(No Model.)

E. P. McCASLIN.

FIRE ALARM.

No. 530,790. Patented Dec. 11, 1894.

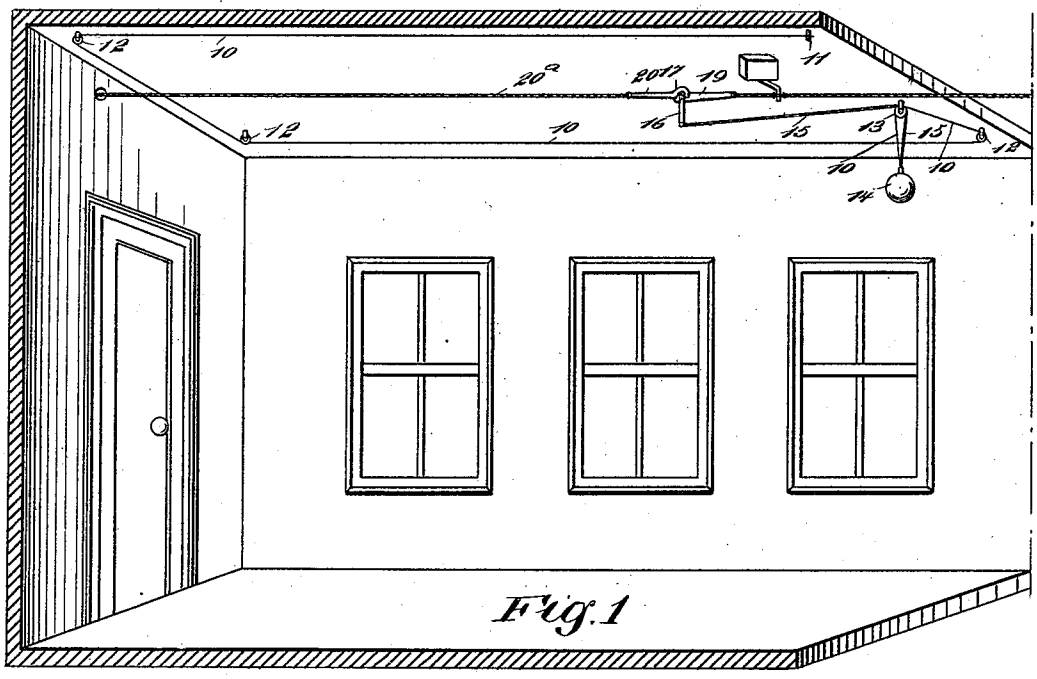

Fig. 1

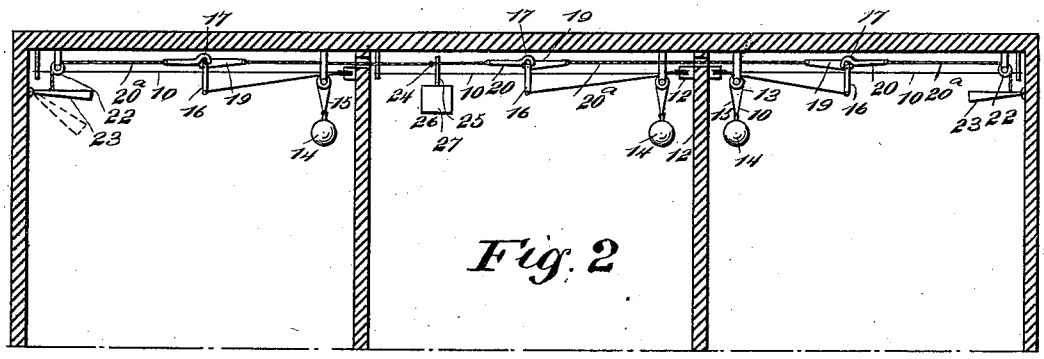

Fig. 2

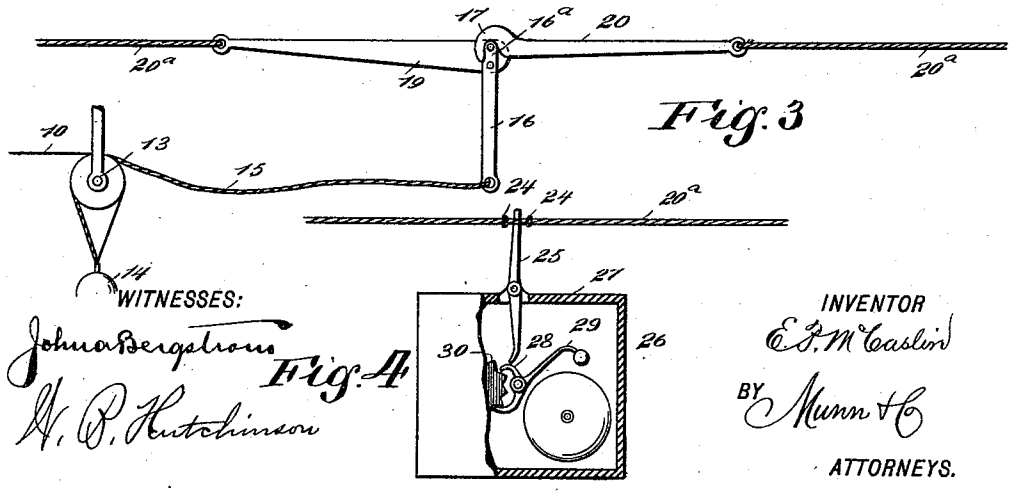

Fig. 3

Fig. 4

WITNESSES:

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EUGENE P. McCASLIN, OF TULLAHOMA, TENNESSEE.

FIRE-ALARM.

SPECIFICATION forming part of Letters Patent No. 530,790, dated December 11, 1894.

Application filed August 6, 1894. Serial No. 519,570. (No model.)

To all whom it may concern:

Be it known that I, EUGENE P. MCCASLIN, of Tullahoma, in the county of Coffee and State of Tennessee, have invented a new and Improved Fire-Alarm, of which the following is a full, clear, and exact description.

My invention relates to improvements in fire alarms; and the object of my invention is to produce an alarm which is very simple and cheap in construction, is particularly adapted for use in hotels or large residence buildings, and which is adapted, in case a fire breaks out in any part of the building, to at once sound in all the other parts of the building, thus thoroughly arousing everybody in the building so that they may escape in safety.

A further object of my invention is to produce a device which is not dependent on electrical circuits, but which is adapted to operate positively in case of fire and cannot, by any accident, get out of order.

To these ends my invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of a portion of the improved system as applied to a room. Fig. 2 is a sectional elevation, showing the apparatus applied to several adjacent rooms of a building. Fig. 3 is an enlarged detail view of the trip which is moved in case of fire and causes an alarm to be rung; and Fig. 4 is a broken detail sectional view, showing a form of alarm, well adapted for use in connection with my improved system.

In carrying out my invention, a combustible cord 10, preferably of silk, is secured to a peg, staple, or similar device 11 and is run around the ceiling or wall, as the case may be, over guide pulleys 12 and preferably near the corners of the room, and finally, over a pulley 13 and is attached to a pendent weight 14 which holds the cord taut and which is supported by it, while to the weight is also attached another non-combustible cord 15 which also extends over the pulley 13 and is attached to the lower end of a tripping lever 16, the upper end 16^a of which engages a hook 17 on the end of a connecting rod 20, and the tripping lever is fulcrumed, as shown at 18, on a second connecting rod 19, these two rods 19 and 20, in connection with the tripping lever, serving to connect the sections of a taut wire 20^a which, when separated, is adapted to sound an alarm as hereinafter described, and it will be seen that if the cord 10 is burned off and the weight 14 dropped, the cord 15 will tilt the tripping lever 16 so as to permit the hook 17 to be disengaged, thus separating the sections of the wire.

The wire 20^a extends through openings 21 into all the adjacent rooms on the floor, and of course by using suitable guide pulleys 22, it may be extended through the rooms on several floors if desired, and the ends of the wire are secured to swinging weights 23 which are fulcrumed on the wall of the building, as shown in Fig. 2. The swinging weights 23 are in the form of levers, so that they act oppositely and exert a good pull on the wire 20^a. In every room or at necessary points the wire 20^a is provided with stops 24, which engage a tilting trigger 25 which is fulcrumed on the case 27 of an alarm 26, which trigger is arranged so as to engage the fork 28 of the hammer 29 and hold the fork in close engagement with the spur wheel 30, so that the latter cannot turn. This spur wheel may be turned by any of the usual spring devices which move until run down, and the hammer is arranged to strike a gong 31 in the case.

When a cord 10 is burned off or broken in any room, the weight 14 drops, thus pulling on the cord 15 and tilting the tripping lever 16 so as to release the hook 17 and permit the separation of the wire 20^a, and when this occurs, the weights 23 pull on the ends of the wire so as to move it longitudinally, and the several triggers are tilted and released from the fork 28 so that all the alarms begin to ring.

It will of course be understood that any suitable spring alarm may be used which permits the trigger 25 to be arranged so as to hold the alarm in a non-ringing position.

It will be seen from the above description that if the fire breaks out in any room, the cord 10 is sure to burn off or at least be weakened so as to break, and this causes the weight connected therewith to drop and all the alarms connected with the wire 20^a, which is thereby

separated, are rung and hence the alarm is positive, quick and thorough.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A fire alarm system, comprising a wire having weights at the ends, tripping devices to separate the wire, alarms set in motion by the movement of the wire, a weighted combustible cord hung on suitable supports, and means for releasing a tripping device by the dropping of the cord weight, substantially as described.

2. A fire alarm system, comprising a wire having weights at the ends, a series of alarms arranged along the wire, triggers connected with the wire and with the alarms to set the same in motion, tripping devices to cause the separation of the wire, a weighted combustible cord arranged on suitable supports, and a second non-combustible cord connected with the weight and with one of the tripping devices, substantially as described.

3. A fire alarm system, comprising a separable wire having weighted levers at its ends, tripping devices connecting the sections of the wire and consisting of a connecting rod secured to one section, a tripping lever fulcrumed on the connecting rod and a second connecting rod secured to the adjacent wire section and terminating in a hook to engage the tripping lever, alarms arranged along the wire and set in motion by the movement thereof, a combustible cord arranged on supports and provided with weights at one end, and connections between the weights and the tripping devices, substantially as described.

EUGENE P. McCASLIN.

Witnesses:
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