

(No Model.)

W. J. ABERNETHY.

SIGNALING ATTACHMENT FOR CHANGE BOXES.

No. 323,384.

Patented Aug. 4, 1885.

Fig. 1.

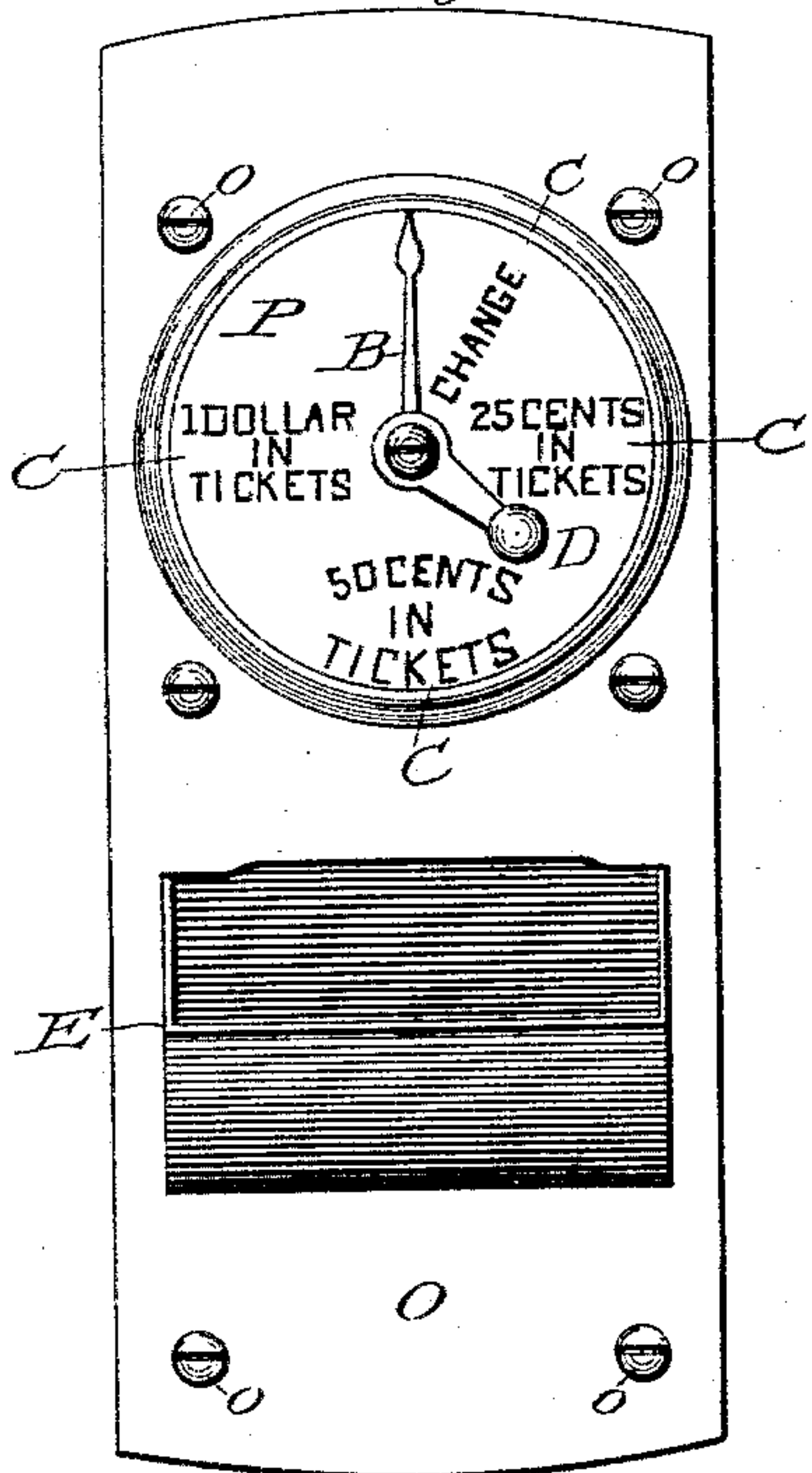


Fig. 2.

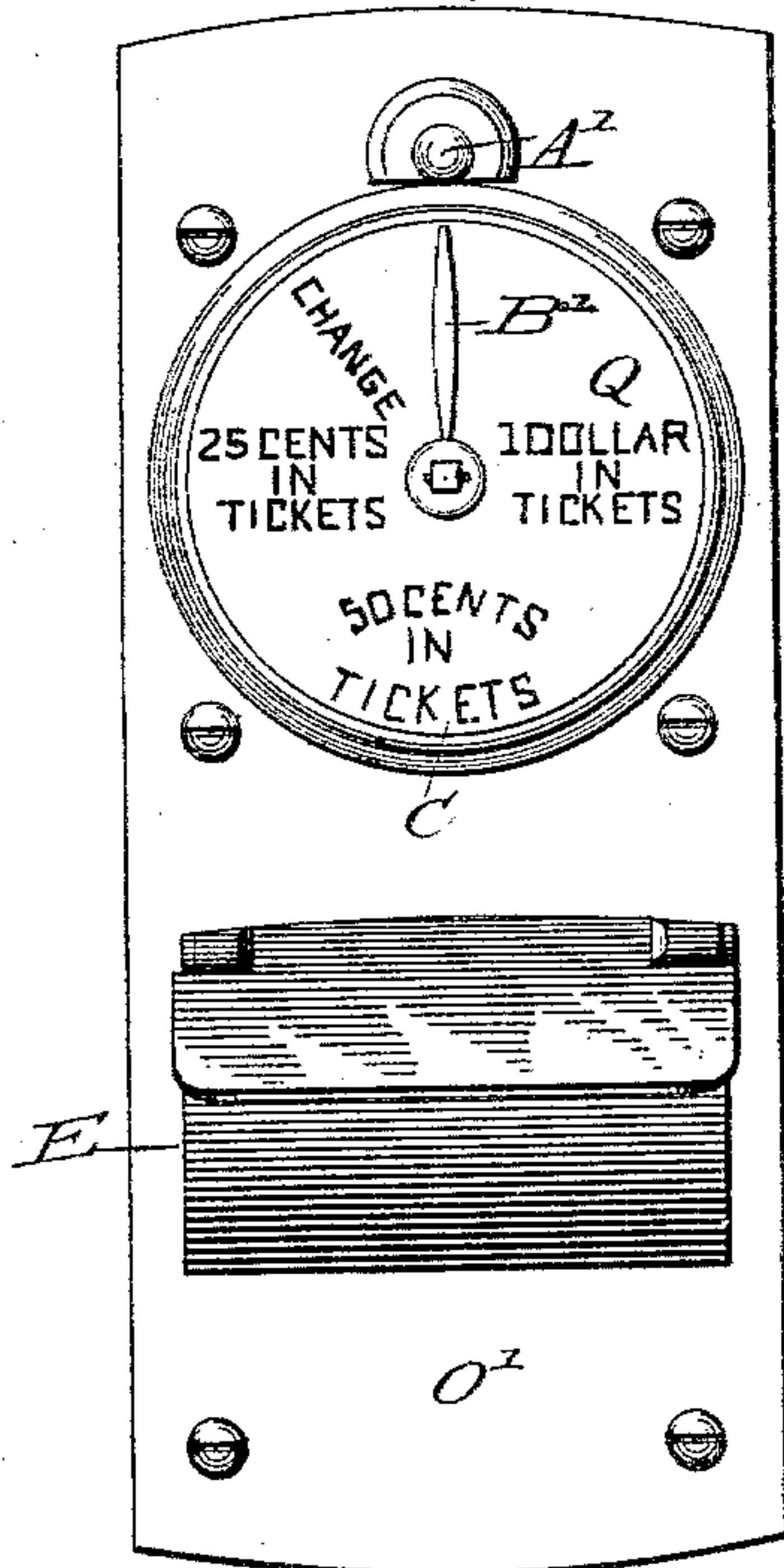
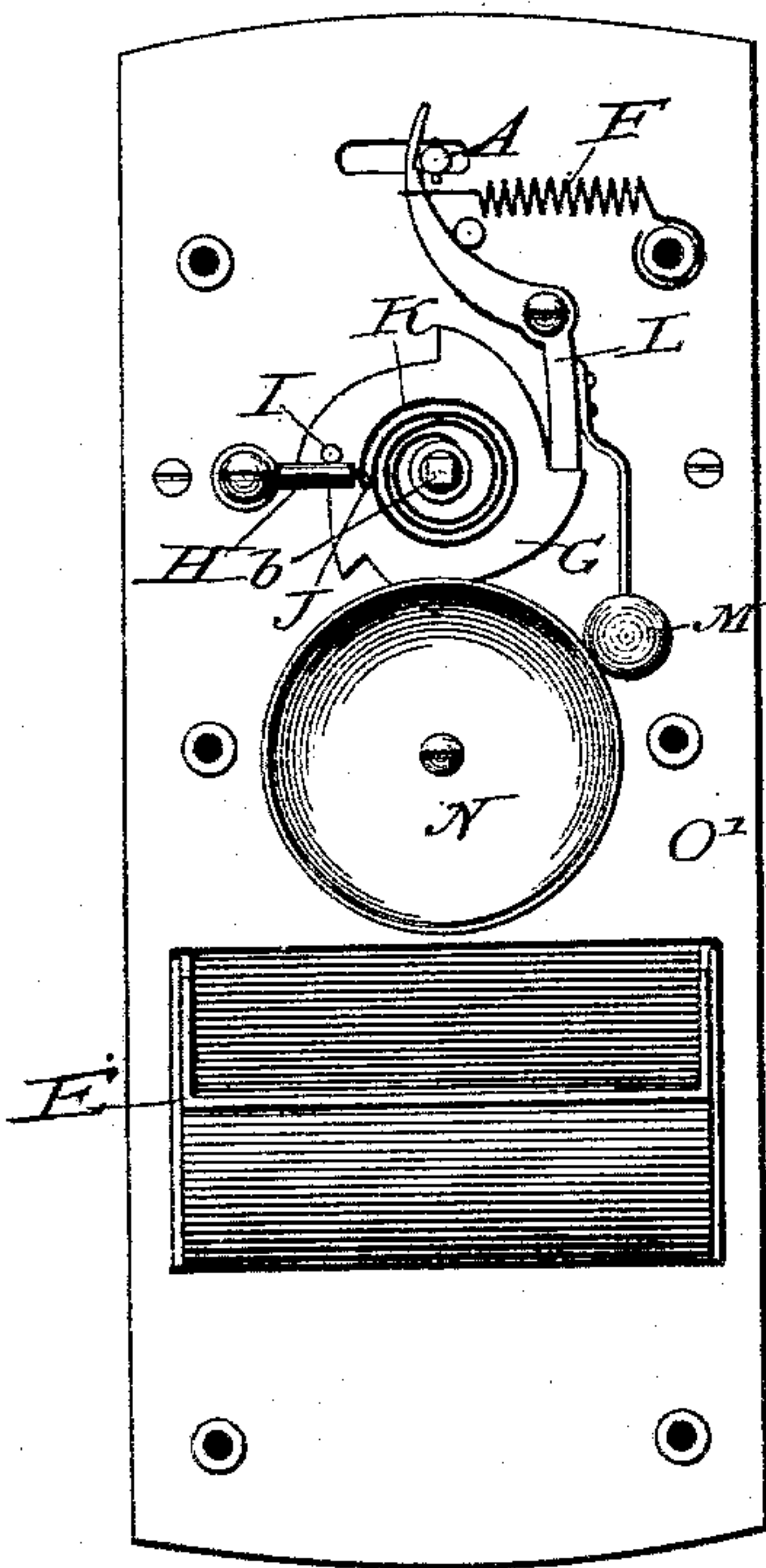


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

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SIGNALING ATTACHMENT FOR CHANGE-BOXES.

SPECIFICATION forming part of Letters Patent No. 323,384, dated August 4, 1885.

Application filed December 22, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. ABERNETHY, a citizen of the United States, residing at Minneapolis, in the State of Minnesota, have invented certain new and useful Improvements in Signaling Attachments for Change-Boxes, of which the following is a specification.

The object of my invention is to construct a change-box for use on street-cars, omnibuses, and similar vehicles on which no conductor is employed, that will enable a passenger in depositing fare or purchasing tickets to readily and easily inform the driver of the amount desired to be purchased or the amount of change to be returned; and it consists in the various features of construction, as hereinafter described.

In the drawings, Figure 1 represents the face of the change-box exposed to the passenger; Fig. 2, the face exposed to the driver; and Fig. 3 represents the internal and operative mechanism of the same, the front plate shown in Fig. 1 having been removed.

A in the drawings represents a pin, which extends through the outer casing of the box, and is provided with a knob or handle within reach of the driver; B, the index finger or hand for indicating the amount of tickets or change desired, and *b* the shaft on which the same is mounted; C, the points to which the hand may be turned to indicate such amount; D, the knob which the passenger operates in turning the index finger or hand; E, the cash-box at the lower part of the case; F, the spring for holding the pawl in engagement with the ratchet; G, the ratchet; H, the piece to which the spring for bringing the ratchet back into place, when released from the pawl, is attached; I, a pin or stud for preventing the ratchet from being carried too far back by the spring; J, the hooked end of piece H for attaching the spring; K, the coiled spring; L, the pawl to hold the ratchet at any desired point; M, the hammer by which the bell is struck; N, the bell; *o*, the screws or studs by which the two face-plates O O' of the case, containing the operating mechanism are attached to each other.

In constructing my improved signaling attachment I place on the face-plate O, or side presented to the passenger, an index finger or pointer and a handle or knob by which the same may be turned to any desired point. On

the dial P, on which this finger is placed and around which it may be turned, I place words, figures, signs, or characters indicating the amount of tickets or change which may be desired by the passenger. On the outside face-plate, O', of the box, which is placed, as usual, in the door of the car, or at some desirable place in the vehicle as will be convenient to the passenger and the driver, there is placed another dial, Q, with corresponding words, figures, signs, or characters, an indicating-pointer, B', arranged to turn simultaneously and in unison with the finger or pointer placed on the dial facing the passenger; or, instead of the dial facing the driver, he may be informed by the sounding of the bell or gong, as hereinafter described, of what is wanted, whether change or tickets, and, if tickets, the amount of same. Each ring of the bell in that case would indicate the amount opposite which the indicating-finger in view of the passenger is turned. For instance, the first ring of the bell would indicate change, the second twenty-five cents' worth of tickets, the third fifty cents' worth of tickets, the fourth seventy-five cents' worth of tickets, and other rings predeterminate amounts corresponding to the figures opposite to which the finger or pointer was turned. Between the two plates, so as to be inclosed or protected from injury by accident or exposure to the weather, I place a ratchet-wheel on the same shaft *b* that carries the index fingers or pointers, and which turns in unison with it, provided with a spring for bringing it to a point which will cause the finger or pointer to indicate zero, as represented in Fig. 1, except when positively turned against the force of the spring. A pawl is placed in convenient position to engage with the teeth of the ratchet-wheel, and is held in such engagement by a suitable spring. On this pawl is fastened a bell-striker carrying a hammer to strike or sound the bell, which is placed in the proper position to receive the stroke of the same. The teeth of the ratchet-wheel are placed far enough apart to bring the pointer opposite a word, figure, or other character on the dial-plate as each tooth is passed. As the ratchet-wheel is turned around it lifts the hammer from contact with the bell until a tooth is passed, when the pawl, operated by the spring

F, will cause the hammer to strike the bell and signal the driver. One stroke of the bell will thus be produced as each tooth of the ratchet-wheel is passed. The coiled spring K for returning the ratchet-wheel and index-fingers to their starting-point is fastened to the piece H, which is stationary, and against which the pin I in the ratchet-wheel comes in contact when the ratchet-wheel and index-fingers have recovered their starting-point, to prevent the operation of the coiled spring from carrying them beyond their proper position in a state of rest. A pin, A, engaging or coming in contact with the upper end of the pawl and extending out through a slot in the case toward the driver and provided with a knob or handle, A', enables him, by pushing it against the force of the spring F, to release the ratchet-wheel and permit it to return to its proper position.

The operation of my improved signaling device is as follows: The passenger, entering the car or other vehicle having a change-box provided with one of my signaling attachments, deposits a bill or piece of money in the change-box, and, if he desire only his change, turns the knob D until the index-finger points to the word "Change," or other similar word indicating that fact. As the pointer reaches the word indicating that which is desired, the bell is struck by the hammer in the manner hereinbefore described, and the driver notified that something is wanted. By glancing at the corresponding dial, exposed to his view, where one is used, or counting the bell-strokes where a dial is omitted, he instantly perceives what is wanted. If tickets and change both are wanted, the passenger turns the knob until the pointer indicates the amount of tickets desired, the ringing of the bell as the ratchet-wheel is turned around notifying the driver that his attention is called, when, by looking at the dial presented toward him, or counting the bells in its absence, he sees the amount of tickets wanted, upon which he can return the amount of tickets purchased with sufficient change to equal the amount deposited in the change-box. In this way change and tickets can be called for by the passenger, as desired. In each case, after making change or furnishing tickets, the driver releases the ratchet-wheel and permits it to return to its proper place by pressing upon the knob A, as hereinbefore described.

By means of this improvement I am enabled to secure the attention of the driver with expedition and ease, and inform him precisely what is desired without the necessity of shouting to him or attempting to make him understand what is wanted through the closed door and in the rattle and confusion of the street.

In describing the construction and operation of my improved change-box, I do not mean to confine myself with strictness to the particular form, location, or proportions of parts shown, as it is obvious that various changes in this respect can be made and the

essential features and ideas of my invention still be preserved. For instance, the parts which I have described as between the two faces of the change-box may, to a large extent, be placed on the outside, if desired, and still operate successfully, though I prefer that they should be made as I have described them.

What I claim is—

1. A change-box for cars, omnibuses, or other vehicles provided with a dial containing words, figures, signs, or characters denoting the amount of tickets or change desired, an indicating-pointer, and a bell or gong arranged to be sounded once as each figure, word, character, or sign is passed, whereby the driver is informed of the amount of tickets or change called for, substantially as described.

2. A change-box for cars, omnibuses, and other vehicles, provided with an inside dial containing words, figures, signs, or characters denoting the amount of tickets or change desired, an indicating-pointer, a pawl, a ratchet-wheel turning with such pointer, with teeth spaced and arranged as described, whereby they will pass the engaging end of the pawl at the same time the indicating finger or pointer reaches each word, sign, figure, or character on the dial, and a bell or gong arranged to be sounded at the same instant, whereby the driver is informed of the amount of tickets or change called for, substantially as described.

3. A change-box for cars, omnibuses, and other vehicles, provided with a dial on both its faces containing words, figures, signs, or characters denoting the amount of tickets or change desired, an indicating-pointer on each dial turning simultaneously, and a bell or gong arranged to be sounded as the pointer is turned, whereby the driver is called by the bell and informed by the indicating-pointer of the amount of tickets or change called for, substantially as described.

4. A change-box for cars, omnibuses, and other vehicles, provided with a dial containing words, figures, signs, or characters denoting the amount of tickets or change desired, an indicating-pointer, a pawl, a ratchet-wheel turning with the pointer, with teeth spaced and arranged, as described, whereby they will pass the engaging end of the pawl at the same time the indicating finger or pointer reaches each word, sign, figure, or character on the dial, a bell or gong arranged to be sounded at the same instant, and a pin coming in contact with the pawl and extending through a slot in the outer case, whereby the ratchet-wheel may be released and permitted to return to its proper position, substantially as described.

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Witnesses:

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