

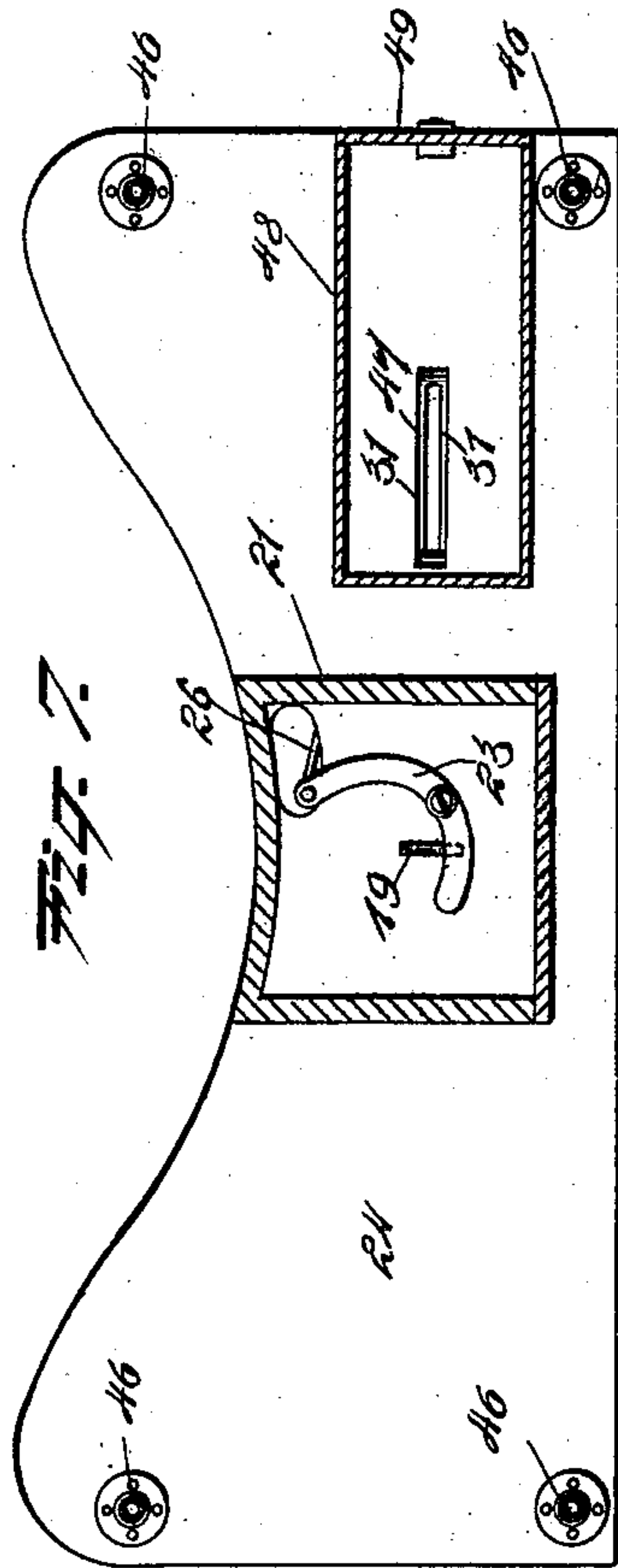
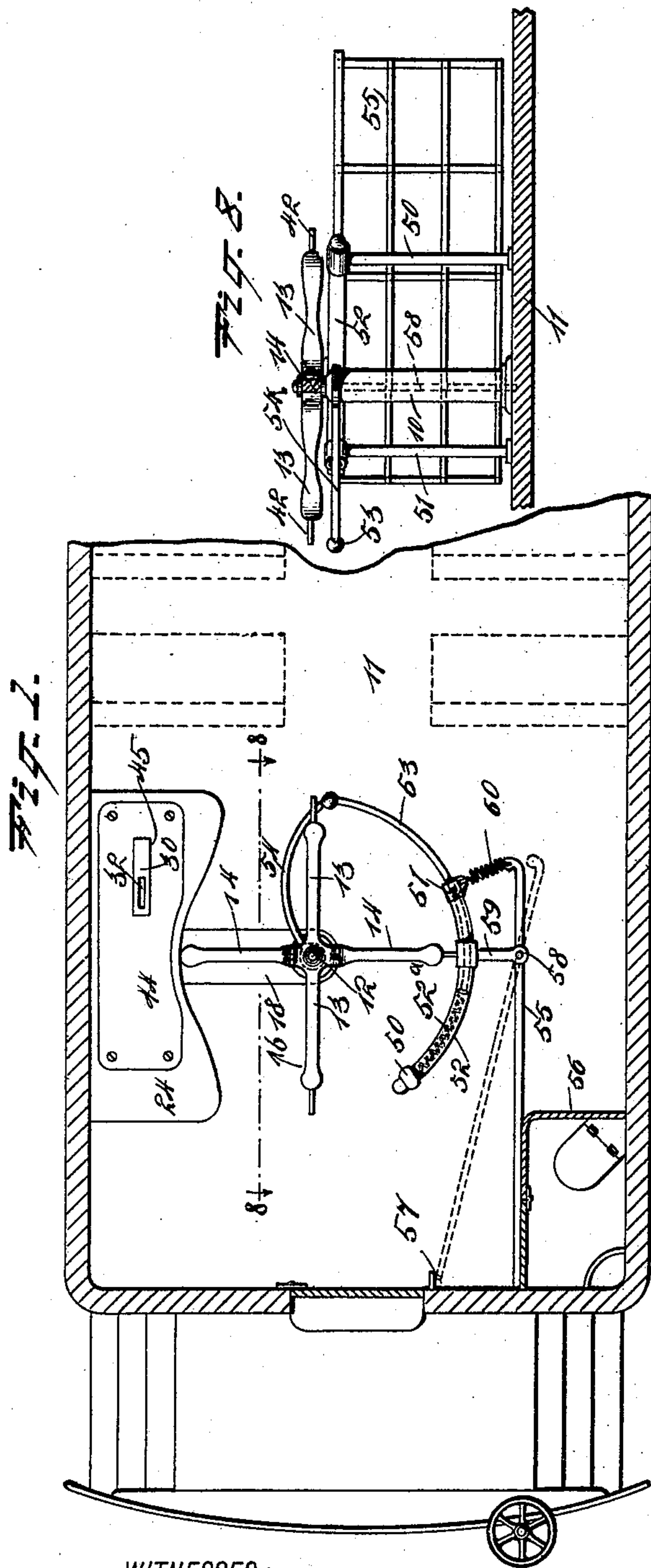
(No Model.)

3 Sheets—Sheet 1.

J. AN TOMARCHI.
APPARATUS FOR COLLECTING TICKETS.

No. 599,159.

Patented Feb. 15, 1898.



WITNESSES:

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Isaac B. Coe.

INVENTOR

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BY *[Signature]*
ATTORNEYS.

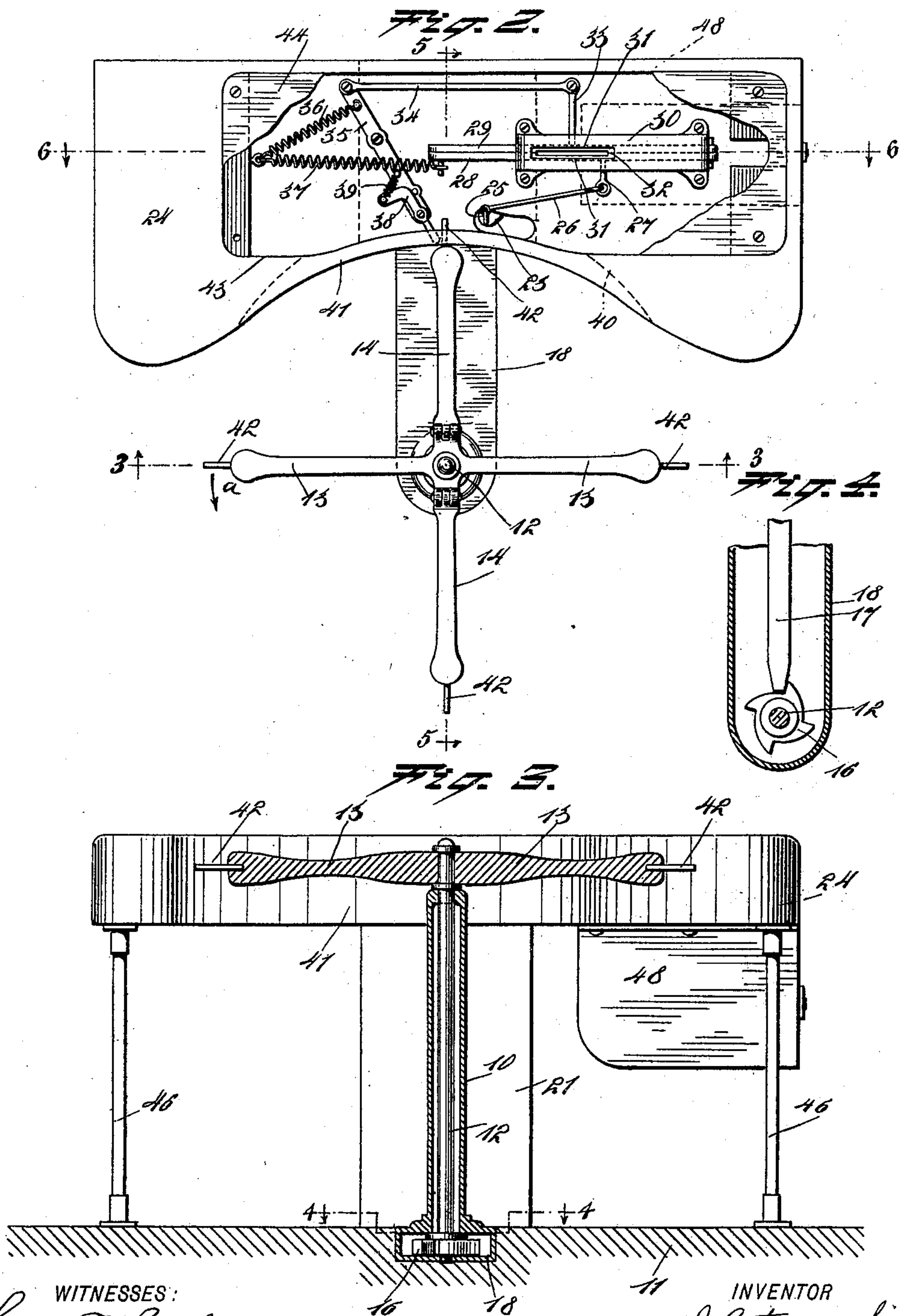
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3 Sheets—Sheet 2.

J. AN TOMARCHI.
APPARATUS FOR COLLECTING TICKETS.

No. 599,159.

Patented Feb. 15, 1898.



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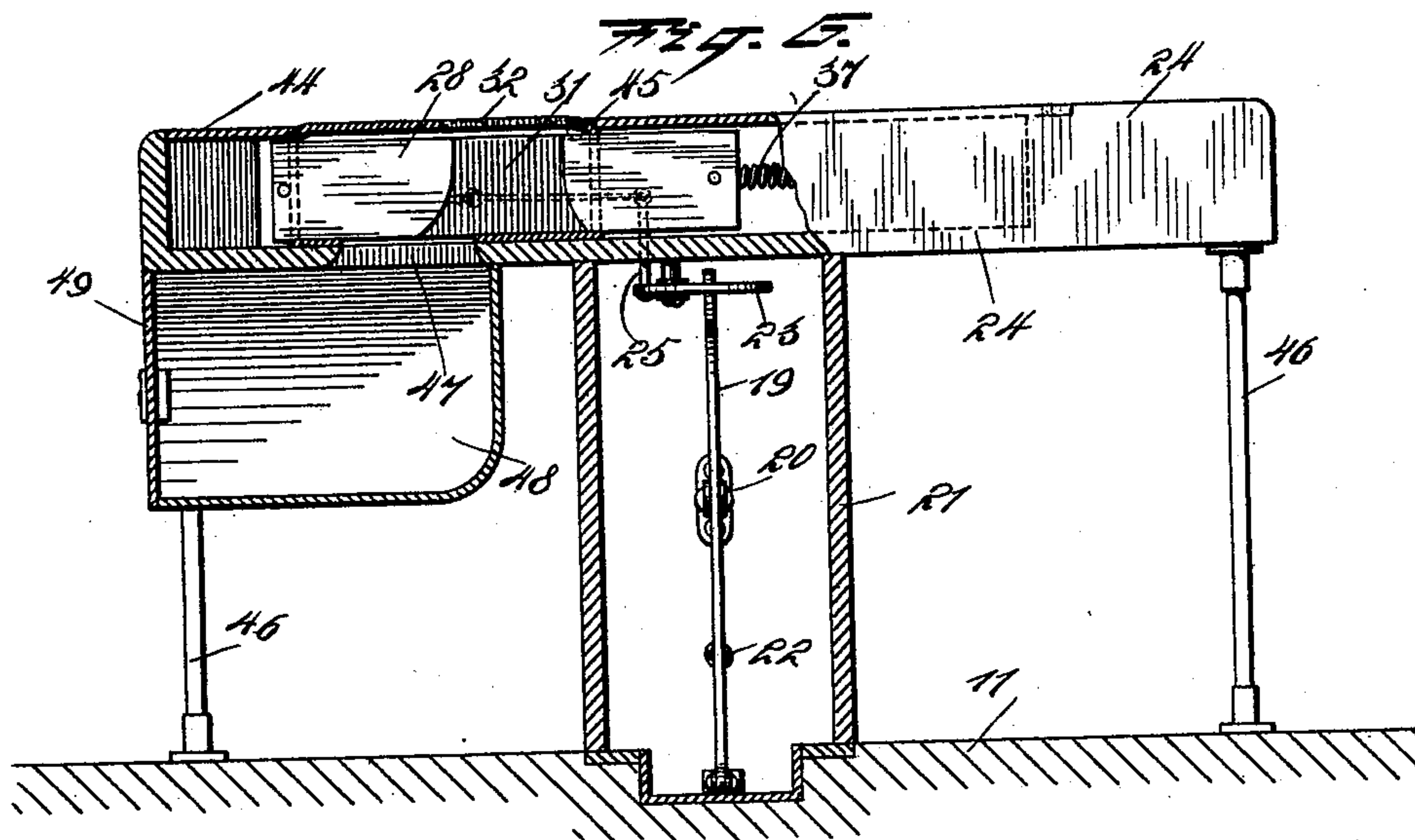
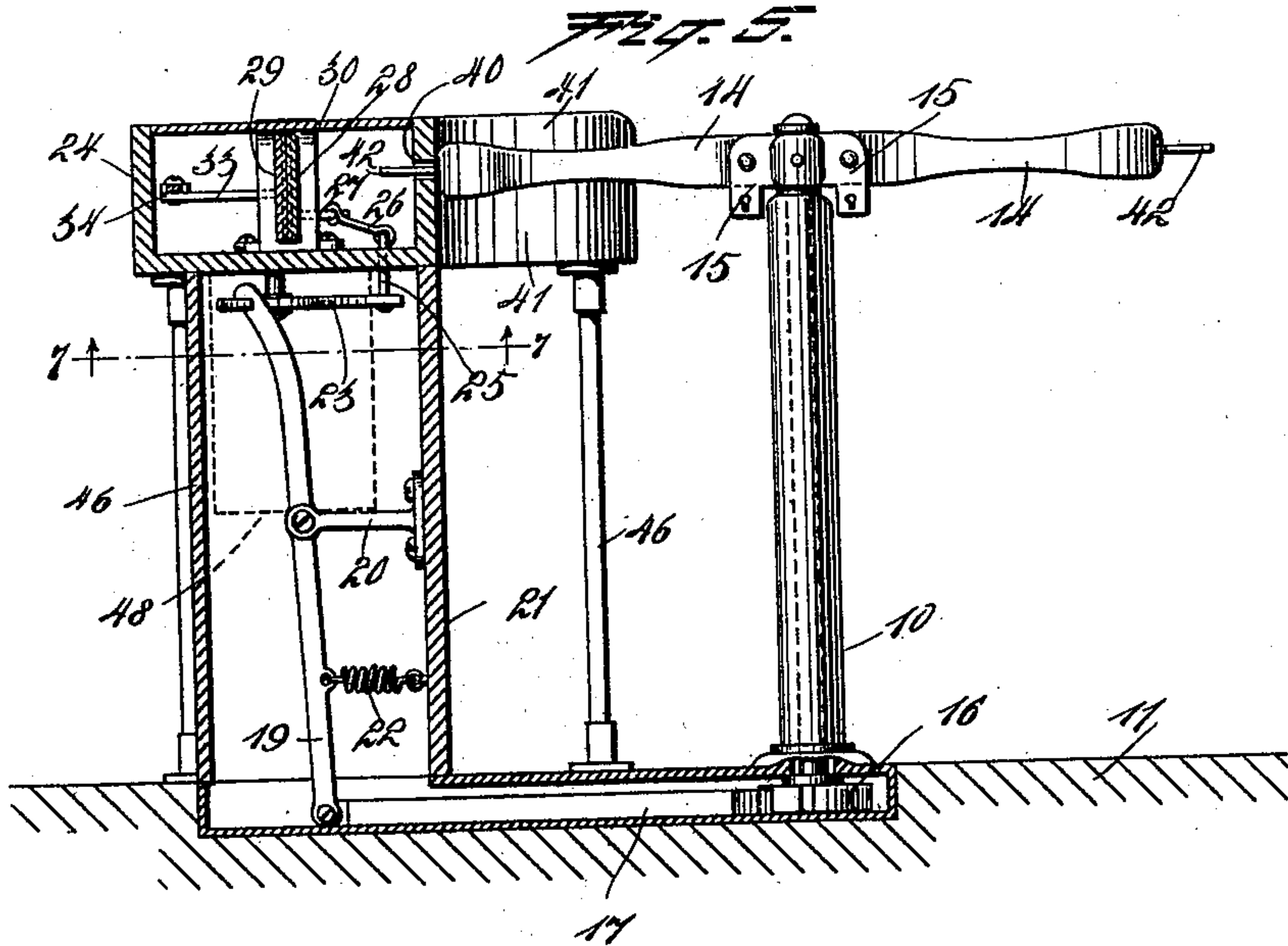
(No Model.)

3 Sheets—Sheet 3.

J. AN TOMARCHI.
APPARATUS FOR COLLECTING TICKETS.

No. 599,159.

Patented Feb. 15, 1898.



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UNITED STATES PATENT OFFICE.

JOSEPH ANATOMARCHI, OF GLOSTER, MISSISSIPPI, ASSIGNOR OF ONE-HALF
TO HARRY NORWOOD STREET, OF SAME PLACE.

APPARATUS FOR COLLECTING TICKETS.

SPECIFICATION forming part of Letters Patent No. 599,159, dated February 15, 1898.

Application filed March 3, 1897. Serial No. 625,874. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH ANATOMARCHI, of Gloster, in the county of Amite and State of Mississippi, have invented a new and Improved Apparatus for Collecting Tickets, of which the following is a full, clear, and exact description.

The purpose of this invention is to provide a superior apparatus for use in collecting tickets, by which apparatus the auditors of railways, theaters, halls, and other places where persons are accommodated for a fare may keep an accurate check on the accounts of the concern, so that the auditor may know exactly the condition of the business and may detect any dishonesty on the part of persons handling the receipts.

The invention will be fully described hereinafter and defined in the claims.

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

Figure 1 is a plan view of my invention applied to a railway-car. Fig. 2 is an enlarged plan of a portion of the apparatus with parts broken away. Fig. 3 is a sectional view on the line 3 3 of Fig. 2. Fig. 4 is a sectional view on the line 4 4 of Fig. 3. Fig. 5 is a sectional view on the line 5 5 of Fig. 2. Fig. 6 is a sectional view on the line 6 6 of Fig. 2. Fig. 7 is a sectional view on the line 7 7 of Fig. 5, and Fig. 8 is a sectional view on the line 8 8 of Fig. 1.

I will first describe the apparatus which I have invented, and next describe the manner in which the apparatus may be used. The form of my invention shown in the drawings is that which is adapted to a railway-train. This adaptation can be changed to various other purposes, as will be obvious hereinafter.

According to the drawings, a railway-car provided with my invention has a hollow column 10, mounted on the floor 11 of the car and carrying a vertical and revoluble shaft 12, to the upper end of which are fixed two rigid arms 13, projecting oppositely from each other, and two hinged arms 14, projecting oppositely from each other and at right angles to the arms 13. The arms 14 are provided with locks 15, respectively, at their

hinges, whereby the arms 14 may be held in the position shown in Fig. 5, or upon releasing the lock the arms may be dropped to a vertical position. If desired, the arms 13 may be hingedly mounted, as well as the arms 14, and provided with locks similar to the locks 15. I have shown two arms hinged and two arms rigid as examples of both constructions. The lower end of the shaft 12 carries a ratchet-wheel 16, engaged by a transversely-extending pawl 17, sliding in a casing 18, sunk in the floor 11 of the car. The end of the pawl 17 opposite the ratchet-wheel 16 is pivoted to the lower end of a lever 19, fulcrumed on an arm 20 and inclosed by a casing 21. The arm 20 is attached to the casing 21, and a retractile spring 22 is attached to the casing and to the lever 19 and draws said lever to the position shown in Fig. 5. The upper end of the lever 19 is engaged by the inner edge of a crescent-shaped cam-plate 23, pivoted to the under side of a horizontal box 24 and connected at one end to a rod 25, which passes through an opening in the bottom of the box 24 and is connected with a link 26 running in the box and in turn pivoted to an arm 27, attached to a plate 28, which, together with a second plate 29, slides in a casing 30, rigidly carried on the bottom of the box 24. The plates 28 and 29 have flat surfaces engaging with each other, and each plate has a recess 31 in these engaging faces. The recesses 31 are normally in register with each other. A ticket inserted through the opening 32 in the top of the casing and into the registering recesses 31 of the plates 28 and 29 will connect the plates 28 and 29 with each other, so that when the plate 29 moves the plate 28 will be moved in unison, which will impart movement to the cam-plate 23, causing the lever 19 to swing. This will move the pawl 17 and disengage the same from the ratchet-wheel 16. This permits the shaft 12 to swing in the direction of the arrow *a* in Fig. 2.

The plate 29 is provided with an arm 33, which, like the arm 27, projects outwardly through a slot in the casing 30. The arm 33 is pivoted to a link 34, in turn pivoted to a lever 35, fulcrumed on the bottom of the box 24 and held in the position shown in Fig. 2

by a retractile spring 36. A retractile spring 37 is connected with the plate 28 and holds the plate 28 in the position shown in Fig. 2. Pivoted on the lever 35 at the end opposite the end having the link 34 is a latch-bar 38, actuated by a retractile spring 39, attached to the latch-bar and to the lever 35 and having one end projected beyond the adjacent end of the lever and juxtaposed to a slot 40, formed in the curved side wall 41 of the box 24. This slot is shown by dotted lines in Fig. 2 and by full lines in Fig. 5. As the outer ends of the arms 13 and 14 swing the pins 42, carried by the outer ends of the arms, successively move through the slot 40. When the shaft 10 turns in the direction of the arrow *a*, (shown in Fig. 2,) the pins 42 will engage the projected end of the latch-bar 38, transmitting movement to the lever 34 and sliding the plate 29 in the casing 30. When the shaft turns in the opposite direction, the disposition of the latch-bar being such as described, the latch-bar will swing idly on its fulcrum and permit the pins 42 to pass without affecting the lever 35.

When a person in passing the gate formed by the arms 13 and 14 pushes the arms, so that the shaft 10 will tend to move in the direction of the arrow *a* in Fig. 2, it will be impossible for any person to pass the gate unless the pawl 17 be retracted. This retraction of the pawl 17 can only be effected when a connection exists between the plates 28 and 29. This connection between the plates 28 and 29 is only effected by the presence of a ticket within the recesses 31 of the said plates. Consequently when a person deposits a ticket in the recesses of the plates 28 and 29 and pushes the arms 14 to turn the shaft 12 in the direction of the arrow *a* in Fig. 2 the movement of the plate 29 from the lever 35 will be transmitted to the plate 28 and thence to the cam-plate 23, which in turn will swing the lever 19 and retract the pawl 17. When the pawl 17 is retracted, the shaft 10 may swing completely around until the arm 13 or 14, following the arm which has just shifted the lever 35, comes opposite the latch 38, whereupon the springs 36 and 37 will have returned the parts 35 and 28 to their normal position and the further rotation of the shaft will be stopped. If there is no connection between the plates 28 and 29, the rotation of the shaft 12 is but a very slight fraction of a complete turn, since the ratchet-wheel 16 moves against the pawl 17 as soon as the pin 42 of the arm 13 or 14, which is adjacent to the curved side 41 of the box 24, engages the lever 38 sufficiently to move the plate 29 in the casing 30. When this engagement between one of the parts 42 and the part 38 has taken place to a degree sufficient to slide the plate 29, but not sufficient to enable a person to pass that arm 13 or 14 which carries the pin 42, which is operating, the rotation of the shaft 12 is stopped, and the person operating the apparatus can go no further. It is essential, therefore, that

the person turning the shaft 10 of the gate should have a ticket by which to connect the plates 28 and 29 with each other.

The top of the box 24 is provided with an opening 43, closed by a cover-plate 44, having a slot 45 therein, which registers with the casing 30, so that the upper side of the casing and consequently the opening 32 therein will be always exposed. Referring to Fig. 1, it will be seen that the gates composed of the arms 13 14 form a barrier across the entrance to the interior of the car. The arms 13 14 may turn freely in the direction opposite the direction indicated by the arrow *b* in Fig. 1, so that persons may pass into the car without restraint. It is impossible, however, for persons to pass out of the car without turning the arms 13 14 in the direction of the arrow *b* in Fig. 1, which can only be effected by connecting the plates 28 and 29 by a ticket, so that movement may be transmitted to the pawl 17 and the same retracted. The box 24 is supported on four legs 46, rising from the floor of the car. The plates 28 and 29 when the ticket is between them slide through the casing 30 in unison with each other and carry the ticket over a slot 47, formed in the bottom of the box 24. The slot 27 communicates with a supplementary box 48, supported beneath the box 24 and having a lock-controlled door 49, by which access may be had to the interior of the box 48. Tickets therefore dropped into the box 24 serve to permit the person dropping the ticket to pass the gate, after which the tickets are carried over the slot 47, through which they drop and into the box 48. Here the tickets may remain until a properly-authorized person releases the door 49 and takes the tickets from the box 48.

In reference to the form of my invention shown in the drawings it is desirable that means be provided by which the train-hands may pass out of the car without turning the arms in the direction of the arrow *b* in Fig. 1. These means consist in two posts 50 and 51, rising from the floor of the car and carrying an arc-shaped tube 52, wherein is held a spiral spring pressing an arc-shaped barrier-bar 53. This barrier-bar 53 is slidable within the tube 52, so as to open or close the space between the inner end of the tube and the shaft 12. The spring 52^a normally holds the bar 53 in the position shown in Fig. 1. The bar 53 co-acts with a stationary barrier-bar 54, attached to the upper end of the shaft 12 and projecting inwardly to meet the inner end of the bar 53. The upper end of the post 51 is provided with a lock, the keyhole of which is visible in Fig. 1. This lock holds the bar 53 in the position shown in Fig. 1. When the lock is released, the bar 53 may be moved into the tube 52 to permit a trainman to pass out of the car. In the practice of my invention I propose that every trainman shall be provided with a key by which the bar 53 may be locked and unlocked. This permits the trainmen to pass freely by the apparatus without

affecting the apparatus or being annoyed thereby.

It is my purpose to apply this invention to railway-cars as now constructed. I provide, therefore, means for permitting the dressing-room of the car to be entered without persons passing the gate composed of the arms 13 14. These means are shown in Figs. 1 and 8 and consist in a skeleton partition 55, the free end of which is movable against the inner wall of the dressing-room 56, so as to cover the door of the dressing-room. The partition 55 is movable inward away from the dressing-room, and to limit the inward movement of the partition a stop 57 is provided, wherewith the partition is engaged. The partition 55 is mounted to swing on the post 58, rising from the floor of the car and braced by an arm 59, projecting horizontally from the tube 52 and attached to the upper end of the post 58. A retractile spring 60 is attached to the inner end of the tube 52 and to the corresponding end of the partition 55. The spring 60 normally holds the partition against the inner wall of the dressing-room. A person desiring to go from the interior of the car to the dressing-room may push the partition 55 to the position shown by dotted lines in Fig. 1, whereupon the door of the dressing-room may be opened and the dressing-room entered. This arrangement prevents persons from passing into the car by means of the dressing-room and at the same time permits persons within the car to have free access to the dressing-room. The partition 55 and its appurtenant parts would probably not be used were cars constructed with the application of my invention in view. When, however, my invention is applied to the existing style of cars, it is desirable to have this partition 55 and its coacting parts.

Having thus described the apparatus, I will proceed to explain the manner of using the same.

Assuming that the invention is applied to railway-cars as shown in Fig. 1, passengers may enter the car freely by moving the gate composed of the arms 13 14 in the direction opposite to that indicated by the arrow *b* in Fig. 1. The conductor of the car should be supplied by the auditor with a book of blank tickets numbered consecutively and provided with spaces and divisions as the auditor desires. The conductor upon collecting the fare marks on one of his tickets the amount of cash that is paid, or if a ticket or pass or warrant other than the fare is offered the conductor such should be noted on the ticket which he holds. These tickets or notes made by the conductor should be made in duplicate and one handed to the passenger and one retained by the conductor. At the end of the run the conductor turns in to the auditor the stubs kept by him. When the passenger desires to leave the train, the passenger places the ticket that is given him into the casing 30, so that the plates 28 and 29 will be connected

with each other. The passenger then moves the gate composed of the arms 13 14 in the direction opposite that shown by the arrow *b* in Fig. 1, whereupon by the operation of the mechanism previously described the pawl 17 is retracted and the gate permitted to turn to such an extent as permits the passenger to pass out.

I have shown the invention applied in Fig. 1 to a railway-car. It is obvious that the invention is applicable to any other use in connection with which persons or passengers pass through a gate. The tickets may be deposited into the box 24 either upon the entry or exit of the passengers.

When the invention is used on a railway-train, if so desired only one of the gates may be employed for the whole train, in which event the platform-steps will be provided with closure-gates, preventing access and exit from the train except at a certain door. At this certain door one of my inventions will be in operation. At the other points where my invention may have been placed the hinged arms 14 may be dropped to vertical position, which will permit the passenger to pass freely by the apparatus without affecting the same or without being inconvenienced by it.

The tickets may be used to connect the plates 28 and 29, or if it be found that the tickets are not sufficiently stiff the tickets may be placed in a metallic or other rigid case which, with the ticket therein, can be put between the plates 28 and 29 to connect them with each other.

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

1. The combination with supporting-frames, of a gate, a pawl restraining the gate, a lever in connection with the pawl, a cam-plate engaging the lever, two sliding plates adjacent to each other and capable of being connected with each other by a ticket, a second lever fulcrumed on the frame and adapted to be operated by engagement with portions of the gate, a connection between the second lever and one of the sliding plates, and a connection between the cam-plate and the second of the sliding plates, substantially as described.

2. The combination of a rotary gate, a ratchet-wheel in connection therewith, a pawl engaging the ratchet-wheel, a lever connected with the pawl, a cam-plate operating the lever, a sliding plate in connection with the cam-plate, a second sliding plate capable of being connected with the first sliding plate by a ticket, and means operated by engagement with the gate, such means being in connection with the second of the sliding plates, substantially as described.

3. The combination of a hollow column, a shaft revolubly mounted therein, arms fixed to the upper end of the shaft and rotating therefrom, a ratchet-wheel fixed to the lower end of the shaft, a pawl sliding horizontally

and engaging the ratchet-wheel, a lever pivoted to the pawl, a cam-plate engaging the lever whereby to swing the lever and retract the pawl, and means for operating the cam-plate, substantially as described.

4. The combination of a box, two plates mounted to slide within the box, means in connection with one plate and located within the box, such means being operative from the exterior of the box, a cam-plate mounted beneath the box, a connection between the cam-plate and the second sliding plate, a gate, and restraining devices for the gate, such devices being controlled by the cam-plate, substantially as described.

5. The combination of a pawl, a lever in connection with the pawl, a cam engaging the lever, a casing with an opening therein, two plates sliding with the casing and having recesses registering with each other, a connection between one of the plates and the cam whereby the cam is operated, and means for transmitting movement to the second of the plates.

6. The combination of a gate, a lever in

connection with restraining mechanism therefor, an oscillating crescent-shaped cam pivoted intermediate its ends and having its concave edge engaged with the lever, and means for oscillating the cam to operate the lever.

7. The combination of a box, a casing contained within the box, the box having an opening in one side, and a portion of the casing being extended through said opening, the said extended portion of the casing having an opening therein, two plates sliding within the casing and having registering recesses, said recesses being also capable of registering with the opening in the casing, a lever mounted within the box, a spring attached to the lever, an arm attached to the lever and having connection with one of the plates, a cam in connection with the other plate, a gate capable of operating the lever, and restraining mechanism for the gate, the restraining mechanism being operated by the cam.

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Witnesses:

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