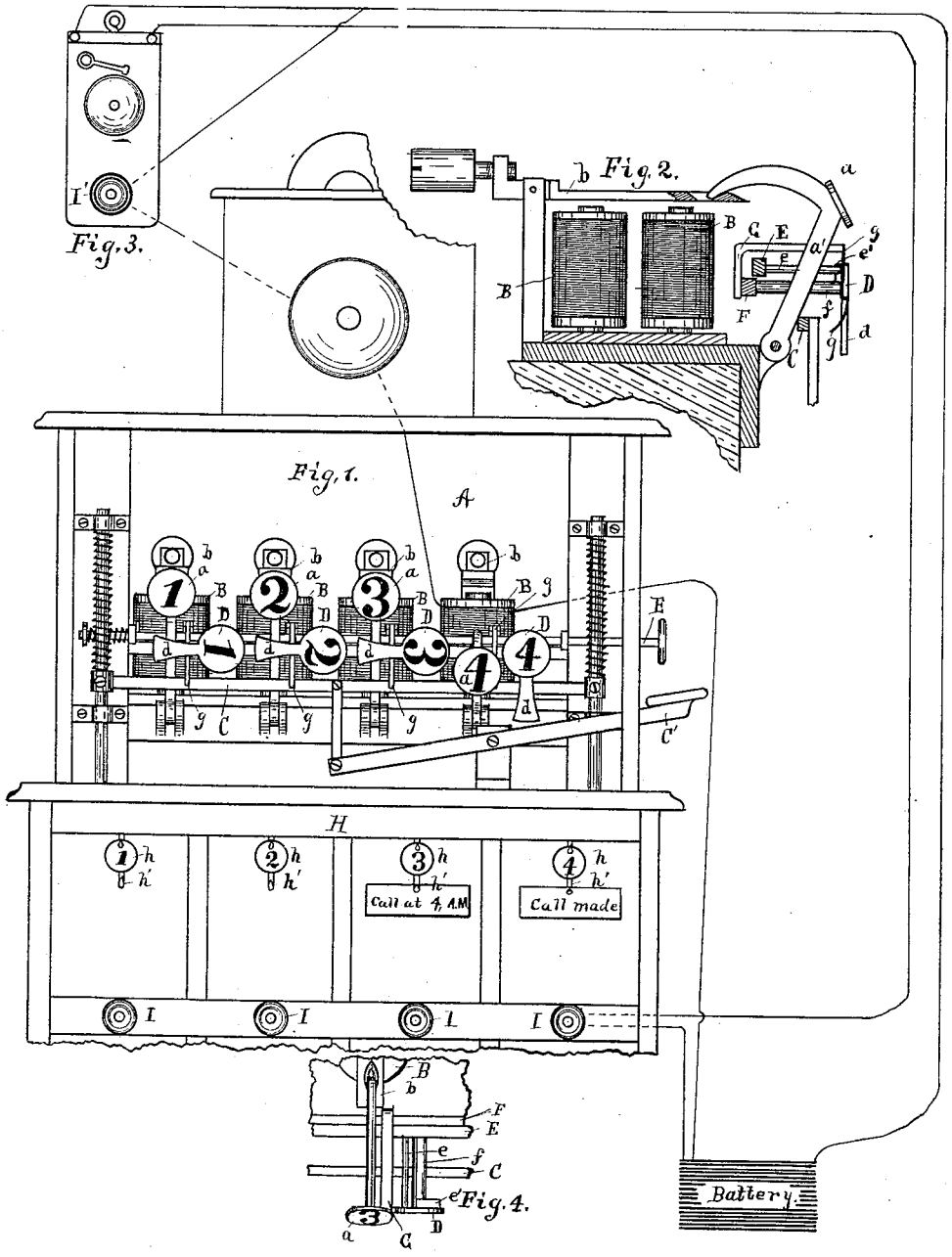
(No Model.)

J. C. McLAUGHLIN.

ELECTRICAL CALL SYSTEM.

No. 386,597. Patented July 24, 1888.



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UNITED STATES PATENT OFFICE.

JAMES C. McLAUGHLIN, OF KANSAS CITY, MISSOURI.

ELECTRICAL CALL SYSTEM.

SPECIFICATION forming part of Letters Patent No. 386,597, dated July 24, 1888.

Application filed April 9, 1887. Serial No. 234,248. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. McLAUGHLIN, a citizen of the United States, and a resident of Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Electrical Call Systems for Hotels, of which the following is a specification.

The invention consists in a system of separate calls connected to the ordinary annunciator system, so that the clerk may always know if a messenger is needed for any purpose. In my Patent No. 335,604 I provide a system by which the guest was bound to answer the call and register the fact that he had been awakened; but after the call was made and answered if calls were made from other rooms for any purpose the annunciator-drops could not be returned without destroying the register made by the guest who had answered his call. It was therefore necessary to let all drops which were thrown down by calls of any kind remain down, and the clerk when he heard a signal could not tell from the annunciator to what room the messenger should be sent. These difficulties are overcome by my present invention, and a record kept of the answer from the party or parties awakened, as will clearly appear from the following description of the annexed drawings, in which—

Figure 1 is a front elevation of my annunciator with the glass front removed. Fig. 2 is a vertical transverse section through the annunciator, taken between the magnets. Fig. 3 is a front elevation of the electrical bell and push-button, one of which is located in each room of the building. Fig. 4 is a detail plan view of one of the annunciator-drops, showing the means for setting the independent registers to their normal position.

The annunciator A, which is provided with the numbered drops *a*, magnets B, vibrating armature *b*, the spring-pressed bar C, and lever C′ for operating the bar to return the numbers to their normal position, differs in no essential respect from annunciators now in common use. A specific description of these features would therefore be superfluous; but in addition to these common features I have added the pivoted drops D, which are turned a quarter-revolution when one of the drops *a* is released by the guest making or answering a call, and remains in the changed position after the call-drop is returned in the usual manner and until it is returned to its normal position by the spring pull-rod E.

The independent registers D are pivoted on the ends of pins *f*, which project from a bar, F, which bar is secured transversely across the annunciator-case in front of the magnets. The registers D have pendants *d* projecting radially from them, which, when the registers D are in the normal position, as are those marked with the numerals 1, 2, and 3, project horizontally and in the path of the angle-levers *a′* of the drops *a*, so that when the guest makes or answers a call and one of the drops *a* falls it will rotate the register D, having a corresponding number, so that its pendant will be brought to a vertical position, as is seen at the right hand of the annunciator, where the drop numbered 4 has fallen and rotated the register No. 4 a quarter-revolution. Now it will be seen that the drop numbered 4 may be returned to its normal position by the spring-bar C, through the lever C′, without disturbing the registers D. The registers D are returned to their normal position by the spring-rod E, through pins *e*, which project from it to engage studs *e′*, which project from the back of the disks D, and are held in this position by light spring-latches *g*, which project down from brackets G, which brackets are secured to the bar F.

As shown, the annunciator-case A is placed on top of the key-compartment H. These compartments are numbered consecutively to correspond with the number of the rooms and of the drops and registers of the annunciator, and under each key-compartment is a push-button, I, by which the bell, Fig. 3, in the room is sounded and the guest awakened at the proper time. There is also on the bell-case a push-button, I′; but this may be located, if desired, in any other convenient location in the room. This is the common push-button used for calling a messenger to the room or announcing to the clerk by means of the annunciator that a messenger is needed. The numbered disks *h* are hung at the top of the key-compartments, each having a hook, *h′*, upon which a card is hung indicating the time a guest in any particular room is to be called. For instance, at room No. 3 it appears that

the guest is to be called at 4 o'clock a. m. When the call is made and the guest answers, then the card is reversed, showing that the call was made, and that fact may be printed on the back of the card, as at key-compartment No. 4. The register D in No. 4 shows that the call has been made, and it will therefore remain in the position shown, as will all of the registers connected with rooms in which calls have been made until after the last call has been made.

The drops and pivoted registers in the annunciator can only be operated from the rooms, so that when a guest has been awakened and answers, his answer is registered by himself, and there can be no dispute about his having been called. If he does not answer when called, then the clerk can send a messenger to ascertain the cause.

It will be seen that during the day, or until the first call is to be made, the registers D may be returned to their normal position after each call from any of the rooms, and that after a call is made and registered the drops *a* may be returned to their upper or normal position without disturbing the registers D.

I have shown my improvement attached to one of the many kinds of annunciators. It will require only ordinary mechanical skill to apply it to any of the well-known electrical annunciators. It is also evident that any well-known means may be employed to return the drops and registers to their normal positions without departing from the principle of my invention.

I claim—

1. In an electrical annunciator, the combination of the call-drops, a movable actuating-bar to return said drops to their normal position, and registers disconnected from said drops and actuating-bar, but arranged in the path of said drops, so as to be thrown from their normal position as the drops fall, substantially as shown and described.

2. The combination, substantially as specified, of an electrical annunciator provided with call-drops, a bell and a push-button in each room electrically connected with said annunciator, a system of registers separate from the call-drops, but arranged to be thrown from their normal position by said drops, a pull-rod to return the registers to their normal position, and push-buttons located in the office or other central station and in electrical connection with the bells, for sounding an alarm in any room from the office, as set forth.

3. The combination, substantially as specified, of the annunciator A, provided with call-drops *a a'*, electrical connections and appliances for releasing the same from the different rooms, and means for returning the said drops to their normal position, with the pivoted registers D, having pendants *d* arranged in the path of the drops *a a'* when in their normal position, the spring-latches *g*, to retain the said registers in their normal position, and the spring-pull E, pins *e*, and studs *e'*, to return the registers D to their normal position.

4. The combination, substantially as specified, of the electrical annunciator A, provided with the call drop *a*, the pivoted registers D, having pendants *d*, and studs *e'*, arranged to be actuated by the call-drops, and the spring-pull E, having pins *e* for the purpose of returning the registers to their normal position.

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