

(No Model.)

S. H. REYNOLDS.
ELECTRIC RELEASING DEVICE.

No. 552,924.

Patented Jan. 14, 1896.

Fig. 1.

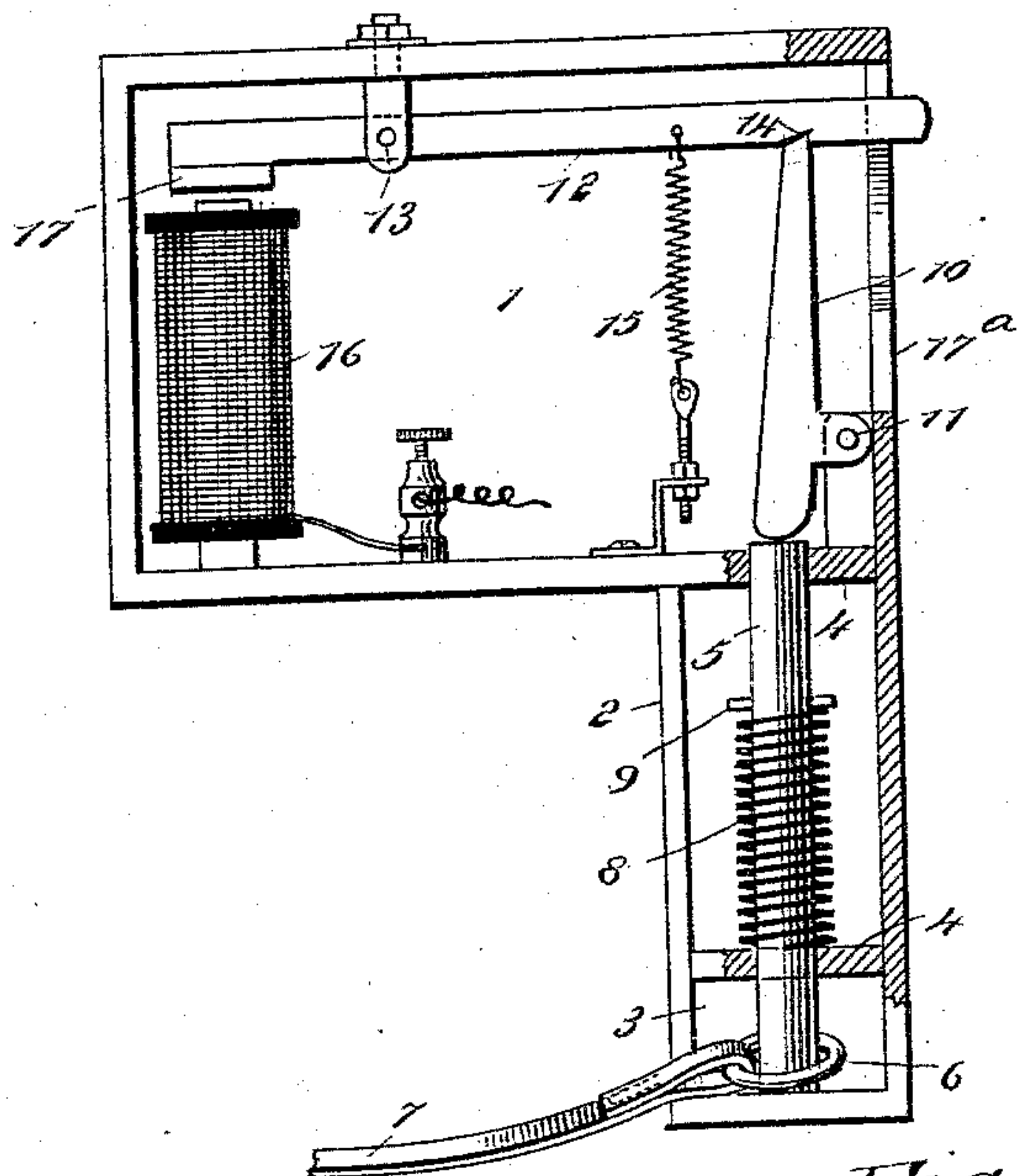


Fig. 2.

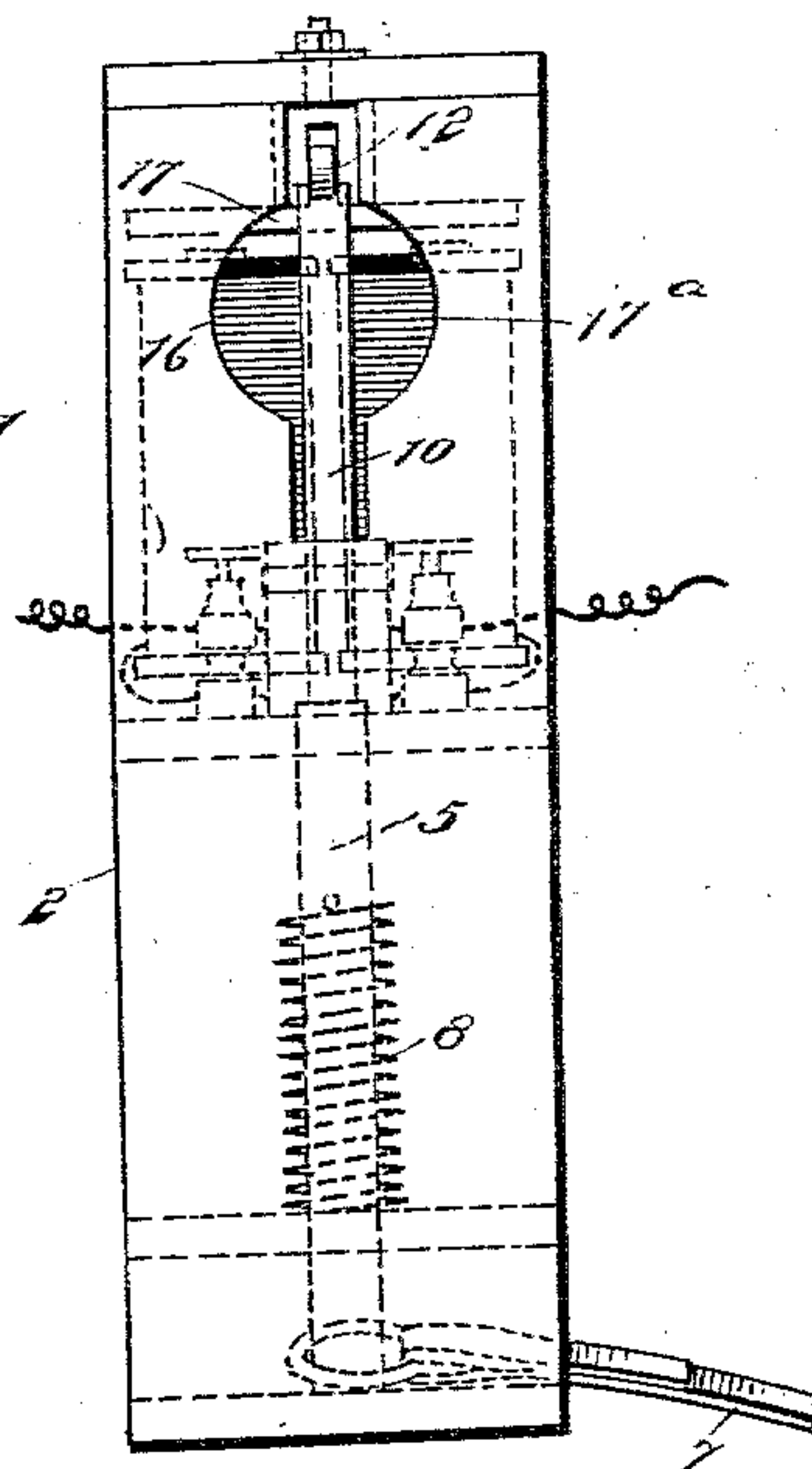
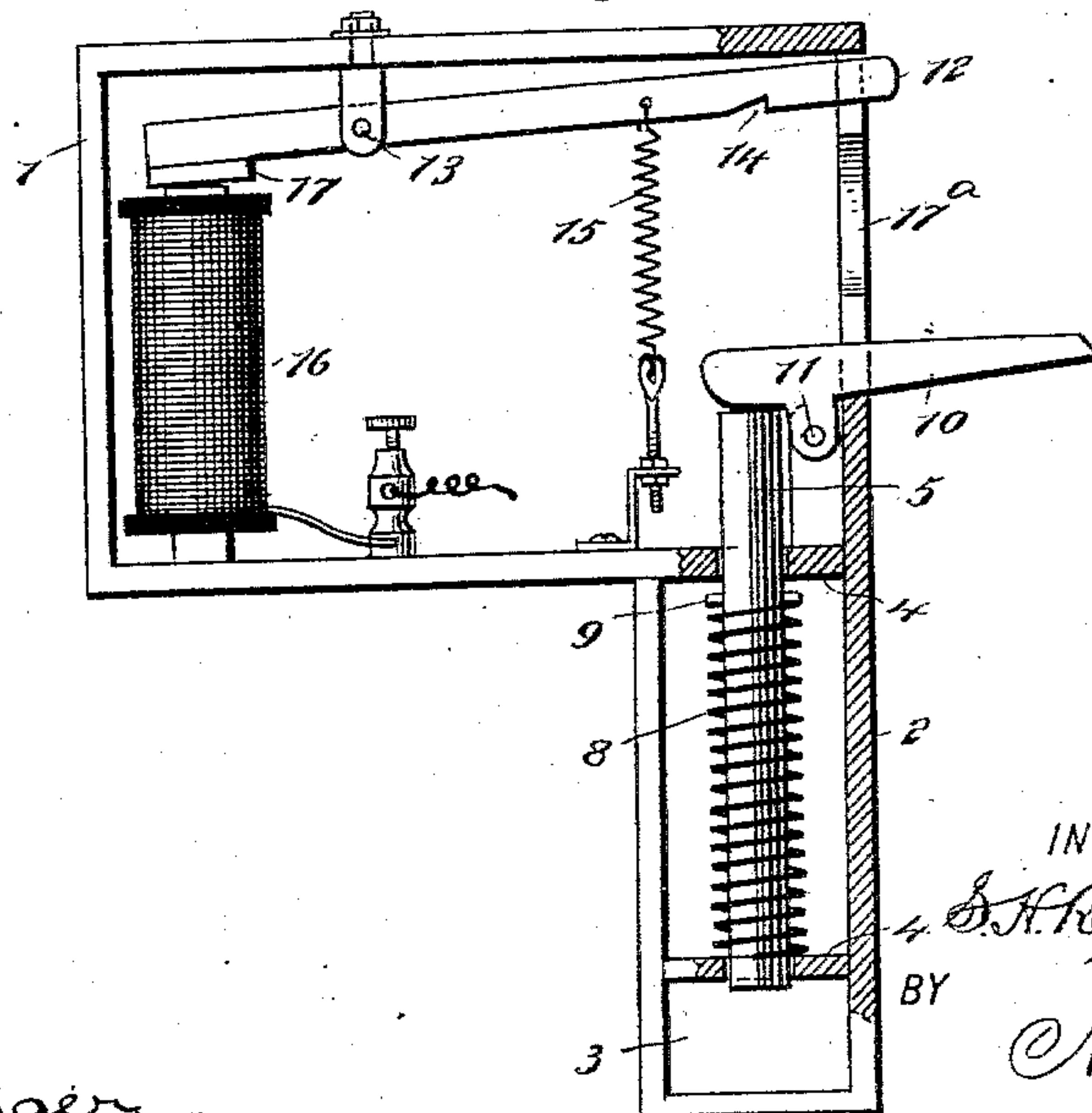


Fig. 3.



WITNESSES:

Paul J. Schell
J. H. Caplinger

INVENTOR

S. H. Reynolds

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

STEWART H. REYNOLDS, OF SAN JOSÉ, CALIFORNIA.

ELECTRIC RELEASING DEVICE.

SPECIFICATION forming part of Letters Patent No. 552,924, dated January 14, 1896.

Application filed March 13, 1895. Serial No. 541,576. (No model.)

To all whom it may concern:

Be it known that I, STEWART H. REYNOLDS, of San José, in the county of Santa Clara and State of California, have invented a new and Improved Electric Releasing Device, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in that class of devices which are adapted for use in stables, engine-houses and the like, for releasing horses in case of fire, and it has for its object to provide a device of this character of a simple and inexpensive construction which shall present certain features of novelty and advantages over other devices heretofore in use, all as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side view, partly in section, showing the releasing device, the side plate of the casing containing the same being removed. Fig. 2 is an end view of the same; and Fig. 3 is a view similar to Fig. 1, showing the parts in different position.

In the views, 1 represents the casing, of any suitable material, having a depending lower portion 2 formed at its bottom with a chamber 3, adapted to receive the halter 7, which is provided at its inner end with a ring 6. The interior of the lower portion 2 of the casing is provided with transverse partitions 4 at its top and near its bottom, and these partitions are centrally perforated to receive a vertically-sliding bolt 5, as clearly seen in Fig. 1. This bolt 5 is provided with a spring 8 coiled about its lower portion, with its lower end resting on the lower partition 4 and its upper end abutting against a stop-pin 9 seated in said post. Thus it will be seen that the spring 8 normally tends to hold the bolt 5 in the elevated position seen in Fig. 3.

The lower end of the bolt 5 is adapted to pass through the ring 6 on the inner end of the halter 7 when said bolt is in its lowered position, (seen in Fig. 1,) and in order to hold the bolt in this position I provide a latch 10, pivoted at 11 to the casing and having one end adapted to bear upon the upper end

of said bolt 5, whereby when said latch is moved to a vertical position the bolt 5 is pressed downward. To hold the latch in its vertical position I employ an armature-lever 12, pivoted at 13 in the casing 1 and provided with a notch 14 to receive the upper end of said latch, said armature-lever being also provided with a spring 15, whereby it is normally drawn downward.

An electromagnet 16 is mounted in the casing 1 in position to attract the armature 17 of the armature-lever 12, and said magnet will be placed in circuit with a battery and a push-button or other circuit-closing device, whereby when it is desired to release the animal the circuit is closed to the magnet 16 to lift the notched end of the armature-lever 12 out of engagement with the latch 10 and permit said latch to be moved on its pivot by the tension of the spring 8 bearing upon the bolt 5, said bolt being at the same time moved out of its operative position by said spring 8.

In order to set the device after the animal has been released, I provide in the forward wall of the casing 1 an opening 17^a, through which the latch 10, when released from the armature-lever, projects, as seen in Fig. 3, and the casing will be so arranged that said latch may be pressed in conveniently with the fingers, so as to readily engage the notch 14 in the armature-lever after the circuit through the magnet 16 has been again opened.

From the above description it will be seen that the device is capable of some modification and alteration, and therefore I do not wish to be understood as limiting myself to the exact construction and arrangement of the parts herein shown.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, of a casing having a perforation in its wall and provided with a chamber to receive the end of the halter, a spring-actuated bolt mounted to slide in the casing with its end adapted to enter the chamber, a latch pivoted in the casing with one end adapted to engage and move the bolt and its other end adapted to pass through the opening in the casing, an electro-magnet, and a spring-actuated armature lever having a

notch to engage the end of said latch and hold the same in operative position, substantially as set forth.

2. In a releasing device, the combination of
5 a casing, a bolt movably mounted therein, a
latch having engagement with said bolt and
arranged to move the same into operative
position when actuated, an electro-magnet, an
armature for the same arranged to engage
10 said latch and hold the same against move-
ment when the latch is actuated to move said
bolt into operative position, said armature
being adapted when moved by said magnet
to release said latch, and means for moving
15 the bolt out of operative position when said
latch is released, substantially as set forth.

3. In a releasing device, the combination of
a casing, a bolt movably mounted therein, a
latch having engagement with said bolt and
20 arranged to move the same into operative
position when actuated, an electro magnet, an
armature for the same arranged to engage
said latch and hold the same against move-
ment when the latch is actuated to move said
25 bolt into operative position, said armature
being adapted when moved by said magnet

to release said latch, and a spring connected
to the bolt and arranged to throw the same
out of its operative position when released by
said latch, substantially as set forth.

4. In a releasing device, the combination of
a casing, a bolt movably mounted therein, a
latch having engagement with said bolt and
arranged when moved in one direction to ex-
30 tend outside the casing into position to be
operated by the hand and when so operated
to move into the casing and throw said bolt
into its operative position, an electro-magnet,
an armature for the same, arranged to en-
35 gage said latch and hold the same against
movement when the latch is actuated to move
said bolt into operative position, said arma-
ture being arranged when moved by said
magnet to release said latch, and a spring
40 connected to the bolt and adapted to move
the same out of operative position when re-
leased by said latch, substantially as set forth.

STEWART H. REYNOLDS.

Witnesses:

S. P. CAMP,

A. L. WATERS.