

No. 662,032.

Patented Nov. 20, 1900.

E. F. SITTS.

AUTOMATIC FIRE ALARM DEVICE.

(Application filed July 10, 1899.)

(No Model.)

FIG. 1

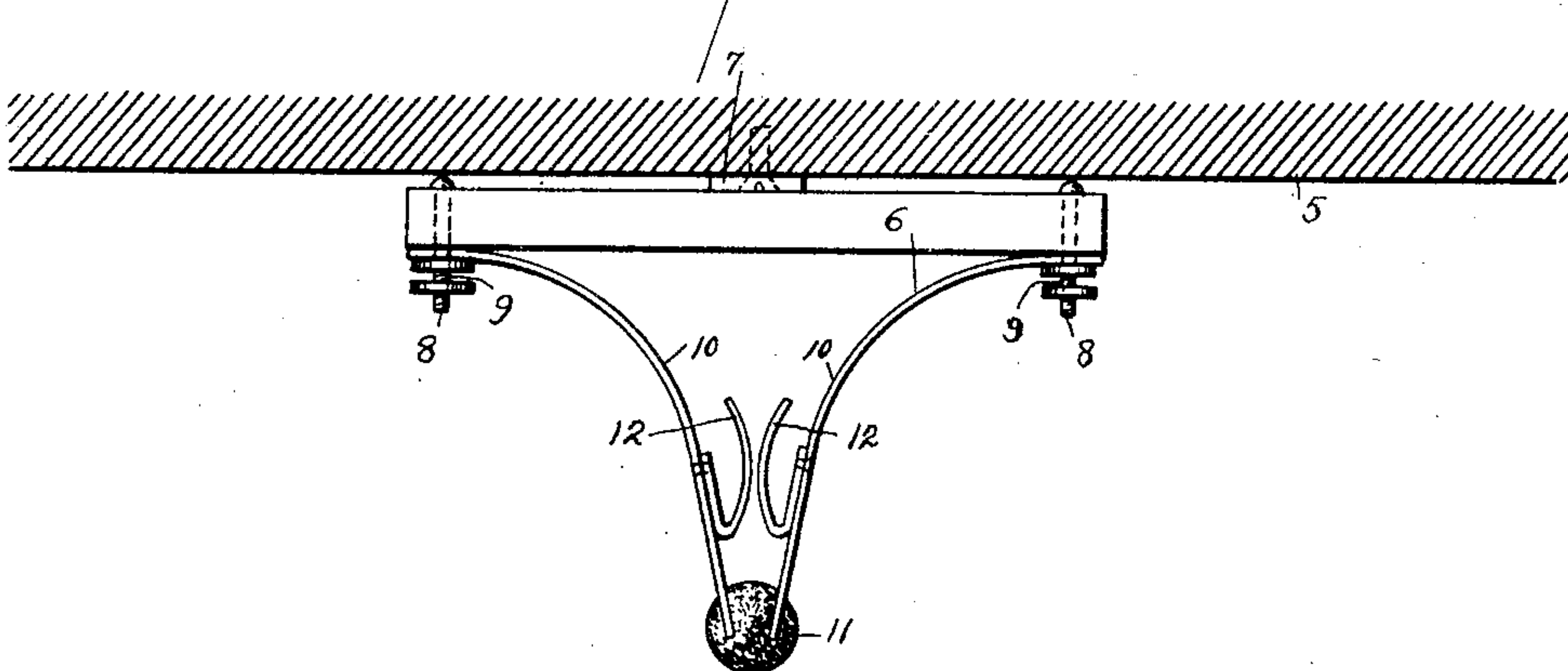
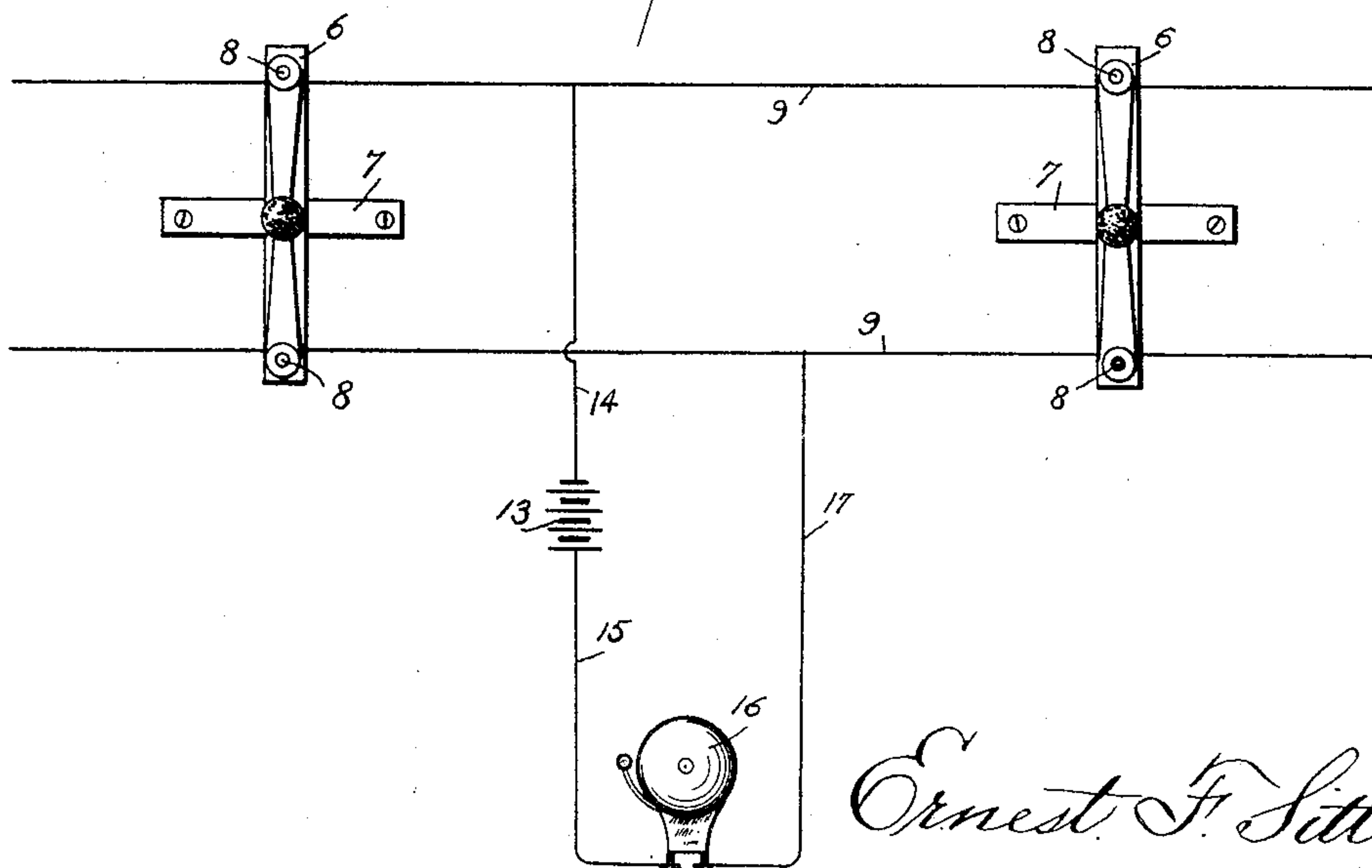


FIG. 2



WITNESSES

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AUTOMATIC FIRE-ALARM DEVICE.

SPECIFICATION forming part of Letters Patent No. 662,032, dated November 20, 1900

Application filed July 10, 1899. Serial No. 723,331. (No model.)

To all whom it may concern:

Be it known that I, ERNEST F. SITTS, a citizen of the United States, residing at Herkimer, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Automatic Fire-Alarm Devices, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to automatic fire-alarm devices; and the object thereof is to provide an improved device of this class which may be placed in any room or compartment of a building and which is adapted to be operated by an increase of the temperature within said room or compartment beyond a predetermined degree.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a sectional view of a part of the ceiling of a room or compartment, showing a circuit-closing apparatus which I employ; and Fig. 2, a plan or diagrammatic view showing the entire apparatus.

In the drawings forming part of this specification the separate parts of my improvement are designated by the same numerals of reference in each of the views, and in said drawings I have shown at 5 a portion of the ceiling of a room or compartment, and in the practice of my invention I provide a circuit-closing device consisting of a block 6, of wood or any suitable material, which is preferably secured to a non-conducting plate 7, which plate is secured to the ceiling, as shown.

Each end of the block 6 is provided with a binding post or screw 8, with which the wires 9 are connected, and each end of said block is also provided with a metal spring 10, secured thereto by the binding post or screw 8 or in any desired manner.

The springs 10 are curved inwardly and downwardly or converge from the ends of the block 6 and are held in a separated position at their free ends by a ball 11, of fusible material.

The ball 11 may be of any desired form and is composed of a wax-like or other substance which will melt at a predetermined degree of heat, and secured to the sides of the springs

10, adjacent to the ends which are connected by the ball 11, are inwardly-curved springs 12, which are also held out of contact by the ball 11.

In Fig. 2 I have shown two of these devices and the method of wiring the same in a building, and located at any desired point is a battery 13, and in Fig. 2 the wires 9 are shown as running parallel, and a wire 14 is connected with one of the wires 9, and another wire 15 is connected with an alarm device 16 and with the battery 13, and said alarm device is also connected with the other wire 9. As thus constructed it will be seen that an increase of temperature in the room or compartment sufficient to fuse or melt the ball 11 will allow the springs 10 operating to produce this result, and the circuit will thus be completed through the alarm device 16, as will be readily understood, and said alarm device will be operated in the usual manner.

An entire building—such as a hotel, dwelling, or other structure—may be wired up and provided with these devices, one or more of which is placed in each room of the building, and the alarm device may be located in the main office or at any desired point and each room may be provided therewith, if desired.

My improvement is simple in construction and operation and well adapted to accomplish the result for which it is intended, and it will be apparent that changes in and modifications of the construction described may be made without departing from the spirit of my invention or sacrificing its advantages.

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

A device of the class described, comprising a base or support, a pair of convergently-curved main plate-springs connected at one end with said base by means of binding-posts with which line-wires are connected, the free ends of said curved springs being held in proximity by means of a ball or knob of fusible substance, and supplemental curved plate-springs connected with said main springs at one end and so arranged that their convex sides are in opposed relative position, said line-wires being in connection with a source of electricity and with the operative parts of

a bell or other alarm device, the relative construction and arrangement of parts being such that a predetermined degree of heat will cause the fusion of said ball or knob which
5 in turn will cause the mutual engagement of said supplemental plate-springs, and the closing of an electrical circuit through said ball or alarm device, substantially as shown and described.

In testimony that I claim the foregoing as ^{to} my invention I have signed my name, in presence of the subscribing witnesses, this 7th day of July, 1899.

ERNEST F. SITTS.

Witnesses:

GEORGE W. RULISON,
WILLIAM C. PRESCOTT.