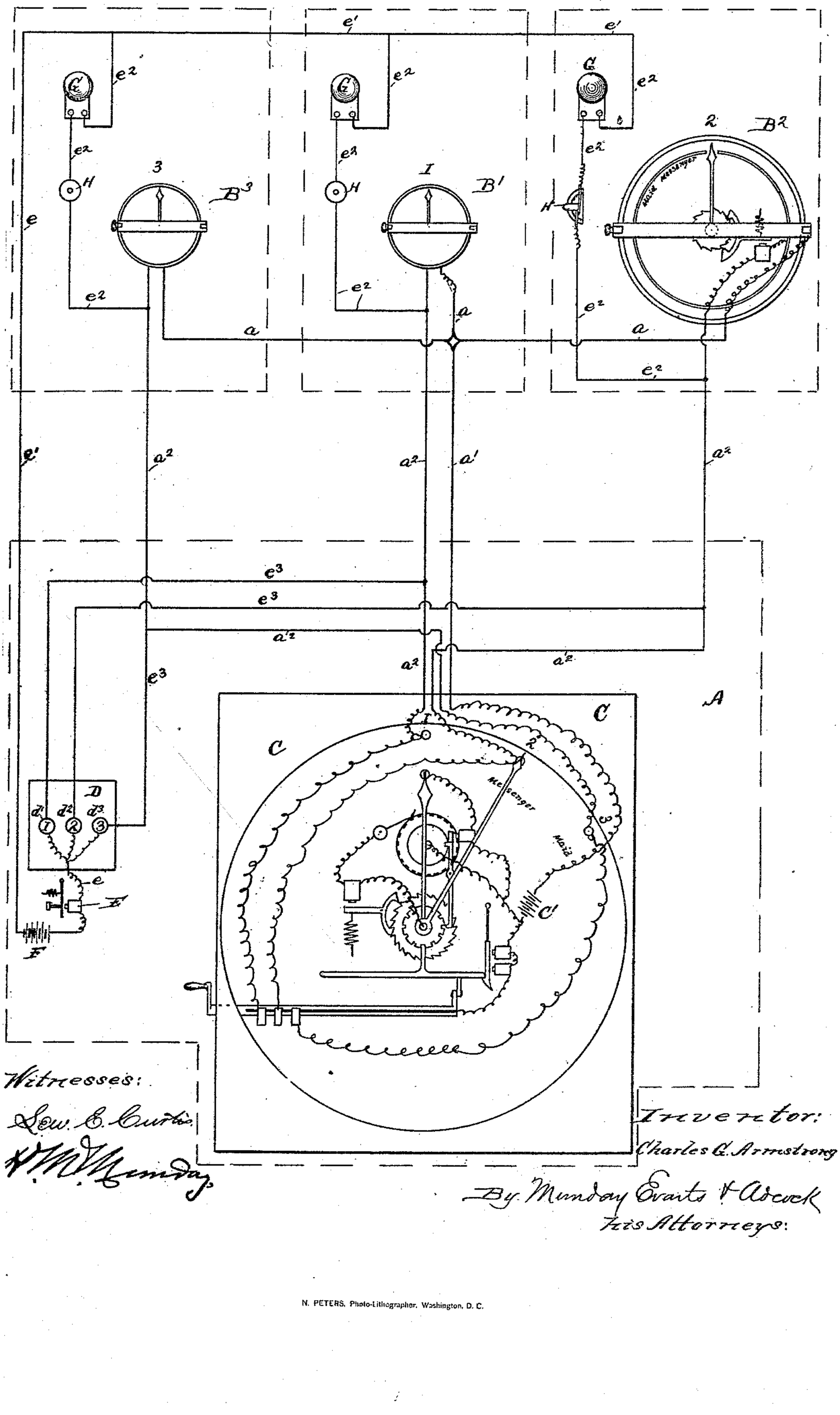
(No Model.)

C. G. ARMSTRONG.

HOTEL ELECTRICAL ANNUNCIATOR CIRCUIT.

No. 411,772. Patented Oct. 1, 1889.



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HOTEL ELECTRICAL ANNUNCIATOR-CIRCUIT.

SPECIFICATION forming part of Letters Patent No. 411,772, dated October 1, 1889.

Application filed July 1, 1889. Serial No. 316,172. (No model.)

To all whom it may concern:

Be it known that I, CHARLES G. ARMSTRONG, a citizen of the United States, residing in Englewood, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Hotel Electrical Annunciator-Circuits, of which the following is a specification.

This invention relates to that class of electrical appliances used in hotels for the purpose of communicating between the rooms of guests and the central office of the hotel, and it is an improvement upon the device commonly known as "Porter's electric messenger." In that apparatus there is located in each guest-chamber a call-box consisting of a dial and pointer, the names of the different probable wants of the guest being marked at intervals around the dial, and the whole so contrived that the guest by turning the pointer to the particular name thus signals the central office or clerk, at which point a large dial is situated, having two pointers and marked with figures indicating the room or guest-chamber, and an inner circle of names corresponding to the names upon the dials in the several chambers above alluded to. One of the pointers, upon the occasion of a signal, will be operated to stand at the number of the chamber signaled from, and the other pointer will be operated to stand at the name of the want. In conjunction with such an apparatus and its electrical circuit it has been customary to run from the central office to the several chambers a second wire to convey a separate circuit, in order that the clerk at the central office may signal back to the occupant of the room that his signal has been received, and may also signal to such occupant a morning or awakening call, when desired.

The present invention relates to an improvement upon this well-known apparatus, by which I am enabled to accomplish the above signaling without the use of the additional wire alluded to, whereby a considerable portion of the expense in erecting the apparatus, especially in large hotels, is saved.

The accompanying drawing, which forms a part of this specification, consists of a diagram of the apparatus and circuits constituting my said improvement.

In said drawing the space marked A, inclosed by dotted lines, is supposed to represent the office or central station, while the several spaces marked B′ B^2 B^3, likewise inclosed by dotted lines, are intended to designate three several guest-chambers. There may be in practice any number of such chambers, but three are sufficient to illustrate the invention. In each of the guest-chambers is located a call-box 1 2 3. The purposes of the present specification do not require that the construction of these boxes should be described with particularity. It will be sufficient to say that the box marked 2, and made upon a somewhat larger scale than the others, has its internal construction indicated in the drawing. These boxes are so constructed that when not in use the circuit which passes through them stands normally open, and is only closed at such times as the box is in actual use. From each of these boxes a circuit-wire (marked *a*) is led to a common or base wire *a*′, which latter is carried down to the central office and enters the large dial-box C; and from each of said boxes a second wire a^2 is led down to said central office and connected to said large box C. Such is the ordinary way of running the circuits between the central office and the boxes in the several rooms.

A detailed description of the construction and mode of operation of the large box C is not necessary for present purposes, and the same is sufficiently illustrated in the diagram. The battery for energizing this circuit is shown at C′.

D is a separate switch-board provided with normally-open switches or push-buttons *d*′ d^2 d^3, one terminal of each of which is connected to a common wire *e*, which includes a buzzer E, and through this buzzer to a separate battery F. From the other pole of the battery is led a common or base wire *e*′, which is led up in proximity with all the chambers. From this common or base wire *e* are led wires e^2 into each chamber, connecting to an electro-magnetic alarm-bell G, and thence through a normally-closed switch or push-

button H to the wire a^2 of the particular room. At a point within the central office there is connected to each of the wires a^2 a branch e^3, leading back to the switch-board D, and connected there to the other terminals of the normally-open switches or push-buttons d' d^2 d^3. It will thus be seen that by the above system of circuits it is only necessary to supply between each chamber and the central office one individual wire a^2, running the whole distance from the chamber to the central office, and two common or base wires a' and e', instead of two individual wires and two base-wires.

The operation is as follows: In case the guest, say, in chamber B^2 desires to signal a want to the office, he accomplishes this by closing the circuit in the box 2. The current then flows from said box through the wire a to the common or base wire a', through this wire to the central box C and the battery C'; from the battery C' out of the box C by way of the individual wire a^2, back to the box 2. The signal having been thus received at the central office, the operator there or clerk, noting the number of the room, 2, closes the switch on the board D by pushing in the button d^2, which closes a circuit from the battery F through the buzzer E, causing the latter to sound continuously, through the wire e^3 connected to that button, through the wire a^2 to the wire e^3, shunting the box 2, because the circuit is now broken therein by reason of its operation having ceased. The circuit continues on the wire e^2 through the normally-closed switch H, through the electro-magnetic alarm-bell G, causing the same to ring continuously, to the common or base wire e', and thence back to the battery F. In case of morning calls, the operator in the central office, by closing the circuit at any one of the buttons d' d^2 d^3, will thus be able to ring the bell G in any one of the chambers continuously until the occupant is awakened, and all the time that the switch is thus closed the buzzer E will continue to give forth its sound also, and when the occupant is awakened he can signify that fact by pressing on the push-button H, which, by breaking the circuit, will cause both the bell and the buzzer to stop sounding.

I claim—

A system of hotel-annunciator circuit and apparatus, consisting of the combination of a central indicator-box C, its battery C', an annunciator-box in each chamber, in which the circuit stands open when the same is not in operation, individual wires a^2 from said boxes to the central indicator, a common or base wire a' from all of said boxes to said central indicator, the wires e' e^2 e^3, the switch-board D, the wire e, and the battery F, the normally-closed switch or push button H in each room, and the buzzer E, between the switch-board D and battery F, substantially as specified.

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