

Nov. 4, 1952

R. R. PERKINS
CREAM DISPENSER

2,616,607

Filed March 20, 1950

3 Sheets-Sheet 1

Fig. 1

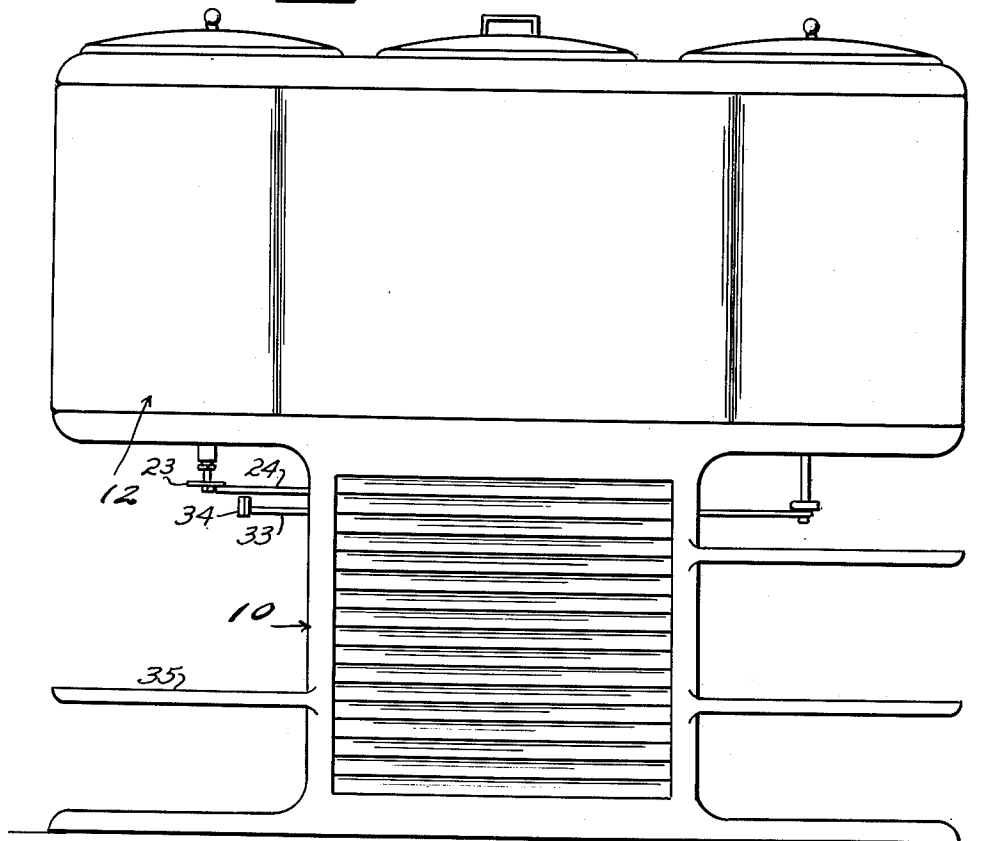
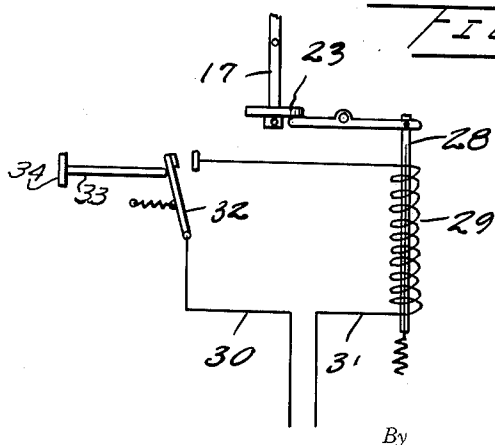


Fig. 5



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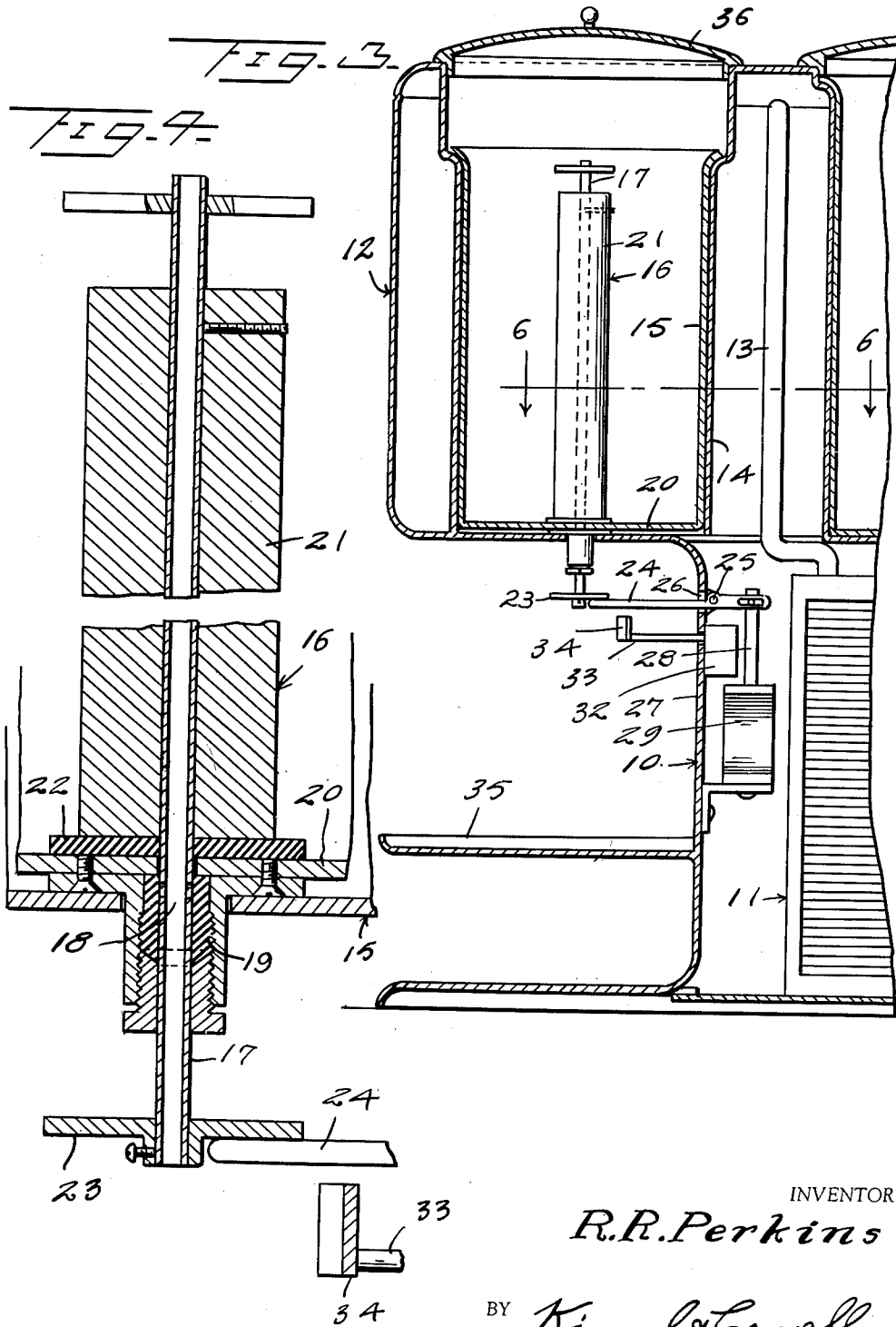
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UNITED STATES PATENT OFFICE

2,616,607

CREAM DISPENSER

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Application March 20, 1950, Serial No. 150,693

1 Claim. (Cl. 226—128)

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This device relates to a device for dispensing cooled liquids, such as cream or the like.

An object of this invention is to provide a dispensing device which includes a refrigerated housing and electrically operated means for dispensing cool liquid.

Another object of this invention is to provide in a dispenser of this kind an improved gravity closed valve and an electric operator for moving the valve to open position.

A further object of this invention is to provide a device of this kind which is relatively small in size and can be mounted on a counter or other convenient support.

A further object of this invention is to provide in an electric dispenser for liquids, a normally open switch which is closed by contact with a receptacle placed beneath the delivery spout, the switch breaking the electric circuit to the valve operator when the receptacle is withdrawn.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claim.

In the drawings:

Figure 1 is a detailed front elevation of a cream dispensing device constructed according to an embodiment of this invention;

Figure 2 is an end elevation of the device;

Figure 3 is a fragmentary sectional view taken on the line 3—3 of Figure 2;

Figure 4 is a fragmentary vertical section showing the dispensing valve;

Figure 5 is a diagrammatic view showing the electric circuit embodied in this device;

Figure 6 is a fragmentary sectional view taken on the line 6—6 of Figure 3.

Referring to the drawings, the numeral 10 designates generally a lower housing which encloses a refrigerating or cooling unit 11 of conventional construction. An upper cooling housing 12 is disposed above the housing 10, and the cooling coils 13 from the unit 11 extend into the housing 12.

A cylindrical well 14 is disposed at one end of the housing 12, and a cream holding receptacle 15 is adapted to be removably mounted in the well 14. The cream or other liquid which is positioned within the receptacle 15 is adapted to be delivered or discharged therefrom by means of a vertically movable valve member generally designated as 16. The valve member 16 includes an elongated tube 17 which is formed with intake openings 18 above the lower end thereof. The

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tube 17 slides through a gland 19 which is carried by the bottom wall 20 of the receptacle 15, and normally the openings 18 will be disposed below the bottom 20.

A weight 21 is secured to the tubular member 17 within the receptacle 15, and a sealing weight cushioning gasket 22 is disposed about the tubular member 17 and bears against the lower end of the weight 16 so that when the weight 16 is in its lowermost position, and the openings or ports 18 are below the bottom 20, cream or other liquid will not be discharged from the receptacle 15.

A disc shaped plate 23 is secured to the lower end of the tubular member 17 which projects below the gland 19, and a vertically rockable valve operating lever 24 carried by pivot 25 engages below the plate 23. The lever 24 extends loosely through an opening 26 formed in the adjacent vertical wall 27 of the lower housing 10, and the inner end of the lever 24 has loosely connected therewith the upper end of a solenoid core 28. The core 28 is spring pressed to an uppermost position and is drawn downwardly when the solenoid coil 29 is energized. The coil 29 is connected to an electric circuit embodying conductors 30 and 31, and a spring pressed switch 32 is interposed in conductor 31 and is biased to an open or circuit breaking position. The switch 32 is adapted to be moved to a circuit closing position by means of a slidable operator 33 which includes a head 34 disposed below the rock lever 24 and in a position to be engaged by a receptacle which is positioned on a horizontally disposed shelf 35.

In the use and operation of this device the cream is placed in the receptacle 15, and a removable cover 36 is placed over the top of the well 14. When it is desired to receive cream or other liquid from the receptacle 15, the valve 16 is moved to an upper open position with the ports 18 communicating with the receptacle 15 and positioning the head 34 and the slide 33 inwardly. Switch 32 at this time will be closed, thereby energizing solenoid coil 29 and causing spring pressed core or plunger 28 to be drawn downwardly. Downward rocking of the inner end of lever 24 will raise the outer end of this lever which bearing against disc 23 will raise valve 16 to open position.

With ports 18 communicating with the interior of receptacle 15 the cream or other liquid will flow through ports 18 and down through the lower portion of tubular member 17 to the receiver. A dispensing device constructed accord-

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ing to this invention will dispense cream or other liquid from a refrigerating housing and will provide a means whereby the cream will be kept in proper condition until used.

What is claimed is:

A cream dispenser comprising a refrigerated housing having a well with a central opening in the bottom of the well, a receptacle engageable in said well, a centrally disposed resilient gland secured to the bottom of said receptacle, an elongated tubular valve member slidable through said gland and extending into said receptacle, said valve member being open at the lower end thereof and formed with an intake port in the side wall thereof adapted to be disposed within said gland in sealing relation when said member is in closed position, a weight surrounding the portion of said valve member in said receptacle normally urging said member downwardly to closed position, a sealing and weight cushioning gasket carried on the inside of the bottom wall of said receptacle surrounding said member, a rock lever disposed below said well, a plate fixed to the lower end of said member and engaging over the outer end of said lever, a solenoid carried by said housing having the core thereof connected to said lever, a

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shelf carried by said housing below said well, a switch connected with said solenoid, and a switch operator disposed above said shelf in a position to be engaged by a receiver seating on said shelf below said valve whereby inward movement of said receiver will close said switch to move said tubular member and its associated weight upwardly to position said port above said sealing gasket to permit cream to flow from said receptacle through the open end of said tubular member.

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