

J. GEDEON.
VESSEL LOADING ALARM.
APPLICATION FILED JUNE 30, 1909.

973,772.

Patented Oct. 25, 1910.

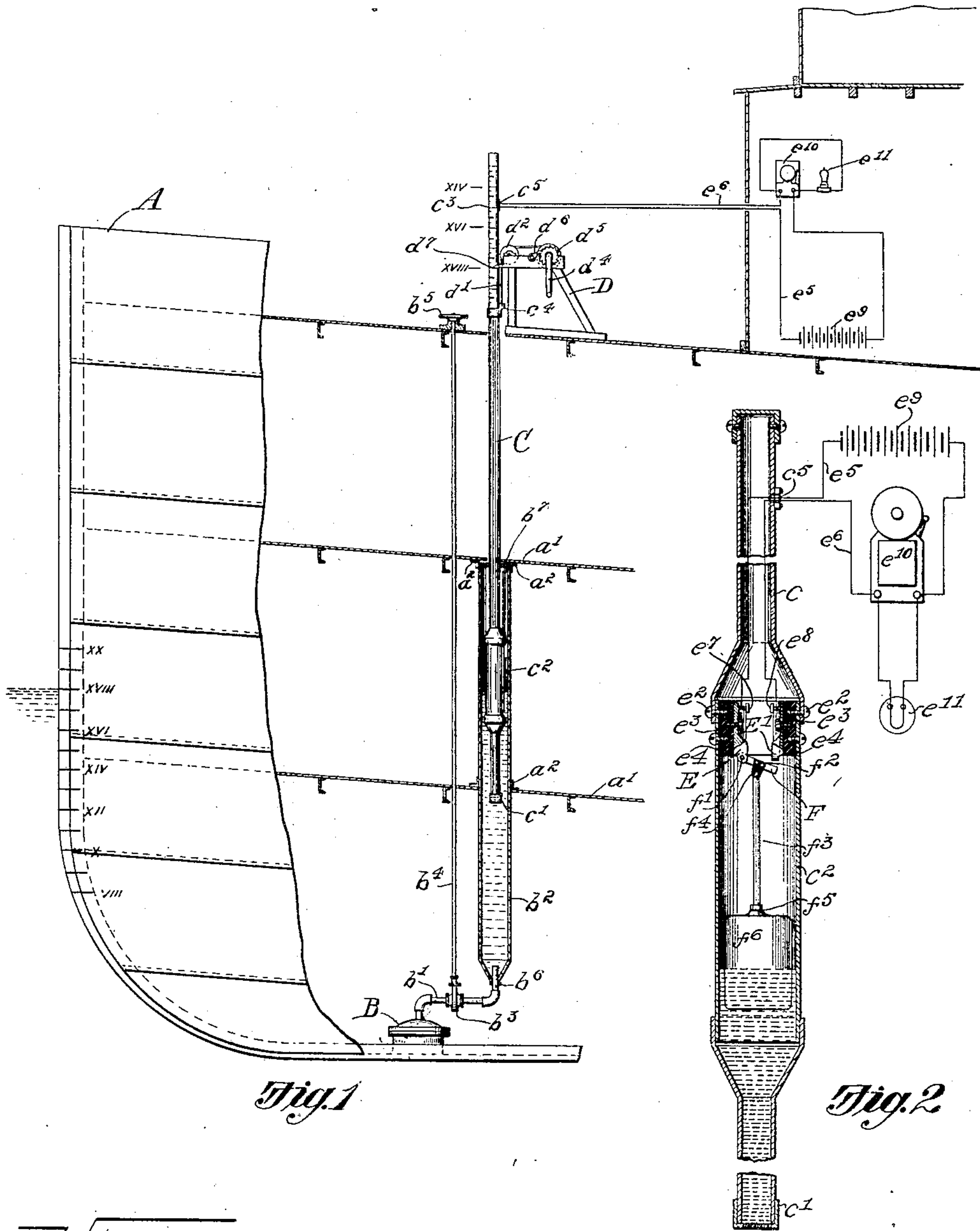


Fig. 1

Fig. 2

Witnesses

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UNITED STATES PATENT OFFICE.

JAMES GEDEON, OF CLEVELAND, OHIO, ASSIGNOR OF ONE-THIRD TO CHARLES L. BROWN AND ONE-THIRD TO ROBERT D. MANSFIELD, BOTH OF CLEVELAND, OHIO.

VESSEL-LOADING ALARM.

973,772.

Specification of Letters Patent.

Patented Oct. 25, 1910.

Application filed June 20, 1909. Serial No. 505,185.

To all whom it may concern:

Be it known that I, JAMES GEDEON, a citizen of the United States, resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Vessel-Loading Alarms, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle so as to distinguish it from other inventions.

My invention relates to vessel loading alarms, and has for its object to provide a new and improved vessel loading alarm, and more particularly, one which, while comparatively simple in construction, is most effective in operation and designed to give the alarm electrically whenever the draft of the vessel reaches the depth that may have been decided upon for the particular voyage the vessel is about to undertake.

The said invention consists of means hereinafter fully described and particularly set forth in the claims.

The annexed drawings and the following description set forth in detail certain means embodying my invention, the disclosed means, however, constituting but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings—Figure 1 is a longitudinal section of the hull of a vessel supplied with a vessel loading alarm embodying my invention. Fig. 2 is an enlarged vertical cross section of the device proper, showing the operative relation of the parts.

Referring to the drawings in detail, like letters and numerals of reference designate like parts in both views.

My improved form of alarm is best set up in the interior of the hull A of a vessel, here shown as having a graduated stem. It consists of the intake B set into the keel of the vessel. Leading from this intake is a pipe b' connecting with and supporting a stand pipe b^2 , and supplied with a valve b^3 having a rod b^4 extending to the deck of the vessel, where it may be turned by a handle b^5 . The stand pipe b^2 tapers at its lowermost end to form a sealed connection b^6 with a short vertical extension of the connecting rod b' and extends upward in a vertical direction to a height somewhat above the maximum high water mark per-

missible in the navigation of the particular vessel to which my invention is to be supplied. The vertical stand pipe b^2 may be suitably secured to the decks a' a' by means of angle irons a^2 a^2 . Into this stand pipe b^2 I insert a tube C having at the bottom a sieved cap c' , and a short distance above this cap c' an enlarged portion c^2 which is, however, slightly smaller than the stand pipe b^2 . Upon the upper end of the stand pipe b^2 I place a cap b^7 having an opening but slightly larger than the smaller portion of the tube C and which acts as a guide therefor. Upon the upper end of the tube C, which is vertically movable within the stand pipe b^2 , as previously suggested, I provide a graduated scale c^3 , the division lines of which correspond to the higher ones on the stem of the vessel.

Attached to the upper end of the tube C, at c^4 , is a cord d' , which may be wound around a drum d^2 of a windlass D fastened to the deck of the vessel, and so raise or lower the tube C in the usual way by means of a handle d^4 , a ratchet wheel d^5 and a detent pawl d^6 .

The interior upper end of the enlarged portion c^2 of the tube C carries two oppositely disposed terminal plates E and E'. These are fastened to the tube portion c^2 by outer screws e^2 e^2 , and inner screws e^3 e^3 , though separated in the usual manner by the insulation e^4 e^4 . Pivoted at f' on the lower part of the terminal E is an arm F, capable of serving as an electrical conductor and having secured at its center a plate f^2 , upon which the rod f^3 is pivoted with a fiber connection at f^4 . At the lower end of this rod and securely fastened thereto at f^5 , I provide a float f^6 , which is preferably an air-tight receptacle, though it may well be of rubber, cork or any other suitable material. This float is preferably of a diameter but little smaller than that of the tube portion c^2 .

Two electric wires e^5 e^6 , after being connected respectively to the terminal plates E and E' by screws e^7 and e^8 in the usual manner, extend up through the tube C to emerge near the upper end at c^5 and are then led to the pilot house or any other suitable place, the one being connected with the battery e^9 , the other with a bell e^{10} or lamp e^{11} , or both, as desired.

In operation, my invention will work as

follows: When the vessel is ready for loading, the tube C is adjusted by means of the windlass D until the graduated scale c^3 shows the enlarged portion c^2 of the tube to be at the height above the keel which it is desired to have the water attain for that voyage. The valve b^3 is then opened, permitting the water to seek its level within the stand pipe b^2 . The loading may then commence, during which operation the water continually rises within the stand pipe b^2 , and presently within the tube C. Very soon after the water reaches the enlarged portion c^2 , it begins to act upon and finally raise the float f^6 . As the float rises, it forces up the rod f^3 , which in turn presses the free end of the arm F into contact with the electrical terminal E', thus closing the circuit to ring the bell e^{10} or light the lamp e^{11} .

It will be easily seen and as readily understood, that the lines of graduation on the scale c^3 may be made to correspond exactly with those on the stem of the vessel. That is to say, when the division line, 18 for example, on the scales c^3 registers with an arrow d^7 supported by the windlass frame, the water level on the float at the moment that the arm F closes the circuit, shall be level with the numeral 18 on the stem of the vessel. Thus an alarm will be given with absolute certainty when the water level reaches any predetermined height with relation to the vessel.

Having fully described my invention,

what I claim therefore, and desire to secure by Letters Patent is:

1. In a vessel loading alarm, the combination of a stand-pipe located within the hull of the vessel and communicating with the water outside of the hull, a vertical tube therein open at the bottom, a windlass for adjusting said tube with relation to the draft of the vessel, electrical terminals within said tube, an arm pivotally connected to one of said terminals; a float suspended from said arm, and adapted to raise the arm into contact with the other terminal when the water level reaches a predetermined height with relation to the vessel.

2. In a device of the character described, the combination of an interior stand-pipe having on its lower end a stop-cock connection with the water outside, a tube having a graduated scale on its upper end and open at the bottom, vertically movable in said stand-pipe, a windlass for adjusting said tube with relation to the draft of the vessel, electrical terminals within said tube, an arm pivotally connected to one of said terminals, a float pivotally suspended from and adapted to raise said arm into contact with the other terminal when the water level reaches a predetermined height with relation to the vessel.

Signed by me, this 15th day of June, 1909.
JAMES GEDEON.

Attested by—
K. P. JUENGLING,
CURT B. MUELLERS.