

G. P. GREENE.
HOTEL CALL SYSTEM.

No. 474,907.

Patented May 17, 1892.

Fig. 1.

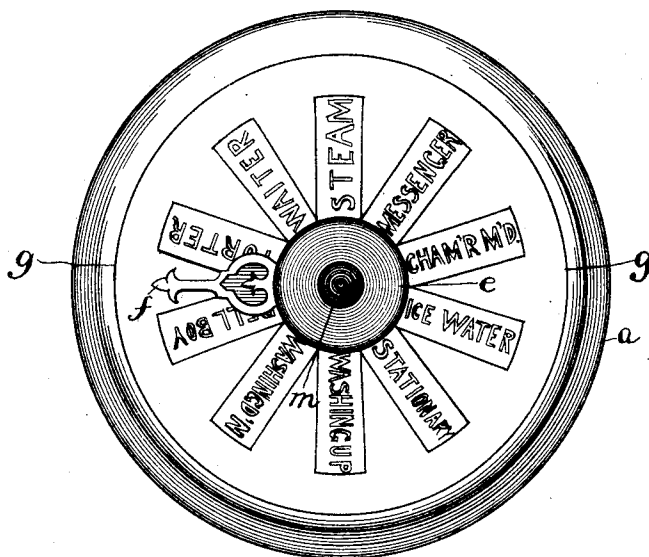
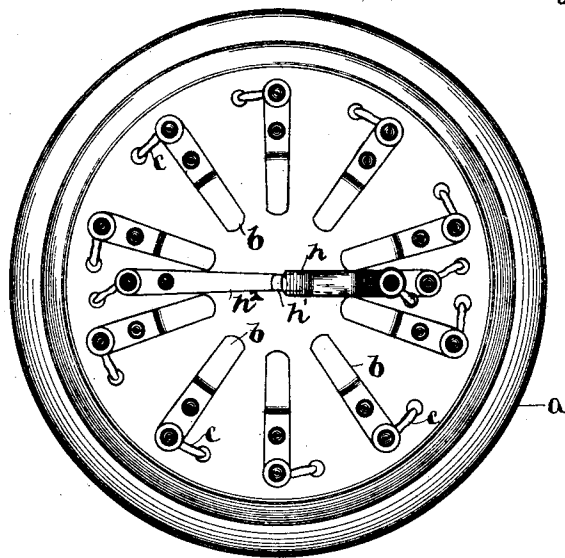
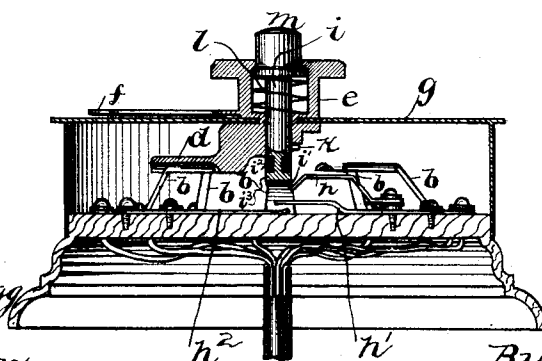


Fig. 2

Fig. 3



Witnesses:

George L. Bragg

George McMahon

Inventor

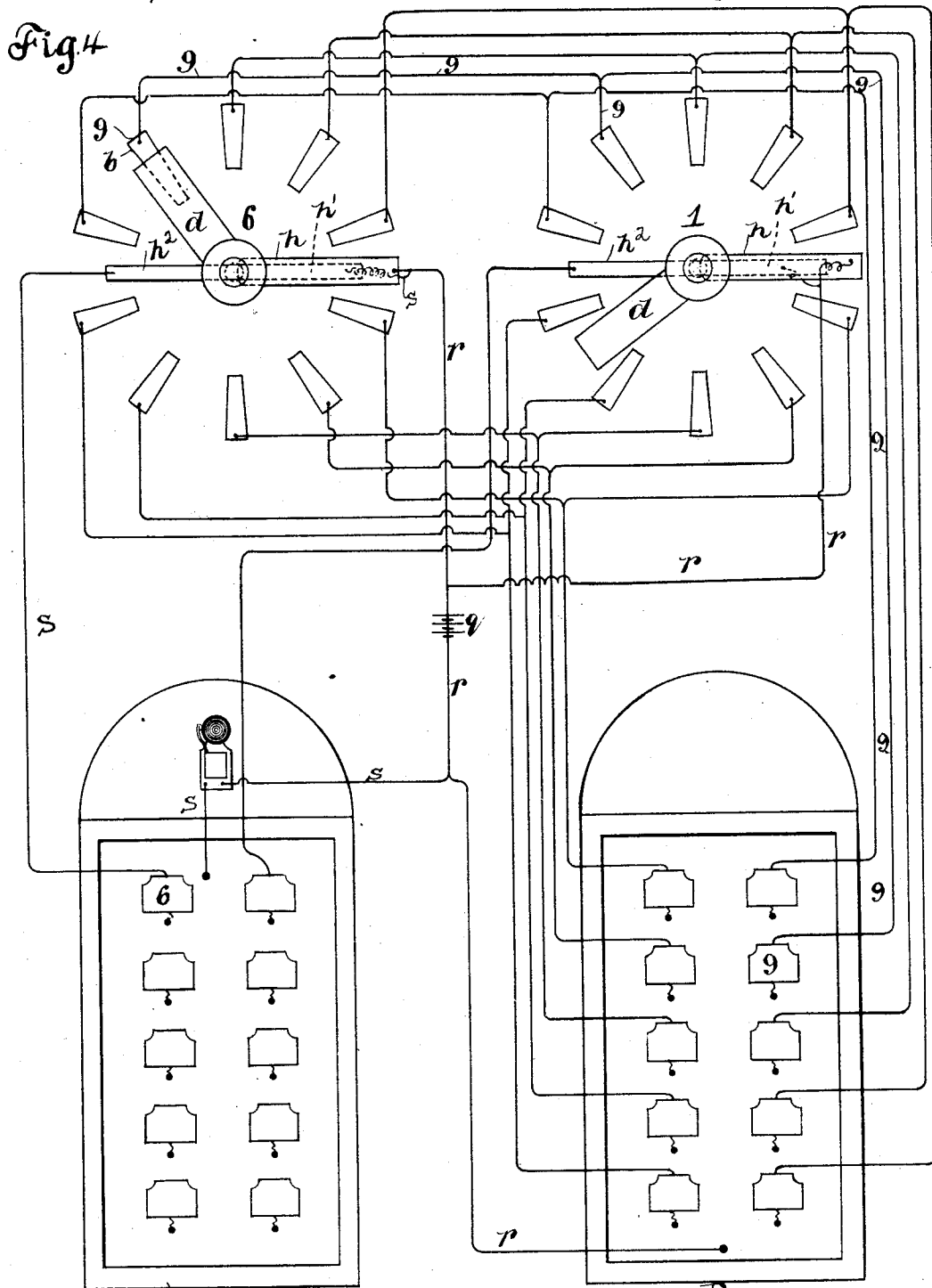
Grant P. Greene

By *Barton & Brown*
attys

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Witnesses:
George L. Cragg
George Mc Mahon.

Fig. 5
WITNESSES

Inventor:
Grant P. Greene
By Barton & Brown
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UNITED STATES PATENT OFFICE.

GRANT P. GREENE, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO
MYRON A. KNAPP, OF SAME PLACE.

HOTEL CALL SYSTEM.

SPECIFICATION forming part of Letters Patent No. 474,907, dated May 17, 1892.

Application filed October 31, 1891. Serial No. 410,476. (No model.)

To all whom it may concern:

Be it known that I, GRANT P. GREENE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Hotel Call Systems, (Case No. 1,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to a call system for hotels; and its object is to provide a system whereby each guest may by means of a dial and push-button indicate different services required upon the annunciator or annunciators placed in the hotel-office. When one annunciator is used, it is provided with a separate indication or number for each room and a special indication for each want or service required, these special indications serving for all the rooms in the hotel, and the circuits are so arranged that a guest upon operating the push-button and dial in his room indicates upon the annunciator the number of his room and also the particular service required, the particular service indicated being determined by the particular point of the dial in the room to which the indicator of the dial is directed before the push-button is pressed. When desired, the service-annunciator may be separate from the room-annunciator. The operation in either case is, however, the same.

My invention will be readily understood by reference to the accompanying drawings, which show a diagram of circuits and apparatus illustrative of my invention.

Figure 1 is an elevation of the interior of the dial with the cover removed as it appears when placed upon the wall of a room. Fig. 2 represents the cover of the dial with the services required indicated upon the face thereof. Fig. 3 is a section through the middle of the dial. Fig. 4 shows two of the dials with the circuits arranged as they would be if these two dials were placed in separate rooms in a hotel and connected with the annunciators, of which two are represented as being located in the office. Fig. 5 shows the dovetail groove in the room-dial in which the tickets indicating the services may be slipped.

Similar letters of reference are used to indicate similar parts of the device in the several figures.

The base of the dial *a* I preferably make of wood or some insulating material. The contact-springs *b b b* are preferably arranged in a circle upon the base *a*, and have a screw with washer for making connections with the wires *c c c*, which pass through the base *a*, and are connected electrically with the said contact-springs. These contact-springs are preferably crimped, so that they may bear against the arm *d*, which is rigidly fastened to the post *e*, to which is also fastened the pointer *f*, which is preferably directly over the arm *d* and pointing in the same direction. Post *e* is supported in the cover *g* of the dial, which I make, preferably, of metal, and rotates upon a perpendicular axis, so that the pointer may be brought to any desired point upon the face of the dial. The arm *d* will move with the pointer *f* and as it moves will make contact with the contact-springs *b b b*, which I preferably arrange to be directly under the name of the services shown on the face of the dial.

In the center of post *e* is the plunger *i*, in which is fastened the pin *k*, which serves to limit the upward or outward excursion of the plunger *i*, the spiral spring *l* tending to press the plunger *i* in an upward or outward direction. On the top of the plunger *i* is the button *m*, preferably of some insulating material. The arm *d* is preferably made with a longitudinal groove in its lower surface, which, resting upon the convex upper surface of the contact-springs *b b b*, serves to stop or hold the arm *d* upon the contact and to slightly resist any motion of the arm in either direction. This secures a definite point of rest for the plunger of the dial as it passes over the dial-face. I preferably make the base of the dial concave for the convenience of getting at and concealing the wires leading to the dial. The form of contact-closer which I prefer closes contact first in the circuit of the room-annunciator and then in the circuit of the service-annunciator, or vice versa, one circuit being open when the other is closed, thus avoiding the necessity of balancing the resistance of the circuits.

In the form shown in Fig. 3 the plunger has a tip i , of fiber or other insulating material. A sleeve of insulating material i^2 surrounds the plunger near its end. As the metallic surface i^3 of the plunger passes contact-spring h it makes contact therewith. Being still further depressed, it brings into contact the two springs h^2 and h' . When the contact is closed between h^2 and h' , the fiber-sleeve i^2 comes opposite the contact-spring h , thus opening the circuit. For convenience I arrange the face of the dial with slots, as shown in Fig. 5, into which tickets can be readily inserted and removed, indicating the service required. These tickets can thus be readily changed from one point to another or other names substituted for any of them at any time.

It is obvious that there are many other ways of constructing this apparatus to accomplish substantially the same results which I accomplish, and I do not wish to limit myself to the precise form of construction shown in the drawings.

In Fig. 4 we will consider that the dial apparatus indicated is located in rooms 1 and 6. The annunciator A is the room-annunciator placed in the office, and intended to indicate the number of the room from which the call is received. Annunciator B is the service-annunciator, also located in the office or at some convenient point and intended to indicate the service which is required.

To understand the operation of the apparatus, we will consider that point "9" of the dial represents, we will say, call for a waiter and that that is the service wanted. The pointer on the face of the dial is revolved until it points to the word "waiter." The arm d also revolves until it rests upon the contact-spring b . The push-button is then depressed and the plunger makes contact with spring h . The circuit is through the arm d to the contact-spring of No. 9, through the annunciator 9 upon the face of the service-annunciator ticket, through the wire r , the battery q , to the spring h , and so through the plunger and through the arm, completing the circuit. Still further depressing the push-button brings the springs h' and h^2 together, when the circuit is out through the wire s to the drop No. 6 on the room-annunciator, thence through the wire and the battery q back to the contact-spring h' , thus serving to throw the drop on the room-annunciator. The circuits which are successively closed by the depression of the plunger are respectively marked "9" "9" "9"

for the circuit leading to the want-annunciator and "S" "S" "S" for the circuit leading to the room-annunciator. The same operation would have the same result in any room, as is clearly shown by the drawings, Fig. 4.

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

1. In a call system, the combination of indicators arranged in two groups, one indicating the location from which a call is sent, the other the service required at such location, with a battery-wire leading to each of said locations from each of the two groups of indicators, and a call-wire leading to each of said locations from one of the annunciators, and service-wires connecting the indicators of the service-group with corresponding contact-closing devices in each of the rooms, and contact-closing devices by which circuit is closed from any one of the points indicating the service required first through the annunciator indicating a service and then through the annunciator indicating the location, substantially as and for the purpose specified.

2. In a call system, the combination, with indicators arranged in two groups, one group indicating the location from which the call is sent, the other the service required, of conductors whereby connections are made between the said groups of indicators, battery whereby the said indicators are operated, and contact-closing devices located at the points from which signals are to be sent, said contact devices consisting of a lever bearing upon contacts corresponding to the services required, and a push-button located in said lever adapted to close two circuits successively.

3. In a call-system, the combination, with two groups of indicators, one group representing the location from which the call is sent, the other the service required, of a circuit extending from each of the indicators of the service-group to a contact-point at each signaling-station, a circuit from each indicator of the location-group to each signaling-station, a common battery-wire connecting both groups of indicators with all the stations, and contact-closing devices whereby circuit is closed through indicators of the two groups successively.

In witness whereof I hereunto subscribe my name this 27th day of October, A. D. 1891.

GRANT P. GREENE.

Witnesses:

GEORGE L. CRAGG,
M. J. TALLETT.