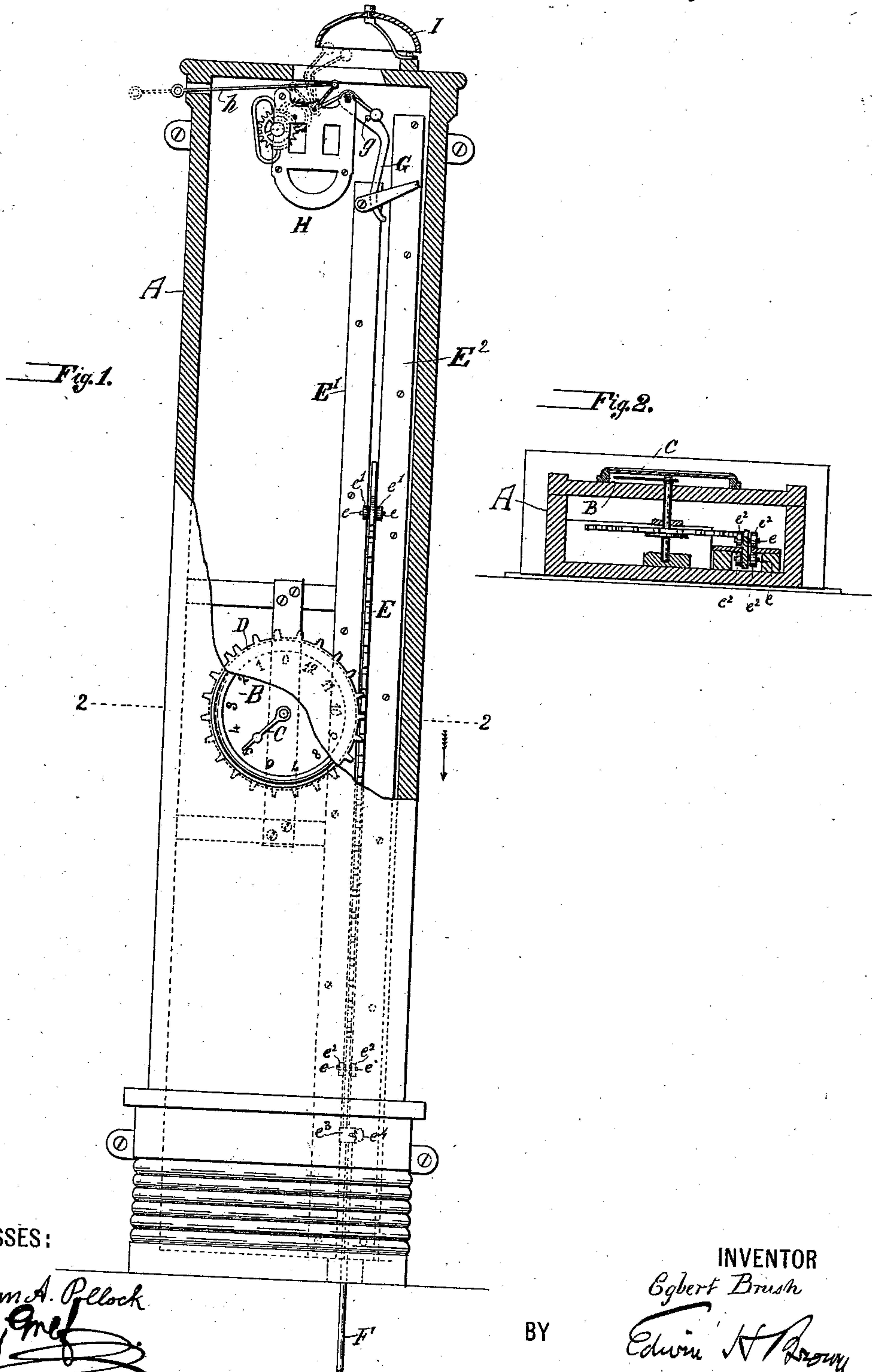


(No Model.)

E. BRUSH.
BILGE WATER ALARM.

No. 542,301.

Patented July 9, 1895.



WITNESSES:

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EGBERT BRUSH, OF SMITHTOWN BRANCH, NEW YORK.

BILGE-WATER ALARM.

SPECIFICATION forming part of Letters Patent No. 542,301, dated July 9, 1895.

Application filed July 26, 1893. Serial No. 481,470. (No model.)

To all whom it may concern:

Be it known that I, EGBERT BRUSH, of Smithtown Branch, county of Suffolk, and State of New York, have invented a new and useful Improvement in Bilge-Water Alarms, of which the following is a specification.

The object of my improvement is to provide a simple and efficient bilge-water alarm, which may be adjusted at any time to allow of the accumulation of any amount of bilge-water without operating to alarm the occupants of a vessel, and yet will operate to sound an alarm upon the accumulation of a dangerous quantity of bilge-water.

I will describe a bilge-water alarm embodying my improvement, and then point out the novel features in a claim.

In the accompanying drawings, Figure 1 is a front view, partly broken away, of a bilge-water alarm embodying my improvement. Fig. 2 is a horizontal section on the line 2 of Fig. 1.

Similar letters of reference designate corresponding parts in both figures.

A designates a case, which may be made of wood or other suitable material, and located in any convenient part of a vessel. For instance, it may extend upwardly from the cabin-floor adjacent to a table.

B designates a dial fastened to the front of the case.

C indicates an index consisting of a hand arranged to travel around the dial B, designed to indicate the depth of water in the hold. This index is affixed to a shaft journaled within the case and having affixed to it a wheel D. The wheel D engages with a bar E. Preferably the wheel D and bar E will be provided with teeth to avoid any slipping of one upon the other. As here shown, the bar E is fitted to slide between two bars E' E², which are located at some distance from the back of the case. Antifriction-wheels e' e² are mounted upon studs e, extending transversely from the bar E in front and in rear of the bars E' E². This method of guiding the bar E allows it to operate with very little friction, regardless of any rolling or pitching of the vessel.

The lower end of the bar E is connected with a rod F, which at the lower end extends down into the bottom of the vessel and is there provided with a float having such buoy-

ancy that at the rising of the bilge-water it may elevate the bar E and operate the index. The connection between the bar E and the rod F is an adjustable one, it being, as here shown, made by providing one of them with a socket e³ capable of receiving the end of the other, and also with a clamping-screw e⁴ for clamping the two bars together.

An adjustable connection between the bar E and rod F is highly important, because a certain amount of bilge-water is requisite, and this amount varies as to different vessels or according to the views of different captains. The adjustable connection provides for so connecting the bar that the index may point to zero with any desired amount of bilge-water in the hold of the vessel. When the bilge-water accumulates in the vessel to such a degree as to become dangerous, the rollers e' at the upper end of the bar E oscillate a lever G. This lever G has a pin g, which acts as a detent to control a clock-movement H, which may be actuated by a spring or otherwise. The bell-clapper rod is bent over the pivot-pin of the lever G and extends downward, resting upon the pin g. The pin g raises it so that the clock-movement will be free when the lever G is carried upward by the upward movement of the bar E.

The bell I is shown as mounted outside of and above the case. The descent of the bell-clapper is affected by pressing upon an arm h extending from the bell-clapper.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a bilge water alarm, the combination of a vertically movable rod, a float adjustable along the rod, an alarm device comprising a bell, a bell-clapper and a bell clapper rod and a pivoted arm upon which the bell clapper rod rests when not in action the pivoted arm having its free end in the path of movement of the rod and designed to throw the alarm device into action upon its upward movement substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EGBERT BRUSH.

Witnesses:

GEORGE B. RANSOM,
THOMAS R. SMITH.