

(No Model.)

C. J. HEXAMER.

FIRE BUCKET LOW WATER ALARM.

No. 335,223.

Patented Feb. 2, 1886.

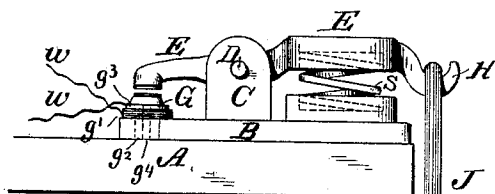
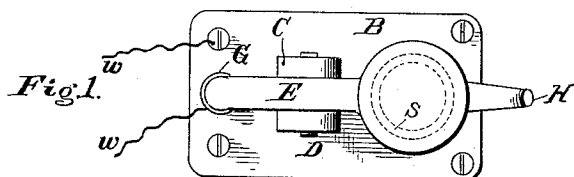


Fig. 2.

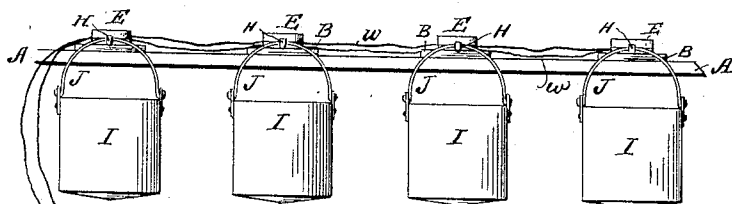
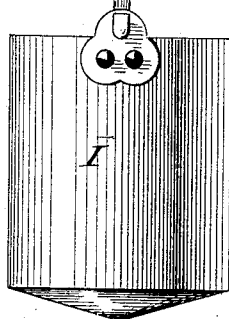
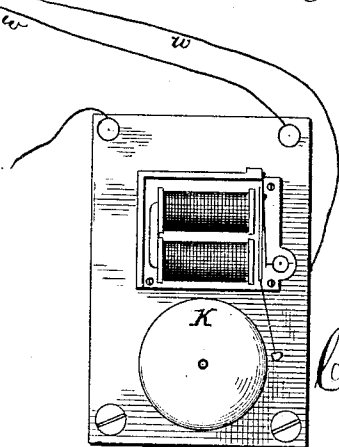


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES JOHN HEXAMER, OF PHILADELPHIA, PENNSYLVANIA.

FIRE-BUCKET LOW-WATER ALARM.

SPECIFICATION forming part of Letters Patent No. 335,223, dated February 2, 1886.

Application filed March 16, 1885. Serial No. 159,002. (No model.)

To all whom it may concern:

Be it known that I, CHARLES JOHN HEXAMER, a citizen of the United States, residing at the city and county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Fire-Bucket Low-Water Alarms, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1 is a plan view of the spring-controlled pivoted contact-lever. Fig. 2 is a side elevation thereof with suspended bucket. Fig. 3 is a front elevation of the invention.

The nature of this invention is an apparatus for sounding an alarm automatically when the water in fire-buckets has fallen, by evaporation or otherwise, below a certain point.

As is well known, it is usual to place buckets filled with water at suitable points in buildings, to be used in extinguishing incipient fires. These buckets are generally located in elevated positions where their contents cannot conveniently be inspected, and thus often remain unobserved or unattended to for years, until, when a fire occurs and there is occasion to make use of the buckets, it is discovered that the water with which they are presumed to be filled has quite or nearly evaporated.

The object of my invention is to compel the vigilance, which is often the price of safety, of those whose duty it is to see that fire-buckets are kept supplied with water, ready for the emergencies for which they are intended. This I accomplish by the following-described apparatus or devices, which is the most convenient and suitable form thereof that has occurred to me. Modifications of the invention may form the subject of future applications for Letters Patent.

Referring to the annexed drawings, A is a bar or ledge extending from the side of the wall of the hall or apartment of the building. B is a metallic plate secured thereto and having a vertical lug, C, to which is pivoted at D a metallic lever, E, one arm of which is adapted to come into contact with a metallic insulated boss, G, on plate B, and the other arm extends out beyond the edge of bar A and terminates in a hook, H, from which a fire-bucket, I, is suspended by its bail J.

I prefer to insulate the boss G from plate B

as follows: g' is a rubber disk which has a stem, g^2 , (shown in dotted lines in Fig. 2,) that passes down through a vertical hole in said plate. g^3 is a copper ring lying between the said boss and the top of the rubber. A screw, g^4 , (shown also in dotted lines,) passes up through the rubber and the copper ring into the boss, and thereby retains said parts in place.

A spiral spring, S, retained in place by shallow sockets in the plate B and the under side of the lever, tends to continually press upward that arm of the lever. The force of this spring must be such as to be overcome by the weight of the bucket, plus a certain quantity of water, or an excess thereof contained within the bucket, but so that when the water evaporates—say, for example, until the bucket is two-thirds full—the spring will elevate the latter and the contents, whereupon the forward end of the lever will be brought into contact with the boss G, and the open battery-circuit by way of wires w (one of which wires connects with the boss, its end being preferably inserted between the latter and the copper ring g^3 , and the other with the plate B—that is to say, indirectly with the lever) will be closed, and thus cause the ringing of an alarm-bell, K. (Shown in Fig. 3.)

As electrical alarm-bells of various forms are well known, a particular description thereof is unnecessary.

Ordinarily a series of these buckets will be used, as seen in Fig. 3, and in case the water should fall below a certain point in any one of them, the alarm will be sounded in the manner described, the circuit-wires w being common to the series of levers and bosses.

I prefer to make the buckets with a tapering bottom, as shown, in order to prevent them from being negligently set down upon their bottoms, instead of being suspended from the lever-hooks. When it is required to use them, they may be readily removed from the hooks of the levers and as readily replaced.

In lieu of an electrical alarm-bell, I purpose also using a spring-operated or clock alarm, adapted to be set in motion and sound the alarm by the movement of the lever E in an analogous manner when the low-water point in the bucket is reached.

The alarm-bell may be placed in the office

of the building or other location distant from the buckets, as may be desired.

It will be obvious that the well-known equivalent for a spring—*i. e.*, a weight—may be employed to perform the same function as the spring.

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

1. The combination of the movable arm or lever, the water-containing fire-bucket sustained thereby, and a suitable alarm or sounder adapted to be operated by the movement of said arm or lever in the manner, under the circumstances, and for the purpose substantially as set forth.

2. The combination of the spring-controlled pivoted lever, the bucket suspended therefrom, and a suitable alarm or sounder, all constructed and adapted to operate substantially as and for the purpose set forth.

3. The combination of the pivoted spring-controlled lever, the bucket attached thereto, the insulated boss, the circuit-wires and the electrical alarm-bell, all constructed and adapted to operate substantially as and for the purpose recited.

4. The combination of the series of plates B, insulated bosses G, pivoted levers provided with hooks adapted to secure the bails of the buckets, the spring S, the common circuit-wires *w*, and the common alarm-bell, substantially as and for the purpose described.

In testimony whereof I have hereunto affixed my signature this 7th day of March, A. D. 1885.

CHARLES JOHN HEXAMER.

Witnesses:

WALTER S. GIBSON,
JOHN NOLAN.