(No Model.) 2 Sheets—Sheet 1.

D. L. TOWER.

CHANGE MAKING AND DELIVERING DEVICE.

No. 486,201. Patented Nov. 15, 1892.

Fig. 1.

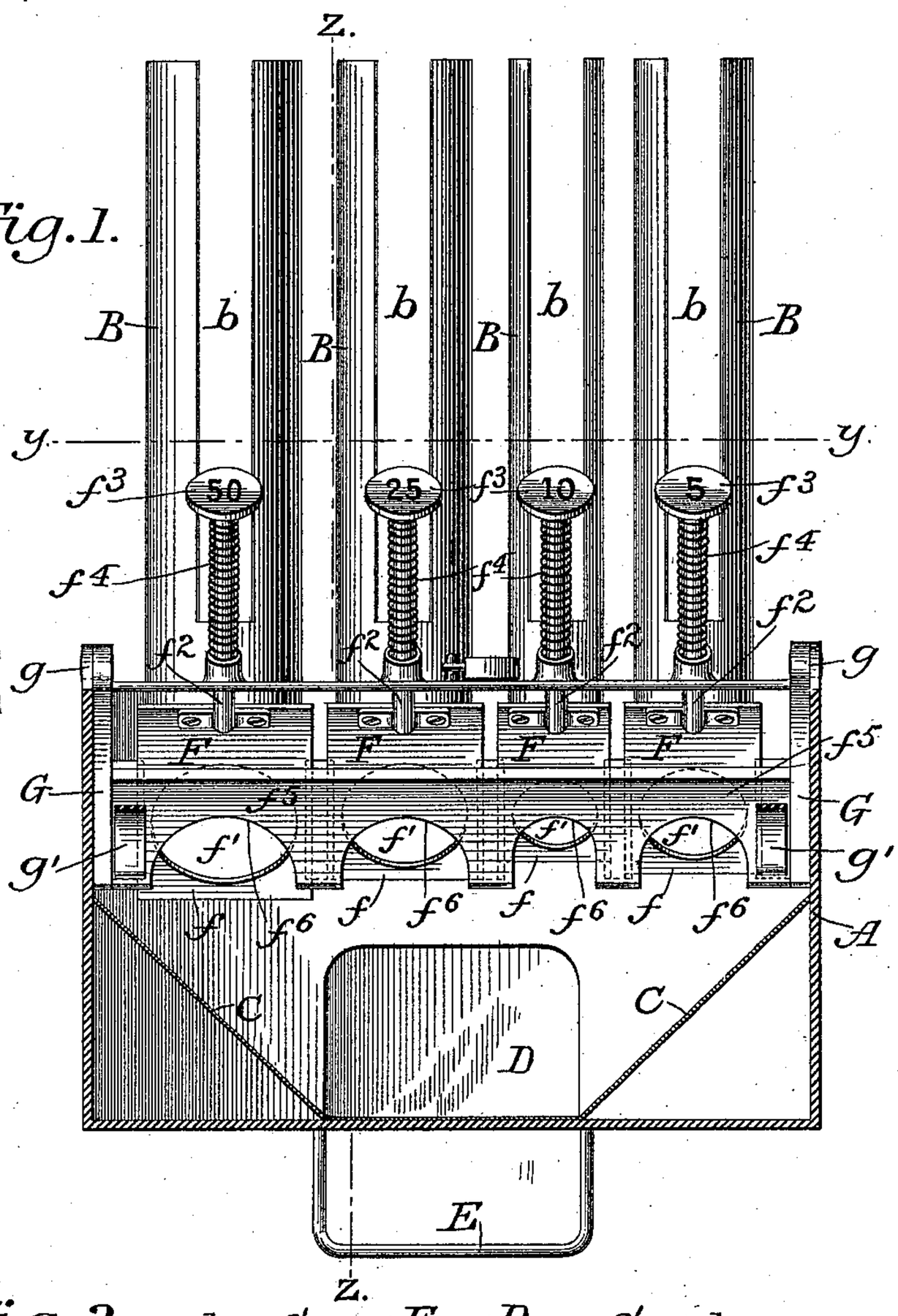
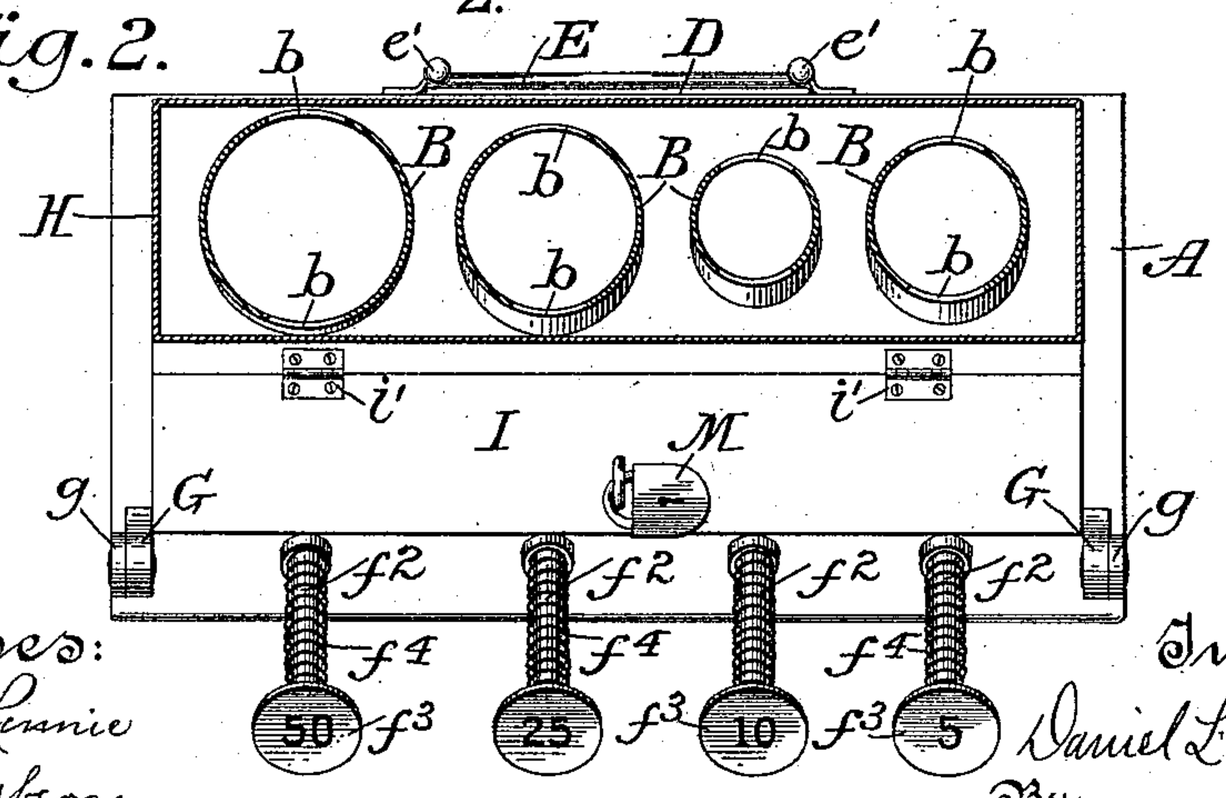


Fig. 2.



Witnesses:
John F. Kennie
A. N. Jesbera.

Inventor;
Daniel L. Tower
By
William B. Greeley
Attorney.

(No Model.) 2 Sheets—Sheet 2.

D. L. TOWER.

CHANGE MAKING AND DELIVERING DEVICE.

No. 486,201. Patented Nov. 15, 1892.

Fig. 3.

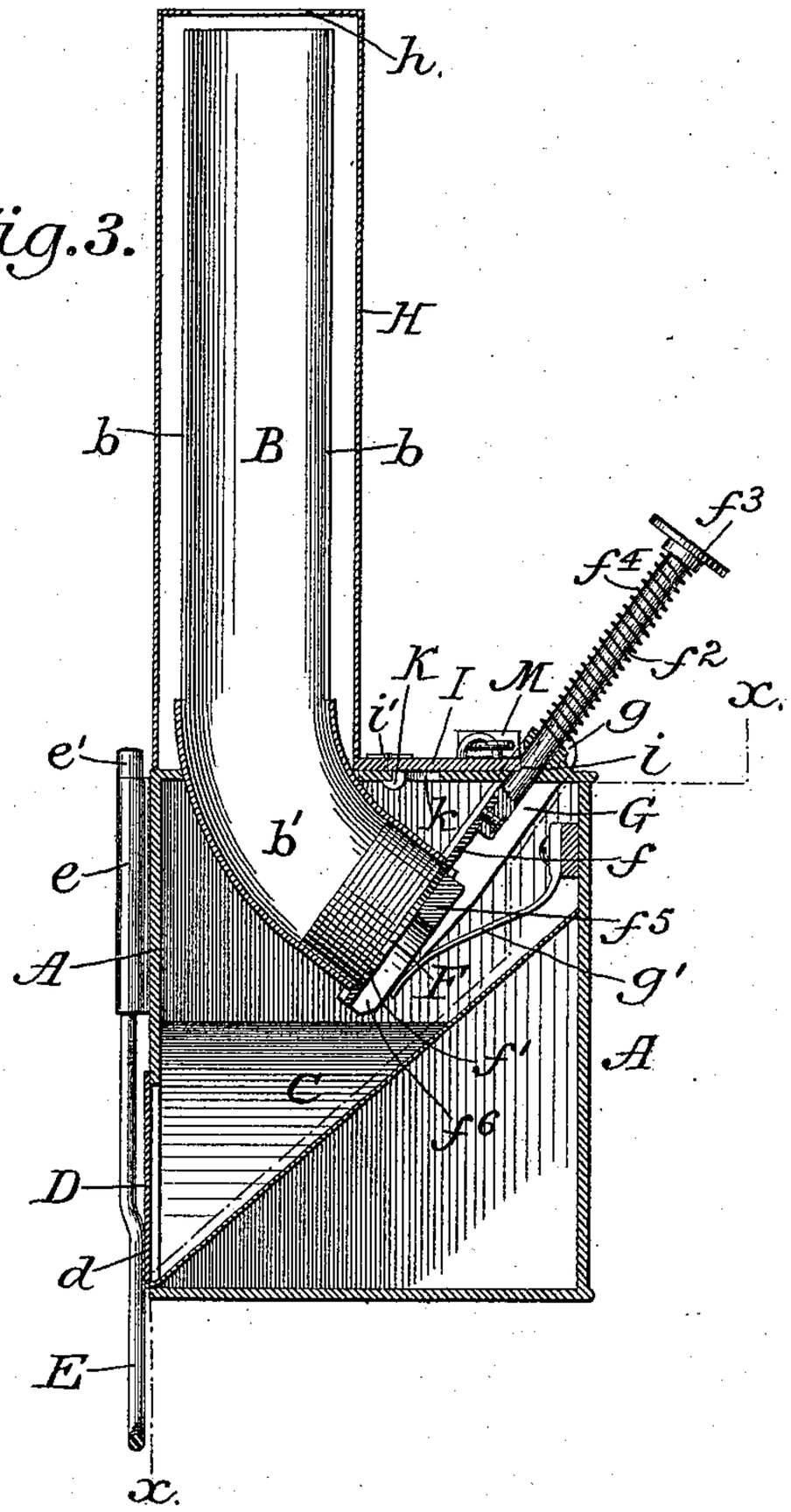
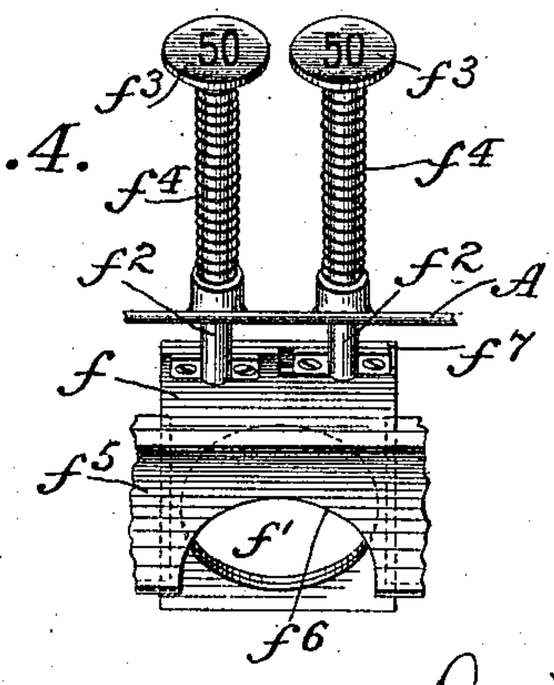


Fig. 4.



Witnesses:
A. N. Jesbera.
A. Fridder.

Inventor:
Daniel L. Tower
By
William B. Greeley
Attorney.

UNITED STATES PATENT OFFICE.

DANIEL L. TOWER, OF BROOKLYN, NEW YORK.

CHANGE MAKING AND DELIVERING DEVICE.

SPECIFICATION forming part of Letters Patent No. 486,201, dated November 15, 1892.

Application filed January 8, 1892. Serial No. 417,405. (No model.)

To all whom it may concern:

Be it known that I, DANIEL L. TOWER, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Change Making and Delivering Devices; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The object of my invention is to provide an improved change making and delivering device which can be operated readily, can be easily and quickly charged with coin and as easily be relieved of all the coin therein contained, and which can be readily locked, when so desired, to prevent operation and access to the coin-holders.

In the accompanying drawings, wherein I have illustrated my improvements, Figure 1 is a rear elevation of the improved device, the lower portion being shown in section on the line *x x* of Fig. 3. Fig. 2 is a horizontal section on the line *y y* of Fig. 1. Fig. 3 is a vertical section on the line *z z* of Fig. 1, and Fig. 4 is a detail of a modification to be referred to.

Upon a suitable box or casing A are erected any desired number of coin-tubes B, of different diameters, according to the coins to be delivered. The upper portions of said tubes may be inclined or vertical, as shown, and are formed with open-ended slots *b b* to permit the ends of the operator's fingers to remain in contact with a column of coins with which he may be charging the machine. The lower ends *b'* of the tubes are preferably inclined somewhat, as represented, so that the pressure of a column of coins upon the lowermost coins and upon the delivery-slides may be somewhat relieved.

The open lower ends of the tubes are closed by a delivery-slide, as hereinafter described, and are adapted to discharge the coins over a common delivery-chute C, which terminates in a gate D, adapted to be operated by the person receiving the change. In order that such person may open the gate with the hand in which he receives the coins, I have provided the gate, which is movable over the mouth of the chute, with a projecting bail or handle E, which stands in position to be struck and moved by the hand as it is presented to receive the coins. In the present case the bail or handle is secured to the gate, as at *d*, and its ends are extended upward to enter and slide in guides *e e*, which are fixed to the casing A. The extremities of the bail are headed, as at *e' e'*, to limit the downward movement of the gate.

The delivery-slide F consists of a plate *f*, having a hole *f'*, of a diameter equal to the diameter of the coin to be delivered, and guided in suitable ways to slide in close contact with the end of the tube. The plate is provided with a stem f^2 and a finger-piece f^3, the stem being surrounded by a spiral spring f^4, which operates to hold the plate in the position represented in Figs. 1 and 3. Beneath the plate *f* and in close contact therewith is fixed another plate f^5, which has in its end a notch f^6 of a width equal to the diameter of the coin and which partly overlaps the hole in the plate *f*. The latter is of a thickness equal to the thickness of the coin, and consequently a single coin drops into the hole therein when the plate assumes its normal position and is thrust forward as the plate is pushed against the stress of the spring f^4, the coin dropping into the delivery-chute from the plate *f* as soon as the inner or upper edge of the hole therein registers with the inner or upper edge of the notch in the plate f^5.

For convenience in removing all the coins from the tubes I prefer to support the plates *f* and f^5 by arms G, which are secured to the plate f^5 and are pivoted to the main casing, as at *g*. A spring or springs *g'* serves to hold the plates normally against the ends of the tubes; but by pressing the stems f^2 above the line of the pivots *g* toward the tubes both plates *f* and f^5 will be swung away from the tubes and all the coins therein will be delivered into the chute. I have shown all the plates as adapted to swing together; but it is obvious that they might be arranged to swing independently of one another. The coin-tubes may be protected by a cover H and the delivery-slides F may be held from accidental or improper movement by a locking bar or plate I, which is adapted to engage with a notch *i* in each stem f^2. For convenience I prefer to attach the bar or plate I movably to the cover H, as by hinges *i'*, and in this case I affix to

the rear edge of the plate I a hook K, which passes through a notch *k* in the top of the casing A and engages with the under side thereof. In this manner I am enabled to secure both cover H and locking-plate I by a single lock, as M, and yet permit the delivery-slides F to be released for operation without uncovering the coin-tubes. In order that the person in charge may conveniently add coins to the tubes from time to time without removing the cover, I provide a slit *h* (see Fig. 3) in the top of the cover over each tube.

In Fig. 4 I have shown a modification of the delivery-slides by which more than one coin of a given denomination may be delivered at one operation, if desired. The notched plate f^5 and one slide-plate *f* are as before described, save that the stem f^2 is slightly offset to one side. A second slide-plate f^7 is superimposed upon the first and its stem or a projection on the plate overlaps the edge of the plate *f*. The operation of the plate *f* causes the delivery of a single coin; but the operation of the second plate f^7 causes the operation of the plate *f* also and the delivery of two coins. Other plates might be added, if desired, to cause the delivery of three or more coins; but I have deemed it best not to obscure the drawing by further illustration.

I claim as my invention—

1. In a change making and delivering apparatus, the combination of a delivery-chute having an inclined bottom, vertical ways, a gate sliding vertically on said ways and adapted to close the mouth of said chute when in its lowest position, and a bail extended below said gate in the line of its movement and parallel with the plane in which the coins fall from the chute, whereby the hand is always in position to receive coins while opening the gate, substantially as shown and described.

2. In a change making and delivering apparatus, the combination of a cylindrical coin-tube having its upper portion vertical and its lower portion inclined from the vertical and a delivery-slide closing the lower end of said tube, substantially as shown and described.

3. In a change making and delivering apparatus, the combination of a coin-tube, a delivery-slide closing the lower end thereof, movable supports for said slide, and means to retain said support and slide against the end of said tube, substantially as shown and described.

4. In a change making and delivering apparatus, the combination of a coin-tube, a delivery-slide closing the lower end of said tube, pivoted arms upon which said slide may move, and a spring to retain said slide against the end of said tube, substantially as shown and described.

5. In a change making and delivering apparatus, the combination of a coin-tube, a delivery-slide closing the lower end thereof, a pivoted support for said tube, and a spring to swing said support and slide against the end of said tube, substantially as shown and described.

6. In a change making and delivering apparatus, the combination of a coin-tube, a delivery-slide closing the lower end of said tube, a main casing, a cover for said tube, a bar or plate connected to said cover and adapted to engage said slide, and a locking device to secure said cover and plate to said casing, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DANIEL L. TOWER.

Witnesses:
A. N. JESBERA,
A. WIDDER.