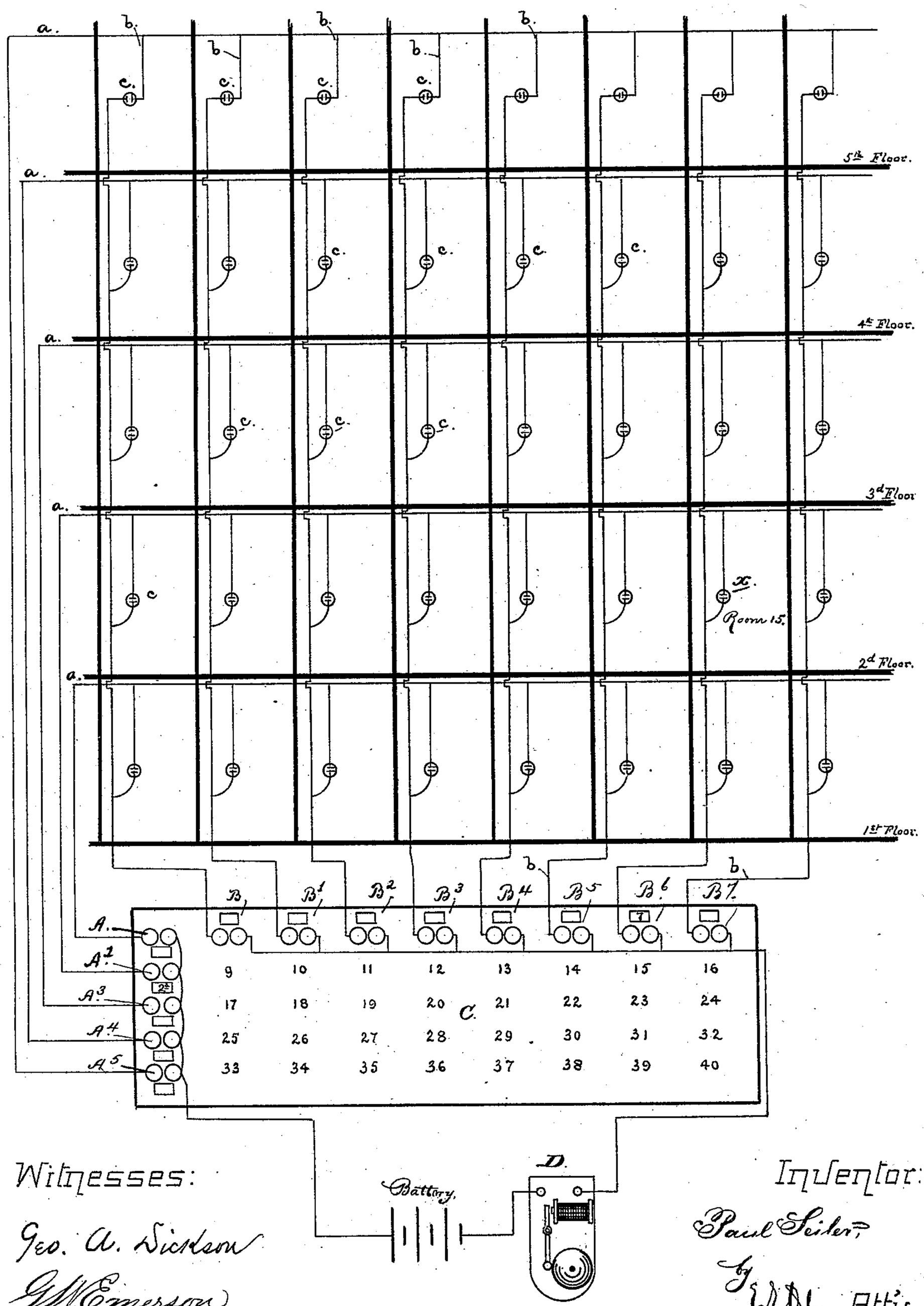
(No Model.)

P. SEILER.

ELECTRIC ANNUNCIATOR.

No. 298,242. Patented May 6, 1884.



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ELECTRIC ANNUNCIATOR.

SPECIFICATION forming part of Letters Patent No. 298,242, dated May 6, 1884.

Application filed November 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, PAUL SEILER, a citizen of the United States, residing in the city and county of San Francisco, in the State of California, have made and invented certain new and useful Improvements in Electric Annunciators; and I do hereby declare that the following is a full, clear, and exact description of the said invention, the accompanying drawing being referred to by letters and figures.

My invention relates to electric annunciator systems, by which calls or signals are transmitted from a number of points to a central station, where suitable mechanism—such as a bell, drop-indicator, or a moving pointer—marks the locality from which the signal is given.

The object of my improvement is to simplify the system of conductors and parts of an electric annunciator apparatus, and thereby greatly reduce the expense of construction and application. It is designed more particularly for house and hotel annunciation systems, and in such application it enables a material reduction in the number of wires to be made, besides affording a large number of signals or indicators in a board or an annunciator of small area.

The nature of my improvements and the manner in which I proceed to construct, apply, and use them, as well as the advantage derived from them, will be fully understood from the following description.

The drawing herein referred to is a diagram representing in outline the annunciator case or board at the office or station, the battery and signal bell, and the system of wires connecting the push-buttons in the rooms of a number of floors or stories of a building, with the annunciator below.

My invention consists, essentially, in providing each floor or section of a building with an individual annunciator located at the station-board, and then connecting corresponding rooms upon the several floors or in the several sections with a single annunciator, the annunciator case or board at the office or station thus being made to consist of a set of floor or section annunciators and a single series or set of room or division annunciators, each section or floor being composed of a number of rooms or divisions equal to those of any other section in the system. Instead of employing a separate wire and an individual annunciator for each room, therefore I provide only a single set or row of room-annunciators, with each of which corresponding rooms throughout the entire number of floors or sections are connected by means of a single wire, and then distinguish the exact locality of any room as to floor or section by the action of the floor or section annunciator, and the two signals are operated simultaneously, so as to give the section and the divisions thereof.

To construct and apply an indicator or annunciator after this plan or system to a building containing an equal number of rooms upon every floor, I proceed substantially as follows: The annunciator case or board C, situated in the office or other locality where the signals are to be received, is provided with a number of drop-indicators and magnets, A A′, &c., of the usual form, arranged in vertical series along one side or edge of the board, and suitably marked to correspond with the several floors, stories, or sections of the building. Connection of the set of indicators with a battery is made by a battery-wire, *a*, and from each indicator a continuation of the battery-wire is carried up to each floor or section corresponding to the mark or number of that indicator, and thence along the floor or section from end to end, to intersect each room or division thereof. Upon the same board, but disposed horizontally, is a set of similar indicators, B B′, &c., corresponding in number to the rooms or divisions on the floor, and numbered accordingly, beginning with No. 1 and ending with the highest number contained on the floor. The number of rooms being equal on all the floors, a wire is led from the first of the horizontal indicators up through all the rooms that constitute the first on each floor, and in like manner a second wire is carried from indicator No. 2 of the set upward through room No. 2 of each floor, a single wire and indicator being in this manner arranged to operate for all rooms in corresponding line or position throughout the several floors. Each room is then provided with the usual push-button, *c*, to connect the battery-wire with the room-wire, and connection of the horizontal set of indicators is made with the battery through a call-bell, D. Now, by this construc-

tion, it will be seen that the effect of pressing the button in any room is to operate among the vertical set of indicators the particular one appropriated to that section and in the horizontal set of indicators the particular one connected with that room or division whence the signal proceeded. Where each floor is numbered separately, beginning in each case with No. 1, these two sets of annunciators can be arranged in two rows or in any convenient position for ready observation, or a set of call-bells of different sounds can be substituted for the floor-annunciators; but in a large system containing several floors, and where the rooms are numbered consecutively, I provide a case or board consisting of a series of floor-indicators, as A A′, &c., one above the other, to give as many lines in a horizontal direction along the board as there are floors, and upon the same board a series of room-indicators in horizontal row, to give as many lines in vertical direction as there are rooms on each floor. Each room will then be indicated upon the board by a number suitably marked, and the whole set properly laid off and spaced to agree with the floor and room indicators. Only the set of rooms in the first floor will be indicated by drops, as the remainder of the rooms are represented by figures, each row of which, being headed by its appropriate floor-indicator, shows the numbers of the rooms on that floor. Thus, referring to the drawings, the first floor, containing eight rooms, is represented by the horizontal row of drops and magnets B B′ B^2, numbered from 1 to 8, inclusive, and preceded by a floor-indicator, A. The second floor is represented by the floor-indicators A′ and the horizontal row of numbers from 9 to 16, inclusive, No. 9—the first room on second floor—being immediately beneath the drop B, representing the corresponding room of the first floor. Each floor is represented in like manner by a floor-indicator and a row of room-numbers. From this arrangement, when the call-button in any room—as, for instance, at *x*—on the second floor in the diagram is pressed, the annunciator-drop A′ of that floor is operated, and at the same time the drop in the row B corresponding to the number of that room in the floor series is caused to show the position of the room on the annunciator-board. Therefore the number that is found at the intersection of the row of numbers A′ with the vertical row beneath the uncovered drop B is the room whence the signal proceeded.

The advantages of this improvement will be evident to any person familiar with the construction and operation of annunciators. The great saving in the number of wires, drops, and magnets and in the size of the annunciator-case enables me to put up an annunciator system with considerably less expense and labor than is possible by the ordinary plans now employed. The annunciator is brought into such compact form that the operator at the office is able to distinguish the signals on the board in considerably less time than heretofore, especially in the case of a large hotel-annunciator.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an electric annunciator system, the combination of a floor or section indicator or set of indicators and a set of room-indicators, each of which marks a corresponding room on all the floors or sections, and means for operating any floor or section indicator and any room-indicator together, whereby the floor or section and the room therein will be indicated.

2. In an electric annunciator system, the combination of battery-wires *a a*, &c., and having connection with battery through a set of indicating annunciators, a series of room or division wires connecting corresponding rooms or divisions on the several floors with a separate room-indicating annunciator, and connections in each room for complete circuit from battery-wire to room-wire and return-wires to the battery, as set forth.

3. The combination of the battery-wires *a*, battery D, indicators A, section-wires *b*, indicators B, and a signal-bell, E.

4. In a system for electrically-connecting rooms or stations with a common receiving station or office, the combination of a battery-wire connecting each room on a floor with an indicator, with section-wires connecting corresponding rooms throughout the several floors with a common indicator, and a battery-wire connecting each room with the section-wires, as set forth.

5. An annunciator consisting of a set of floor or section indicators, a series of room-indicators, and the blanks or room-numbers, arranged with relation to the two sets of indicators, as described, in rows from each floor or section indicator and from each room-indicator, crossing each other, so that the number will be indicated at the intersection.

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Witnesses:
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