

Nov. 6, 1934.

J. R. GOGGINS

1,979,613

DEVICE FOR DELIVERING TOKENS

Filed Oct. 25, 1929

4 Sheets-Sheet 1

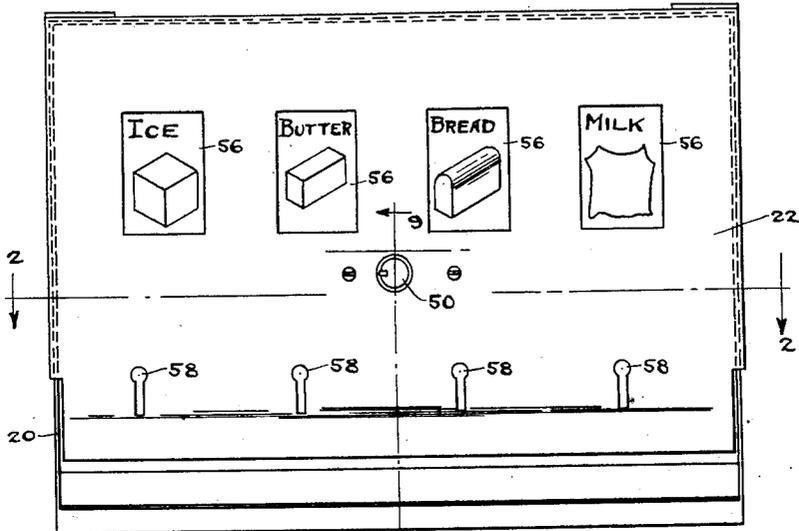


Fig-1

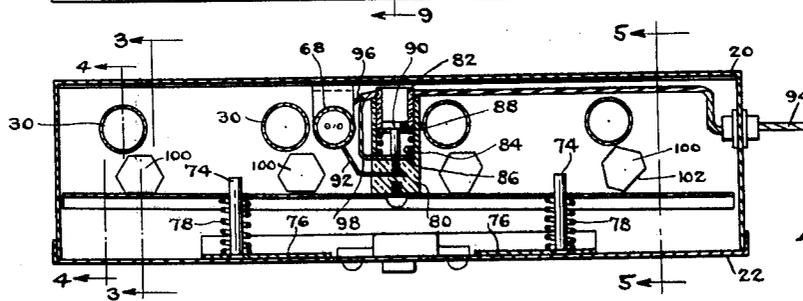


Fig-2.

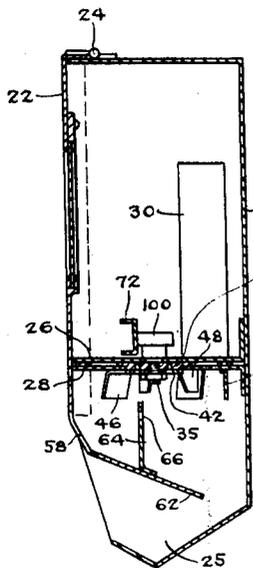


Fig-3.

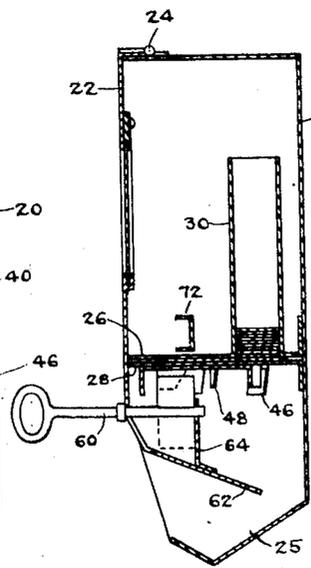


Fig-4

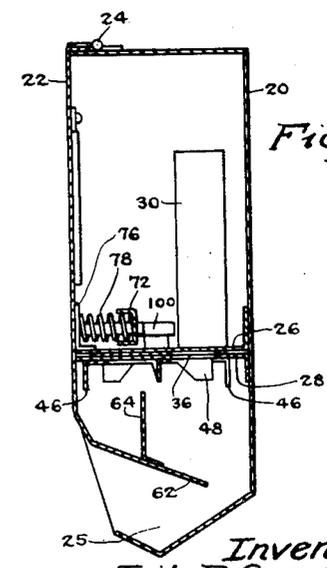


Fig-5.

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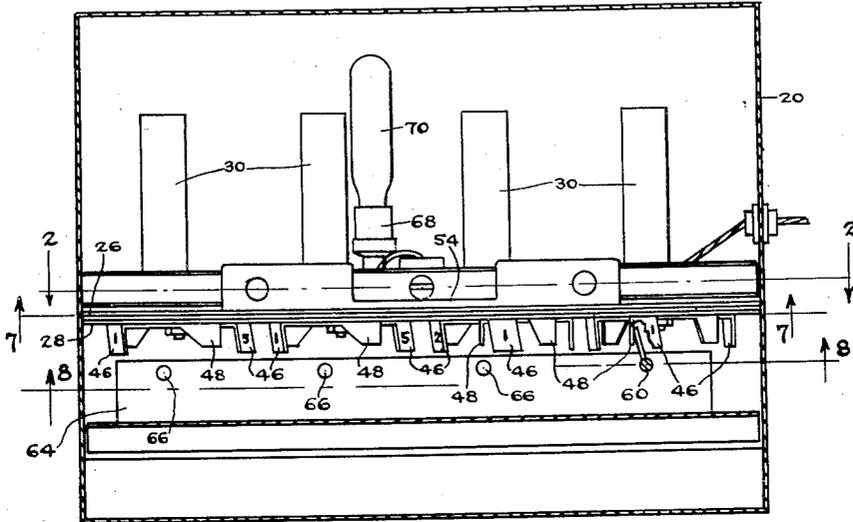


Fig-6

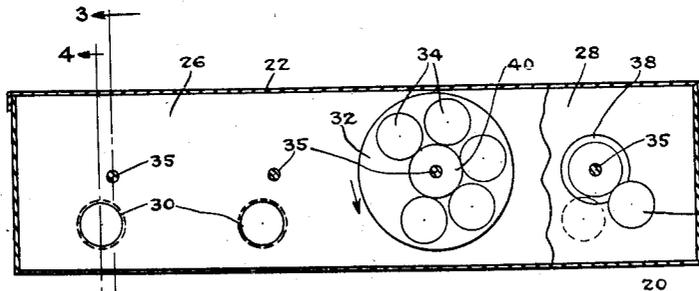


Fig-7

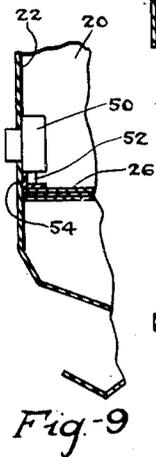


Fig-9

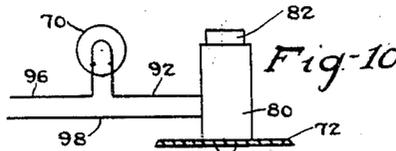


Fig-10

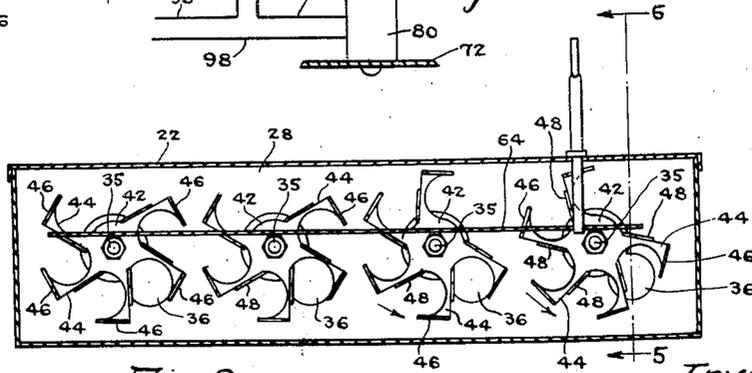


Fig-8

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4 Sheets-Sheet 3

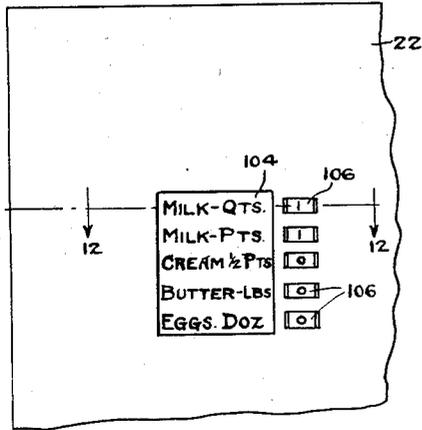


Fig-11

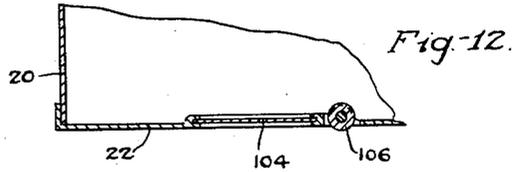


Fig-12.

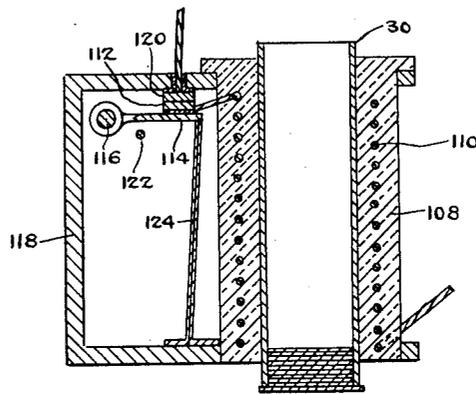


Fig-13.

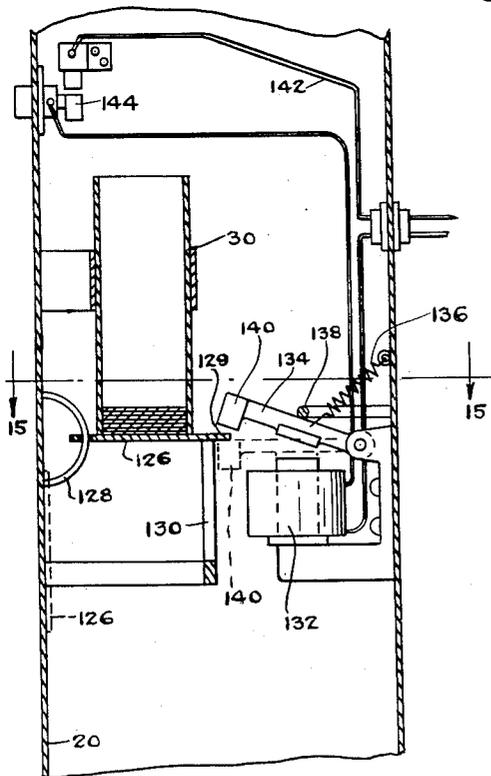


Fig-14

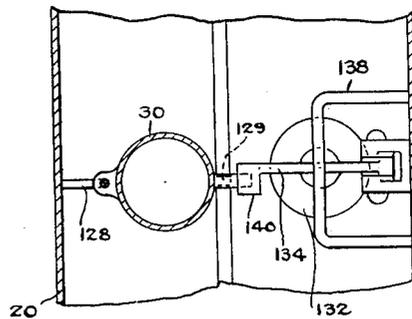


Fig-15

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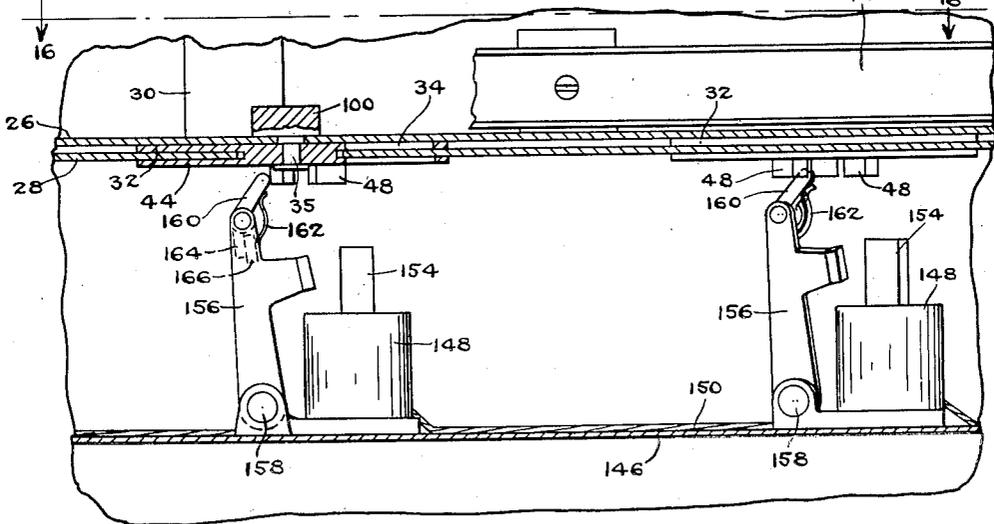
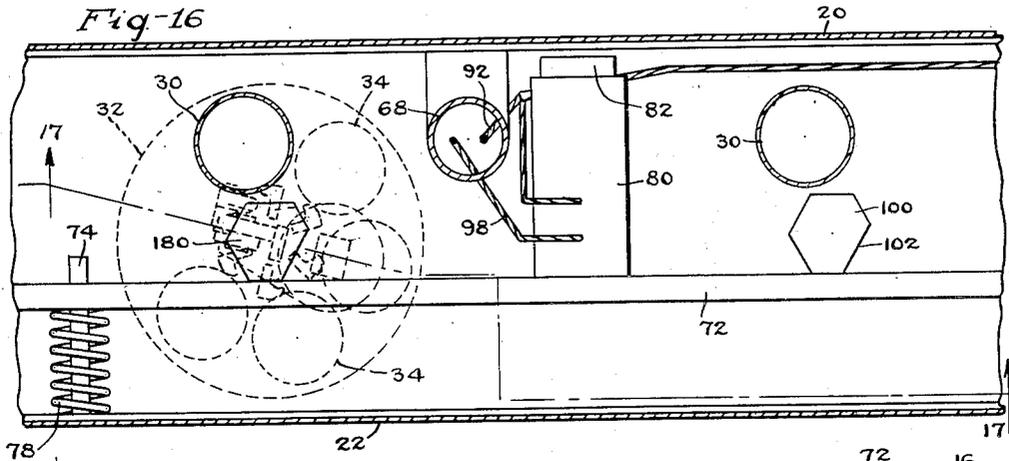


Fig-17

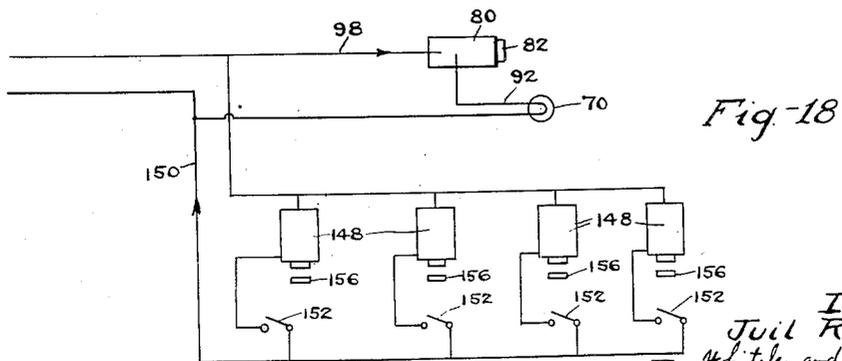


Fig-18

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# UNITED STATES PATENT OFFICE

1,979,613

## DEVICE FOR DELIVERING TOKENS

Jul R. Goggins, Minneapolis, Minn.

Application October 25, 1929, Serial No. 402,536

7 Claims. (Cl. 312-35)

My invention relates to devices for delivering tokens and particularly to devices of this kind for use in connection with the delivery to the consumer of milk, ice, bread, eggs, butter and other household commodities. It is to be understood that the term "tokens" is used in a broad sense, and is intended to refer either to slugs or to coins of any desired denomination. An object of the invention is to provide a device which may be set by the householder in such manner that the delivery-men can see at a glance the desired quantity of different commodities and can readily obtain tokens corresponding in value to the commodity which is delivered. The device is preferably embodied in a casing of any suitable material which is placed in any convenient location such as at the rear of the building where commodities are to be delivered. Another object is to provide a device of this character having provision for sterilizing the tokens which are placed therein. Another object is to provide means which will illuminate an indicator when delivery of any particular commodity is desired and which will not be illuminated when no delivery of this commodity is desired. Another object is to provide means operated either mechanically or electrically which will enable the delivery-man to obtain the proper number of tokens and no more.

The full objects and advantages of my invention will appear in connection with the detailed description thereof, and the novel features of my inventive idea will be particularly pointed out in the claims.

In the accompanying drawings which illustrate some of the forms in which my invention may be embodied,—

Fig. 1 is a front elevational view of a token delivering device. Fig. 2 is a view in horizontal section on the line 2—2 of Figs. 1 and 6 looking in the direction of the arrows. Fig. 3 is a view in vertical section on the line 3—3 of Figs. 2 and 7 looking in the direction of the arrows. Fig. 4 is a view in vertical section on the line 4—4 of Figs. 2 and 7 looking in the direction of the arrows. Fig. 5 is a view in section on the line 5—5 of Figs. 2 and 8 looking in the direction of the arrows. Fig. 6 is a view in vertical longitudinal section. Fig. 7 is a view in horizontal section on the line 7—7 of Fig. 6 looking in the direction of the arrows. Fig. 8 is a view in horizontal section on the line 8—8 of Fig. 6 looking in the direction of the arrows. Fig. 9 is a fragmentary view in vertical section on the line 9—9 of Fig. 1 looking in the direction of the arrows. Fig.

10 is a wiring diagram view. Fig. 11 is a fragmentary elevational view of the door of the casing. Fig. 12 is a view in section on the line 12—12 of Fig. 11 looking in the direction of the arrows. Fig. 13 is a sectional view showing a sterilizing heater applied to a token holder. Fig. 14 is a view in vertical section showing a modification. Fig. 15 is a view in section on the line 15—15 of Fig. 14 looking in the direction of the arrows. Fig. 16 is a view in horizontal section on the line 16—16 of Fig. 17 looking in the direction of the arrows and showing another modification. Fig. 17 is a view in section on the line 17—17 of Fig. 16 looking in the direction of the arrows. Fig. 18 is a wiring diagram of the form shown in Figs. 16 and 17.

Referring first to the device shown in Figs. 1 to 10, the numeral 20 designates a casing preferably made of sheet metal and having a door 22 hinged to the top thereof by hinges 24. The bottom of the casing is made in the form of a trough 25. The casing contains a horizontal partition consisting of two plates 26 and 28 spaced slightly from each other. The upper plate 26 contains a plurality of openings around the margins of which upwardly extending tubes 30 are secured. There may be any desired number of these openings and tubes, the present embodiment showing four of them. Mechanism is provided for each of the tubes for delivering therefrom one or more tokens according to the manner in which the device is set. It will be understood that this mechanism is the same for each of the tubes and therefore the following detailed description of one of the mechanisms will be sufficient.

Between the upper and lower plates 26 and 28, there is a rotatable disk 32 containing arcuately disposed openings 34 having a diameter substantially the same as the internal diameter of the tube 30. In the embodiment shown, there are five of the openings 34 occupying about five-sixths of the distance around the disk 32 so as to leave one space which is blank or without any opening. The center of the disk 32 is secured to a stud 35 passing rotatably through the upper plate 26 in such position that the openings 34 may be made to register one after the other with the bottom of the tube 30. The lower plate 28 contains an opening 36 of substantially the same size as the openings 34 and so positioned that the openings 34 may register therewith one after the other. The lower plate also contains an opening 38 concentric with the stud 35 and through which a boss 40 on the

underside of the disk 32 extends as will be understood from Fig. 3. The central flat portion 42 of a rotatable member is secured to the boss 40. Five arms designated 44 as shown in Fig. 8 extend out peripherally around the portion 42, these arms being so shaped as to leave a space between them corresponding to the opening 36. The spacing of the arms 44 corresponds to the spacing of the openings 34 of the disk 32 except that one arm is omitted and the place where this arm is omitted is diametrically opposite the blank portion of the disk 32 as will be understood from comparing Figs. 7 and 8. The outer ends of the arms 44 are provided with downwardly extending ears 46 which are marked from 1 to 5 extending around in clockwise direction viewed from above as will be understood from Fig. 6. Between the ears 46 and the central disk portion 42, the arms 44 carry downwardly extending ears 48 with which a key is adapted to cooperate as will be explained later.

The tubes 30 are adapted to hold stacks of tokens which may be either slugs or coins, preferably the former. These tokens are placed in the tubes when the door 22 has been unlocked and lifted. In order to prevent unauthorized removal of the tokens, the door is provided with a lock 50 having a bolt 52 adapted to cooperate with a flange 54 carried by the upper plate 26 as will be understood from Fig. 9. The door 22 is provided with windows corresponding to the different tubes 30. These windows are provided with transparent panels or slides 56 on which are marked various commodities to be delivered such as ice, butter, bread and milk. Also corresponding to the tubes 30, the door toward its lower end is provided with keyholes 58 for receiving a key 60. Below the keyholes 58, the lower portion of the door is turned inwardly to provide a member 62 which carries an upstanding flange 64 provided with openings 66 to receive the inner end of the key 60 so that the latter may be properly turned.

The operation of the let-off device which has just been described will be understood in connection with Figs. 1 and 8, it being remembered that Fig. 8 shows the underside of the let-off mechanisms. The two mechanisms shown at the left are in neutral position since the gap between the ears 46 is facing the door 22. The two mechanisms shown at the right have been set for the delivery of one token since the ear marked 1 is facing the door. In order to set the device for thus delivering one token, the ear marked 1 is turned from the position shown at the left into the position shown at the right, the direction of rotation being clockwise as viewed from underneath in Fig. 8. This brings the first opening 34 into the position shown in Fig. 7 so as to be underneath a tube 30 whereby a token is permitted to drop into the opening 34. It will be understood that the setting is done when the door is lifted. Afterwards, upon inserting the key 60 as shown in Figs. 4 and 8, the key is in position to engage an ear 48 as shown in Fig. 8. Upon now turning the key, the opening 34 containing the token is moved so as to register with the opening 36 and the token drops down into the trough 25 from which it may be readily removed. The let-off mechanism may be set to deliver two tokens by placing the ear marked 2 so as to face the door and so on up to the five tokens indicated. It will be understood that the person who delivers the commodities will turn the key 60 as many times up

to five as the amount to be delivered requires. When the proper number of tokens according to the setting has been obtained, the let-off mechanism is again in neutral position with the key between the gap of the arms 44 so that further turning of the key does not cause any more tokens to be released.

It will be understood that the device may be used in connection with as many different commodities as may be desired, these commodities being indicated on the slides 56. In order that each delivery-man may know whether he is to deliver his particular commodity, means is provided for illuminating the slides which are in place on the casing. A socket 68 mounted inside the casing carries an electric light bulb 70 which is illuminated when the device is set for one or more commodities. As shown in Fig. 2, a bar 72 is slidably mounted on pins 74 carried by flanges 76 extending up from the plate 26. Springs 78 surrounding the pins 74 urge the bar 72 rearwardly. A block 80 of insulating material is secured to the middle of the bar 72. This block contains a socket in which a tube 82 of insulating material fits slidably. The tube 82 is urged rearwardly by a coiled spring 84 placed between a metal washer 86 in the bottom of the socket and a metal washer 88 engaging the inner end of the tube 82. The metal washer 88 is also adapted to engage the head of a bolt 90, the tube 80 being slidable on this head and the forward end of the bolt being threaded into the block 80 and into engagement with a wire 92 extending into the block 80 and connected with the electric light socket 68. A cable 94 connected with any suitable source of electricity leads into the casing 20. One of the wires of this cable such as the wire 96 is connected to the socket 68 while the other wire 98 is connected with the washer 86. It will now be understood that when the bar 72 is in rearward position, the end of the tube 82 engages the wall of the casing 20 so that this tube is pushed inwardly in opposition to the tension of the spring 84. This removes the metal washer 88 from engagement with the head of the bolt 90 so that the circuit through the lamp 70 is broken. The studs 35 to which the delivery disks are secured are provided with heads 100, each of which has a flat side 102. When the flat sides 102 of all of the studs face the bar 72 as in other words, when the let-off devices are in neutral or zero position, the bar 72 assumes its rearward position so that the circuit through the lamp is broken. However, if any one or more of the let-off devices is set to deliver one or more tokens, the head or heads 100 engage the bar 72 so that the lamp is lit.

Figs. 11 and 12 show the door 22 provided with a window in which there is a transparent panel or slide 104 on which are marked various commodities arranged in horizontal lines. Adjacent each line, a rotatable wheel 106 is mounted which bears numbers indicating the amount of the commodity which is to be delivered.

Fig. 13 shows an electrical heater applied to the token-holding tubes 30 for the purpose of heating the tokens to kill germs. It is to be understood that one of these heaters may be applied to each of the tubes 30. The tube 30 is surrounded by a layer 108 of material such as asbestos in which a resistance coil 110 is embedded, one end of this coil being connected to a terminal of any convenient source of electricity and the other end of the coil being connected to a contact member 112 which is mounted

ed on the free end of an arm 114. The other end of this arm is attached to a pivot 116 carried by a support 118. The contact member 112 is adapted to engage a contact member 120 to complete a circuit through the coil. The contact member 120 is carried by the support 118 and this support also carries a stop pin 122 which limits the downward movement of the arm 114. The contact member 112 is held up in engagement with the contact member 120 by a bi-metallic strip 124 which constitutes a thermostatic element. This element when heated becomes flexed toward the right so as to move out from under the arm 114. In the operation of the heater, the arm 114 is lifted when tokens are placed in the tube 30 and the thermostatic element 124 holds the contact members 112 and 120 together until the tokens have been heated sufficiently to destroy germs. The flexing of the element 124 then permits the arm 114 to drop, thereby breaking the circuit.

In the form of invention shown in Figs. 14 and 15, the tokens are released electrically. As shown, the tube 30 is provided with a bottom 126 which is swingingly mounted at one side on a curved rod 128 attached to the casing 20. The other side of the bottom 126 is provided with a projection 129 adapted to be held up by a post 130. Supported in the casing, there is an electromagnet 132 having an armature arm 134 normally held up by a spring 136 against a stop 138. The free end of the arm 134 carries a head 140, one side of which tapers downwardly so that the head is wedge-shaped. When the electromagnet is energized, the wedge-shaped head 140 pushes the projection 129 off the post 130 so that the bottom 126 drops and releases all of the tokens in the tube 30. In order to energize the electromagnet 132, it is included in a circuit 142 containing a key-operated switch 144 whereby a person provided with the proper key may release the tokens at the time when he delivers the desired commodity. Before another delivery is to be made, the bottom 126 is reset and the proper number of tokens placed in the tube 30.

In the form of invention shown in Figs. 16, 17 and 18, the tokens are released by a let-off mechanism similar to that shown in Figs. 1 to 10, the difference being that the mechanism is electrically operated instead of mechanically operated. The same reference characters are therefore employed so far as applicable. Supported on a horizontal plate 146 mounted in the casing 20, there are electromagnets 148, one for each tube 30, these electromagnets being in a circuit 150 provided with switches 152. Each electromagnet has a core 154 which when energized attracts an armature arm 156 mounted on a pivot 158. A pawl 160 is pivoted upon the free end of the arm 156. A spring 162 secured at one end to the arm 156 engages the pawl 160 and normally holds a stop shoulder 164 on the latter in engagement with a stop shoulder 166 carried by the arm 156. The pawl 160 is so positioned and its range of movement is such that on its forward movement it engages one of the ears 48 and moves the disk 32 one space to deliver one token. This forward movement is caused by closing the switch 152. Upon opening this switch, the arm 156 moves back to original position, the spring 162 permitting this backward movement without turning the disk 32. It will be understood that the switch will be operated as many times as the number of tokens which are to be delivered.

The operation of my device has already been set forth while the use and advantages have in part been indicated. It will be understood that tokens which are furnished by the various concerns which are engaged in supplying various commodities may be used over and over a great many times. This is much less expensive than providing printed tickets which are used only once. The provision of means for sterilizing the tokens removes the likelihood of disease being transmitted by the use of the tokens. The use of the invention is of advantage both to the housekeeper and to the deliveryman or driver. In ordinary use of the device, the housekeeper will sometime during the evening, place the indicator to show the quantity of such commodities as are desired and will set the let-off devices for the proper tokenholders so that tokens corresponding to the commodities will be in readiness to be delivered. At the same time, the light for the indicator will be automatically lit. In the morning, the delivery-men can tell at a glance whether they are to make any delivery and what quantity. When the last delivery which is indicated has been made, the light will be automatically extinguished. Of course if no delivery at all is desired in the morning, the light will not be on at all. It will be understood that the use of the invention is not limited to the delivery of any particular commodity. For example, the device may be used in connection with meters for electricity, gas, water, and so forth, so that the meterman or collector may take out tokens corresponding to the reading of the meter.

I claim:

1. In a device for delivering tokens, the combination of a holder, an indicator for showing the desired quantity of a commodity, means whereby the device may be set for the delivery of tokens according to the indicator, means for illuminating said indicator, means whereby tokens corresponding to the setting may be released from said holder, and means for nullifying the illumination when said tokens have been released. 110
2. In a device for delivering tokens, the combination of a holder, let-off mechanism for releasing tokens from said holder, said mechanism having a neutral position, a source of light, and means for causing said light to be extinguished when said mechanism is in neutral position and to be lit at other times. 125
3. In a device for delivering tokens, the combination of a holder, an indicator for showing the desired quantity of a commodity, let-off mechanism for releasing from said holder tokens corresponding to the quantity shown on said indicator, said mechanism having a neutral position, a source of light associated with said indicator, and means for causing said light to be extinguished when said mechanism is in neutral position and to be lit at other times. 135
4. In a device for delivering tokens, the combination of a casing, a door for said casing, a lock for said door, two horizontal plates in said casing spaced from each other, a tube extending up from the upper end of said plates and opening into the space between the plates, a rotatable disk mounted in the space between the plates and containing a series of arcuately disposed openings having a diameter substantially the same as the diameter of said tube and adapted to register successively with the latter, and means for releasing tokens from said openings corresponding to the setting of said disk. 145
5. In a device for delivering tokens, the com- 150

5 bination of a casing, a door for said casing, a lock  
 for said door, two horizontal plates in said casing  
 spaced from each other, a tube extending up  
 from the upper one of said plates and opening  
 10 into the space between the plates, a rotatable  
 disk mounted in the space between the plates and  
 containing a series of arcuately disposed open-  
 ings having a diameter substantially the same as  
 the diameter of said tube and adapted to register  
 15 successively with the latter, there being a blank  
 space between the first and last of said openings,  
 the lower one of said plates having an opening  
 disposed laterally with relation to said tube, a  
 20 series of arms corresponding in number to said  
 series of openings secured for rotation with said  
 disk and positioned under said lower plate, there  
 being openings between said arms adapted to  
 25 register with said laterally disposed opening, ears  
 extending down from said arms, means for en-  
 gaging said ears to move said disk for releasing  
 30 tokens from said tube, an indicator for showing  
 the desired quantity of a commodity, a source of  
 light associated with said indicator, and means

for causing said light to be extinguished when  
 said blank space is under said tube and to be lit  
 at other times.

6. In a device for delivering tokens, the com-  
 35 bination of a holder for tokens, an electric re-  
 sistance coil around said holder, a circuit for said  
 coil, a switch in said circuit, and a thermostat  
 adjacent said coil which when heated causes said  
 switch to open.

7. In a device for delivering tokens, the com-  
 40 bination of a casing, a holder for a stack of tokens  
 in said casing, a rotatable disk underneath said  
 holder containing a plurality of openings each of  
 which is adapted to receive a single token from  
 45 said holder, means associated with said disk  
 whereby it may be set for the delivery of a pre-  
 determined number of tokens variable from one  
 up to the number of said openings, and means  
 whereby said disk may be given rotative move-  
 50 ment in extent dependent upon the particular  
 setting to deliver tokens only of the exact number  
 determined by the setting.

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25	100
30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145
75	150