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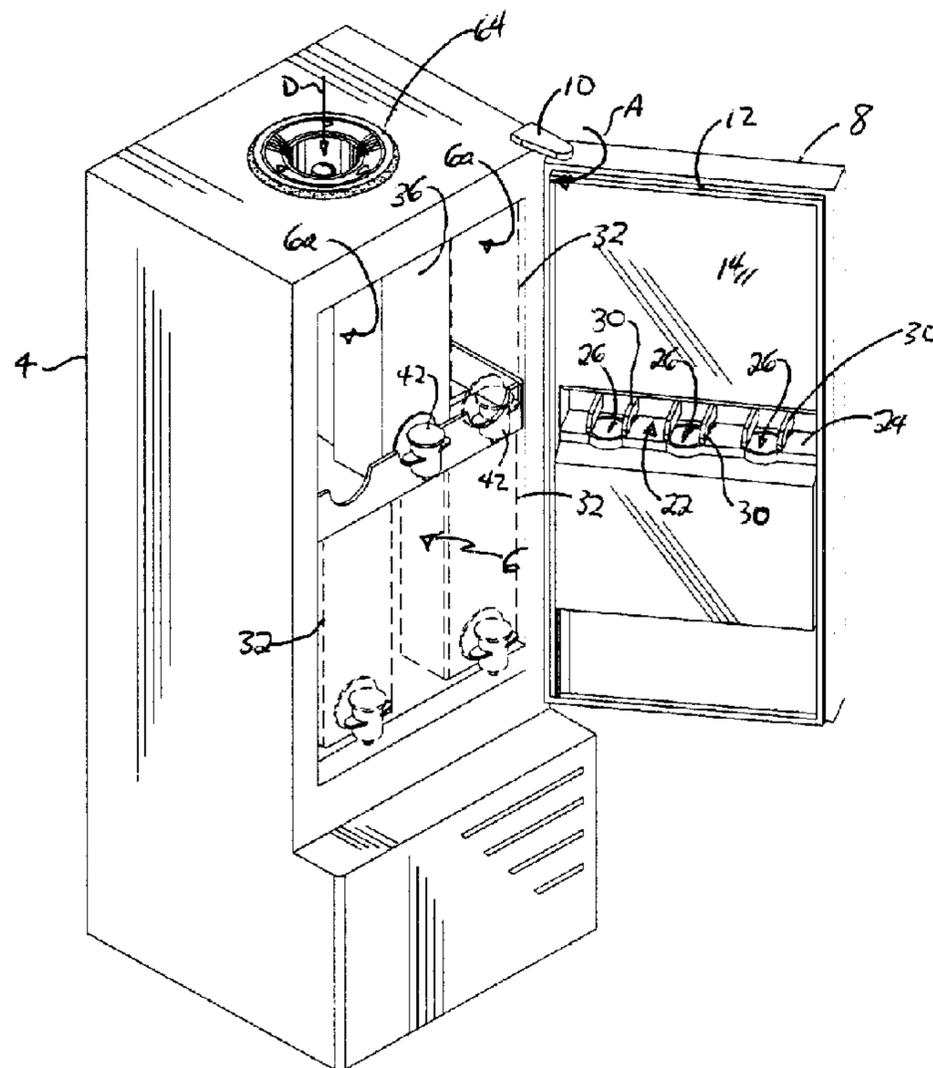
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(54) **DISTRIBUTEUR DE LIQUIDE**

(54) **LIQUID DISPENSING APPARATUS**



(57) A liquid dispensing apparatus for dispensing consumable liquids includes an insulated cabinet having supports for supporting one or more removable liquid containers within the cabinet. The containers are mounted in cooperation with an alignment jig on the supports so as to align a valve protruding from the containers with valve actuators correspondingly aligned on a door of the cabinet when the door is closed. The valve actuators extend through the door. The valve actuators are actuable from the outside of the door so as to actuate the valves when adjacent the inside surface of the door. Actuating the valves dispenses liquid from the containers through liquid dispensing apertures in the door. The outside of the door is shaped so that a cup may be placed under the liquid dispensing apertures.

Abstract of the Disclosure

A liquid dispensing apparatus for dispensing consumable liquids includes an insulated cabinet having supports for supporting one or more removable liquid containers within the cabinet. The containers are mounted in cooperation with an alignment jig on the supports so as to align a valve protruding from the containers with valve actuators correspondingly aligned on a door of the cabinet when the door is closed. The valve actuators extend through the door. The valve actuators are actuable from the outside of the door so as to actuate the valves when adjacent the inside surface of the door. Actuating the valves dispenses liquid from the containers through liquid dispensing apertures in the door. The outside of the door is shaped so that a cup may be placed under the liquid dispensing apertures.

LIQUID DISPENSING APPARATUS

Field of the Invention

5 This invention relates to the field of liquid dispensing apparatus and in particular coolers for dispensing liquids for human consumption.

Background of the Invention

10 Fruit juice is an example of a perishable liquid for human consumption that has a restricted shelf life once exposed to air. It is an object of the present invention to dispense such liquids, avoiding the use of prior art reservoirs and holding tanks. For convenience of use, it is a further object to avoid using dry crystallized juice or syrups which must be mixed in reservoirs prior to use. Therefore, the most practical type of packaging for bulk consumable
15 liquid dispensing is the collapsible bag application of 4-10 liter capacity, using a prior art dispensing valve specifically designed to not let air back into the bag as the liquid product is being dispensed. In the preferred embodiment, the present embodiment consequently uses collapsible bag-in-a-box packaging technologies known in the art. The benefits of such packaging is, firstly, to maximize shelf life of the liquid product once the packaging is opened,
20 and, secondly, the use of commercially available components to a large degree commercially available for dispensing liquids having a shelf life.

 A commercially available valve for such packaging may be such as the T-19 valve manufactured by Liquidbox Corp. The valve is mounted to a spout which itself is
25 mounted to an aperture in a collapsible bag which serves as a fluid reservoir. The bag is packaged inside a rectangular container such as a cardboard box. The box has a perforated cut-out which may be removed to allow the valve to be pushed through one wall of the box. The valve may be other suitable valves such as V1Top 57370F supplied by Rapack, a division

of Packaging Affiliates, so long as the valve fits onto the spout protruding from the collapsible bag.

5 A design consideration for a cooler such as in the present invention that will allow juice to be cooled and dispensed is that it is desirable to keep dispensed juice from dripping onto any of the working parts of the cooler to avoid build up of spillage which may introduce contaminants into the product stream. That is, juice must go directly from the valve protruding from the collapsible bag to a consumers cup without touching any parts other than for example, a removable nozzle, which is removable for cleaning. Any dripping from the
10 valve must be caught by a drip tray or the like, or must otherwise be contained and easily cleaned.

Summary of the Invention

15 Many liquid dispensing valves for consumable liquids are too cumbersome to be used conveniently by all consumers for example, children and seniors who may lack strength and dexterity. One object of the present invention is thus to design a simple lever mechanism that will operate a corresponding dispensing valve. The lever mechanism must extend outwardly of the cooling compartment housing or cabinet for ease of use. This also
20 avoids the need to open the housing door, as one would a conventional refrigerator, in order to dispense liquid. Advantageously, the lever mechanism passes through the housing or cabinet door. When the door is closed a valve operator arm of the lever mechanism is positioned adjacent to, so as to cooperate with, the valve so that the valve is opened when the lever is pressed downwardly by a user. Advantageously, the valve is self-closing by an internal spring.
25 The spring returns the operating lever to its normal or starting position.

One of the intended uses for the liquid dispensing apparatus of the present invention is by families in the home. What this means is that the device will likely be placed in kitchens and would likely dispense bottled water as well as juice and other liquids. In this

embodiment an internal water reservoir in the cooler is filled from a source of bottled water, which is conventionally stored in an inverted bottle on the top of the cooler. Water is fed from the bottle spout into a water inlet coupling and nozzle. The nozzle is coupled in fluid communication with a port on the upper end of the internal reservoir. The internal reservoir
5 may be a collapsible bag or bladder which is stored within a rigid plastic housing mounted inside the cooler. A port at a lower end of the collapsible bag is fitted with a valve which can be operated by the lever mechanism in the cooler door.

The lever mechanisms provide an ease of use acceptable to the household
10 consumer. Advantageously the lever has a child lock-out which may be selectively engaged to prevent a child playing with the lever mechanism.

The lever has a handle which protrudes outwardly of the cooler door. The lever is rotatably mounted to the cooler door. The dispensable liquid and its packaging or housings
15 are mounted inside of the cooling compartment. Therefore, in order for the cooler door to close and the tap mechanism, i.e. the valve engaging end of the lever, to return to the exact correctly aligned position every time, the following is provided.

In the case of a removable package of consumable liquid such as a box of fruit
20 juice, the package is held in one exact and repeatable position in the cooler compartment by a shelf having a notched front lip. The notch holds the juice box in the one exact position every time the package is replaced by mating the valve protruding from the packages into the notch. The lip holds the package aligned perpendicular to the cooler door. This way the spout or valve stem of the valve is held in one exact position for the lever to repeatedly engage the
25 valve operating mechanism.

The inner surface of the cooler door is recessed so that, upon closure of the door, the protruding valves are inserted into the recesses in the door. The valves cooperate with spaced-apart valve operating arms on the levers. The levers are pivotally mounted on

pivots in the door. The valve operating arms straddle the valve body so as to engage the undersides of an oppositely disposed pair of tabs extending from the valve body. When the lever is depressed on the outside of the cooler door, the arms are rotated upwardly about the pivot to urge the tabs on the valve upwardly. Further upward travel of the arms raises the tabs
5 against the return biasing of the valve's internal spring mechanism to open the valve. By straddling the valve body, the operating arms assist in lateral positioning of the valve relative to the lever.

When the cooler door is closed so as to engage the arms under the tabs, a valve
10 dispensing aperture of each valve is aligned over a corresponding dispensing orifice formed in a floor of the recess in the cooler door. Each orifice is aligned directly beneath its corresponding valve so that the juice or other dispensable liquid may flow by gravity feed linearly directly through the orifice to a receptacle, such as a cup, which is positioned by a user on the outside of the cooler door under the orifice.

15 The water, juice or other dispensable liquids are all cooled within a common cooler storage compartment. A thermostat allows the temperature within the storage compartment to be adjusted, and allow the consumer to be able to control the coolness of the liquids being dispensed. The compartment is cooled in the manner of conventional
20 refrigerators.

The internal water reservoir and its rigid housing, and replaceable containers removably mountable into the compartment have the same general relative dimensions and shape as conventional consumable liquid packaging. In an alternative embodiment the
25 containers may be refillable, for example made out of plastic and having a bladder designed to be reusable many times (i.e. cleaned and refilled). Other concerns specifically related to such refillable containers are that they should accommodate ease of filling, cleaning and refilling. Unlike for example, disposable juice box packaging which has an internal collapsible bag, the reusable container, because it is rigid, must vent, that is, allow air in in order to dispense fluid

unless it too incorporates a collapsible bladder. The vent may be a cap. The containers each must have a spout. A valve is mounted on the front of the spout. The container may have a handle for carrying the container and to help a consumer put a full container into the cooler compartment.

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The liquid dispensing apparatus of the present invention for selectively dispensing consumable liquids includes an insulated cabinet having at least one support means such as a supporting shelf for supporting one or more removable liquid containers within the cabinet. The containers are mounted in cooperation with alignment means such as an
10 alignment jig on the supporting shelving so as to align a valve stem protruding from the containers with a valve actuating means correspondingly aligned on a door of the cabinet when the door is closed. The valve actuating means extend through the door. The valve actuating means are actuable from the outside of the door so as to actuate a valve adjacent the inside of the door, to thereby dispense liquid from the container through a liquid dispensing aperture in
15 the door. The outside of the door is shaped so that a cup may be placed under the liquid dispensing aperture.

Advantageously, the valve actuating means are horizontally spaced apart lever arms pivotally mounted in the door. The arms are positioned and spaced apart so as to engage
20 valve triggers extending generally at right angles from each corresponding valve. The lever is actuable by depressing the external ends of the lever arms so as to rotate the inner ends of the lever arms adjacent the valve triggers upwardly against the valve triggers against the return biasing force of a resilient biasing means. The lever arms elevate the valve triggers to thereby open the valves.

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In summary, the liquid dispensing apparatus of the present invention for selectively dispensing consumable liquids includes an insulated cabinet having an internal refrigeratable compartment defined by enclosing contiguous panels. A first valve actuator is mounted on a first panel. The compartment has supports and a first alignment jig mounted in

the compartment for removably mounting a first liquid dispensing container on the supports and jig. The first alignment jig aligns the container when the container is mounted on the supports so that a first valve protruding from the container is both aligned with the first valve actuator and aligned with a first outlet aperture in the first panel.

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The first valve actuator extends from an inner surface of the first panel adjacent the first valve when the container is aligned in the compartment, through the first panel so as to protrude from an outer surface of the first panel. Actuation of the first valve actuator from outside the cabinet actuates the first valve inside the compartment so as to dispense consumable liquid from the first valve through the first outlet aperture.

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In one preferred embodiment, the first panel is a door. The first valve actuator may be a pair of horizontally spaced apart lever arms pivotally mounted in the door. A lever handle may be rigidly mounted to the lever arms, and the lever arms positioned in the door and spaced apart sufficiently so as to engage valve triggers extending from the first valve. The lever handle extends from the lever arms to protrude from the outer surface of the door so as to be actuable by a user depressing an external end of the lever handle. Depression of the external end of the lever handle causes rotation of inner ends of the lever arms, upwardly urging the valve triggers against a return biasing force of a resilient biasing device. The resilient biasing device may be, without intending to be limiting, a spring in the valve. The lever arms elevate the valve triggers to open the first valve and the first valve closes upon release of the external end of the lever handle.

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Also in one preferred embodiment an upper panel such as a roof of the cabinet has a spout coupler mounted through an aperture in the upper panel. The spout coupler provides for removable mounting of an inverted water bottle on the upper panel. The spout coupler has a lower end extending into the compartment. The lower end is coupled to a water reservoir in a rigid housing, so as to be in fluid communication with the water reservoir. The rigid housing is mounted in the compartment.

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The water reservoir also has a valve, referred to herein as a second valve so as to distinguish it from the first valve on the first liquid dispensing container. The second valve extends from the rigid housing through an aperture in the housing so as to cooperate with a corresponding second valve actuator mounted on the first panel, that is, in one embodiment on the door of the cabinet. The second valve actuator extends from the inner surface of the first panel adjacent the second valve through the first panel so as to protrude from the outer surface of the first panel. The first panel has a second outlet aperture aligned under the second valve. Actuation of the second valve actuator from outside the cabinet actuates the second valve inside the compartment so as to dispense water from the second valve through the second outlet aperture.

Advantageously, the supports are a supporting shelf mounted in the compartment. The rigid housing may be mounted on the shelf or may be mounted to an underside of the upper panel.

The first alignment jig may include a lip on the shelf for engaging a front edge of the container. Alignment by the jig is also provided by a snug sliding fitment of the container between a side wall of the compartment and an opposed facing side wall of the rigid housing. A yoke is formed in the lip for snugly receiving therein a stem of the first valve. The stem extends between the container and the first valve.

In the embodiment where the first panel is a door, the rigid housing may be advantageously mounted centrally on the shelf between a first compartment space sized to receive the first liquid dispensing container and an opposite second compartment space sized to receive a second liquid dispensing container. That is, the first and second compartment spaces sandwich the housing between them.

In embodiments providing for use of a second container, the second liquid dispensing container is herein described as having a third valve mounted thereon so as to distinguish the valve from the first and second valves referred to above. The door has a third valve actuator mounted thereon cooperating with the third valve when the door is closed. The third valve actuator extends through the door for actuation of the third valve actuator from outside the cabinet. The second liquid dispensing container is aligned in the second compartment space when removably mounted therein by a second alignment jig in the second compartment space. The second alignment jig is substantially identical to the first alignment jig. The second alignment jig aligns the second container for cooperation with the third valve actuator.

In one aspect of the present invention the shelf generally bisects the compartment so as to define a lower storage space. The lower storage space allows for storage of substitute containers in the compartment to substitute for the first liquid dispensing container or for the second liquid dispensing container.

In a second aspect of the present invention the lever arms are pivotally mounted in the door by means of opposite stub axles rigidly mounted to the lever arms along an axis of rotation of the lever arms. The stub axles are pivotally mounted in corresponding stub axle mounts in the door. In a further aspect, the door has a passageway from the inner surface to the outer surface of the door and the lever arms and the lever handle are mounted journalled through the passageway. In that embodiment, the stub axle mounts may be opposed facing parallel channels in opposed facing side walls of the passageway. The stub axles are snugly mounted in the channels in a rotatable sliding fitment therein which allows for the lever arms to be retracted from engagement with the valve triggers and releasably locked preventing their rotation. The distal ends of the lever arms, distal from the lever handle, may be chamfered so that upon closing the door the lever arms are urged under the valve triggers.

In yet a further aspect of the present invention the lower end of the spout coupler is coupled to an inlet nozzle of the water reservoir by a resilient boot. A lower end of the boot has an annular recess for accepting in a sliding friction fit therein the inlet nozzle of the water reservoir.

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Brief Description of the Drawings

Figure 1 is, in front perspective view, the liquid dispensing apparatus of the present invention with the cabinet door open.

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Figure 2 is the view of Figure 1 with the cabinet door closed.

Figure 3 is a cross-sectional view along line 3-3 in Figure 2.

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Figure 4 is an enlarged perspective, partially cut-away, partially exploded view showing a reservoir nozzle and valve.

Figure 5 is a cross-sectional view along 5-5 in Figure 3.

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Figure 6 is the view of Figure 5 with the dispensing lever translated outwardly of the cabinet door into its locked position.

Figure 7a is, in plan view, the dispensing lever of Figure 5.

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Figure 7b is, in side elevation view, the dispensing lever of Figure 7a.

Figure 8 is a cross-sectional view along line 8-8 in Figure 5.

Figure 9 is, in perspective partially cut-away exploded view, a water bottle spout coupler, resilient boot, bladder and housing, and valve of the water dispensing apparatus of Figure 1.

5 Figure 10 is a non-exploded cross-sectional view along line 10-10 in Figure 9 shown mounted to an upper cabinet wall.

Figure 11 is a partially cut-away enlarged view taken from Figure 10 showing a bladder releasably mounted to the boot.

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Figure 11a is a further cut-away and enlarged view taken from Figure 11 of the releasable coupling between the boot and reservoir bladder.

15 Figure 12a is, in plan view, a refillable container of an alternative embodiment of the present invention.

Figure 12b is, in front elevation view, the container of Figure 12a.

20 Figure 12c is a cross-sectional view along line 12c-12c in Figure 12b.

Detailed Description of Preferred Embodiments

The liquid dispenser of Figure 1 is intended to dispense fluids such as water, juice, milk or the like. An insulated cabinet 4 has an internal refrigerated storage compartment 6 accessible by means of door 8. Door 8 is mounted to insulated cabinet 4 by means of hinges 10 or the like. Door 8 forms an airtight seal with cabinet 4 by means of resilient gasket 12 which extends circumferentially around interior surface 14 of door 8. As seen in Figure 2, when door 8 is closed, exterior surface 16 of door 8 presents to a user a centrally grouped vending center 18.

Vending center 18 includes a laterally disposed array of levers juxtaposed over a cup receiving cavity formed into surface 16. The levers protrude through passages 20 in door 8 into a corresponding cavity 22 in surface 14. Cavity 22 is elongate and extends horizontally across surface 14. Cavity 22 has a floor portion 24. Floor portion 24 has liquid dispensing apertures 26 formed therein as also seen in Figure 3. Dispensing levers 28 are pivotally mounted to door 8. Dispensing levers 28 each have a pair of horizontally spaced apart arms 30 which extend from passages 20 into cavity 22.

Removable containers 32 (shown in dotted outline in Figure 1) may conventionally be cardboard boxes each sized to snugly fit on or within support racks or shelf 34. Shelf 34 generally bisects compartment 6. The upper half of the compartment is itself compartmentalized into left and right sub-compartments 6a by a centrally disposed columnar housing 36. Sub-compartments 6a are sized to each accept one container 32. In Figure 1 containers 32 are shown stored in the lower half of compartment 6 waiting to be inserted into sub-compartments 6a. Each container 32 may typically contain a Mylar™ bladder 38 or the like co-operating with nozzle 40 so as to dispense liquid stored in bladder 38 from container 32 downwardly through valve 42. Support shelf 34 has a yoke 34a which snugly cradles nozzle 40. Yoke 34a thus positions valve 42 in the correct orientation for its insertion into cavity 22 as door 8 is closed. Valve 42, such as that supplied by Rapack, a division of Packaging Affiliates of Romeoville, Illinois, USA, has a body 44 and an inlet sleeve 46 as better seen in Figure 4. Sleeve 46 fits snugly into nozzle 40 extending outwardly from bladder 38.

When deployed from within the packaging of container 32, valve 42 is held disposed outwardly of container 32. Cavity 22 is positioned on door 8 so that as door 8 is swung closed in direction A, valve 42 registers or mates within cavity 22 so as to align valve trigger flanges 45 over and adjacent arms 30 on levers 28. As also seen in Figures 5, 6, 7a and 7b, the distal ends 30a of arms 30 are chamfered so that if arms 30 are pivoted up as they

engage arms 30, the chamfers engage trigger flanges 45 and force arms 30 under trigger flanges 45. Arms 30 are thus pivoted into their proper operating position in relation to valve 42.

5 Advantageously, arm 30 extends from liquid dispensing lever 28 generally parallel to the stem 42a of valve 42 so that rotation of liquid dispensing lever in direction B rotates arm 30 upwardly into engagement with valve trigger flanges 45. Valve trigger flanges 45 are, when undeflected, normally in a lowered position corresponding to a closed valve position by a spring mechanism (not shown) located internally of valve 42. The spring
10 mechanism urges the valve closed so as to automatically close the valve and lower the trigger flanges when the upward force of arms 30 is released by the releasing of a downward pressure applied by a user on levers 28. This then rotates the dispensing levers to their starting positions. If it is desired to disable the operation of levers 28, for example to prevent children playing with them and inadvertently dispensing fluid, levers 28 may be pulled in direction C
15 into a position as seen in Figure 6 partially retracted from its corresponding passage 20. Retracting a lever 28 in direction C disengages arms 30 from beneath trigger flanges 45. Retraction and advancement of a lever 28 respectively in direction C or in the opposite direction so as to re-engage arms 30 with trigger flanges 45, is guided by an oppositely disposed pair of stubs or pivots 48, rigidly mounted on either side of lever 28, sliding along
20 opposed facing grooves 50 in passage 20. Stops 52 on distal ends 30a of arms 30 engage inner surface 14 limit translation in direction C so that arms 30 must be pinched together to remove lever 28 entirely from passage 20.

 A collapsible bladder reservoir 54 is mounted in housing 36. Reservoir 54 may
25 be a Mylar™ or plastic bladder similar to bladders 38. As seen in Figure 9, reservoir 54 differs from bladders 38 in that it has an inlet nozzle 56 in addition to an outlet nozzle 40' similar to nozzle 40. When reservoir 54 is mounted within housing 36 a plurality of apertures 58 allow an in-flow of cold air from compartment 6 in housing 36 so as to cool reservoir 54.

Inlet nozzle 56 is connected to a source of water such as bottle 60 by a resilient flexible coupling or boot 62 and conventional rigid spout coupler 64.

5 Spout coupler 64 may be such as the Non-Spill System™ manufactured by Kel-Jac Engineering and Plastic Sales of Riverside, California, USA. The spout of bottle 60 inserts into the upper aperture of spout coupler 64 so as to impale the frangible covering of the spout onto the bayonet 66 of the spout coupler. Water from bottle 60 then flows into the spout coupler in direction D through the tubular bore 68 of the spout coupler. The spout coupler is mounted through an aperture in the upper wall 4a of cabinet 4 (shown in dotted outline in
10 Figure 10). Annular flange 64a rests on the upper surface of wall 4a. Locking ring 70 engages tabs 72 on spout coupler 64 so as to hold flange 64a down onto wall 4a, sandwiching wall 4a between the flange and the locking ring.

15 Boot 62 resiliently frictionally mounts in a sliding friction fit onto the lower end of spout coupler 64. Boot 62 is hollow and generally frusto-conically shaped so that it forms a convergent nozzle in direction D between a larger opening 62a generally coinciding with the size of bore 68, and a smaller opening 62b matched to the size of the opening of nozzle 56. Nozzle 56 snugly mates, again in a sliding friction fit, into annular recess 74.

20 Opening 62a releasably couples in a watertight seal to the lower end of the spout coupler with the assistance of resilient ring 76 formed inwardly of opening 62a. Ring seals 76 engage end 64a of coupler 64.

25 As better seen in Figure 11a, the releasable mounting of nozzle 56 into annular recess 74 is accomplished by sandwiching the exposed end of nozzle 56 between inner collar 62c and outer collar 62d at the lowermost end of boot 62 until ring flanges 56a and 56b mate in corresponding ring grooves in annular recess 74.

Vending center 18 on exterior surface 16 has liquid dispensing depression 78.

With door 8 closed into air sealing engagement against insulated cabinet 4, rotation of liquid dispensing levers 28 in direction B rotate valve actuating arms 30 upwardly into engagement with valve triggers 45 thereby deflecting upwardly valve triggers 45 to dispense liquid downwardly through liquid dispensing apertures 26. Liquid dispensed through a liquid dispensing apertures 26 may be captured by a cup or like receptacle 80 held or otherwise positioned beneath liquid dispensing apertures 26 within depression 78 on the exterior face 16 of door 8. Any liquid spilled during the process of pouring from valves 42 is collected by trap 82. Advantageously, trap 82 is a removable tray releasably mounted, for example by means of a friction fit onto the lower shelf of depression 78.

The illustrated preferred embodiment provides for simultaneous vending of liquid from two liquid containers 32, mounted on shelf 34 on either side of housing 36, and simultaneous vending of bottled water from the reservoir in housing 36. It is understood that a conventional refrigeration system including a compressor (not shown), etc. is mounted in cabinet 4 below and behind compartment 6. For convenience, when several different types of consumable liquid product are dispensed from the cooler, magnetic product identification labels may be magnetically mounted to the outside face of the cooler door, in proximity to the dispensing levers which actuate the valves.

A refillable water or juice container 86 as seen in Figures 12a-12c has the same dimensions and shape as container 32. Consequently, it may be substituted for a container 32 for mounting on shelf 34. Container 86 may have a flush mounted handle 88 located above an outlet nozzle 90 located on front face 86a. Nozzle 70 is identical to nozzles 40 as above described. Again, a valve 42 (shown in dotted outline in Figure 12c) is mounted to the nozzle so that liquid can be dispensed in the same manner as from containers 32. Container 86 may be filled through opening 92, which is closable by a lid 94. A sloping floor 96 may be provided to allow complete emptying of the contents through valve 42. The container may be made out of polycarbonate such as is currently in widespread use in the bottled water industry.

The container may be made by blow molding. To applicant's knowledge, it is not possible to manufacture the container as a one piece bottle with existing manufacturing technologies. Therefore, the container is made as a bottle in two pieces, namely, the basic bottle container and the spout. The spout is subsequently welded or otherwise mounted to the front of the
5 basic bottle container. The spout incorporates the valve.

Containers 32 or 86 may be a 4 liter size when used in the illustrated 3 tap beverage cooler, although this is not intended to be limiting.

10 As will be apparent to those skilled in the art in the light of the foregoing disclosure, many alterations and modifications are possible in the practice of this invention without departing from the spirit or scope thereof. Accordingly, the scope of the invention is to be construed in accordance with the substance defined by the following claims.

WHAT IS CLAIMED IS:

1. A liquid dispensing apparatus for selectively dispensing consumable liquids comprising:

- 5 (a) an insulated cabinet having an internal refrigeratable compartment defined by enclosing contiguous panels;
- (b) a first valve actuator mounted on a first panel of said enclosing contiguous panels;
- 10 (c) said compartment having supports and a first alignment jig mounted therein, said supports for removably mounting thereon of a first liquid dispensing container;

said first alignment jig for aligning said container when mounted on said supports so that a first valve protruding from said container is aligned with said first valve actuator and aligned with a first outlet aperture in said first panel,

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said first valve actuator extending from an inner surface of said first panel adjacent said first valve when said container is aligned in said compartment, through said first panel so as to protrude from an outer surface of said first panel,

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wherein actuation of said first valve actuator from outside said cabinet actuates said first valve inside said compartment so as to dispense consumable liquid from said first valve through said first outlet aperture.

25 2. The apparatus of claim 1 wherein said first panel is a door and said first valve actuator is a pair of horizontally spaced apart lever arms pivotally mounted in said door and a lever handle rigidly mounted to said lever arms, said lever arms positioned in said door and spaced apart sufficiently so as to engage valve triggers extending from said valve, said lever handle extending from said lever arms to protrude from said outer surface of

said door so as to be actuable by a user depressing an external end of said lever handle, depression of said external end of said lever handle causing rotation of inner ends of said lever arms, upwardly urging said valve triggers against a return biasing force of a resilient biasing device, wherein said lever arms elevate said valve triggers to open said valve and said valve closes upon release of said external end of said lever handle.

- 5
3. The apparatus of claim 1 wherein an upper panel of said enclosing contiguous panels has a spout coupler mounted through an aperture in said upper panel, said spout coupler for removably mounting an inverted water bottle on said upper panel,

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said spout coupler having a lower end extending into said compartment, said lower end coupled to a water reservoir in a rigid housing, said lower end in fluid communication with said water reservoir, said rigid housing mounted in said compartment,

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said water reservoir having a second valve, said second valve extending from said rigid housing through an aperture in said housing so as to cooperate with a second valve actuator, said second valve actuator mounted on said first panel,

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said second valve actuator extending from said inner surface of said first panel adjacent said second valve through said first panel so as to protrude from said outer surface of said first panel,

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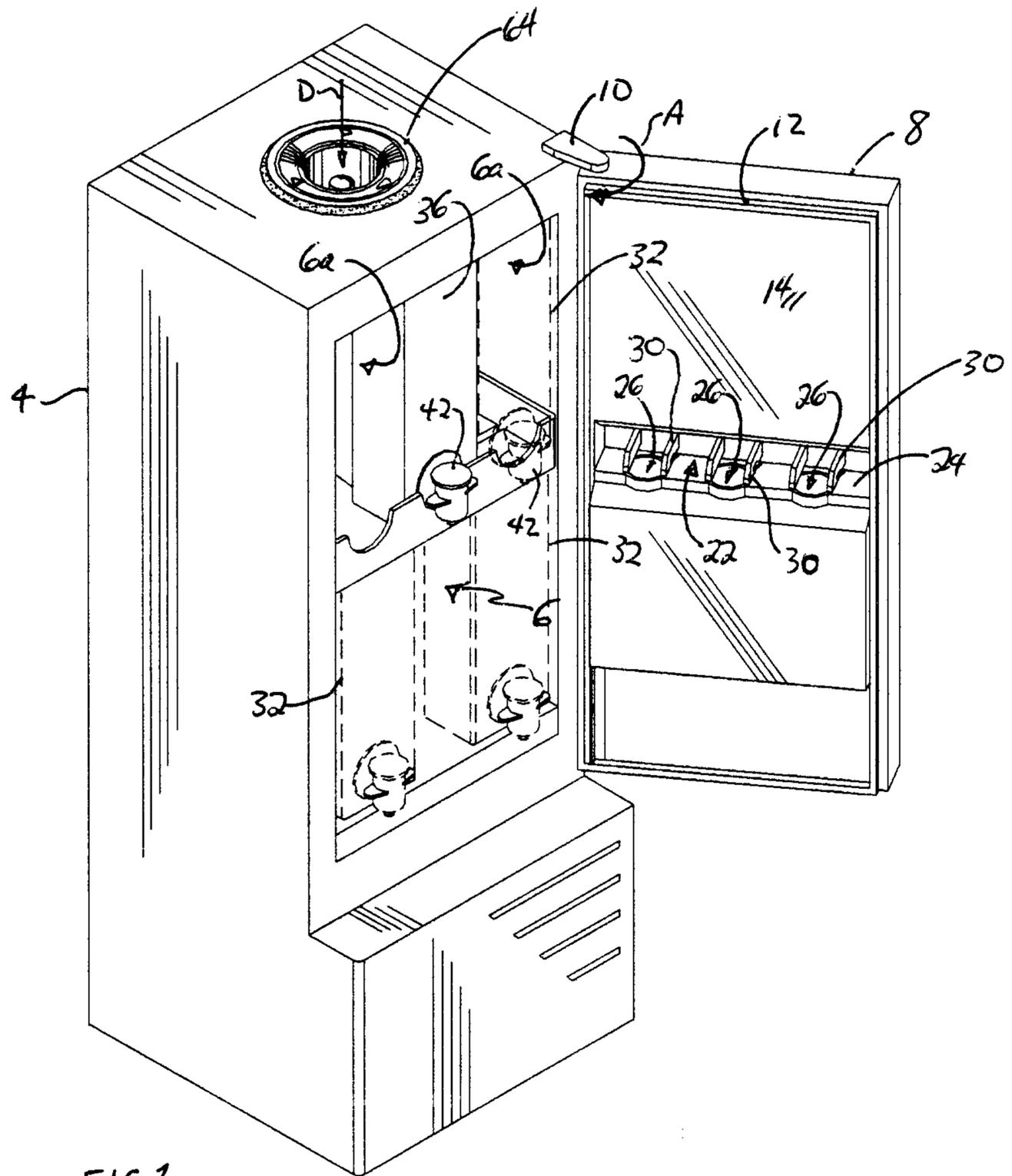
said first panel having a second outlet aperture aligned under said second valve, wherein actuation of said second valve actuator from outside said cabinet actuates said second valve inside said compartment so as to dispense water from said second valve through said second outlet aperture.

4. The apparatus of claim 3 wherein said supports are a supporting shelf in said compartment.

5. The apparatus of claim 4 wherein said first alignment jig is:
- (a) a lip on said shelf for engaging a front edge of said container;
 - (b) a snug sliding fitment of said container between a side wall of said
5 compartment and an opposed facing side wall of said rigid housing; and,
 - (c) a yoke formed in said lip for snugly receiving therein a stem of said first
valve, said stem extending between said container and said first valve.
6. The apparatus of claim 5 wherein said first panel is a door and wherein said rigid
10 housing is mounted centrally on said shelf between a first compartment space sized to
receive said first liquid dispensing container and an opposite second compartment
space sized to receive a second liquid dispensing container, said first and second
compartment spaces sandwiching said housing therebetween.
- 15 7. The apparatus of claim 6 wherein said second liquid dispensing container has a third
valve mounted thereon, and said door has a third valve actuator mounted thereon, said
third valve actuator extending through said door for actuation of said third valve
actuator from outside said cabinet, said second liquid dispensing container aligned in
said second compartment space, when removably mounted therein, by a second
20 alignment jig in said second compartment space, said second alignment jig
substantially identical to said first alignment jig, in said second compartment space.
8. The apparatus of claim 7 wherein said shelf generally bisects said compartment so as to
define a lower storage space for storage of substitute containers in said compartment to
25 substitute for said first liquid dispensing container or for said second liquid dispensing
container.
9. The apparatus of claim 2 wherein said lever arms are pivotally mounted in said door by
means of opposite stub axles rigidly mounted to said lever arms along an axis of

rotation of said lever arms, said stub axles pivotally mounted in corresponding stub axle mounts in said door.

- 5 10. The apparatus of claim 9 wherein said door has a passageway from said inner surface to said outer surface of said door and said lever arms and said lever handle are mounted journalled through said passageway.
- 10 11. The apparatus of claim 10 wherein said stub axle mounts are opposed facing parallel channels in opposed facing side walls of said passageway, said stub axles snugly mounted in said channels in a rotatable sliding fitment therein.
12. The apparatus of claim 3 wherein said lower end of said spout coupler is coupled to an inlet nozzle of said water reservoir by a resilient boot.
- 15 13. The apparatus of claim 12 wherein a lower end of said boot has an annular recess for accepting in a sliding friction fit therein said inlet nozzle of said water reservoir.
- 20 14. The apparatus of claim 2 wherein distal ends of said lever arms, distal from said lever handle, are chamfered so that upon closing said door said lever arms are urged under said valve triggers.



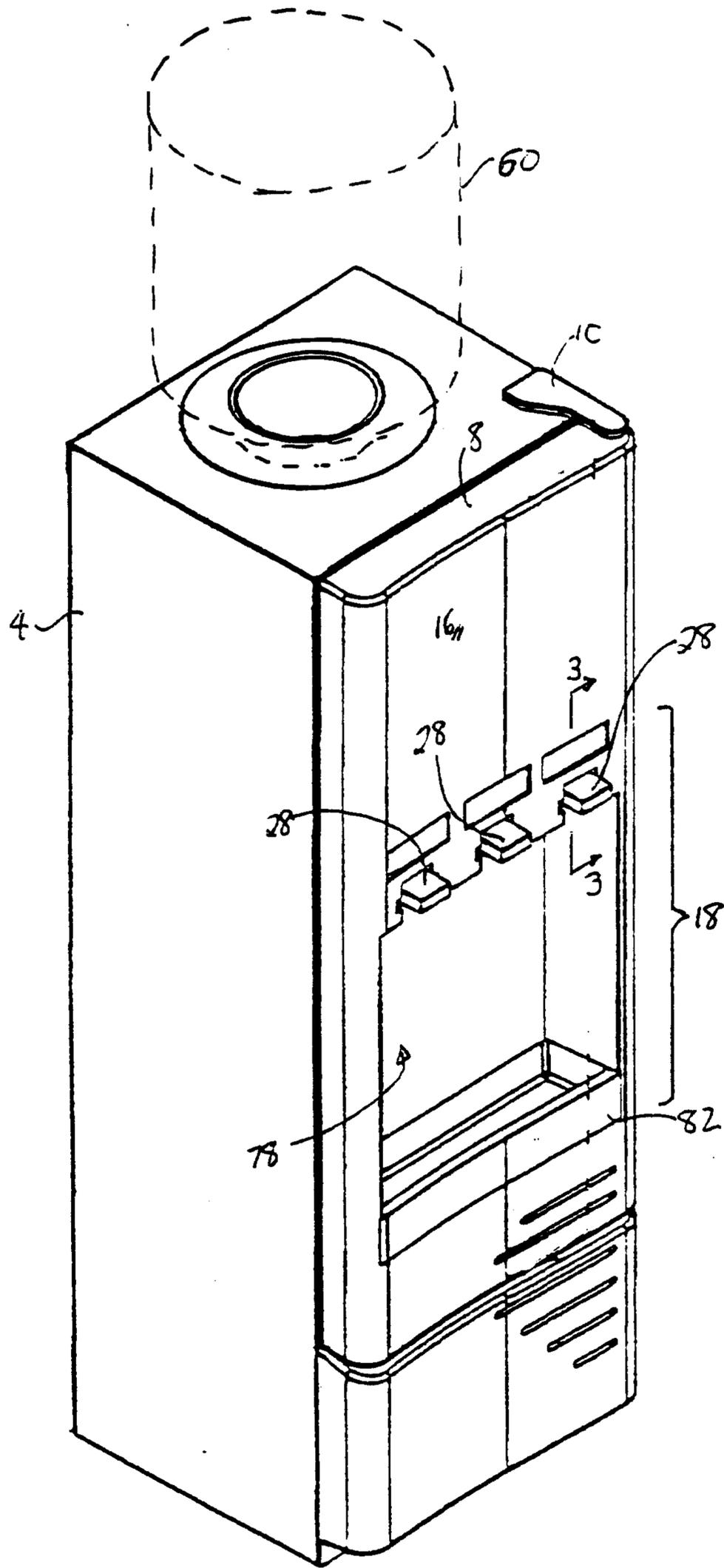
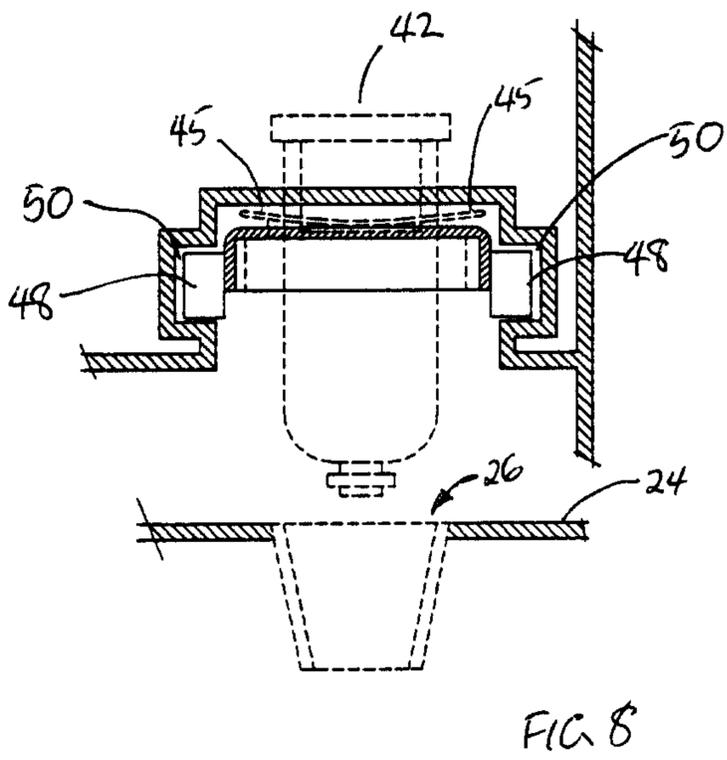
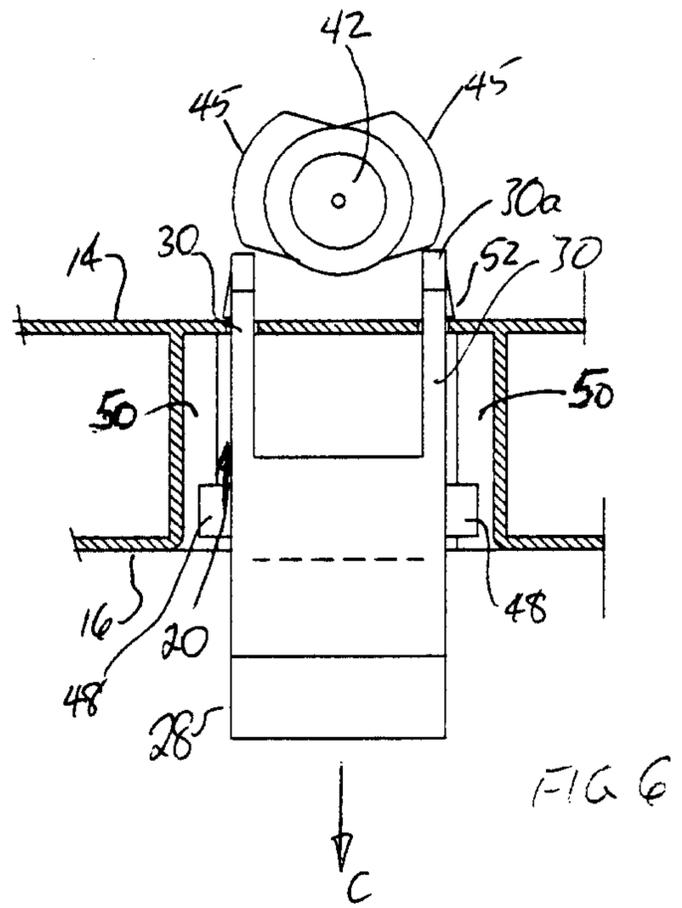
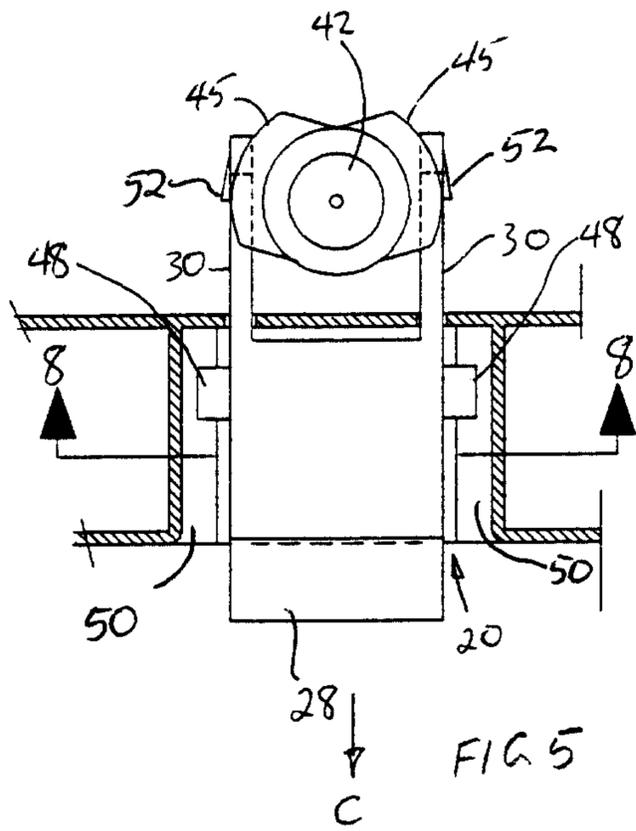


FIG. 2



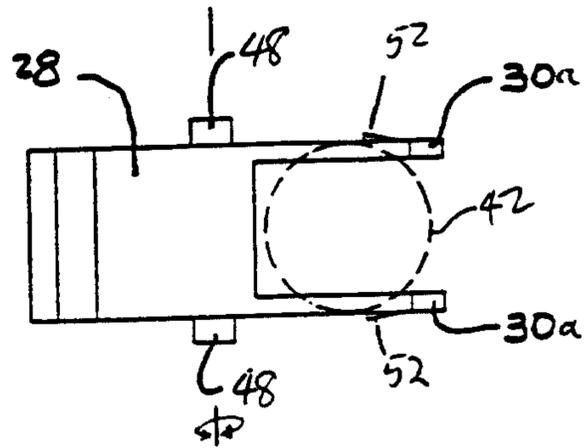


FIG 7a

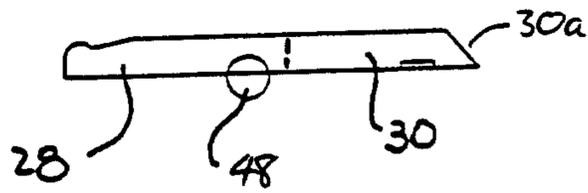
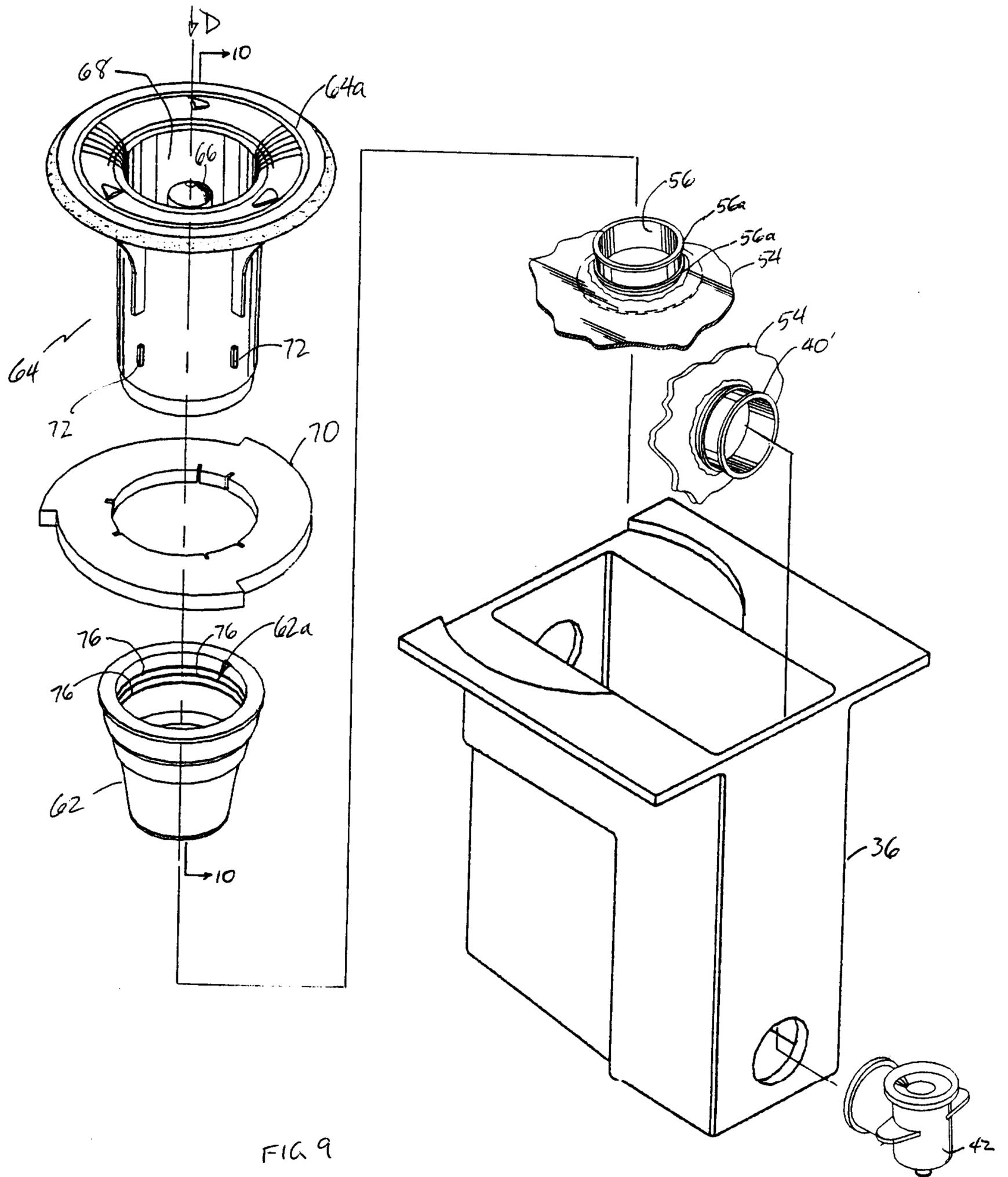


FIG 7b



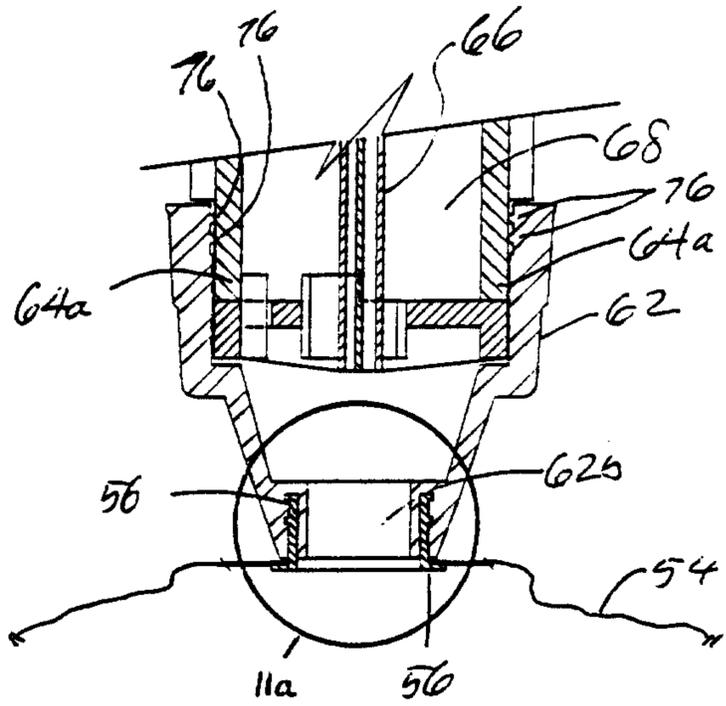


FIG. 11

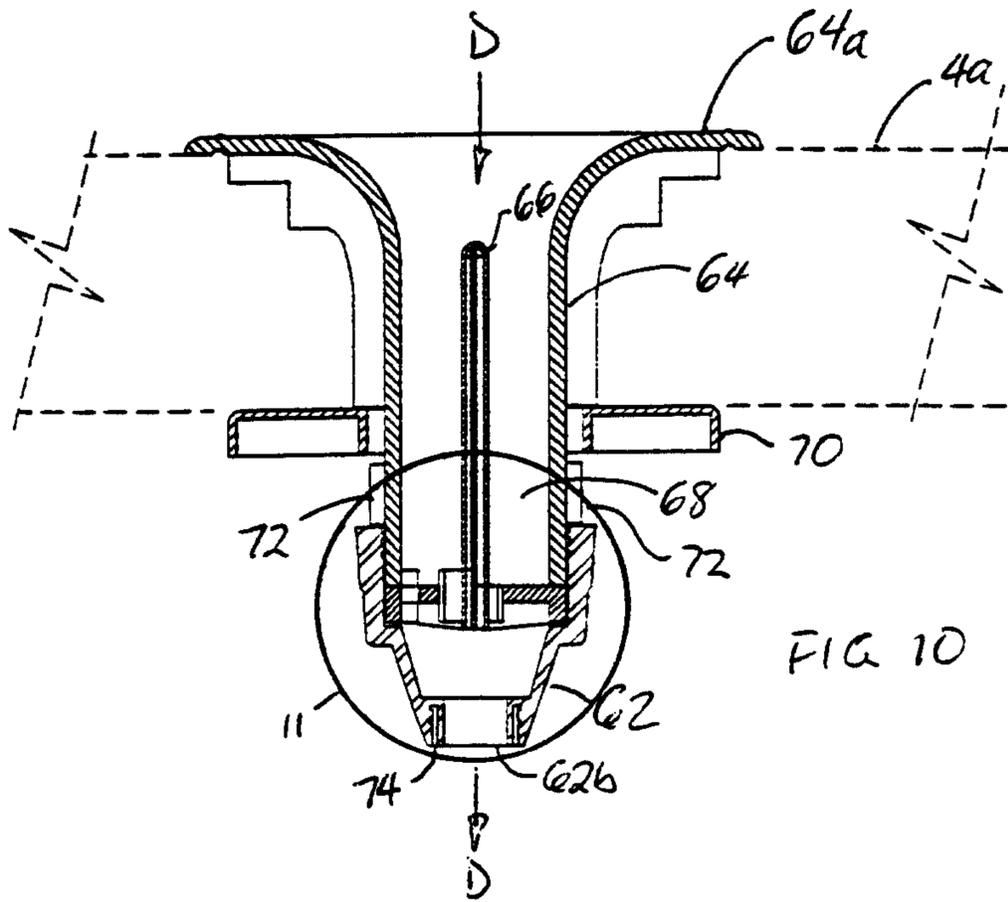


FIG. 10

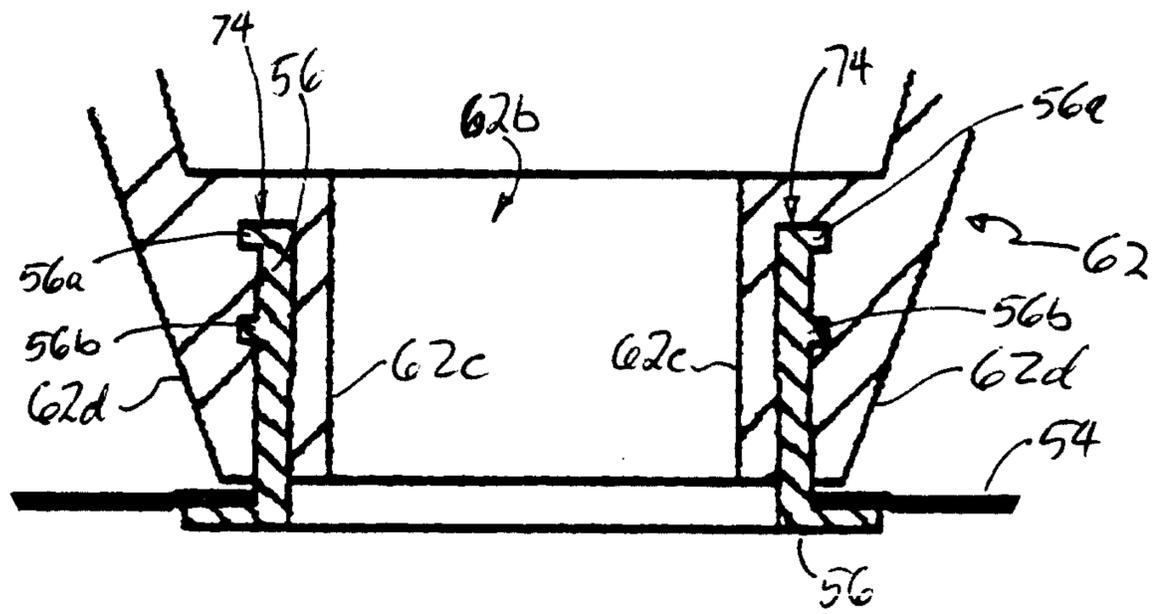


FIG 11a

