Nov. 22, 1966 L. S. LONG, JR 3,286,884

PORTABLE BEVERAGE DISPENSER

Filed Feb. 8, 1965 4 Sheets-Sheet 1

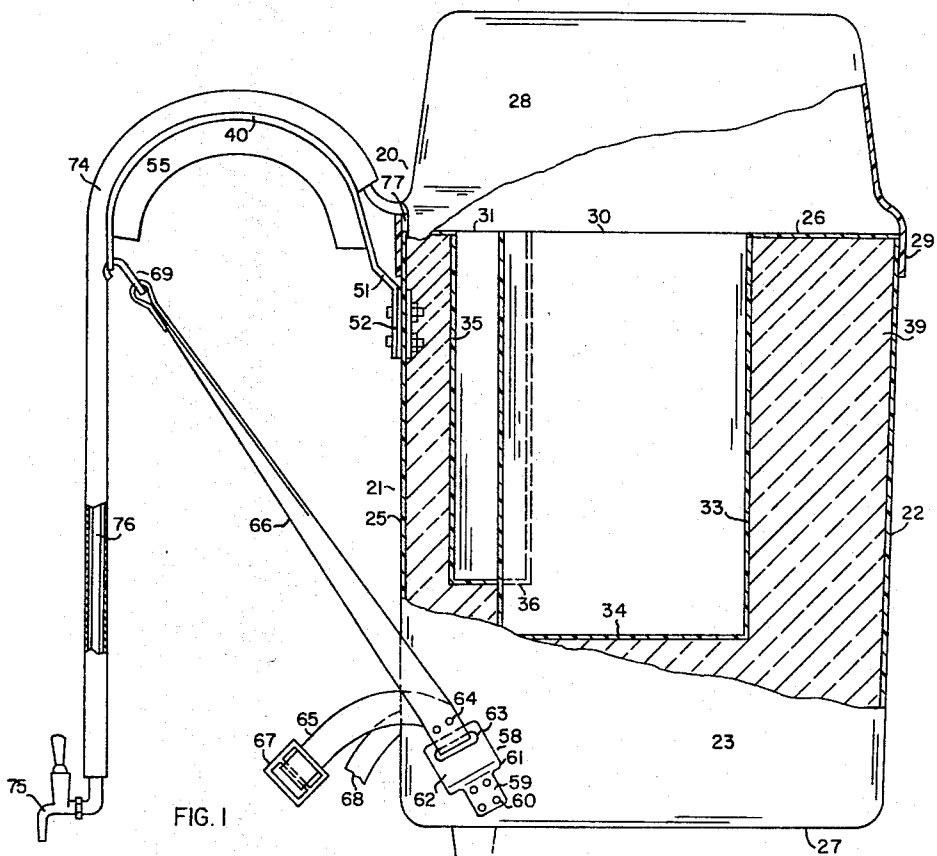


FIG. 1

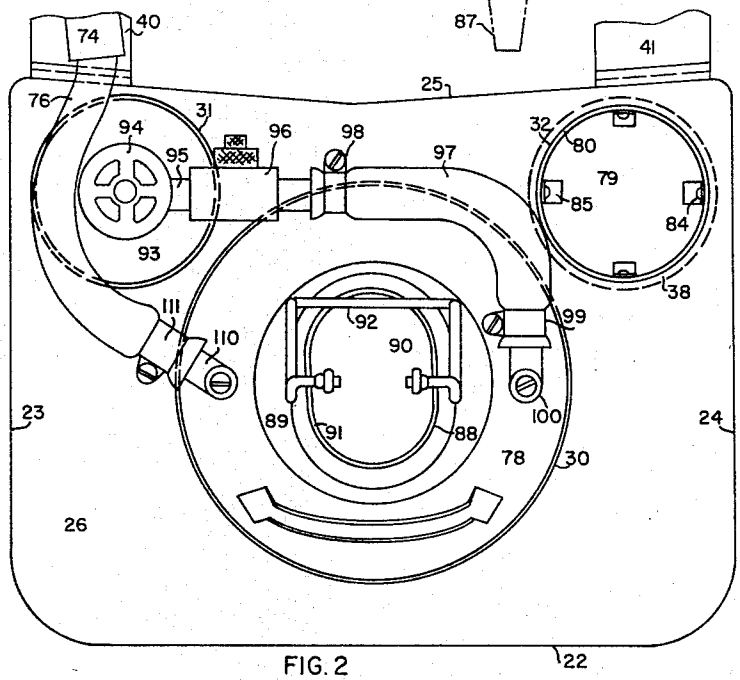


FIG. 2

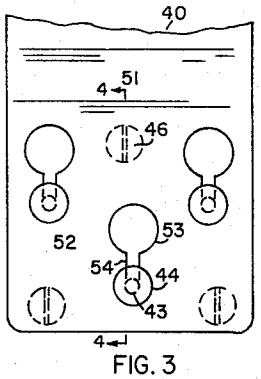


FIG. 3

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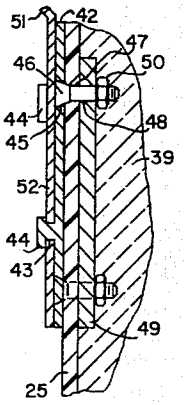


FIG. 4

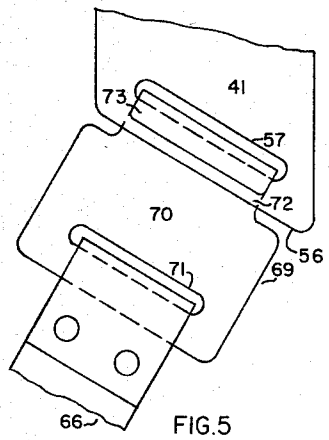


FIG.5

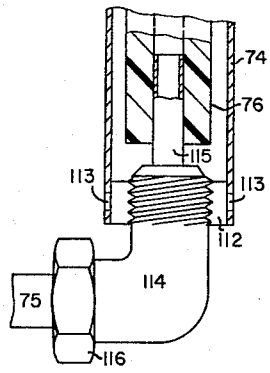


FIG.6

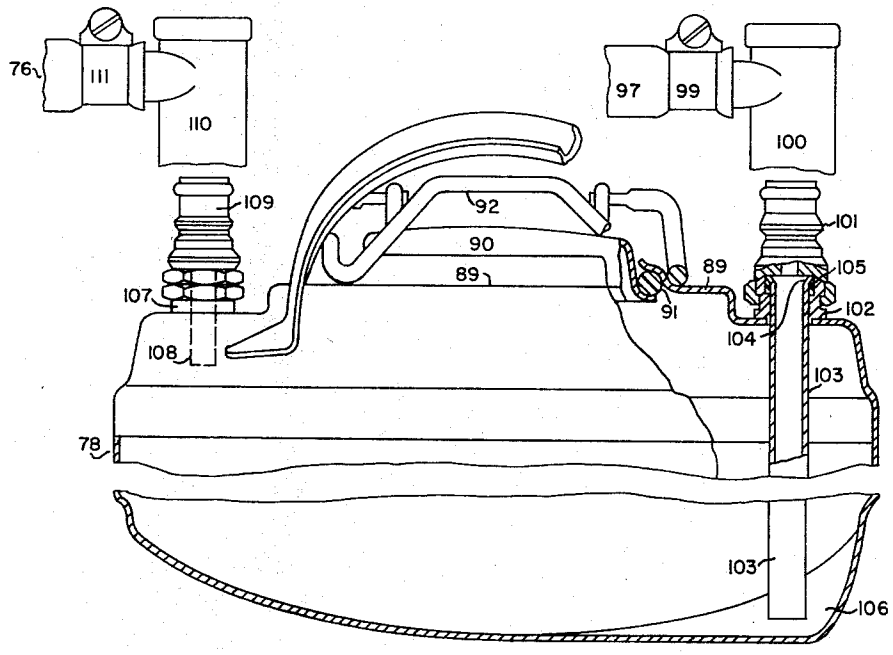


FIG. 7

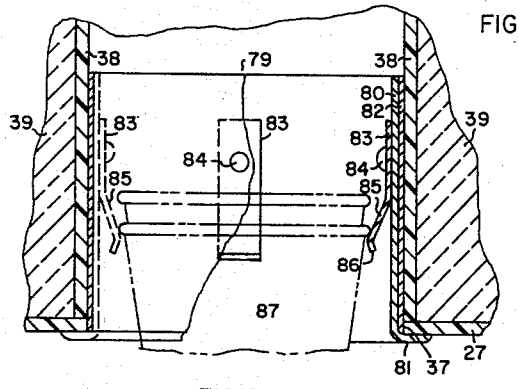


FIG.8

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PORTABLE BEVERAGE DISPENSER

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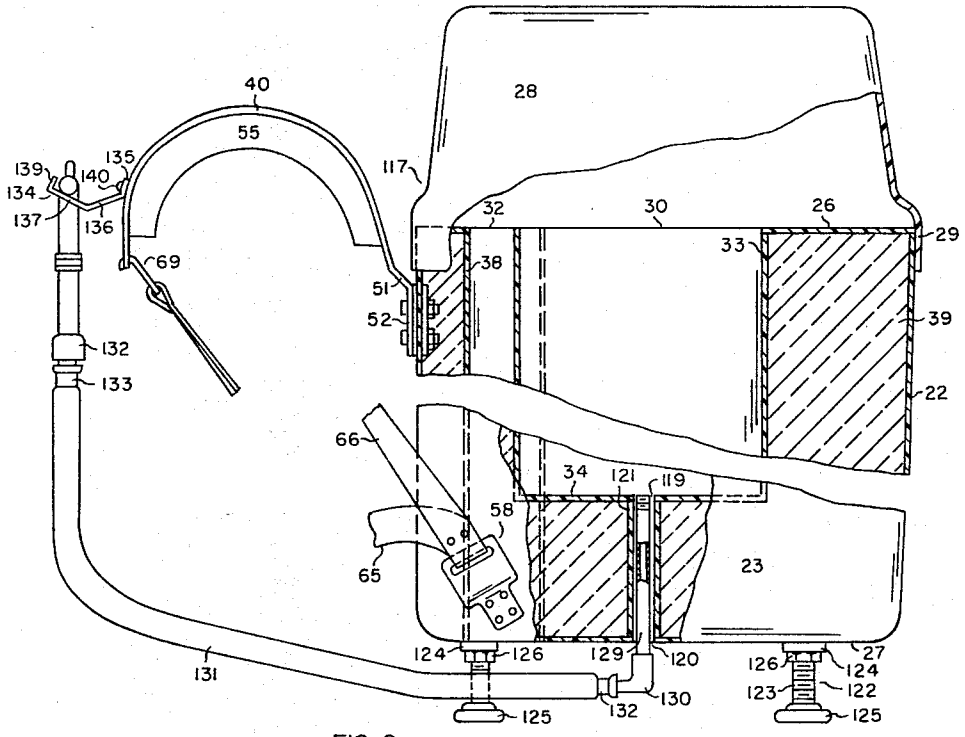


FIG. 9

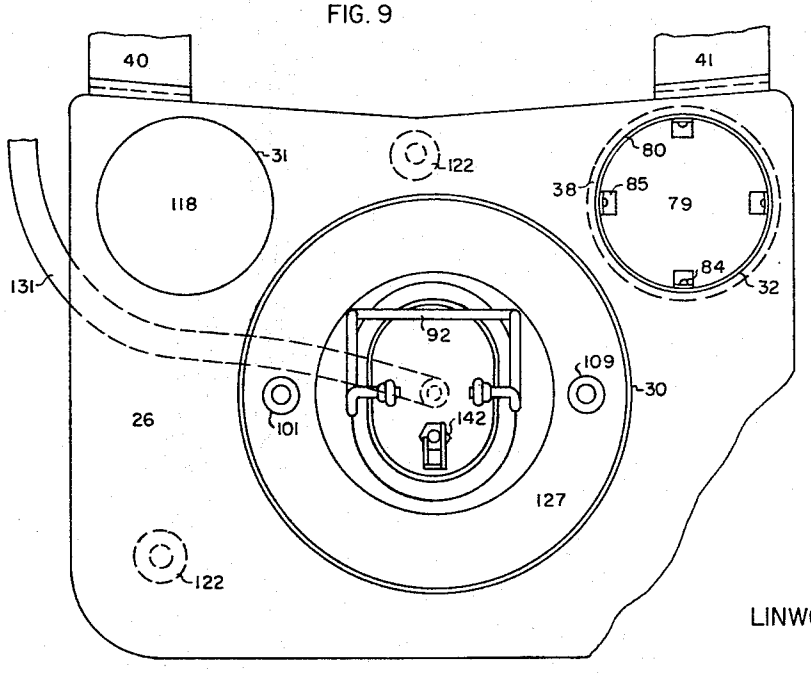


FIG. 10

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PORTABLE BEVERAGE DISPENSER

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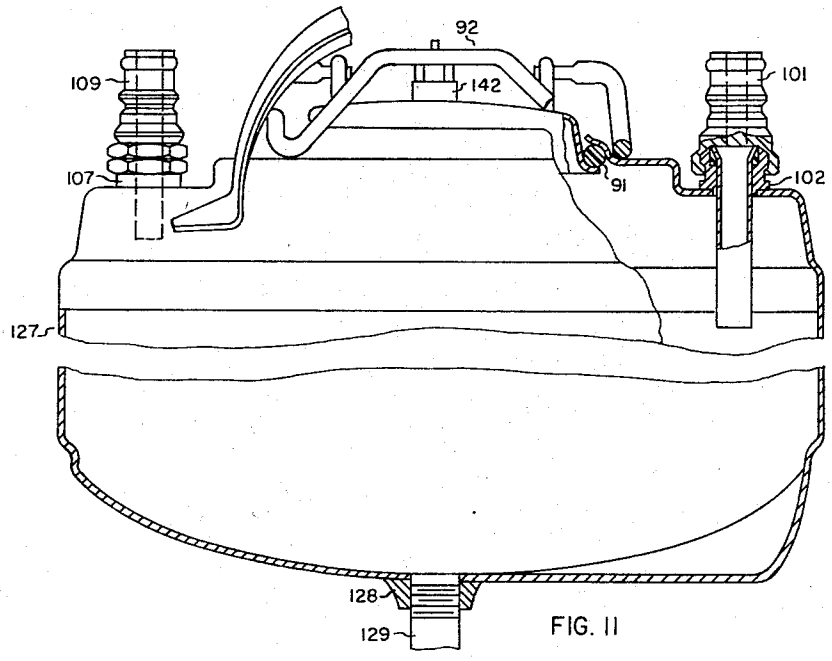
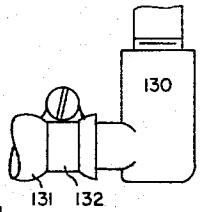


FIG. 11



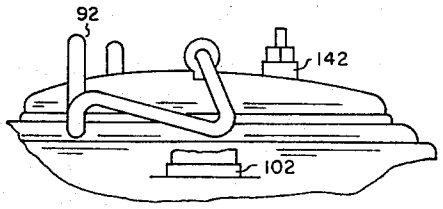


FIG. 12

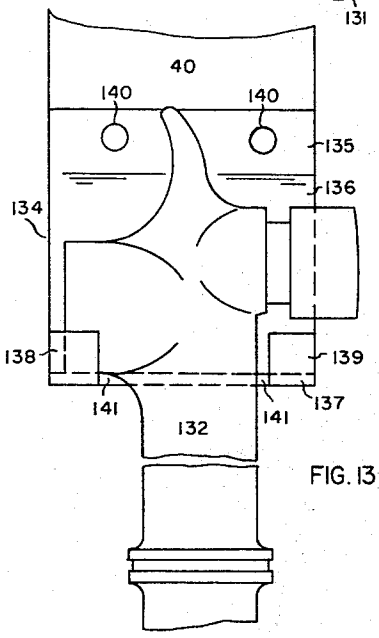


FIG. 13

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United States Patent Office 3,286,884
Patented Nov. 22, 1966

3,286,884

PORTABLE BEVERAGE DISPENSER

Linwood S. Long, Jr., Houston, Tex., assignor, by mesne assignments, to Creative Vending Corporation, a corporation of Texas

Filed Feb. 8, 1965, Ser. No. 431,010
1 Claim. (Cl. 222—131)

The present invention relates to portable beverage dispenser and more particularly to an insulated beverage dispenser to be supported upon the shoulder and back of a vendor or the like.

At the present time many stadia, baseball parks and the like prohibit the sale of bottled beverages to the spectators in the stands; at best, such bottled beverages are often sold at certain designated locations, usually underneath the stands and relatively distant from a spectator's seat.

The subject invention relates to a light weight, insulated dispenser supported upon the back and shoulders of a vendor whereby the said vendor may travel throughout the stands and dispense beverages to a spectator in his seat, with no appreciable temperature change in the beverage between first and last servings. Additionally a modification of the invention permits the vendor to serve heated beverages with complete safety to both vendor and spectator.

An object of the present invention is the provision of a light weight, insulated, beverage dispenser suitable for use with either hot or cold beverages wherein the vendor is free to move throughout the stands and dispense the said beverages to the spectators in their seats.

Another object of the invention is to provide a light weight dispenser including all necessary equipment and supplies whereby a vendor may remain in the stands for extended periods of time to serve beverages to spectators.

A further object is to provide a dispenser which weighs less than thirty-six pounds when fully loaded with 2½ gallons of beverage and cups.

A final object of the present invention is the provision of a beverage dispenser which is simple in construction, capable of mass production techniques, easy to service and store, capable of being maintained in a sanitary condition, and is universal in its adaptability.

Other objects and features of the invention will become apparent to those skilled in the art as the disclosure is made in the following detailed description of preferred embodiments of the invention as illustrated in the accompanying sheets of drawings in which:

FIG. 1 is a side elevational view, partly broken away and partly in section, of the preferred embodiment of the casing of the subject invention.

FIG. 2 is a fragmentary, enlarged, top plan view of the preferred embodiment of the dispenser, with the lid removed.

FIG. 3 is a fragmentary, enlarged, front elevational view showing the lower, rear portion of the carrying strap.

FIG. 4 is a section of the device taken on the line 4—4 of FIG. 3 looking in the direction of the arrows.

FIG. 5 is a fragmentary, enlarged, front elevational view of the lower front portion of the carrying strap and the mating element on the harness secured thereto.

FIG. 6 is a fragmentary, enlarged, elevational view, partly in section, through the lower portion of the dispensing tube.

FIG. 7 is a fragmentary, enlarged, front elevational view, partly broken away and partly in section, showing the container utilized in the preferred embodiment of the subject invention.

FIG. 8 is a vertical sectional view taken through the cup dispenser of the subject invention.

FIG. 9 is a side elevational view, partly broken away and partly in section, of the casing utilized in a modification of the invention.

FIG. 10 is a fragmentary, enlarged, top plan view, with the lid removed, of a modification of the dispenser of the subject invention.

FIG. 11 is a fragmentary, enlarged, front elevational view, partly broken away and partly in section, of a container utilized in the modification of the invention.

FIG. 12 is a fragmentary, enlarged, side elevational view of the upper medial portion of the container of FIG. 11; and

FIG. 13 is a fragmentary, enlarged, front elevational view of the holder attached to a carrying strap with a dispensing valve detachably secured therein.

Referring now to the drawings wherein like reference characters designate like or corresponding parts throughout the several views, there is shown in FIGS. 1–8 of the drawings a preferred embodiment of the portable beverage dispenser **20** of the subject invention, which dispenser is to be supported upon the shoulders and back of a vendor.

More particularly, dispenser **20** consists, in part, of a casing **21** which is preferably of integral construction and molded of high impact plastic or Fiberglas, or alternatively, pressed of a light weight metal such as aluminum. As best seen in FIG. 2 of the drawings, casing **21** consists of front **22**, sides **23–24**, V-shaped back **25**, top **26** and bottom **27**. A shaped lid **28**, composed of the same material as the casing, includes a downwardly depending flange **29** which overlaps the uppermost marginal portions of the casing **21** in tight fitting relationship.

Top **26** includes a large, centrally positioned bore defining a longitudinally extending cylindrical chamber **30** which is defined (see FIG. 1) by side wall **33** and base **34** and laterally rearward, transversely aligned bores **31–32** of lesser diameter than the bore of chamber **30**. A vertically aligned cylinder **35** includes an integrally formed base **36** which terminates slightly above the base of cylinder **33**; cylinder **35** opens upwardly and the rim is secured in bore **31**. As viewed in FIG. 8 of the drawings, a bore **37** is provided in the bottom **27** of the casing; each end of a cylindrical tube **38** inserts into and is secured in bores **32, 37** respectively, the purpose of which will hereinafter be discussed in connection with FIG. 8 of the drawings. A work hole, not shown, is provided in the casing thus formed and the interior of the casing filled with an insulating material **39** such as styrofoam, polyfoam, polystyrene or other expandable foam, and the work hole sealed in a conventional manner.

To conserve storage space when the dispenser is not in use, straps **40–41** are detachably secured to the upper, lateral portions of the back of the casing. For purposes of convenience only, strap **40** will be described in detail, it is to be understood that strap **41** is constructed in like manner. Referring now to FIGS. 1, 3 and 4 of the drawings, an elongated plate **42** includes integrally formed, triangularly positioned, outwardly extending pins **43** which terminate in buttons **44** or the like. Countersunk bores **45** are provided in plates **42**, bolts **46** pass through the bores **45** and thence through aligned bores **47–48** in the casing and backing plate **49**, respectively, and nuts **50** threaded thereon.

The straps **40, 41** are constructed of flat spring steel or the like, and are essentially inverted U-shaped in elevation. The lower, rear portion of each strap is turned angularly outward and then vertically downward, indicated by reference numerals **51–52**, respectively. As illustrated in FIG. 3, portion **52** is provided with a plurality of bores **53** which are slightly greater in diameter than buttons **44** and aligned with respect thereto to receive

the same; each bore includes a downwardly extending elongated slot **54**. Buttons **44** insert into the corresponding bores **53** and as the straps **40, 41** are raised, the pins **43** slidably insert into the respective slots **54** until stopped by bearing against the lower ends thereof. It is obvious that each strap may be removed from the casing simply by reversing the aforementioned steps.

A cushion **55**, composed of foam rubber or the like, is secured to the undersurface of each strap by means of a suitable adhesive. The lower front end **56** of each strap, as view in FIG. 5, terminates at an angle of approximately forty-five degrees with respect to the longitudinal axis of the strap facing outwardly. An elongated slot **57**, the longitudinal axis of which is parallel to end **56**, is provided in proximity thereto to receive the mating element on the harness, hereinafter to be described.

In FIG. 1 there is shown a bracket **58** which is secured to the lower rear corner of each side **23, 24**; the longitudinal axis of said bracket extends angularly upward at an angle of approximately forty-five degrees. More specifically, bracket **58** includes a reduced base **59** through which rivets **60** or other fastening means pass to secure the said bracket to the respective side of the casing. The bracket **58** further includes an intermediate, outturned portion **61** and terminates in portion **62**, the longitudinal axis of which parallels the corresponding axis of base **59**. An elongated, transverse slot **63** is provided in portion **62** adjacent the upper end of said bracket.

Referring again to FIG. 1 of the drawings, a web or the like is passed through slot **63** and secured in such position by means of rivets **64** or the like, forming portions **65–66** of the belt and harness. A buckle **67**, of conventional design, is secured to the free end of portion **65**; the corresponding portion **68** secured to the opposite side of the casing remains free to insert into the buckle **67**. The belt thus formed passes around the waist of the vendor and prevents the dispenser from rocking to-and-fro and sideways as the vendor walks.

The harness is formed by portion **66** which extends upwardly along the rib cage of the vendor and the end thereof secured to hooking device **69**. More specifically, hooking device **69**, as best seen in FIG. 5, includes a flat base **70** with a transverse, elongated slot **71** therein; the free end of portion **66** is looped through said slot and secured in a conventional manner. A reduced portion **72** of said hooking device is bent upwardly and rearwardly to form a hook **73** which inserts from underneath into the slot **57** provided on the front end of each strap **40, 41**. The harness secured to the opposite side of the casing and strap, respectively, is constructed in like manner.

As shown in FIG. 1 of the drawings, an inverted J-shaped tube **74** is secured to the left hand strap along the upper surface thereof. As will hereinafter be more fully described in connection with FIG. 6, a valve **75**, suitable for dispensing beverages and the like, is secured to the lower end of tube **74**. A flexible hose **76** passes through tube **74** and one end thereof connects to valve **75**. A recess **77** is provided in the flange of the lid **28**, and the hose passes therethrough and the other end thereof detachably connects to container **78** in a manner hereinafter to be described in detail.

Referring now to FIGS. 2 and 8 of the drawings, there is shown a cup dispenser **79** which is secured in the lower portion of tube **38**. The said cup dispenser consists of a cylinder **80** which terminates downwardly in an outturned flange **81**; the cylinder **80** is inserted upwardly into tube **38** until stopped by flange **81** abutting the bottom **27** of the casing and is secured in such position by means of an adhesive **82** such as epoxy or the like. A plurality of opposing fingers **83**, composed of spring steel or the like, are secured as by rivets **84** to the inner surface of cylinder **80**; each of said fingers includes a downwardly inclined portion **85** which terminates in an outturned flange **86**. As a paper cup **87** is withdrawn from the dispenser, the inclined portion **85** of the fingers bear against the sides and rim of the succeeding cup, thereby maintaining the same securely in position in the dispenser.

Referring now to FIGS. 2 and 7 of the drawings, container **78** inserts into cylindrical chamber **30** and is supported by the base **34** thereof; the said container is constructed of stainless steel or the like, is of 2½ gallon capacity and is manufactured for applicant by the Firestone Steel Products Company, a division of Firestone Tire and Rubber Company of Akron, Ohio.

A centrally positioned opening **88**, oval in plan, is provided in the top **89** of said container, and a lid **90** which carries a rubber gasket **91** inserts therein. A locking mechanism, indicated generally at **92**, pivotally connects to the lid **90** and bears against the top **89** of said container. When the locking mechanism is pivoted to the limit of action in one direction, the lid **90** may be removed by rotating the same transverse to the opening **88** and withdrawing the same upwardly through the opening. When the lid is properly positioned and the locking mechanism is pivoted to the limit of its action in the opposite direction, however, the lid is forced upwardly by the wedging action of such mechanism against the container top; gasket **91**, carried by the lid, bears against the under surface of top **89**, sealing the lid to the container.

As shown in FIG. 2, a pressurized bottle **93** of carbon dioxide gas inserts into cylinder **35** and connects to container **78**. Such bottles normally include a cut-off valve **94** and a female threaded portion into which a nipple **95** or the like inserts and to which is connected a pressure regulator **96**. It is to be understood that said pressure regulator may be of the type which provides a set, predetermined pressure, preferably of 14 p.s.i. operating line pressure, or alternatively, of the type wherein the said pressure may be manually adjusted to provide such desired line pressure. One end of hose **97** is secured to said pressure regulator by means of pipe band **98** or the like; the other end of said hose connects and is secured by pipe band **99** to a quick disconnect "in" connector **100** such as is manufactured by the Cornelius Company of Minneapolis, Minnesota. Connector **100** detachably connects to a mating plug **101** (see FIG. 7) which includes a plunger type pressure valve (not shown). The plug **101** screws onto fitting **102** secured to the top **89** of said container and communicates therewith. An elongated tube **103**, flared at its upper end, indicated by reference numeral **104**, carries a gasket **105** and inserts into said fitting; the tube **103** extends downwardly into the container and terminates in sump **106** provided in the bottom thereof.

In like manner, a fitting **107** connects to top **89** on the opposite side of the container, the said fitting accommodates a tube **108**, preferably of plastic, which extends a short distance into the container. Plug **109** which includes a plunger type pressure valve screws onto fitting **107** and a mating, quick disconnect "out" connector **110** manufactured by the Cornelius Company attaches thereto. Hose **76**, heretofore mentioned, is secured to connector **110** by means of a pipe band **111** or the like.

When the cut-off valve **94** of the bottle of carbon dioxide gas is opened, gas at the desired pressure is supplied to the sealed container **78**, the beverage therein is charged and is dispensed by activation of valve **75** into the cups provided by the cup dispenser **79**.

There is shown in FIG. 6 of the drawings a preferred construction of the terminal portion of tube **74**. In such embodiment tube **74** is preferably of aluminum and a bushing **112** including a female threaded portion inserts into the end thereof. Bores **113** are provided on opposite sides of said tube and the bushing secured in such position by means of a rosette weld through the bores **113**. A stainless steel elbow **114**, including a stainless steel tube

115 secured in the bore thereof as by silver soldering techiques, screws into bushing 112. Hose 76 slidably inserts over the uppermost end of tube 115 and valve 75 is secured to the elbow 114 by means of connector 116 or the like.

There is shown in FIGS. 9–13 of the drawings a portable dispenser 117 designed for use in connection with dispensing heated beverages and liquids, wherein a source of pressurized gas it not utilized. Since the said dispenser is similar in many respects to the preferred embodiment of FIGS. 1–8, corresponding parts will be designated by the reference numerals heretofore given for such parts in the preferred embodiment. In such modification, since a bottle of pressurized gas is not utilized, the cylinder 35 is dispensed with and a circular plate 118 secured in bore 31 to plug the same. Furthermore, a bore 119 is provided in the center of base 34 and a vertically aligned bore 120 provided in the base 27. A vertically extending tube 121 is secured in the bores 119, 120 respectively, the purpose of which will hereinafter be described.

In such emodiment of the invention, as illustrated in FIGS. 9 and 10, a plurality of spaced, adjustable feet, indicated generally at 122, are secured to the bottom 27 of the casing. Each foot includes a screw 123 which inserts into a bushing 124 secured to the bottom 27 in a conventional manner. Screw 123 terminates downwardly in a button 125 or the like; a jamb nut 126 threads onto the screw and is adjusted to bear against the lower surface of bushing 124.

Referring now to FIG. 11 of the drawings, container 127 is similar to the container 78 of FIG. 7 with minor modifications. A fitting 128 is secured to the bottom of said container and communicates with the interior thereof. Nipple 129 extends upwardly through the tube 121 and screws into fitting 128. An elbow 130 screws onto the other end of the nipple and a hose 131 suitable for carrying heated liquids is secured thereto as by means of a pipe band 132 or the like. As viewed in FIG. 9, hose 131 is secured to a thumb activated valve 132 such as is manufactured by Reid Valve of Los Angles, California, by means of pipe band 133. When not in use, valve 132 is detachably secured in holder 134 secured to strap 40. More specifically, as shown in FIGS. 9 and 13 of the drawings, holder 134 consists of a base 135, V-shaped legs 136–137 and perpendicularly upstanding spaced prongs 138–139. Base 135 is secured to strap 40 adjacent the edge thereof as by rivets 140 or the like. An outwardly opening slot 141 is provided in base 137 intermediate the prongs 138, 139 wherein the valve 132 inserts and is secured.

The fittings 102, 107 and plugs 101, 109 utilized in connection with such embodiment are similar in construction with FIG. 7 of the drawings except that the plunger type, pressure valves incorporated in the said plugs 101, 109 are removed to provide an air vent for the said container. Additionally, an adjustable vent 142 of conventional design is provided on the lid 90 so that additional air may be admitted into the container 127.

It should be understood, of course, that the foregoing disclosure relates to only preferred embodiments of the invention and that is is intended to cover all changes and modifications of the exmples of the invention herein chosen for the purposes of the disclosure, which do not constitute departures from the spirit and scope of the invention.

What is claimed is:

A compact, portable beverage dispenser suitable for mounting on the back of a beverage vendor, and suitable for maintaining and dispensing a hot or cold beverage without auxiliary temperature-control equipment comprising:

a casing having top, bottom, and side portions,

the interior of said casing being filled throughout its length with an insulating material;

a generally cylindrical chamber in said casing of a size convenient for receipt of a beverage container;

a beverage container disposed in said chamber;

a couple of longitudinally extending bores in said casing spaced from said chamber,

a bottle of pressurized gas disposed in one of said bores, said gas being in fluid communication through valve means with said beverage container, for creating a positive pressure in said container,

the other of said bores suitable for reception of a plurality of generally vertically aligned cups adapted to be dispensed one by one by the vendor;

conduit means connectable at one end to said container for permitting the flow of beverage therethrough, and at the other end having valve means for convenient dispensing of beverage by the vendor at selected times; and,

means for securing said dispenser to the back of the vendor.

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