

(No Model.)

A. H. WEST.
FIRE ALARM.

No. 573,944.

Patented Dec. 29, 1896.

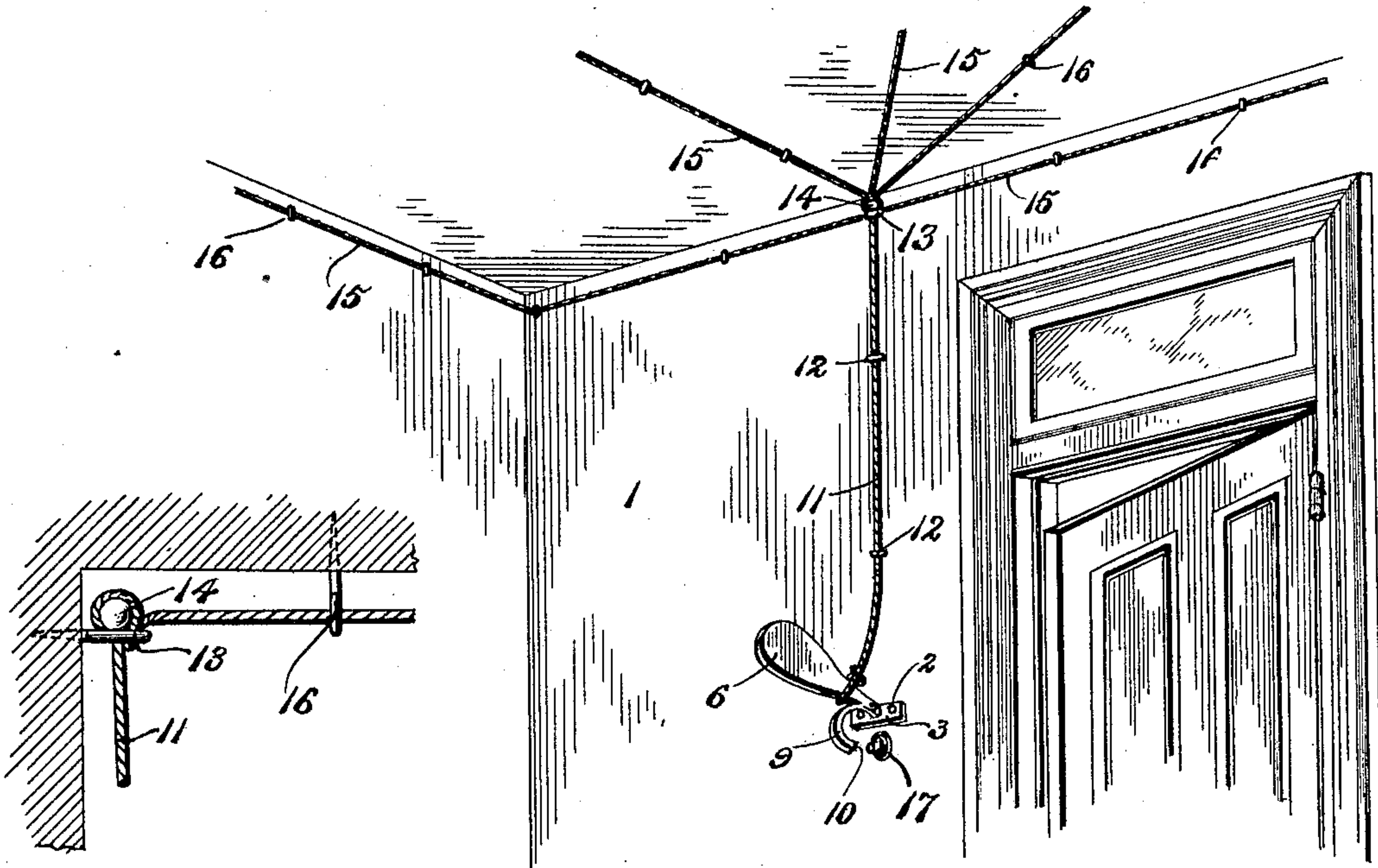


FIG. 1.

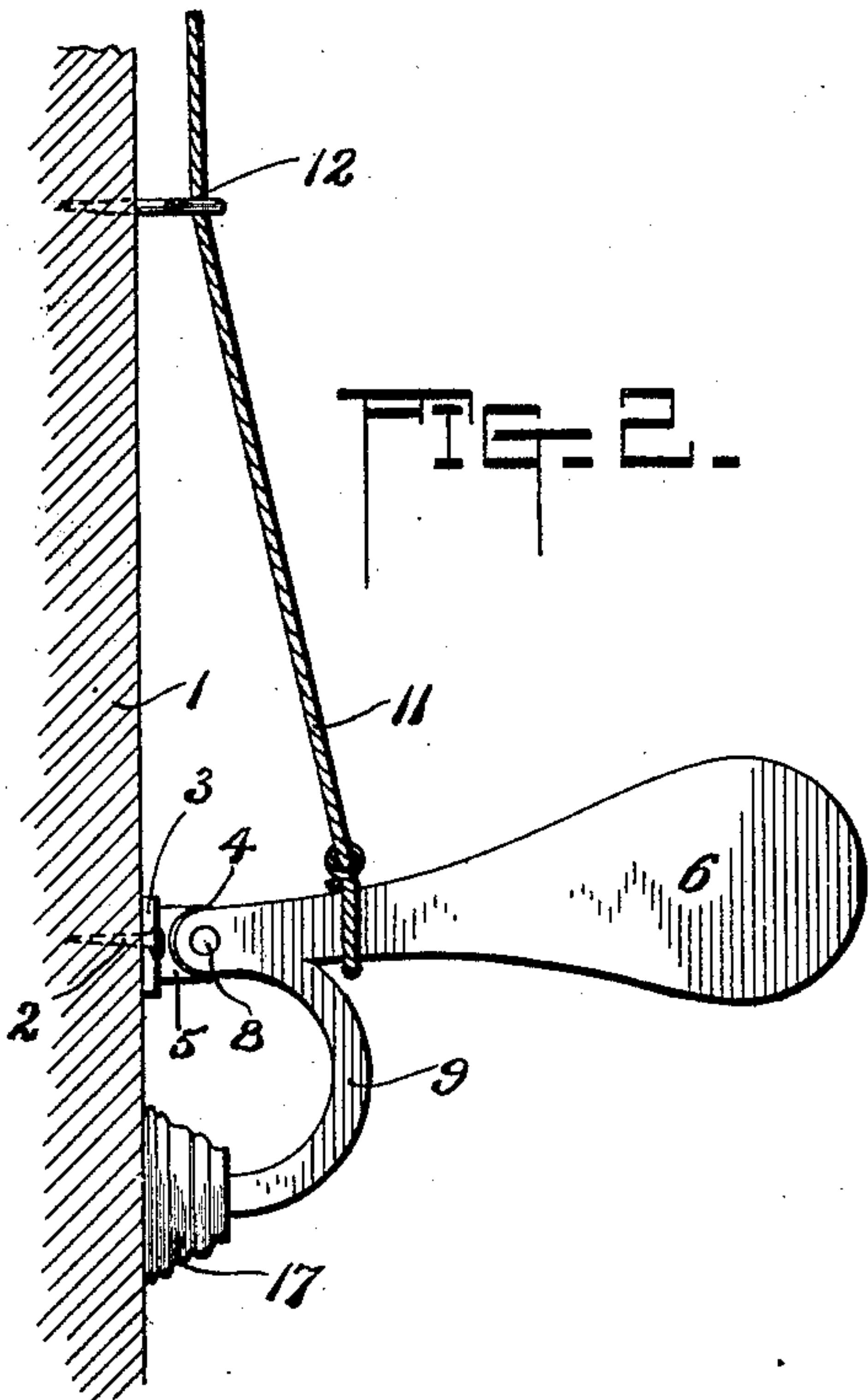


FIG. 2.

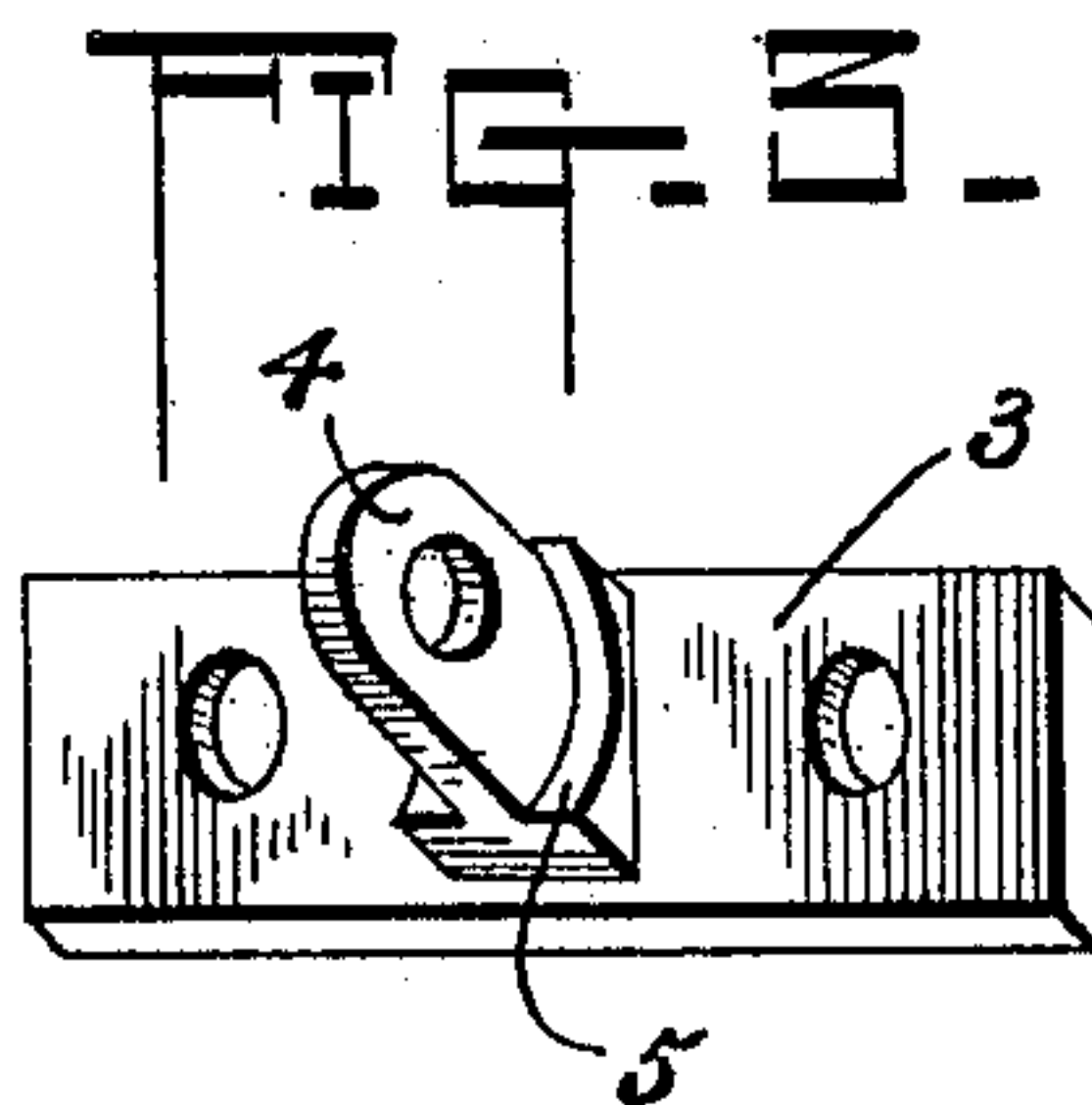
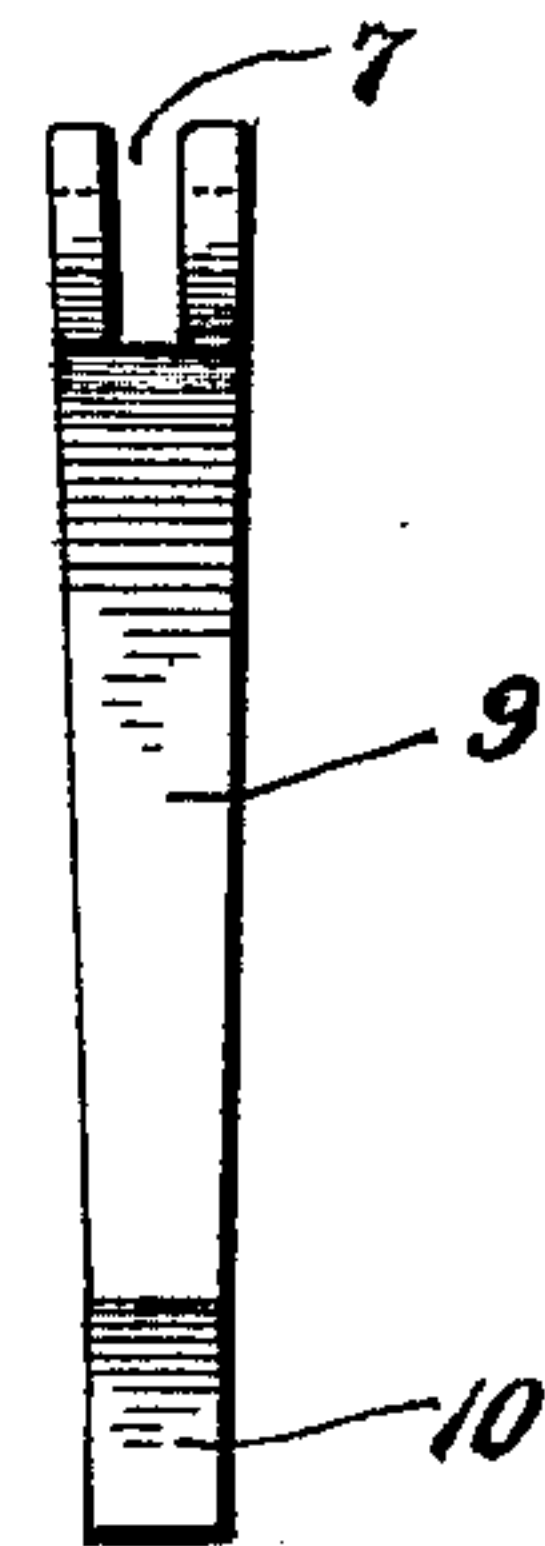


FIG. 3.

FIG. 4.



Inventor

Asa H. West,

Witnesses

A. M. Loughton,
John W. Brownell,

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

ASA H. WEST, OF LYNCHBURG, VIRGINIA.

FIRE-ALARM.

SPECIFICATION forming part of Letters Patent No. 573,944, dated December 29, 1896.

Application filed March 30, 1896. Serial No. 585,417. (No model.)

To all whom it may concern:

Be it known that I, ASA H. WEST, a citizen of the United States, residing at Lynchburg, in the county of Campbell and State of Virginia, have invented a new and useful Improvement in Fire-Alarms, of which the following is a specification.

This invention relates to new and useful improvements in fire-alarms; and it has for its object to provide an alarm of this character especially adapted for use in private buildings, and by means of which notice of a fire will be given before such fire has reached an extent beyond control.

With this object in view the invention consists substantially in the construction, combination, and arrangement of parts, as will be hereinafter fully illustrated, described, and claimed.

In the accompanying drawings, Figure 1 is a perspective view of an alarm constructed in accordance with the present invention and illustrating the same in position for use. Fig. 2 is a side elevation showing the drop-lever in lowered position as when sounding the alarm. Fig. 3 is a detail perspective view of the means for pivotally securing the drop-lever to a wall or similar locality. Fig. 4 is an end view of such lever.

Similar numerals of reference indicate corresponding parts throughout the figures.

Referring to the drawings, 1 designates a wall or similar locality to which the herein-described alarm is applied, and secured to such wall by means of screws 2 or their equivalents is a hinge-plate 3, provided with an outwardly-projecting stud 4, such stud at each of its sides having shoulders 5.

A drop-lever 6 is secured to the hinge-plate 3, and in order to connect the same to such hinge-plate said lever has one of its ends bifurcated, as at 7, which bifurcated end receives the stud 4 and is pivoted thereon by means of a pin or its equivalent 8. The drop-lever 6, at a point adjacent to the bifurcation 7, is provided with a rigid depending curved arm 9, the end of which is concaved, as at 10, for a purpose to be presently described. The end of the drop-lever 6 opposite to the bifurcation 7, as clearly illustrated, is enlarged, and secured adjacent to such enlarged end or at any point on the lever is

one end of a combustible cord 11. This cord passes through a series of eyes 12, secured in the wall, and passes upwardly to the eye 13, which is located near the ceiling of the room. Mounted upon the eye 13 is a ball of wax 14 or other fusible substance, and after the cord 11 has passed through the eye 13 the loose end of the cord is wrapped around the ball 14 and is again brought through the eye 13, after which such loose end may be either secured, or, if desired, branch cords 15 may be connected therewith and passed to different portions of the room in which the alarm is located. In the event that the branch cords 15 are employed it will of course be necessary to support such cords, and to accomplish this end staples or eyes 16 are used.

To complete the alarm, a circuit-closing device 17 is provided. This circuit-closer may be a push-button, as illustrated, or, if desired, some other form may be used, and such circuit-closer is located in a position below the hinge-plate 3, directly in the downward path of the arm 9, so that it will be seen when the drop-lever assumes the position shown in Fig. 2 the concaved end of said arm 9 presses upon the button 17, thereby closing an electrical circuit and sounding an alarm.

The operation and advantages of the herein-described alarm will be readily understood by those skilled in the art.

Should a fire originate in a room wherein the drop-lever is located, the flames will ignite the cord 11, or in the event that the branch cords 15 are employed the latter will also be lighted and will be consumed until the flame has reached the eye 13, whereon the ball is mounted, when such ball will be fused by direct contact of the flame, thereby releasing the cord 11 from the eye 13, and the lever 6, by reason of its enlarged end, will fall to the position as illustrated in Fig. 2. The concaved end of the arm 9 will thereby be brought into contact with the push-button or other circuit-closer and an alarm will be sounded, thus informing the occupants of the building of the point at which the fire has originated.

It will be noted that the size of the ball 14 is only slightly greater than the eye 13, and should the cords 15 fail to ignite, when the temperature of the room has become of suf-

sufficient height, will fuse, thereby releasing the drop-lever 6, and such lever will close the circuit the same as if the cord 11 had been consumed. Thus it will be apparent that by the use of my improved alarm the outbreak of a fire will be easily detected before such fire has reached an extent as to be beyond control.

The drop-lever 6 is designed especially for use with the ordinary push-buttons located in hotels and similar places, and it will therefore be seen that when such lever assumes the position shown in Fig. 2 an alarm will be sounded through an annunciator in the clerk's office in the hotel, and instant notice of the fire will be given.

While I have described the means for holding the drop-lever 6 out of contact with the circuit-closer as a combustible cord, it will of course be understood that I may substitute therefor wires formed of any fusible material or ordinary wires secured together by means of fusible connections.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

1. In an automatic fire-alarm, the combination of a drop-lever having one of its ends bi-

furcated, a hinge-plate provided with a stud, said stud pivoted to the bifurcated end of the drop-lever, an arm secured to said drop-lever, a circuit-closer disposed below the hinge-plate and adapted to be operated by the drop-lever, a combustible cord or other fusible connection secured to said drop-lever and provided with branches, a series of eyes for receiving the fusible connection, and a fusible ball mounted on one of said eyes whereby the drop-lever is normally held out of contact with the circuit-closer, substantially as set forth.

2. In an automatic fire-alarm, the combination of a drop-lever, an arm provided on said drop-lever, a circuit-closer disposed below the drop-lever and adapted to be operated by the arm of the latter, a fusible connection secured to said drop-lever, a series of eyes for receiving the fusible connection, and a fusible ball mounted on one of said eyes, said fusible ball and connection being adapted to normally hold the drop-lever out of contact with the circuit-closer, substantially as set forth.

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

ASA H. WEST.

Witnesses:

JAS. B. FORD,

E. G. DAWSON.