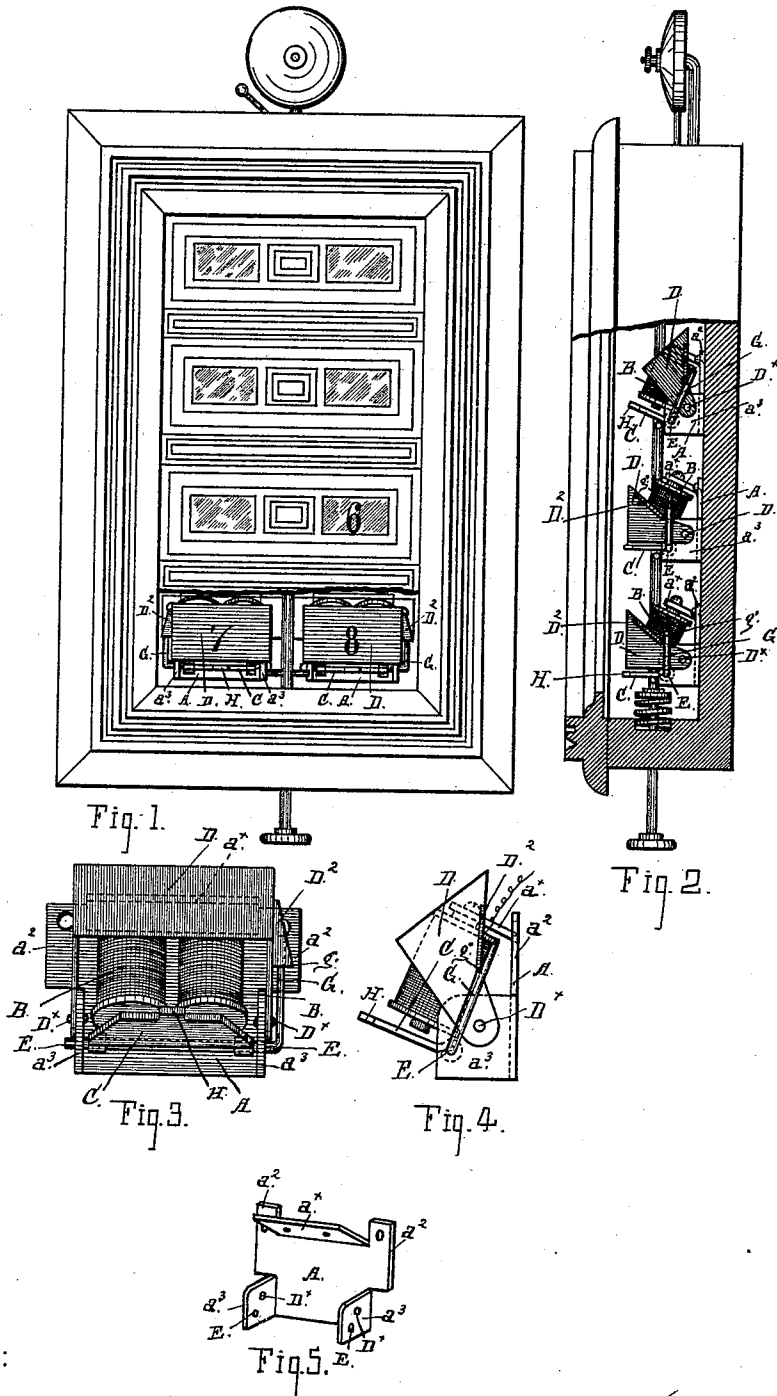


(No Model.)

F. C. COLVILLE.
ELECTRIC ANNUNCIATOR.

No. 466,063.

Patented Dec. 29, 1891.



Witnesses:

Wm. Mayer
G. M. Chaudet

Inventor:

Frank C. Colville
By Smith & Babon
Att'y's.

UNITED STATES PATENT OFFICE.

FRANK C. COLVILLE, OF OAKLAND, CALIFORNIA.

ELECTRIC ANNUNCIATOR.

SPECIFICATION forming part of Letters Patent No. 466,063, dated December 29, 1891.

Application filed March 26, 1891. Serial No. 386,451. (No model.)

To all whom it may concern:

Be it known that I, FRANK C. COLVILLE, a citizen of the United States, residing in Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Electric Annunciators, of which the following is a specification.

My invention has for its object to produce a curtain tripping or releasing mechanism for drop-curtains, in electric annunciators that shall be more sensitive and capable of being worked with less battery-power than other known constructions, and also to bring the parts into compact form and small compass for greater economy of space in the case. To such ends and objects I construct and produce a gravity drop-curtain and mechanism, substantially as hereinafter explained and set forth, the accompanying drawings, forming part of this specification, being referred to by letters.

Figure 1 represents in front view a case containing a number of indicators with a portion of the front broken away to expose parts inside. Fig. 2 is a side elevation with the case broken away. Fig. 3 represents in front view and on a larger scale one of the drop-curtains and its mechanism. Fig. 4 is a side view of Fig. 3, and Fig. 5 represents the base-plate with the parts removed.

A indicates the base plate or part on which the magnets, armature, and drop-curtain are mounted.

B B are the magnets, C the armature, and D the drop-curtain.

The base-plate is cut out of a single piece of galvanized iron in suitable shape to furnish a bridge a^x across the top, ears or projections a^2 at either side for screws to fix the plate in the case, and extensions or brackets a^3 a^3 for the pivot E of the armature and those D^x on which the curtain is hung.

Both the base-plate and the armature are made of galvanized or tinned iron for the purpose of avoiding or overcoming residual magnetism after the current is cut off.

The curtain-pivots D^x are so set that the principal weight of the curtain is on the front sides of the pivots, and it drops by its own weight when released.

The holding mechanism or catch is formed by bending up the pivot-wire on one side of the armature, outside the bracket, into upright position to engage or take under a lip or projection D² on the side of the curtain. A notch or seat g is formed on this rod G at or near the upper end to receive the bottom edge of the lip or part D², while the lower end of the rod, being bent or turned horizontally to pass through the bracket, enters or is fixed in the armature to be fixed by that part. It will be seen from the position in which the magnets are set in the base-plate, they being inclined backward, that the armature stands at an inclination from the vertical when drawn to the magnet, and consequently when released its weight acts in the most favorable manner to throw the rod or catch G from beneath the curtain-catch. This position of the magnets also requires less depth of room than if the magnets were placed upright, and also permits the curtain to work more closely to the magnets and with less drop or extent of movement. The catch thus produced is extremely sensitive, as a small movement of the rod G at the armature end is multiplied at the point g , where the lip of the curtain is seated, and consequently a slight movement of the armature serves to throw the upper end of the rod clear of the catch and release the curtain. A tongue or projection H is formed on the front edge of the armature, setting outward in the path of the curtain, and as that part drops its momentum is utilized to carry the armature down should it be held by residual magnetism to the poles of the magnet. A number of these drops is arranged in a case in the usual manner behind sight-openings, and the proper numbers or signals are painted on the front of the curtains.

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

1. The base-plate A, having the forwardly-inclined bridge a^x for the magnet-spool, the ears or lugs, and the side brackets, substantially as described.

2. In an electric annunciator, the combination, with an electric drop-curtain, of the piv-

oted armature and catch wire or rod forming the pivot or center on which the armature is hung and having a notch or shoulder to engage the curtain.

- 5 3. In combination with the drop-curtain in an electric annunciator, the upwardly-bent catch wire or rod adapted to engage the curtain at the upper part and forming also a

pivot for the armature or fixed to that part at the center of movement, as described. 10

In testimony that I claim the foregoing I have hereunto set my hand and seal.

FRANK C. COLVILLE. [L. S.]

Witnesses:

C. W. M. SMITH,
CHAS. E. KELLY.