

SAMUEL F. NICHOLS.

Improvement in Annunciators.

No. 127,185.

Patented May 28, 1872.

Fig. 1.

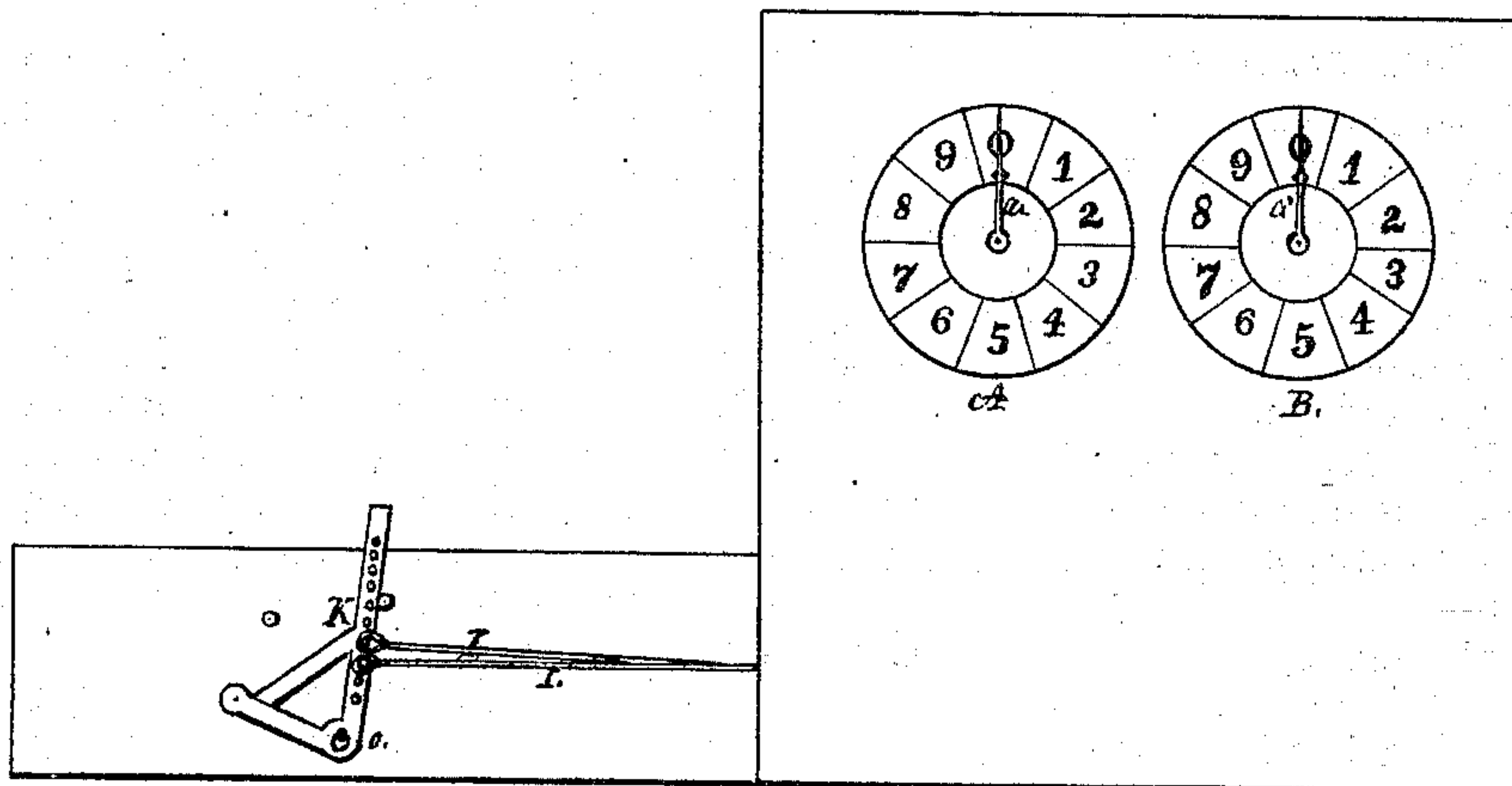
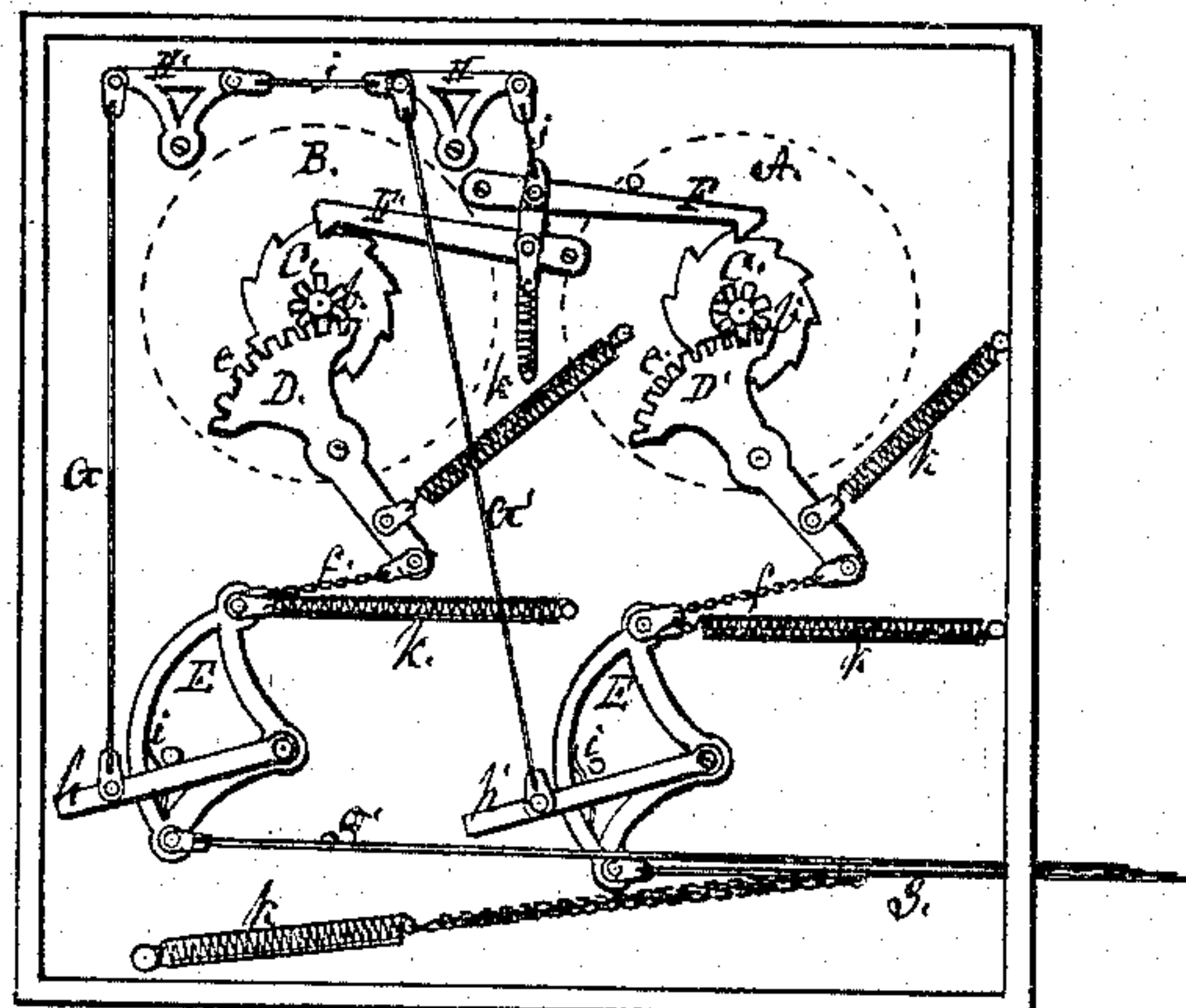


Fig. 2.



Witnesses.

W. H. Poole.
H. H. Perry

Inventor,

Samuel F. Nichols
By J. B. Woodruff Attorney
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UNITED STATES PATENT OFFICE.

SAMUEL F. NICHOLS, OF TRAPPE, MARYLAND.

IMPROVEMENT IN ANNUNCIATORS.

Specification forming part of Letters Patent No. 127,185, dated May 28, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, SAMUEL F. NICHOLS, of Trappe, in the county of Talbot and State of Maryland, have invented certain new and useful Improvements in Annunciators for hotels, boarding-houses, colleges, seminaries, and for other places and purposes; and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents a face view of two dials, showing the nine digits on each, whereby all the numbers, from 1 to 99, inclusive, may be announced; also, the bell-crank for operating the same. Fig. 2 shows the arrangement and combination of mechanism for operating the hands on the dials, and ringing a bell to notify that an announcement has been made.

My invention relates to annunciators for hotels, &c.; and it consists in the simplified arrangement of the mechanism for turning the hand or hands on one, two, or more dial-plates on which are only the nine digits each—the units or decimals on the left-hand dial, the tens on the right of it—so that the two numbers indicated by the hands brought together announce the number corresponding with the room at the same time the signal-bell is rung. For numbers exceeding 99 it will require another dial-plate, with its corresponding mechanism, by the addition of which nine hundred and ninety-nine rooms can be announced, or any number from 1 inclusive.

To enable others to make and use my improved annunciator, I will describe it more fully, referring to the drawing and to the letters thereon.

In dwelling or boarding houses, where it is not necessary to provide for a call-bell from more than ten or fifteen rooms, a single dial-plate, with the requisite numbers on it, will suffice; but for hotels, where a larger number, not to exceed one hundred, is required, I make two dials, A B, divided into ten spaces, having the figures from 0 to 9, the dial A representing "units" and B representing "tens," as seen in Fig. 1. On the face of each is a single hand, which stands at rest at 0. The hands

a a' are connected with shafts extending back, on which are ratchet-wheels C C' and pins *b b'*, into which are segments of cogs *e e'* on vibrating levers D D', connected by chains or links *f f'* to bell-cranks E E', from which the wires *g g'* proceed to communicate with the different apartments. On the face of the bell-cranks E E', and pivoted with them, are levers *h h'*, which are provided with friction-springs *i i* to bear on the inner edge of the segment of the bell-crank, so that they start with the first part of the pull of the bell-wire *g g'* sufficiently to raise the latches F F' from the ratchet-wheels C C' by their connecting-rods G G and bell-cranks H H', and connecting-links J J' to allow the levers D D' to rotate the pinions *b b'*, and place the hands *a a'* on the dials against the number corresponding with the number of the room from whence the pull proceeds, at the same time sounding the signal-bell, the hands retaining their position on the dials until another pull is made from any one of the apartments, when they instantly resume their position at 0, and then move forward to their corresponding numbers. This movement is effected by the action of the friction-springs *i i* and levers *h h'*. All of the movements are controlled to resume their position at rest by the action of springs *k k'*.

The operation is as follows: Connected with the bell-pull of each room is a bell-crank or lever, K, to which one or more of the wires I I' are attached, at such a distance from the pivot *o* as to give the required movement to the levers D D' to turn and place the hands or pointers *a a'* on the figures. On each lever K the point of attaching the wires varies so as to make the combination of the figures on the dials give the number of the room. For any number less than ten but one wire, I, attached to the lever K, and each one varying in distance from the pivot *o*. For numbers over ten the two dials A and B are required, with two connecting-wires, I I, they being attached to the lever K in such relations as to embrace all the numbers from 10 to 99; and for numbers beyond 99 another dial and set of mechanism will be required, made and connected in precisely the same manner, by which arrangement and combination all of the numbers, from 1 to 999, can be correctly read at the office.

Claims.

1. In an annunciator, I claim the two or more dials, each containing the nine digits and the cipher, when combined with the mechanism as described, to indicate all the numbers of the rooms required, all the hands of the said dials being adjusted properly by one movement of the operating-lever.

2. I claim, as combined with the said dials, the bell-cranks, with the levers *h h'* and springs *i i* to retain them in position on the segments *E E*, all as herein described.

3. I claim connecting the bell-pull wires *I I* to a lever, *K*, provided for each room, in such relation to the fulcrum of said lever that their connection with the operating internal mechanism will move the hands on the dials to indicate the number corresponding with the room.

In testimony whereof I hereunto subscribe my name.

SAMUEL F. NICHOLS.

Witnesses:

EDM. F. BROWN,
F. H. PERRY.