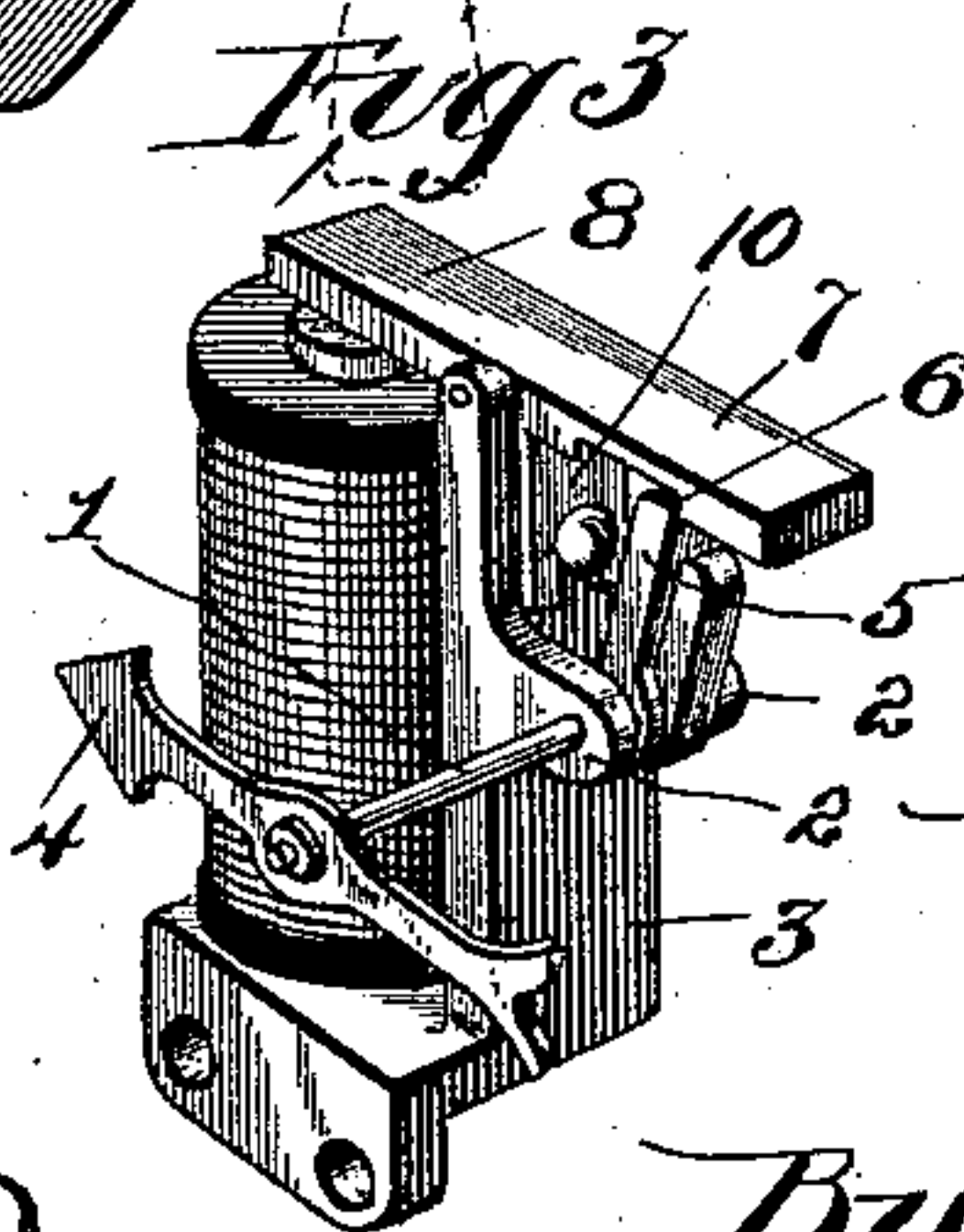
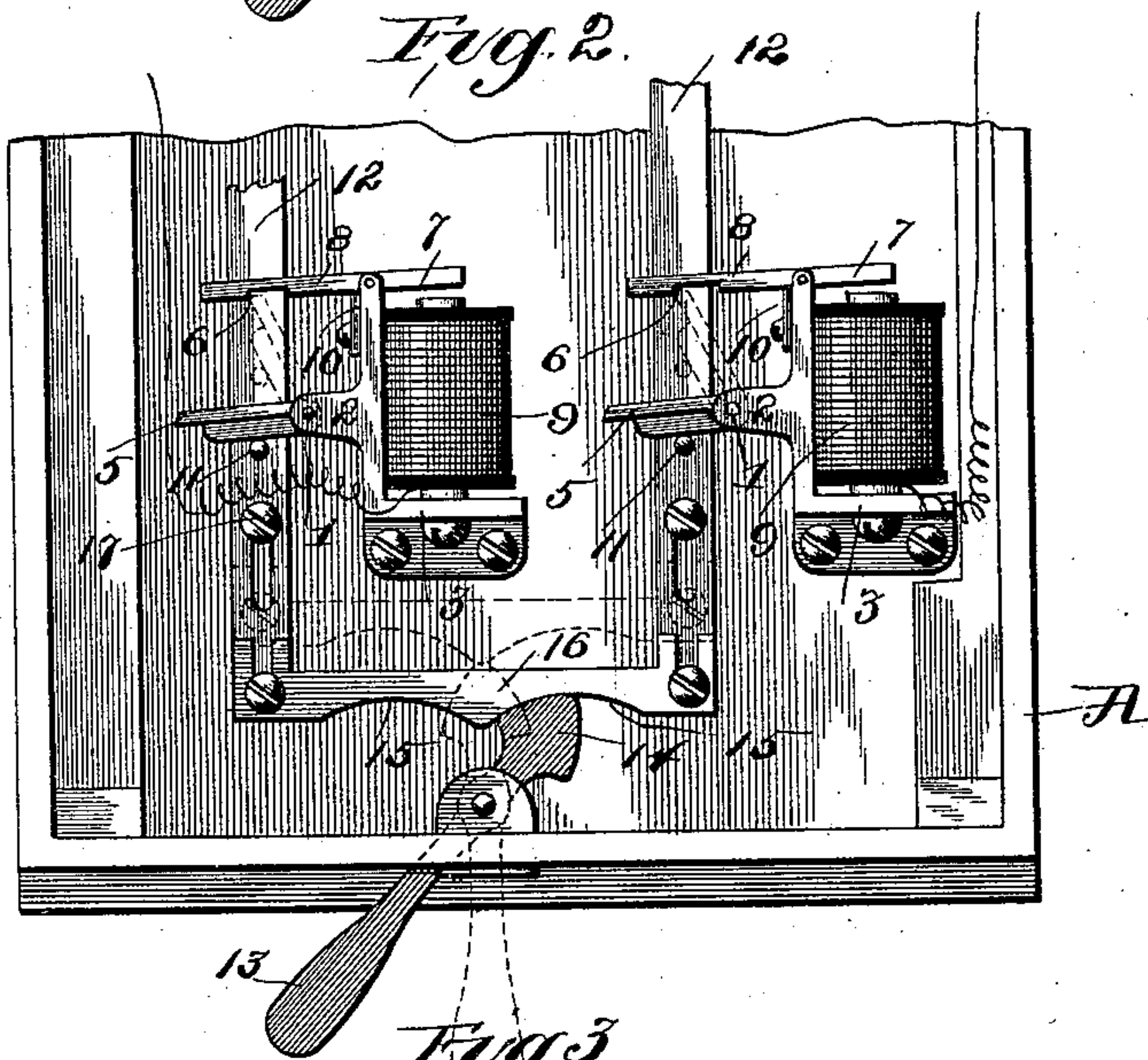
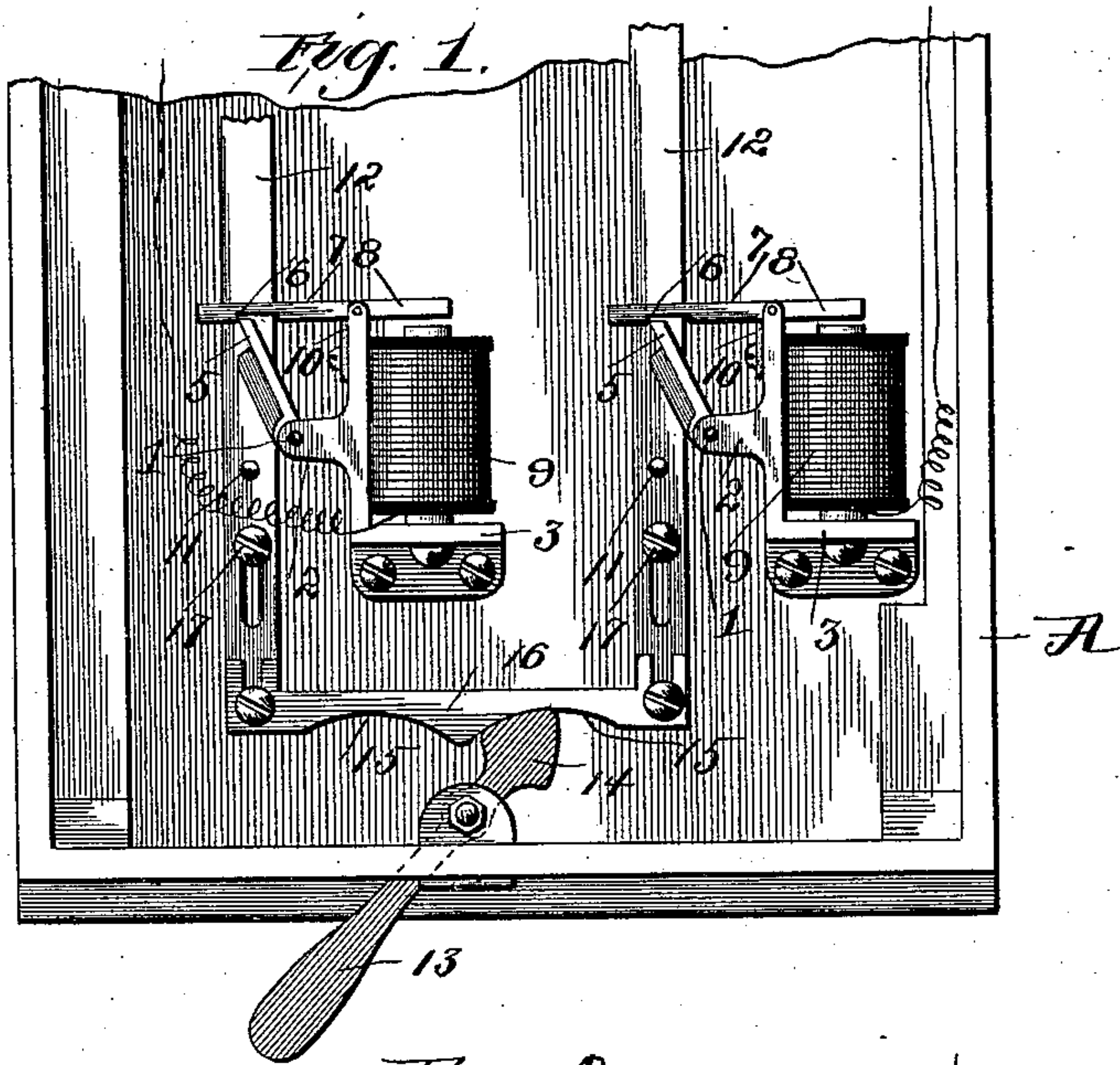


(No Model.)

C. MOLITOR.
ELECTRIC ANNUNCIATOR.

No. 466,357.

Patented Jan. 5, 1892.



Witnesses
Otto Lubbert.
W. J. Ford.

Inventor
Charles Molitor

By *John H. Kennedy* *Attys*

UNITED STATES PATENT OFFICE.

CHARLES MOLITOR, OF CHICAGO, ILLINOIS.

ELECTRIC ANNUNCIATOR.

SPECIFICATION forming part of Letters Patent No. 466,357, dated January 5, 1892.

Application filed September 14, 1891. Serial No. 405,574. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MOLITOR, a subject of the Emperor of Germany, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Electric Annunciators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a novel construction in electric annunciators, the object being to provide a device of this character that will be simple and durable in construction and efficient in operation.

The invention consists in the features of construction and combinations of parts herein-after fully described and specifically claimed. In the accompanying drawings, illustrating my invention, Figure 1 is a rear elevation of the lower part of an annunciator constructed in accordance with my invention. Fig. 2 is a similar view showing the parts in another position, and Fig. 3 is a perspective view of one of the indicator-operating devices.

Referring to said drawings, A indicates the frame of the annunciator, and B the front or face plate thereof.

My invention relates to that class of annunciators in which the source of the signal is indicated by a pointer that is moved by the operating devices controlled by the electric circuit. It will of course be understood that the specific construction for indicating the source of the signal can be varied; but in this class of annunciators a rock-shaft 1 is supported in a bearing-lug 2 on a bracket 3, that is secured to the front plate B. The rock-shaft 1 extends through the said front plate and in the instance illustrated is provided with an arrow or pointer 4. Between the lugs 2 the said rock-shaft is provided with an arm 5, which is held in an upwardly-inclined position by reason of the engagement of the end of said arm with a shoulder 6 on the long end portion 7 of an armature 8, pivoted upon the bracket 2. An electro-magnet 9 is secured to said bracket 2 and is located in position to act upon the other arm of said armature. The end portion 7 of said armature is heavier

than the other end portion, and therefore, by reason of its pivotal support, holds the armature normally away from the magnet. To prevent the end 7 of the armature from descending too far, an abutment-plate 10 is secured to said bracket 2 on the side adjacent said end 7, and the upper end of said abutment-plate comes into contact with the end 7, as shown in the drawings, and holds it in the desired position. The arm 5 upon the rock-shaft is preferably weighted to insure its falling when released, and, as shown in Figs. 1 and 3, when it is elevated it engages the shoulder 6 and is held in an inclined position. When the circuit is closed, the electro-magnet 9 will attract the armature and swing the same on its pivot, thereby lifting the end 7 and releasing the weighted arm 5. The arm 5 then falls and turns the rock-shaft and the arrow carried thereby for obvious reasons. The armature resumes its normal position as soon as the circuit is broken. The downward movement of the arm 5 is limited by contact with a pin 11, secured to a vertically-movable bar 12. The said pin is located to engage said falling arm, and by elevating said bar the arm 5 will also be elevated and thrown again in engagement with the end 7 of the armature. The bar 12 can be moved in various ways; but as a convenient and preferable construction a lever 13 is pivoted at the lower end of the frame A and has its head 14 located against one of the two adjacent concave faces 15 of an arm 16, secured to said bar 12. In the construction illustrated the arm 16 is shown as connected to a pair of vertically-movable bars 12, that are secured to the face-plate B means of screws or bolts 17, passing through slots 18 in said bars 12. This construction is employed when there are two sets of indicating devices composing the annunciator. The head 14 of the lever 13 is curved on the sides to correspond with the curvature of the concaves 15. When the lever is turned on its pivot, its head rides from one concave face over the portion of the arm between the same and the other concave face, and then into the latter, so that the movable bars 12 are elevated and then allowed to descend in an obvious manner.

I claim as my invention—

The combination, substantially as hereinbefore described, with a weighted arm 5 of an annunciator indicating device, of a vertically-movable bar having a pin located in the path
5 of said arm, an arm 16 upon said bar, having the adjacent concaved faces 15, and a pivoted lever 13, located to engage said concave faces.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES MOLITOR.

Witnesses:

WM. H. LOTZ,

HARRY COBB KENNEDY.