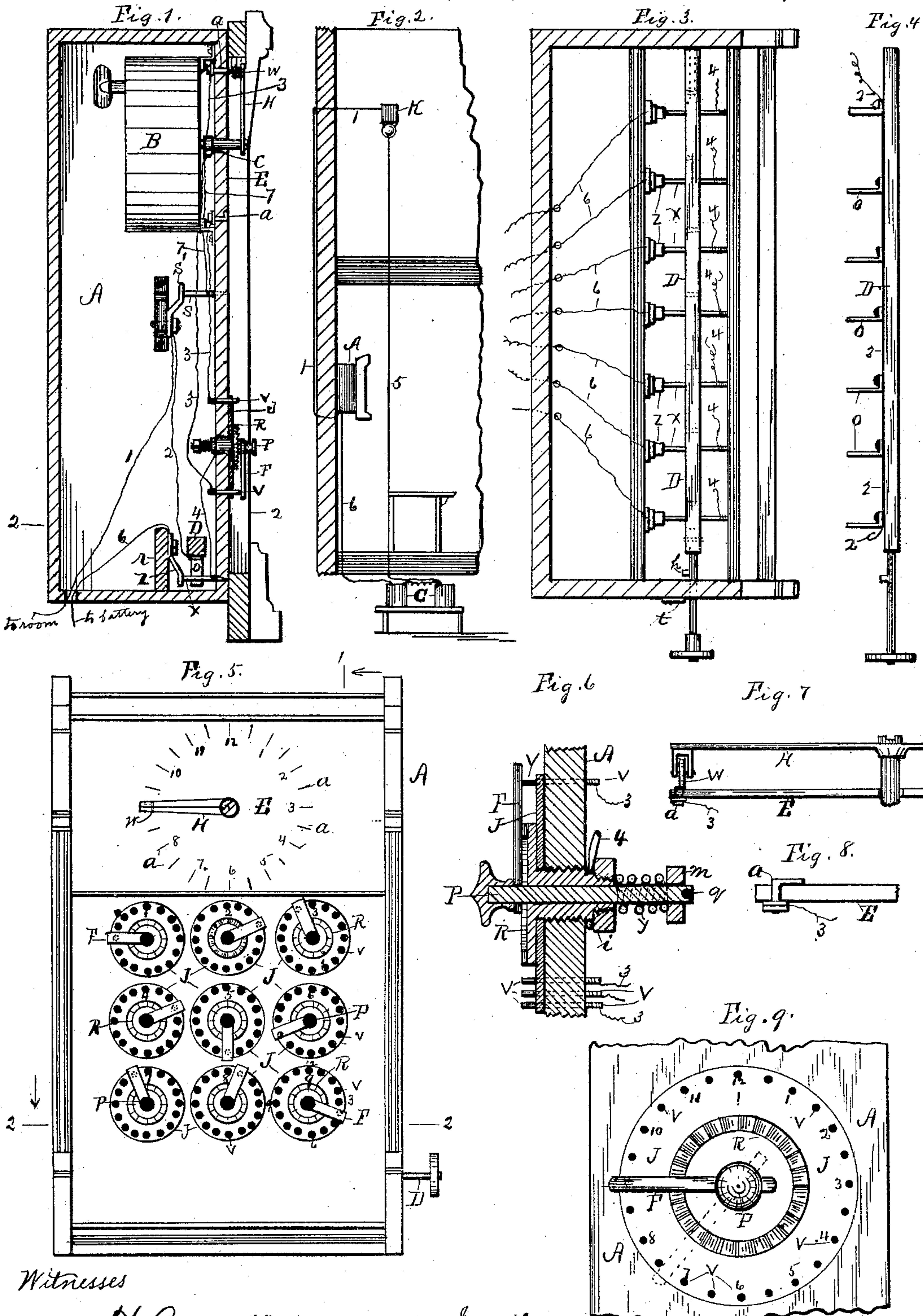


(No Model.)

W. F. HARTE.
ELECTRICAL ANNUNCIATOR.

No. 466,784.

Patented Jan. 12, 1892.



Witnesses

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ELECTRICAL ANNUNCIATOR.

SPECIFICATION forming part of Letters Patent No. 466,784, dated January 12, 1892.

Application filed July 25, 1891. Serial No. 400,692. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. HARTE, a citizen of the United States of America, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Electrical Annunciators, of which the following is a specification, reference being had therein to the accompanying drawings and the letters and figures of reference thereon, forming a part of this specification, in which—

Figure 1 is a vertical section of the case, taken on line 1 of Fig. 5, looking in the direction of the arrow, and a side view of the parts within the case. Fig. 2 is a vertical section of part of a building, showing the annunciator applied thereto. Fig. 3 is a horizontal section of the annunciator, taken on line 2 of Figs. 1 and 5, looking down. Fig. 4 is a side view of a bar for simultaneously closing the electric circuit with all the rooms. Fig. 5 is a front elevation of the annunciator. Fig. 6 is a central vertical section of one of the room-dials. Fig. 7 is a side view of the hand on the clock-dial, showing a friction-wheel on its outer end for consecutively engaging the contact-posts in the dial-face for opening and closing the electric circuit. Fig. 8 is a detail view showing a portion of the clock-dial and one of the contact-posts, and Fig. 9 is a face view of one of the room-dials.

This invention relates to certain improvements in electrical annunciators for calling or signaling purposes, designed more particularly for use in hotels for calling guests located in separate and distant rooms at a previously-agreed time, which improvements are fully set forth and explained in the following specification and claims, and is designed to be certain improvements on the device for similar purposes, for which Letters Patent of the United States No. 455,016 were granted to me on the 30th day of June, A. D. 1891.

Referring to the drawings, the annunciator-case consists of a rectangular box A, adapted to be secured on the wall or side of a room or hotel office, as shown in Fig. 2, and an ordinary battery G, as shown in said figure, is designed to be located adjacent to the annunciator and be connected therewith by means of circuit-wires 1 3 4 5 6 7. It is de-

signed to place an ordinary call-bell in the circuit in each room, as shown at K in Fig. 2, so that when the circuit is closed said call-bell will ring as long as the circuit is closed, for the purpose of awakening or calling a guest in such room or rooms.

A represents the case of the annunciator, being rectangular in form and adapted to be secured to the wall in a room or hotel-office, as shown in Fig. 2. The upper part of the said case contains an ordinary clock that is provided with but one hand H, corresponding with the hour-hand of an ordinary clock. The dial of the clock is on the outer upper front part of the case, as shown in Figs. 1 and 5, and is provided with the ordinary figures denoting the time, as in an ordinary clock. At each hour, half-hour, or fraction thereof marked on the said dial are set contact-posts *a*, which pass through and are secured in the dial and have their ends on the dial-face formed so as to come in contact with a friction-wheel W on the outer end of the hand H successively as the hand moves over the dial, and whenever said wheel is in contact with one of said posts the electric circuit is closed with some one of the rooms of the hotel or building in which it is located. The annunciator is also provided on its face below the aforesaid clock-dial with a series of other dials J, such as are shown in Figs. 5, 6, and 9, which may be denominated as "room-dials." These dials are all numbered, consecutively, 1 2 3, &c., to correspond with the number of the rooms of the hotel, one being used for each room. The construction of these dials is shown more particularly in Fig. 6. The dial-face J is set with contact-posts V, that extend through to the interior of the case, and are intended to be severally engaged by the arm F, which is intended to be turned by the operator so as to rest on and be in contact with any one of said posts he desires. The posts V on any one of said room-dials correspond in number and are numbered the same as the contact-posts *a* in the clock-dial E. An annular ratchet R on the dial-face J serves to hold the arms F in contact with any one of the contact-pins V with which they may be placed. The hub of said ratchet passes through the dial-face J and screws into the case A and has turned on its inner end, at the inner side

of the case, the nut *i* for holding the wire 4, leading toward the battery. The shaft P passes through and is in contact with said ratchet-hub and has on its outer end the arm F and a button-head on its outer end and a washer *m* on its inner end, held on by a pin *q*, and is provided with a coil-spring Y, sleeved thereon between said washer and the nut *i*, for the purpose of permitting reciprocation of said shaft in its seat and for holding said arm F to its work on its dial and post.

The contact-posts *a* in the clock-dial E and the contact-posts V in the room-dials J are all connected by means of the wires 3 in such manner that those numbered the same in each dial are so connected that when the wheel W of the hand H is in contact with one of the posts *a* the electric circuit will be closed with a post V of a corresponding number and denoting the same time. Each room-dial J is connected by means of the wires 4 with contact-posts X in the bottom of the case, as shown in Figs. 1 and 3. These posts are secured at one end in the front part of the case A and are detachably in contact at their extending ends with contact-springs Z, secured on the cross-bar *r*, so that the face of the annunciator may be removed when desired. These contact-springs are connected by means of the wires 6 with the battery G. The arbor of the hand H is provided with a collar C, which is connected with a contact-post S, as shown in Fig. 1, by means of wire 7. The extending end of said post S is detachably in contact with a contact-spring S', secured to a bracket attached to the side wall of the case of the annunciator, so that its face may be removed. Said contact-spring S' is connected by means of wire 1 with the call-bell K, forming part of the electric circuit and located in a room above, and the said call-bell is connected with the battery G by means of the wire 5.

D is a reciprocating bar arranged in the lower part of the case immediately above the contact-posts X, and is provided on its lower side with the depending spring contact-arms O, which are arranged to be in contact with the said posts whenever the said bar D is pulled out and held out by means of the lug *h*, hooking over the plate *t*, as shown in Fig. 4. In such case each spring-arm O will be in contact with one of said posts. Said bar and all of its spring-arms O are connected with the spring-arm S' by means of wire Z and through the medium thereof with wires 1 and 3. This is for the purpose of simultaneously ringing all the call-bells in the rooms in case of fire or call for breakfast or for any other reason. By so setting bar D that its arms will be in contact, as stated with posts V, an electric circuit is produced between each room-dial post V and the posts of the clock-dial E, and when the hand H is in contact with one of the posts *a* it will cause a bell to ring in each room whose room-dial has its arm F in contact with one of its posts V, so that an electric circuit is created to ring the call-bells in

each room simultaneously. In this illustration, Fig. 1 only represents one room-dial and one set of wires connecting it with the other device. Of course each additional room-dial would have a duplicate set of wires, so that a description of one set connecting one room-dial with the clock-dial will be sufficient for all.

When it is not desired to set the annunciator for the purpose set forth, the arm F is placed so as not to be in contact with any one of the posts V, as shown by the broken lines in Fig. 9.

The manner of using the annunciator is substantially as follows: Should a guest in a particular room leave orders to be called at any particular time, the arm F of the room-dial corresponding in number with the guest's room is turned so as to rest on the post V, denoting the time at which the guest desires to be called. When the hand H reaches the hour or time corresponding with that of the post V of the room-dial with which its arm F is in contact, it will, through the medium of its friction-wheel W, be in contact with a post *a*, corresponding in number or time with the post V of the room-dial. The electric circuit will be closed, and the call-bell in the circuit will ring as long as said circuit continues, and thus call the guest at the time he ordered. If several guests all desire to be called at the same or at a different time, the various arms F will be set on the posts corresponding with the time they wish to be called, and the electric circuit will be closed for all said guest-rooms when the hand H reaches the required hour or time.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows, to wit:

1. In the electrical annunciator shown and described, the combination, with the case A, of the wires 6 4 3 7 1 5 and having a battery G and a call-bell K, forming a part of the circuit, contact-posts *a*, driven hand H, having the wheel W for consecutively engaging said posts, contact-posts V, arm F for detachably engaging said posts, and ratchet R, all arranged to operate substantially as and for the purpose set forth.

2. In the electrical annunciator shown and described, the combination, with the case A, of the wires 6 4 3 7 1 5, having a battery G and a call-bell K, forming a part of their circuit, contact-posts *a*, driven hand H, having the wheel W for consecutively engaging said posts, contact-posts V, arm F for detachably engaging said posts, ratchet R, wire 2, sliding bar D, having the contact-arms *o*, and the contact-posts X, all arranged to operate substantially as and for the purpose set forth.

3. In the electrical annunciator shown and described, the combination of the dial J, contact-posts V, annular ratchet R, provided with a hub passing through the wall of the case and having the nut *i* turned on the inner end of said hub, shaft P, collar *m*, pin *q*, coil-spring Y, dial E, contact-posts *a*, driven

hand H, adapted to consecutively engage said posts, and wires 3 for connecting the posts a and V, substantially as and for the purpose set forth.

- 5 4. In the electrical annunciator shown and described, the combination, with its case, of the room-dials J, having thereon a room-number, annular ratchet R, having a hub extending through the wall of its case, nut i,
10 turned on the inner end of said hub, shaft

P, passing through said hub and having the arm F, coil-spring Y for holding said arm to its work, and the numbered contact-posts V, set in said dial, substantially as and for the purpose set forth.

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Witnesses:

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