(No Model.) 2 Sheets—Sheet 1.

J. W. JONES.

ANCHOR ALARM AND TIDE TELL-TALE.

No. 423,166. Patented Mar. 11, 1890.

Fig. 1.

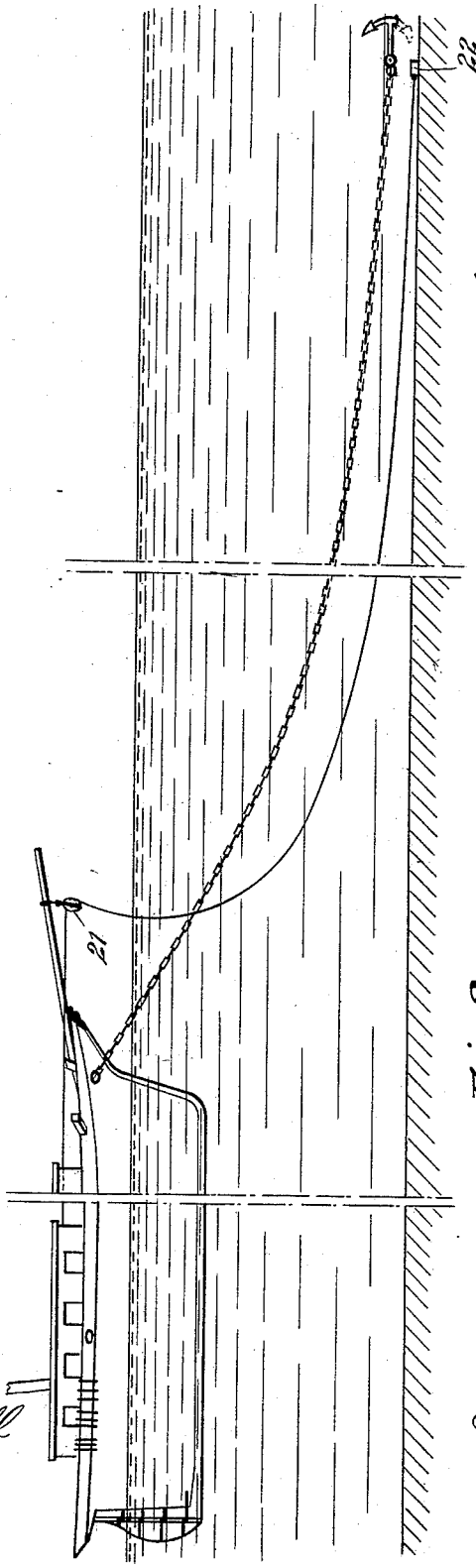


Fig. 3.

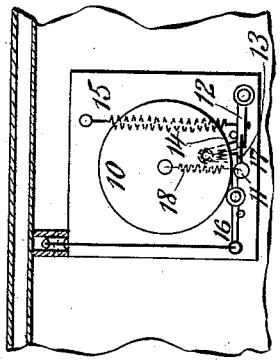
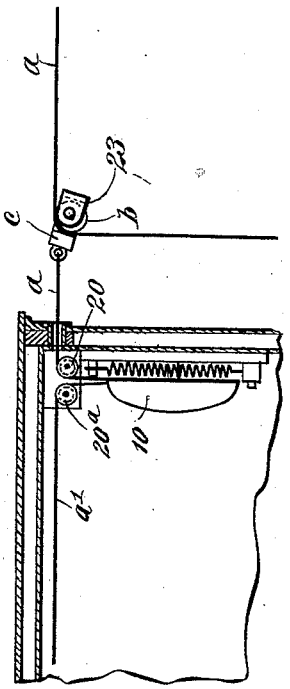


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

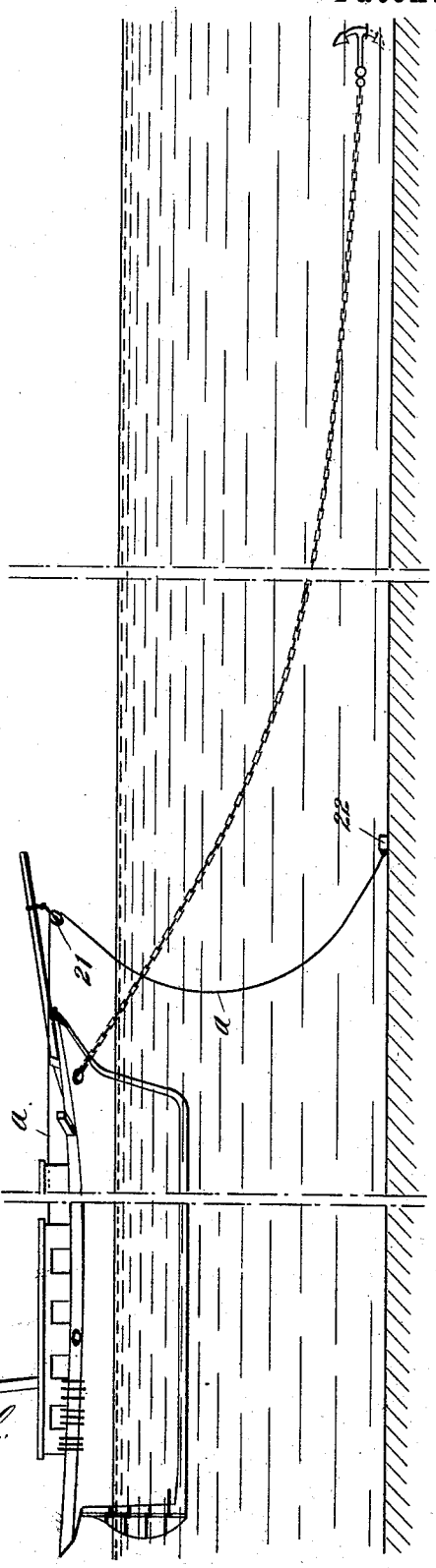
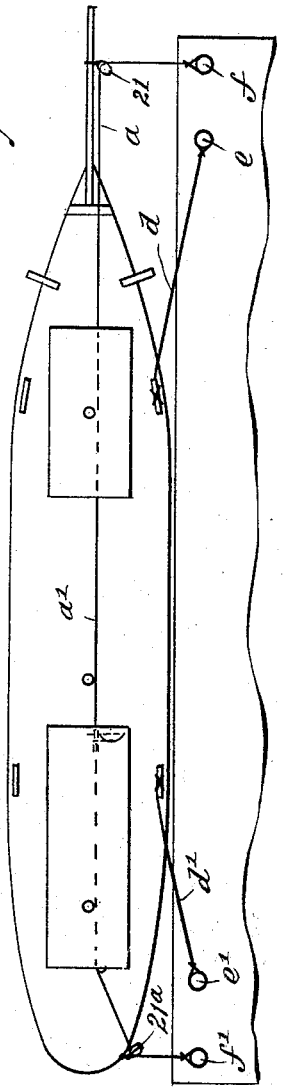


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES W. JONES, OF NEW YORK, N. Y.

ANCHOR-ALARM AND TIDE TELL-TALE.

SPECIFICATION forming part of Letters Patent No. 423,166, dated March 11, 1890.

Application filed April 19, 1889. Serial No. 307,661. (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 Anchor-Alarm and Tide Tell-Tale, of which the following is a full, clear, and exact description.

The object of my invention is to provide an attachment for vessels whereby, in case the vessel's anchor should drag or the moorings give way for any reason, an alarm will be sounded, the arrangement being such that the apparatus may be adjusted so as to sound an alarm at the moment of the change of tide, thus relieving the officers of a vessel from the constant worry incident to the well-known incapacity of the majority of sailors.

The invention consists, essentially, of an alarm and a rope or chain connected thereto and arranged so as to be held to the bottom in case the vessel is anchored or to a wharf in case the vessel is moored.

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 all the views.

Figure 1 is a side view of a vessel, representing the same as it appears when provided with my improved anchor-alarm and tide tell-tale, the parts being represented as they appear when my attachment is adjusted for use as an anchor-alarm. Fig. 2 is a detail view illustrating a specific form of signaling apparatus. Fig. 3 is a face view of the signaling apparatus. Fig. 4 is a side view of a vessel provided with my attachment, the parts being represented as they appear when the attachment is adjusted for use as a tide tell-tale; and Fig. 5 is a plan view of a vessel, representing the same as it appears when moored to a wharf, the alarm attachment being adjusted for use to indicate the parting of a line or the giving way of either of the tying-posts.

Referring now to the specific construction illustrated in Figs. 2 and 3, 10 is a gong, in connection with which there is arranged a hammer 11, that is connected to a pivotally-mounted arm 12 by a spring-tongue 13, the arm 12 being normally held against a stop or limit pin 14 by a spring 15. To trip the arm 12, I provide a lever 16, which has an upwardly-extending projection, as indicated in Fig. 3, upon which there is pivotally supported a spring-pressed tongue 17, that bears upon the end of the arm 12, the arrangement being such that when the lever 16 is thrown in the direction of the arrow shown in connection therewith the arm 12 will be forced downward until the tongue 17 is carried free of the arm, after which the arm will be drawn upward by its spring 15, and the hammer 11, striking against the gong, will sound an alarm. When the pressure on the lever 16 is released, a spring 18 (shown in dotted lines in Fig. 3) will act to draw the lever to its position, the tongue 17 at this time being forced inward against the tension of its spring until the tongue passes above the arm 12.

The alarm above described is located in any convenient position within the vessel, and to the lever 16 there is connected a rope *a*, which extends upward over a sheave 20 and then forward to pass about a sheave carried by a block 21, that is secured in any convenient position so that the rope *a* may be led downward over the vessel's side. In Fig. 1 I have represented the block 21 as being secured to the bowsprit of the vessel.

When the alarm is to be used as an anchor-alarm to indicate the dragging of the anchor, I connect a weight 22 to the end of the rope *a*, and this weight I lower to the bottom at some distance to one side of the anchor by which the vessel is held, a certain amount of slack being given to the rope *a*, so that it will not be drawn upon until the anchor loses its hold and drags. In order that the slack may be properly regulated, I part the rope *a* and interpose a clutch 23, which is connected to one of the parted ends of the rope, the other parted end being passed in over an eccentrically-mounted block *b*, which binds against a shoulder or projection *c* when the rope *a* is drawn upon, as is clearly shown in Fig. 2. In practice the pull necessary to sound the alarm should be ascertained, and the weight 22 should be double or treble the weight necessary to trip the alarm.

From the construction above described it will be seen that should the anchor by which the vessel is held drag the rope *a* will tighten and the alarm will be sounded. In case it is

desired to sound an alarm at the time of the change of the tide the rope *a* would be shortened and the weight drawn up to a position close under the vessel's bow. Then when the vessel shifts, owing to the change of the current incident to the change of the tide, the alarm will be sounded. It frequently happens that when vessels are moored to a wharf their mooring-lines part, or the posts or cleats to which the lines are secured give way. This latter danger is of frequent occurrence in Southern waters, where the decay of the posts is exceedingly rapid.

In applying my alarm to indicate the giving way of the vessel's moorings I arrange the parts as represented in Fig. 5, wherein *d* and *d'* represent the mooring-lines, and *e e'* the wharf-posts to which the lines are connected. In this case I lead the rope *a* to a post *f*, and I provide a supplemental rope *a'*, which passes over a sheave 20^a to connect with the lever 16, the rope *a'* being led over the sheave of a block 21^a, that is secured near the stern of the vessel to a post *f'* upon the wharf. From this arrangement it will be seen that if either of the lines *d* or *d'* or the posts *e* or *e'* give way the alarm will be sounded.

Now, although I have described a specific form of alarm, I desire it to be distinctly understood that any proper alarm could be substituted for the gong and connections that are shown in the drawings—that is, the rope *a* might be connected with an electric alarm in a manner such as to close the circuit when drawn upon, or any other form of mechanical alarm might be employed without departing from the spirit of my invention.

Such an apparatus as the one above described will give prompt notice of the dragging of the anchor, the shifting of the tide, or the giving way of the vessel's moorings, thus obviating the necessity of using the sounding-lead to ascertain whether the vessel's anchor is dragging Then, too, it obviates the necessity of casting a second anchor when it is simply feared that the single anchor is not holding properly, and it is well known that the casting of a second anchor frequently brings about a tremendous amount of labor, owing to the fact that the two anchor-chains will become entangled, and the freeing of entangled anchor-chains, as is well understood, is no small job.

By indicating the exact moment of the change of tide the labor of hoisting the anchor is materially decreased, and notice will be given at the proper time to make sail from the anchorage.

In drafting the claims hereinafter presented I desire that the term "weight" should be understood as including a post or other fixed object.

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

1. An anchor-alarm and tide tell-tale consisting of an alarm mechanism arranged for connection with a vessel, a weight arranged to be thrown from the vessel, and a normally-slack flexible connection between the alarm mechanism and the weight, whereby when the position of the vessel is changed an alarm will be sounded, substantially as described.

2. The combination, with an alarm mechanism arranged for connection with a vessel, of a rope secured thereto, a clutch arranged in connection with the rope, and a weight secured to the end of the rope and arranged to be thrown from the vessel, the rope being normally slack between the weight and the alarm mechanism, substantially as described.

JAMES W. JONES.

Witnesses:
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