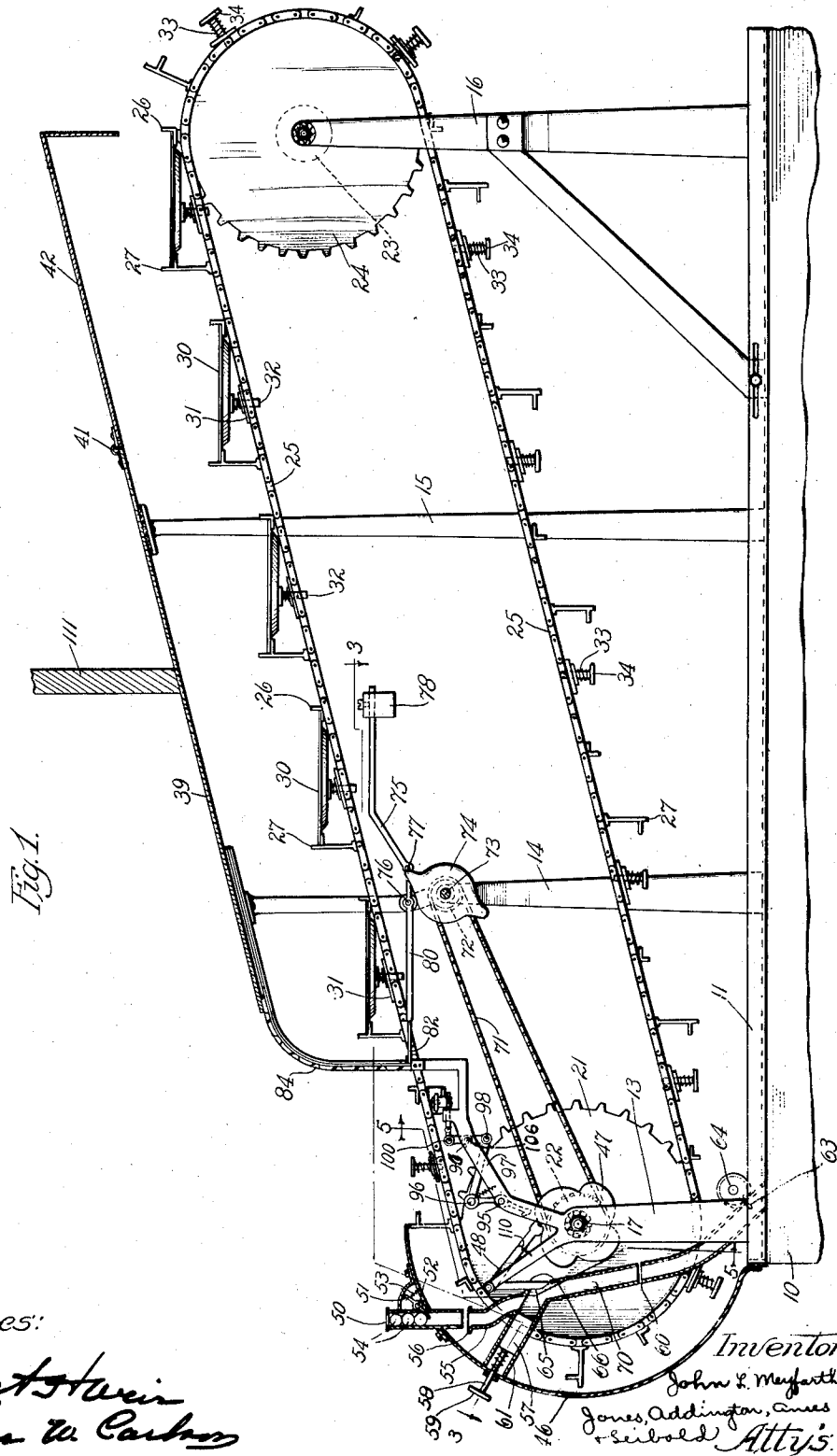


J. L. MEYFARTH.
 COIN CONTROLLED VENDING MACHINE.
 APPLICATION FILED FEB. 15, 1918.

1,345,499.

Patented July 6, 1920.

4 SHEETS—SHEET 1.



Witnesses:

Robert H. Stein
 Arthur W. Carlson

Inventor
 John L. Meyfarth
 Jones, Addington, Ames
 & Seibold Attys.

J. L. MEYFARTH.
 COIN CONTROLLED VENDING MACHINE.
 APPLICATION FILED FEB. 15, 1918.

1,345,499.

Patented July 6, 1920.

4 SHEETS—SHEET 2.

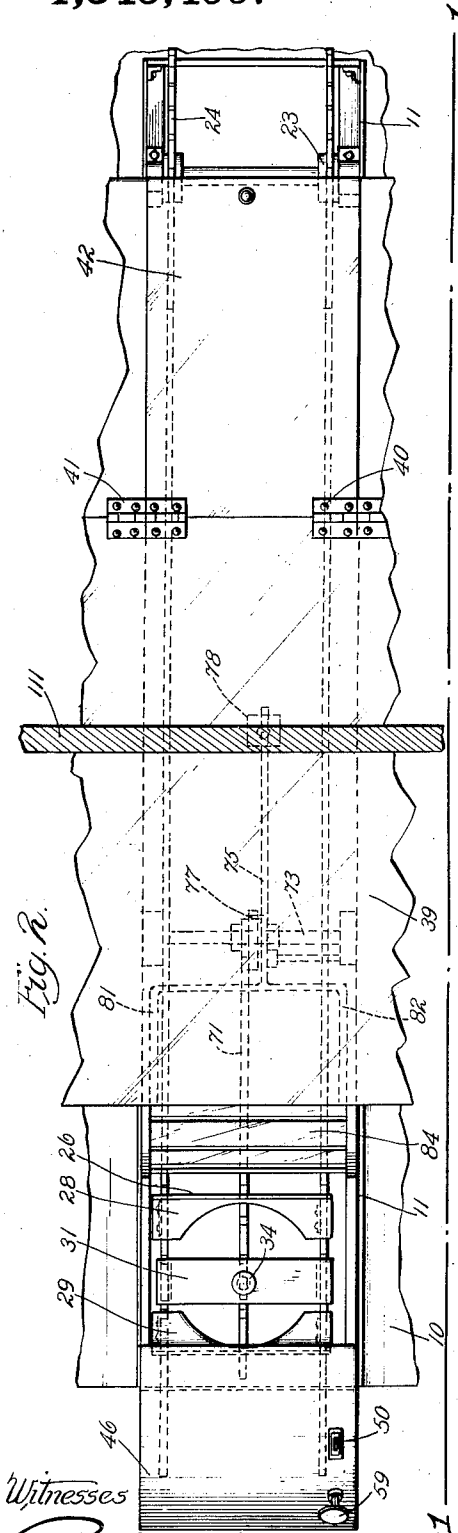


Fig. 2.

Witnesses
 Robert H. Stein
 Arthur W. Carlson

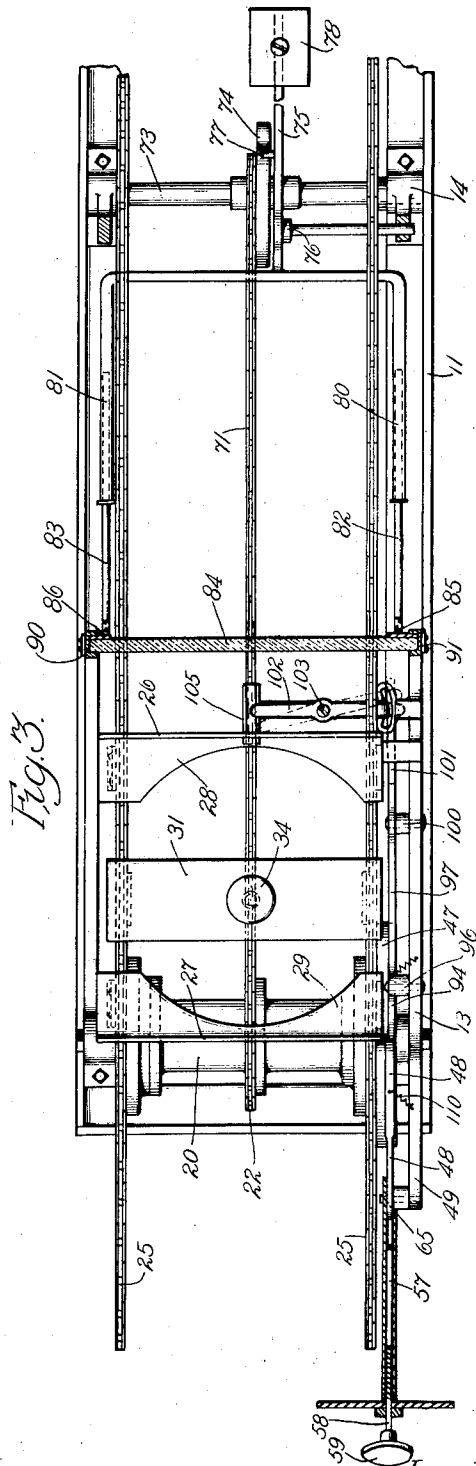


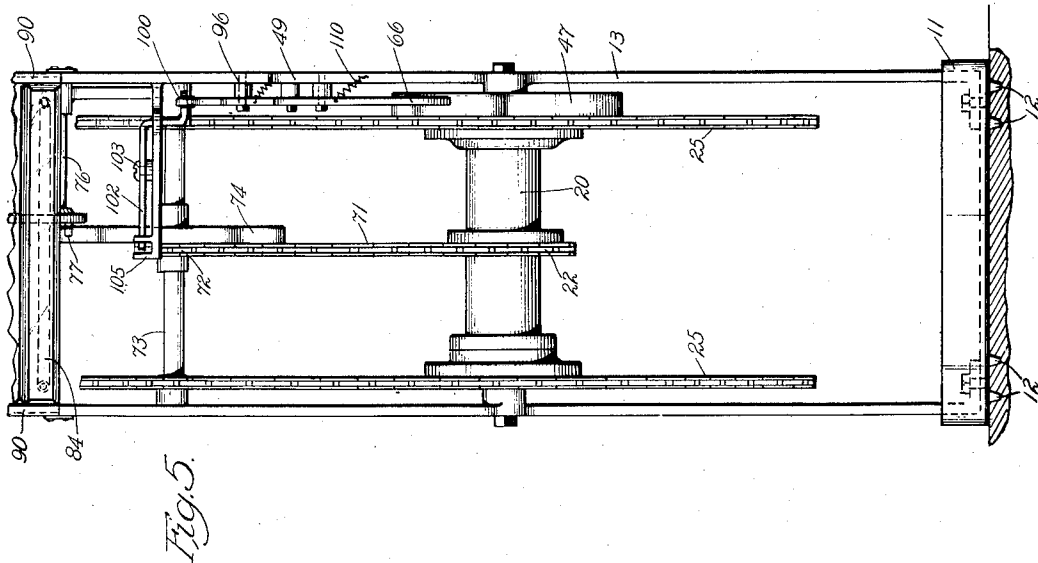
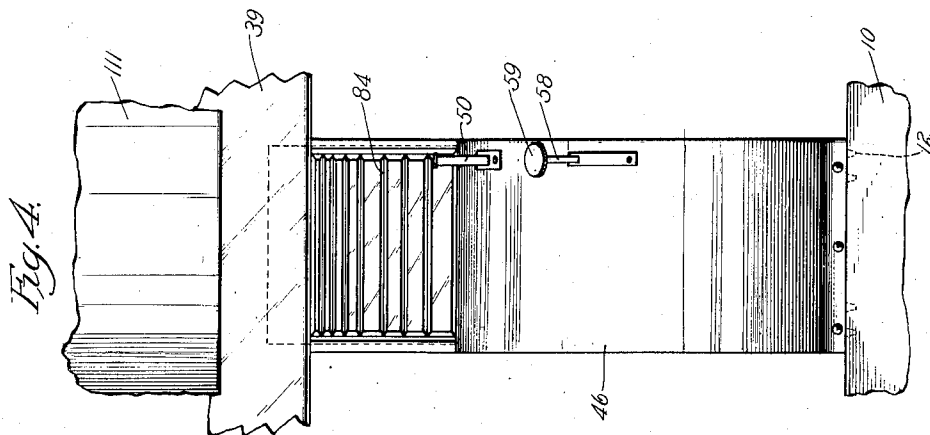
Fig. 3.

John L. Meyfarth
 Jones, Addington, Ames & Leibold
 Inventor
 Attys.

J. L. MEYFARTH.
 COIN CONTROLLED VENDING MACHINE.
 APPLICATION FILED FEB. 15, 1918.

1,345,499.

Patented July 6, 1920.
 4 SHEETS—SHEET 3.



Witnesses:
 Robert H. Wein
 Arthur W. Carlson

John L. Meyfarth Inventor
 Jones, Addington, Ames & Seibold
 Attys

J. L. MEYFARTH.
COIN CONTROLLED VENDING MACHINE.
APPLICATION FILED FEB. 15, 1918.

1,345,499.

Patented July 6, 1920.

4 SHEETS—SHEET 4.

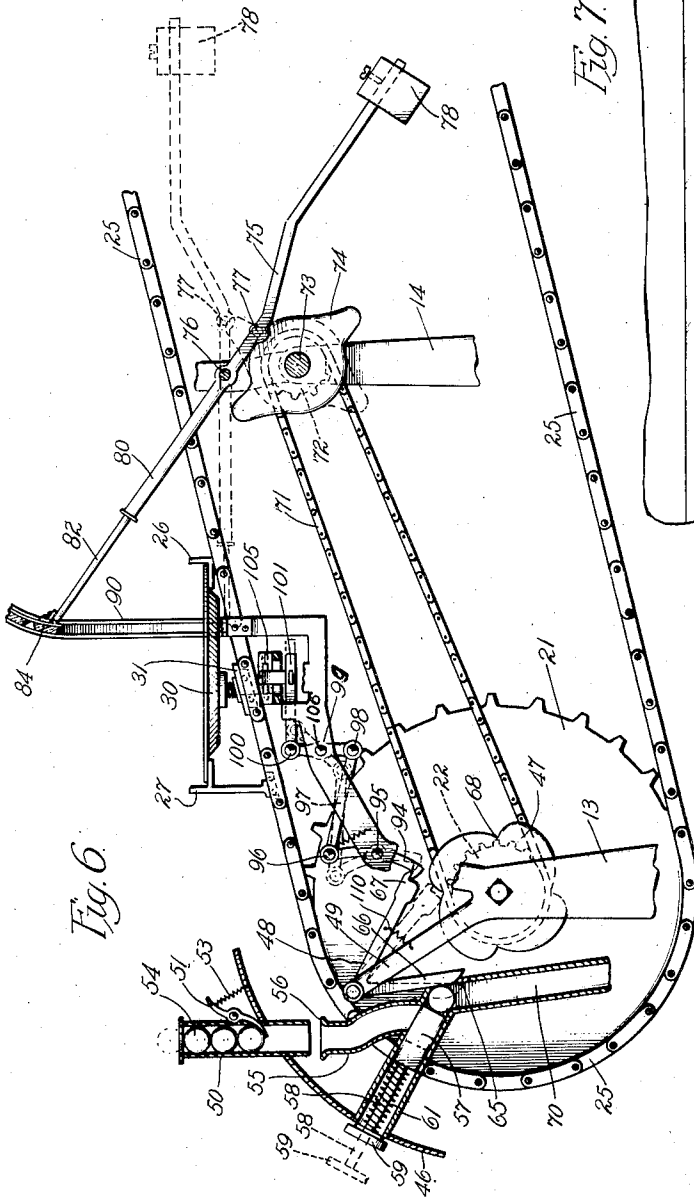
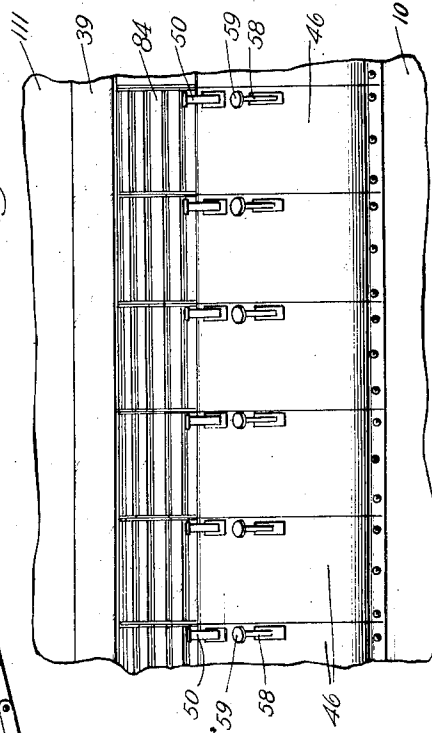


Fig. 6.

Fig. 7.



Witnesses:

Robert H. Weir
Arthur W. Carlson

John L. Meyfarth

Jones, Addington, Ames & Seibold

Inventor

Attys.

UNITED STATES PATENT OFFICE.

JOHN L. MEYFARTH, OF CHICAGO, ILLINOIS.

COIN-CONTROLLED VENDING-MACHINE.

1,345,499.

Specification of Letters Patent.

Patented July 6, 1920.

Application filed February 15, 1918. Serial No. 217,320.

To all whom it may concern:

Be it known that I, JOHN L. MEYFARTH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Coin-Controlled Vending-Machines, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

This invention relates to a coin controlled vending machine and more particularly to a machine of this kind for vending food.

One of the objects of this invention resides in the production of a machine of this character which will attractively display without any possibility of handling, the food which is to be sold. The machine is adapted to display the food on plates, the plates being disposed in the machine in a manner which will permit of an attractive setting very readily observed by the patron, and thereby arousing interest and creating desire.

Another object resides in the production of an improved machine of this character in which the machine may be readily charged with the food commodities without in any manner interrupting the vending operation.

A further object consists in the production of an improved food conveying apparatus consisting of standardized units which may be utilized in batteries consisting of a plurality of such units and which are thus adaptable for displaying a large variety of food or other commodities. Any unit of such a battery may be readily removed for repair or inspection without affecting any of the remaining units of the battery.

An additional object comprises the production of improved means whereby food is automatically delivered to the patron, said means being controlled by a force manually applied by the patron through the instrumentality of a coin of the proper denomination, the said means being wholly or partly actuated by a gravitational force exercised by the weight of the food with which the machine is charged.

Another object consists in the production of improved means whereby the machine is automatically locked when a portion of food has been delivered to the patron and in lock controlling means for the continued operation of the machine after the said locking

means has been released until a portion of food has been delivered and made accessible to the patron.

Another object comprises the production of a machine fitted with an automatically operated door through which the food or other commodities are delivered, the operation of said door being controlled by the conveying mechanism proper.

Other objects and features of the invention will become apparent from the following description and the appended claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of a vending unit taken on the plane represented by the line 1—1 of Fig. 2, looking in the direction of the arrows;

Fig. 2 is a plane view of a vending unit;

Fig. 3 is a view partly in section, taken on a plane represented by the line 3—3 of Fig. 1, looking in the direction of the arrows;

Fig. 4 represents a front elevation of a vending unit;

Fig. 5 is a section taken on the plane represented by the line 5—5 of Fig. 1, looking in the direction of the arrows;

Fig. 6 is an enlarged illustration of the mechanism controlling the food conveying means, and

Fig. 7 is a front elevation of a battery of vending units.

As hereinafter more fully described, a complete apparatus consists of a plurality of standard units, each of which is fitted with a simple coin controlled mechanism, the individual units having an opening in the rear through which they are supplied by the attendant, and a coin controlled delivery opening in front for customers. Each food vending unit comprises a pair of endless chains mounted on suitable sprocket wheels. These chains are divided into a plurality of sections of equal length, each of which carries a plate supporting structure, said structures being so positioned on the chains that they will hold the plates carried thereby in a stable horizontal position.

The chains are mounted with a given angle of inclination so that when a plate is placed in position on the conveyer, it will move the chain forward under the influence of gravity, rotating the respective sprocket wheels associated therewith. If desirable a

suitable power drive may obviously be associated with the conveying mechanism by means of a friction clutch, thereby insuring a uniform rate of travel thereof.

- 5 Substantially all of the upper portion of each chain conveyer on which the plates are supported is inclosed by a transparent, preferably glass, cover. This cover is fitted with a glass door adapted to be opened and
10 closed, and through the opening occupied thereby the plates will pass from the glass inclosure to a position where they are accessible to the patron.

- The sprocket wheels mounting the chains
15 are designed so that a quarter rotation will move a plate next adjacent the door to a position outside of the said door and the said glass inclosure.

- Coöperating with the rotating shafts
20 which carry the sprocket wheels are suitable cams, levers, etc., whereby the movement of the chains is controlled, and which are in turn controlled by a coin actuated mechanism. These operating devices of each
25 unit function to insure the delivery of a plate of food from under said glass inclosure for each coin or plurality of coins deposited irrespective of the particular position on the conveying mechanism occupied
30 by the said plate delivered.

- As illustrated in the drawings, the vending units are mounted on a suitable counter, table or the like, 10. Each unit proper consists of a mounting or base plate 11 which
35 may be readily slid on to the top of the counter 10 in suitable keyways cut into said counter, and in which the keys, such as 12, mounted on the bottom of the mounting plate 11, are suitably fitted.

- 40 Rising from the mounting plate 11 are a plurality of pairs of mounting standards such as 13, 14, 15 and 16. The mounting standards 13 carry a shaft 20, on each end of which is rigidly secured a sprocket wheel
45 21 and in the center of which is rigidly secured the sprocket wheel 22. The shaft 20 is suitably journaled in ball bearings 17 secured to the standards 13. The standard 16 carries a shaft 23, the said shaft being suitably journaled in ball bearings carried by
50 said standards. The said shaft has rigidly secured thereto on either end thereof a sprocket wheel such as 24, identical in all respects to the sprocket wheel secured to the shaft 20. An endless chain, such as 25, is
55 carried by each pair of sprocket wheels 21 and 24. Secured between these endless chains are a plurality of transverse plate mounting members such as 26 and 27, each
60 of which is equipped with forwardly extending shelves 28 and 29 respectively, said shelves being cut out to form arcuated peripheral edges in which the lower portion of a plate such as 30 will readily fit. The
65 pair of standards 13 and 16 are so propor-

tioned, and the sprocket wheels 21 and 24 so mounted thereon that the endless chains 25 are given an angle of inclination from the rear to the front of the machine, as clearly indicated in Fig. 1; and the transverse
70 mounting members 26 and 27 mounted on said chains are so proportioned that the projecting shelves 28 and 29 thereof will hold the plates therein in a horizontal position.
75

Mounted substantially midway between each pair of transverse mounting members 26 and 27 on a transverse bar 31 is a rod 32 which is fitted with a spiral spring 33, maintaining the said rod 32 in a raised position
80 so that the lower end thereof will be maintained substantially in the horizontal plane of the chains 25. When a plate such as 30 is placed in position between any of the supporting members 26 and 27, it will rest on
85 a disk 34 secured to the top of the rod 32 and the weight of the plate will depress said rod so that the lower end thereof will project below the horizontal plane of the lower surface of the chains 25 as clearly illustrated
90 in Fig. 1.

Supported above the major portion of the chains 25, and their associated mechanism, on the pairs of standards 14 and 15, is a transparent cover 39 preferably constructed
95 of plate glass. This plate glass cover, as clearly indicated in Fig. 7, is made in one piece for a plurality of units. Secured to the rear end of this plate glass cover are hinges such as 40 and 41, to which are se-
100 cured individual glass doors such as 42, through which the attendant is enabled to place the plates of food on the supports 26 and 27 of the chain conveying mechanism.

Inclosing the front part of sprocket
105 wheels and the associated mechanism is a semi-circular plate 46, preferably constructed of sheet steel. This plate is secured to the base plate 11 in any suitable manner. Rigidly mounted on the shaft 20 is a cam
110 47, which constitutes one of the elements used to control the movement of the chains 25. Coöperating with the cam 47 is a bell crank 48 which is pivoted to an upwardly
115 extending arm 49 integral with the standard 13. The bell crank 48 coöperates with the cam 47 to control the movement of the chains 25. Secured to the semi-circular front shield 46 is a coin chute 50 into which
120 projects one end of a rod 51 which is pivoted at 52 and yieldingly held in such position by spiral spring 53. The coin chute 50 is adapted to carry three coins such as 54 of suitable denomination, between the project-
125 ing end of the rod 51 and the upper portion of the coin chute. The coins are held in this position by the compressive force exercised by the spiral spring 53. Coöperating with the coin chute 50 is a second coin chute 55 fitted with a flaring end 56 at its top portion,
130

which end coöperates with the lower end of the coin chute 50. Integral with this second coin chute 55 is a plunger housing 61, which carries a spring pressed plunger 57 to the end of which by means of the rod 58 is fitted an operating disk 59. The coin chute 56 is connected at 60 to a main coin carrying chute which may be extended to a suitable centralized bank. Projecting into this main coin chute is a projecting finger 63 of any suitable counting mechanism such as 64 diagrammatically indicated in Fig. 1. The coin chute 55 is fitted with an opening 65 in which fits one arm 66 of the bell crank 48. The other arm of the bell crank 48 is fitted with a notched end 67 which rides on the periphery of the cam 47 and prevents rotation thereof whenever the notch 67 rides into one of the indentations 68 in said cam.

When a coin of the proper denomination is forced into the coin chute 50, it will force one of the three coins contained therein into the second coin chute 55 and into a position in front of the plunger 57. When the plunger 57 is pressed forward the coin will move therewith and in this operation it will be deflected into the downwardly extending portion 70 of the coin chute from which it will readily find its way into the main coin chute and into the centralized bank. As this coin is pressed forward into the coin chute 70, it will ride against the arm 66 of the bell crank which will turn about its pivot and thereby extract the projecting finger 67 out of a notch or indentation 68 in the cam 47. This will release the conveying mechanism and the shafts will be free to turn and carry with them the chains and the associated food conveying mechanism.

It will be evident from the preceding description referring to the angle of inclination which is given to the chains and the mounting means supplied on said chains on which the plates are carried, that when a plate of food or a plurality of plates are mounted on this supporting means that the chain will begin to travel due to the gravitational force exercised by the weight of the plates and food. In order that the chains and the associated mechanism may begin to travel for the very slightest amount of unbalance, the shafts which support the sprocket wheels are mounted in ball bearings and all the moving elements are mounted in such a manner that friction will be reduced to an absolute minimum. Obviously if a more direct drive is desired a constantly operating motor may be connected to one of said shafts through a suitable friction clutch.

Coöperating with the sprocket wheels 22 secured to the shaft 20 is a chain 71 which coöperates with a second sprocket wheel 72 which has half the number of teeth of the sprocket wheel 22. The sprocket wheel 72 is rigidly secured to a shaft 73 mounted in

the standards 14. Secured to this shaft 73 is a cam 74. Coöperating with the cam 74 is a lever 75 pivoted at 76, which carries a projecting roller 77, that rides on the periphery of the cam 74. The lever 75 carries at its rear end a weight 78 which is adjustably mounted on the rearwardly extending arm of said lever. The forwardly extending portion of said lever is bifurcated and terminates in the arms 80 and 81 as illustrated in Fig. 3. These arms 80 and 81 constitute hollow sleeves in which the rods 82 and 83 are telescoped. Secured to the forwardly extending ends of the rods 82 and 83 is the lower slat of a roll top glass door 84, which coöperates with the plate glass cover 39 to completely inclose the plates of food so as to prevent access thereto by the patron. The glass door 84 is constructed of a plurality of slats bound together by any suitable flexible binder as indicated at 85 and 86 in Fig. 3. Obviously, the door 84 may be constructed of any suitable type of transparent material through which the patron may readily observe the food placed on the conveying mechanism.

The lever 75 is normally maintained in the horizontal position shown in Fig. 1 and in broken lines in Fig. 6, at which time roller 77 rides on the peaked portion of the cam 74. However, when this cam is rotated through the agency of the chain 71 secured to the shaft 20 carrying the sprocket wheel 21, the roller 77 attached thereto will ride down the periphery of this cam. The weight 78 is so adjusted on the lever 75 that it will overcome the weight of the glass door 84 and consequently when the cam 74 is turned, the roller in riding down the periphery of the cam will raise the glass door 84 which will ride in suitable guiding slots 90 and 91 provided therefor. The cam is so constructed that as the roller 77 begins to ride down the periphery thereof, it will first strike a sudden drop which will completely open the door. The roller will then ride over a dwell in said cam which will maintain the door open for a specified period during which the plate will ride through the door opening. After the plate has passed through the opening, the roller will ride over the remaining half portion of the cam periphery, during which period the door will be slowly closed.

The main sprocket wheels 24 and 21 are so designed that the chains 25 will move through the distance occupied by four plates for one complete rotation thereof, and as the sprocket wheel 22 bears a two to one relation to the sprocket wheel 72, the cam 74 will make two complete rotations for every complete rotation of the sprocket wheel 21. Due to this proportioning of the sprocket wheels 21, 22 and 72, and the cam 74, the door 84 will be opened and closed each time

the chain 25 moves a distance equal to that occupied by one plate.

In order to provide means whereby a patron will positively obtain a plate of food, provided a plate has been placed upon any of the plate supports 26 and 27, means must be provided to prevent the locking of the conveying mechanism for each quarter turn of the sprocket wheels 21 and 24, which would ordinarily occur due to the interaction of the bell crank 48 and the cam 47. Thus referring to Fig. 1, if no plates were mounted in the first two plate supporting structures next adjacent the door 84 and a plate was mounted in the next structure, it would be necessary for the driving sprockets 21 and 24 to make a three-quarter turn so that said plate would pass outside of the door 84 and be accessible to the patron. To provide for such an emergency, means have been provided whereby the bell crank 48 is locked so that it will not return to the periphery of the cam 47 until a plate has actually passed through the door opening. This means comprises a curved hook 94 pivoted at 95 to an upwardly extending arm of the mounting standard 13 and pivotally secured at 96 to a connecting link 97. The connecting link 97 is pivotally secured at 98 to an intermediate link 99 which in turn is pivotally secured at 100 to a rearwardly extending rod 101. The rod 101 carries an upwardly and laterally projecting lever 102, see Figs. 3 and 6, pivotally secured at 103 to a laterally extending projection of the upwardly extending arm of the mounting standard 13. The lever 102 is so mounted that one end thereof projects into the line of travel of the yieldingly mounted rods 32 disposed beneath the bars 31. The rods 32 as they are carried around by the conveying chains 25 will ride in a guiding slot 105, and as they ride through this slot they will contact with the projecting end of the lever 102. As these pins ride against this lever, they will turn it about its pivot 103 as indicated in broken lines in Fig. 3. This turning of the lever will through the agency of the rod 101 turn link 99 about its pivot 106 and this in turn will force the inter-connecting link 97 forward, carrying with it one end of the curved hook which will consequently turn about its pivot 95. The position of the hook and the associated link mechanism when actuated by a projecting pin 32 is indicated in broken lines in Fig. 6. Consequently as each rod 32 rides through the guiding slot 105, it will through the agency of the mechanism just described displace the hook 94. The hook 94 is so placed, with respect to the arm of the bell crank 48 which rides on the cam 47, that when said bell crank is displaced through the agency of a coin the projecting finger 67 thereof will be caught by the hook 94. Conse-

quently whenever the bell crank 48 is displaced by the depression of the plunger through the agency of a coin, the bell crank 48 will be withheld from the periphery of the cam 68 by means of the hook 94. When the bell crank is thus held, it will be evident that the chains 25 and their associated mechanism will be free to travel, as long as the unit is unbalanced, by the weight of a single plate placed on one of said plate mounting structures, or by a suitable frictionally applied power drive hereinbefore referred to. However, when a plate rides through the door opening of the transparent inclosure, the projecting rod 32, mounted on the cross-piece 31 below said plate, will pass through the guiding slot 105. This will trip the lever 102 and unlatch the bell crank from the hook 94. The bell crank will therefore be returned to the periphery of the cam 47 through the agency of the spiral spring 110.

Very briefly the operation of one of these conveying units may be outlined as follows:—

The attendant in the rear of the counter 10 will place plates of food such as 30 on the plate supports mounted on the chains 25. From the position behind the machine the attendant is able to satisfactorily mount three plates on the chain conveying mechanism. In this position a patron in the front of the machine will be able to readily inspect the front plate. If the patron desires the food as displayed on said plate, he will deposit a coin of the required denomination in the coin chute 50. This coin will find its way into the second coin chute 55 in front of the plunger which the patron will next operate by depressing the plunger disk 59. In depressing the plunger disk the coin will be deflected into the main coin channel and carried to the centralized bank and at the same time the bell crank 48 will be turned about its pivot. In this operation the cam riding arm of the bell crank will be engaged or caught by the retaining hook 94. As soon as the bell crank is displaced, the shafts mounting the sprocket wheels 21 and 24 are free to turn and the chains will move forward carrying with them the plates mounted thereon. The rotation of the shaft 22 as hereinbefore described, will rotate the cam 74 through the agency of the chain 71. This will rapidly raise the door 84 and then slowly close it during the period that the sprocket wheels 21 and 24 are making a quarter turn.

Due to the fact that the attendant can place but three plates of food on the chain from the rear and as the glass cover 39 will inclose and cover five plates, it will be necessary for the sprocket wheel 21 to turn through three-quarters of a revolution for a plate of food to pass through the door 84 and be accessible to the patron. However, 130

since the cam operating arm of the bell crank 48 has been engaged by the hook 94, and inasmuch as the rods 32 associated with the first two plate mounting structures under the glass cover are not depressed, the chains 25 will continue to move until the sprocket wheels 21 and 24 have made three-quarters of a turn. As the sprocket wheel is moving through its third quarter, the third rod 32 will pass through the door opening and since a plate is mounted on the plate mounting structure occupying this particular section of the chain, the lever 102 will be tripped by said rod 32 and the bell crank 48 will be allowed to return to normal and stop the machine.

After this first operation of the machine, the attendant will be able to maintain the five plate positions under the glass cover completely filled since the three plates first placed in position have now moved forward and it will only be necessary to fill up the three rear positions on the chain conveyor to completely charge the unit.

In order that the patrons may not be able to observe what is going on at the rear of a battery of these units, it is found advisable to construct a wall such as 111 which extends up from the cover plate 39. Obviously this wall may be located anywhere in the cover plate 39 but it is preferred to so place this wall that the first three plates on the conveyor may be readily observed by the purchaser as indicated in Figs. 1 and 7.

As will be evident from the preceding description, a complete apparatus comprises a series of units which may be assembled as shown in Fig. 7 so as to give the appearance of a single machine, and in which any unit may be withdrawn from under the cover 39 and replaced by another similar unit without affecting in any manner whatsoever the remaining units of the battery. Any of these units may be withdrawn because the transparent cover 39 is adapted to cover a plurality of such units and is supported by the pairs of standards 14 and 15 of the several units. Consequently, when one or more of said units and the associated standards 14 and 15 are withdrawn from the battery, the glass cover 39 will be supported by the pairs of standards 14 and 15 of the units remaining in the battery. When the units are thus assembled the food or other commodities will be attractively displayed and each unit will function to positively make a delivery provided the attendant keeps a single plate of food on the conveyor.

Obviously the invention is not limited to the specific embodiment thereof herein illustrated and described, but is capable of many variations and applications without departing from its spirit, and scope, as set forth in the following claims.

Having thus described my invention, what

I claim as new and desire to secure by Letters Patent is:—

1. In a machine of the class described, in combination, a flexible food conveying means, means for stably placing plates of food thereon, a locking mechanism for said conveying means to prevent movement thereof, and a coin operated means actuated to unlock said mechanism whereby said conveying means will be permitted to travel varying distances to deliver one plate of food.

2. In a machine of the class described, in combination, a flexible food conveying means angularly disposed, a transparent glass cover for said food conveying means which will display said food and prevent access thereto, a transparent door associated with said glass cover, a locking mechanism to prevent movement of said conveying mechanism, and a coin operated mechanism actuated to unlock said mechanism, open and close said door and automatically deliver a portion of food outside of said cover and through said door opening to make it readily accessible to the patron.

3. In a device of the class described, in combination, a food conveying means, mounting means carried thereby adapted to stably carry a plurality of plates of food, a transparent cover inclosing said food which prevents access thereto, a coin actuated means operable by a patron to move said conveying means a distance sufficient to deliver a plate of food resting thereon from under said cover, and means whereby an attendant may place plates of food on said conveying means during the period that it is being operated to deliver food to the patrons.

4. In a device of the character described, comprising in combination a food conveying means consisting of a flexible carrier, mounting devices carried by said conveying means adapted to support a plurality of plates, and coin-operated operating mechanism which is actuated by the gravitational force exerted by the plates of food placed on said conveying means.

5. In a device of the character described, in combination, a food conveying means, mounting means carried by said conveying means adapted to carry a plurality of plates, a transparent cover inclosing said plates, an operating mechanism for said conveying means, means normally locking said operating means, a coin actuated means operated to release said locking means, and means whereby said operating means will remain unlocked, thereby permitting the conveying means to travel varying distances and until a plate of food has been delivered from under said cover.

6. In a food vending apparatus, in combination, a plurality of unitary food dis-

pensing sections, a food conveying means
 individual to each section, a transparent
 cover serving as an inclosing means for a
 plurality of said sections and which prevents
 5 access to said food, a transparent door indi-
 vidual to each section and cooperating with
 said cover to prevent access to said food,
 and means whereby any of said sections may
 be readily withdrawn and replaced by other
 10 sections during the continued operation of
 the remaining sections.

7. In a device of the character described,
 comprising in combination a conveying
 means, a plurality of plate carrying struc-
 15 tures mounted on said means, a transparent
 cover supported above said plates which
 prevents access thereto, a transparent door
 associated with said cover, an operating
 mechanism for said conveying means, means
 20 for locking said operating means, a coin ac-
 tuated mechanism for releasing said lock-
 ing means, and a mechanism associated with
 said conveying means operable to open said
 door and permit the delivery of a plate from
 25 under said cover by said conveying means
 when said locking means is released by the
 coin controlled mechanism.

8. A device of the character described
 comprising in combination a conveying
 30 means, a plurality of plate carrying struc-
 tures mounted on said means, a transparent
 cover supported above said plates which
 prevents access thereto, a transparent door
 associated with said cover, a plurality of
 35 yielding members carried by said convey-
 ing means which are depressed when a plate
 is placed in position on said carrying struc-
 tures, an operating mechanism for said con-
 veying means, means for locking said op-
 40 erating means, a coin actuated mechanism
 for releasing said locking means, a mecha-
 nism associated with said conveying means
 operable to open said door and permit the
 delivery of a plate from under said cover
 45 by said conveying means, and means ac-
 tuated to make said locking means ineffec-
 tive until the plate has been delivered
 through said door by said conveying means,
 which last said means is released by one of
 50 said yielding members when a plate has been
 delivered thereby relocking said operating
 mechanism.

9. In a device of the character described,
 in combination, a flexible carrier divided
 55 into a plurality of sections, a plurality of
 plate carrying structures, one mounted on
 said carrier in each of said sections, a trans-
 parent cover supported above said plate car-
 rying structures which prevents access to
 60 the plates carried therein, a transparent door
 associated with said cover, and coin operated
 means actuated to move said carrier a dis-
 tance of one section and which controls the
 opening and closing of said door to permit
 65 the delivery of a plate therethrough.

10. In a device of the character described,
 in combination, a flexible carrier divided
 into a plurality of sections, a plurality of
 plate carrying structures, one mounted on
 said carrier in each of said sections, a trans- 70
 parent cover supported above said plate car-
 rying structures which prevents access to
 the plates carried thereon, a transparent
 door associated with said cover, coin op-
 erated means actuated to move said carrier a 75
 distance of one section and which controls
 the opening and closing of said door to per-
 mit the delivery of a plate therethrough,
 and means operated to move said carrier
 through the distance of a plurality of sec- 80
 tions and until a plate is delivered, said
 door opening and closing a plurality of times
 equal to the number of sections through
 which said carrier is moved.

11. In a device of the character described, 85
 in combination, a flexible carrier divided
 into a plurality of sections, a plurality of
 plate carrying structures, one mounted on
 said carrier in each of said sections, a trans- 90
 parent cover supported above said plate car-
 rying structures which prevents access to
 the plates carried thereon, a transparent
 door associated with said cover, coin op-
 erated means actuated to move said carrier a 95
 distance of one section and which controls
 the opening and closing of said door to per-
 mit the delivery of a plate therethrough,
 and means operated to completely open the
 said door immediately after said carrier be- 100
 gins to move and retain said door in this po-
 sition while said carrier is moving through
 substantially half the length of one section,
 and very slowly closing the door during the
 period that the said carrier is moving
 through the remaining half length of said 105
 section.

12. A device of the character described,
 comprising in combination a flexible carrier
 divided into a plurality of sections, a plu- 110
 rality of plate carrying structures, one
 mounted on said carrier in each of said sec-
 tions, a transparent cover supported above
 said plate carrying structures which pre-
 vents access to the plates carried thereon, a
 transparent door associated with said cover, 115
 coin operated means actuated to move said
 carrier a distance of one section, and gravi-
 tational means operated to open and close
 said door to permit the delivery of a plate
 therethrough by said moving carrier. 120

13. An article vending unit, comprising
 in combination an article conveying means,
 a transparent cover inclosing said articles
 and preventing access thereto, a transparent
 door associated with said cover, means for 125
 operating said conveying means, and means
 automatically operated by said conveying
 means to open and close said door to permit
 the passage of an article from under said
 cover through said door opening. 130

14. An article vending machine comprising in combination, an article conveying means, a transparent cover inclosing said articles and preventing access thereto, a roll
 5 top transparent door associated with said cover, gravitationally operated means for actuating said conveying means, and a mechanism operable to slide said door under said cover to permit the delivery of an
 10 article by said conveying means from under said cover, and which returns said door to closed position after the article has been thus delivered.

15. In a device of the character described, in combination, a flexible conveying means, mounting structures on said conveying means for stably carrying plates of food, a plurality of rotatable members supporting said conveying means, a transparent cover
 20 supported over said conveying means which prevents access to the food carried thereby, a transparent door associated with said cover, an operating means actuated to open and close said door, driving means interconnecting said operating means and said rota-
 25 table members, a locking means for said rotatable members, and a coin actuated lever operated to release said locking mechanism whereby the weight of said plates on said
 30 conveying means will advance the same and open and close said door until a plate of food has been carried from under said cover and through said door opening.

16. A food conveying unit comprising in combination, a conveying means divided into sections, a plate supporting means individual to each section, a transparent cover for said conveying means, a door associated with said cover, means operated to move
 40 said conveying means, a lever operated to open and close said door, automatically controlled by said conveying means, and a coin operated means actuated to move said conveying means a distance equal to the length
 45 of one section and which controls the opening and closing of said door.

17. A coin operated food vending machine comprising in combination, a conveying means divided into sections, a plate supporting means individual to each section, a transparent cover for said conveying means, a door associated with said cover, means whereby plates of food may be placed on said supporting means from the rear end of
 50 said conveying means, a locking device for said conveying means, a mechanism operated to unlock said conveying means whereby the said plates placed on said supports will move said conveying means and open
 55 and close said door for each sectional length traveled by said conveying means and until a plate of food is delivered through said open door.

18. In a food vending unit in combination a conveying means divided into sec-

tions, a plate supporting means individual to each section, a transparent cover for said conveying means, a door associated with said cover, a mechanism operated to lock said conveying means, coin actuated means
 70 operated to unlock said conveying means whereupon it will travel toward the front end of said unit if a plate rests on but one of said supporting means, means whereby said conveying means will continue to move
 75 until said plate has passed through said door opening and from under said cover, and a tripping device operated thereafter which is actuated to re-lock said conveying means.

19. In a vending machine, an inclosure having a delivery opening and a replenishing opening, a door for each said opening, article-conveying means, means to lock the door of said delivery opening, and coin-op-
 85 erated means actuated to operate said conveying means to deliver an article from under said inclosure on said conveying means and which automatically opens and closes the delivery door.

20. In a vending machine, an inclosure open at opposite ends to provide delivery and replenishing openings, a door for said delivery opening, means to lock the door of said delivery opening, a coin actuated article
 95 conveying means, and means cooperating with said conveying means to open and close said door to permit the delivery of an article on said conveying means and through said door opening from within said
 100 inclosure.

21. In a vending machine, an inclosure open at opposite ends to provide delivery and replenishing openings, a door for said delivery opening, means to lock the door
 105 of said delivery opening, a coin actuated article conveying means, means cooperating with said conveying means to open and close said door to permit the delivery of an article on said conveying means from within
 110 said inclosure, and a door for said replenishing opening through which articles may be placed on said conveying means while others are being delivered.

22. In a vending machine, an inclosure open at opposite ends to provide delivery and replenishing openings, a transparent door for said delivery opening, means to lock the door of said delivery opening, a coin actuated article conveying means visible through the transparent top of said inclosure, and means to operate said conveying means to automatically open and close said delivery door and deliver an article on said conveying means through said door
 125 opening.

In witness whereof I have hereunto subscribed my name.

JOHN L. MEYFARTH.