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DISPENSER APPARATUS ADAPTED TO BE CARRIED BY A USER

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Fig. 1

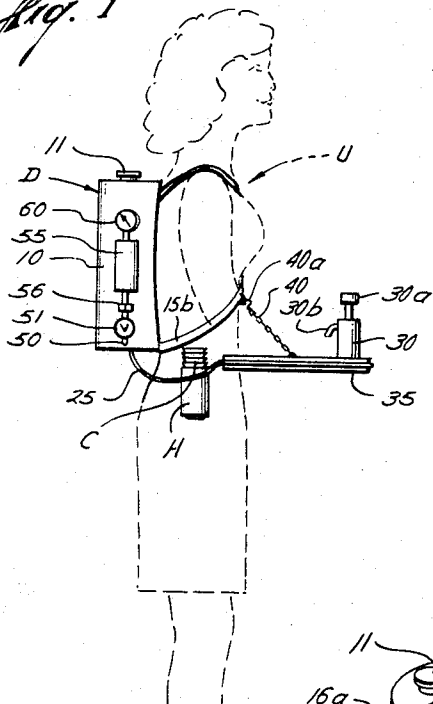


Fig. 2

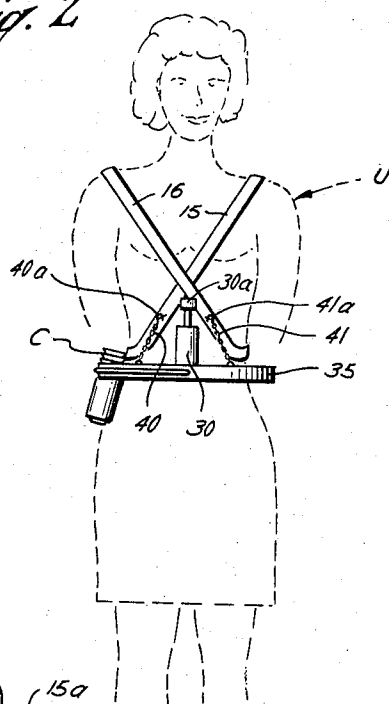
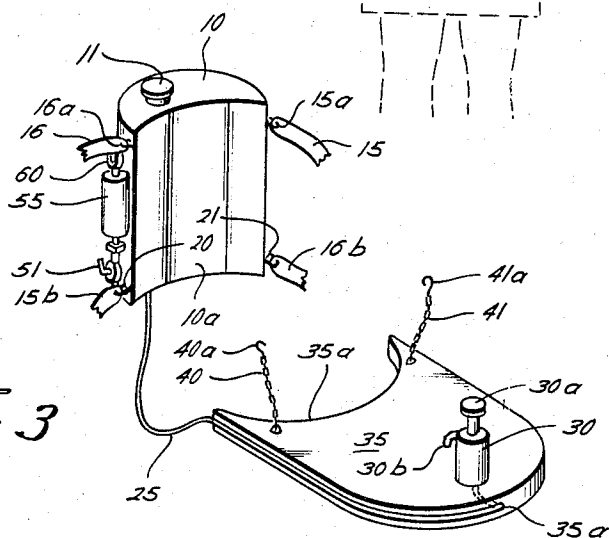


Fig. 3



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ATTORNEYS

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DISPENSER APPARATUS ADAPTED TO BE CARRIED BY A USER

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1 Claim. (Cl. 222—175)

This invention relates to new and useful improvements in dispenser apparatus.

In the past, vendors of various types of liquid refreshments at baseball games, football games and other similar activities have either carried (1) a container such as a basket with bottles or cans of liquid refreshment, or (2) a cup-holding tray having a number of cups with liquid refreshment therein. The dispensing of the drinks directly from the bottles or cans is undesirable since the vendor must set the container down, open the bottle or can, and then pour the contents into a paper cup for the customer. The vendor must then carry the empty bottles and cans back to the counter or distribution area. If the drinks are not poured from the bottles or cans into the paper cups, the bottles and cans must be picked up after the game, necessitating additional time and expense by the vendor. Additionally, the bottles and cans are a hazard to the customers if left in the aisles, and therefore, many sports stadiums require the use of paper cups or the like by the vendors.

When the cup-holding tray has been used, the vendor saves time as compared to the use of the bottles and cans and he also eliminates the carrying of the empty bottles or cans back to the distribution area. However, the liquid refreshment is subject to spilling from the cups as the vendor moves throughout the audience to sell his products; the cool liquid often becomes warm or diluted if ice is used in them; the warm liquids cool off; and liquids such as beer and carbonated soft drinks lose their taste and carbonation.

It is therefore an object of this invention to provide a new and improved dispenser apparatus which solves the problems of the prior art in the dispensing of liquid refreshments by a moving vendor at ball games and the like.

An important object of this invention is to provide a new and improved portable dispenser apparatus which may be readily carried by a vendor and which makes it possible for a vendor to quickly dispense liquid refreshment to the customers.

Another object of this invention is to provide a new and improved dispenser apparatus wherein liquid refreshment may be maintained at a desired temperature and/or pressure, so that such liquid may be dispensed by a moving vendor at a ball game or the like at the proper temperature and with full flavor and/or carbonation.

A particular object of this invention is to provide a new and improved portable dispenser apparatus for dispersing liquid refreshment such as beer using pressure, wherein a removable gas pressure cylinder is provided with a liquid tank so that the liquid is maintained under adequate pressure at all times.

The preferred embodiment of this invention will be described hereinafter, together with other features thereof, and additional objects will become evident from such description.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawings forming a part thereof, wherein an example of the invention is shown, and wherein:

FIG. 1 is an elevation of the apparatus of this invention, with a user indicated in dotted lines;

FIG. 2 is a front view of the dispenser apparatus of this invention in position on a user; and

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FIG. 3 is an isometric view of the dispenser apparatus of this invention for illustrating further details thereof.

In the drawings, the letter D designates generally the dispenser apparatus of this invention which is adapted to be carried by a vendor or other user U, indicated in dotted lines in FIGS. 1 and 2. As will be explained more in detail, the dispenser apparatus D of this invention provides for the dispensing of liquid refreshments by a vendor or other user who is moving from one point to another, such as at ball games and the like. With the apparatus D of this invention, the liquid refreshment may be dispensed into paper cups when needed. This invention not only eliminates the problems involved in the handling of bottles and cans by a vendor, but it also accomplishes such objective while still maintaining the liquid at the proper temperature, without dilution and without losing carbonation so that the liquid refreshment or drink is delivered to the customer by the vendor in just as satisfactory condition as the drink would be if dispensed from a stationary counter or stand.

The dispensing apparatus D includes a tank or container 10 which is preferably made of stainless steel for receiving the quantity of liquid refreshment to be carried by the apparatus D. The tank or container 10 has a filling opening at its upper end which is covered by a removable cap 11. The tank 10 is preferably insulated by a wall thickness of any conventional insulating material (not shown) so that the temperature of the liquid placed in the tank or container 10 is maintained for extended periods of time. Thus, either hot or cold liquids may be placed in the container or tank 10 for dispensing with the apparatus D, and in both instances, the liquid is maintained at either the hot or the cold temperature.

Although the shape of the tank or container 10 may vary, it is preferably generally elliptical as best seen in FIG. 3, with its forward surface curved as indicated at 10a to generally conform with the curvature of the user's back.

Various types of support means may be employed for supporting the tank 10 on the shoulders of the user U, but as illustrated in the drawings, the support means is preferably a pair of flexible straps 15 and 16 which are made of canvas webbing, plastic or any other suitable material. In the preferred embodiment of the invention, the upper end 15a of the strap 15 is secured to the upper portion of the inner surface 10a of the tank 10. The lower end 15b of the strap 15 is preferably releasably or detachably connected to the tank or container 10 by a conventional releasable hook assembly 20 so that the lower end 15b of the strap 15 may be detached from the container 10 to facilitate the positioning of the tank 10 in the position illustrated in FIGS. 1 and 2, and for also facilitating the removal of the apparatus from the user U when desired. Similarly, the strap 16 has its upper end 16a connected to the tank 10 at the upper portion of the inner surface 10a. The strap 16 has its lower end 16b (FIG. 3) secured releasably or detachably to the tank 10 by a releasable catch or hook 21 of any conventional construction. The lengths of the straps 15 and 16 may be made adjustable for conforming to different users; they should be of such a length that they may be crossed over each other in the front of the user as best seen in FIG. 2. However, it will be appreciated that the straps 15 and 16 could go over the shoulders of the user without crossing each other in some instances.

The tank or container 10 has a flexible hose 25 formed of rubber or plastic or similar flexible material connected to the lower end of the tank or container 10. The liquid in the tank 10 may thus flow from the container or tank 10 through the flexible hose or conductor 25. The conductor 25 is connected at its discharge end to a dispenser valve 30 which may be of any conventional

type so long as the flow from the tank 10 is normally closed off, but may be opened by a manipulation of a handle 30a or similar mechanism. Thus, as illustrated in the drawings, the dispenser valve 30 is operated by pressing downwardly on the valve handle 30a to discharge the liquid from an outlet opening tube 30b into a paper cup or the like therebelow.

In the preferred form of the invention, the dispenser valve 30 is mounted on the outer or forward end of a dispenser tray 35. The flexible hose or conductor 25 is secured to the edge of the tray 35 so as to move therewith as indicated in the drawings, and preferably such conductor 25 extends into a suitable opening 35a and is thereby connected to the lower end of the valve 30. However, it will be appreciated that the fluid conductor or hose 25 may be connected in any suitable manner to the dispenser valve 30 so long as it does not interfere with the use of the valve 30 in dispensing liquid therefrom.

The tray 35 is of a special construction in the preferred embodiment, having a curved inner surface 35a which generally conforms with the waist of the user. Such inner curved edge 35a of the tray 35 is thus adapted to engage the user, preferably at about the user's waist for providing a support in suspending the tray 35, as will be more evident hereinafter. For suspending the tray 35 in use, a suspension means is provided which includes a pair of flexible suspension elements 40 and 41. As illustrated in the drawings, such suspension elements 40 and 41 are in the form of chains of metal, although they may be straps or other flexible material so long as they are of sufficient strength to support the weight of the tray 35, the dispenser valve 30 and any cups or objects placed on the tray 35. Such suspension elements 40 and 41 are fastened securely to the tray 35 and to the straps 15 and 16. The suspension elements 40 and 41 are preferably releasable from the straps 15 and 16 and therefore a releasable hook connection means 40a is provided at the end of the suspension means 40 and a similar or identical hook or connection means 41a is provided in the end of the suspension element 41. Such hooks or connection means 40a and 41a are fastened releasably to the straps 15 and 16, respectively (FIG. 2). It is to be noted that the weight of the tray 35 and the suspension valve 30 are balanced by the location at which the suspension elements 40 and 41 are attached to the tray 35 so that there is a minimum of torque force acting on the user at the point of engagement of the surface or edge 35a with the user. In some instances, if the frictional engagement of the edge 35a with the user is not sufficient to maintain the tray 35 at a level position, an additional strap may be employed extending from the rear edge of the tray 35 around the waist of the user so as to hold the tray 35 in a fixed position (not shown).

Some liquids or drinks such as beer and carbonated soft drinks lose their carbonation or taste if they are kept in an open cup for even short lengths of time. The present invention therefore has means for maintaining the container 10 under pressure in instances wherein beer or other carbonated drinks are the liquids within the tank 10. An inlet pipe or tube 50 extends from the side of the tank 10 as shown in FIGS. 1 and 3, with a suitable valve 51 in such tube or pipe 50 to control the inlet of gas to the tank 10. A pressure cylinder or chamber 55 of conventional construction which has a gas confined under high pressure is adapted to be removably mounted and connected to the tube or pipe 50 above the valve 51. Thus, the releasable nut connection 56 is shown as an example of one way in which the cylinder 55 may be removably attached. A pressure gauge 60 is illustrated with the cylinder 55 so that the user will know when the pressure supply is low. Also, the tank 10 may have its own pressure indicator (not shown) so the user will know the extent of the pressure within the tank 10. Under normal conditions of use, the valve 51 is opened when the operator or user determines that the pressure

should be supplemented or increased within the tank 10, in which event some of the gas under pressure within the cylinder 55 is released therefrom through the valve 51 and the inlet pipe or tube 50 into the tank 10 to maintain an air pressure within such tank 10. Air or other gas may be employed as the pressure medium.

When liquid such as coffee and other noncarbonated types of drinks are being dispensed with the apparatus D, the pressure cylinder 55 is not utilized, although it may be mounted on the tank 10 as shown in the drawings, with the valve 51 in the closed position. In such cases, the liquid feeds by gravity from the tank 10 to the dispenser valve 30.

The user U may carry cups as indicated at C in a suitable holder H supported on the waist of the user or at any other convenient point accessible to the hands of the user. The cups C may be readily stacked so that they occupy a small amount of space as compared to the disposing of a large number of filled cups in a conventional type or tray arrangement. In the use of the dispenser apparatus D of this invention, the user or vendor U may move from one point to another throughout the area being served, while maintaining the liquid refreshment within the tank 10 at the desired temperature and/or pressure. The vendor or user U does not need to carry any bottles or cans, and the disadvantages of having the paper cups or the like filled while moving them throughout the audience or other areas where customers are located is also eliminated with the present invention.

The user can readily mount the dispenser apparatus D on the shoulders by extending the straps 15 and 16 over the shoulders and then attaching the lower ends to the tank 10 at the hooks or fasteners 20 and 21, respectively. The chains 40 and 41 are then secured to the straps 15 and 16 at the hooks or fasteners 40a and 41a, respectively. The reverse steps are performed in removing the apparatus D from the user U.

The foregoing disclosure and description of the invention is illustrative and explanatory thereof and various changes in the size, shape and materials, as well as in the details of the illustrated construction, may be made within the scope of the appended claim without departing from the spirit of the invention.

What is claimed is:

1. A dispenser apparatus adapted to be carried by a user for dispensing liquid, comprising:
 - (a) a storage tank having an upper and lower end and a front and back side, said tank sealably containing liquid and gas under pressure to enable liquid to be moved from said storage tank;
 - (b) said front and back sides having parallel outwardly extending arcuate portions wherein said front side fits snugly against the user's back and wherein said front arcuate portion is defined by parallel leading edges of said tank;
 - (c) support means connected to said tank for supporting said tank on the user's back, said support means including a pair of straps each having an upper and lower end, wherein each of said straps is secured at its upper end with the upper end of said storage tank immediately adjacent one of said leading edges and the lower end of each of said straps is diagonally secured adjacent the lower end of said tank immediately adjacent one of said leading edges to thereby criss-cross said straps to enable the user to be positioned between said tank and said criss-cross portion of said pair of straps for supporting and carrying said tank;
 - (d) a liquid dispenser resilient tube secured with the bottom of said storage tank;
 - (e) a dispenser valve including a valve handle, said tube being connected at its other end with said valve wherein depression of said handle enables the liquid to escape from said tank filled with gas under pressure and liquid;

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(f) means for mounting said dispenser valve in front of the user for easy access thereto by the user, said means for mounting including a tray having front and back parallel outwardly extending arcuate portions wherein said back arcuate portion extends partially around the user's body and wherein said front outwardly extending arcuate portion of said tray receives said valve and said resilient tube secured with the bottom of said tank and said valve extends partially around said front outwardly extending arcuate portion of said tray;

(g) a pair of suspension members one of which is secured at one end with each of said straps below said criss-crossed portion, each of said suspension members being secured at the other end thereof adjacent the back outwardly extending arcuate portion of said tray for suspending said tray and said dispenser valve relative to the user;

(h) a pressure container having a pressurized gas therein; and

(i) connection means for connecting said pressure container to said tank for introducing pressurized gas

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therefrom into said tank to thereby provide continuous gas pressure on the liquid in said tank.

References Cited

UNITED STATES PATENTS

383,261	5/1888	Weaber	239—154 X
851,758	4/1907	Kauffman	222—399 X
1,979,604	11/1934	Burdge	222—399 X
2,012,521	8/1935	Rognerud	239—154
2,080,787	5/1937	Rodgers	222—175 X
2,558,181	6/1951	Kassel	222—175 X
2,684,787	7/1954	Charpiat	222—175
2,732,977	1/1956	Charpiat	222—175 X
3,265,308	8/1966	Hopkins	239—172

FOREIGN PATENTS

554,089	6/1943	Great Britain.
946,078	1/1964	Great Britain.
506,247	12/1954	Italy.

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