

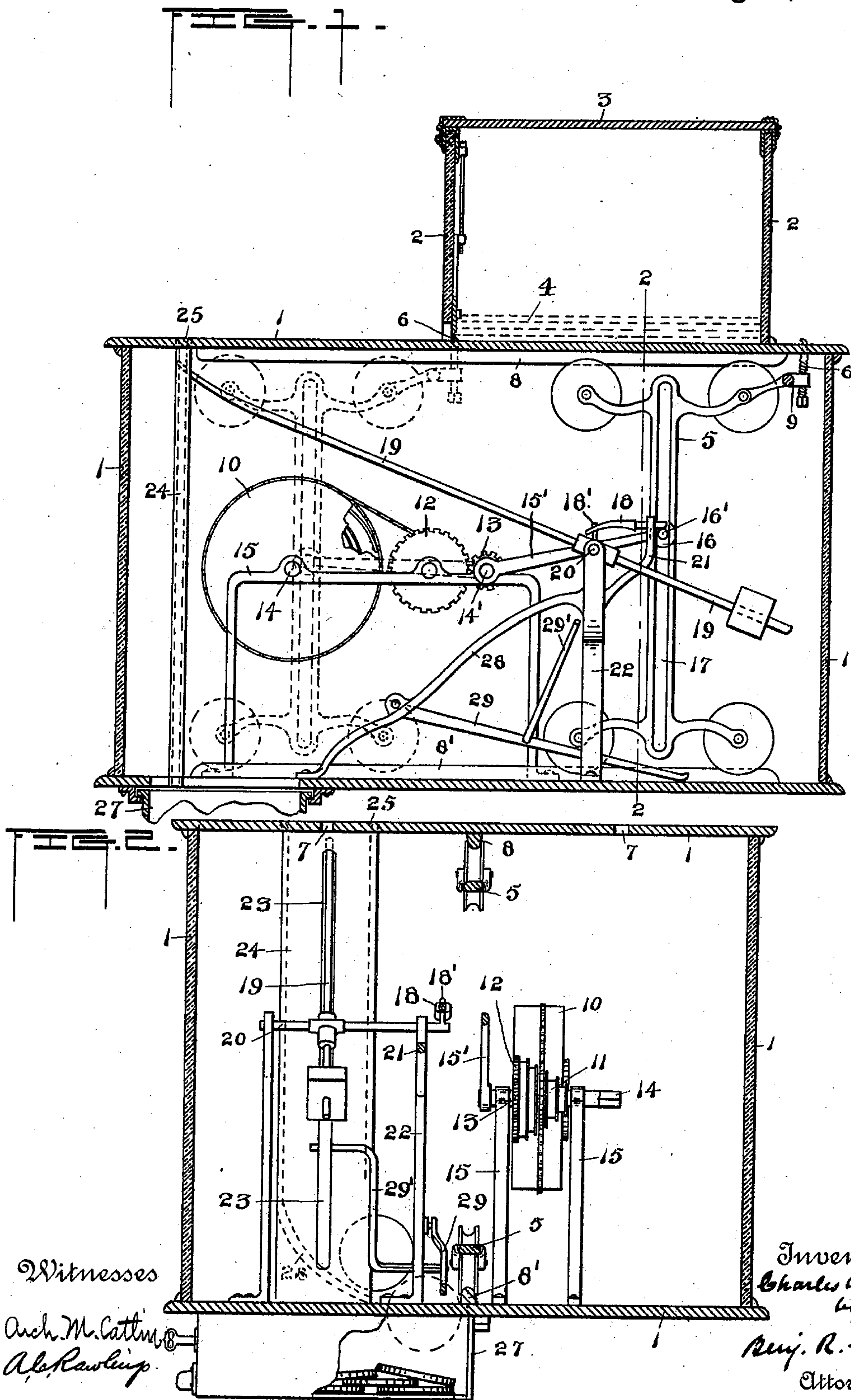
(No Model.)

2 Sheets—Sheet 1.

C. A. HOWE.
COIN CONTROLLED VENDING APPARATUS.

No. 502,722.

Patented Aug. 8, 1893.



Witnesses

Arch. M. Catlin
A. Rawling

Inventor
Charles A. Howe
by
Rufus R. Gazlin
Attorney

(No Model.)

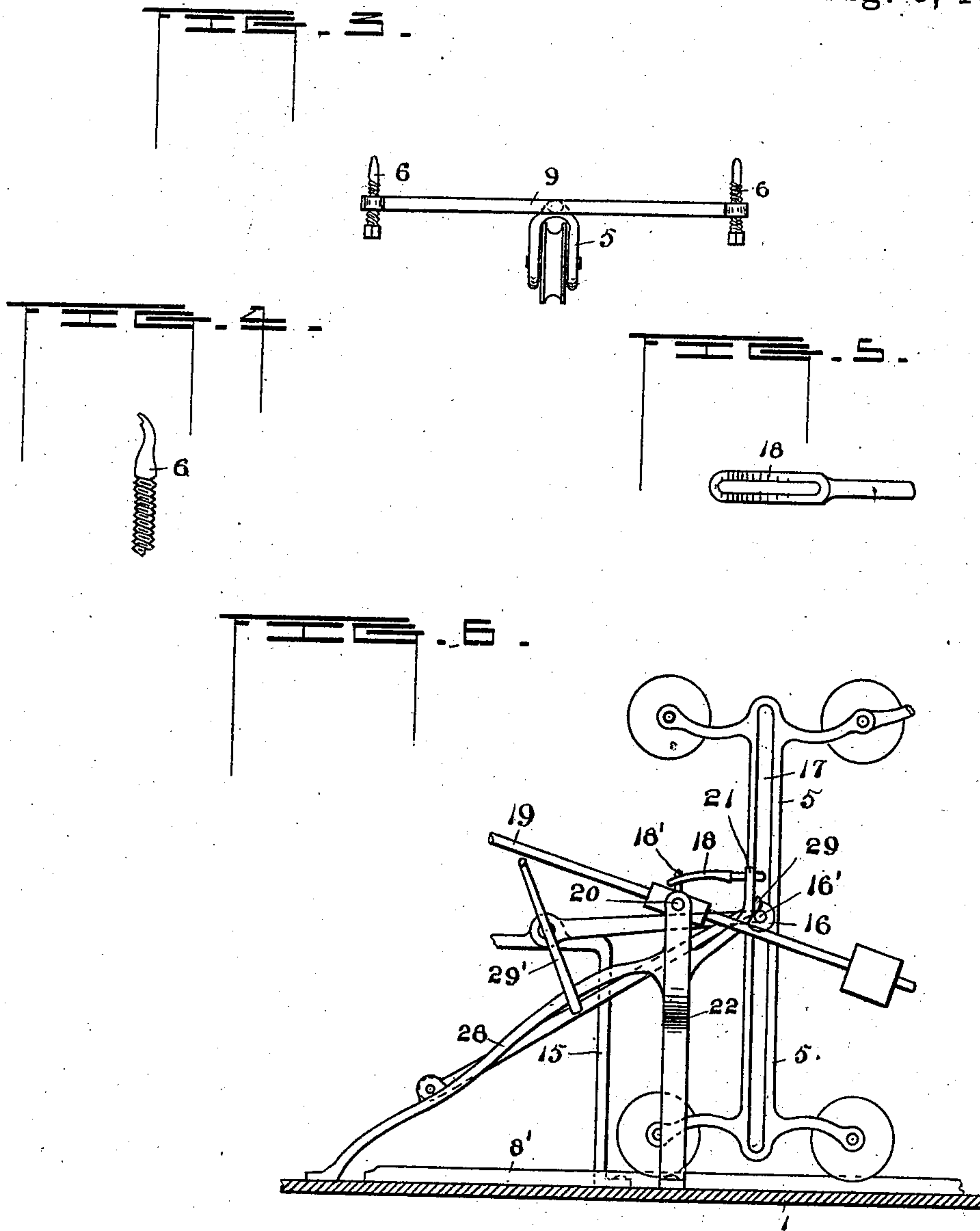
2 Sheets—Sheet 2.

C. A. HOWE.

COIN CONTROLLED VENDING APPARATUS.

No. 502,722.

Patented Aug. 8, 1893.



Witnesses

Arch. M. Catlin.
A. B. Rawlings

Inventor

Charles A. Howe
by
Benj. R. Catlin
Attorney

Attorney

UNITED STATES PATENT OFFICE.

CHARLES A. HOWE, OF BUCHANAN, MICHIGAN.

COIN-CONTROLLED VENDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 502,722, dated August 8, 1893.

Application filed February 15, 1893. Serial No. 462,475. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. HOWE, a resident of Buchanan, in the county of Berrien and State of Michigan, have invented certain
5 new and useful Improvements in Coin-Controlled Vending Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it
10 pertains to make and use the same.

The invention has for its object to provide a simple and efficient coin controlled device for delivering envelopes, photographs, cards, packages and the like; and it consists in the
15 construction hereinafter described and particularly pointed out.

In the accompanying drawings Figure 1 is a section on a plane outside the operative mechanism of the case inclosing said mechanism. Fig. 2 is a section on line 2—2 of Fig. 1. Fig. 3 is a rear elevation of the upper part
20 of the frame and fingers for moving an envelope. Fig. 4 is a partial elevation of a finger on an enlarged scale. Fig. 5 is a plan of a movable stop; and Fig. 6 is a side elevation of a part of the operative mechanism.

Numeral 1 denotes a case or box having glass sides by preference and a top and bottom of metal or any desired material.

30 2 indicates a receptacle for envelopes or the like and is provided with a movable cover 3. This receptacle has preferably glass sides also and is without any bottom other than the top of the case upon which it may be fastened in
35 any convenient manner. Envelopes or cards are indicated at 4.

5 denotes a carriage or frame provided with envelope-moving fingers 6 adapted to move in slots 7 in the top of the case. The carriage
40 has upper and lower wheels grooved to fit and run upon ribs or rails 8, 8'. The fingers 6 are adjustably supported in a cross bar 9 attached to the carriage. These fingers are rounded on their upper ends and are hollowed
45 in front substantially as indicated to adapt them to engage the edge of a thin article like a cord. They are adjusted by means of a screw thread connection with the carriage which adjustment adapts them to consider-
50 able variations in the thickness of cards and

the like. When moved toward the position indicated in dotted lines these fingers are adapted to push cards or the like out of the adjacent opening in the bottom of the box. The size of this opening can be varied for the
55 passage of articles of different thickness or in different numbers by suitably adjusting the screw controlled plate shown in Fig. 1 at the front of the box.

10 denotes a spring drum motor, 11 a fusee, 60 12 a spur gear and 13 a pinion for transmitting the power of the spring to the carriage. Said pinion is fast on a crank shaft 14 which together with the fusee and spring drum are supported upon brackets or bents 15. The
65 particular devices for supporting these parts are not essential to all the advantages of the invention, nor is the particular kind of motor.

Upon shaft 14 is fixed an arm 15' which at
70 its outer end is provided with a stud or friction wheel 16 adapted to move in the slot 17 formed in the part of the carriage which connects the wheels. This crank arm is adapted to be moved entirely around and in such movement to force the carriage and the envelope-
75 moving fingers forward and back to push out an envelope from the bottom of those in the envelope box and to return the fingers to their initial position immediately in the rear of the envelope next above the one discharged. The
80 fingers are not moved sufficiently far forward to escape from under the envelopes. Their rounded upper surfaces adapt them to slip back under an envelope without catching into it and the tip of each is hollowed out to adapt
85 it when moved forward to embrace the rear edge of the envelope.

18 denotes a sliding detent loosely fitting a pin 18' fast on the rock shaft 20 and normally held in the path of the extension 16' of the
90 crank stud 16 by the weighted lever 19 on said shaft 20 as indicated in Fig. 1. This detent is adapted to be withdrawn from the path of such extension 16' by the rocking of the shaft to which the weighted lever is fixed.
95 Said detent has its free end movably supported in the upper end of an arm or bracket 21 connected to the posts 22 which latter support the rock shaft and operating lever. The forward end of this lever 19 is arranged to
100

play freely up and down in the oppositely situated slots 23 of a coin chute 24. The latter has a coin receiving mouth 25 and an inclined discharging floor 26 leading to an opening in the floor of the case beneath which is secured a coin box 27. The front end of the lever is bent or curved upwardly so that when situated in the bottom of the slots a little below the inclined floor it will not project above said floor as a straight lever might do unless the slots were extended farther down to afford more room for such lever.

To operate the device the mechanism being in the position illustrated in Figs. 1 and 2 a coin is dropped into the chute with the effect to tilt the lever and rock the shaft 20 whereby detent 18 is withdrawn from the extension 16' of the stud on crank arm 15' and the spring, if such motor be employed, is thereby left free to move the carriage and fingers and push an envelope from its receptacle. As soon as the lever is relieved from the weight of the coin which passes out of the chute at the bottom of its inclined floor the forward end of the lever will ordinarily be raised to its initial position, by the overbalancing weight on its opposite end, but to insure this operation under all circumstances the following described devices are provided: To a strut or bracket arm 28 is pivoted a bar 29 adapted to rest loosely upon stud extension 16' and of such length that its outer curved end will pass off from said stud when the latter is raised to its higher position preparatory to advancing the carriage and it is arranged substantially as shown so that said extension will underrun and lift it as the crank is moved backwardly in its revolution. The bar 29 has a lateral arm 29' bent as shown to extend under lever 19. As bar 29 is raised by the stud extension 16' of the crank arm the arm 29' is moved into the path of the front end of lever 19 and raises it, if for any cause it has not been moved up after being depressed by a coin.

To save expense the carriage frame and the several supporting brackets can be stamped out of sheet metal and parts of these bent or formed at the same time or subsequently as found desirable.

It is not essential that the finger supporting carriage or frame be provided with the particular number of wheels nor that the track or tracks for the same be disposed exactly as shown nor that a spring motor be employed to secure all the advantages contemplated by the several improvements.

Having thus fully described my invention, what I claim is—

1. In a coin controlled apparatus the combination of a case having a slotted top, tracks interiorly situated at the top and bottom of said case, an envelope receptacle situated above said top having a narrow slot at the bottom of its front side, fingers projecting through said slots in the top of the case and devices for moving the fingers to push an en-

velope out of the receptacle consisting of the carriage with upper and lower wheels, the tracks and a motor for moving the carriage back and forth, substantially as set forth.

2. In a coin controlled apparatus a carriage provided with a delivery finger and with upper and lower track wheels and having a slot 17, a carriage moving arm 15' provided with a stud or wheel movable in said slot and with a laterally situated pinion, a spur gear meshing with said pinion and a motor, all combined substantially as set forth whereby the carriage is moved back and forth.

3. In a coin controlled apparatus a carriage provided with a delivery finger and with upper and lower track wheels and having a slot 17, a carriage moving arm 15' provided with a stud or wheel movable in said slot and with a laterally situated pinion, a spur gear meshing with said pinion, a fusee and a motor consisting of a spring coiled about the axis of the fusee, all combined substantially as set forth whereby the carriage is moved back and forth.

4. In a coin controlled apparatus a carriage provided with a finger made adjustable to adapt it to extend above the edges of objects of different thicknesses and having its front hollowed to embrace said edges in combination with a receptacle and a support therefor slotted to permit the passage of the finger, substantially as set forth.

5. In a coin controlled apparatus the lever 19 and its shaft 20 in combination with a motor, a slotted carriage, a carriage moving arm 15' and a sliding detent 18 said shaft being provided with a connection with the detent whereby when it is rocked the detent is withdrawn from the outer end of the said carriage moving arm, substantially as set forth.

6. In a coin controlled apparatus the case, the parallel bents 15 fixed in said case, the spring drum, the fusee, the gear wheel, and the pinion, each having its axis provided with journals having bearings in said bents, the arm 15' fast on the axis of the pinion and connected to move the finger carriage and said carriage movable in a plane at the side of the bents, substantially as set forth.

7. In a coin controlled apparatus the case, the parallel bents 15 fixed in said case, the spring drum, the fusee, the gear wheel, and the pinion, each having its axis provided with journals having bearings in said bents, the arm 15' fast on the axis of the pinion and connected to move the finger carriage and said carriage movable in a plane at the side of the bents, the posts 12, the counter-balanced lever 19 journaled in said posts and situated on the side of the carriage path opposite the carriage-moving mechanism and a carriage detent rendered inoperative by the movement of the lever under the influence of a coin, substantially as set forth.

8. In a coin controlled apparatus the coin controlled lever, a crank shaft and arm, mechanism adapted to revolve said shaft and arm, a pivoted bar in the path of the crank said

bar having a lateral arm adapted to under-
run and lift the lever to its initial position
after it has been depressed by a coin and to
be dropped from the crank arm at or near its
5 highest elevation, substantially as set forth.

9. In a coin controlled apparatus the coin
chute having its front and rear walls slotted
and its floor inclined and having a slot in its
edge at the foot of said inclined floor, the le-
10 ver adapted to be moved in said front and
rear slots, and mechanism for positively rais-
ing said lever in the slots after it has been op-
erated by a coin, substantially as set forth.

10. In a coin controlled apparatus the coin

chute having an inclined floor and having 15
front and rear slots extending below said
floor combined with a coin operated lever pro-
vided with a fulcrum above the level of the
floor and having its end bent to give it an ap-
proximately level position within the slots at 20
its lowest situation, substantially as set forth.

In testimony whereof I have signed this
specification in the presence of two subscrib-
ing witnesses.

CHARLES A. HOWE.

Witnesses:

HERBERT ROE,

J. B. RYNEARSEN.