No. 851,190. PATENTED APR. 23, 1907.

C. L. WILKINS.

BURGLAR ALARM.

APPLICATION FILED MAR. 15, 1906.

2 SHEETS—SHEET 1.

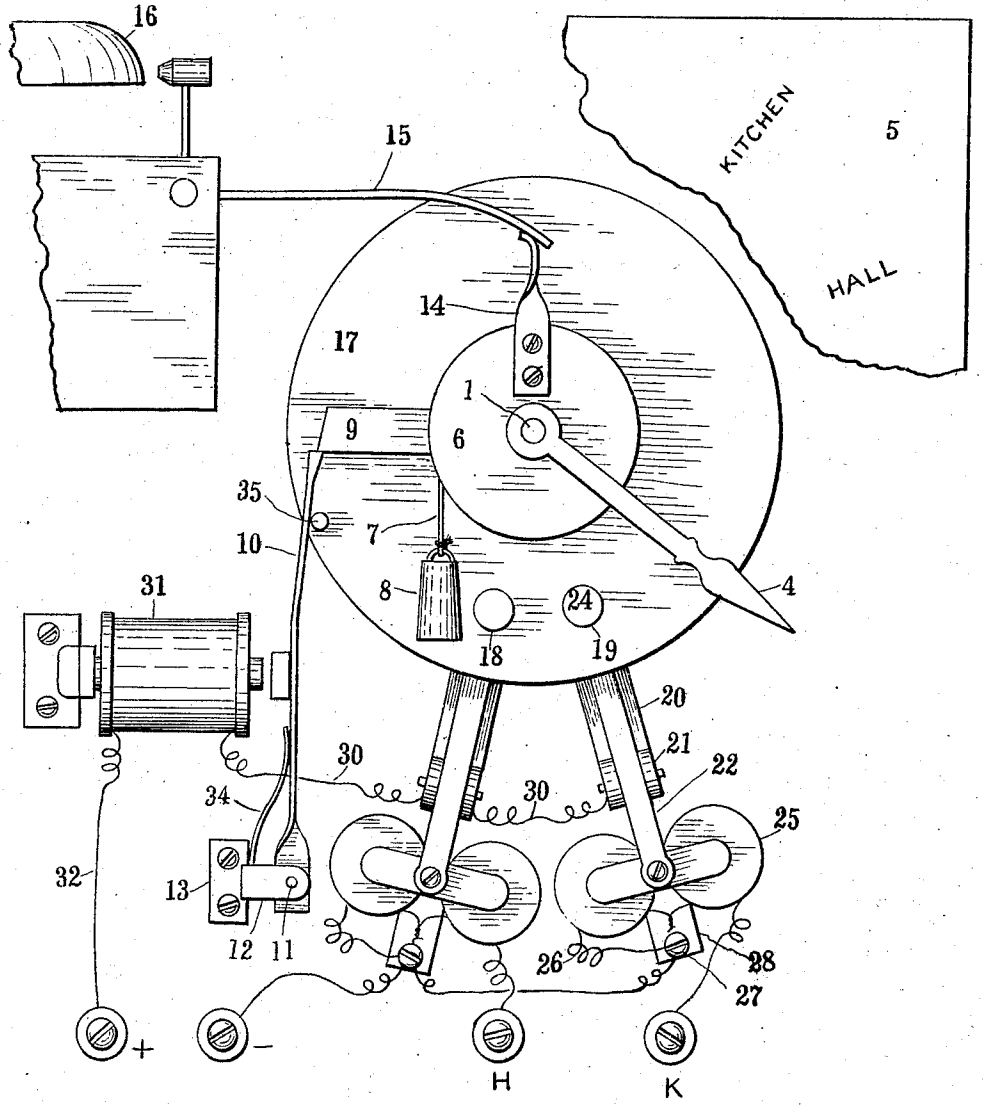

Fig. 1.

WITNESSES:

Anilla Rager.

Charles L. Wilkins,

INVENTOR

BY

Geo. W. Byington

ATTORNEY

No. 851,190. PATENTED APR. 23, 1907.

C. L. WILKINS.

BURGLAR ALARM.

APPLICATION FILED MAR. 15, 1906.

2 SHEETS—SHEET 2.

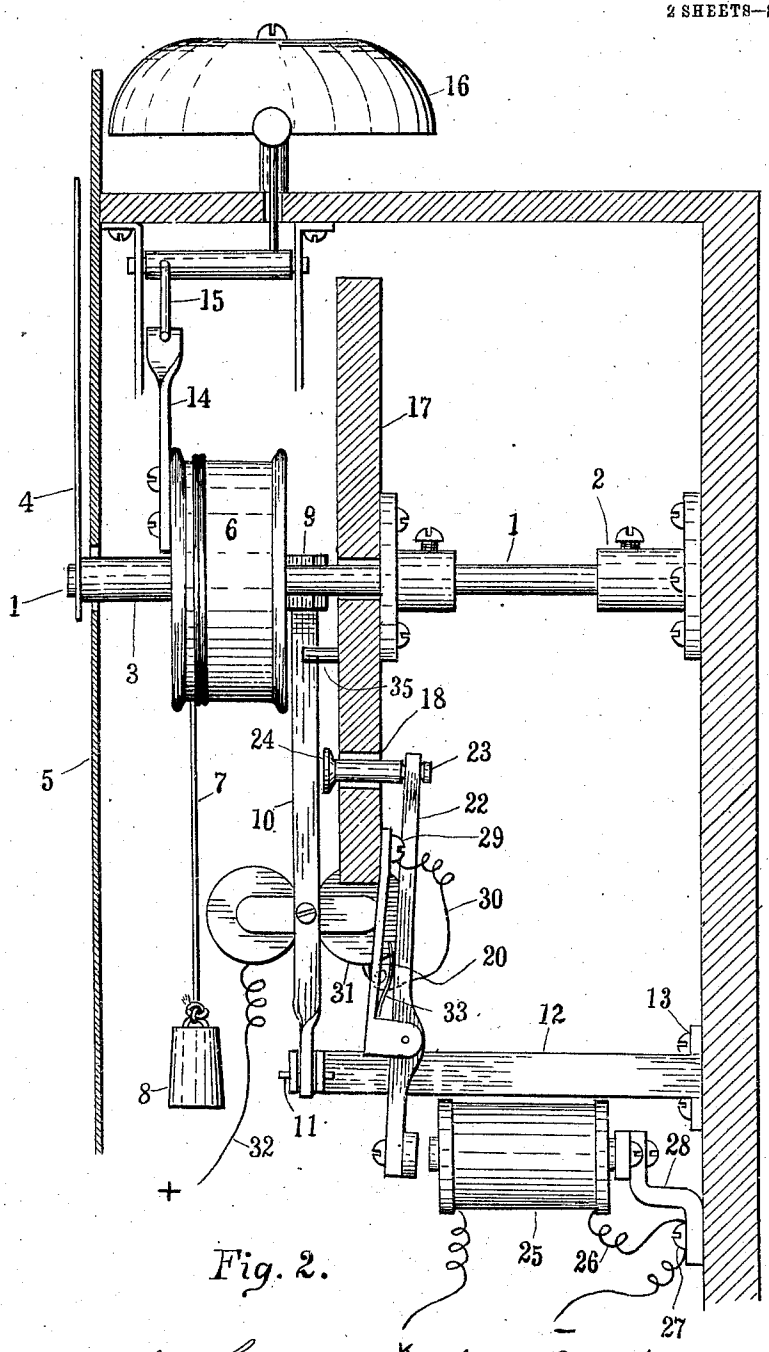

Fig. 2.

WITNESSES: H. S. Kerr.
Anilla Rager.

Charles L. Wilkins, INVENTOR

BY Geo. W. Rightmire.
ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLES L. WILKINS, OF COLUMBUS, OHIO.

BURGLAR-ALARM.

No. 851,190. Specification of Letters Patent. Patented April 23, 1907.

Application filed March 15, 1906. Serial No. 306,293.

To all whom it may concern:

Be it known that I, CHARLES L. WILKINS, a citizen of the United States, residing at No. 181 North Twenty-first street, Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Burglar-Alarms, of which the following is a specification.

My invention relates to improvements in burglar alarms and indicators, especially those which are electrically operated, and comprises mechanism whereby it may be accurately shown what region of the dwelling is being molested and what door or window a burglar is attempting to open; at the same time a loud alarm is sounded and continues to sound independently of the duration of the electrical contact which actuates the mechanism. The construction of the device is such that it may be placed in a central convenient location in the house or dwelling, so that upon the sounding of the alarm it may be readily reached and inspected from any quarter, rendering it unnecessary for the person aroused to investigate to determine which locality is molested.

It consists further in a compact arrangement of parts adapted to be enclosed in a suitable cabinet which is provided with a dial and an indicator which may be readily inspected.

It consists further in the parts and the arrangement thereof hereinafter specifically described and set forth in the claims.

In the accompanying drawings in which the same reference numerals refer to like parts throughout, Figure 1 is a front view of the device, the cabinet broken away so as to present the interior arrangements; Fig. 2 is a sectional view from one side taken vertically through the center of the dial.

Referring to the drawings 1 is a shaft fixed in the socket 2 and carrying at its outer end the sleeve 3, adapted to turn upon the shaft; at the outer end of sleeve 3 is carried a pointer 4 adapted to move radially over the face of the cabinet 5 which is shown almost entirely broken away in Fig. 1. On the face of the cabinet are inscribed the names of various portions of the dwelling as "kitchen" and "hall," "side door" and others, depending on the system of wiring in use; in the drawings are shown the names "kitchen" and "hall," which will sufficiently indicate the manner of the marking.

Within the cabinet is a drum 6 mounted upon the sleeve 3 to turn therewith; secured to the drum and wound about it is a cord 7, supporting a weight 8, which, when the drum is free to turn will cause the same to rotate and thereby drive the pointer 4 radially over the face of the cabinet.

Rigidly secured upon the drum 6 is an arm 9, supported at its outer end upon the upper end of the vertical rod 10, which is pivotally mounted at 11 upon the bracket 12 which may be secured to the wall of the cabinet as shown at 13. In the arrangement shown in the drawings the vertical rod 10 is adapted to swing upon its pivot at a right angle to the direction of the length of the shaft, but it is obvious that movement in some other direction could readily be provided for to accomplish the same purpose. A weak spring 34 is adapted to maintain rod 10 normally in place under arm 9, in contact with the stop 35.

Secured to the front of the drum is the arm 14, supporting the lever 15 which is connected with well known clock escapement mechanism, whereby a bell 16 is rung continuously, sounding an alarm adapted to arouse the occupants of the dwelling.

Rigidly mounted upon the shaft within the cabinet is the disk or plate 17 having an opening through which the shaft passes; at desired intervals the plate is perforated as illustrated at 18 and 19. It is apparent that these perforations may be increased in number to adapt the device to the purposes of the user. Attached to the plate are arms, as shown at 20, which at their outer ends, are constructed to provide pivotal supports 21 for the rods 22. These rods are supported between their ends, so that a movement of one end in one direction causes the movement of the other end in the opposite direction. The upper ends of the rods 22 carry fingers 23 disposed at right angles to the rods and adapted to pass through the perforations, and protrude beyond the face of the disk as appear at 24. The protruding finger is adapted to extend into the path of the arm 9 and arrest its radial movement at a predetermined point. Spring 33 is adapted to maintain rod 22 normally out of contact with the magnet 25.

A battery of any well known construction may be positioned advantageously for supplying a plurality of magnets disposed within the cabinet as desired.

As shown in the drawings a magnet 25 is arranged to be connected by a wire with the negative pole of the battery, at one end, and to be connected with a distant point, as the "kitchen," at the other end, and the current therefore travels into one of the magnets 25 and out through the wire 26 at the other end to the contact screw 27 of the bracket 28, whereby connection is made with the magnet core, whereupon the rod 22 is drawn in contact with the core and the circuit is thereby completed to the contact screw 29, whence a wire 30 completes the circuit to the magnet 31, where the circuit is formed in a manner similar to that shown with respect to magnet 25. Magnet 31 is connected through wire 32 with the positive pole of the battery, as indicated. A similar construction is provided for completing the circuit from the "hall," and similar constructions are provided for the other regions of the dwelling desired. This arrangement makes it certain that upon the disturbance of any particular outlying region the magnet connected with that region will be disturbed, the corresponding rod will be attracted into contact therewith, thereby forcing outwardly through the disk the proper finger to arrest the arm 9 and the pointer 4, when the same are free to move by the completion of the circuit through the magnet 31, attracting the rod 10 into contact with its core, thereby releasing the arm 9, whereupon the weight 8 will set up a rotation of the drum. This arrangement assures the actuation of the proper finger stop, and insures against the operation of the wrong finger stop; as is seen all of the other magnets provided are arranged to be brought individually into circuit with the magnet 31.

Any preferred regions of the dwelling may be supplied with wire connected to suitable attachments secured upon the door or window and the frame thereof.

When pressure is exerted upon the door or window to open the same, contact between the door or window and the attachments connected with the wire will be made, and the circuit will be completed in the manner following:—Suppose the "kitchen" is the region molested; contact is made as above stated, the circuit is completed through the magnet 25, and the lower end of the rod 22 is attracted into contact with its core. The rod 22 being pivoted at 21, finger 23 disposed at right angles upon the other end of said rod will be projected through the perforation and beyond the face of the plate 17, thereby placing the finger in the path of the radially moving arm 9. The circuit thus made through the magnet and rod 22 is continued through the arm 20 and the contact screw 29 and the wire 30 to the magnet 31, whereupon the rod 10 is drawn into contact with its core. The connections with the poles of the battery are indicated as positive and negative. When the supporting rod 10 is drawn away, the weight 8 operates to rotate the drum 6, whereupon the arm 14 is moved away from supporting the lever 15 and the escapement mechanism sets up a ringing of the bell which is continued for an indefinite length of time. It is seen that the duration of the sounding of the alarm is not dependent upon the duration of the contact made by molesting the outer door or window. The travel of the arm 9 is arrested by the protruding finger shown at 24; the pointer 4 moves with the drum and arm 9 radially about the face of the cabinet, and is brought to rest when the movement of the arm 9 is arrested as above stated. The pointer is adjusted upon the sleeve 3 relative to the arm 9 in such manner that the travel necessary to bring the arm to the desired finger stop will carry the pointer around in the case under discussion to the word "kitchen." In the drawings the pointer is shown at an angle with the arm 9, and the adjustment may be made at any desired angle necessary to bring the pointer to rest at the proper word upon the cabinet; but in practice it may be found preferable to place the pointer and the arm 9 in parallel relation, and accordingly the word "kitchen" will occur upon the face of the cabinet opposite the location of the appropriate magnet and finger stop; this however, is merely a matter of convenience and some other relative arrangement of the pointer and arm may be provided, and the results accurately accomplished. In the case of the "hall" or of any other desired connected region, the operation will be the same, and the magnet disturbed will be different in each case, and a different finger stop will also be actuated in each case.

The alarm and indicator herein described is simple in its construction, and does not contain parts which are readily put out of order. The action is positive and accurate, and it not only sounds an alarm which may be made of any desired intensity and duration, but also indicates the origin of the disturbance. The occupant is thereby apprised of the point of attack and is not subjected to the danger of venturing indiscriminately here and there about the dwelling.

The advantages of my device are apparent;

It is obvious that the arrangement of the various parts may be changed, and the construction may be altered to accomplish the same purpose. I do not limit myself to the specific construction shown and described, but desire to claim all modifications which are within the spirit of my invention.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A burglar alarm and indicator comprising a shaft, means mounted on said shaft adapted to rotate thereon, an arm secured radially to said means, means for supporting said arm against rotation, electrical

means for withdrawing said support, a dial, a pointer, and means adapted to obstruct the path of said arm, whereby said pointer is made to designate the region of the building molested, said means being actuated by the molestation of the connected regions of the building.

2. In a burglar alarm and indicator, a perforated plate, fingers adapted to be projected therethrough, a shaft passing through said plate, a pointer mounted at the outer end of said shaft, an arm arranged to move radially over said plate, electrical means for setting said arm free, whereupon said pointer is free to rotate, and for projecting one of said fingers into the path of said arm, whereby said pointer is arrested at the word on the dial designating the region of the building molested, said means being actuated by the molestation of connected regions of the building.

3. A burglar alarm and indicator comprising a rotatable drum, a bell, an arm mounted on said drum, a pointer mounted to turn with said drum, means to prevent the rotation of said pointer, means to cause the rotation of said pointer, and means to arrest the rotation of said pointer at the word on the dial designating the region molested, means under the control of said arm to cause the continuous sounding of said bell, all said means being actuated by the molestation of connected regions of the building.

4. A burglar alarm and indicator comprising a bell, a rotatable drum, means mounted on said drum to move therewith and adapted to control said bell, a pointer, means adapted to cause said drum to rotate whereby said bell is rung and said pointer is made to move radially, a perforated disk, fingers adapted to be protruded through said perforations to arrest said arm and said pointer at a predetermined point indicating the region of the building molested, all said parts being actuated electrically by the molestation of connected regions of the building.

5. A burglar alarm and indicator comprising a bell, a shaft, rotatable means mounted thereon, a pointer adapted to turn with said means, an arm adapted to turn with said means, a perforated plate on said shaft, fingers secured upon said plate and adapted to protrude through said perforations and obstruct the path of said arm, means to cause said bell to ring, means to cause said pointer and arm to rotate, and means to cause said fingers to arrest the progress of said arm whereby said pointer is made to designate the region of the building molested, all said means being actuated by the molestation of connected regions of the building.

6. A burglar alarm and indicator comprising a shaft, a sleeve at the outer end thereof adapted to turn thereon, a drum on said sleeve, a weight attached to said drum to cause the same to rotate, an arm rigidly secured on said drum, a pivoted rod adapted to support said arm against rotation, a second arm rigidly mounted on said drum, a bell, connections between said second arm and bell rendered active by the withdrawal of said arm, a pointer on said sleeve, a plate, perforations therethrough, fingers adapted to protrude through said perforations into the path of said first-mentioned arm, and means adapted to permit the rotation of said pointer and to actuate said fingers to arrest said pointer at a predetermined point designating the region of the building molested, said means being electrically actuated by the molestation of connected regions of the building.

In testimony whereof I affix my signature in the presence of two witnesses.

CHARLES L. WILKINS.

Witnesses:

HARRY REID,

GEO. W. RIGHTMIRE.