

PLATE. I.

2 Sheets--Sheet 1.

W. W. FOOTE.
Electric Hotel-Annunciators.

No. 140,129.

Patented June 24, 1873.

Fig. 1.

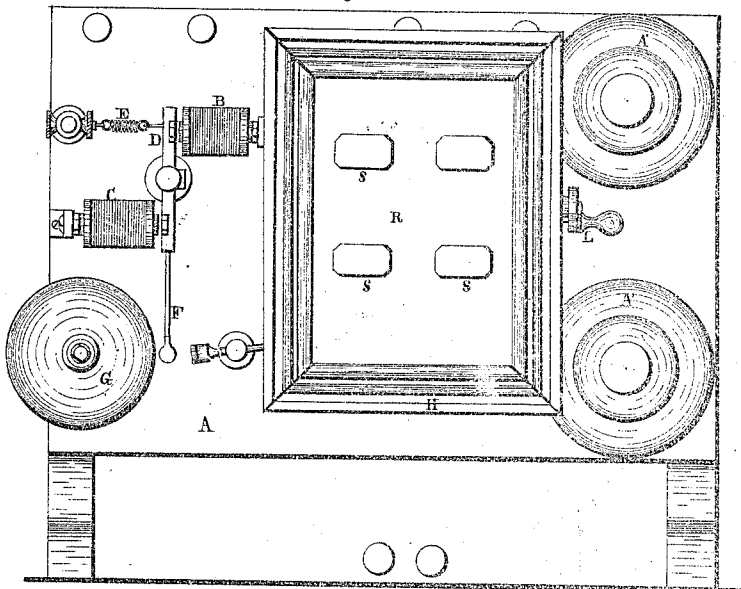
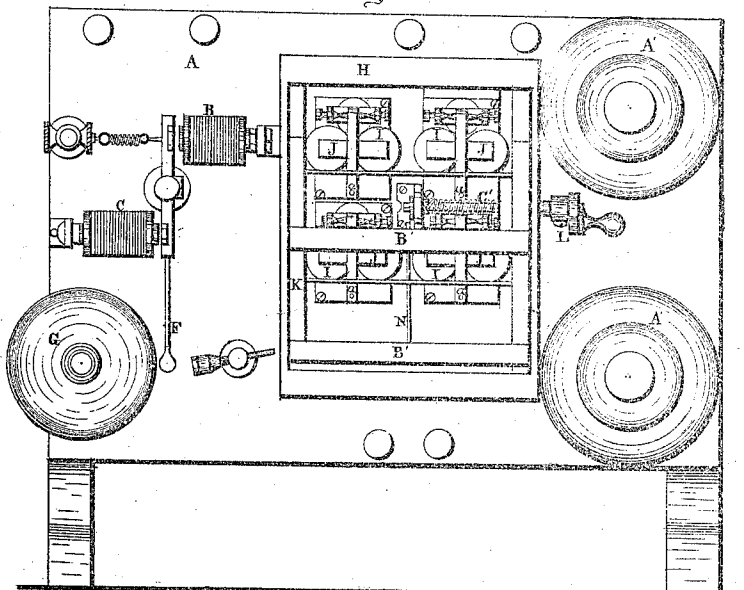


Fig. 2.



Witnesses.

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Fig. 3.

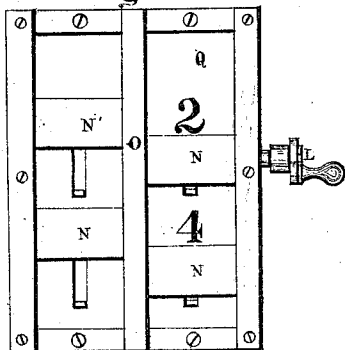


Fig. 4.

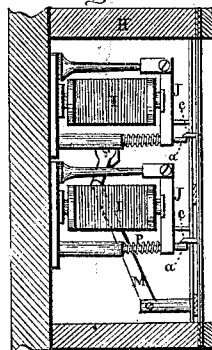
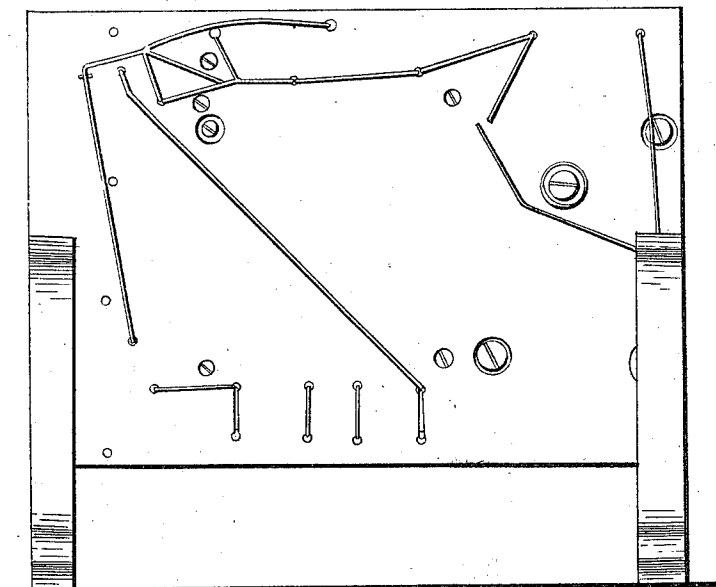


Fig: 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM W. FOOTE, OF SAYBROOK, OHIO.

IMPROVEMENT IN ELECTRIC HOTEL-ANNUNCIATORS.

Specification forming part of Letters Patent No. 140,129, dated June 24, 1873; application filed November 30, 1872.

To all whom it may concern:

Be it known that I, WILLIAM W. FOOTE, of Saybrook, in the county of Ashtabula, and State of Ohio, have invented a certain new and Improved Electric Annunciator; and I do hereby declare that the following is a full, clear, and complete description thereof, reference being had to the accompanying drawings making part of the same.

Figure 1 is a front view of the apparatus. Fig. 2 is a front view of the inside. Figs. 3 and 4 are detached sections. Fig. 5 is a back view, showing the course of the conducting-wires.

Like letters of reference refer to like parts in the several views.

The nature of this invention relates to an electric-telegraph indicator, and the construction and operation of the above-specified device is as follows:

In the drawing, Fig. 1, A represents a back-board to which the apparatus is attached, which apparatus consists of two pairs of magnets, B C, arranged in relation to each other, as shown. P is the armature. To the upper end is secured the recoil-spring E, whereas to the lower end is secured the hammer F for sounding the bell G, all of which is, or may be, constructed in the usual way. Also attached to the back is a case, H, in which are arranged several magnets, I, of which J are the armatures. Said magnets are constructed, mounted, and operated in the ordinary way. From the end of each armature projects a pin, *a*, Figs. 2 and 4, the purpose of which will presently be shown. K, Fig. 2, is a sliding frame fitted in the edge of the case H, and which is made to slide in a vertical direction by means of the crank L, to the lower bar of which it is attached by a link, M, Fig. 4. The purpose of said slide or frame K is for lifting the blinds N, Fig. 3; as will hereinafter be shown. The blinds referred to consist of metal plates loosely fitted in the frame O in grooves cut in the inner edge of the frame, so that they are free to slide upward and downward when so required. From the back of each blind projects a pin, *c*, Fig. 4. The relative position of the pins of the blinds to the projecting pins *a* of the armatures is such that when the blinds

are being pushed upward the pins projecting therefrom will strike the pins of the armatures, which, in consequence of the beveled upper side of the end of the pins *c* and the beveled lower side of the pins *a*, are forced back toward the magnets, thereby allowing the pins to pass each other in the upward movement of the blinds. When the blinds are passed, the armatures come forward by means of the springs P. The blinds now cannot drop down, as the pins *c* thereof will lodge on the pins of the armatures, as shown in Fig. 4, for the reason that the ends of the pins are not beveled on the proper sides to effect a pushing back of the armatures on the downward movement of the blinds, as when the blinds were moved upward. Between the blinds and the armatures, &c., is interposed a dial or face, Q, Fig. 3, having slots *d* therein for the passage of the pins of the blinds. Immediately over each slot is a figure, the number of the slot, as 1, 2, 3, 4, &c. The blinds, when raised, and the pins thereof lodged on the pins of the armatures, hide the numbers from sight, as are the numbers 1 and 3 in Fig. 3; but when the blinds are down the numbers are exposed, as are the numbers 2 and 4. To each number and blind is a magnet armature and pin, each separate and independent of each other, and though the magnets are worked by the same line-battery they have each their separate key, and are therefore operated independently. Over the face Q and frame O is a glass-cover, R, Fig. 1, having apertures S therein, through which may be seen the figures or numbers 1, 2, 3, 4, &c.

Having described the construction and arrangement of the apparatus, the practical operation of the same is as follows:

As aforesaid, this apparatus is to inform the clerk or other person in the office of a hotel, that a guest in some one of the rooms is in want of some service on the part of the house. For this end the apparatus is fixed up against the office-wall in the position shown in Fig. 1. A wire is now run from each of the magnets to a room corresponding in number to the number of the magnet; as magnet 1 to room 1, magnet 2 to room 2, &c., there being as many magnets as there may be rooms in the

house. In each room the wire terminates in a telegraph-key, located in any convenient place. Two such keys are indicated at A', and which are supposed to be in different rooms and connected with different magnets, as, for instance, room 1, magnet 1, &c. Now, as all the magnets are connected to the battery by a proper arrangement of wire, it will be obvious that, on opening and closing the circuit by means of the key in any one of the rooms, the magnet will be actuated thereby. For illustration, let it be supposed that the occupant of room 1, is in want of something, and that all the blinds are up, so that the numbers cannot be seen. Now, on operating the key A' the magnet will draw down the armature thereof, withdrawing the pin *a* from under the pin *c* of the blind, which will in consequence drop down, and expose the figure 1 behind it, as figures 2 and 4 are shown in Fig. 3. During this operation of the magnet and dropping down of the blind, attention is called to the fact by the striking of the bell G, actuated by the magnets B C, connected to the wire leading to room 1; hence the sounding of the bell and the dropping of the blind is simultaneous. By this means the fact is made known to the office that the occupant of room No. 1 is in want of something, and so in the same way the occupant of any other room can make known his want of attendance by a similar key, which will close the circuit and operate the magnet that corresponds with the number of his room, and at the same time sound the bell whereby to call the attention of those in the office to such want.

In the event such want may be for a towel, water, soap, or other simple article, such want may be communicated by the guest by opening and closing the circuit by means of the key in his room, thereby sounding the bell; for instance, one stroke for water, two for a towel, &c., the number of strokes indicating the thing wanted. For this purpose printed directions should be posted up over

the key, so that the guest may know how many strokes of the bell will indicate the article wanted.

When one or more of the blinds are down they can be raised so as to hide the numbers by means of the frame K, Fig. 2, referred to. The bars B' of said frame or slide are below the pins projecting from the blinds; hence, as the frame is moved upward by the crank L, the blinds are lifted up by the bars of the frame pushing upon the pins *c* until they have passed the pins of the armatures, which pins will hold up the blinds in the manner as above described; whereas the frame will be drawn down, by the recoil of the springs C', wound around the shaft of the crank for that purpose.

In the drawing, four magnets, corresponding to four rooms only, are shown, but any number of magnets can be used as there are number of rooms in the house, all of which are constructed and operated in the same way.

Instead of the numbers being stationary and the blinds movable, the numbers may be movable and the blinds stationary, and the same result obtained, so far as the principle and purpose of the apparatus may be considered.

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

1. The combination of the frame K B' B' provided with pins *c c*, lever M, and crank-shaft C', for restoring the screens N N, all constructed and arranged to operate substantially as and for the purpose herein specified.

2. The frame K B' B' provided with pins *c c*, lever M, and crank-shaft C', for restoring the screens N N, in combination with the electromagnets I L, and armatures J provided with pins *a a*, substantially as and for the purpose described.

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Witnesses:

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