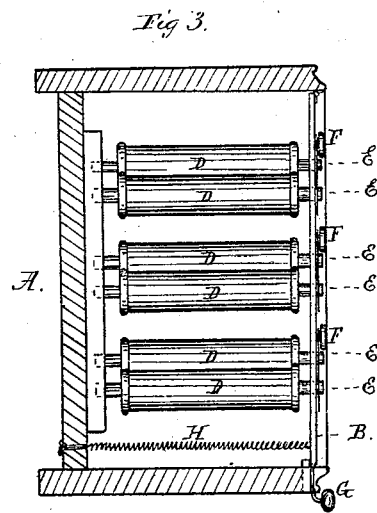
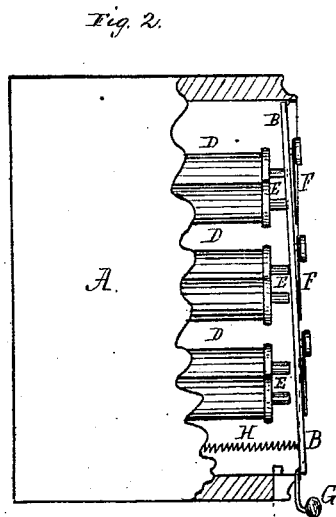
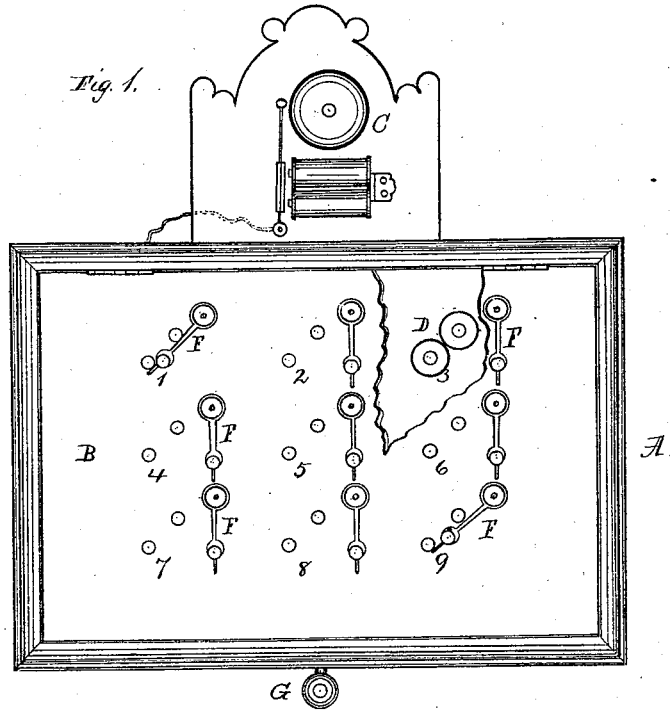


F. S. CARTER & C. B. HEWITT.
Electric Annunciator.

No. 159,901.

Patented Feb. 16, 1875.



Witnesses:
Jacob E. Schiedt
Mary M. Medersheim

Inventors:
Franklin S. Carter,
Charles B. Hewitt,
by *J. W. Addicksheim*
att'y.

UNITED STATES PATENT OFFICE.

FRANKLIN S. CARTER AND CHARLES B. HEWITT, OF BURLINGTON, NEW JERSEY, ASSIGNORS, BY MESNE ASSIGNMENTS, TO PARTRICK, BUNNELL & CO., OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN ELECTRIC ANNUNCIATORS.

Specification forming part of Letters Patent No. 159,901, dated February 16, 1875; application filed July 31, 1874.

To all whom it may concern:

Be it known that we, FRANKLIN S. CARTER and CHARLES B. HEWITT, of Burlington, in the county of Burlington and State of New Jersey, have invented a new and useful Improvement in Electric Annunciators; and we do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which our invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a front view partly broken away, of the device embodying our invention. Fig. 2 is an end view thereof, partly broken away. Fig. 3 is an end view of the interior thereof.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in a suspended needle, magnets, and dial, arranged and operating relatively to each other to form a simple electric annunciator. It also consists in mechanism for tripping or releasing the needle.

Referring to the drawings, A represents a casing, having a dial or face-plate, B, with numbers and names of rooms printed or otherwise indicated thereon, and C represents an electric bell or gong, arranged on the casing or elsewhere, for sounding the alarm or directing attention to the annunciator. Within the casing are arranged, in pairs, a series of magnets, D D, which are located side by side, somewhat diagonally, and their cores E E project beyond the magnets, and through openings in the dial B, so as to appear on said dial. From the face of the dial are suspended needles F, which are arranged thereon to vibrate to and from the cores of the magnets nearest to said needles.

The rooms of the hotel, or other place of application of the annunciator, communicate with the latter by suitable wires, and the magnets of the gong and magnets of the needles are so attached to the wires that they will be simultaneously charged with electricity.

When the guest or occupant of a room

wishes to operate the annunciator, he presses the key in his room, thereby causing a current of electricity to pass to the magnets D. This attracts the corresponding or adjacent needle, and draws it in contact with the cores of the relative magnets. At the same time the current passes to the magnets of the bell and sounds the alarm.

The numbers or names of the rooms marked on the dial are so disposed, in relation to the needles and magnets, that the needle which is vibrated points to the number or name of the room in which the key is located or the connection is formed.

The magnetism of the needle now causes it to adhere to the cores to which it was attracted, and thus the clerk, servant, or other party may readily observe the location of the room where he is required.

In order to trip or release the needle, and cause it to return to its original position, the dial may be hinged at one end, and vibrate on said end as an axis, or the magnets may be similarly adapted, or a sliding motion may be imparted to either the magnets or dial.

A handle, G, is secured to either of the movable parts, and, by drawing thereon, the dial will be forced from the magnets and clear the cores, or the magnets will be drawn from the dial, and thus carry the core with them, so as to be free from said dial. In either case the needle loses its means of support—that is to say, is disengaged from the magnets by the superior power exerted on the handle G, and thus the needle falls by its own weight.

The magnets or dial then return, or are returned, to their original position, which operation may be assisted by a spring, H, suitably arranged.

Thus a simple device is produced, wherein we dispense with spring-armatures and complicated tripping apparatus.

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

1. A dial with perforations, and the magnets with cores projecting through said per-

forations on the face thereof, in combination with pointer-needles, whose pivots are directly on the dial, forming together an improvement in electric annunciators, as set forth.

2. The tripping mechanism, consisting of the movable magnets or movable dial, operating to release the needle, substantially in the manner and for the purpose described.

The above signed by us this 3d day of September, 1872.

FRANKLIN S. CARTER.
CHARLES B. HEWITT.

Witnesses:

JOHN A. WIEDERSHEIM,
HARRY M. WIEDERSHEIM.