Jan. 3, 1928. 1,654,841

H. C. SMITH

DISPENSING AND DISPLAY DEVICE

Filed May 28, 1927 2 Sheets-Sheet 1

Fig. 1.

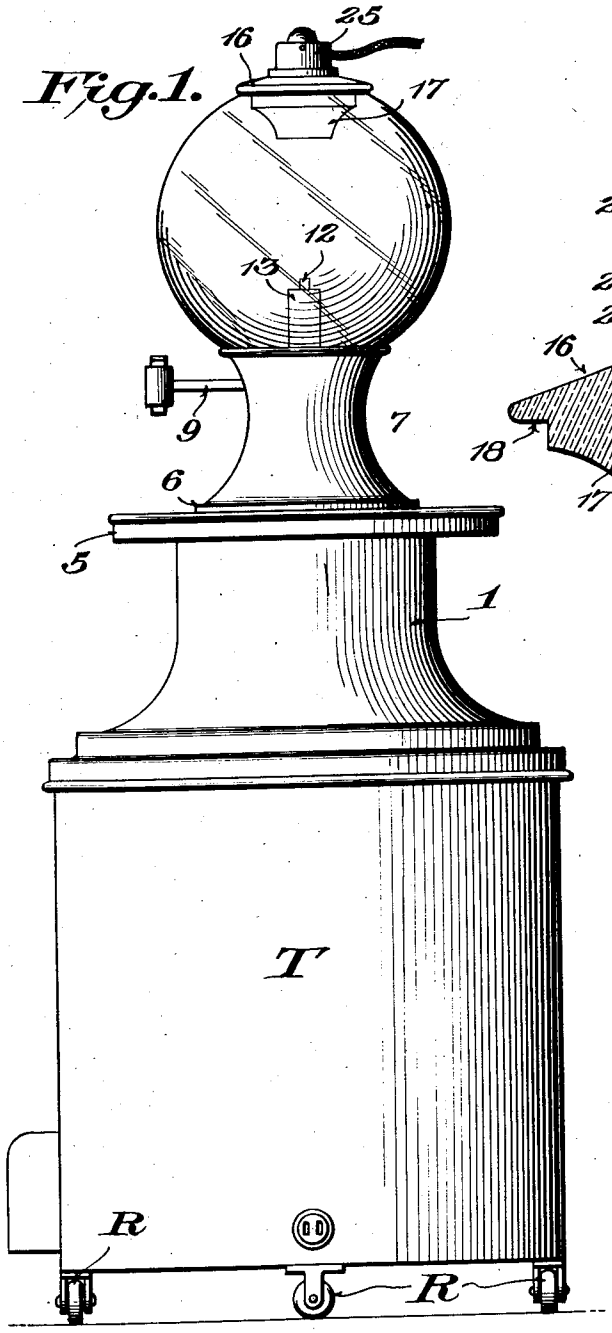
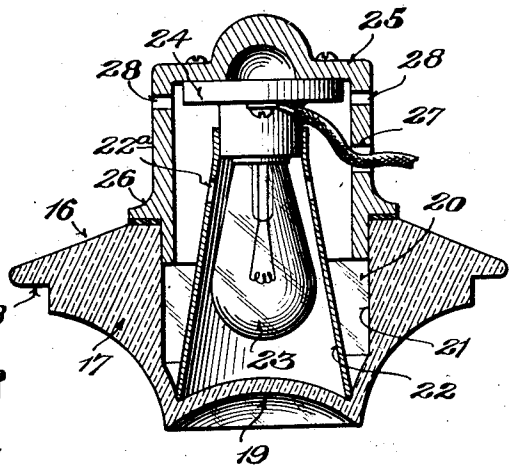


Fig. 3.



Inventor

H. C. Smith,

By D. W. Wolcott Jr.

Attorney.

WITNESSES:-

Chas. L. Grieshaber

Emory R. Groff

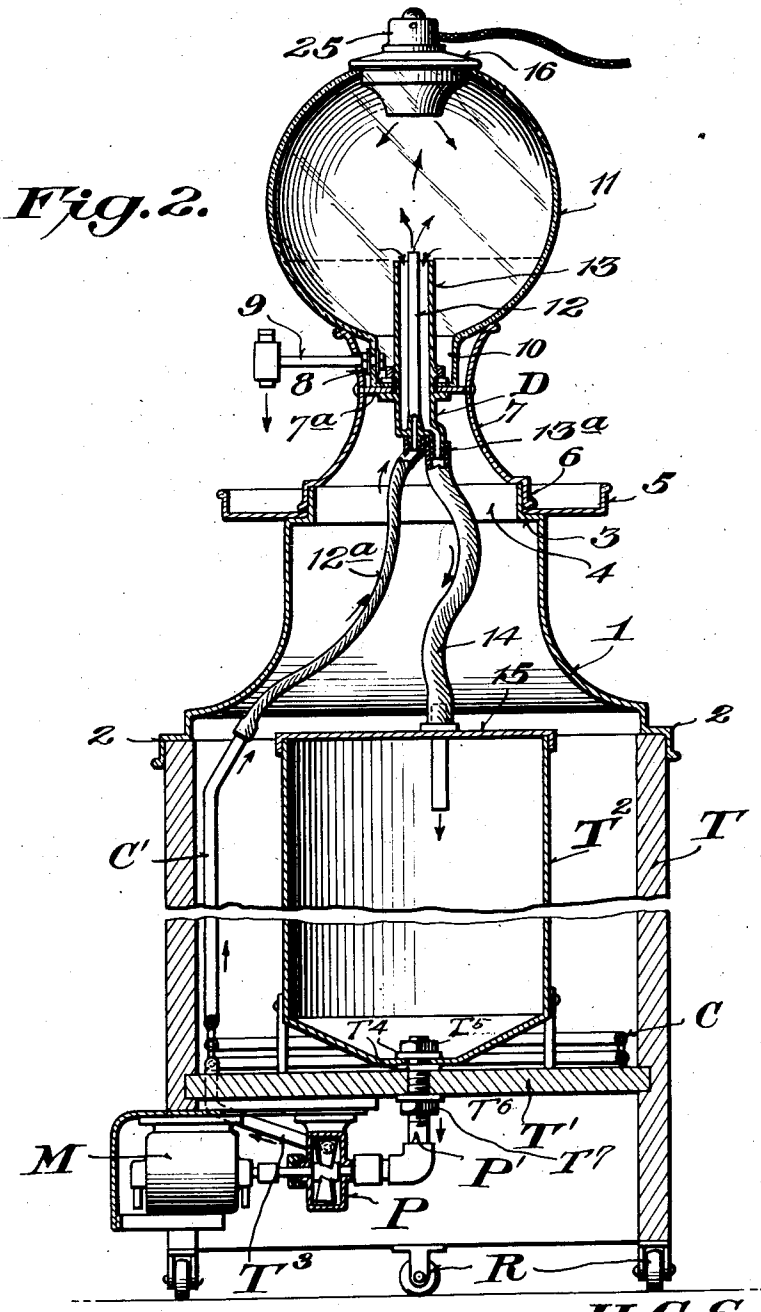
Jan. 3, 1928. 1,654,841

H. C. SMITH

DISPENSING AND DISPLAY DEVICE

Filed May 28. 1927 2 Sheets-Sheet 2

Fig. 2.



Inventor

H. C. Smith,

Witnesses:-

Chas. L. Griesbauer

Emory E. Kroff

By D. F. Wallace

Attorney

Patented Jan. 3, 1928. 1,654,841

UNITED STATES PATENT OFFICE.

HARRY CLEVELAND SMITH, OF NEW YORK, N. Y.

DISPENSING AND DISPLAY DEVICE.

Application filed May 28, 1927. Serial No. 195,098.

This invention relates to dispensing devices, and more particularly to devices of that type which display the commodity to be dispensed and sold, in a manner to attract patrons.

To that end the invention contemplates a novel and practical portable unit for dispensing liquid refreshment, such as orange juice or other fruit juices, which contains the liquid to be dispensed as well as the refrigerating means therefor. In that connection the invention contemplates a construction that may be readily manufactured and assembled and which is also constructed in such a way that the beverage tank may be readily filled and cleansed by removing the super-structure from the tub containing the tank, the said structure being readily replaceable to be ready for use.

A further and distinctive object of the invention is to provide a novel display feature which permits of illuminating the bowl containing the liquid to be dispensed as well as the fountain of beverage projected into the bowl from the storage tank.

With the above and other objects in view which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

A preferred and practical embodiment of the invention is shown in the accompanying drawings in which:—

Figure 1 is an elevation of the improved apparatus.

Figure 2 is a vertical sectional view thereof.

Figure 3 is an enlarged detail sectional view of the illuminated deflecting unit.

Similar reference characters designate corresponding parts throughout the several figures of the drawings.

The invention in its general organization includes a tub designated generally as T preferably supported on rollers or casters R so that it may be readily shifted or moved about if desired. This tub constitutes a support and carrier for the various instrumentalities which make up the apparatus so that the entire device is self-contained.

The bottom T′ of the tub carries therewith an electric motor M for operating the pump P which communicates through the pipe P′ with the beverage container or tank T^2. And, as will be observed from Figure 1, the bottom of the tank T^2 is inclined, so that the pulp or thick part of the juice or beverage will not collect at the sides and corners of the tank, and insure a uniform consistency of the beverage to be dispensed. It will also be noted that the pipe P′ which penetrates the bottom T′ of the tank and also penetrates the opening or outlet in the inclined bottom T^2 of the tank, serves as a means for joining the tank and the tub together. That is to say, the pipe P′ may be threaded and provided with suitable washers T^4 which together with the nut T^5 provide a fluid tight joint for the inner end of the pipe, while the bottom wall T′ is engaged by a washer T^6 and a clamping nut T^7 which serves to lock the pipe P′ in the bottom wall of the tub and also clamp the tank T^2 in the tub. The pump P also communicates with the tube T^3 which leads to the coil C surrounding the beverage tank T^2 within the tub and having the upwardly extending section C′ which communicates with the discharge nozzle of the display means as will presently appear. It will of course be understood that the space between the beverage tank and the inside of the tub may be filled with ice to keep the beverage properly iced while it is in circulation or stored in the tank.

The top of the tub T is provided with a cover designated generally as 1, the same consisting of a tubular body portion and the flanged peripheral portion 2 for tightly fitting the top of the tub. The upper end of the body is formed with the inturned shoulder 3 and the upwardly projecting sleeve portion 4. The shoulder 3 provides a convenient abutment for supporting a circular glass holding rack 5 which is secured in position by fitting the lower flange portion 6 of the bowl supporting member 7 down onto and over the sleeve 4.

The bowl supporting member 7 is provided with a lateral opening 8 in the side thereof for receiving the dispensing faucet 9 which communicates with the lower neck portion 10 of the transparent bowl 11. The said neck portion of the bowl has secured thereto the combined delivery and over-flow

unit designated generally as D (Figure 2), and to assist in holding the unit to the bowl supporting member 7, suitable fastening and supporting elements 7ª may be used.

The combined delivery and overflow device D may be made in the form of a casting having the inner delivery pipe 12 which projects beyond the end of the outer overflow pipe 13. The delivery pipe 12 communicates with the upright portion C' of the coil by means of the rubber hose or equivalent connection 12ª, and thus completes a feed line from the pump to the discharge end of the delivery pipe. The overflow pipe 13 has a separate outlet nipple 13ª which communicates with a flexible hose 14 that passes through the cover 15 of the beverage tank.

The top of the transparent beverage holding and receiving bowl 11 is provided with an illuminated deflecting unit 16. This unit has a deflecting surface arranged opposite the discharge end of the delivery pipe 12, and as previously indicated, it is one of the distinctive features of the invention to illuminate this deflecting surface so that the liquid discharged against the same from the said line will be flooded with light to attract patrons and enhance the general appearance of the device.

Referring more in detail to the illuminated deflecting unit 16, reference may be made to Figure 3 from which it will be observed that the same includes a glass or equivalent base member 17 provided with a shoulder 18 adapted to rest on a gasket surrounding the opening in the top of the bowl into which the device fits while the bottom thereof is formed with a curved deflecting wall 19 for deflecting the liquid projected thereagainst backward toward the sides and bottom of the bowl. The body of the base 17 is provided with a chamber 20, and the sides 21 thereof may be painted so that they will be opaque to the light; or if desired, a shield or reflector 22 may be used around the light 23 to concentrate and assist in the projection of the light rays through the translucent deflecting portion 19. The lamp 23 is preferably mounted in a porcelain socket 24 carried by the cap 25. The lower end of the cap is provided with a shoulder 26 which rests on the body 17 to cover the chamber 20, and the side wall of the cap which is preferably made of aluminum is provided with the wire receiving opening 27 as well as the vent holes or ports 28 to provide for the escape of heat from the lamp. In that connection it may be also noted that the reflector 22 is provided with the vent openings 22ª to prevent undue heating of the member 17.

In operation the motor M operates the pump P and forces the beverage from the tank T through the coil C and thence through the flexible hose or its equivalent to the delivery pipe 12 of the unit D. Under the force of the pump the beverage is projected across the bowl in a stream or jet until it strikes the illuminated transparent lens portion 19 of the deflecting unit and is scattered and directed downwardly in the bowl where it collects up to the level of the overflow pipe 13. The striking of the beverage against the illuminated deflecting lens 19 produces a sparkling cascade effect which is very attractive, and the light from the lamp 23 also illuminates the residual beverage in the bowl so that patrons will clearly see the character of the beverage being dispensed. Also it will be apparent that by constantly supplying the beverage under pressure to the bowl it will be kept in a constant state of agitation so that pulp suspended in the juice will be uniformly distributed in the liquid as it is dispensed.

Another feature of the construction is the one which permits of removing the entire super-structure from the tub T to permit the icing of the tank and the coils and the re-filling and cleansing of the tank T². The entire assembly consisting of the cover 1 and the parts that it supports may be lifted off of the tub, and the hose section 12ª disconnected from the supply pipe C' while the return hose 14 may also be lifted out of the cover 15 of the tank T². When it is desired to reassemble the parts it is only necessary to replace the flexible connections 12ª and 14 and then refit the cover 1 onto the tub.

In connection with the bowl or container on which the illuminating and deflector unit is mounted, and which holds the residual beverage it is pointed out that the said bowl is transparent so that the contents thereof may be readily viewed and will in fact attract attention. In connection with the deflector 17—19 it is pointed out that the same is translucent or transparent, the term translucent being used in the sense that it includes transparent because either a clear glass may be used at 19, or colored glasses or lenses may be used to impart different color effects to the shower of beverage within the container.

Without further description it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course be understood that changes in the form, proportion and minor details of construction may be resorted to, without departing from the spirit of the invention and scope of the appended claims.

I claim:—

1. A portable beverage dispensing apparatus including a wheeled tub, a beverage storage tank carried by the tub, a cover detachably fitted to the tub, a transparent dis-

pensing unit supported by the cover, delivery and overflow means in the dispensing unit, beverage supplying means carried by the tub, and detachable connections between said beverage supplying means and the delivery means of the dispensing unit and also between the overflow means of the dispensing unit and the beverage tank.

2. A portable beverage dispensing apparatus including a wheeled tub, a beverage storage tank in the tub, a motor driven pump communicating with the tank, coils in the tub on the outside of the tank also communicating with the pump, a cover for the tub, and a dispensing unit supported by the cover, said dispensing unit including a bowl having a dispensing faucet and a combined delivery and overflow unit, and flexible hose connections connecting respectively with the coil and delivery portions of said unit and also with the overflow portion of said unit and with the beverage tank.

3. A portable beverage dispensing apparatus including a tub, a beverage tank within the tub, a cover for the tub including an upstanding tubular portion provided with a shoulder, a glass holding rack adapted to rest on said shoulder, a tubular bowl supporting member engaging with a portion of said cover and clamping the glass holding rack to the shoulder, a transparent dispensing bowl mounted on said tubular bowl supporting member, a combined delivery and overflow device carried by the bowl, means for supplying beverage from said tank to the delivery portions of said device and means for conveying beverage from the overflow portion of said device back to the tank.

4. A beverage dispensing apparatus including in combination with an enclosed transparent bowl, means for projecting liquid across said bowl, and a translucent illuminated deflector arranged at the side of the bowl opposite the means for projecting the liquid across the bowl.

5. A beverage dispensing apparatus including in combination with an enclosed transparent bowl, means for projecting the beverage in a stream across the bowl, and a translucent and illuminated deflector unit arranged at the side of the bowl opposite the means for projecting the beverage for scattering and illuminating the same.

6. A beverage dispensing apparatus including in combination with a transparent bowl, means for projecting liquid across said bowl, and a translucent illuminated deflector arranged in the path of the liquid projected across the bowl, said transparent illuminated deflector comprising a body portion fitted in the top of the bowl and having a concave transparent deflecting surface, and an electric lamp mounted in the body behind said deflecting surface.

7. A beverage dispensing apparatus including in combination with a transparent bowl, means for projecting the beverage in a stream across the bowl, and a translucent illuminated deflector unit arranged in the path of the projected beverage for scattering and illuminating the same, said transparent and illuminated deflector unit comprising a glass body having a chamber provided with a transparent deflecting wall, a lamp carrying cap fitted into said chamber, a lamp socket in the cap, a lamp in said socket, and a reflector for directing the rays of the lamp through said transparent deflecting portion.

8. A beverage dispensing apparatus including a transparent bowl, means at one side of the bowl for projecting the beverage in a stream towards the other side of the bowl, and a combined deflector and illuminating unit arranged at said other side of the bowl, a body having means for engaging with the bowl to support the same and provided with a chamber, a transparent deflecting lens at the bottom of the chamber, a hollow vented cap detachably fitted to the end of the chamber opposite the lens, an electric lamp carried by said cap, and means for concentrating the light from the lamp onto said lens portion of the body.

9. A beverage dispensing apparatus including in combination with an enclosed transparent bowl and means for introducing liquid therein, of a light emitting unit exposed within the bowl and adapted to house therein a source of light, said light emitting unit being in the path of the liquid introduced into the bowl and deflecting the same downwardly.

10. A beverage dispensing apparatus including in combination with an enclosed transparent bowl and means for introducing liquid therein, of a sealed light emitting unit exposed within the bowl and adapted to house therein a source of light, said light emitting unit being in the path of the liquid introduced into the bowl and deflecting the same downwardly.

11. A beverage dispensing apparatus including in combination with an enclosed transparent bowl and means for introducing liquid therein, of a sealed translucent light emitting unit exposed within the bowl and adapted to house therein a source of light, said light emitting unit being in the path of the liquid introduced into the bowl and deflecting the same downwardly.

12. A beverage dispensing apparatus including a transparent dispensing container, a receptacle adapted to contain refrigerating means, a beverage holding tank and a cooling coil located within said receptacle and subjected to the influence of the refrigerating means, a supply pipe in the container connected with said coil, an overflow pipe com-

municating with the said beverage holding tank, and a pump communicating with the tank and the coil.

13. A beverage dispensing apparatus including in combination, an enclosed transparent bowl, means for maintaining a continuous supply of beverage to the interior of the bowl in diffused form, means for maintaining a predetermined level for the residual beverage in the bowl, and means for illuminating the diffused and residual beverage in the bowl comprising a translucent member against which the beverage strikes, and a source of light at one side of said translucent member.

In testimony whereof I hereunto affix my signature.

HARRY CLEVELAND SMITH.