No. 773,747. PATENTED NOV. 1, 1904.

B. F. JACKSON.

TANK SIGNAL.

APPLICATION FILED APR. 1, 1903.

NO MODEL.

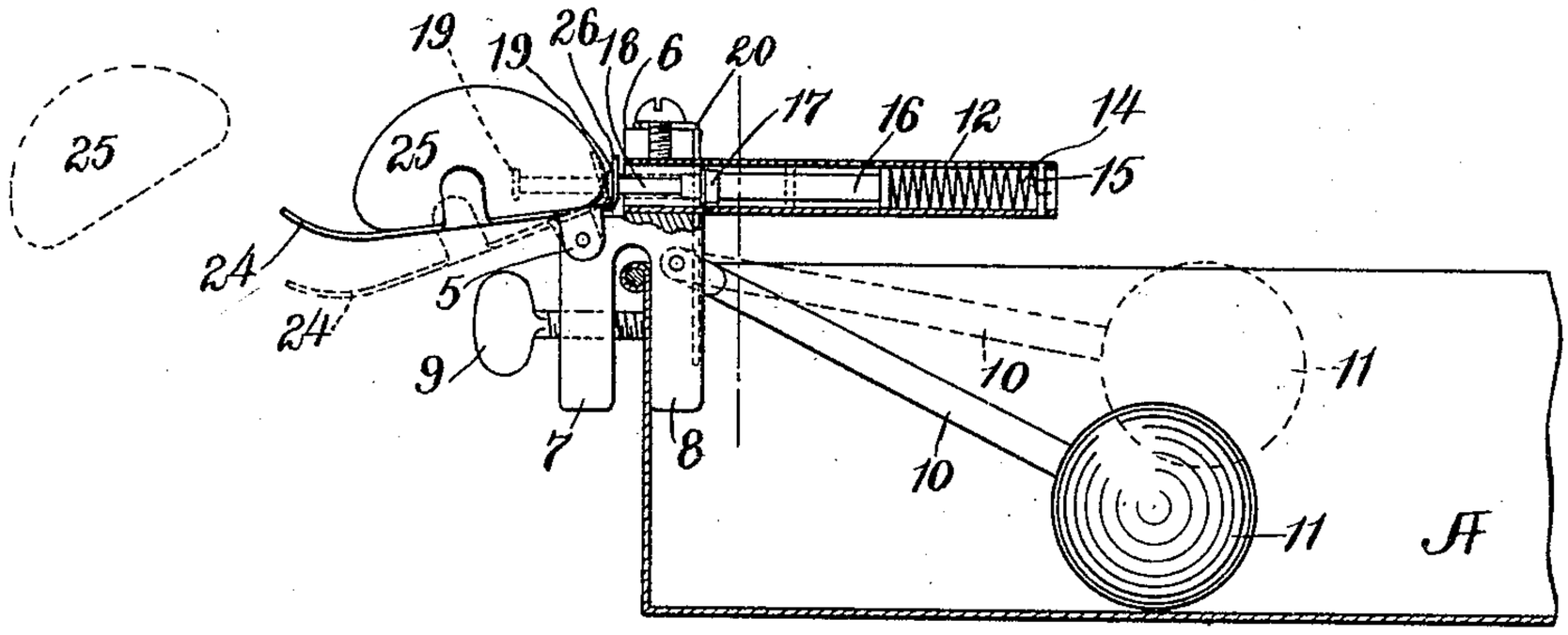

Fig. 1.

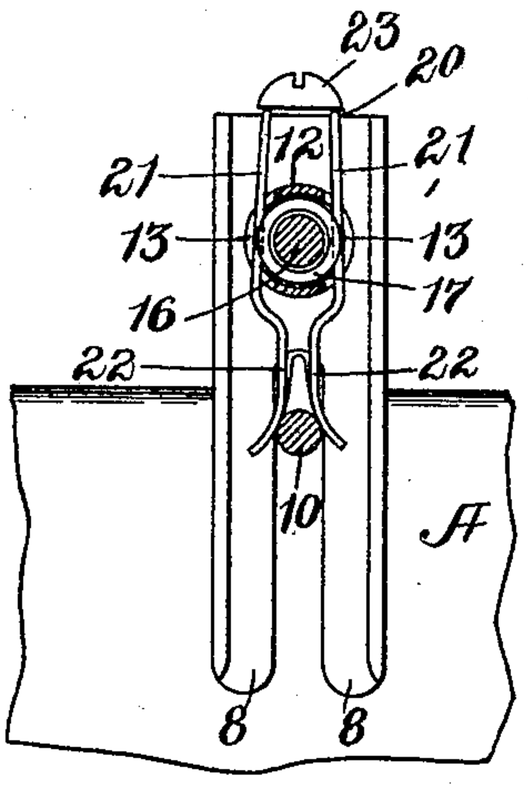

Fig. 2.

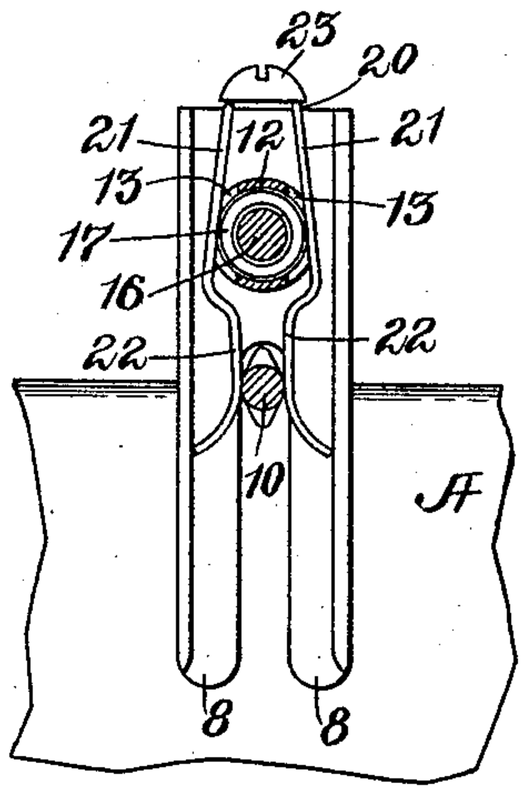

Fig. 3.

WITNESSES.

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No. 773,747. Patented November 1, 1904.

UNITED STATES PATENT OFFICE.

BENJAMIN F. JACKSON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND FRANK W. GEIST, OF BOSTON, MASSACHUSETTS.

TANK-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 773,747, dated November 1, 1904.

Application filed April 1, 1903. Serial No. 150,559. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. JACKSON, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Tank-Signals, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has reference to improvements in signals for water tanks or basins, whereby attention may be attracted to the rise of water therein to a predetermined height.

The object of the invention is to provide a novel and useful alarm-signal adapted to be released by the rising of water in a tank or basin to a certain height.

The invention consists in a signal object and an impelling device therefor adapted to be released by a float connection.

The invention also consists in a signal object, a support therefor, and a float-operated release for the signal-support.

The invention also consists in such other novel features of construction and combination of parts as shall hereinafter be more fully described, and pointed out in the claims.

Figure 1 represents a side elevation of the improved signal device, partially broken away, indicated as attached to a tank or basin adapted to be placed beneath a refrigerator to receive the waste water therefrom or for analogous uses. Fig. 2 represents a vertical sectional view of the same, taken on line 2 2, Fig. 1, the trigger being in position to hold the impelling device against the pressure of the spring. Fig. 3 represents a similar view, the float-stem being shown in position to spread the arms of the trigger and to release the same from their engagement with the flange on the impelling device.

Similar numbers of reference designate corresponding parts throughout.

In carrying this invention into practice my object has been to provide a visual projectile signal for tanks or basins, which are generally placed beneath refrigerators or are otherwise hidden from view, such signals being furnished with means whereby upon the rising of the water in such tanks to a certain level the signal is released and preferably impelled from beneath the refrigerator to a position where its presence will attract attention.

In the drawings a portion of a tank or basin of any well-known construction is indicated at A; but this tank does not form a part of the present invention, and any equivalent fluid-containing device may be substituted therefor.

As shown herein, the signal supporting and impelling device is mounted on a clamp, the body 5 of which has the upper extension 6 and the depending legs 7 and 8 8, the leg 7 having a transverse screw-threaded perforation in which the thumb-screw 9 works, while between the legs 8 8 is pivoted the stem 10 of the float 11. The extension 6 of the clamp-body 5 is also perforated, and in this perforation is secured one end of the tube 12, having the side slots 13 13, located close to the surface of the clamp-body, and within this tube is mounted the loosely-coiled spring 14, secured by the pin 15. Working within the tube 12 is the impelling-rod 16, having the annular flange 17 and the reduced end portion 18, furnished with the button 19. The trigger 20 is made of spring-wire bent to form the arms 21 21, having the inwardly and then outwardly curved portions 22 22, this trigger being secured to the upper surface of the extension 6 by means of the screw 23.

On the body 5 is pivotally mounted the signal-support 24, constructed to support the signal 25 in close proximity to the button 19 of the impelling device when such device is in the retracted position, the arm 26 of this support having a slot which receives the reduced portion 18 back of said button and the edge of said slot being adapted to intercept the end of the main portion of said impelling device when said device moves outward under the impulse of the spring. When pressure is applied to the button 19, the rod 16 compresses the spring 14 until the flange 17 passes beyond the spring-arms 21 21 of the trigger, the retraction of these arms positioning them to engage said flange to hold the rod 16 against

the pressure of spring 14. At the same time the signal-support is swung upward on its pivot. The projectile signal 25 is then placed in position, as shown in full lines in Fig. 1. When the water in the tank or basin rises to the predetermined height, the float 11 has raised the stem 10 as a wedge between the inwardly-curved portion 22 22 of the trigger-arms, and approximately at this time these arms are spread apart by the float-stem and the flange 17 is released from the portions 21 21 of the trigger-arms. Under the pressure of the spring 14 the rod 16 now moves forward, the button 19 striking the signal device 25 and impelling it from its support, while at the same time such support swings on its pivot to depress the forward portion of such support below the path of movement of the projectile signal, also allowing a downward movement of the projectile.

The projectile signal is herein shown as having a flattened side, whereby the undue rolling of the signal device after it leaves its support is prevented; but the shape of this signal device is not material to the present invention and may be varied to suit the conditions under which it is used. It is also evident that my invention is not restricted to the constructions herein shown—as, for instance, the impelling device may be omitted and the movement of the signal device may be effected by the tilting of the signal-support or if a sufficiently-powerful impelling device be used the signal-support may be fixed or other modifications may be used.

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

1. A tank-signal comprising an impelling means, a float-operated releasing device therefor, and a projectile signal adapted to be impelled by such impelling means.

2. A tank-signal comprising a pivoted support, means for engaging such support, a projectile-signal device loosely mounted on such support, and a float-operated releasing device for such engaging means.

3. A tank-signal comprising a support, a signal device adapted to be supported thereby, an impelling device for said signal mounted adjacent to such support and provided with a trigger, and a float-actuated mechanism for releasing the trigger.

4. A tank-signal comprising a clamp, a signal-support mounted thereon, a tube mounted on said clamp and having side slots, a spring impelling device contained within said tube and engaging the pivoted support, said impelling means having a flange, a spring-trigger secured to a portion of the clamp and having arms adapted to enter the slots in said tube to engage the flange of the impelling means, and float-operated means for releasing the trigger at times.

5. A tank-signal comprising a tube having side slots, a support on which the tube is mounted, a spring within said tube, a spring-trigger mounted on the support and having means for entering the side slots of the tube, a rod working in said tube and having a flange adapted to be engaged by said trigger, and a float having a stem pivoted to the support and adapted to actuate said trigger at times.

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN F. JACKSON.

Witnesses:
H. J. MILLER,
W. STANLEY CAMPBELL.