.

The advantage of providing for the automatic indication of the rise of the bilge-water above a certain predetermined point will be apparent to all who have had experience with vessels, preventing catastrophes which might otherwise occur, due to unsuspected leaks.

The special advantages of the above-described construction are that, regardless of the careening of the vessel, the float, by reason of being hinged at one side, is capable of motion on its hinge only and cannot bind, and this is a valuable feature of the invention, as in apparatus of this class those floats that are capable of other movement than in the direction of the fixed contacts afford no assurance that they will operate when the vessel at its dock being loaded careens. Again, my float is absolutely free from friction, so that a further safeguard against its binding is provided; also, the non-metallic hinge is unaffected by corrosion, and will therefore operate even after long disuse.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a bilge-water alarm, the combination, with a fixed contact-point, to which one end of a normally-open circuit leads, of a float hinged to its support by an insulation-hinge, and carrying connections for completing the electric circuit by contact with the fixed contact-point upon the rising of the float, substantially as described.

2. In a bilge-water alarm, the combination, with suitable support having a fixed contact-point, of a float held to said support by an insulating-connection and carrying a contact-point for completing the circuit when contacting with the fixed point, substantially as described.

JAMES W. JONES.

Witnesses:
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C. SEDGWICK.