

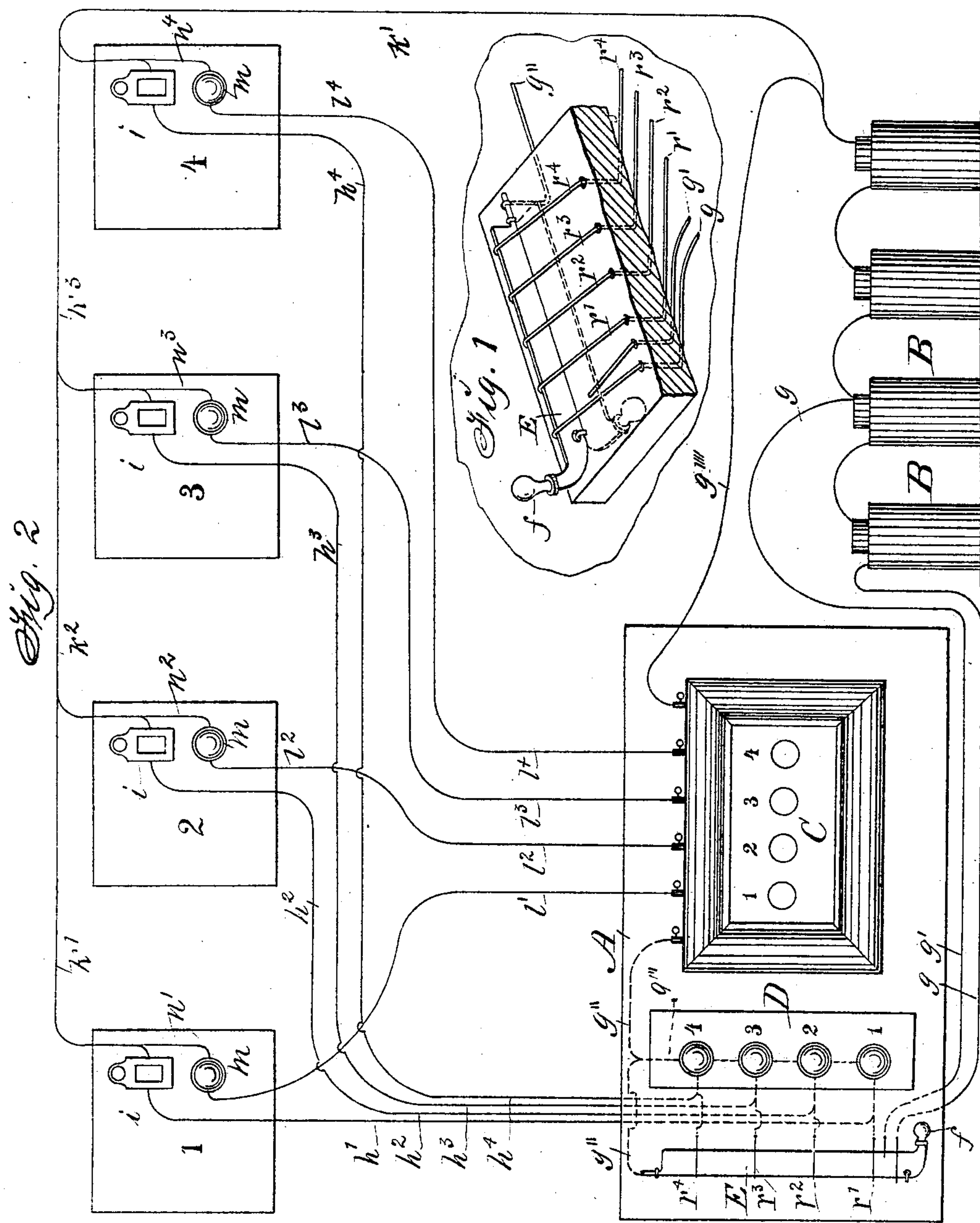
(No Model.)

A. T. HESS.

ELECTRIC HOTEL ANNUNCIATOR AND FIRE ALARM.

No. 271,707.

Patented Feb. 6, 1883.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

ALBERT T. HESS, OF DES MOINES, IOWA.

## ELECTRIC HOTEL-ANNUNCIATOR AND FIRE-ALARM.

SPECIFICATION forming part of Letters Patent No. 271,707, dated February 6, 1883.

Application filed November 29, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT T. HESS, of Des Moines, in the county of Polk and State of Iowa, have invented an Electric Hotel-Annunciator and Fire-Alarm, of which the following is a specification.

The object of my invention is to utilize electric currents in operating a hotel-annunciator in such a manner that signal-calls can be readily made from the office to any room in the house, and answer or return signals made from any room to the office, and also in such a manner that an alarm can be given from the office to all the rooms simultaneously in case of fire or whenever desired.

It consists, first, in forming a switch adapted for dividing an electric current and distributing it to a series of rooms in such a manner that the clerk or operator in the office can by simply adjusting the switch start the signal-bell ringing in each room to simultaneously alarm the inmates of all the rooms; second, in arranging and combining my switch and current-divider with one or more batteries, a signal-station and annunciator-dial in the office, and a series of bells in a corresponding series of rooms by means of a series of conducting-wires in such a manner that an independent circuit can be readily established at pleasure between the office-station, annunciator, and battery and any one of the series of bells and rooms, and also a general connection-circuit and current formed between the office-station, annunciator, and one or more batteries and all of the bells and rooms, all as herein-after fully set forth.

Figure 1 of my accompanying drawings is a perspective view of my switch and current-divider, formed on a section of the base-board of an annunciator. Fig. 2 is a diagram showing the relative positions of the switch, the battery, the annunciator-dial and series of push-buttons in the hotel-office, a series of bells in a series of rooms, and a series of connecting-wires. Together these figures clearly illustrate the construction, application, and operation of my complete invention.

A represents a wooden base in the office or station, to which the operative mechanism is attached.

B B represent electric batteries, preferably the Leclanché.

C represents a dial, and D a series of push-buttons of an annunciator combined with the base A. Nos. 1 2 3 4 represent a series of rooms in a building:

E represents my switch-plate, hinged to the surface of the base A by means of staples or in any suitable way. It is in the form of a straight edged metal strap, and has a crank-handle, *f*, at its end.

*g* is a wire connected with a battery, B, or a series of cells, and terminates over and within reach of the adjustable hinged switch E.

*g'* is a wire connected with a second battery or second series of batteries B, and terminates on the surface of the base A, within reach of the switch-plate E, so that its end will be covered by the switch when it is turned down.

*g''* is a wire permanently connected with the end of the switch E, and extends from thence to the operating mechanism of the annunciator and its dial C.

*g'''* is a branch wire extending from the wire *g''* to the series of push-buttons D.

*h'* *h''* *h'''* *h''''* are wires extending from a number of push-buttons to a corresponding number of electric bells, *i*, in the corresponding series of rooms Nos. 1 2 3 4.

*k'* is a wire extended from the bell in room No. 4 to the battery or one of a series of batteries, B.

*k''* is a wire extending from the wire *k'* to the bell in room No. 3.

*k'''* is a wire extending from the wire *k''* to the bell in room No. 2.

*k''''* is a wire extending from the wire *k'''* to the bell in room No. 1; and these wires *k'* *k''* *k'''* *k''''*, together with the wire *h'*, the switch E, and the wires *g'* *g''* *g'''*, form a complete circuit to connect the series of bells in the series of rooms with the battery.

*g''''* is a wire extending from the battery to the annunciator, for reversing the current and adjusting the indicators by electric force, in place of replacing them by hand after being displaced in signaling.

*l'* *l''* *l'''* *l''''* are wires extending under the push-buttons *m* in the series of rooms Nos. 1 2 3 4, as required to form independent circuits, with a corresponding number of drops, shields, or indicators, of any suitable form, connected with the dial C.



$n^1 n^2 n^3 n^4$  are wires extending from the buttons  $m$  in the rooms to the chain of wires  $k^1 k^2 k^3 k^4$ , as required to form connections between the respective buttons and the indicators under the dial-plate  $C$  of the annunciator and the batteries.

$r^1 r^2 r^3 r^4$  are wires that extend respectively from the wires  $h^1 h^2 h^3 h^4$ , at points near the push-buttons  $D$ , connected independently with the said wires  $h^1 h^2 h^3 h^4$ , toward and over the hinged switch-plate  $E$  and through the base  $A$ , as clearly shown in Fig. 1, where their ends are bent downward to engage the switch and to restrict it from an outward movement and disconnection of the circuit.

To signal to any of the series of rooms I turn the switch  $E$  upon the end of the wire  $g^1$ , as shown in Fig. 2, and then simply push upon one of the series of push-buttons  $D$ , connected with the wire that extends to the bell in the room to connect the button with the wire  $g^{1'}$ , as required to establish an independent circuit between the battery and the bell  $m$  in said room. To make a return signal and answer from the room of the station and operator in the office, the occupant of the room need simply push upon the button in his room, to press it upon the wire that terminates under the button, to thereby form an independent connection and closed circuit between his room, the battery, and the signal device of corresponding number in the annunciator. To ring all

the bells  $i$  simultaneously, as required to alarm all the occupants of the house at the same instant, I simply turn up the hinged switch-plate  $E$  from the wire  $g^1$  to engage the series of wires  $r^1 r^2 r^3 r^4$ , as shown in Fig. 1, to divide the current transmitted from a battery or series of batteries  $B$ , through the wire  $g$  and switch  $E$ , to traverse each of the wires  $h^1 h^2 h^3 h^4$ , that are connected with the corresponding series of bells and rooms.

I claim as my invention—

1. The electric switch composed of the metal strap or plate  $E$ , hinged to the base  $A$ , the wires  $g g^1 g^{1'}$ , and the series of wires  $r^1 r^2 r^3 r^4$ , in combination with the wires  $h^1 h^2 h^3 h^4$  and the bells  $i$ , substantially as shown and described, for the purposes specified.

2. The electric hotel-annunciator and fire-alarm composed of the base  $A$ , batteries  $B$ , an annunciator having a dial,  $C$ , and push-buttons  $D$ , the switch-plate  $E$ , a series of wires,  $g g^1 g^{1'}$ , a series of wires,  $h^1 h^2 h^3 h^4$ , a series of electric bells,  $i$ , and buttons  $m$  in a corresponding series of rooms, a series of wires,  $k^1 k^2 k^3 k^4$ , a series of wires,  $l^1 l^2 l^3 l^4$ , a series of wires,  $n^1 n^2 n^3 n^4$ , and a series of wires,  $r^1 r^2 r^3 r^4$ , substantially as shown and described, to operate in the manner set forth.

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Witnesses:

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