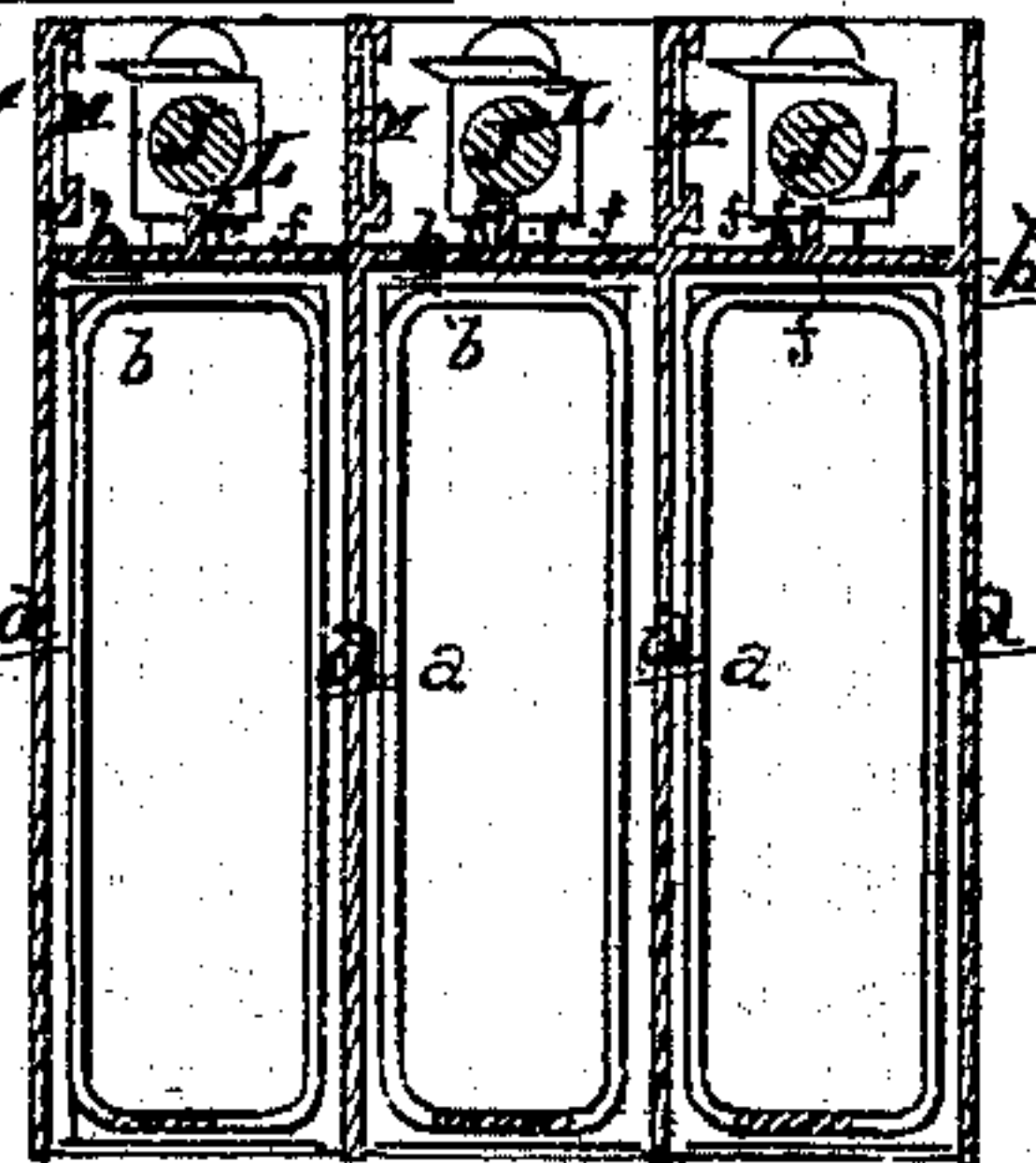
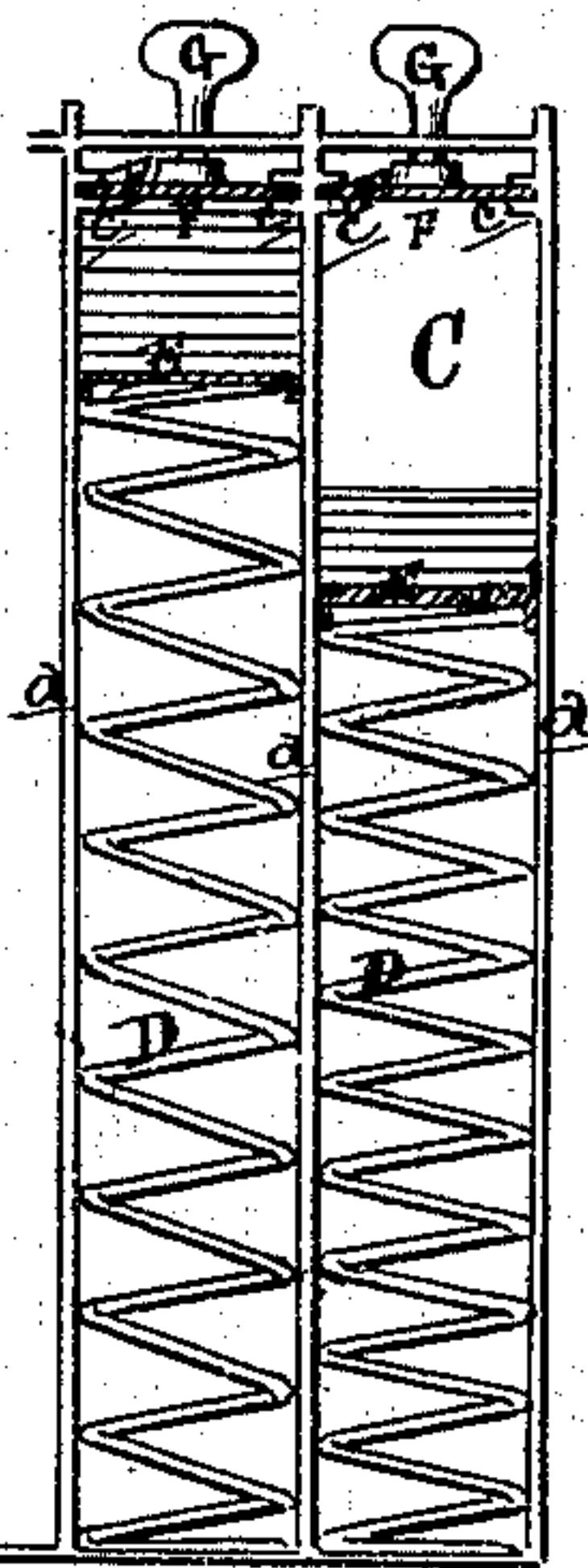
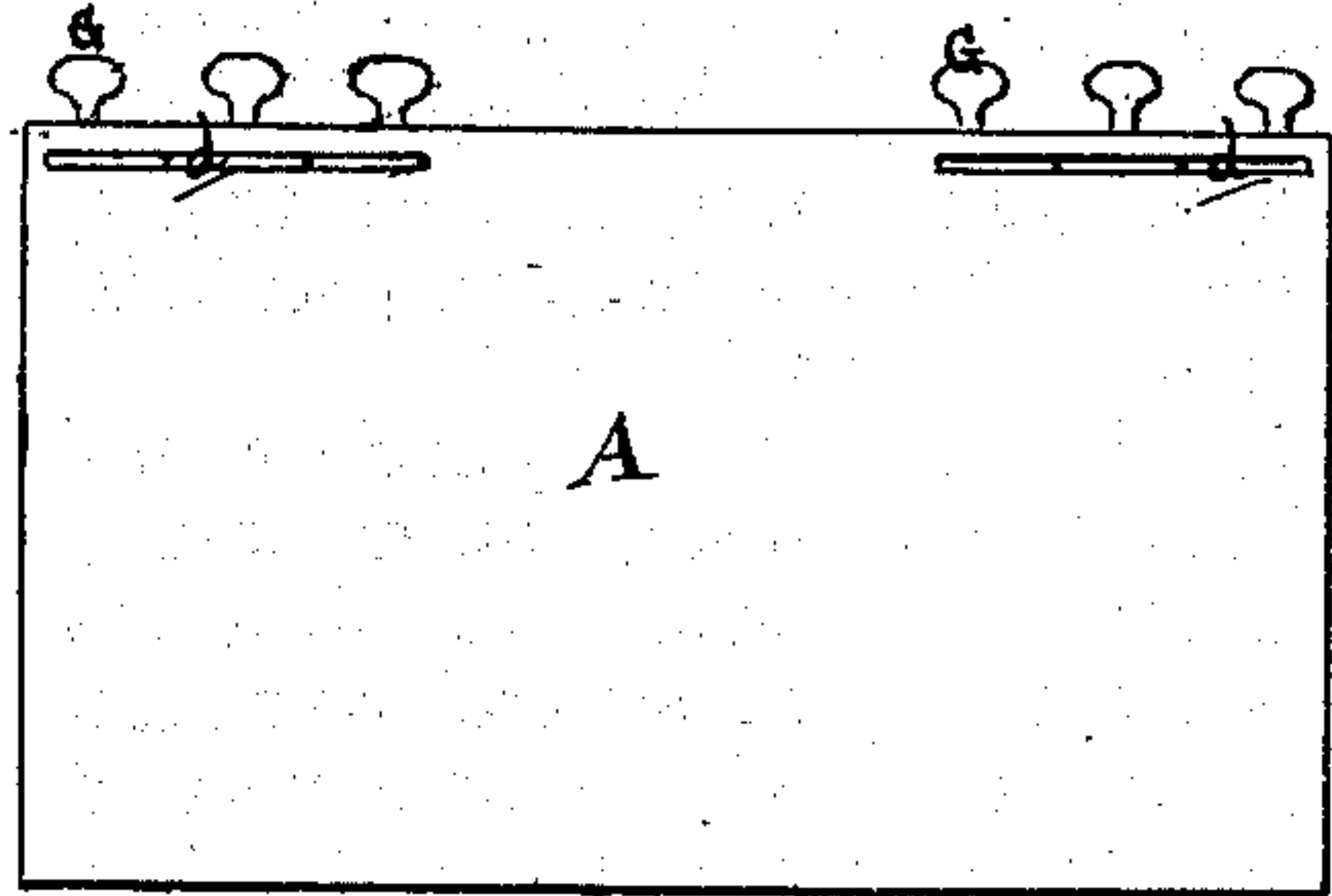
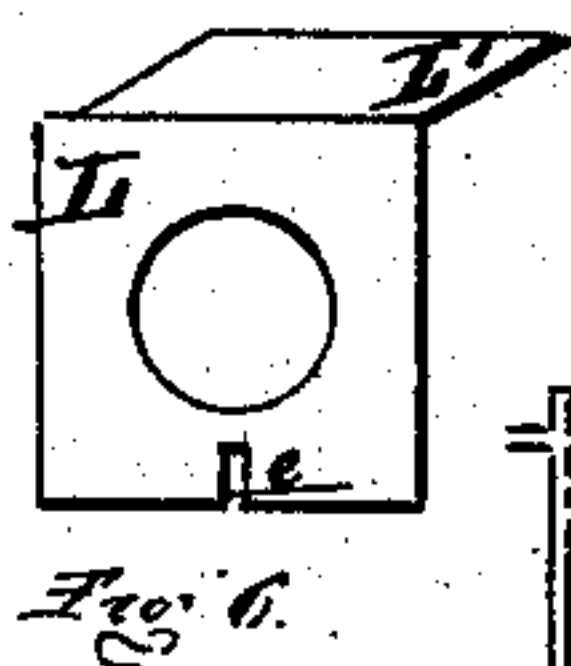
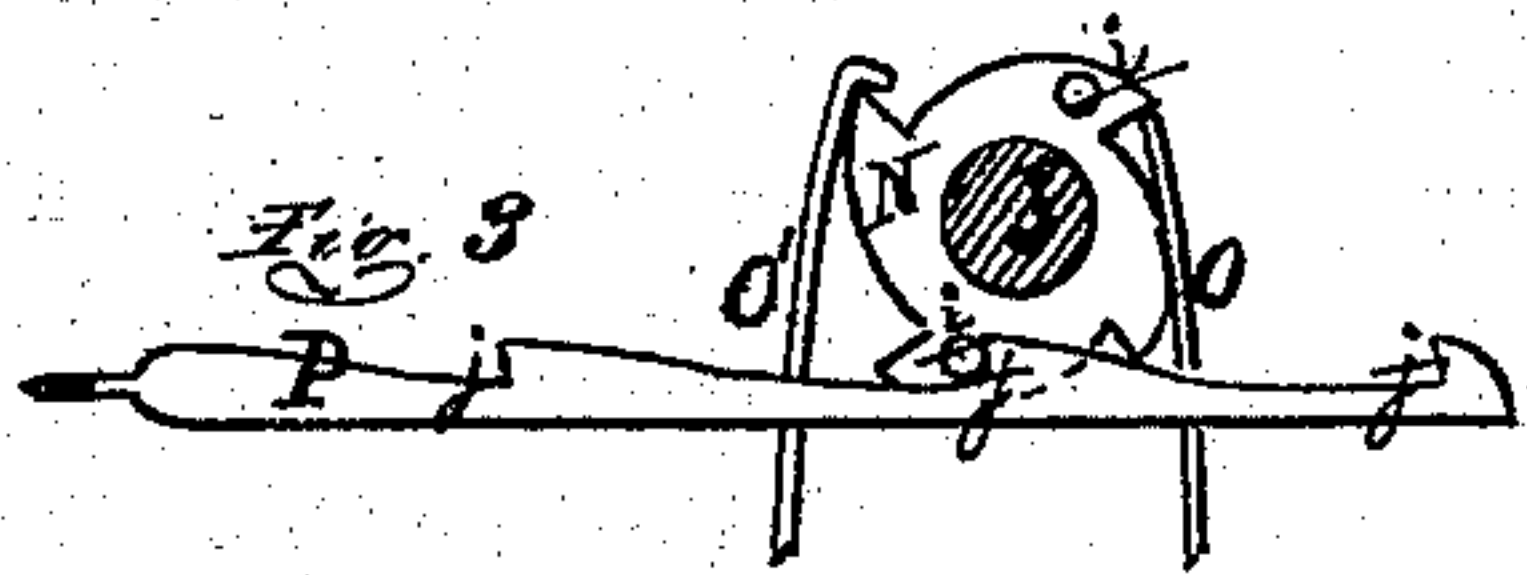
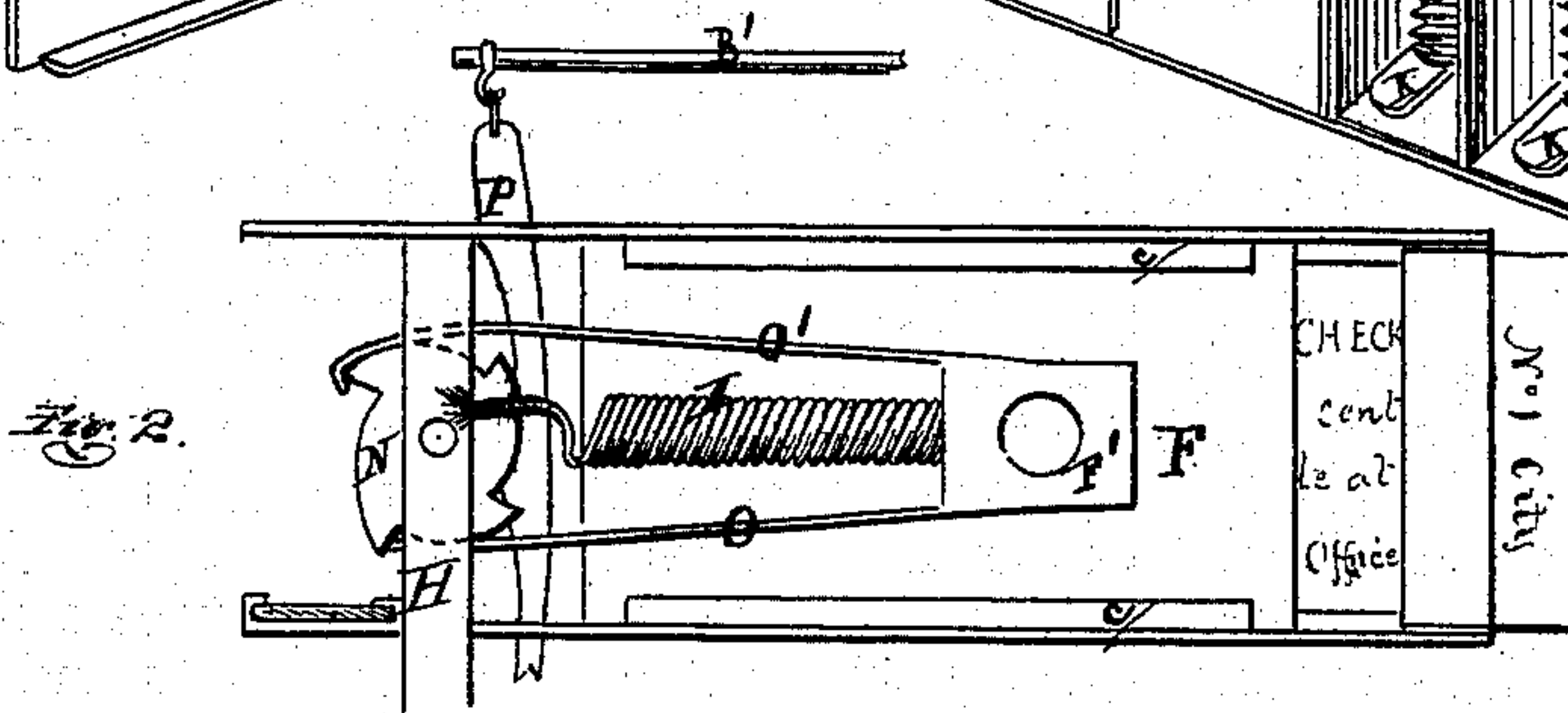
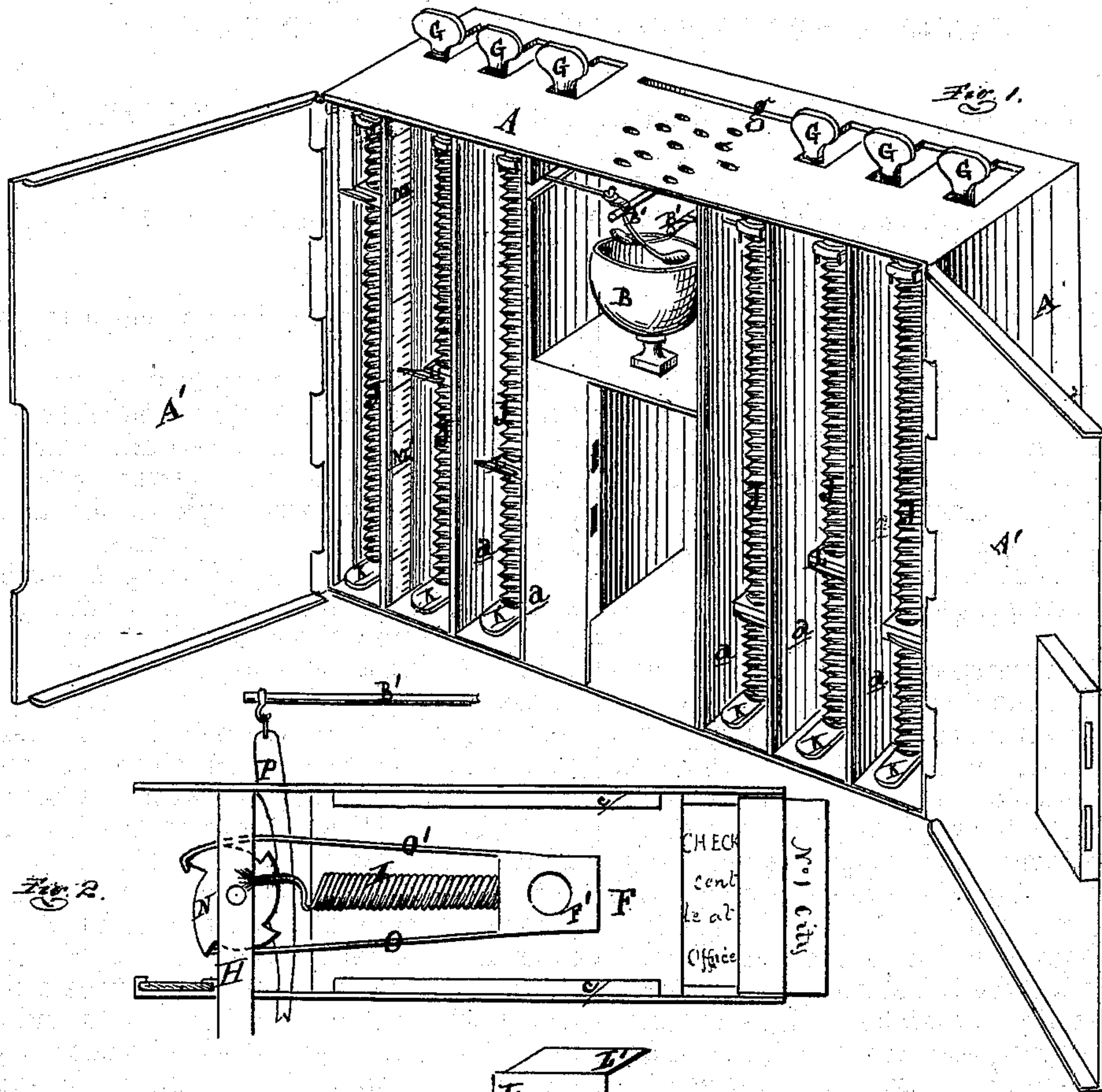


JAMES S. STRIDIRON.

Improvement in Registering Check-Boxes for Railroad Conductors.

No. 127,200.

Patented May 23, 1872.



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JAMES S. STRIDIRON, OF DETROIT, MICHIGAN.

IMPROVEMENT IN REGISTERING CHECK-BOXES FOR RAILROAD CONDUCTORS.

Specification forming part of Letters Patent No. 127,200, dated May 28, 1872.

To whom it may concern:

Be it known that I, JAMES S. STRIDIRON, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Check-Boxes for Railway Conductors; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a perspective view of one side of my box with the doors open to show a portion of the interior arrangement. Fig. 2 is a plan view of the top of a portion of the interior mechanism, showing the top scape-wheel of the tallying or index screw, and its connection with the lever which rings the bell. Fig. 3 is a detached plan of the under side of said scape-wheel and of the said lever. Fig. 4 is a plan of the opposite side of the box. Fig. 5 is an elevation of the ticket-receptacles in rear of the index-screw chambers. Fig. 6 is a perspective of the nut, showing the index-finder and the guide-notch. Fig. 7 is a cross-section of the interior chambers, showing the position of the check or ticket and index-screw chambers.

Like letters indicate like parts in each figure.

The nature of this invention relates to the peculiar arrangement and operation of a check or ticket box for railway conductors, so arranged that on paying fare a ticket or check must be given to the passenger, which check or ticket must be withdrawn from the box, wherein it is automatically registered. The operation of withdrawing the check causes a small bell or gong within the box to be rung to attract the attention of the passenger to the fact that the ticket given to him is withdrawn from the box. It is also so arranged that, should the conductor be able to replace tickets in the box, he is unable to reach the registering apparatus, and detection must ensue, for every ticket withdrawn will be registered.

The successful working of this device depends upon making the ticket of value to the passenger, and redeemable at a stated price at any of the offices of the company issuing them, so that the passenger will demand a

check or ticket from the conductor on paying his fare.

The invention consists, first, in the means employed for registering the number of tickets which protrude; and, second, in the means which are employed for registering the number of tickets, and striking a bell, as each ticket is withdrawn, at the same time.

In the accompanying drawing, A represents a rectangular sheet-metal case, having hung on the rear side the doors A', which are provided with suitable lock, the key of which is in the custody of the cashier or other person whose duty it is to settle with the conductor who carries the box, which may be carried by a strap over the shoulder with the door next to his body. The interior of the box is subdivided into any number of compartments by vertical transverse partitions *a*, which compartments have a recess formed at the back of each by a vertical partition, *b*, Fig. 7. In the present device two sets of three compartments are shown—a set at either side of a central chamber—in which is placed a gong-bell, B, and two spring-hammers, B'—one arranged to strike from either side. Each compartment is filled with checks redeemable at the office of the company in lieu of commutation tickets, a check being given for each fare paid by the passenger or full-fare ticket given by him. One of these checks is shown in Fig. 2. On roads which charge fare according to distance traveled, and commute accordingly, checks for various amounts may be placed in the different compartments.

As a box may be made with a single check compartment and the necessary mechanism to eject and register the checks, I will describe such a one, as those having several compartments merely duplicate the compartment and ejecting mechanism within the case A. C is the compartment, and D is a light spiral spring in the bottom thereof. E is a follower on top of the spring, on which follower the checks are placed, as shown in Fig. 7, being confined therein by the flange-slides *c*, the upper end of the compartment being otherwise open. F is a plate sliding between the flange-slide *c*, and having a lip turned down on its inner end just far enough to come over the end of the first check underneath it. F' is a boss on the plate, into which is screwed a thumb-piece, G.

Across the top of the recess, in rear of the compartment, is secured a bar, H, to which and the boss F' a spiral spring, I, is secured, so as to draw the plate F back. In the top of the front wall of the box a slot, *d*, is made, just opposite the uppermost check in the compartment, and through which slot the said ticket is caused to protrude by pushing out the plate F. In the top of the box a slot is cut, through which the thumb-piece G is screwed into the boss of the plate F, and in which slot it moves. Letting go the thumb-piece after moving it to the front end of the slot, the spring I draws back the plate, leaving the end of the check protruding from its slot, which the conductor withdraws and hands to the passenger. In the recess behind the compartment a screw, J, is journaled at the upper end in the cross-bar H, and at the lower in a movable spring-step, K, at the bottom of the recess, so arranged that the screw may readily be removed. L is a nut on the screw, with a slot, *e*, on one edge, which embraces a feather, *f*, Fig. 7, on the partition *b*, so that the nut will move on the screw in the rotation of the latter. On one edge of the nut is an index, L', pointing to a graduated scale, M, Fig. 1. On the upper end of the screw, under the bar H, a four-toothed scape-wheel, N, is secured to said screw. O is a spring-pawl, secured at one end to the side of the boss F', with its free end resting against the edge of the scape-wheel. O' is a hooked spring-pawl similarly disposed at the other side of the boss F'. By pushing out the slide the hooked pawl, engaging with a tooth on the scape-wheel, rotates the latter and screw nearly one-fourth of a revolution, and as the spring I draws it back the pawl O, engaging with another tooth, completes the quarter revolution of the screw, which moves the index-nut one degree on the scale, indicating one fare paid. Before giving the box to the conductor the cashier removes the screw, runs the nut down to the 0 (zero mark) on the scale, and replaces the screw, and also supplies the compartment with checks, so that when the box is returned the index will indicate on the scale the numbers of fares received on the day or trip with absolute certainty. If more than one check should by accident be pushed out at one movement of the

slide the extra check may be placed in the central chamber through a slot, *g*, made in the case for that purpose.

To indicate the payment of the fare and attract the passenger's attention to the fact that he is entitled to a check, the bell B is rung on the withdrawal of the check by means of the mechanism which I shall now describe. P is a bar playing through a slot in each partition, *a*, underneath the scape-wheels, and one end connecting to the spring-hammer B', which strikes the bell. On the under face of the scape-wheel are two pins, *i*, one of which, at each quarter rotation of the wheel, engages with a notch, *j*, in the bar, draws the latter back until it becomes tangent thereto, and lets it go, when the recoil of the spring causes the hammer to strike the bell. To give the proper official access to the check compartment a door may be made in the face of the case A; but when several compartments or sets of compartments are employed in one case I prefer to connect them together and remove them from the back of the case, first unscrewing the thumb-pieces.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the spring D, follower E, plate F, boss F', thumb-piece G, bar H, spring I, and slot *d* with the screw J, spring-step K, nut L, graduated scale M, scape-wheel N, and spring-pawls O and O', all constructed and arranged substantially as described and shown, for the purpose of registering each instance of the protrusion of a ticket.

2. The combination of the spring D, follower E, plate F, boss F', thumb-piece G, bar H, spring I, slot *d*, screw J, spring-step K, nut L, graduated scale M, scape-wheel N provided with pins *i*, spring-pawls O O' with the bell B, bar P provided with notch *j*, slot *a*, and hammer B', all constructed and arranged substantially as described and shown, for the purpose at the same time of registering each ticket and of striking the bell when the ticket is withdrawn.

JAMES SINCLAIR STRIDIRON.

Witnesses:

THOS. S. SPRAGUE,
MYRON H. CHURCH.