(No Model.) 2 Sheets—Sheet 1.

A. SCHUCHMAN.

ELECTRIC FIRE AND BURGLAR ALARM.

No. 381,852. Patented Apr. 24, 1888.

Fig. 1.

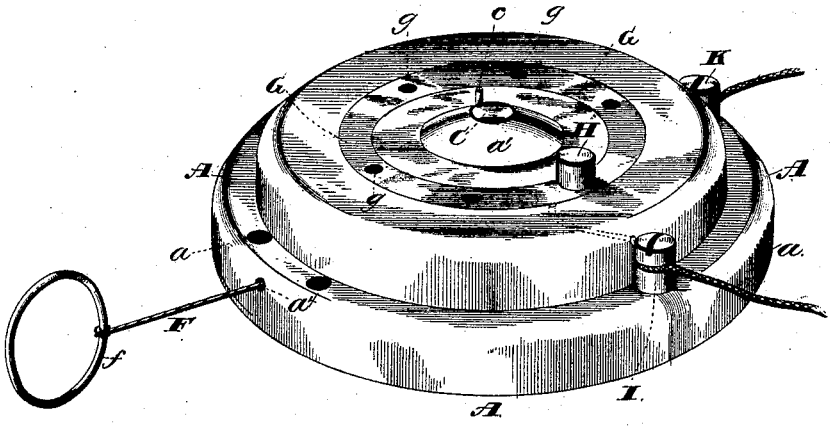
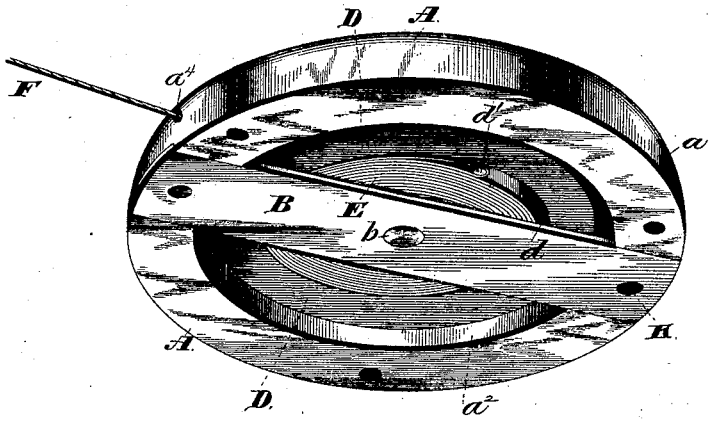


Fig. 2.



Witnesses.
Chas. J. Williamson.
Henry C. Hazard.

Inventor.
Andrew Schuchman, by
Crindle & Russell, his Attys.

(No Model.) 2 Sheets—Sheet 2.

A. SCHUCHMAN.

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Fig. 3.

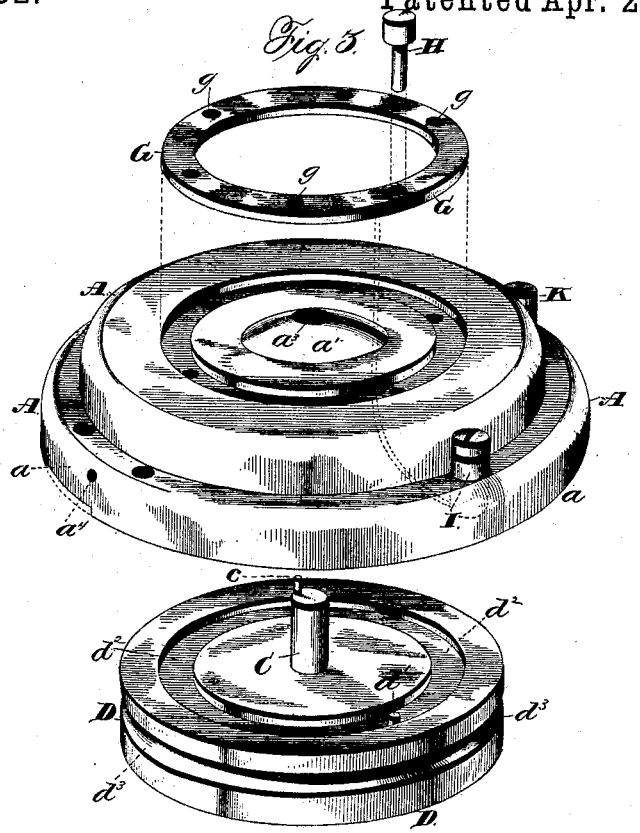


Fig. 4.

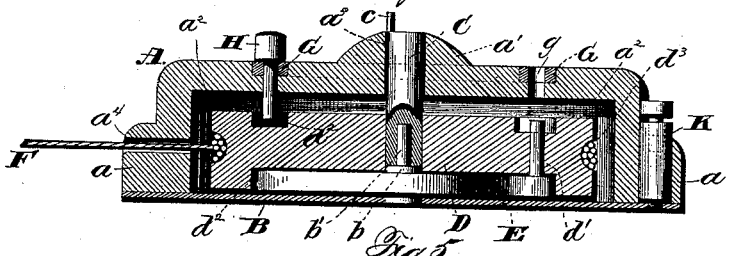
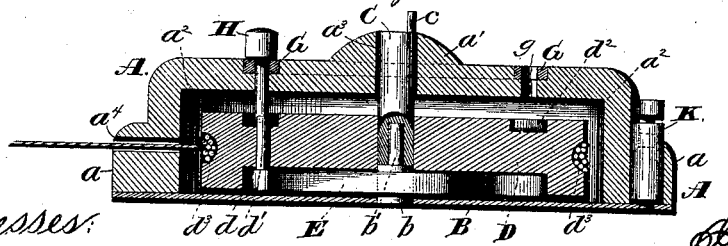


Fig. 5.



Witnesses:
Chas. J. Williamson.
Henry C. Hazard.

Inventor.
Andrew Schuchman, by
Pindle & Russell, his Attys.

UNITED STATES PATENT OFFICE.

ANDREW SCHUCHMAN, OF SPRINGFIELD, ILLINOIS.

ELECTRIC FIRE AND BURGLAR ALARM.

SPECIFICATION forming part of Letters Patent No. 381,852, dated April 24, 1888.

Application filed November 29, 1887. Serial No. 256,475. (No model.)

To all whom it may concern:

Be it known that I, ANDREW SCHUCHMAN, of Springfield, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in Electric Fire and Burglar Alarms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the upper side of my device complete for use. Fig. 2 is a like view of the lower side of the same. Fig. 3 is a perspective view of the parts of said device separated from each other. Fig. 4 is a section of said device upon a central axial line, showing the relative positions of parts when the circuit is open; and Fig. 5 is a like view of the same, showing the relative positions of parts when the circuit is closed, so as to cause an alarm.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to furnish a simple, inexpensive, and efficient means whereby articles or apartments may be easily protected against molestation or fire; and to this end such invention consists in a circuit-closer for electric alarms constructed and adapted to operate in the manner and for the purpose substantially as hereinafter specified.

In the carrying of my invention into practice I employ a casing, A, which is constructed from wood or other suitable material, and exteriorly has the general form of a short cylinder with a peripheral flange, a, around its lower end and a centrally-located semi-spherical boss, a', upon its upper end. Said casing is provided with a cylindrical recess, a^2, which extends from its lower end upward, as shown, and at the center of its boss a' has an axial opening, a^3.

Extending across and secured upon the lower side of the casing A is a plate, B, which at its longitudinal center is provided with a stud, b, that extends upward within the recess a^2 in a line axially with the opening a^3. Upon the upper reduced end, b', of said stud is journaled an arbor, C, that from thence extends upward into and loosely fills said opening a^3, and has secured upon its lower portion a wooden disk, D, which latter loosely fills said recess a^2 and is adapted to rotate within the same.

Within the lower side of the disk D is provided a cylindrical recess, d, that is adapted to receive and contains a coiled spring, E. The inner end of said spring is connected with the stud b, while its outer end is connected with said disk by means of a pin, d', the arrangement being the same as in case of the mainspring of a watch, and said disk operating as a barrel for said spring. The upper side of the disk D is provided with an annular groove, d^2, into which projects the upper end of the pin d', while within the periphery of said disk is formed a circumferential groove, d^3, that receives a cord, F, which has one end fastened to said disk, is then wound around the same a number of times, and from thence passes outward through an opening, a^4, in the casing A, and has upon its outer end a ring, f, the arrangement being such that an outward pull upon said cord will cause said disk to revolve in the direction necessary to coil the spring E and place the same under stress, while upon releasing said cord said spring will operate to reverse the motion of said disk and rewind said cord, as in case of a spring-actuated tape-line.

Within the upper side of the casing A is inserted a metal ring, G, which is provided with a number of equidistant openings, g and g, that are each adapted to receive and contain a pin, H. Said pin has such length as to cause it to project downward into the annular groove d^2, and when thus in place its lower end is in the path of the upper end of the pin d' and will engage with the same when said disk is rotated.

The device is completed by the addition of two binding-posts, I and K, which are preferably placed within and extend upward from the peripheral flange a of the casing A. The first of said posts is connected with the ring G, while said post K is connected with the plate B, and through the stud b and spring E with the pin d'.

My device is applicable to the protection of rooms from intrusion or fire and to the protection of merchandise or articles of furniture. Where a room is to be protected from intrusion, the casing is secured upon or near the casing of a door or window and the binding-posts connected with a battery and an electric alarm, after which the pin H is withdrawn, the cord

drawn across the door or window opening, and its ring hooked upon a nail or other suitable article, and said pin then replaced in the opening *g* which is nearest to the position occupied by the pin *d'*. If, now, the cord is drawn tighter, or is broken by the effort of a person to pass through the window or door, the rotation of the spring-containing disk will cause said pins to be brought into contact, by which means the electric circuit will be closed and the alarm sounded. The same result will follow the burning of the cord should a fire occur in the room; but for a fire-alarm alone the device would probably be placed in some position other than across a door or window. For use as a protection to goods or articles of furniture, it is only necessary that the casing be conveniently located and connected with a battery and alarm, and the cord then stretched around or attached to the article to be protected, when the moving of the latter so as to change the position of or to break said cord would cause the alarm to sound.

In order that the position of the contact-pin of the rotating disk may be easily determined, a stud, *c*, is placed within and projects upward from the arbor C at a point opposite to that occupied by said contact-pin.

Having thus described my invention, what I claim is—

In a circuit-closer for an electric fire or burglar alarm, the combination of a spring-actuated rotatable disk, a destructible cord fastened to and wound circumferentially around the same, an electric terminal secured to and rotating with said disk, and a stationary terminal which is adapted to be engaged by said disk-moved terminal, substantially as and for the purpose specified.

In testimony whereof I hereunto set my hand this 24th day of November, A. D. 1887.

ANDREW SCHUCHMAN.

Witnesses:
PETER M. BARTELME,
HERMAN PIERIK.