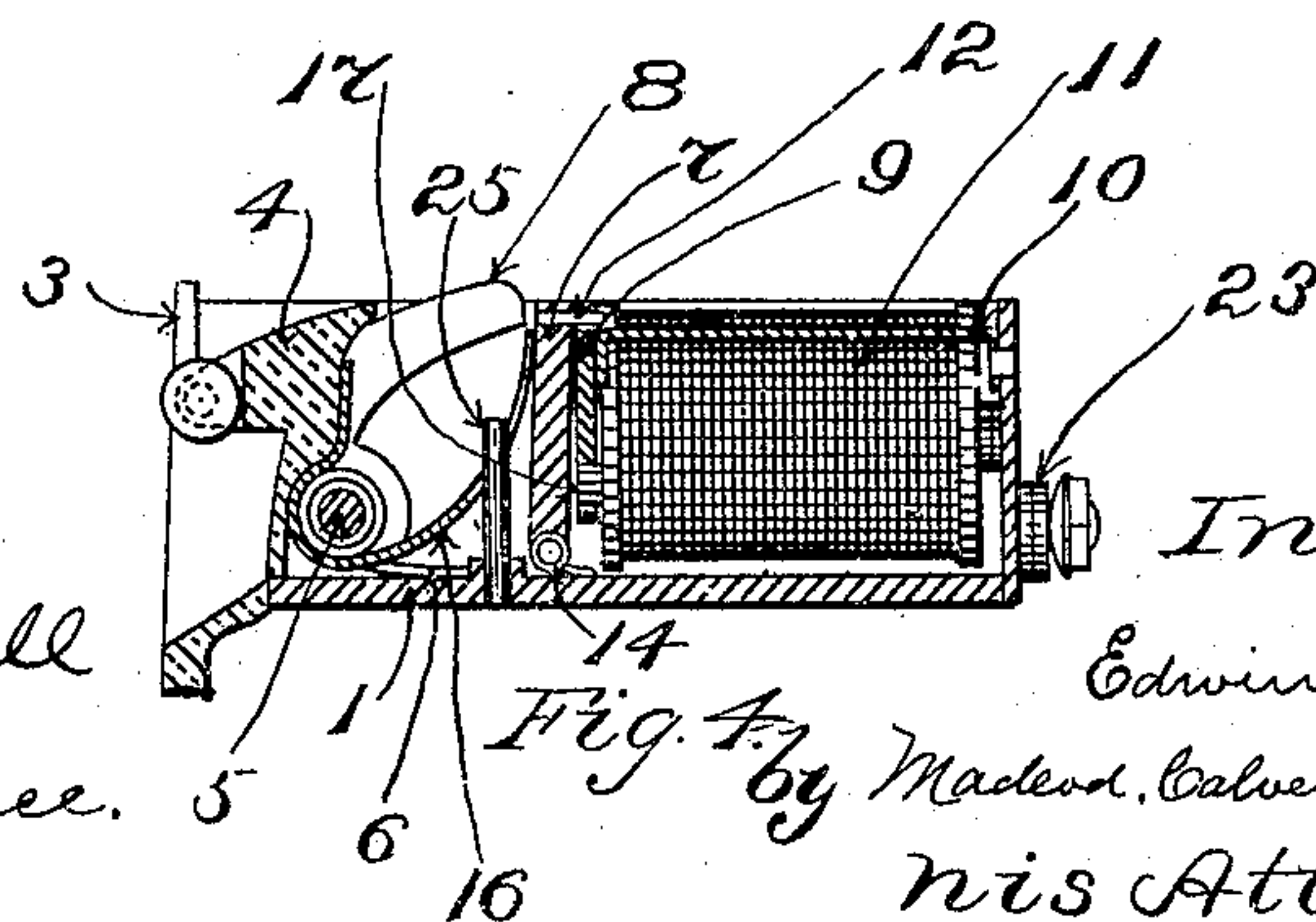
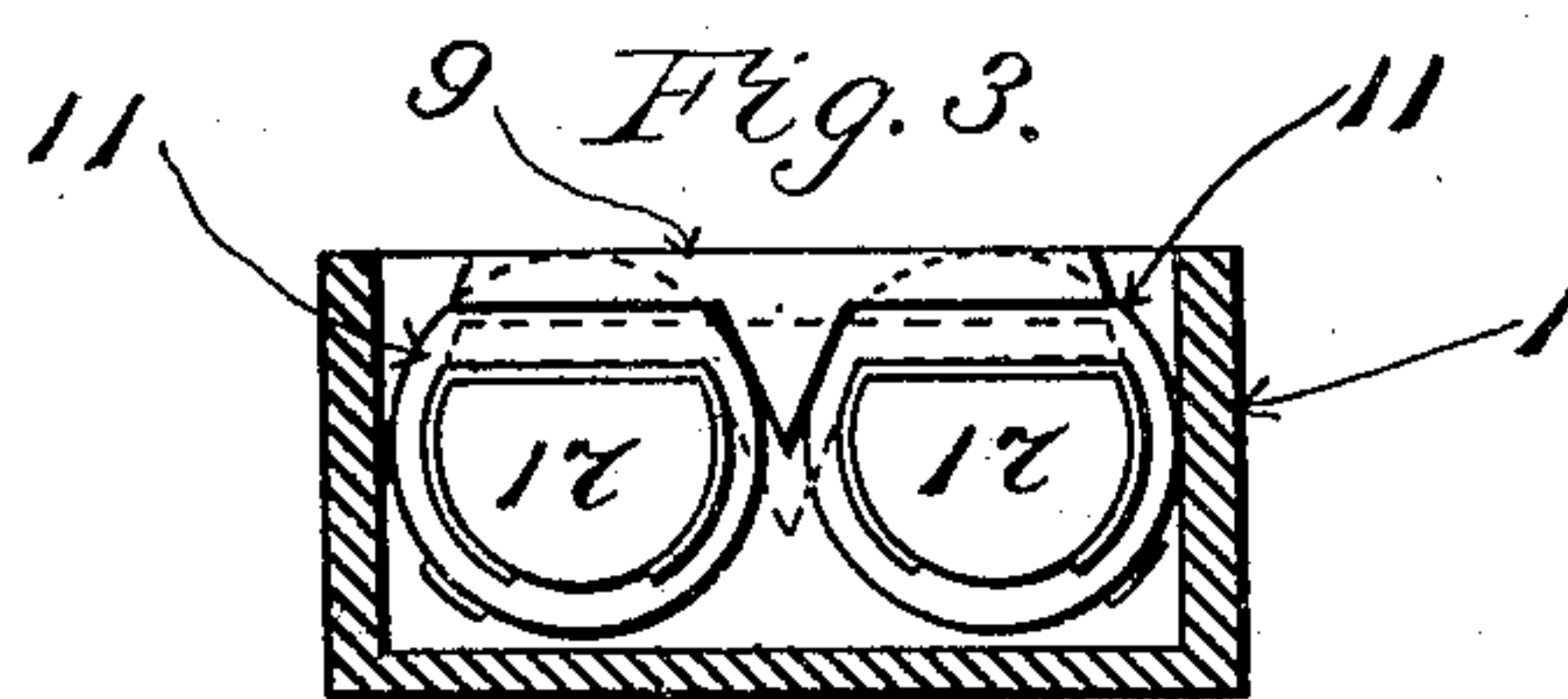
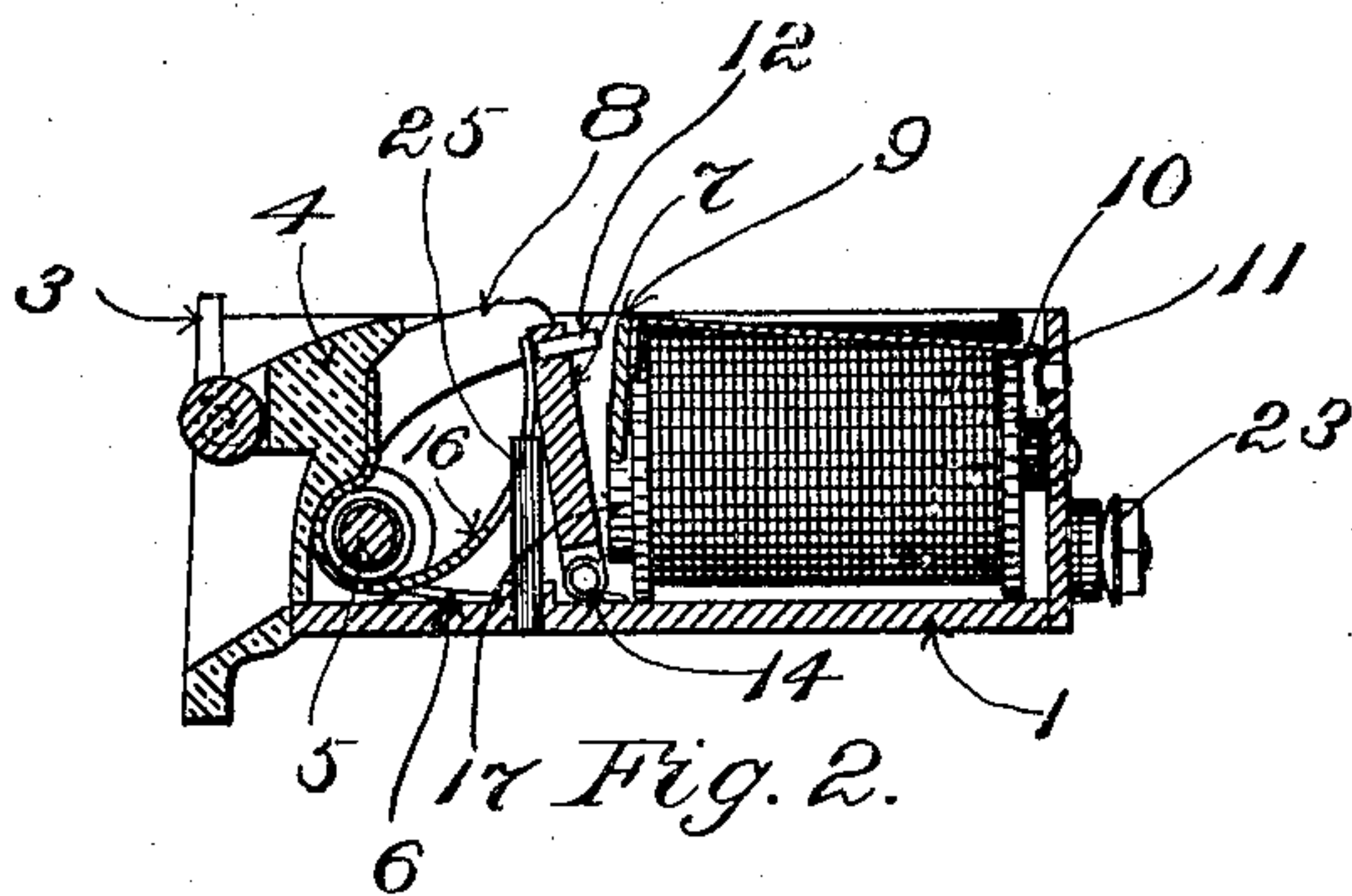
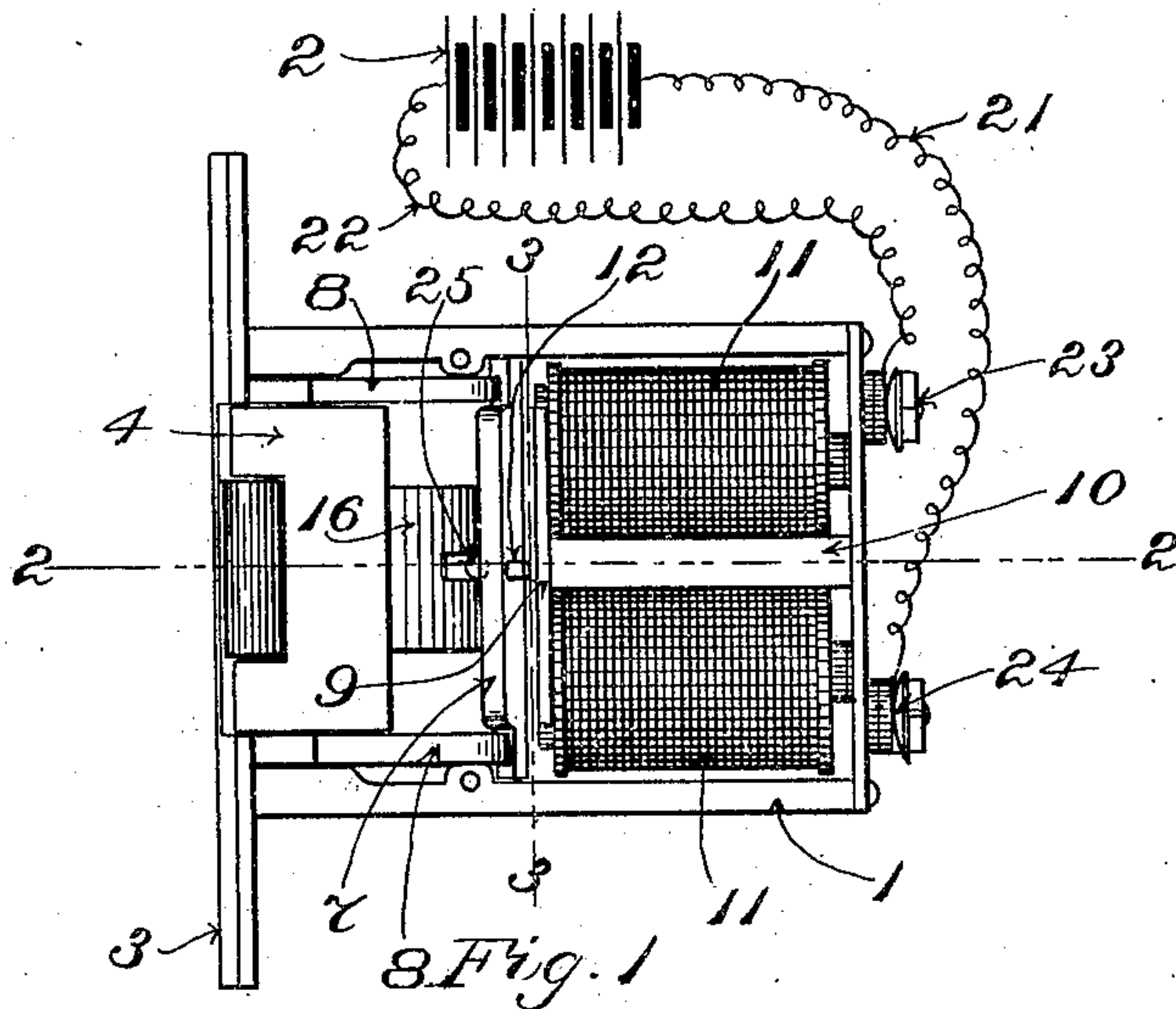


No. 836,965.

PATENTED NOV. 27, 1906.

E. W. FYLER.
ELECTRIC DOOR OPENER.
APPLICATION FILED APR. 9, 1906.



Witnesses:
Oscar F. Bill
Robert Wallace.

Inventor:
Edwin W. Fyler
by Madson, Calver, Copeland & Sipe
his Attorneys.

UNITED STATES PATENT OFFICE.

EDWIN W. FYLER, OF HYDE PARK, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO WARREN E. FYLER, OF HYDE PARK, MASSACHUSETTS.

ELECTRIC DOOR-OPENER.

No. 836,965.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed April 9, 1906. Serial No. 310,682.

To all whom it may concern:

Be it known that I, EDWIN W. FYLER, a citizen of the United States, residing at Hyde Park, in the county of Norfolk and State of Massachusetts, have invented a certain new and useful Improvement in Electric Door-Openers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to that class of devices known as "electric" door-openers or strikers, in which the movable part of the striker is normally engaged by an armature to prevent the door being opened, the armature being released from engagement with said movable part of the striker by the attraction of an electromagnet when the magnet is energized.

The object of my invention is to provide a simple device by which the armature is prevented from sufficient movement to release the door by any outside blow and will only allow it to be opened when the magnet is energized.

My invention will now be fully described by reference to the accompanying drawings, in which it is clearly illustrated; and the invention will be particularly pointed out in the claims at the end of this specification.

In the drawings, Figure 1 is a side elevation of a door-opener embodying my invention with the side of the case removed. Fig. 2 is a section on line 2 2 of Fig. 1. Fig. 3 is a section on line 3 3 of Fig. 1, showing the end of the magnet and the armature which is carried by the flexible spring-arm. Fig. 4 shows the position of the armature when the magnet is energized.

Referring now to the drawings, 1 represents the case for the striker or door-opener.

3 represents the face-plate, and 4 the pivoted member of the striker, pivoted on an arbor 5. A spring 6 holds the pivoted member 4 in its normal position. A pivoted armature 7 normally stands in a position where it serves as a stop to engage the arms 8, which project rearwardly from the pivoted member 4 of the striker, so as to prevent the door from being opened.

The parts thus far described may be of a well-known form of construction.

A second armature 9 is attached to a spring-arm 10, which is secured to some part of the case 1. The armature 9 is so located

that it will normally serve as a stop to prevent the armature 7 from being turned on its pivot to disengage the arms 8 of the striker. A pin 12 or other suitable projection on the armature 7 is provided to engage armature 9. If by a blow on the casing, or otherwise, the armature 7 could be jarred, it cannot move back far enough to permit the pivoted member 4 of the striker to release the door as long as the armature 9 is in its normal position, and the armature 9 is so mounted that it cannot be moved out of its position of check except by the magnet 11, when the latter is energized. The spring-arm 10 is preferably a thin flat strip of spring metal of sufficient stiffness to hold the armature normally in its position of check, but which will readily yield to the attraction of the magnet.

When the electromagnet 11 is energized, the armature 9 will be drawn downwardly to the pole-pieces 17, as permitted by its flexible spring-arm, so as to be out of the way of engaging with stop-pin 12, and the armature 7 will also be drawn back, so as to permit the pivoted member 4 of the striker to turn on its pivot and allow the door to be opened.

When the door is opened, the spring 6 will return the said pivoted member 4 to its normal position, and the springs 14 and 10 will also return the armatures 7 and 9 to their normal positions. In order to prevent the return movement of the armature 7 from binding on the arms 8 of the pivoted member 4, I provide a spring 16 or other stop which is operated by the pivoted member 4 and bears against said armature 7, so as to retard its return movement, and allows the arms 8 to be unobstructed in their return.

What I claim is—

1. An electric striker or door-opener having in combination with a movable member, a movable armature which normally engages with the said movable member and prevents the door from being opened, stop mechanism which normally prevents said armature from moving to release the door, and an electromagnet which when energized releases the said stop from the armature and also moves said armature and permits the door to be opened, substantially as described.

2. An electric striker or door-opener having in combination with a pivoted member, a movable armature which normally engages with the said pivoted member to prevent the

door from being opened, a second armature which is normally so located as to prevent the first armature from releasing the door. and an electromagnet which when energized moves both of said armatures and permits the door to be opened, substantially as described.

3. An electric striker or door-opener having in combination with a pivoted member, a pivoted armature which normally serves as a stop to the pivoted member to prevent the door from being released, a second armature which is mounted on a spring-arm so as to normally serve as a stop to prevent the movement of the first armature to release the door, and an electromagnet which when energized moves both of said armatures so as to permit the door to be opened, and springs which when the magnet is demagnetized will return the armatures to their normal position, substantially as described.

4. In an electric striker or door-opener, a pivoted member which normally prevents the door from being opened, an armature normally adapted to engage said pivoted member, a second armature which engages the said first armature to prevent it from be-

ing jarred to release the door, and an electromagnet which when energized moves both of the armatures so that the door may be released, substantially as described.

5. An electric striker or door-opener having in combination with a pivoted member, an armature which normally prevents the door from being opened, a second armature which serves as a stop to prevent the first armature from being jarred to release the door, an electromagnet which when energized moves both of the armatures so that the door may be opened, springs which when the door has been opened will return said pivoted member of the striker and said armatures to their normal positions, and a spring which acts as a retard to said first armature to prevent it from interfering with the return movement of said pivoted member of the striker, substantially as described.

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

EDWIN W. FYLER.

Witnesses:

WILLIAM A. COPELAND,
ALMI TARR.