

O. HAGENDORF.

Electro-Magnetic Annunciators for Hotels, &c.

No. 134,053.

Patented Dec. 17, 1872.

Fig. 1.

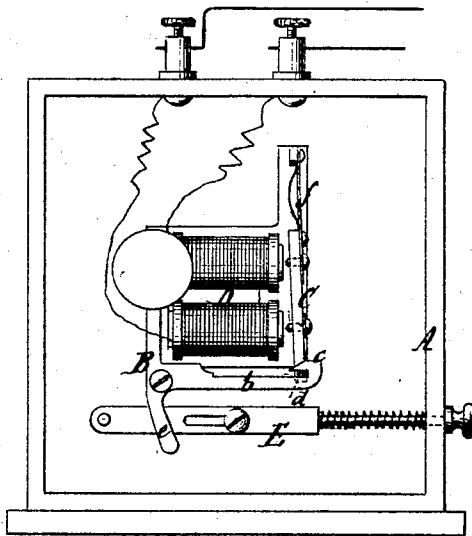


Fig. 2.

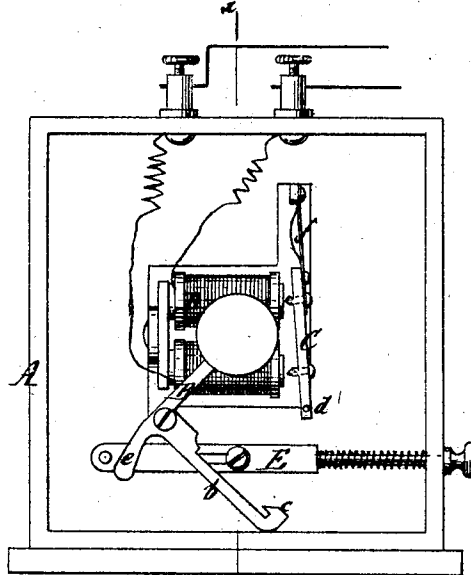


Fig. 4.

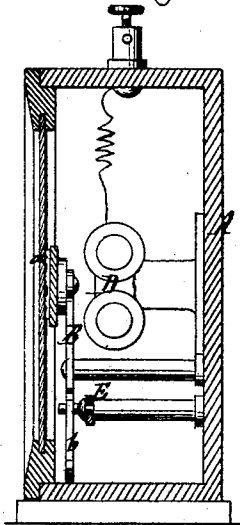
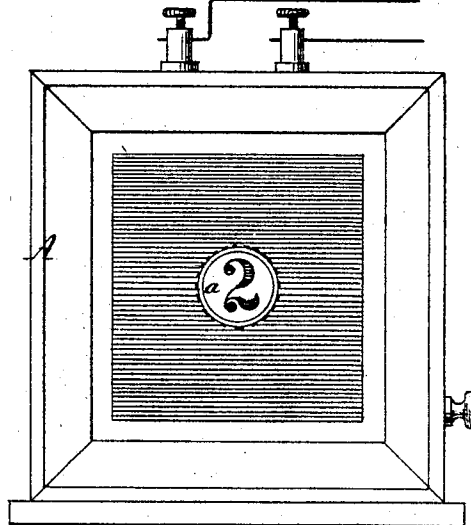


Fig. 3.



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IMPROVEMENT IN ELECTRO-MAGNETIC ANNUNCIATORS FOR HOTELS, &c.

Specification forming part of Letters Patent No. 134,053, dated December 17, 1872.

To all whom it may concern:

Be it known that I, OTTO HAGENDORF, of the city, county, and State of New York, have invented a new and Improved Electro-Magnetic Hotel-Annunciator; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which drawing—

Figure 1 represents a front view of the working parts when the announcing-disk is turned back; Fig. 2 is a similar view of the same when the announcing-disk is dropped in position to exhibit its figure; Fig. 3 is a face view of my apparatus complete; and Fig. 4 is a transverse section of the same in the plane *x x*, Fig. 2.

Similar letters indicate corresponding parts.

This invention consists in the arrangement of an announcing-disk on a lever, which, when left to follow its own gravity, drops in such a position that the announcing-disk is brought behind a figure painted in dark color on a transparent surface, and that by bringing said disk in this position the figure is rendered plainly visible. With the announcing-disk lever is combined a recovering-slide and the armature of an electro-magnet, and if the recovering-slide is moved in the proper direction the announcing-disk lever catches over a pin projecting from the armature, and thereby the announcing-disk is locked back until the circuit through the electro-magnet is closed. The spring of the armature is constructed of a straight and a curved strip, so that it is capable of withstanding the various strains to which it is exposed.

In the drawing, the letter *A* designates a box, which incloses the working mechanism of my annunciator. The front or face of this box is made of glass, or other transparent material, which is painted black on its inside, with the exception of spaces *a*, on which are painted the figures of the several rooms in dark colors, (see Figs. 3 and 4.) If the box is secured to the wall these figures are not visible unless a light object is brought behind the space or spaces *a* of such figures as are to be exhibited. This light object I have termed the announcing-disk in my apparatus,

and this disk is mounted on a lever, *B*, which is hung in such a manner that, when it is left to follow its inherent gravity, it drops in the position shown in Fig. 2, carrying the announcing-disk behind the space *a*, Fig. 3. From the lever *B* extends an arm, *b*, which is provided with a hook, *c*, intended to catch over a pin, *d*, that projects from the edge of the armature *C* of an electro-magnet, *D*, and by this pin the lever *B* is retained in the position shown in Fig. 1, throwing the announcing-disk back out of the way of the space *a*, and consequently the figure on said space is not visible.

As soon as the circuit through the electro-magnet is closed, the armature *C* is attracted, the lever *B* is released, and the disk drops down in its announcing position.

With the levers *B* of the several announcing-disks is combined a recovering-slide, *E*, which, when pulled out, acts on the tail *e* of each lever and carries the same back to its locking position, the hooks *c* being so constructed that they catch automatically over the locking-pins of the armatures whenever the recovering-slide is pulled back far enough.

The armature *C* is secured to a spring, *f*, which is composed of a straight and a curved strip of sheet metal, and which, on account of this peculiar construction, is rendered durable and not liable to lose its elasticity, as it is strained in various directions by the electro-magnet and by the hook of the lever *B*.

The circuit through each of the electro-magnets of my hotel-annunciator is closed by pulling or turning a suitable key arranged for this purpose in each room of the hotel. Whenever this key is set in motion in one of the rooms, the announcing-disk corresponding to the figure or number of said room is allowed to drop, and the number of the room is rendered visible. The recovering-slide acts on all the levers of those announcing-disks which have been dropped.

If desired, the figures or numbers may be made on the announcing-disk, and the spaces *a*, in this case, are left blank.

What I claim as new, and desire to secure by Letters Patent, is—

1. In an electric-annunciator, a bell-crank or T-shaped lever, *B*, or its equivalent, provided

with an announcing-disk, arranged to be locked by the armature of an electro-magnet and to drop, when released, to an announcing position by gravity, substantially as described.

2. In an electric-annunciator, a spring constructed of a straight and a curved strip of sheet metal, in combination with the armature of an electro-magnet, substantially as set forth.

3. In an electric-annunciator, the combination of a spring constructed of a straight and a curved strip of sheet metal, essentially such as described, with the armature of an electro-

magnet and a lever carrying an announcing-disk, substantially as set forth.

4. In an electric-annunciator, a bell-crank or T-shaped lever, or its equivalent, provided with a tail, *e*, in combination with a recovering-slide, *E*, substantially as and for the purpose set forth.

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Witnesses:

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