

W. B. WATKINS.

Fire Alarm.

No. 102,992.

Patented May 10, 1870.

Fig: 1.

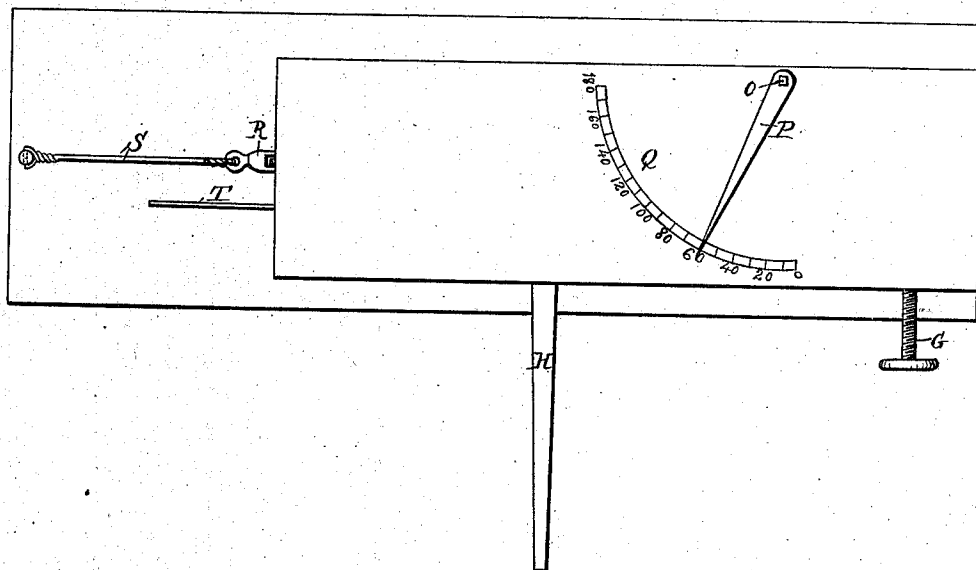
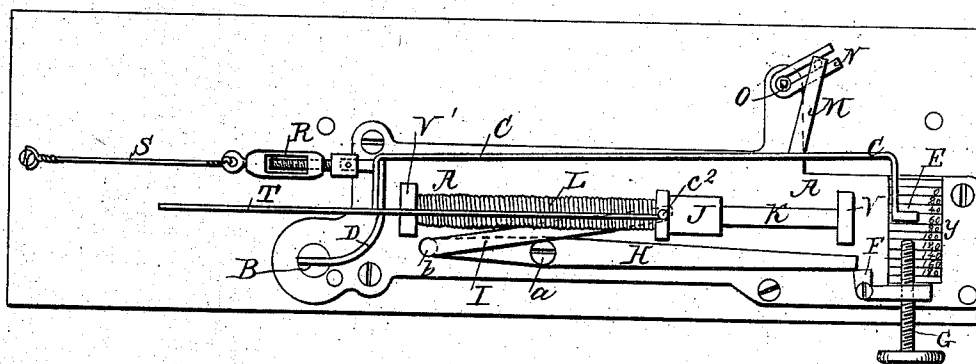


Fig: 2.



Witnesses
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WILLIAM B. WATKINS, OF JERSEY CITY, NEW JERSEY.

Letters Patent No. 102,992, dated May 10, 1870.

IMPROVED THERMOSTAT FIRE-ALARM

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, WILLIAM B. WATKINS, of Jersey City, State of New Jersey, have invented certain new and useful Improvements in Thermostat Fire-Alarms; and I do hereby declare that the following is a full description of the same, reference being had to the accompanying drawings forming a part of this specification, the same letters of reference, wherever they occur referring to like parts.

Figure 1 is a plan view of the apparatus.

Figure 2 is a plan view, having the cap or dial-plate removed.

Letter A represents the bed or frame of the apparatus, upon which the working parts of the apparatus are adjusted.

At one end of the frame is a post, B, having in its upper end a flat spring, D.

To the outer end of this spring, and at right angles to it, is riveted, or otherwise secured, a rod or bar, C, having its outer end curved or bent at right angles, inward, so as to form an arm, as shown at letter E.

To the back end of the rod or bar C, at or near its junction with the spring D, is attached, by means of a swivel, R, or any other suitable device, a thermostat-wire, S.

The object of these devices is to set in motion a fire-alarm, either by opening or closing the circuit of a galvanic battery, by the motion of the bent arm E, to set off a magnetic-alarm apparatus, or by liberating the detent-lever E, in consequence of E pressing against the gauge-screw G, in the detent-lever, and thus set off a gong or bell-alarm.

This operation is caused by the expansion of the wire S, which allows the spring D to straighten, and in doing so to give to the rod C a positive inward curvilinear motion, to bring the arm E in contact with any detent or other device for setting off, or giving an alarm, by a clock or spring, or magnetic-alarm apparatus.

Letter M is a short projecting arm, at right angles, or nearly so, from the rod C, and having a pin in its outer end.

This pin works into a slotted lever, N, secured upon

the arbor O, to the upper end of which is attached an indicator or pointer, P, to indicate, on the dial Q, the degrees of expansibility of the wire S.

In the apparatus herein described it is proposed to give an alarm by a simple bell-pull. Letter T, therefore, represents a bell-pull wire, which is attached to a sleeve, J, by a hook or pin, C².

This sleeve works loosely on a rod, K, secured in studs, V and V¹, on the frame A.

On this rod is also arranged a spiral-spring, L, between the sleeve J and stud V¹, so that, by means of the connecting-rod I, attached at one end to the sleeve J, and at the other end, by the pin b, to the lever H, working on the center pin a, the spiral-spring can be contracted by the adjustment of the end of the lever H, on the detent-lever F, as seen in fig. 2, and thus the apparatus set to give an alarm on the liberation of the lever H, and reaction of the spiral-spring L.

To regulate the setting off of the alarm, the gauge-screw G may be set by a scale, Y, to any degree of heat intended that the alarm should be given; because, as so set, the arm E will respond by tripping the detent F, or by closing the circuit of a galvanic battery where a magnetic alarm is used, and thus give warning of any unusual degree of heat in the room or place where the apparatus is applied.

Having now described my invention, I will proceed to set forth what I claim, and desire to secure by Letters Patent of the United States.

1. The combination of the thermostat-wire S with the spring D, fixed post B, rod O with the arms M and E attached thereto, all as described, and for the purposes hereinbefore set forth.

2. In combination with the rod C and arms M and E attached thereto, the detent-lever F, bell-spring adjusting lever H, connecting-rod I, and spring L, all arranged and operating as hereinbefore set forth.

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Witnesses:

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