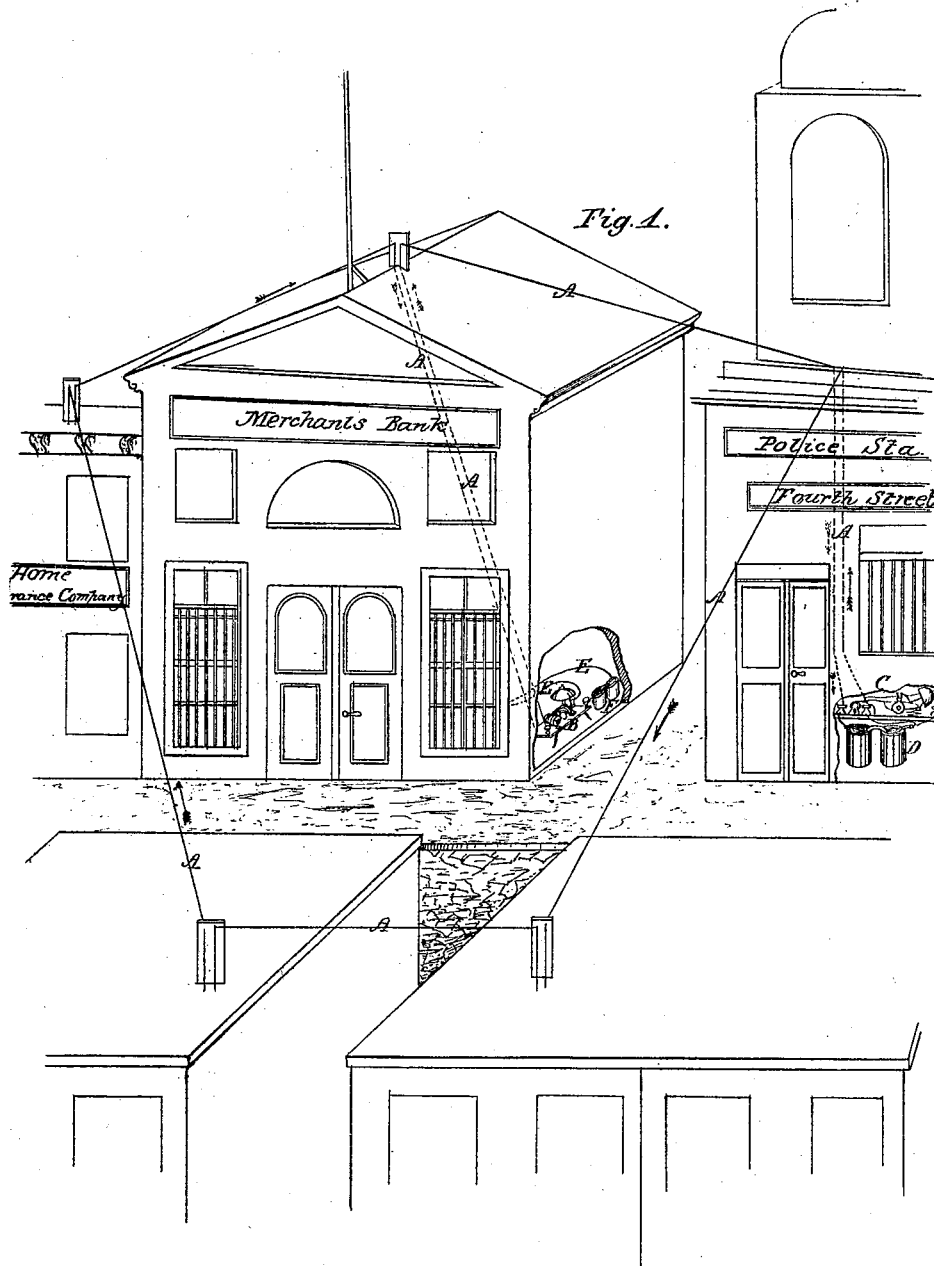


W. B. WATKINS.
BURGLAR ALARM AND POLICE TELEGRAPH.

No. 111,409.

Patented Jan. 31, 1871.



Witnesses
William Hamilton Johnson
Daniel Kendall

William B. Watkins, Inventor,
By his Attorneys,
Wofferman & Johnson.

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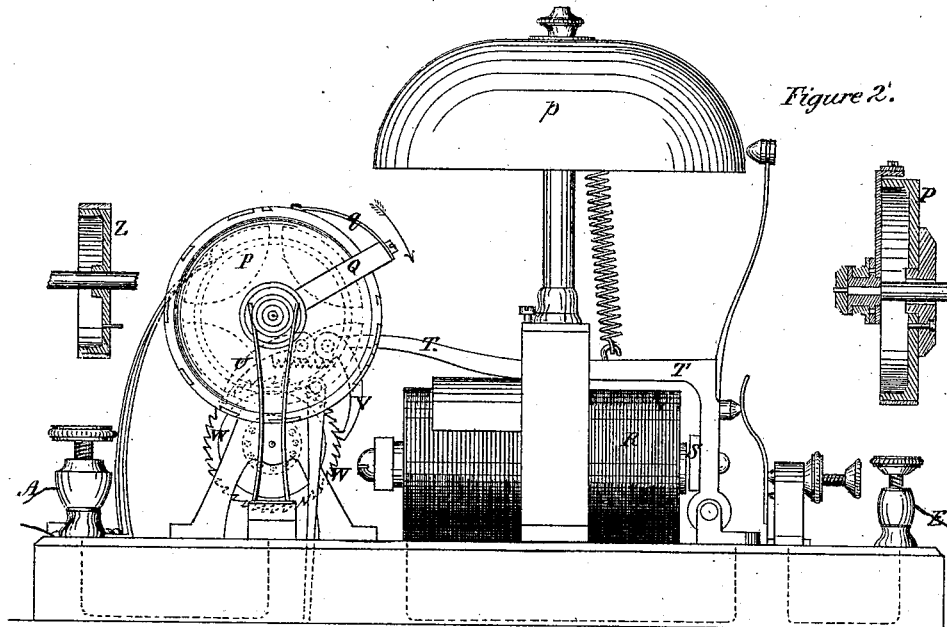


Figure 2.

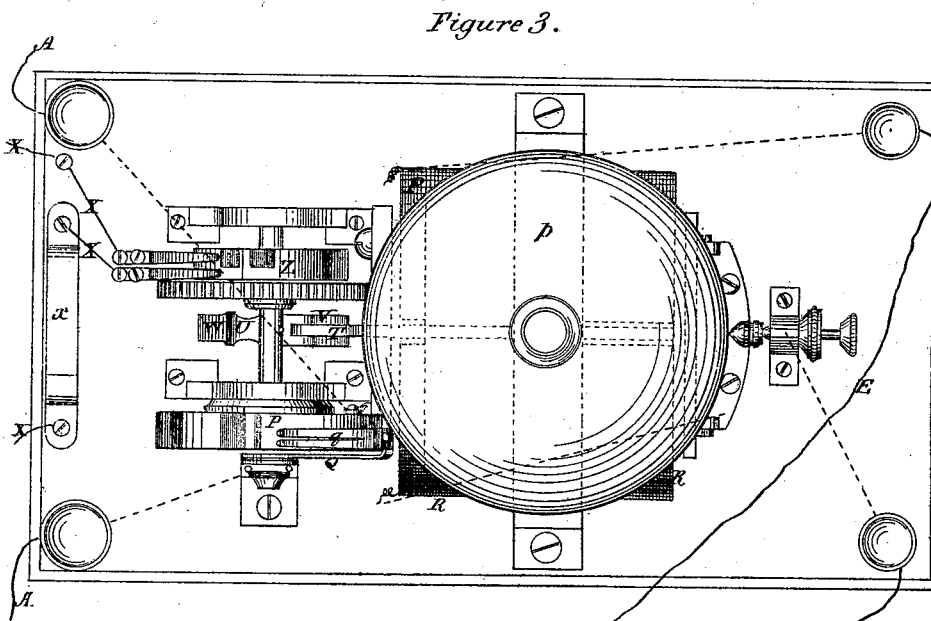


Figure 3.

Witnesses
Attestation
Daniel Lindall

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By his Attorneys,
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United States Patent Office.

WILLIAM B. WATKINS, OF JERSEY CITY, NEW JERSEY.

Letters Patent No. 111,409, dated January 31, 1871.

IMPROVEMENT IN BURGLAR-ALARM AND POLICE TELEGRAPHS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM B. WATKINS, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Automatic Burglar-Alarm and Police Telegraphs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use my invention, reference being had to the accompanying drawing of the same which makes part of this specification, and in which—

Figure 1, sheet No. 1, represents a view in perspective of several buildings, among which may be banking-houses and a police-station, each connected to the other by a telegraph line, which is operated by mechanism located within said buildings, and illustrating the application thereto of my invention;

Figure 2, sheet No. 2, represents a side elevation of mechanism for operating a break circuit constructed so as to sound the number of the bank or other building where a burglar has entered;

Figure 3, sheet No. 2, represents a top view of the same, and the line connections with said mechanism;

Figure 4, sheet No. 3, represents a local line, with its battery and connections with a door and window, and with mechanism which operates the police line, showing, also, an indicator and switch of said local line, a switch-key of the police line, and an independent telegraph line from the alarm mechanism to the residence of a banker or other person;

Figure 5, sheet No. 3, represents a diagram of a number of streets having buildings therein with which the police telegraph line is shown as connected, said line being also shown as connected with the alarm-operating mechanism of the local line, and the alarm mechanism of the police-station; and

Figure 6, same sheet, represents a device for opening and closing a local circuit by means of opening and closing windows and doors to which said device is attached.

The burglar-alarm devices heretofore employed have been confined to a local circuit, used simply to ring a bell rapidly on the premises when a burglar has entered the building, without otherwise conveying an intelligible signal. The result has been to alarm and frighten the occupants as well as the burglar, and thus enables him generally to effect his escape; but in doing so he not unfrequently takes life to prevent his capture. Moreover, when the occupants of a building are absent such alarm devices are of no value, as the burglar in such case may carry out his designs unmolested. These objections, coupled with the danger resulting from the use of such devices, prevent their general adoption.

The object of my invention, which relates to burg-

lar and police-alarm telegraphs, is to secure the public against loss of life and property from burglars, and at the same time afford the means of ridding the public of these desperadoes, not by frightening them away, but by making the burglar himself become the means of his own detection and capture, as he silently and unknowingly sets in motion the mechanism which communicates the alarm which brings to the spot at once officers for his capture.

In carrying out this object my invention consists—

First, in constructing a telegraph line so as to enter banks and other buildings, and connect within said buildings with suitable mechanism which is set in motion when a burglar has opened a door, window, or vault in said building, so as to convey the alarm to a police-station or other desired point, and strike the number of the street and building, or the latter only, or any desired signal which shall indicate the bank or building where the burglar has entered.

Second, in the construction of a device for closing a local circuit to set in operation any desired alarm mechanism.

Third, in combining with a local line so operated, an indicator, for the purpose of determining the movements of the burglar in the building and the point where he may have entered, and in constructing said indicator with switch keys, for the purpose of telegraphing within the building, and also for cutting out of the local line the connections of any door or window of said building when desired.

Fourth, in the arrangement of an extra day-switch in connection with the local line, for the purpose of cutting out the door and window connections during the day, and also for closing said local circuit at any time, so as to operate the mechanism for sounding an alarm at the police-station when desired during the day.

Fifth, in combining with a burglar-police line a switch-key, for the purpose of switching out the alarm mechanism when desired, for telegraphing through and for testing the line.

Sixth, in constructing an extra telegraph line from the operating alarm mechanism to the residence of the banker or other person, to give the alarm at such residence, and for telegraphing.

In the accompanying drawing I have represented, in fig. 1, the police-line A, which is made to enter the buildings and connect with alarm-operating mechanism located at B, figs. 1 and 4, and to leave in the direction of the arrows, as shown by the dotted lines in fig. 1.

This line also connects with the alarm mechanism located at C, and battery D, at the police-stations, one of which is shown in said figure.

The local line E is represented in fig. 4, starting

from the positive pole *a* of the battery *F*, running thence through the local day-switch *G* to the button *b* and the door *H*, and connects with one end, *c*, of spring *d*, shown more clearly in fig. 6.

From the arm *c* of the spring *d* of the door, it runs to and connects in the same manner with a similar spring device at the window, *I*, and in this way any number of doors and windows may be connected.

The circuit of this line is completed by running the line *E* from a stationary arm *e* of the spring device *d*, from the door and window, to the switch-keys *J* and *K* of an indicator. From these switch-keys the circuit passes through a switch, *L*, and by the line *E* to the metallic button *f*, and through the operating mechanism *B* to the negative pole *g* of the battery *F*, in the direction of the arrows, as clearly shown in fig. 4.

The device for opening and closing the local circuit is secured at any convenient concealed place within the door and window, so that the opening of either will bring it into action.

This device consists of a spring, *d*, projecting so as to be in contact with the door and separated from the fixed metallic arm *h* when the door is closed, as shown by dotted lines in fig. 6.

The spring has a double bend near its connection with the support to which it is secured, the inner bend *i* being such as to form a connection with a fixed arm, *h*, when the door is opened.

To the inner ends *c e* of these arms the local line *E* is attached, so that when the door or window is opened the local circuit will be closed, as shown in fig. 5.

The indicator in the instance shown, consists of two switch-keys, *J* and *K*, pivoted to a board, *N*, so as to act in connection with fixed plates *j* and *k*, against which they tend to spring.

These switch-keys are connected respectively with the door *H* and window *I*, and are thus marked as a guide, and are for the purpose of indicating, when tried, at what point the burglar has closed the circuit, and also his movements in the building.

This is accomplished by inserting in the line near the indicator any sounding telegraph instrument, and by pressing on each key so as to separate it from the plate. When one is found which will operate the instrument, it will show at what point the local circuit has been closed.

The connections of the doors and windows with the switch-keys *J* and *K* terminate in a switch, *L*, also pivoted to the board *N*, and when turned off the button *l*, as shown by dotted lines, it cuts out all the connections of the doors and windows, while any particular door or window may be cut out by turning the switch-key in connection with the same, so as to separate it from its fixed plate, as shown by the dotted lines *j'* and *k'*, in fig. 4.

When a building is occupied the indicator and its operating instrument is located in any convenient concealed place within the building; but when the latter is unoccupied at night the indicator is placed at any secret point outside the building known only to the police authorities. In this case the person in charge of the building must turn the switch *L* when he enters, to prevent giving a false alarm.

I also use, in connection with this local line *E*, what I denominate a day-switch, *G*, pivoted to a board, *O*, secured in any convenient secret place for office use. The object of this switch *G* is to be used to close the local circuit to operate the alarm to call a police officer at any time when such emergency arises.

I also use, in connection with this switch *G*, a pivoted button, *m*, which, when occupying the position represented by the dotted lines in fig. 4, allows one end of the switch *G* to be upon the buttons *f* and *f'*; but when the pivoted button *m* occupies the position shown by the black lines, it prevents the switch *G*

from being turned far enough to connect with the button *f*, and thus prevents the liability to make a false call. This switch-key *G* may also be used for cutting out the connections within the building, by turning it off the button *b* and against the pivoted button *m*, when the latter is turned as shown by the black lines.

This local line *E* is connected with the operating mechanism represented in figs. 2 and 3, and at *B* in figs. 1 and 4 of the drawing, and which is located in the buildings where it would not be likely to be heard by the burglar. The object of this mechanism is to work a break-circuit to open and close the police line *A*, in such a manner as to sound the number of the street and that of the building, or the latter only, at the police station, so as to indicate the exact spot where the burglary is being committed.

As the construction and operation of this mechanism is fully represented and described in a patent granted to me bearing even date herewith, it need not be further described here than to state that the break-wheel *P* thereof is provided with breaks, arranged in two groups or divisions corresponding to the number of the street and that of the building, which, in the instance shown, is street number 13 and building number 320.

These numbers are caused to be struck at the police station by a spring-arm, *Q* and *q*, made to revolve over the break-wheel by the action of a magnet, *R*, upon the armature *S*, to which an automatic vibrating lever, *T*, and pawls *U* and *V* are attached to operate a ratchet-wheel, *W*. The circuit of the police line *A* passes through the metallic break-wheel and revolving spring-arm, except when the latter is in contact with the breaks.

The manner in which these breaks are arranged to strike the desired number having been described in the patent above referred to, need not be more fully stated here.

This mechanism is also constructed to operate an independent line, *X*, figs. 3 and 4, running to the residence *Y*, fig. 4, of the banker or other person, by means of a revolving break-wheel, *Z*, so as to communicate the same alarm.

This mechanism may also be provided with an alarm-bell, *p*, shown in figs. 2 and 3, for giving a local alarm, if desired.

I do not confine myself to the operating mechanism herein referred to and shown, as any suitable motor may be used to operate the break-circuit, or a wound-up train of wheels may be released for this purpose, such a train being shown in a patent granted to me bearing even date herewith.

In case the operating mechanism should, from any cause, be out of order or its removal required, it is necessary to cut it out without breaking the circuit of the police line.

This is effected by means of a switch-key, *r*, also pivoted to the board *O*, so that, when turned in the position shown by the dotted lines in fig. 4, it will rest upon the metallic button *s*, and the current of the police line *A* will pass from the screw-post *t* through the short branch *t'*, and by the key *r* to the screw-post *u*, as shown by the arrows, and the line will remain closed and the operating mechanism cut out.

When the mechanism is within the circuit, however, the key *r* will be on the button *v*, and in the position shown by the black lines, and thus separated from the short branch *t'*.

This key *r* may be also used for telegraphing to the police stations from banks and other business places.

For this purpose the switch-key *r* is provided with a fixed plate, *w*, against which its operating-spring end constantly presses.

This key may also be used for testing the police line, which should be provided at different points, for this purpose, with sounders.

The extra telegraph-line *X*, shown in fig. 4, con-

nects with the revolving break-wheel Z and runs to a residence, Y, where it connects with any suitable alarm mechanism for communicating the alarm to the person whose building has been entered, at the same moment and in the same manner that it is given at the station house.

This line may also be used for telegraphing, by means of the key x, shown in fig. 3.

I have described and shown a device arranged to close the circuit upon the opening of the door or window; but it is obvious that, when a wound-up train of wheels is used to operate the break-circuit, the device may be arranged to open a closed local circuit when a door or window is opened, and it will release an armature and detent to set the train in motion. In this case the burglar could not break the wires of the local circuit without giving the alarm.

The alarm mechanism at the police station, which may be of any suitable construction, may be provided with suitable devices for recording as well as sounding the alarm.

In neighborhoods distant from police stations the several dwellings connected with the line may be provided with alarm-bells, so that the number of any building entered by a burglar will be sounded at all points for the purpose of calling assistance.

The lines should be properly protected and insulated to insure their proper working. The street line A may be carried under ground, and be protected by any of the well-known means, (or by devices for which I intend to apply for a patent,) so as to guard the lines against interference by burglars or other causes.

Having described my invention,

I claim—

1. The improved automatic burglar and police-alarm, consisting of the combination of the following elements, viz: first, a street-telegraph line, constructed and arranged to enter one or more buildings; second, a local circuit placed in a building; third, devices arranged in the doors or windows of said building, so as to open or close said local circuit by the opening of said doors or windows; and, fourth, suitable mechanism brought into action by the opening and closing of the local circuit, and thereon automatically opening and closing the street circuit, so as to indicate or sound the number of a street and house, or the latter only, as described.

2. The arrangement of the spring *c i d* and fixed arm *h*, as described, so as to open and close an electric circuit.

3. An indicator, constructed with switch-keys J and K, as described, in combination with a local circuit, E, for the purposes described.

4. The combination of the day-switch G with a local line E and its operating mechanism B, for the purpose described.

5. The combination of a local line, E, and the device *d h* by which its circuit is opened and closed, an indicator, the day-switch, G, the operating mechanism B, and the police-line A, the whole constructed and operating as described.

In testimony whereof I have hereunto set my hand.

WILLIAM B. WATKINS.

Witnesses:

A. E. H. JOHNSON,
T. H. UPPERMAN.