

June 23, 1931.

C. M. BELL
DEVICE FOR DISPENSING THE EQUIPMENT NECESSARY
FOR THE PRACTICE OF FEMININE HYGIENE
Filed Feb. 10, 1930

1,811,345

3 Sheets-Sheet 1

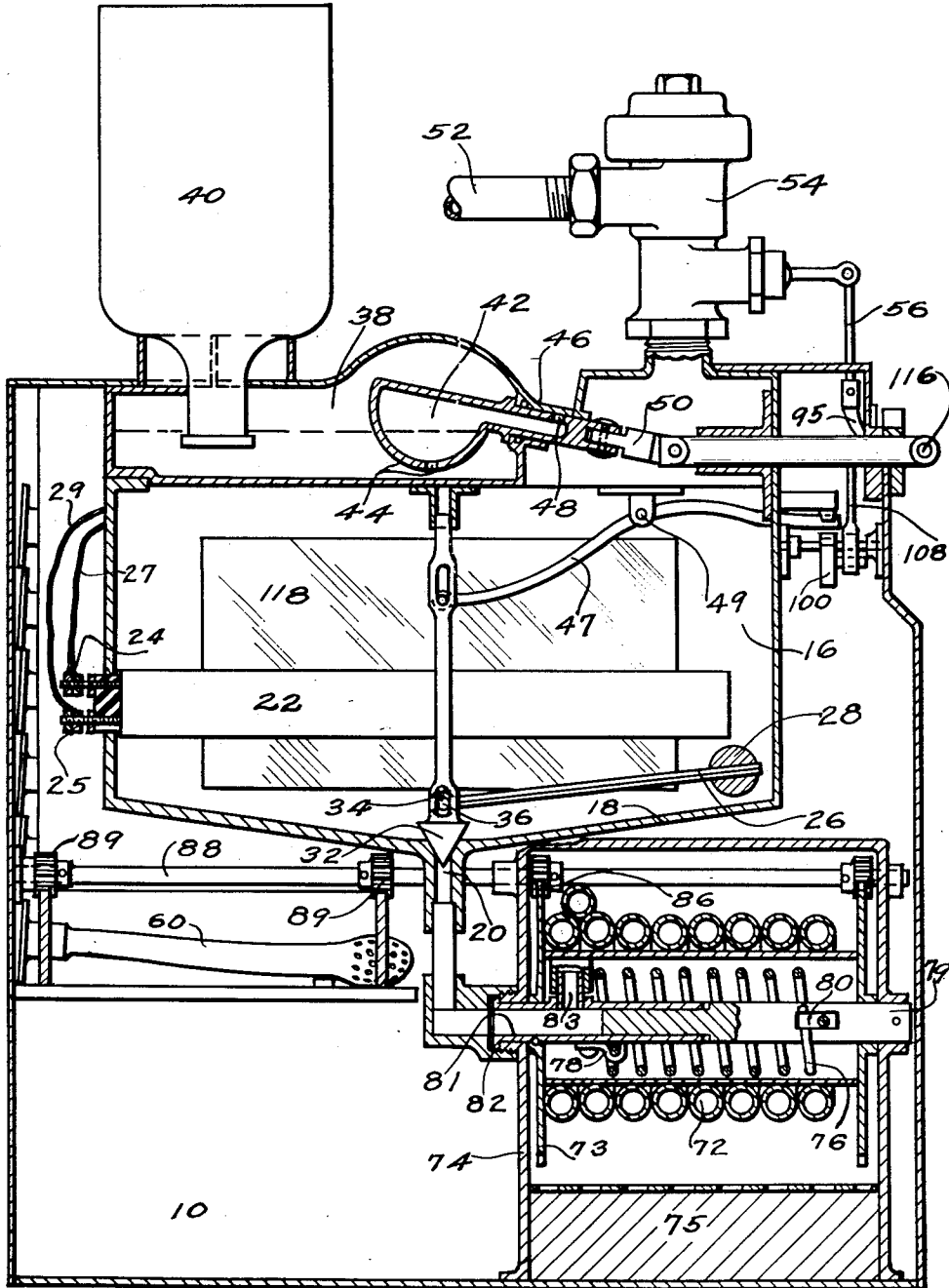


Fig-1

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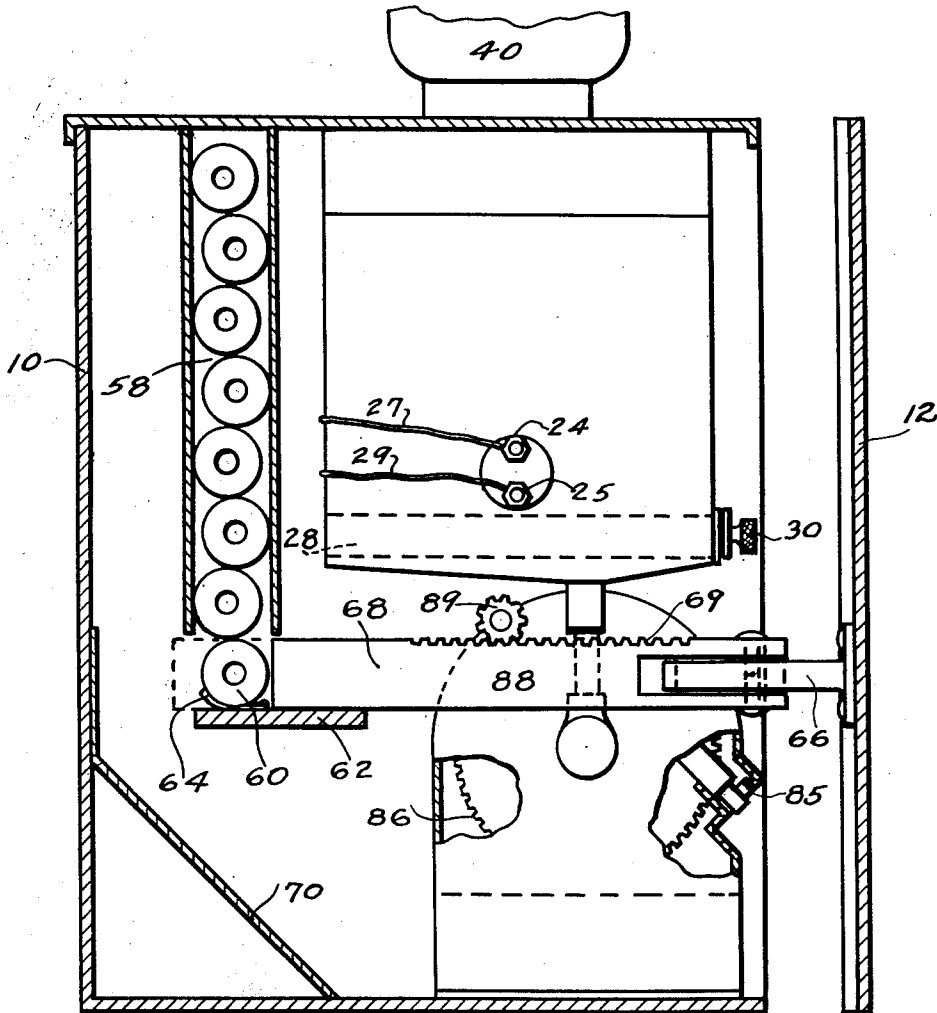


FIG. 2

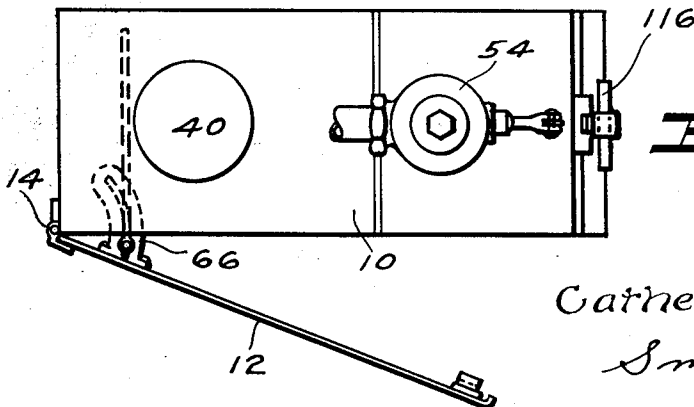


FIG. 3

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Fig - 4

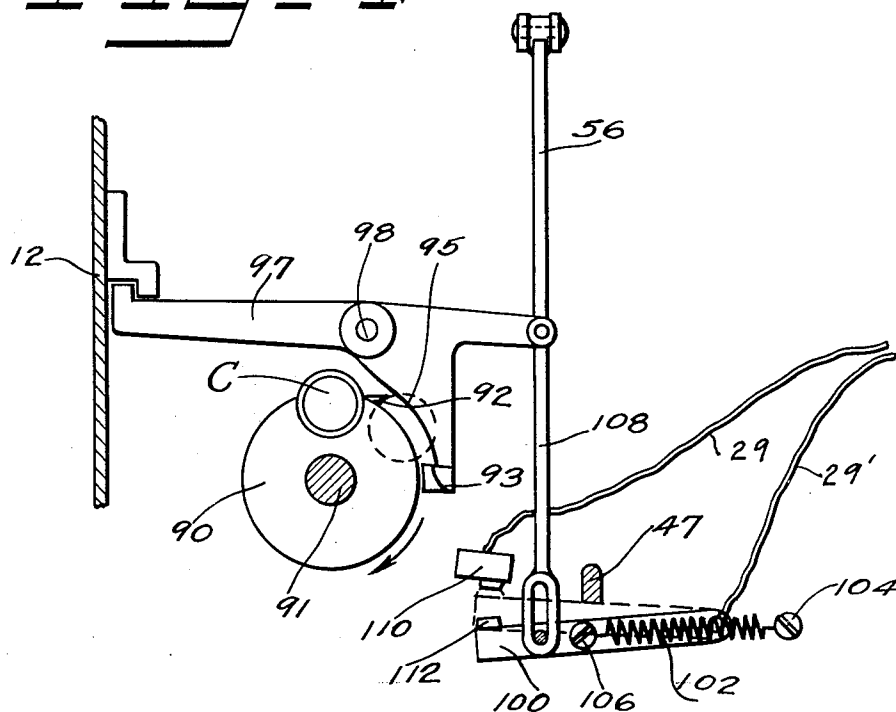
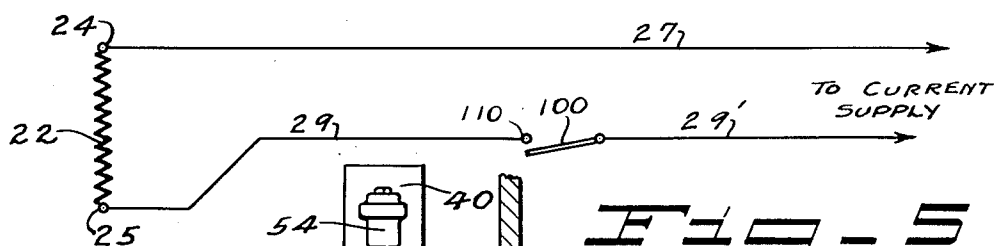
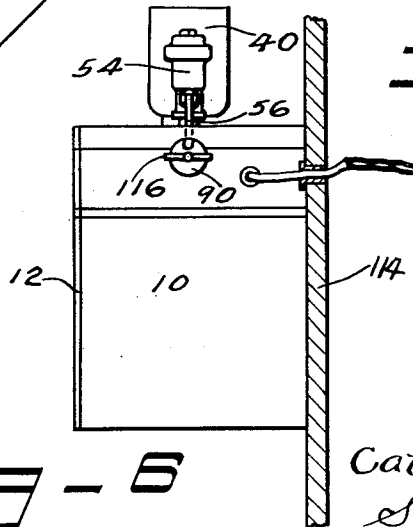


Fig - 5

Fig - 6



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DEVICE FOR DISPENSING THE EQUIPMENT NECESSARY FOR THE PRACTICE OF FEMININE HYGIENE

Application filed February 10, 1930. Serial No. 427,127.

My present invention relates to the improvements in devices for dispensing the equipment necessary for the practice of feminine hygiene.

5 It has been very difficult in the past for a woman to obtain the equipment necessary for this purpose except in her own home. It is the purpose of my invention, therefore,

10 To provide means whereby hygienic equipment may be made available at places elsewhere than the individual's residence.

A further object is to provide means whereby hygienic equipment may be maintained in a perfectly sterile condition.

15 A further object is to provide means whereby warm water and proper chemicals may be dispensed for use.

Other and more specific objects will be apparent from the following description taken in connection with the accompanying drawings, wherein

20 Figure 1 is a cross sectional view through my device taken on a plane parallel to the wall upon which it is mounted.

25 Figure 2 is a cross sectional view taken at right angles to Figure 1.

Figure 3 is a top plane view of my device.

30 Figure 4 is a fragmentary view showing certain elements of my device that it is difficult to show in the sectional views.

Figure 5 is a digrammatic view showing the circuit arrangement of my device.

Figure 6 is an end elevation showing the control end of my device.

35 Referring to the drawings throughout, which like reference characters indicate like parts, numeral 10 designates the main cabinet of my device, having a coin released door 12 which is pivoted on the hinges 14. Located fairly centrally in my cabinet is a solution mixing reservoir 16 having a bottom 18 arranged to drain to a common discharge 20. Secured within reservoir 16 is an electrical heating element 22 of any type suitable for heating water. This is provided with the usual terminals 24 and 25 to which are attached conducting wires 27 and 29 respectively. Also disposed within the reservoir 16 is a dual metal thermostat 26 which in turn is

40 mounted in a partially revolvable pivot member 28. It is so arranged that pivot member 28 may be adjusted by means of dial 30 so it may be set to operate at any desired temperature.

45 Closing the discharge 20 is a valve member 32 which normally closes of its own weight. This is provided with a slot 34 adapted to accommodate a connecting pin 36 which serves to loosely connect the thermostat 26 with the valve member. Serving as a cover for reservoir 16 is a chemical chamber 38 which is adapted to be partially filled with the desired solutions from an inverted bottle 40. Following the principle of the chicken watering device the level of the solution chamber 38 will be slightly above the bottom of the neck of bottle 40. Bottle 40 may be secured in place by any means which will make its removal by unauthorized person difficult. Disposed within chamber 38 is a closed spoon member 42 having a filling opening 44 in its lowermost surface. This is provided with a journal 46 and has a hollow stem down to the discharge opening 48. Spoon 42 may be connected to the coin operated mechanism by any suitable means, as by the universal coupling 50.

50 Water is supplied to reservoir 16 from the supply pipe 52 by the measuring valve 54 which is a small size of the type commonly used for flushing purposes. This is operated by the push rod 56 which is connected to the coin operated mechanism.

55 Behind reservoir 16 is provided a storage rack 58 which is adapted to store a number of nozzles or irrigating tips 60. For use in my device I prefer to use a type which is of such inexpensive construction that it may be destroyed after being used once. This is provided in the paraffine paper types. In order to eject a single tube for each operation of the coin actuated mechanism I provide that the lowermost tube 60 rest on a shelf member 62 and be retained there by springs 64. As door 12 is closed it will actuate, through the lug 66, the rack bar 68 which will cause the ejection permitting the tube to roll down the incline 70 and be available for use.

60 I further provide rubber tubing 72 adapted to carry fluid from discharge 20 to the point of use. While any type of rubber tubing

might be used, I prefer to use that type which is armored with metal to the end that it will not be cut and carried away by unauthorized persons. I prefer to store tubing 72 on a reel 73 and inclose the entire reel in a housing 74 to the end that a fuming disinfectant 75 stored below the tubing may completely sterilize the same after each use. To insure that the tubing will be reeled up after each use I provide a coil spring 76 which is secured to the revolving reel at 78 and to the fixed shaft 79 by the clamp 80. After the rubber tubing is pulled from the reel it is against the tension of spring 76 which will immediately restore it when the operator releases it.

A connection permitting the flow of fluid from the fixed discharge 20 to the revolving reel is provided by the device shown in Figure 1 wherein tubing 81 is provided with a retaining collar 82 and the end of the rubber tube is connected thereto by means of the nipple 83. I have found that with a tube as 60 secured to the end of hose 72, it is difficult to remove the tube when the device has served its purpose. To overcome this I have provided a suitable member 85 against which the tube 60 abuts. In this position spring 76 having returned the tubing to its rolled up position has nearly spent its energy, so I have provided the flanges of reel 73 with gear teeth at 86 which are adapted to engage fixed pinions on shaft 88. The other end of shaft 88 is supplied with fixed pinions 89 which engage rack 69; thus the closing motion of door 12 exerts a very powerful turning movement to the reel 73 and draws the tubing inside of the housing 74 to a position indicated in Figure 2. It will naturally follow that an opening movement of door 12 will serve to expel sufficiently of tubing 72 so it may be grasped by the user and the tube 60 applied thereto.

In Figure 4 I have shown in some detail the coin operating means and the electrical switch. A coin holder 90 is pivotally supported on shaft 91 and is adapted to receive an operating coin C. After member 90 is turned to the right in the direction indicated, if a coin is not inserted as shown, a jaw member 92 will connect with its coacting jaw 93 and limit any movement. If, however, a coin be inserted as shown, the coin will engage the cam surface 95 which in turn will cause the release lever 97 to revolve about the fixed point 98. This will release door 12 so it may be opened. Further, it will actuate the water valve push rod 56 and the electrical switch 100. Switch 100 may be of any desired type. I have shown a conventional snap type having an actuating spring 102 pivoted at a fixed pivot 104 and secured to the switch bar as at 106. After the connecting bar 108 is moved upwardly the switch toggles past center under action of spring 102 snaps into the closed position bringing contacts 110 and 112 in electrical engagement.

In Figure 6 I have shown for sake of clearness an end view of my device as it would be secured to the supporting wall 114.

Method of operation

In operating my device, it is first necessary for the operator to place a coin of a certain denomination in the receiving cut of member 90. By means of handle 116 member 90 is revolved to the right. This causes the following sequence of operation:

First, door 12 is released and may be opened. The upward push on rod 56 causes a measured amount of water, usually 2 quarts, to be deposited in reservoir 16. Simultaneously therewith the switch 100 is operated to close the electrical circuit, thus heating the water heating coil 22. As handle 116 is revolved further, a measured amount of medicinal solution is discharged through opening 48 into reservoir 16 where it is readily mixed by the rush of incoming water. This operation may be witnessed by the user through means of the glass inspection plates 118. While the element 22 is heating the water in reservoir 16, the operator should first set dial 30 to the desired temperature and then take the paper tubing 60 which has been made available and secure it in frictional engagement with the end of hose 72 which the opening movement of door 12 placed in an accessible position. Preparation should then be made for using the device and as soon as the desired temperature has been reached by the water in reservoir 16, the dual metal thermostat 26 as it bends upwardly will raise valve 32 from its seat, thus making the water and the medicant it carries available for use. The thermostat 26 as it moves the valve upwardly also operates lever 47 which is pivoted at 49 and is arranged as shown in Figure 4 to press downwardly on the switch bar 100 until it returns it to its indicated position thus interrupting the electrical current. When the operator is entirely through and releases the tube 60 it will be stripped off by reel 73 and its associated mechanism when it abuts member 85. As the operator then closes door 12 the entire device is returned to its normal position of rest and a new tube 60 is made available for the next user.

The foregoing description and the accompanying drawings clearly disclose a preferred embodiment of my invention but it will be understood that this disclosure is merely illustrative and that such changes in the invention may be made as are fairly within the scope and spirit of the following claims.

What I claim is:

1. A dispensing device of the class described consisting of a wall cabinet; a coin controlled operating handle; a door closing said cabinet; a latch for said door adapted to be operated by said handle; means adapted

to discharge irrigation tips singly; a solution mixing reservoir; discharge tubing permanently connected to the discharge of said reservoir; a storing reel for said tubing; means coacting with said door to turn said reel with considerable force when the door is opened and closed; means for supplying a measured amount of water; means for measuring and discharging chemicals into said water; electrical means adapted to heat said water to a desired temperature; means for discharging said water when the desired temperature is reached, and a switch adapted to control said heating means.

2. A dispensing device of the class described consisting of a wall cabinet; a coin controlled operating handle; a door closing said cabinet; a latch for said door adapted to be operated by said handle; means adapted to discharge irrigation tips singly; a solution mixing reservoir; discharge tubing permanently connected to the discharge of said reservoir; a storing reel for said tubing; means coacting with said door to turn said reel with considerable force when the door is opened and closed; means for supplying a measured amount of water; means for measuring and discharging chemicals into said water; means adapted to heat said water to a desired temperature; an electrical switch adapted to control said heating means; said operating handle adapted to operate the door latch, the water measuring means, the electrical switch and the chemical measuring means in order; means for opening the electrical switch.

3. A dispensing device of the class described consisting of a wall cabinet; a coin controlled operating handle; a door closing said cabinet; a latch for said door adapted to be operated by said handle; means adapted to discharge irrigation tips singly consisting of a vertically disposed storage rack, a shelf disposed below said rack, a rack bar operated by the cabinet door adapted to eject tips singly; a solution mixing reservoir; discharge tubing permanently connected to the discharge of said reservoir; a storing reel for said tubing; means coacting with said door to turn said reel with considerable force when the door is opened and closed; means for supplying a measured amount of water; means for measuring and discharging chemicals into said water; means adapted to heat said water to a desired temperature; an electric switch adapted to control said heating means; said operating handle adapted to operate the door latch, the water measuring means, the electrical switch and the chemical measuring means in order; means for opening the electrical switch.

4. A dispensing device of the class described consisting of a wall cabinet; a coin controlled operating handle; a door closing said cabinet; a latch for said door adapted to

be operated by said handle; means adapted to discharge irrigation tips singly consisting of a vertically disposed storage rack, a shelf disposed below said rack, a rack bar operated by the cabinet door adapted to eject tips singly; a solution mixing reservoir; discharge tubing permanently connected to the discharge of said reservoir; a storing reel for said tubing; a gear secured to said reel; a revolvable shaft, pinions secured to said shaft, said pinions disposed to mesh with said reel gear and said rack bar which coacts with said door to turn said reel with considerable force when the door is opened and closed; means for supplying a measured amount of water; means for measuring and discharging chemicals into said water; means adapted to heat said water to a desired temperature; an electric switch adapted to control said heating means; said operating handle adapted to operate the door latch, the water measuring means, the electrical switch and the chemical measuring means in order; means for opening the electrical switch.

5. A dispensing device of the class described consisting of a wall cabinet; a coin controlled operating handle; a door closing said cabinet; a latch for said door adapted to be operated by said handle; means adapted to discharge irrigation tips singly; a solution mixing reservoir; discharge tubing permanently connected to the discharge of said reservoir; a storing reel for said tubing; means coacting with said door to turn said reel with considerable force when the door is opened and closed; means for supplying a measured amount of water; means for measuring and discharging chemicals into said water; an electric heating element adapted to heat said water; an electric switch adapted to control said element; a water discharge valve; a thermostatic element adapted to open said valve at a predetermined temperature; said operating handle adapted to operate the door latch, the water measuring means, the electrical switch and the chemical measuring means in order; means connecting said thermostat and said electric switch to effect the opening of said electrical switch when the desired water temperature is reached.

In witness whereof, I hereunto subscribe my name this 1st day of January A. D. 1930.
CATHERINE M. BELL.