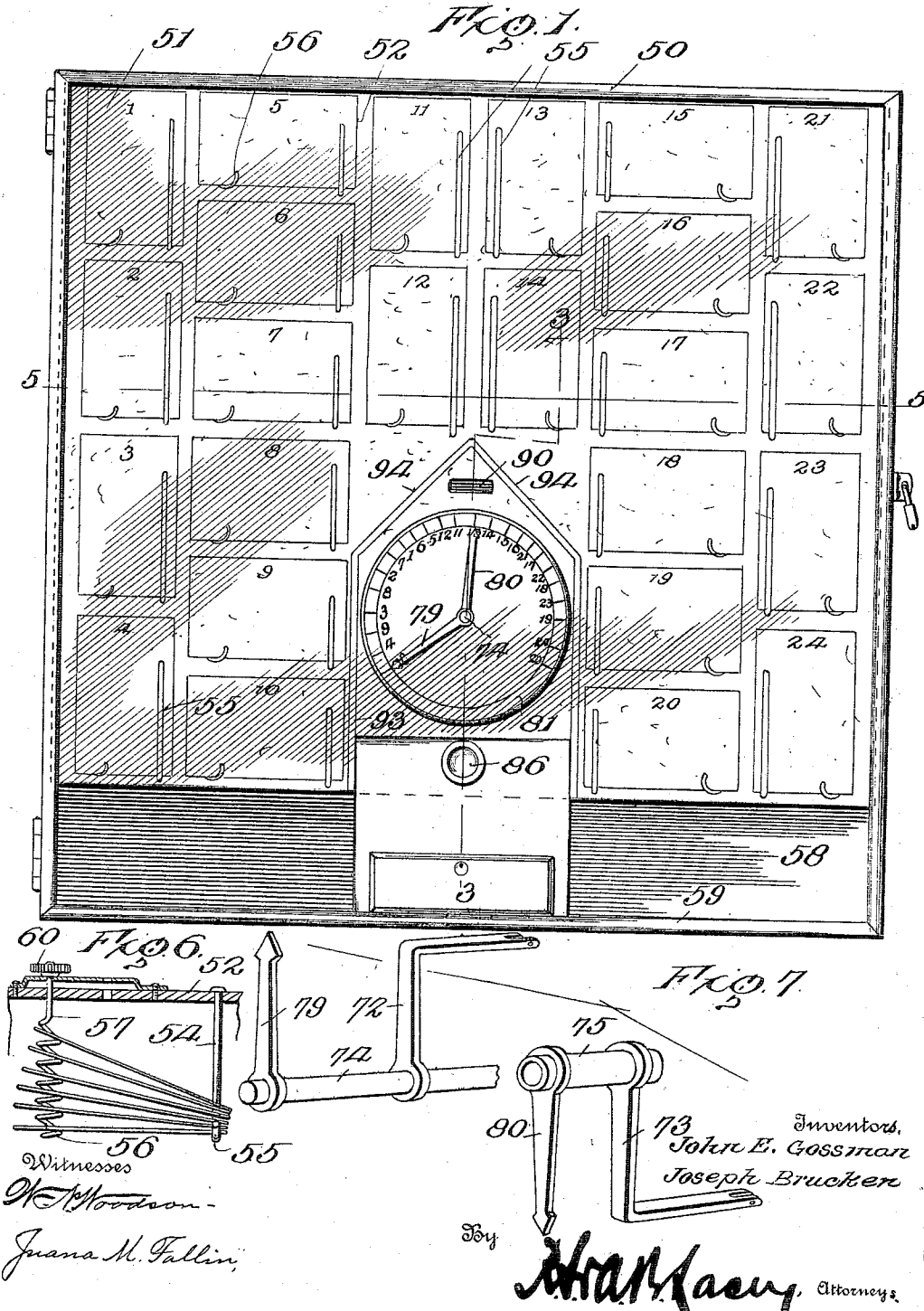


J. E. GOSSMAN & J. BRUCKEN.
 POST CARD VENDING MACHINE.
 APPLICATION FILED FEB. 28, 1910.

983,045.

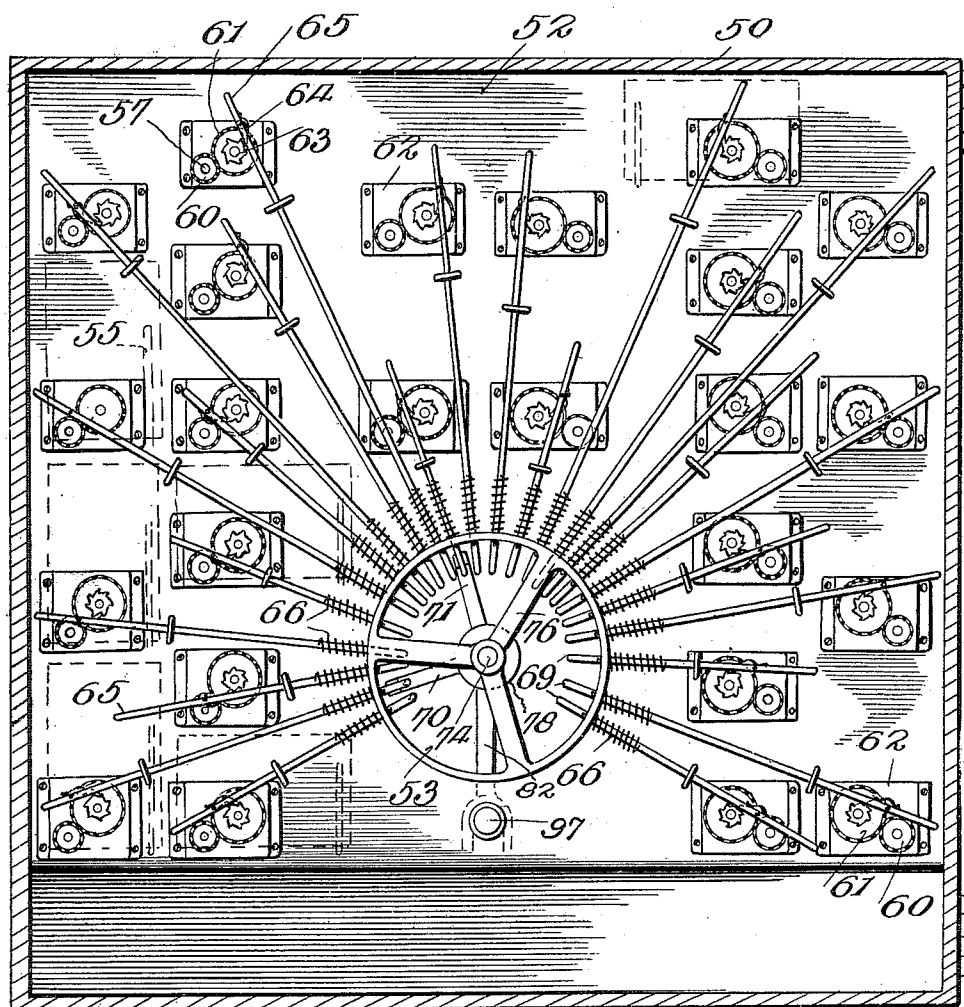
Patented Jan. 31, 1911.
 4 SHEETS—SHEET 1.



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4 SHEETS—SHEET 2.

Fig. 2.



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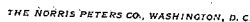
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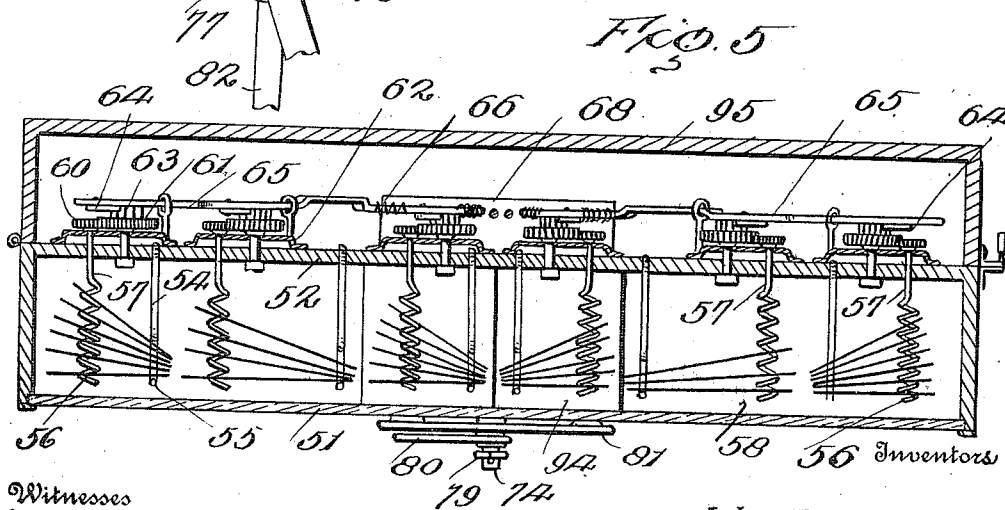
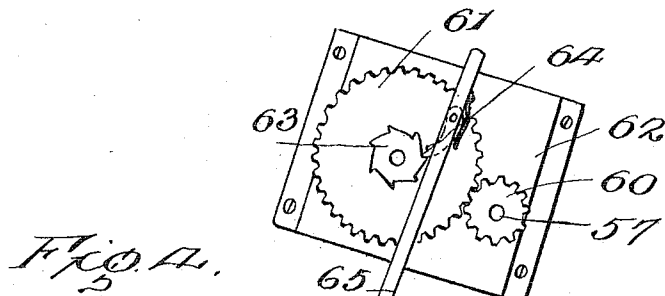


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4 SHEETS—SHEET 4.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN E. GOSSMAN AND JOSEPH BRUCKEN, OF LESTER, IOWA.

POST-CARD-VENDING MACHINE.

983,045.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed February 28, 1910. Serial No. 546,467.

To all whom it may concern:

Be it known that we, JOHN E. GOSSMAN and JOSEPH BRUCKEN, citizens of the United States, residing at Lester, in the county of Lyon and State of Iowa, have invented certain new and useful Improvements in Post-Card-Vending Machines, of which the following is a specification.

The present invention comprehends certain new and useful improvements in vending machines for post cards or the like, and the invention has for its object an improved machine of this character which is arranged to contain and exhibit a plurality of post cards of different styles and which is adapted to be operated, upon the insertion of a coin, to effect the delivery of one of the post cards from the machine, means being provided whereby the operator may select any one of the different styles of post cards, according as desired.

A further object of the invention is a vending machine which is designed to deliver two post cards upon each operation of the machine and which is susceptible of being conveniently manipulated by the operator, so that any two different post cards may be selected.

A still further object of the invention is a vending machine having a plurality of racks each of which is adapted to contain a supply of post cards of the same style and is equipped with particularly efficient means for positively ejecting these post cards one at a time.

With these and other objects in view that will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of the parts that we shall hereinafter fully describe and then point out the novel features of in the appended claims.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a front elevation of a vending machine constructed in accordance with our invention; Fig. 2 is a transverse vertical section, looking at the rear of the machine; Fig. 3 is a vertical section on the line 3—3 of Fig. 1; Fig. 4 is a detail view of the actuating mechanism for one of the deliverers; Fig. 5 is a horizontal section on the line

5—5 of Fig. 1; Fig. 6 is a detail sectional view of one of the card racks; Fig. 7 is a fragmentary perspective view showing the concentric shafts in juxtaposition; and Fig. 8 shows a deflector positioned beneath a card rack for deflecting the cards forwardly to clear the racks below.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

While the present invention is designed particularly for use in vending post cards, it is to be understood that it is not limited to any such use but may be utilized in connection with cards generally, or with various other articles of manufacture.

The machine comprises a suitable upright cabinet or casing 50 which has a glass front 51 and which is provided behind and in suitably spaced relation to such front, with a transverse vertical partition 52. The partition is provided on its front face with a plurality of racks that are arranged to contain post cards of different styles, that is, post cards bearing different pictorial or other printed matter. Each rack is supplied with a plurality of post cards of the same kind. There may be any desired number of these racks, although in the present instance for the purpose of illustration, the machine is shown and described as equipped with twenty-four. For convenience, a series of numerals from 1 to 24 are placed upon the glass front 51 opposite the respective racks to enable the same to be readily designated. The racks are arranged in six tiers which are disposed vertically side by side, the two middle tiers being relatively short and terminating considerably above the lower ends of the other tiers. The partition is formed below the two middle tiers with a circular opening 53 for a purpose to be presently disclosed.

Each of the racks includes a card holder 54 that is in the form of a wire bracket secured to and outstanding from the partition, the bracket being formed at its forward end with a substantially U-shaped bent portion 55 in which all of the post cards contained in the rack, are received and supported at one end. At their other ends the post cards in the rack are supported in regular order between the successive convolutions of a spiral deliverer 56 that is disposed in the direction of the card holder 54. At its rear

end the deliverer is formed with an axially extending stem 57 which projects through and is journaled in the partition, whereby to render the deliverer capable of being rotated in one direction to feed the cards forwardly in the rack and positively eject them therefrom one at a time.

The forward ends of all of the card holders and spiral deliverers are suitably spaced apart from the front 51 of the cabinet, so as to provide a delivery chute which permits the cards ejected from the racks to drop freely within the cabinet and to be discharged into a collecting receptacle of any approved construction.

The collecting receptacle consists of an inclined plate 58 which is arranged in front of the plane of the partition and which is located below the tiers of racks and slopes forwardly and rests upon the bottom of the cabinet. A flange 59 upstands along the lower edge of the inclined plate in order to retain the cards thereon, it being noted that the front 51 is spaced some distance above the inclined plate in order to enable the operator to remove the cards therefrom.

A pinion 60 is fixed on each stem 57 behind the partition and meshes with a relatively large gear wheel 61 that is rotatably mounted on a metallic plate 62 preferably attached to the partition. (Attention is here directed to the fact that there are a plurality of these metallic plates which are secured to the partition behind the respective card racks.) A ratchet wheel 63 is rotatable with the gear wheel 61 and is engaged by a pawl 64 pivoted near the outer end of a pull rod 65. This pull rod is mounted for reciprocatory movement and is arranged in normal position with the pawl in engagement with one tooth of the ratchet. When the pull rod is drawn longitudinally, the pawl turns the ratchet and gear wheel one step, and then slips out of engagement with the ratchet to prevent the continued movement of the rod 65 from effecting the further turning movement of the gear wheel. The pinion and the gear wheel are so related that when the latter is advanced one step, the former makes one complete rotation. This, of course, effects the rotation of the spiral deliverer, whereby to feed the cards forwardly and release the foremost card to permit the same to drop downwardly upon the inclined plate 58. Any suitable means, such as a spring 66, is provided for returning the pull rod to its normal position after having been released, the pawl 64 riding over the teeth of the ratchet during this return movement, so as not to effect the rotation of the gear wheel in the reverse direction. The pull rods for effecting the delivery from the various card racks, all radiate from the circular opening

53 and are slidably mounted at their inner ends in a circumferential series of apertures 67 formed in an annular rim 68 that projects rearwardly from the partition around the opening 53. The inner end portions of the pull rods are bent substantially perpendicularly forwardly within the rim, as indicated at 69, and are normally slightly spaced apart therefrom, as shown.

In order to permit the operator to obtain any two different post cards desired, selective mechanism is provided which is susceptible of being adjusted into operative relation to the bent ends 69 of any two pull rods. This selective mechanism consists essentially of two similar bell crank levers 70 and 71 that are fulcrumed respectively on brackets 72 and 73 fixed to shafts 74 and 75. The shafts are disposed concentrically to each other and to the series of pull rods, the shaft 75 being hollow and being rotatably fitted on the shaft 74. At their forward ends the shafts are journaled in and project through the front 51 of the cabinet. The shaft 75 terminates a comparatively short distance behind the said front 51 and has the bracket 73 fixed on its rear end, while the other shaft 74 preferably extends through the opening 53 and is journaled behind the partition in a suitable support 76. The bracket 72 is fixed on the shaft 74 in proximity to the rear end of the shaft 75. Both brackets lie in planes disposed substantially radially with respect to the shafts, and support the respective levers so that they are free to rock in such planes. The rear arms of the levers project between the rim 68 and the bent ends 69 of the pull rods. The other arms of the levers extend inwardly toward the shafts and are received in an annular groove 77 formed in the periphery of a collar 78 that is slidably mounted on the shaft 74 in rearwardly spaced relation to the point of attachment of the bracket 72 the collar being held against rotation with the said shaft. The ends of the levers received in the groove, are adapted to move freely therein upon the turning movement of the shafts, so as to permit the other ends of the levers to be brought into operative relation to the various bent ends 69.

In order to permit the operator to accurately adjust the position of the levers according as desired, indicator arms 79 and 80 are fixed on the forward ends of the respective shafts and are movable over a dial 81 provided on the front 51 of the cabinet. The dial bears a series of numerals similar to the numerals that designate the card racks, each numeral on the dial corresponding in relative position to the bent end 69 of the delivery actuating mechanism of the rack which it designates. By virtue of such an arrangement the operator may select any two post cards desired, by merely turning

the indicator arms so that they point to the numerals on the dial designating the racks in which the said post cards are contained, the levers 70 and 71 being thus accurately set in operative relation to the bent ends 69 of the requisite pull rods.

The mechanism for simultaneously operating the levers 70 and 71 includes a lever 82 which is suitably fulcrumed at an intermediate point, so as to operate in a vertical longitudinal plane, the upper end of the lever being operatively connected to the collar 78. A spring 83 exerts its force against the lower end of the lever and forces the same forwardly against a sleeve 84, whereby to yieldably maintain the lever in its normal position wherein it holds the collar 78 in rearwardly spaced relation to the fixed end of the bracket 72. A push bolt 85 has a limited sliding movement through the sleeve and projects forwardly beyond the same and through the front 51, the push bolt terminating at its outer end in an enlarged push button 86. A coil expansion spring 87 is interposed between the push button and the adjacent end of the sleeve, so as to normally hold the push bolt at the forward limit of its movement. The sleeve and push bolt are formed with transverse slots 88 extending vertically throughout and registering in this position of the parts. The slots are arranged to receive a coin that is conducted thereto by a chute 89 leading from a coin slot 90 which is formed in the front 51 just above the dial. The coin is held frictionally against dropping downwardly entirely through the slots and thus forms a positive connection between the push bolt and the sleeve to permit the latter to be moved rearwardly with the push bolt and against the lever, upon the application of pressure to the push button. The coin preferably projects slightly upwardly above the sleeve and is carried rearwardly by such movement against an inclined ejector 91 that positively forces it downwardly out of position in the slots, and thus prevents the machine from being operated two or more times with the insertion of but a single coin. As an additional precaution, a pawl 92 is pivoted in front of the ejector, so as to ride over the upstanding portion of the coin upon the rearward movement thereof, but to positively insure against the coin being moved forwardly. Of course, when there is no coin in the slots 88 there is no positive connection between the push bolt and the sleeve, and any pressure exerted upon the former merely slides the same rearwardly in the latter without effecting any movement thereof.

A housing 93 extends between the front 51 and the partition 52 for the purpose of inclosing the mechanism behind the dial. This housing has a double inclined top 94

that is located below the two middle tiers of card racks in order to deflect the cards ejected therefrom, laterally to clear the housing. The mechanism is rendered conveniently accessible by means of a door 95 mounted in the back of the cabinet.

The operation of the invention is as follows:—The purchaser views the various different styles of post cards through the glass front 51 and after selecting the two different post cards desired, sets the indicator arms 79 and 80, so that they point to the numerals on the dial which correspond to the numerals on the glass front opposite the racks in which the desired cards are contained. The necessary coin is then inserted in the coin slot 90 and is conducted into the registering slots 88. The coin may be of any denomination, according as required by the machine, and in the present instance is a nickel, the machine being arranged to vend two post cards for that amount. By applying pressure to the push button the sleeve 84 is moved rearwardly and rocks the lever 82 against the force of the spring 83, this rocking movement causing the collar 78 to slide forwardly on the shaft 74 to assume the position illustrated by dotted lines in Fig. 3. The forward arms of the levers 70 and 71 move with the collar, whereby to rock the rear arms thereof inwardly and carry the adjacent bent ends 69 therewith and to draw upon the corresponding pull rods. The spiral deliverers in the selected card racks are thus caused to make one complete rotation, which, of course, feeds the cards in said racks forwardly and ejects the front cards therein so that they drop upon the inclined plate 58 from which they may be readily removed by the operator. Upon the release of the push button, the parts are automatically returned to their normal positions by the springs, and the machine is ready for the next operation. As before stated, the coin is positively displaced from the slots 88 in order to render it impossible to operate the machine a second time without inserting another coin.

It is to be understood that we do not limit ourselves to the particular form of spiral deliverer for ejecting the cards from the racks, but any suitable device may be utilized for this purpose.

If found desirable in practice, an inclined deflector 96 may be suitably supported below and at the front of each card rack, as shown in Fig. 8, in order to guide the ejected cards forwardly sufficiently to positively cause them to clear the racks below.

In the present instance the sleeve 84 is formed at its rear end with a reduced longitudinal extension 97 providing a rearwardly facing shoulder against which the lever 82 abuts. The extension slides through a suitable opening in the partition 52, the coil

spring 83 encircling the extension between the partition and the lever 82.

Having thus described the invention, what is claimed as new is:

5 1. In a vending machine, a bracket having a U-shaped portion for receiving and supporting one end of the articles to be dispensed, and a spiral deliverer receiving the other ends of the articles between its con-
10 volutions and having a rotary movement to discharge said articles in succession.

2. In a vending machine, a spiral deliverer receiving the articles between its con-
15 volutions and mounted for rotation, a reciprocatory rod, and an operative connection between the rod and the deliverer to effect the rotation of the latter upon the reciproca-
20 tion of the former, said connection including a ratchet wheel, and a pawl carried by the rod and engaging with the ratchet wheel.

3. In a vending machine, the combination of a rack for containing articles, said
25 rack comprising a bracket having a U-shaped bend for receiving and supporting the articles at one end, and a spiral deliverer mounted for rotation and receiving the other ends of the articles between its con-
30 volutions, and means for rotating the deliverer to move the articles in the rack and to feed them therefrom one at a time.

4. In a vending machine, a plurality of
35 separate delivery mechanisms, selective mechanism including a shaft, a bracket carried by the shaft, and a lever fulcrumed on the bracket, the shaft being rotatable to
40 move the lever bodily into operative relation to any selected one of the delivery mechanisms, and means for rocking the lever to engage the selected delivery mechanism to effect the operation thereof.

5. In a vending machine, a plurality of
45 separate delivery mechanisms, selective mechanism including a lever, and means for moving the lever bodily to bring one arm thereof into operative relation to any selected one of the delivery mechanisms, and
50 means for engaging the other arm of the lever to rock the same to effect the operation of the selected delivery mechanism.

6. In a vending machine, the combination
55 of a spiral deliverer receiving articles between its convolutions, said deliverer being mounted for rotation, a gear wheel engaging with the deliverer to rotate the same to feed the articles one at a time therefrom, a
60 ratchet rotatable with the gear wheel, a reciprocatory pull rod, and a pawl pivotally connected to the pull rod and engaging with the ratchet wheel to advance the same one step by and upon the movement of the pull
65 rod in one direction, the pawl riding over the ratchet wheel upon the movement of the pull rod in the opposite direction.

7. In a vending machine, a plurality of
separate delivery mechanisms for deliver-

ing articles, selective mechanism including
a lever, and means for carrying the lever
bodily into operative relation to any selected one of the delivery mechanisms, and
70 means movably mounted on said carrying means for engaging the lever to rock the same to effect the operation of the selected delivery mechanism.

8. In a vending machine, a plurality of
75 separate delivery mechanisms including a plurality of radiating rods mounted for reciprocation; selective mechanism including a rotatable shaft from which said rods radiate, and means carried by the shaft and
80 rotatable therewith into operative relation to any selected one of the rods; and means for actuating the first-named means to engage the rod to move the same in a radial
85 direction to effect the operation of the selected delivery mechanism.

9. In a vending machine, the combination
of a plurality of separate delivery mechanisms for delivering articles of different
90 kinds, selective mechanism including a lever, and a shaft carrying the lever and rotatable to move the same into operative relation to any one of the delivery mechanisms, and
95 means for rocking the lever to operate the said delivery mechanism.

10. In a vending machine, the combination
of a plurality of separate delivery mechanisms for delivering articles of different
100 kinds, selective mechanism including a rotatable shaft, a lever carried by and movable with the shaft, a dial, and an indicator rotatable with the shaft and movable
105 over the dial to set the lever in operative relation to any one of the delivery mechanisms, and means for rocking the lever to effect the operation of said delivery mechanism.

11. In a vending machine, the combination
of a plurality of separate delivery mechanisms for delivering articles of different
110 kinds, selective mechanism including a rotatable shaft, and a lever carried by the shaft and movable by and upon the rotation thereof into operative relation into any one of the delivery mechanisms, a collar slidable
115 upon the shaft and engaging with the lever, and means for sliding the collar on the shaft to rock the lever and effect the operation of the selected delivery mechanism.

12. In a vending machine, the combination
of a plurality of separate delivery mechanisms for delivering articles of different
120 kinds, selective mechanism movable into operative relation to any two different delivery mechanisms, and means for operating the selective mechanism to effect the simultaneous operation of the selected delivery
125 mechanisms.

13. In a vending machine, the combination
of a plurality of separate delivery mechanisms for delivering articles of different
130

kinds, selective mechanism including two members movable independently into operative relation to any two different delivery mechanisms, and means for simultaneously operating the said members, whereby to effect the simultaneous operation of the selected delivery mechanisms.

14. In a vending machine, the combination of a plurality of separate delivery mechanisms for delivering articles of different kinds, selective mechanism including separate levers, and means for moving said levers independently of each other into operative relation to any two different delivery mechanisms, and means for rocking both of the levers to effect the operation of the selected delivery mechanisms.

15. In a vending machine, the combination of a plurality of separate delivery mechanisms for delivering articles of different kinds, selective mechanism including independently rotatable shafts and levers carried by said shafts and movable by and upon the rotation thereof into operative relation to any two different delivery mechanisms, a collar slidably mounted on one of the shafts and engaging both levers, and means for effecting the sliding movement of the collar, whereby to rock both of the levers and effect the operation of the selected delivery mechanisms.

16. In a vending machine, a plurality of separate delivery mechanisms for delivering articles, selective mechanism including independently rotatable shafts, separate means carried by the respective shafts and movable therewith into operative relation to any selected delivery mechanism, and common means for engaging both of the first-named means to effect the operation of the selected delivery mechanisms.

17. In a vending machine, a plurality of separate delivery mechanisms for delivering articles, selective mechanism including independently rotatable shafts, and separate means carried by the respective shafts and movable therewith into operative relation to any selected delivery mechanisms, and

means movably mounted on one shaft and adapted to engage both of the first-named means to effect the operation of the selected delivery mechanisms.

18. In a vending machine, a plurality of separate delivery mechanisms for delivering articles, selective mechanism including two members movable independently into operative relation to any selected delivery mechanisms, and common means for engaging both members to actuate the same to effect the operation of the selected delivery mechanisms.

19. In a vending machine, a plurality of separate delivery mechanisms for delivering articles, selective mechanism including independently rotatable concentric shafts, independent means carried by the respective shafts and movable therewith into operative relation to the delivery mechanisms, and a collar mounted on one of the shafts and having an annular peripheral groove in which both of said independent means are received, and means for sliding the collar on the shaft to actuate both of the first-named means to effect the operation of the selected delivery mechanisms.

20. In a vending machine, a plurality of separate delivery mechanisms for delivering articles, selective mechanism including independently rotatable concentric shafts, independent means carried by and rotatable with the respective shafts into operative relation to the delivery mechanisms, a dial, and indicators rotatable with the respective shafts and movable over the dial to set the independent means in operative relation to any selected delivery mechanisms, and common means for actuating both of said independent means to effect the operation of the selected delivery mechanisms.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN E. GOSSMAN. [L. S.]

JOSEPH BRUCKEN. [L. S.]

Witnesses:

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