

(No Model.)

C. J. FISHER.
BURGLAR ALARM.

No. 501,777.

Patented July 18, 1893.

Fig. 1

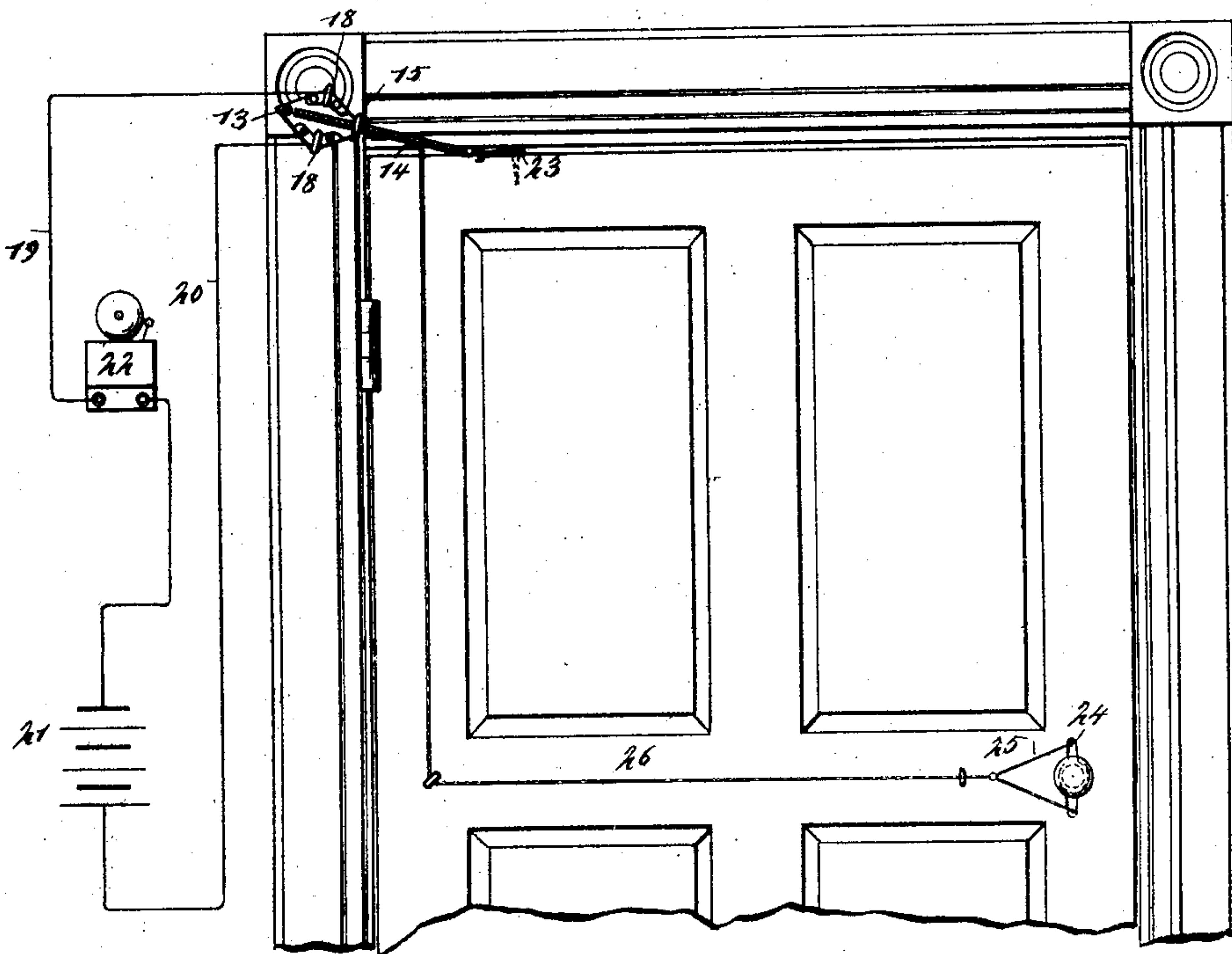


Fig. 2

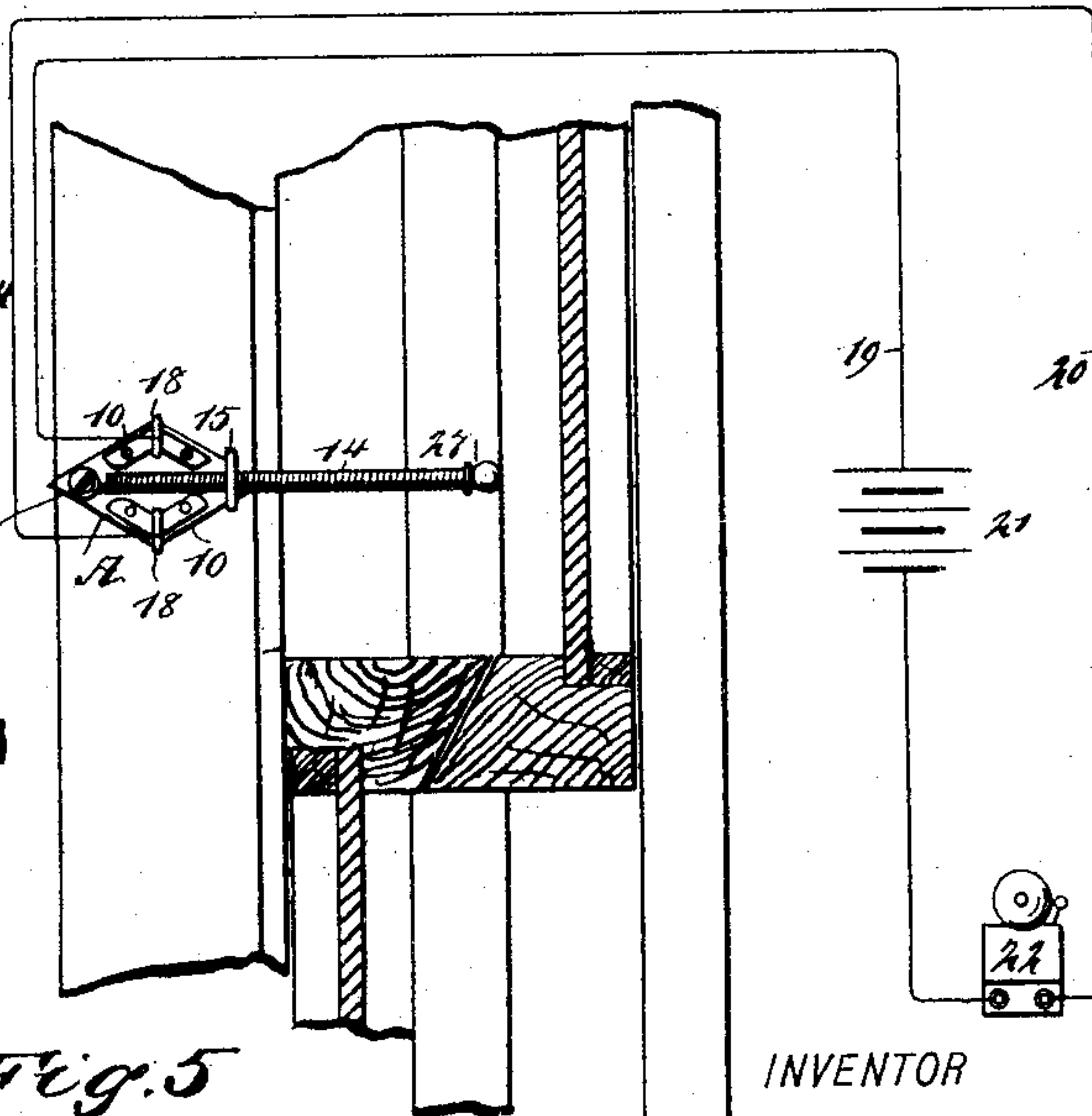


Fig. 3

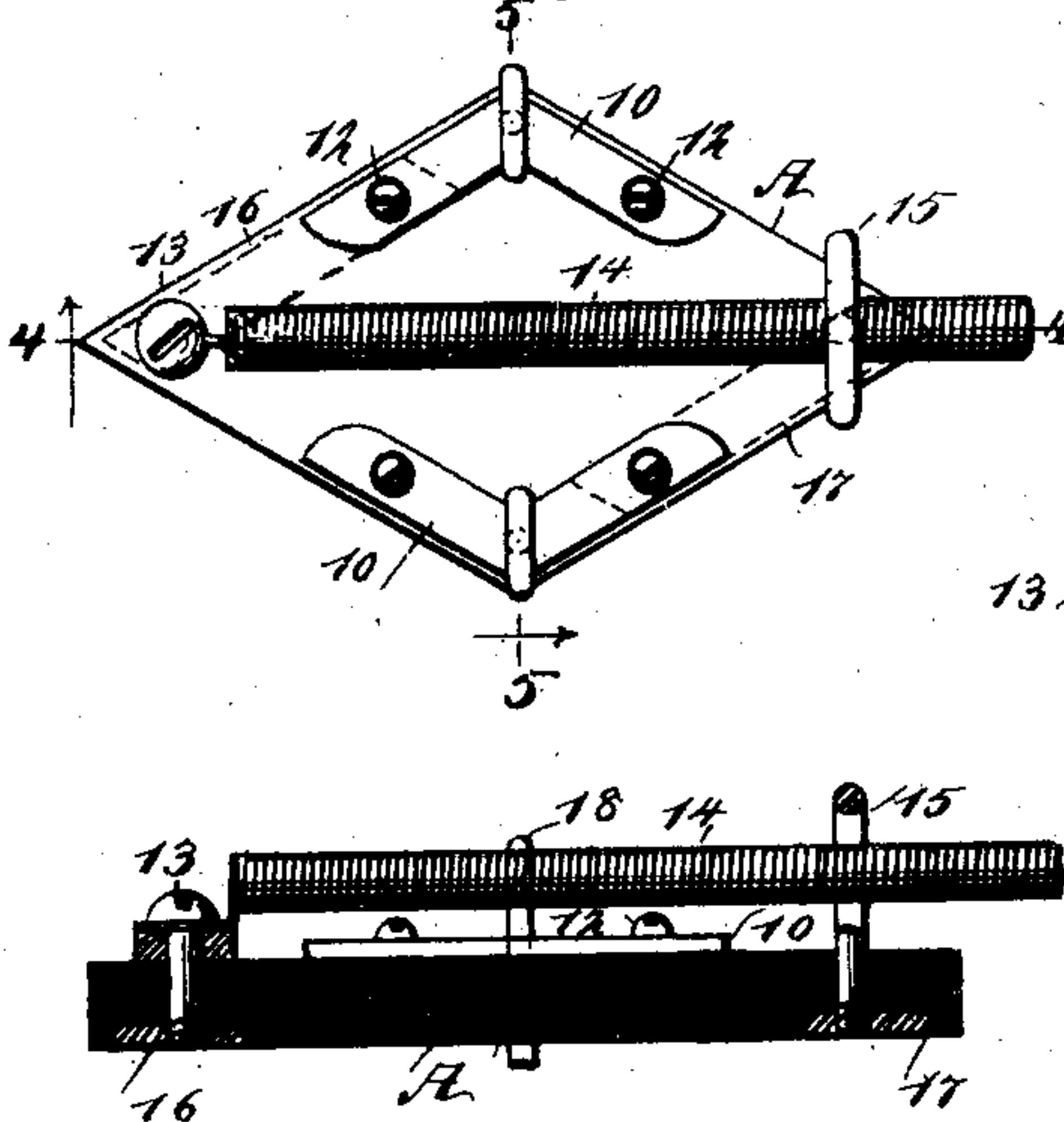
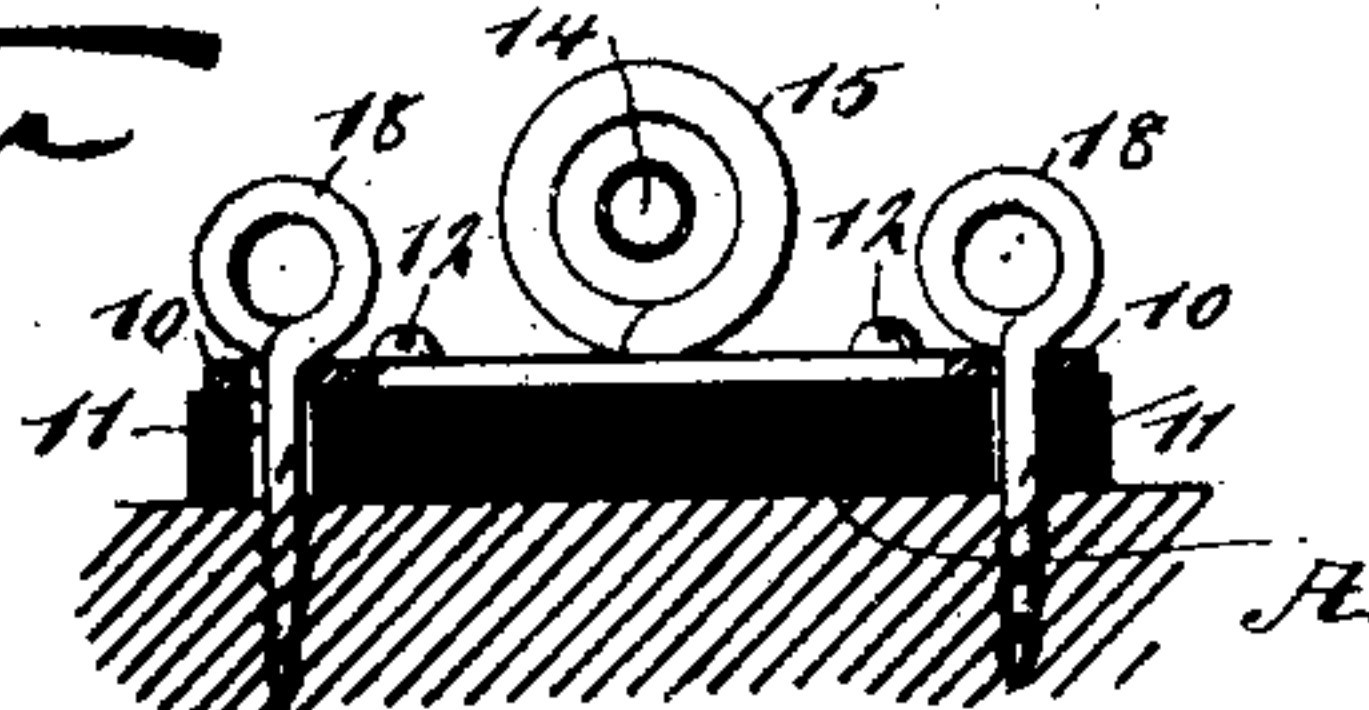


Fig. 4

WITNESSES:

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Fig. 5



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UNITED STATES PATENT OFFICE.

CHARLES J. FISHER, OF CHICAGO, ILLINOIS.

BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 501,777, dated July 18, 1893.

Application filed April 5, 1893. Serial No. 469,151. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. FISHER, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Burglar-Alarms, of which the following is a full, clear, and exact description.

My invention relates to an improvement in burglar alarms, and it has for its object to provide a device of an electric character, simple and durable in its construction and capable of being expeditiously and conveniently applied to a door, window, trunk, bureau drawer, or any article of furniture, the application being made in such manner that when the door is opened, or when the window is raised or lowered, or the trunk or the drawer opened, an alarm will be instantly sounded the moment that the position of the part to which the device is applied is moved even though but slightly beyond a predetermined position.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

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

Figure 1 is a side elevation of a door frame and door, illustrating the application of the device thereto. Fig. 2 is a vertical sectional view of a portion of a window frame and its sashes, illustrating the application of the invention to the sash. Fig. 3 is a plan view of the device. Fig. 4 is a vertical longitudinal section taken practically on the line 4—4 of Fig. 3; and Fig. 5 is a transverse section taken essentially on the line 5—5 of Fig. 3.

In carrying out the invention the device consists of a base plate A, which may be of any desired shape, but is preferably made somewhat diamond shape, as illustrated in the drawings. The base is made of an insulating material, as for instance hard rubber, and at opposite sides thereof metal plates 10, are located, the plates being preferably of copper or of a metal which is a good conductor of electricity. The plates 10, are oppositely

disposed and are located at the central angles of the plate.

The center of each plate 10, is provided with an opening 11, extending through it, which opening likewise is made to continue through the base, as shown in Fig. 5, and two metal screws, preferably made of brass and designated as 12, are passed through each end of each plate and through the base. These screws are adapted to be conductors of electricity, and a third screw 13, is located at one end of the base upon its upper face, the screw extending through to the under surface of the base. The screw 13, is connected with one end of a spring 14; this spring extends longitudinally over the base, and passes through a metal eye 15, the body of the eye being carried through to the bottom of the base. Normally this spring is adapted to pass through the eye in such manner as not to engage therewith.

Upon the under surface of the base two conducting plates 16 and 17, are located, the said plates being oppositely disposed, and the plate 16, is connected with one of the conducting screws 12 of one of the upper plates 10, and with the conducting screw 13 to which the spring 14, is attached, as shown in Figs. 3 and 4, while the opposite under contacting plate 17, is connected with the conducting screw of the second upper conducting plate and with the eye 15 through which the spring 14 passes.

When the base plate is secured upon any object, it is attached by passing screw eyes 18, or like fastening devices through the apertures 11 in the upper plates 10, the eyes engaging with said plates, and the positive and negative wires 19 and 20 of the battery 21, are connected with the two fastening eyes 18, as shown in Figs. 1 and 2, and in the circuit a bell 22, of any approved construction is located, adapted to be operated by the electric current when the circuit is closed. It will be observed that as long as the spring 14 remains in the middle of the eye 15 and out of engagement with said eye, the circuit will be open; but the moment that the spring 14, engages with the eye 15 it will close the circuit, as all of the plates, the spring and the wires of the battery are in connection, and at that

time only will an alarm be sounded by the bell 22.

In applying the device to a door, for example, the base is preferably secured to the door jamb, for instance, in one upper corner near the hinge stile of the door, and the spring is secured to a bracket 23, attached to the top of the door by a single screw loosely entered, so that the device will not interfere with opening the door fully. Thus, in the event the door is opened even to a slight degree, the spring will be forced to a contact with the guide eye 15, thus closing the circuit; and when an attachment is to be made with the knob of the door a cross bar 24, is secured to the knob spindle in any suitable or approved manner, as is best shown in Fig. 1. Cords 25, are led from the ends of this cross bar and are connected with another cord 26, which is passed through guides located upon the door and is secured to any portion of the spring 14 between the bracket 23 and the guide eye 15. Thus when the knob is turned in one direction tension will be exerted upon the cord 26 and the spring will be moved laterally in a vertical direction and will be brought to an engagement with the guide eye 15.

In Fig. 2 I have illustrated the application of the device to a window frame and its sashes, in which it will be observed that a plug 27, preferably of rubber, is inserted in the extreme outer end of the spring. The base plate is secured to the window frame, and the spring is made to extend horizontally in such direction that its soft rubber plug 27, will be in frictional contact with the inner face of the side rail of the upper sash, the spring being located but a slight distance above the upper rail of the lower sash. Thus it will be observed that if the upper sash is lowered even to a slight degree the spring will be carried downward with it and will be brought in engagement with the guide eye or whatever equivalent device is employed, and will cause an alarm to be sounded, while the same effect is obtained by raising the lower sash and bringing it in engagement with the spring.

The device is exceedingly simple, it may be readily transported from place to place, and

it is capable of being expeditiously applied to any article wherein it is desirable that an alarm should be sounded when the article is unduly tampered with.

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

1. As an article of manufacture, a burglar alarm, the same consisting of a base plate of a non-conducting material, conducting plates adapted as conductors of electricity secured upon the upper face of the base plate, a second set of conducting plates upon the under face of the base, one in connection with each of the upper plates, a spring arm in electrical engagement with one of the lower plates, a guide device, through which the spring arm passes, in engagement with the second under plate, and binding posts connected with the upper plates, as and for the purpose specified.

2. As an article of manufacture, a burglar alarm, the same consisting of a base plate of a non-conducting material, conducting plates adapted as conductors of electricity secured upon the upper face of the base plate, a second set of conducting plates located upon the under face of the base, one in connection with each of the upper plates, a spring arm in electrical engagement with one of the lower plates, a guide device through which the spring arm passes in engagement with the second under plate, binding posts connected with the upper plates, and a knob of an elastic or yielding material located in the outer end of the spring arm, as and for the purpose specified.

3. As an improved article of manufacture, a burglar alarm, consisting of a base plate carrying the following elements:—conducting plates, connections for receiving the line wires, such connections being in contact with the conducting plates, a contact device for closing the circuit, such device consisting of an elongated spiral spring connected with one conducting plate, and a guide device through which the said spring passes, the guide device being in contact with the second conducting plate, substantially as described.

CHARLES J. FISHER.

Witnesses:

JOHN F. LEE,

FRANK A. FISHER.