

(No Model.)

J. F. GILLILAND.

ELECTRICAL CIRCUIT FOR WATCHMEN'S TIME RECORDERS.

No. 262,660

Patented Aug. 15, 1882.

Fig. 1.

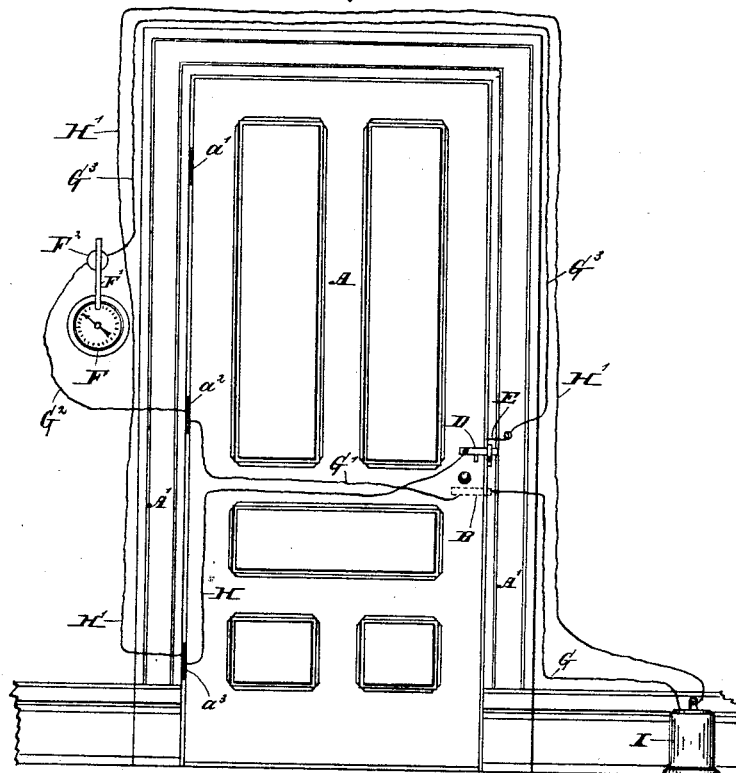


Fig. 2.

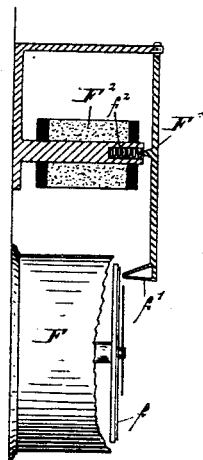
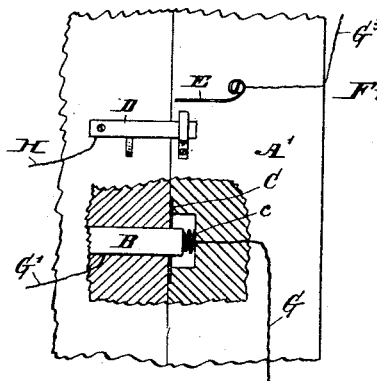


Fig. 3.



WITNESSES.

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ELECTRICAL CIRCUIT FOR WATCHMEN'S TIME-RECORDERS.

SPECIFICATION forming part of Letters Patent No. 262,660, dated August 15, 1882.

Application filed November 5, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. GILLILAND, of the city of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Electrical Circuits, of which the following is a specification.

The object of my said invention is to produce a system of signal apparatus for doors, which shall be operated by the usual manipulation of the lock and latch of said door, to record upon a watchman's clock the visits of the watchman to the building during the night, or, in case no watchman is employed, to in like manner signal or record any attempt to open the door by unauthorized persons. This object is accomplished by making both the lock and latch of the door a part of an electrical circuit, as will hereinafter be more specifically described.

Referring to the accompanying drawings, which are made a part thereof, and on which similar letters of reference indicate similar parts, Figure 1 is a front elevation of a door to which my improved signal apparatus is applied; Fig. 2, a detail sectional view of a suitable means of recording upon the dial of a watchman's clock the information desired when such a clock is employed in connection with my invention; and Fig. 3, a view of the latch and lock and surrounding parts, partly in section, and on an enlarged scale.

In said drawings, the portions marked A represent the door; B, the lock thereto; C, the strike to said lock on the door-casing A'; D, the latch to the door; E, a spring or other metallic portion on the door-casing with which the latch D will come in contact when raised; F, the watchman's clock used in connection with this invention; F', a metallic finger projecting over the face of said clock; F², an electro-magnet for operating said finger; G, a wire running from a battery to the lock-strike C; G', a wire running from the lock-bolt B to the hinge a²; G², a wire running from said hinge to the electro-magnet F²; G³, a wire running from said electro-magnet to the spring E; H, a wire running from the latch D to the hinge a³; H', a wire running from said hinge to the battery, and I said battery.

As will be readily seen, in order to make a

complete circuit, the lock-bolt B must be thrown forward in locked position, so as to be in contact with the strike C or the spring *c* therein, and the latch D must be raised so as to come in contact with spring or similar device E. Therefore when the lock-bolt is thrown back or in unlocked position the manipulating of the latch will have no electrical effect. When, however, the lock-bolt is in contact with the strike C, or any metallic portion to which the wire G is attached, the raising of the latch completes the electrical circuit and sends an electric wave through the whole line and the electro-magnet F², causing a record to be made by the clock F or other recording or signaling apparatus.

One of the principal uses to which I have contemplated applying my invention is that of keeping a watchman's record in mercantile, banking, manufacturing, and like establishments, where a watchman is employed to visit the doors at stated intervals. By the use of this invention every time the watchman tries the door the clock is caused to record the visit without the use of any key or other appliance so long as the door remains locked. If it is unlocked, of course the watchman will at once discover it. When the establishment is open for the transaction of business the door is of course unlocked, and no record can then be made.

The clock may be made of several different constructions. In the one shown a paper dial, *f*, is attached to the dial-plate, and the finger F', which is at the same time the armature to the magnet, terminates in a hollow point, *f'*, containing a writing-fluid, preferably glycerine-ink. When the electric current is sent over the wire the electro-magnet attracts the combined armature and finger F' forcibly enough to cause the point *f'* to strike the paper dial *f* and deposit thereon a small particle of ink, which makes the mark necessary to complete the record required, the dial being previously provided with figures corresponding to the hours of the day. A small spring, *f*², in the end of the core to the magnet, against which a projection on the finger F' bears, throws said finger back at all times except when drawn forward by the magnetic force. Any other signaling or recording apparatus, however,

may be used instead of the watchman's clock shown without departing from my invention, the essential feature of which is the employment of the lock-bolt and latch in the manner
5 specified.

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

1. The combination, with a door, of a recording or signaling apparatus and an electrical circuit, of which both the lock and the latch of the door and metallic portions upon the door-casing with which said lock and latch are adapted to come in contact form a part,
10 said circuit being brought into operation only
15 when said lock and said latch are each brought

into contact with the corresponding part on the casing, substantially as set forth.

2. The door A, lock-bolt B, strike or other metallic portion C, wire G G' G² G³, spring E, 20 latch D, wire H H', battery I, and recording or signaling apparatus F, said several parts operating in combination with each other, substantially as described, and for the purposes
25 specified.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 2d day of November, A. D. 1881.

JAMES F. GILLILAND. [L. S.]

In presence of—

C. BRADFORD,
C. L. THURBER.