

H. J. HEENEY.
ANNUNCIATOR.
APPLICATION FILED OCT. 12, 1910.

1,065,683.

Patented June 24, 1913.

2 SHEETS—SHEET 1.

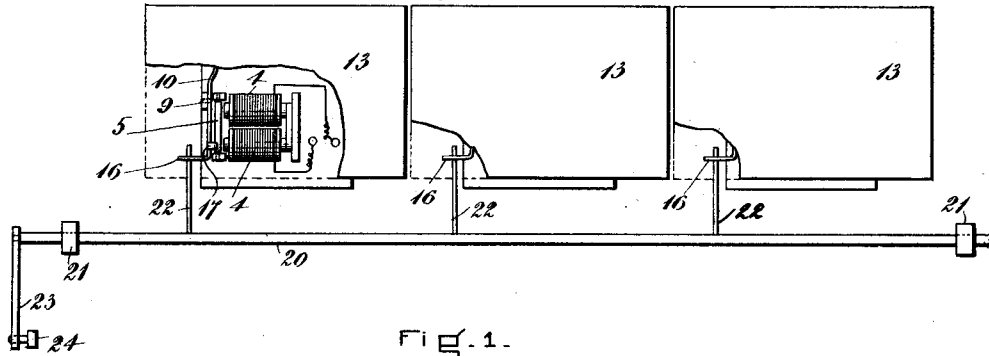


Fig. 1.

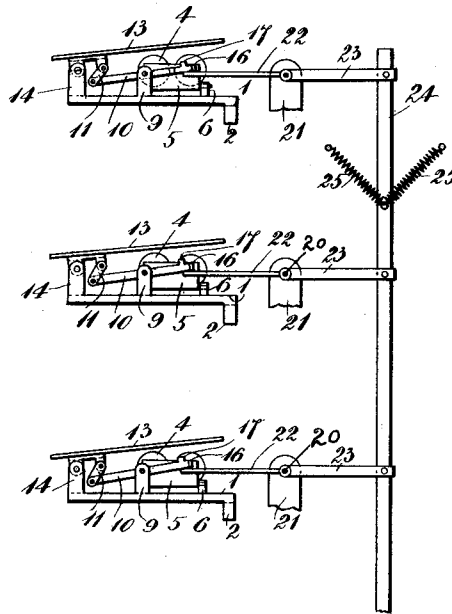


Fig. 2.

WITNESSES:

Patrick J. Conroy.
E. B. Tomlinson.

INVENTOR:

Henry J. Heenev
by Browne & Woodworth
Attys.

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2 SHEETS-SHEET 2.

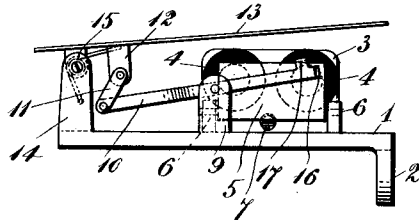


Fig. 3.

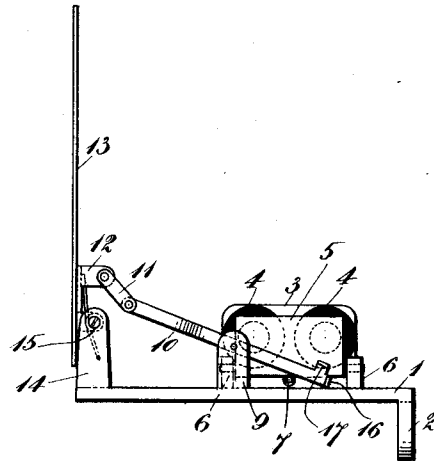


Fig. 4.

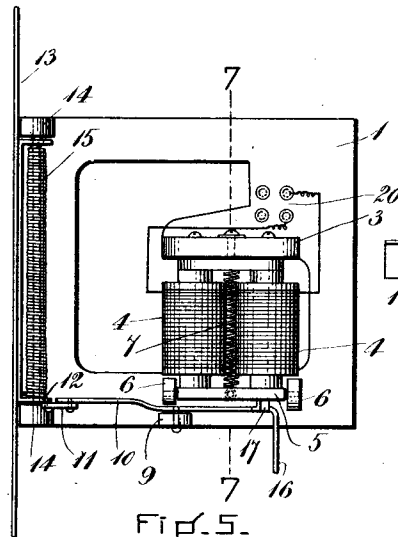


Fig. 5.

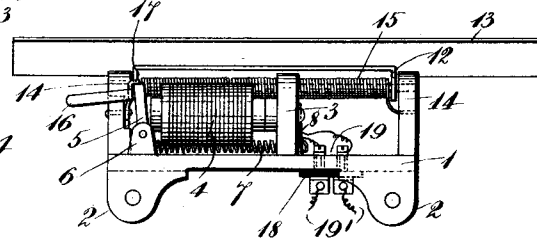


Fig. 6.

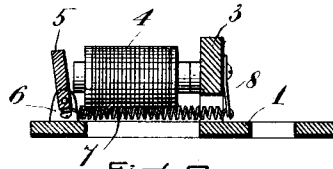


Fig. 7.

WITNESSES:
Patrick J. Conroy
E. B. Tomlinson

INVENTOR=
Henry J. Heeney
by *Browne & Woodworth*
Attys.

UNITED STATES PATENT OFFICE.

HENRY J. HEENEY, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HOLTZER-CABOT
ELECTRIC COMPANY, OF BROOKLINE, MASSACHUSETTS.

ANNUNCIATOR.

1,065,683.

Specification of Letters Patent.

Patented June 24, 1913.

Application filed October 12, 1910. Serial No. 586,738.

To all whom it may concern:

Be it known that I, HENRY J. HEENEY, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Annunciators, of which the following is a specification.

My invention relates to annunciators and its objects are to provide an annunciator wherein a large target may be released by a small electromagnet and to provide means whereby the targets of a bank of such annunciators may be simultaneously set by mechanical means.

The drawings which accompany and form a part of this specification illustrate one embodiment of my invention.

In the drawings, Figure 1 is a plan view of a plurality of annunciators provided with mechanical setting means. Fig. 2 is an end view of the arrangement shown in Fig. 1. Fig. 3 is a side view of a single annunciator with the target set or in unexposed position. Fig. 4 is a side view with the target released or in exposed position. Fig. 5 is a plan view with the target released. Fig. 6 is an end view with the target set. Fig. 7 is a section on the line 7 7 of Fig. 5.

In the particular drawing selected for more fully disclosing my invention, 1 represents a base of suitable material provided with a flange 2 for attaching the same to a support. The base is provided with the support 3 and standard 9 which may be integral therewith. The cores of the electromagnets 4 are secured to said support and cooperate with the armature 5 pivoted in the brackets 6, 6, which also may be integral with said base. The armature is normally held in retracted position by suitable resilient means such as the spring 7, one end of which is connected with the armature below its pivot and the other end to an appropriate stationary member, such for example, as the pin 8 which is secured to the support 3. The lever 10, pivoted to the standard 9, is suitably connected with the target 13, and in the present instance I have shown such connection as consisting of the link 11 pivoted to one end of said lever and to the lug 12 which is integral with said target. The target is shown in the present instance as pivoted in the brackets 14, 14, and suitable

resilient means such as the spring 15 is arranged to throw the target in substantially vertical or exposed position when the outer end of the lever is free. A catch 17 on the lever near its outer end is arranged to cooperate with the upper edge of the armature as shown in Figs. 3 and 6 when the latter is in restricted position so as to retain the target in its unexposed or substantially horizontal position until the armature is attracted and the spring 15 moves the target to the position shown in Fig. 4.

The terminals of the electromagnets are connected to the posts 19 and the latter are connected to the terminals 19' secured to the under side of the base by the insulating plate 18.

The outer end of the lever is provided with the finger 16 whereby said end of the lever may be moved upwardly and the catch placed in retaining position over the armature.

Annunciators of this type are employed in banks consisting of a number of rows, as shown in Figs. 1 and 2, each row comprising a number of annunciators, so that it is desirable to set all the targets by a single movement. One arrangement of apparatus for accomplishing this result consists, as shown, of the rods 20 pivoted in the brackets 21, 21, and provided with a series of pins 22, each of which is arranged to cooperate with one of the fingers 16, so that when the target is exposed and the lever 10 occupies the position shown in Fig. 3, a partial rotation of said rod 20 will cause the pins to contact the fingers and thereby raise the outer ends of the levers so that the catches may be placed in position over their respective armatures. A convenient way of simultaneously imparting such partial rotation to said rods 20 consists, as shown, of the upright rod 24 pivoted to the cranks 23, each of which is rigidly secured to one of the rods 20. The vertical rod may be provided as shown with retracting springs 25, so that after it has been drawn downwardly to set the targets, the springs will bring it back to its normal position.

It will be understood that while I have described in detail one particular embodiment of my invention, I do not wish to limit myself specifically thereto, inasmuch as many modifications may be made therein by

those skilled in the art without departing from the principle of my invention.

I claim:

1. In an annunciator, a target, resilient
5 means for moving the same to vertical or exposed position, an electromagnet, an armature therefor, a lever, a link pivoted to said target and to one end of said lever, and a catch on said lever, said catch being arranged to coöperate with said armature for
10 holding said target in horizontal or unexposed position.

2. In an annunciator, a target, resilient
15 means for moving the same to substantially vertical or exposed position, an electromagnet, an armature therefor, a lever connected with said target, and a catch on said lever, said catch being arranged to coöperate with said armature for holding said target in

substantially horizontal or unexposed position.

3. In an annunciator, a pivoted target, resilient means for moving the same to exposed position, an electromagnet having its axis parallel to a line passing through the
25 pivots of said target, an armature for said electromagnet, a lever at right angles to the axis of said electromagnet, and a catch on said lever, said catch being arranged to coöperate with said armature for holding said
30 target in unexposed position.

In testimony whereof, I have hereunto subscribed my name this 11th day of October, 1910.

HENRY J. HEENEY.

Witnesses:

E. B. TOMLINSON,
GEO. K. WOODWORTH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."