

(No Model.)

M. A. PERSONS.
COIN CONTROLLED VENDING APPARATUS.

No. 577,207.

Patented Feb. 16, 1897.

Fig. 1.

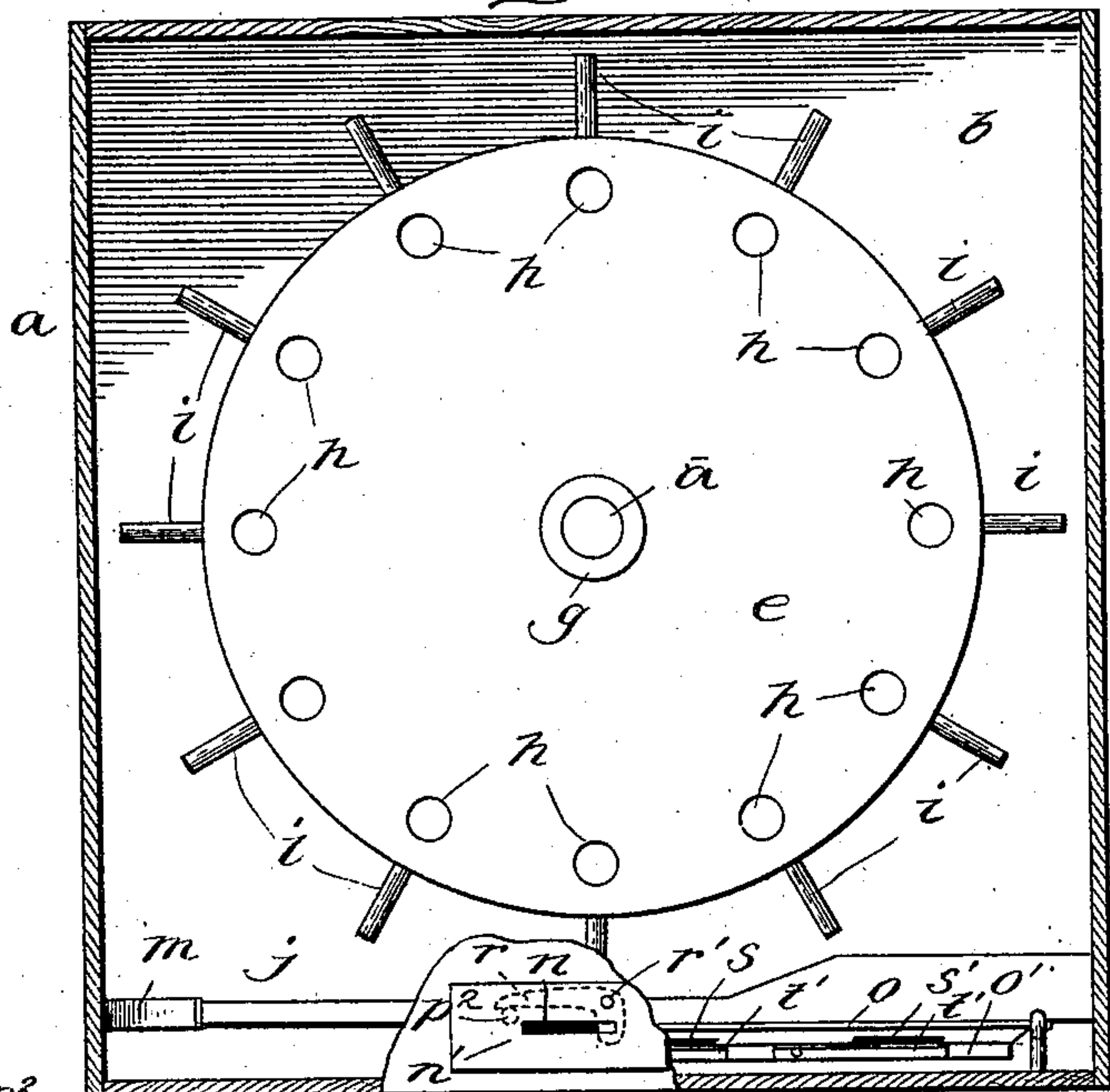


Fig. 3.

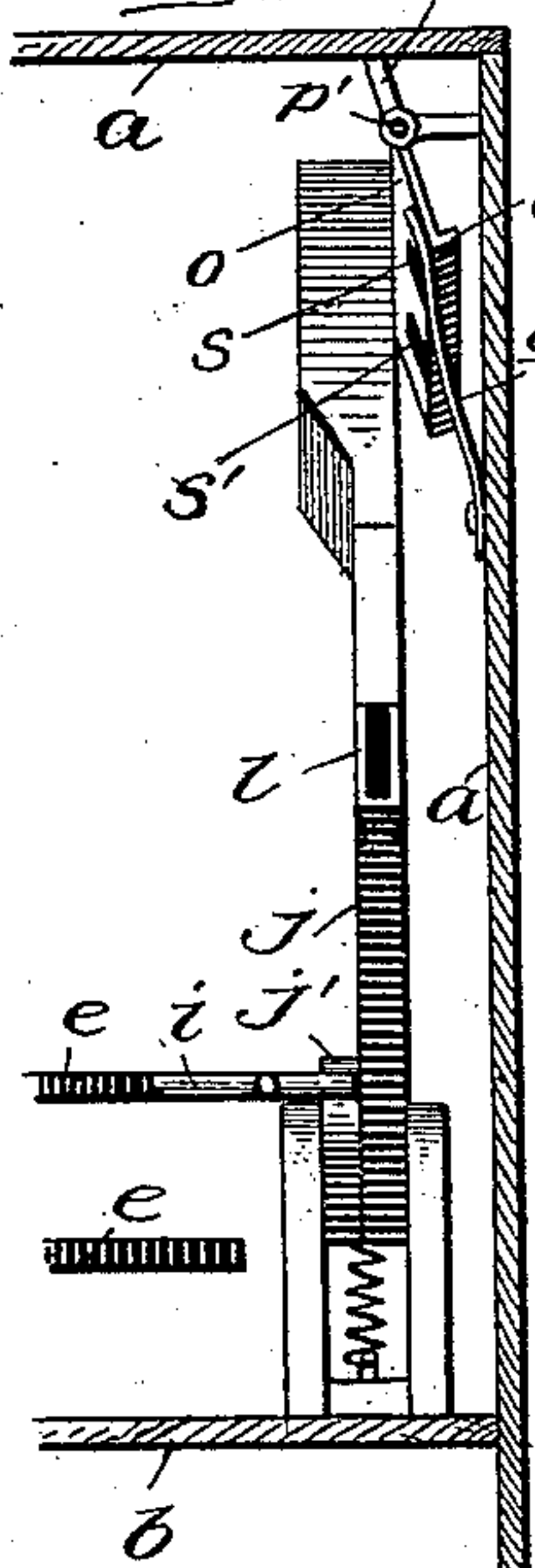


Fig. 4.

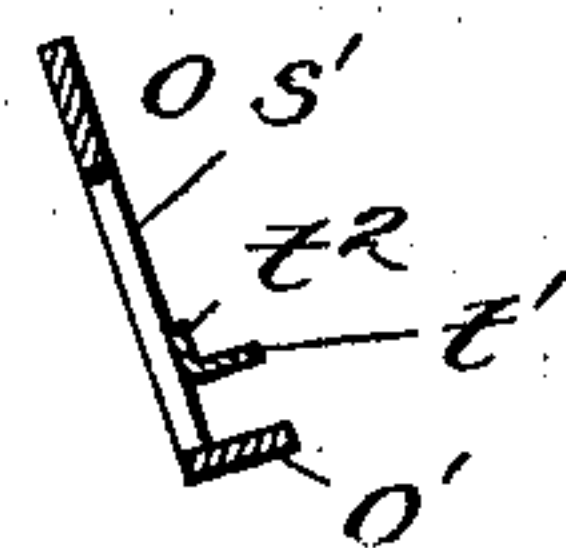
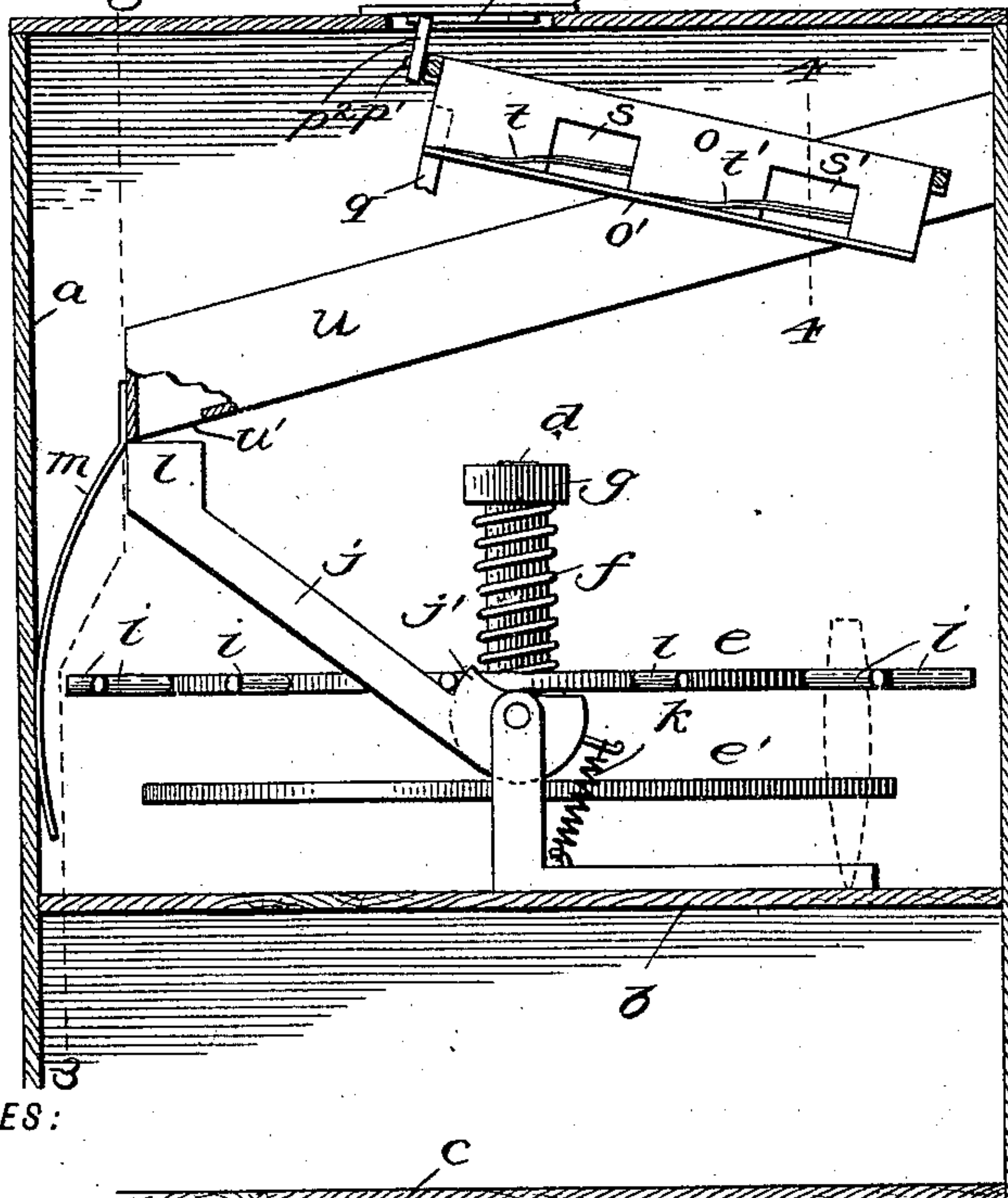


Fig. 2.



WITNESSES:

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MARSHALL A. PERSONS, OF FRANKLIN, NEW HAMPSHIRE, ASSIGNOR OF
ONE-HALF TO FREDERICK FLANDERS, OF SAME PLACE.

COIN-CONTROLLED VENDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 577,207, dated February 16, 1897.

Application filed June 29, 1896. Serial No. 597,436. (No model.)

To all whom it may concern:

Be it known that I, MARSHALL A. PERSONS, of Franklin, in the county of Merrimac and State of New Hampshire, have invented certain new and useful Improvements in Coin-Controlled Vending Apparatus, of which the following is a specification.

This invention relates to mechanism controlled by the insertion of a coin to deliver articles, such as cigars; and the object of the invention is to provide an apparatus of this type which shall be simple and durable, practical in operation, and in which the discharge of a portion of the goods sold will not affect the rotation of the mechanism to deliver the remainder as sold.

To these ends the invention consists in the construction and combination of parts, substantially as hereinafter described and claimed.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a top plan view of mechanism embodying my invention, the greater portion of the top of the casing being removed. Fig. 2 represents a side elevation of the same with the side of the casing removed. Fig. 3 represents a section on line 3 3 of Fig. 2. Fig. 4 represents a section on line 4 4 of Fig. 2.

Similar reference-letters indicate the same parts throughout the several views.

In the drawings, *a* represents the casing, having a base or floor *b*, below which is a shelf *c*, adapted to receive a cigar when delivered thereto through a suitable opening in the floor. Rising from the center of the floor is a pin *d*, on which two plates *e e'* are mounted to turn freely, a spring *f* being wound on the pin *d* and secured at one end to the plate *e* and at the other end to a collar *g* on the end of the pin, the two plates *e* and *e'* being connected together, as by a sleeve, and being adapted to be rotated on the pin by the spring *f*. The two plates are provided with a series of holes *h*, adapted to receive cigars, the latter resting on the floor *b*, and the upper plate *e* is provided with as many radial pins *i* as there are holes *h*.

Pivoted to a suitable bracket or standard on the floor of the device is an arm *j*, provided with escapement projections *j'* in the path of

movement of the pins *i*. A spring *k* normally holds the arm *j* in the position shown in Fig. 2.

It will be readily understood that when the arm *j* is depressed from the position shown in Fig. 2 it will permit one of the pins *i* to pass between the projections of the escapement, and that when the said arm *j* rises again it will permit said pin to leave the escapement, the cigar-carrier, composed of the plates *e e'*, being rotated by the spring *f* until the next pin *i* comes in contact with the first arm of the escapement, at which moment the first cigar or other article of the series held in the pockets of the carrier will be dropped through a suitable opening in the floor and onto the shelf *c*.

The arm *j* is depressed by the weight of a coin passing through the chute presently described and dropped into a pocket *l*, formed in the end of the arm, said pocket being open on one side, and a curved shield *m* being employed to prevent the coin from escaping from the pocket until the arm has been depressed the proper distance.

In the top of the casing is a plate *n'*, having a coin-slot *n*, and inside the casing is the inclined coin-chute, the upper end being below the slot *n*. The chute consists of a plate *o*, having a ledge or floor *o'* and pivotally supported by means of eyes *p*, which receive pins *p'*, projecting from the two upper corners of the plate *o*. The chute is not only hung so that its floor *o'* is inclined downward away from the coin-slot, but is also, by means of a spring *q*, normally held with the plate or wall *o* inclined to one side of a vertical position, (see Fig. 3,) so that a coin will roll down the ledge or floor *o'* with its side resting against the plate or wall *o*.

The upper pin *p'* is provided with an arm *p²*, which projects upward, as shown in Fig. 2, and an elbow-lever *r* is pivoted at *r'* to the plate *n'* and has one end crossing the end of the coin-slot and the other end resting against the side of the upper end of the arm *p²*. Therefore when a coin is inserted through the slot *n* it causes the lever *r* to operate on the arm *p²* so as to tilt the chute in opposition to the spring *q* and tip out or eject anything that may have become lodged in the chute. After the coin passes the lever *r* the spring *q* returns the chute to its normal posi-

tion in time to receive said coin on the upper end of the ledge or floor o' .

The plate o is provided with two openings $s s'$, and the floor o' is provided with two springs $t t'$, which extend past the openings $s s'$, respectively, and are slightly raised where they pass said openings.

The first or upper spring t is of such strength that if the coin is of the proper weight and size the latter will roll on over the spring, but if the coin be of heavy base material it will depress the spring and fall out through the opening s , owing to the upper edge of the coin passing below the top of the opening. Also if the coin be too small it will fall out of said opening.

The second or lower spring t' is of such strength as to be depressed by a coin of the proper weight, so that if the said coin be also of proper size it will tilt out through the opening s' into a second chute u , having an opening u' at its lower end adapted to deliver the coin to the pocket l of the arm j ; but if the coin fails to pass through either of the openings $s s'$ it is because of its being either too large to pass or too light to depress the springs t or t' , and then it will roll out at the lower end of the chute $o o'$.

To prevent the lower edge of the coin from slipping sidewise off from the springs $t t'$, each of the latter is slightly turned up to form a guard-flange t^2 at the portion of the spring opposite the opening, as indicated in Fig. 4.

The operation of my invention is as follows: A coin of the proper size and weight having been inserted through the slot n will roll down the chutes and be deposited in the pocket l . This results in depressing the arm j in opposition to the spring k and permits the first pin i of the series which is in contact with the escapement to pass over the first lug of the escapement, where it will be stopped by the second. When the arm j has been carried down far enough so that the coin can escape from the pocket l past the lower end of the shield m , the arm j will be raised again by its spring, and the tension of the spring f will rotate the carrier, since the pin that had been retained is now released, said carrier rotating until the next pin comes in contact with the escapement, at which moment the first article to be delivered has reached the proper opening in the floor of the casing.

It will be understood that since the carrier rotates in a horizontal plane the ease with which it may be moved is not affected by any excess of goods on one side of the center of movement of the carrier, as is the case when the carrier is suspended on a horizontal spindle.

While I have described and shown the circular carrier or holder $e e'$ as the movable

element, it is to be understood that this may be stationary and the floor b , which constitutes an abutment or plate which forms a stop for the articles, may be mounted to rotate on the pin d under the influence of the spring f , in which case said abutment or plate would have the pin i , which would be controlled by the escapement mechanism.

I claim—

1. A coin-controlled vending apparatus comprising in its construction a delivery-carrier mounted to rotate in a horizontal plane and having radial pins, a spring for rotating said carrier, an escapement-lever adapted to be operated by the insertion of a coin and provided with two projections alternately movable into the path of movement of said radial pins, and means for discharging an article from the carrier immediately upon the completion of the operation of the escapement.

2. A coin-controlled vending apparatus comprising in its construction a delivery-carrier mounted to rotate in a horizontal plane and having radial pins, a spring for rotating said carrier, an escapement-lever adapted to be operated by the insertion of a coin and provided with two projections alternately movable into the path of movement of said radial pins, an opening in the casing adapted to permit the discharge of an article after the operation of the escapement, and a fraud-preventing coin-chute adapted to deliver a coin to an arm of the escapement.

3. A coin-controlled apparatus comprising in its construction a coin-chute having openings in its side, and springs below and adjacent to said openings, the said springs being adapted to be depressed more or less by the passage of a coin.

4. In a coin-controlled apparatus, the combination with the casing thereof, of the coin-chute $o o'$ provided with openings $s s'$ the springs $t t'$ located below and adjacent to the openings, and the discharge-passage at the lower end of the chute, substantially as described.

5. In a coin-controlled apparatus, the combination with the casing thereof having a coin-slot n the lever r , one arm of which crosses the slot, of the coin-chute, consisting of the inclined plate $o o'$ having pins p' , one of which has an arm engaging the lever r , the spring q , and means for supporting the pins p' , substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 23d day of May, A. D. 1896.

MARSHALL A. PERSONS.

Witnesses:

JAMES E. BARNARD,
L. M. NOYES.