(No Model.)

T. H. PRESCOTT.

AUTOMATIC FIRE ALARM.

No. 348,473. Patented Aug. 31, 1886.

Fig. 1

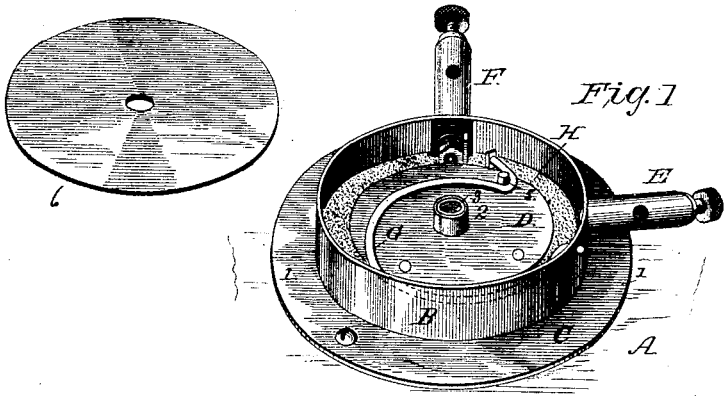


Fig. 2.

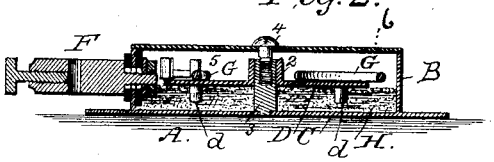


Fig. 3.

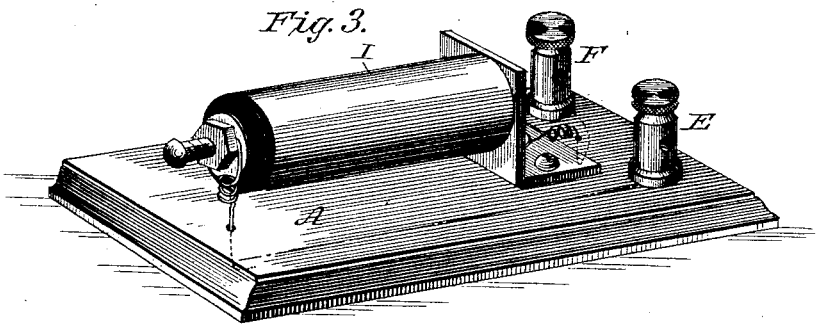
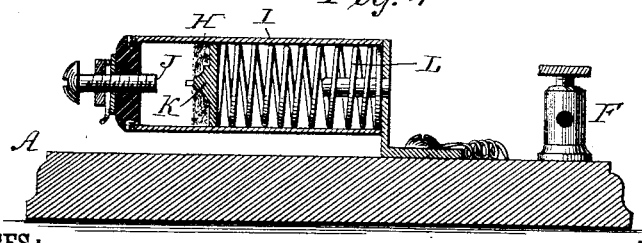


Fig. 4



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AUTOMATIC FIRE-ALARM.

SPECIFICATION forming part of Letters Patent No. 348,473, dated August 31, 1886.

Application filed February 25, 1886. Serial No. 193,250. (No model.)

To all whom it may concern:

Be it known that I, THOMAS HAMMILL PRESCOTT, of Sackville, New Brunswick, Canada, have invented a new and useful Improvement in Automatic Fire-Alarms, of which the following is a specification.

In the drawings, Figure 1 is a perspective view of my improvement. Fig. 2 is a sectional view thereof, and Figs. 3 and 4 show a modification.

My invention is an improved signal-tripping device intended especially for use in connection with fire-alarms, and relates to that general class of such devices in which the signal is tripped by a rise in the temperature, and to that particular class in which material easily fusible is employed by the partial fusing of which the signal-tripping devices are released.

The invention consists in the novel construction and combination of parts, as will be hereinafter described and claimed.

In the construction shown the support A has a tubular case-like portion, B, projected up from its bed-plate C, which latter is extended beyond the case, forming a flange, 1, preferably circular, as shown, by which to facilitate securing the device in any desired position. The plate D, which carries the circuit-making devices, and therefore and for convenience of reference is called "carrier-plate," is pivotally connected with the bed-plate, and is arranged and movable in a plane parallel, or approximately so, with the bed-plate. In the present instance the pivot is effected by a central tube, 2, on the carrier-plate, fitting around a post, 3, on the bed-plate, and secured by a screw, 4, as shown most clearly in Fig. 2. The binding-posts E F are adapted to secure the wires forming the terminals of an electric circuit. In the present construction these posts are supported on the case B; but they may be disposed on the bed-plate, or otherwise, without departing from the broad features of my invention. With the post E is connected—it may be by case B—one end of a spring, G, which in operation completes the circuit, and the other end of such spring is movable into contact with the post F. The spring, it will be seen, thus forms an electrode. This movable end of the spring is held to the carrier-plate.

In the construction shown in Figs. 1 and 2 the spring is formed of a rod or wire of metal curved around the central or pivotal portion of the carrier-plate, and having a tension at its movable end toward the post F, and is held to the carrier-plate by a post or lug, 5, mounted on said plate. One of the binding-posts may be insulated, as shown, or the insulation may be effected in other desired manner. Between the carrier and bed plates I place easily-fusible material H, which may be wax, tallow, or other suitable material.

In preparing the device for use, the material H being melted is poured onto the bed-plate within the case B, and the carrier plate or disk is then applied, and the other different parts arranged and secured substantially as shown. When the fusible material melts under a rise of temperature, the force of the spring causes the plate C to revolve and the circuit-making devices complete the circuit and the alarm may be sounded.

I have not shown any alarm or signal apparatus, as the same may be of any ordinary construction.

Instead of the form of spring and construction and arrangement of devices shown in Figs. 1 and 2, that shown in Figs. 3 and 4 may be used; but I prefer the construction before described, and shown in Figs. 1 and 2. It is also preferred to roughen that surface of the carrier-plate next the bed-plate usually by slight protuberances or pins *d*, as shown, as thereby the fusible material has a firmer hold on the disk or carrier-plate. It will be noticed that the carrier-plate is arranged and movable in a plane approximately parallel with that of the bed-plate, and that the fusible material thereby has a large surface on which to act.

It will be understood that the bed-plate, carrier-plate, &c., may be sold independently of the fusible material, which latter can be applied as before described by the user. The construction shown in Figs. 1 and 2 usually has a cover, 6, secured by screw 4 to post 3. In the construction shown in Figs. 3 and 4 I employ a tubular casing, I, mounted on a suitable support, and having at one end an insulated electrode, J. Within the case I arrange a plate or disk, K, supported by a spring, L, and given thereby a tension toward the electrode J. In use the disk K is held clear of electrode J by the fusible material H until by rise of temperature such material has fused,

when the spring will force said disk into contact with electrode J and the circuit will be completed.

What I claim as new is—

1. The combination, in a signal-tripping device, of a case or support, a contact-point connected therewith, a spring connected at one end with one terminal point of an electric circuit and having a contact-point formed or supported on its opposite end, and fusible material for securing such contact-points normally apart, substantially as set forth.

2. A signal-tripping device comprising a support having a bed-plate, the fusible material, and circuit-making devices, and a pivoted carrier-plate arranged and movable in a plane approximately parallel with that of the bed-plate, such plates being separated, whereby the fusible material may be interposed between them, substantially as set forth.

3. In a signal-tripping device, the combination of a support having a bed-plate, fusible material on said plate, a carrier-plate arranged and movable in contact with said fusible material and in a plane approximately parallel with that of the bed-plate, the surface of such carrier-plate next the bed-plate being roughened, and circuit-making devices, substantially as set forth.

4. The combination of the support having a bed-plate, the fusible material, the pivoted carrier-plate, and the spring connected at one end with one terminal point of an electric circuit and movable at its other end into contact with the other terminal point of the electric circuit, the movable end of the spring being held by the carrier-plate, substantially as set forth.

5. The combination of the base A, having stud 3, the tube B, the plate D, encircling stud 3, the spring for operating said plate, the cover-plate 6, and the screw 4, whereby said plate may be held to stud 3 and the plate D be retained on said stud, the circuit-making devices, and the fusible material, substantially as set forth.

THOMAS HAMMILL PRESCOTT.

Witnesses:
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