

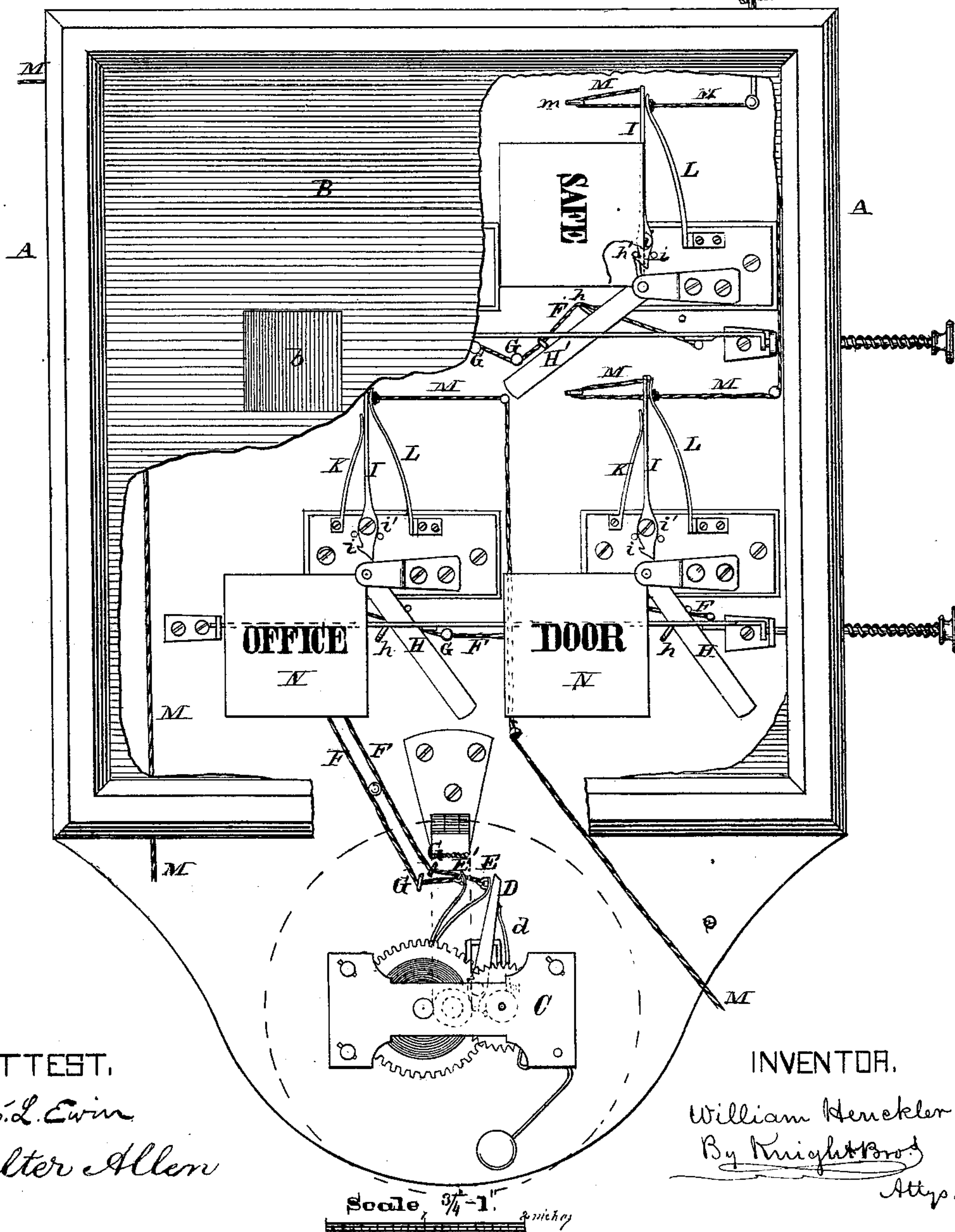
WILLIAM HENCKLER.

Improvement in Fire and Burglar-Alarms.

No. 126,294.

Patented April 30, 1872.

Fig. 1.

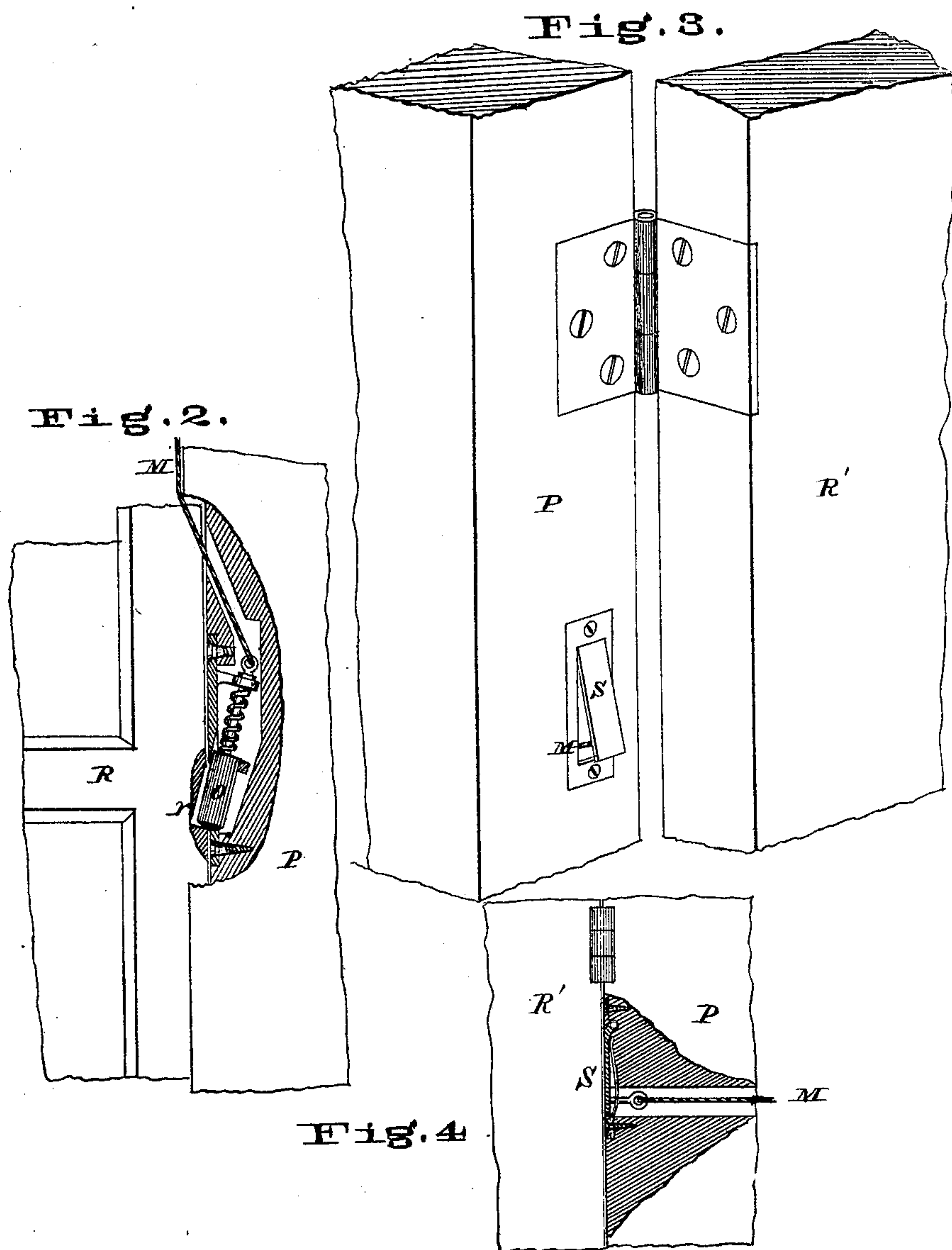


WILLIAM HENCKLER.

Improvement in Fire and Burglar-Alarms.

No. 126,294.

Patented April 30, 1872.



ATTEST,
Geo. L. Ewin
Walter Allen

INVENTOR,
William Henckler
By Wright Bros.
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM HENCKLER, OF KIRKWOOD, MISSOURI.

IMPROVEMENT IN FIRE AND BURGLAR ALARMS.

Specification forming part of Letters Patent No. 126,294, dated April 30, 1872.

Specification describing a certain Improved Fire and Burglar Alarm, invented by WILLIAM HENCKLER, of Kirkwood, in the county of St. Louis and State of Missouri.

This invention consists of a common bell-alarm, which is put in action by the loosening of a string or cord whose slack is taken up by a lever or levers held up by a catch, the said catch being upon a spring-lever which is so moved as to release the former lever by the loosening or tightening of a cord attached to a door, window, &c., or to a spring-plate or knob that is moved by the opening of said door, &c. The lever by which the slack of the cord is taken up, as aforesaid, is connected to a plate whose face indicates the door that may have been opened, the said plate by the dropping of the lever being carried behind a transparent spot in the lid of the case. The cords that are attached to the doors, &c., pass through the rooms so as to be burnt off by a fire in the said room and to start the alarm; or separate cords may be used for the door and for the fire.

Figure 1 is an elevation of my indicator-case, partly broken away to exhibit the interior, and the alarm-bell being shown by dotted outline. Fig. 2 is a section, showing attachment of alarm-cord to a window. Fig. 3 shows in perspective attachments of cord to a device operated by a door, and Fig. 4 is a section of same.

A is the indicator-case, having a lid, B, in which *b* are transparent spots. C is an alarm, similar to that of an alarm-clock. Of this alarm D is a detent-lever, which in one position holds the alarm mechanism at rest, but when in the position shown allows the mechanism to go into action. *d* is a spring tending to hold the lever in the former position. E E' are springs stronger than the spring *d*, and tending to throw the lever into the position shown, in which case the alarm is put in action. To the springs E E' are attached cords or wires F, which pass through eyes G, in which may be pulleys, if required, to diminish friction, and bell-cranks may be used at all points where found applicable. H H' are levers, on whose inner sides are pins *h*, over which the cord F passes in such a manner that when the levers are raised into the position shown at H', the cord is bent over the said pin and draws

back the spring E', as shown; and when both the springs E E' are drawn back into this position, the spring *d* forces the lever over to the left, and the detent is brought into action so as to prevent the alarm from sounding. When the levers H H' fall into the position shown at H, the cord F straightens out, and the spring (to which this cord is attached) takes the position shown at E, forcing the detent-lever D to the right and relieving the alarm mechanism, which then runs down. Upon the levers H H' are hooks *h'*, which, when the levers are raised, engage over the hooks *i* upon the levers I, pivoted at *i'* to the case A. The levers I are pressed to the right (so as to retain their holds upon the hooks *h'* to support the levers H H') by springs K, and upon the other sides of the levers I are springs L of greater power than those, K, but held from bearing against the levers by cords or wires M, which are attached to the springs, and pass through the rooms, and to the doors and windows, so as to indicate when a fire occurs in the room or the doors or windows are opened. The cords M pass from their attachment to the springs L around a pin or pulley, *m*, from which the end of the cord is brought back and secured to the lever I, so that if the cords are slacked by the opening of the door, &c., or by the burning through of the cords, the springs L force the levers I to the left against the pressure of the weak springs K; but if the cords are tightened by the opening of the door, &c., the levers I are drawn to the left by the action of the cord around the pulley *m*, drawing the lever to the left. When the catch *i* is drawn from beneath the hook *h'* the lever H drops, and the point from which the alarm is communicated is indicated by the sign-plate dropping into position, shown at N, in which the plate is brought directly to the rear of the transparent spot *b*. In Fig. 2 is shown one manner of device by which the movement of the sash may be made to loosen a cord, M, passing to the spring L. In this a spring-plunger or pin, O, is let into the stile P, its lower end entering a notch, *r*, in the sash R, so that when the sash is raised the pin O will be raised to loosen the cord sufficiently to cause the alarm to sound. In Fig. 3 is shown a device for communicating the movement of the door to the cord M. A spring-plate, S, being let into the stile or post

P, so that when the door R' is opened the plate will fly outward at one edge and tighten the cord attached to the same. The cord M would in most cases be exposed in passing through a room, so that on a fire occurring therein the cord would be burned through and the alarm given; or, if preferred, separate cords might be used for the fire and burglar alarms, each cord having its appropriate indicator-plate. In cases where the cord passes through one room to another, and the fire-alarm is desired for the latter room but not for the former, a wire may be used to pass through the former room, so that the fire would not affect it, and by this means the exact position of the fire might be at all times known. T are sliders, having projections that come in contact with the levers H H' when they are forced inward to raise the levers and engage the hook h' on the catches i. These slides are again drawn back when released by spiral springs t.

I have shown but four indicators, but, of course, the number might be multiplied to any required extent, so as to convey alarms from every room or door in the house or surrounding buildings; and the cords may act either by slackening or tightening, as before described. It is necessary that all the indicators in one

line (taking up the slack of one cord F) should be set at one time; hence the necessity of the sliders T, or some similar device, for that purpose.

I claim as my invention—

1. The combination of the levers I with springs K L, operating substantially as set forth to hold the lever to its engagement with the lever H when the cord M remains at rest, but to release the lever H by the loosening or tightening of the cord.

2. The combination of the cord F and lever H h, hook h', catch i, spring E, and detent D, substantially as described.

3. In combination with the elements of the second claim, I further claim the cord M and spring-pin O, arranged substantially as and for the purposes set forth.

4. The spring-plate S, when combined with the cords M and F, lever H h, hook h', catch i, spring E, and detent D, substantially as set forth.

In testimony of which invention I have hereunto set my hand.

WILLIAM HENCKLER.

Witnesses:

SAML. KNIGHT,
R. T. BRADLEY.