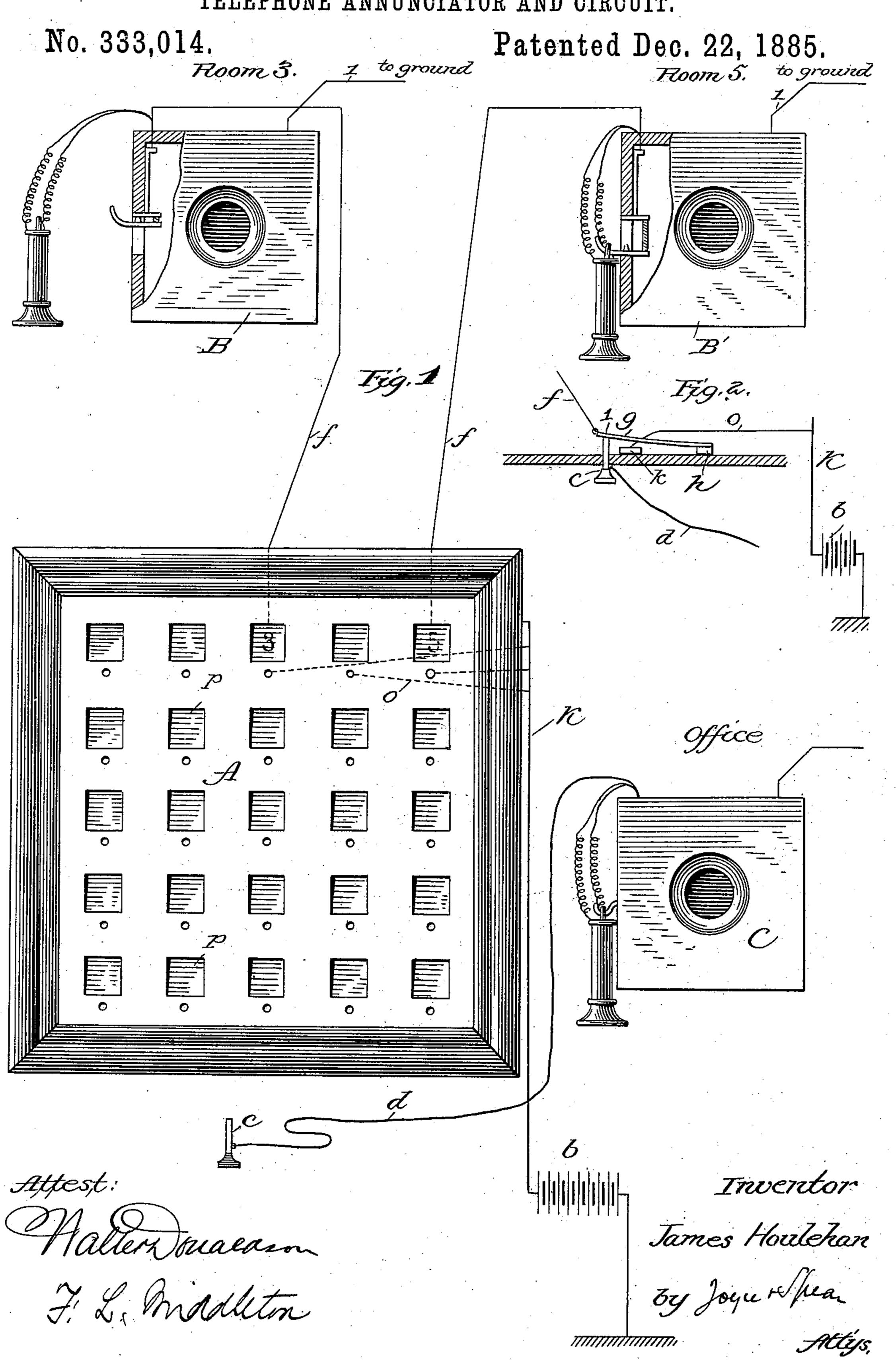
J. HOULEHAN.
TELEPHONE ANNUNCIATOR AND CIRCUIT.



United States Patent Office.

JAMES HOULEHAN, OF TOLEDO, OHIO, ASSIGNOR OF ONE-HALF TO WILL-IAM A. BUNTON, OF BOSTON, MASSACHUSETTS, AND SEVEN-SIXTEENTHS J. S. BARKER AND E. E. DWIGHT, OF TOLEDO, OHIO.

TELEPHONE ANNUNCIATOR AND CIRCUIT.

SPECIFICATION forming part of Letters Patent No. 333,014, dated December 22, 1885.

Application filed May 27, 1885. Serial No. 166,877. (No model.)

To all whom it may concern:

Be it known that I, James Houlehan, of Toledo, in the county of Lucas and State of Ohio, have invented a new and useful Im-5 provement in Telephone Annunciators and Circuits; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to an arrangement of 10 telephone annunciator and switch - board whereby the different rooms of a hotel may be connected with the office of the hotel or with any telephone-station outside the office.

My object is to enable the occupants of rooms r; of a hotel to have telephonic communication with the office, and at the same time to provide means whereby any room may be put in telephonic communication with any telephone station or instrument outside of the hotel.

In the accompanying drawings, Figure 1 represents a diagram of the invention. Fig. 2 shows certain details in plan view.

An annunciator-board, A, is fixed in convenient position in the office of the hotel, and 25 is provided with numbers, as shown, representing the various rooms. Ordinary telephones B and B' are placed in the rooms, and, as shown, are connected with the numbers on the board representing these rooms. These 30 telephones are in the wires 1 and f, the former leading to ground, and the latter to ground through point 35 on the board, and thence through battery b. The office-telephone is shown at C. It is in circuit with the ordinary 35 exchange. It is provided with a wire, d. connected with the telephone, having a metallic pin, c, on its free end, whereby the telephone | subscribing witnesses. C is put into the circuit with the telephone in the room. The wire f from every room-tele-

40 phone is connected to a spring, g, which is fixed at one end to a bar or other support, h. The free end extends under and bears up

against a bar, k, connecting, through wire o, the room-telephone electrically with the wire K, running to battery b. These, with the other 15 ground-connections of each room-telephone, complete the circuit thereof. The end 1 of each spring g is underneath the board and directly in line with the hole placed near each number, and when the pin c is inserted in a 50 hole its end presses the end of the spring qaway from the bar k, and thus the room-telephone is put into the circuit of the office-telephone, and the connection of the said roomtelephone with its own battery is broken. 55 The numbers of the board are provided with an ordinary cover, p, which is worked by the battery in the usual way to uncover the number and give notice of the room calling.

An electrical bell may be used to attract the 60 attention of the clerk when the person in any of the rooms desires to call the office. Thus any room of the hotel may not only be in telephonic communication with each other, but with the exchange of the city.

I claim as my invention—

In combination, an annunciator-board, A, having numbers for each room, a telephone in each room, connected to its appropriate number on the board by a wire, f, and spring 70 g, arranged in line with the hole in the board, the wire K, and battery b, with connections o, and bars k to each spring g, the office-telephone in an ordinary circuit, and the wire d and pin c, all arranged to operate substan- 75 tially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two

JAMES HOULEHAN.

Witnesses.

W. C. DUVALL, F. L. MIDDLETON.