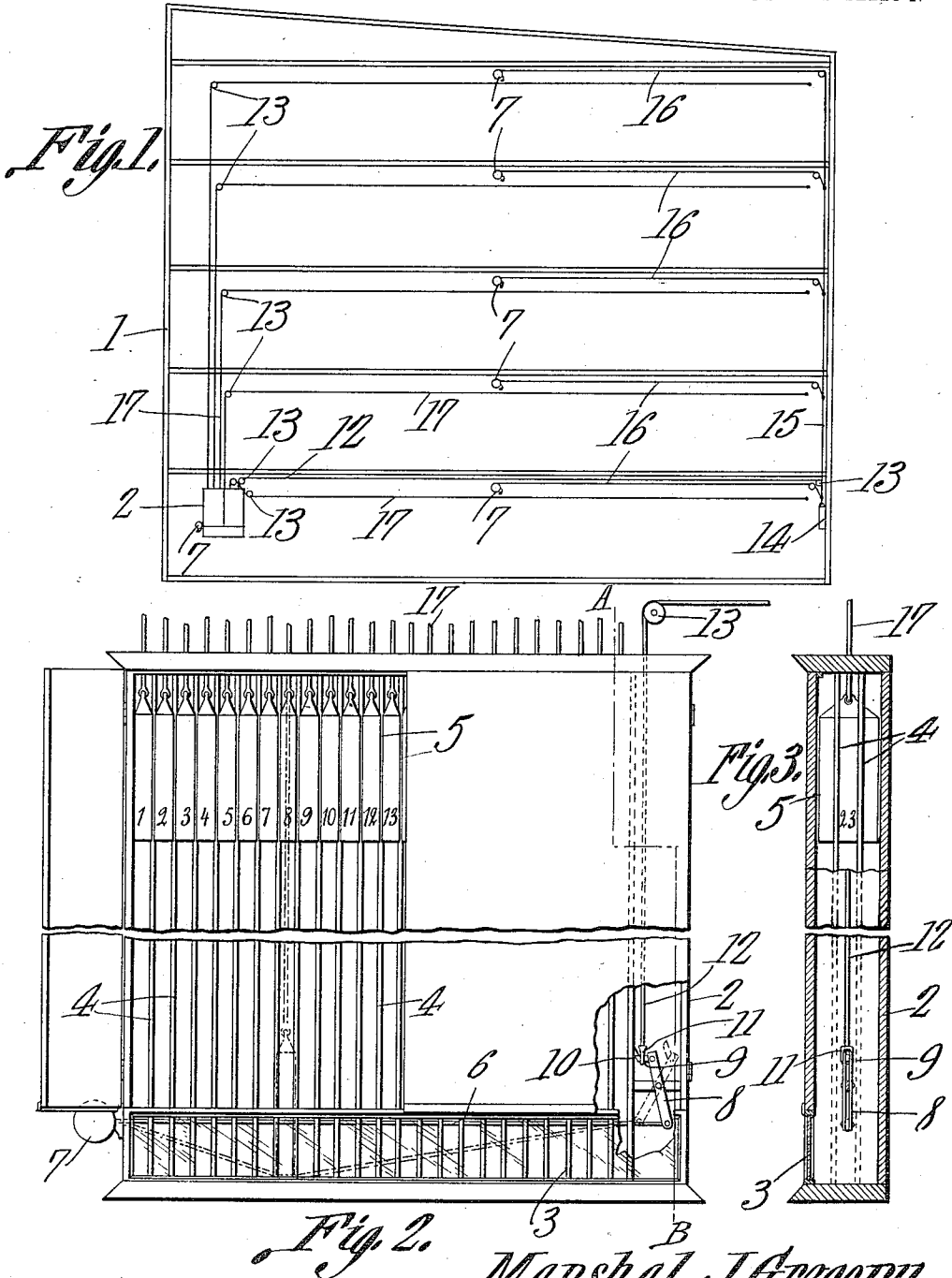


M. J. GREGORY.
FIRE AND BURGLAR ALARM.
APPLICATION FILED JULY 5, 1910.

1,017,095.

Patented Feb. 13, 1912.

2 SHEETS—SHEET 1.



Witnesses

J. P. Doolin
G. J. Chapman.

Marshal J. Gregory,
Inventor

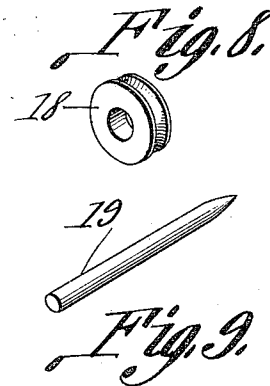
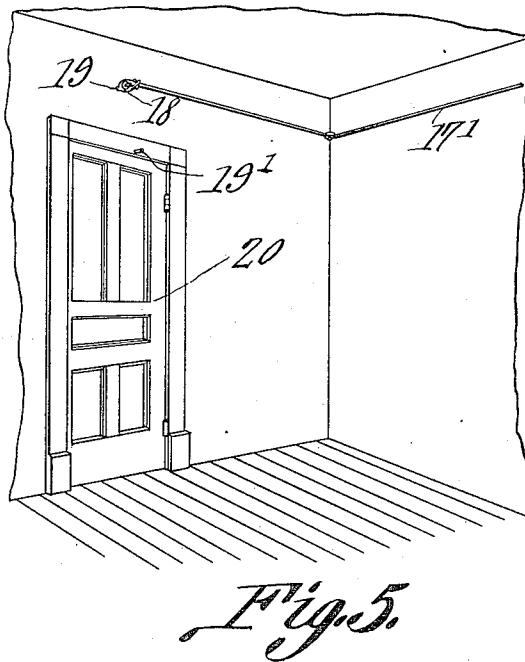
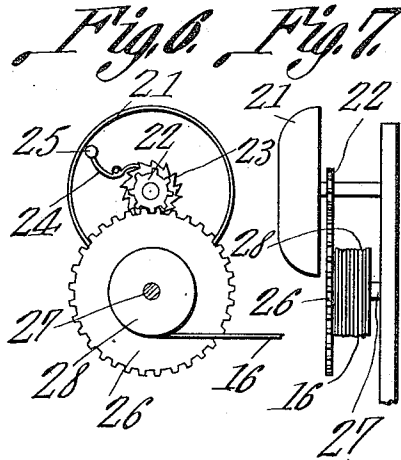
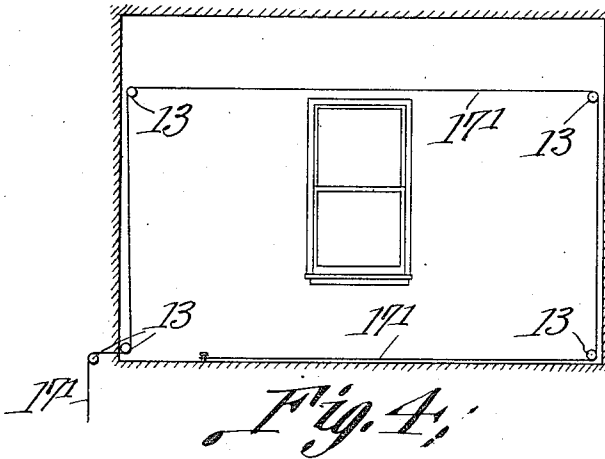
by *C. Snow & Co.*
Attorneys

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2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

MARSHAL J. GREGORY, OF SOUR LAKE, TEXAS, ASSIGNOR OF ONE-HALF TO JOHN W. TURNBOW, OF SOUR LAKE, TEXAS.

FIRE AND BURGLAR ALARM.

1,017,095.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Application filed July 5, 1910. Serial No. 570,458.

To all whom it may concern:

Be it known that I, MARSHAL J. GREGORY, a citizen of the United States, residing at Sour Lake, in the county of Hardin and State of Texas, have invented a new and useful Fire and Burglar Alarm, of which the following is a specification.

This invention has reference to improvements in fire and burglar alarms and is designed to provide a system capable of being installed in large or small buildings giving both local and general alarm should a fire break out in any portion of the building or should an intruder attempt to enter either the building or some room thereof.

The whole structure is purely mechanical in operation depending upon the stored power of gravity for causing the alarm when such stored power is released.

For the purposes of the present invention combustible or other strands are carried from the central point to all exposed points and these strands support weights which on the rupture of any of the strands fall into engagement with another strand which in turn causes the sounding of an alarm both at the central point and at as many separated points as may be desired. In the case of a hotel or other large building a separate alarm may be provided on each floor in position to be distinctly audible to the occupants of all the rooms on the floor and furthermore an alarm may be sounded at the clerk's office so that both the guests and the clerk are apprised of the danger condition whether this condition be due to fire or to the operations of burglars.

The invention will be best understood from a consideration of the following description taken in connection with the accompanying drawings forming a part of this specification, in which drawings,—

Figure 1 is a schematic section of a building equipped with the protective apparatus of the present invention. Fig. 2 is an elevation, with parts broken away of the weight box which may be located at some central point. Fig. 3 is a section on the line A—B of Fig. 2. Fig. 4 is a schematic view of a room equipped with the invention. Fig. 5 is a view of one corner of a room showing an installation of the burglar alarm devices. Fig. 6 is a rear view of an alarm apparatus adapted to the present in-

vention. Fig. 7 is a side elevation thereof. Figs. 8 and 9 are perspective views of the terminal elements of the burglar alarm system.

Referring to the drawings there is shown a building 1 which may be taken as typical of any kind of building to be protected and the particular view is assumed to show the hallways of the building but may equally be assumed to show rooms.

At some central point, say the clerk's office, there is a box 2, best shown in Figs. 2 and 3 which box may be provided with a glass panel 3 so that the lower portion of the interior thereof is plainly visible. The interior of the box is divided into vertical runways by spaced wire strands 4 made fast top and bottom thus dividing the box into numerous compartments in each of which there is lodged a weight 5 which may be an iron weight or a concrete weight or any suitable weight for the purpose. The wire strands 4 serve to separate and guide the weights so that they may move without interference one with the other.

Across the box, near the bottom and in the path of all the weights 5 is a strand 6 connected at one end to a signal 7, which latter will be described later with reference to others of the figures, and at the other end connected to a latch lever 8 at one side of the box having a latch tooth 9 normally engaged under a matching tooth 10 on the side of the box. The tooth 9 of the lever 8 is designed to retain an eye 11 on one end of a strand 12 which passes over a suitable number of pulleys 13 to a weight 14 located at some convenient point. Extending from the weight 14 is another strand 15 which may extend to the top of the building and branch strands 16 lead therefrom over appropriate pulleys to signal devices 7 located on the several floors of the building at appropriate points. The strands 12, 15 and 16 may be of a normally incombustible nature and sufficiently strong to resist damage under conditions which would ordinarily demand an alarm.

Each weight 5 is made fast to one end of a strand 17 leading over appropriate pulleys 13 to various parts of the building and these strands are purposely located where for fire alarm purposes they would be most liable to be affected by the increasing heat of a fire. For this purpose the strands may

be made, where liable to become exposed to destructive heat, of cotton or other fibrous material strong enough under normal conditions to maintain the load of the weights 5 but becoming quickly weakened to the rupturing point in the presence of the heat of a fire.

A portion of the same strands may be carried to terminal points in rooms and end in buttons 18 each with an eye adapted to a pin or nail 19' usually driven in the walls, close to a door such as indicated at 20 in Fig. 5. Normally the end of the strand with its button 18 is made fast to a pin 19 above the door or to one side thereof and when the occupant of the room is inside and desires to be protected against intruders, the button 18 is removed from the pin upon which it is normally secured and is placed upon the pin 19' so that when the door is open even to a small extent the button 18 will be struck by the door and will slip off the pin 19' thus releasing the strand 17 so that the weight 5 will fall and acting on the strand 6 will cause the sounding of an alarm both at the office and if desired throughout the building.

In Figs. 6 and 7 there is shown an alarm adapted to the present invention. This alarm may comprise a bell 21 having a post on which is mounted a pinion 22 controlling a ratchet wheel 23 which in turn engages the ratchet lever 24 ending in a striker 25 adapted to engage the bell 21. The pinion 22 is engaged by a gear wheel 26 mounted on an arbor 27 and carrying a drum 28 upon which the end of the strand 6 or 16 is wound. Under normal conditions the strand 6 or 16 as the case may be is inactive to the drum 28 but when the strand 6 is engaged by a weight 5 or the strand 16 is released to the action of the weight 14 then the drum 28 is given a rotative movement and this movement is transmitted through the gear 28 to the pinion 22 and the ratchet 23 will cause a vibratory movement of the lever 24 and a rapid striking of the hammer or striker 25 on the bell 21 thus sound-

ing an alarm which may be prolonged for a considerable time depending upon the general relation of the drum 28 to the fall of the weight 5 or 14 as the case may be.

The disposition of the strands 17 will depend upon the conditions to be met in each individual building and hence the showing of the drawings is purely schematic or indicative.

The general arrangement of the parts shown in the drawing is operative and has proven efficient in practical use, but it is to be understood that this arrangement may be varied so long as the salient features of the invention are retained.

What is claimed is:—

1. In an alarm system, a signal; a latch; a flexible strand connecting the signal and the latch; a weight under the control of the latch; signals operatively connected with the weight to be operated by the weight when the weight is released by the action of the latch; slidably mounted weights adapted to engage the strand intermediate the signal and the latch; and other strands adapted to yield under a rise in temperature, and connected with the last named weights.

2. In an alarm system, a signal; a pivotally mounted latch; a strand connected at remote points with the latch and with the signal; a weight; a flexible element constituting a support for said weight, and adapted to be engaged by the latch; a signal actuable by the flexible element; a slidably mounted weight adapted to engage the strand between the first named signal and the latch; and another strand adapted to yield under a rise in temperature, and constituting a support for the last named weight.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MARSHAL J. GREGORY.

Witnesses:

A. S. HUDSON,
ED. HERRINGTON.