F. CARLSON.

BURGLAR AND FIRE ALARM.

APPLICATION FILED JULY 5, 1911.

1,056,257.

Patented Mar. 18, 1913.

2 SHEETS—SHEET 1

Fig. 1

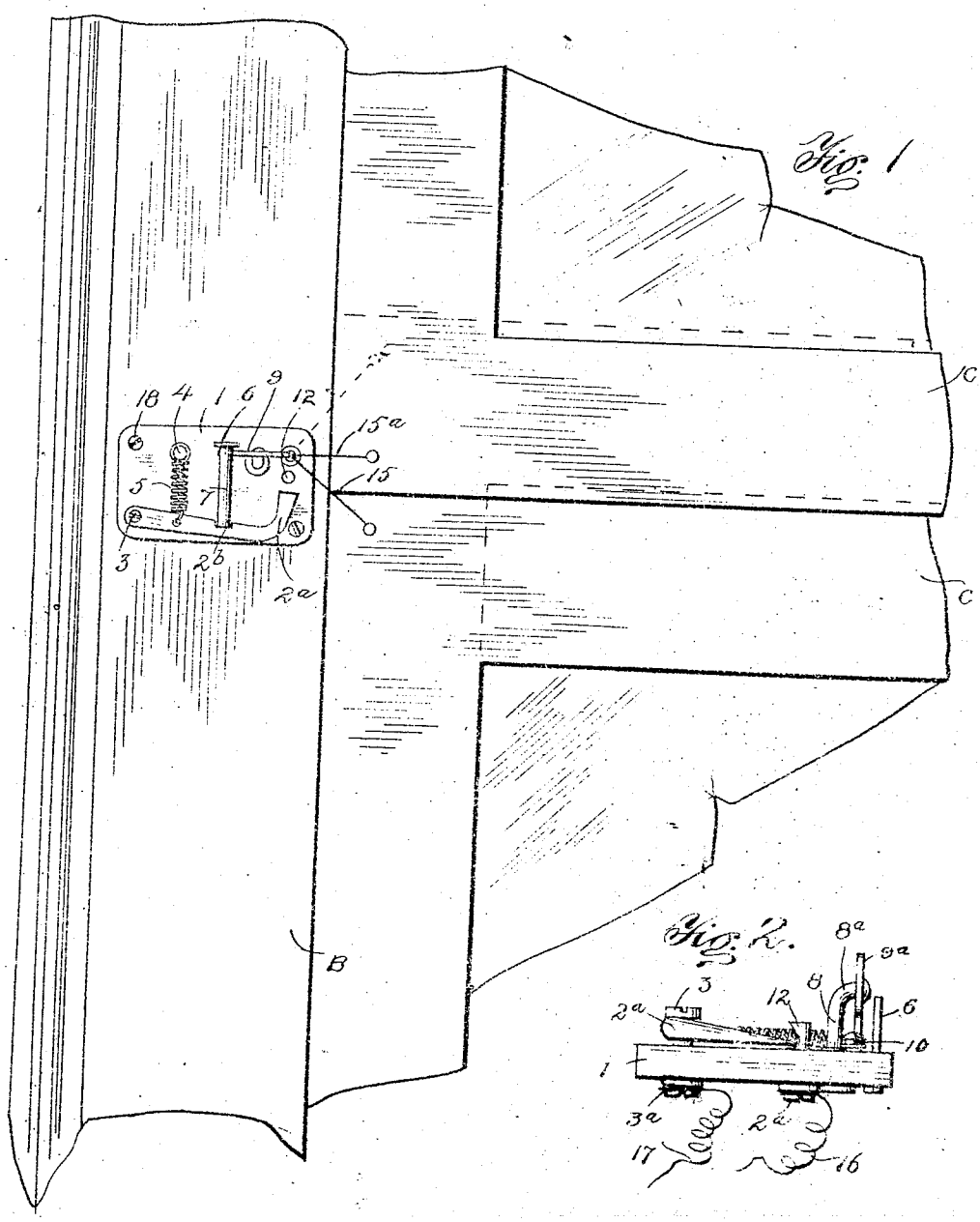


Fig. 2.

Witnesses

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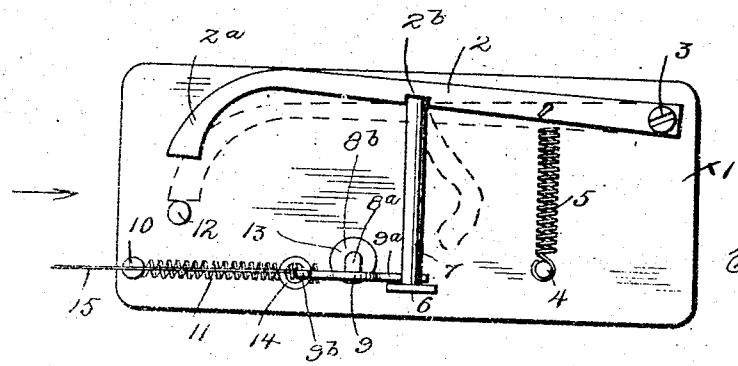


Fig. 3.

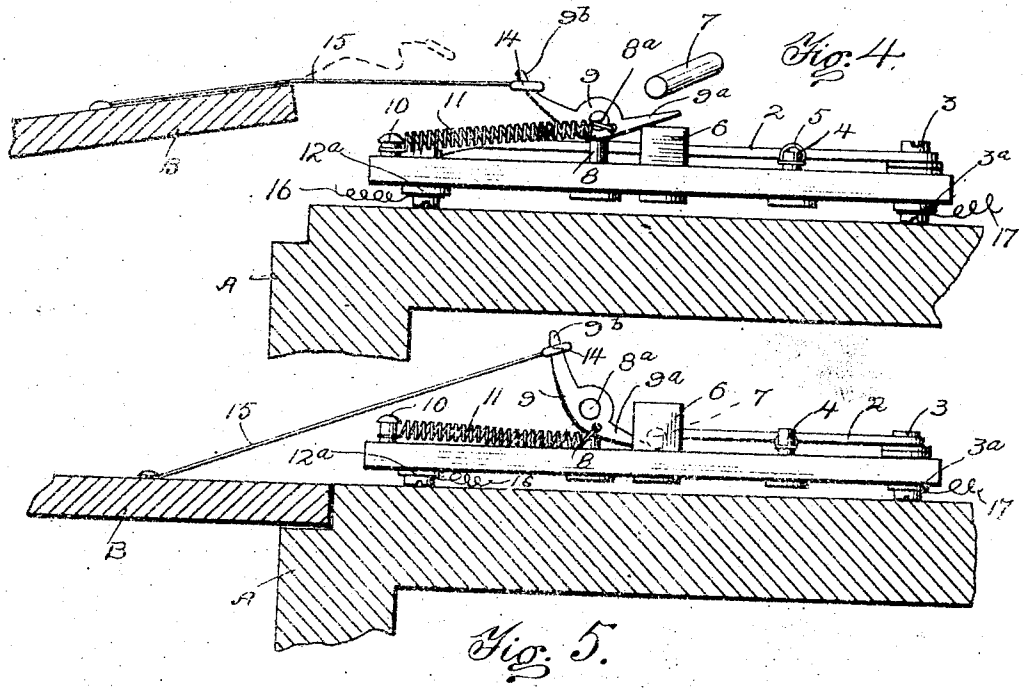


Fig. 4.

Fig. 5.

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UNITED STATES PATENT OFFICE.

FREDRICK CARLSON, OF MONESSEN, PENNSYLVANIA.

BURGLAR AND FIRE ALARM.

1,056,257. Specification of Letters Patent. Patented Mar. 18, 1913.

Application filed July 5, 1911. Serial No. 636,986.

To all whom it may concern:

Be it known that I, FREDRICK CARLSON, a subject of the King of Sweden, residing at Monessen, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Burglar and Fire Alarms, of which the following is a specification.

This invention relates to a combined automatic burglar and fire alarm designed to give an electric signal in either event and embraces as a novel feature fusible means for separating a pair of electric contacts and connections abnormally operative to displace the fusible means.

One of the objects of my invention is to attain great simplicity in construction and efficiency in use and to this end my invention comprises the construction, arrangement, and combination of parts hereinafter described, shown in the drawings, and then more particularly defined in the appended claims.

In the drawings Figure 1 is a side elevation in part of a window with my alarm attached to the window jamb. Fig. 2 is an end elevation of my alarm device looking in the direction of the arrow in Fig. 3. Fig. 3 is a top plan view thereof showing dotted lines the bending of the wax brace. Fig. 4 is a side elevation, partly in section of my alarm mounted on a door jamb showing the door in open position to actuate the burglar alarm. Fig. 5 is a view similar to Fig. 4 with the parts in normal position.

In the drawings 1 designates a non-conducting block or base-plate upon which are mounted the elements forming my invention. This block may be advantageously fastened by suitable means, such as screws 18, at one side of the door, window and similar members, the alarm being connected to a door in Figs. 4 and 5, and a window in Fig. 1. The various parts preferably lie within the area of the top of the block and the movable contact member is shown at 2 which is suitably pivoted at 3. This contact member is curved at 2^a and is formed intermediate its ends with a notch 2^b forming a bearing for one end of the bracing and separating means 7 which bears at its opposite end against a lug or upstanding projection 6. A retractile spring 5 secured to a stud 4 tends to pull the movable contact 2 into rigid contact with the stationary contact 12.

The member 7 is preferably of wax or other material adapted to give way when heated and is adapted to space the movable contact apart from the stationary contact 12. This member 7 will be displaced from one of two causes: the melting of the wax or the actuation of the trip lever 9 upon which it rests and, in consequence, the contacts will be brought into engagement thereby giving the alarm.

The trip lever 9 is composed of the portion 9^a against which the waxen member 7 rests, shown in Fig. 4, and a hook portion 9^b to which is secured a flexible member or cord 15 secured to a door 13 or either sash of a window c or c'. A stud 8 terminates in an axle 8^a upon which the lever 9 is pivotally mounted. The lever 9 is held in normal position by means of the retractile spring 11 fastened thereto at one end and to a stud 10 at the other, the portion 9^a of the lever bearing upon the base-plate 1. The pivot 3 of the movable contact 2 has electrical connection beneath the base-plate 1 at the collector 3^a through the anode conductor 17, a similar connection for the contact 12 being shown at 12^a through the cathode conductor 16. The flexible member 15 is secured to an eyelet or similar member 14 which engages the hook offset 9^b of the trip lever 9 and, being fastened at its opposite end to a door or window to hold the contacts spaced, it will be seen that when the door is opened, as in Fig. 4, the trip lever 9 will be tilted thereby ejecting the waxen member 7 and causing the contacts to close the electric circuit leading to any audible or visible signal. If the sash c be raised, as shown in Fig. 1, the same result will ensue. Owing to a sudden increase of temperature as from a fire while the waxen member 7 is in the position shown in Fig. 3 it will give way, thereby allowing the contacts to close the circuit to give the signal.

The appropriate position for my alarm for use with a door is indicated at A and with a window at B, although other situations would do as well.

I claim and desire to secure by Letters Patent:—

1. A combination burglar and fire alarm consisting of a base, a spring controlled trigger mounted on said base, means for moving said trigger, a spring controlled contact member, an electrical contact, means for giving an alarm when the contact member engages the contact, means for holding

said contact member out of connection with said contact, said means consisting of a wax post, a stand for said post, a socket in said contact member adapted to engage said post and hold same in its proper position, said trigger adapted to rest normally between said post and said base.

2. A combination burglar and fire alarm consisting of a base, a spring controlled trigger mounted on said base, means for moving said trigger, a spring controlled contact member, an electrical contact, means for giving an alarm when the contact member engages the contact, means for holding said contact member out of connection with said contact, said means consisting of a wax post, a stand for said post, a socket in said contact member adapted to engage said post and hold same in its proper position, said trigger adapted to rest normally between said post and said base, said means for operating said trigger causing the displacement of said post and permitting said contact member to engage said contact.

3. A combination burglar and fire alarm consisting of a base, a spring controlled trigger mounted on said base, means for moving said trigger, a spring controlled contact member, an electrical contact, means for giving an alarm when the contact member engages the contact, means for holding said contact member out of connection with said contact, said means consisting of a wax post, a stand for said post, a socket in said contact member adapted to engage said post and hold same in its proper position, said trigger adapted to rest normally between said post and said base, said means for operating said trigger causing the displacement of said post and permitting said contact member to engage said contact.

4. A combination burglar and fire alarm consisting of a base, a spring controlled trigger mounted on said base, means for moving said trigger against the action of said spring, a spring controlled contact member, an electrical contact, means for holding said contact member out of connection with said contact, said means being susceptible to the action of heat to release said contact member, said trigger being adapted to displace said contact member holding means to release said contact member.

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

FREDRICK CARLSON.

Witnesses:
ARTHUR HUTTON,
J. E. NEWCOMER.