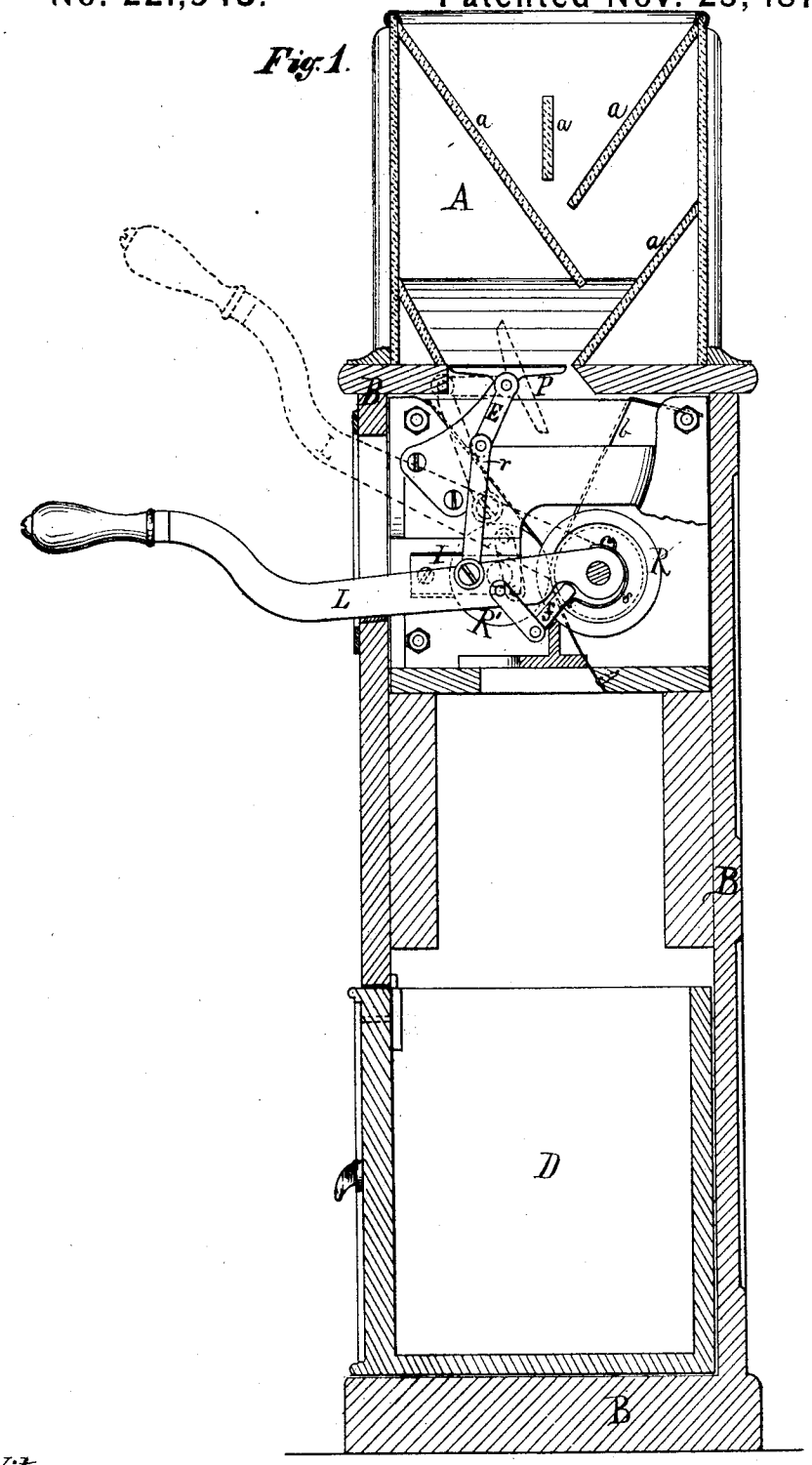
2 Sheets—Sheet 1.

H. C. SERGEANT & H. PORTER.

Ticket-Box.

No. 221,943. Patented Nov. 25, 1879.

Fig. 1.



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2 Sheets—Sheet 2.

H. C. SERGEANT & H. PORTER.

Ticket-Box.

No. 221,943. Patented Nov. 25, 1879.

Fig. 2.

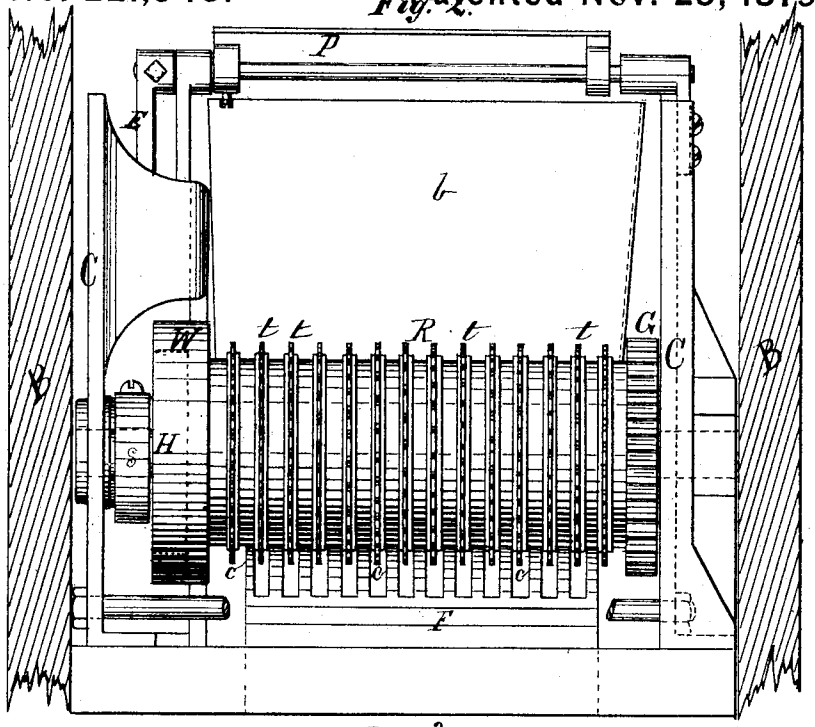
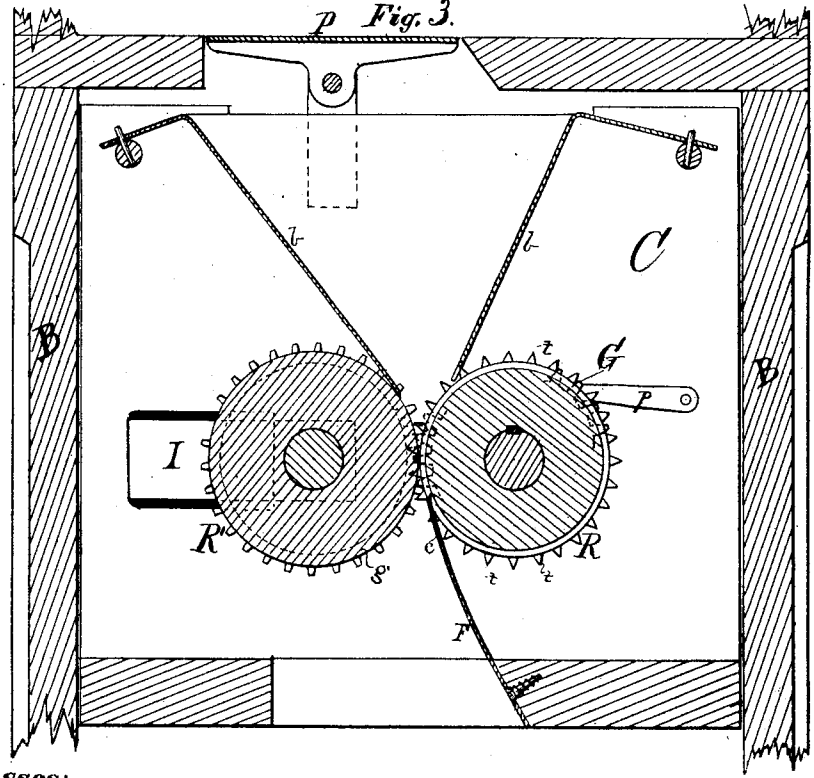


Fig. 3.



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UNITED STATES PATENT OFFICE.

HENRY C. SERGEANT AND HORACE PORTER, OF NEW YORK, N. Y.

IMPROVEMENT IN TICKET-BOXES.

Specification forming part of Letters Patent No. **221,943**, dated November 25, 1879; application filed January 8, 1879.

To all whom it may concern:

Be it known that we, HENRY C. SERGEANT and HORACE PORTER, both of the city of New York, in the county and State of New York, have invented a new and useful Improvement in Ticket-Boxes, of which the following is a specification.

The object of the invention is to provide means by which tickets or checks held by persons as evidence of payment of fares on cars or otherwise, and which are to be surrendered at certain times and places, can be deposited in the sight and under the inspection of the officer in charge, but in such manner as to be out of his reach and control until they are canceled, and thereby rendered incapable of second use.

To this end the invention relates to the construction and combination of the following devices, as more specifically hereinafter set forth, viz: mechanism for dumping and canceling the tickets, arranged to operate within a suitably-constructed box; the combination of receiving-slides with a dumping-platform and canceling-rolls; and the combination, with the dumping-platform and canceling-rolls, of guides, by which the tickets are directed from the platform to the rolls, all substantially as hereinafter more fully set forth.

The invention is illustrated in the accompanying drawings, (two sheets,) in which Figure 1 is a sectional view of the inclosing-box, the canceling-rolls and their working mechanism being in elevation. Fig. 2 is a side view of the toothed canceling-roll and of the dumping-platform and its shaft; and Fig. 3 is a sectional view of the canceling-rolls, showing the guides and one of the stripper-fingers.

The completed box may be conveniently considered in four parts, which are shown in Fig. 1, and represented by the following letters, viz: the top, A; the case, B; the dumping-platform, P, and the canceling-rolls, R and R′; and the drawer, D.

The top consists of a square case having a hopper-shaped mouth, formed of overlapping glass plates, conveniently termed "receiving-slides," below which are other glass plates, arranged at such inclination that the tickets, when dropped upon them, will readily descend upon the platform P, from which they cannot, without great difficulty, be removed through the top of the box. These slides are represented in the drawings by *a a*, &c.

The platform P, the rolls R and R′, and their working devices, together with the guides *b b* and the stripper F, are preferably of metal, and arranged in a separate case, C, which is secured in the case B.

The platform P is a plate of sufficient size to substantially fill the space at the bottom of the two lower glass slides in the top A. It is secured to a rock-shaft journaled on the case C. One end of this shaft is provided with a crank-arm, E, and this arm is connected, by means of a link, *r*, to a lever, L. The roll R is provided with several rows of teeth, *t t*, &c., which take into grooves *g g*, &c., formed in the surface of the roll R′. These rolls are made of steel or other metal, and are journaled on the walls of the case C, so that the teeth of the roll R nearly touch the bottoms of the grooves of the roll R′. These rolls have a lateral automatic adjustment as regards their canceling-points, so as to permit any hard material—as coin, keys, &c.—dropped in the box by mistake or design to pass the rolls without injuring them or impeding their continuous action. This adjustment is given by one or more springs placed in the rear of one of the rolls, and by allowing the journals of this roll sufficient play in the case C. Rubber springs (designated in the drawings by I) secured in the case and bearing against each end of the roll R′ are well adapted to this purpose, although any other spring of the proper degree of elasticity will answer equally well. Grooves are also formed between the rows of teeth on the roll R for the reception of the fingers of the stripper, by which the tickets are removed from the roll.

G is a gear on the roll R, which meshes with a corresponding gear on the roll R′. The end of the roll R, opposite the gear G, is provided with a circular collar, W, having flange H for the engagement of the driving-clamps.

The end of the lever L is pivoted upon the shaft of the roll R, and is provided with a clutch, *f*, which is controlled by a spring, *s*, so that when the lever is brought downward the forked arms upon the clutch *f* engage with the flange of the collar W, and partially revolve

the rolls R and R′; but when the lever is raised the clutch is disengaged from the collar and the rolls remain stationary, their backward movement being prevented by a pawl, *p*, acting upon one of the gears of the rolls R or R′, or by any of the usual devices applicable thereto.

The platform P is so adjusted upon its rock-shaft that when the lever L is raised it will be turned from a horizontal position to a sufficient inclination to dump the tickets.

The guides *b b* are simply plates of thin metal or other material, inclining from the under side of the platform downward to near the point of contact of the canceling-rolls.

c c, &c., are stripper-fingers, which take into the grooves cut between the rows of teeth on the roll R. These fingers are conveniently formed by cutting out one side of a piece of sheet metal, F, to form spaces for the teeth to pass, and then securing it to the case in the rear of the roll in such manner that the fingers will be pressed into the grooves, so as to remove the tickets without obstructing the revolution of the rolls.

When the handle of the lever L is pushed down to the lower limit of its throw, the platform P, if properly adjusted, will close the space between the slides above and receive the tickets as they are deposited in the box, so that each one can be readily inspected through the top or glass sides of the case by the person in charge.

From time to time, as one or more tickets are deposited, the handle is raised and the tickets dumped and directed by the guides *b b* to the circular rolls. As the handle is forced downward to bring the platform again to its horizontal position the clutch *f* engages with the collar W and a partial revolution is given to the rolls R and R′, by which the tickets are drawn between the rolls and pierced by the teeth *t t*, &c.

By working the handle up and down the tickets are carried between the rolls until they strike against the stripper-fingers *c c*, &c., by which they are removed from the teeth of the roll R and drop into the drawer D below.

It is obvious that other canceling devices may be used in the place of the canceling-rolls hereinbefore especially described, the main idea of this invention being that the tickets as they are delivered from the platform shall be thoroughly canceled by some device.

This construction, although useful for receiving and canceling tickets of any kind, is especially advantageous in connection with certain city railways, where, as now managed, each passenger is provided with a ticket which he must surrender at the station where he stops. The large number of passengers and their haste to leave the stations renders a rapid deposit of their tickets in such a way that the employé in charge can inspect them as they are deposited, but cannot obtain possession of them until they are perfectly canceled, very desirable. This invention has been in practical use for this purpose and has been found to fully meet the requirements of the case.

What is claimed as new is—

1. In a ticket-box, a dumping mechanism arranged in combination with a canceling mechanism, substantially as and for the purpose set forth, so that the former, arresting the tickets for inspection, subsequently delivers them to the latter to be canceled.

2. In a ticket-box, receiving-slides arranged substantially as set forth, in combination with a dumping-platform and rolls, to cancel the tickets after they have been dumped, substantially as and for the purpose set forth.

3. In a ticket-box, a dumping-platform, in combination with guides and the canceling-rolls, substantially as set forth.

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