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3,204,830

DRINK DISPENSER COUNTER ATTACHMENT

Filed Nov. 15, 1963

2 Sheets-Sheet 1

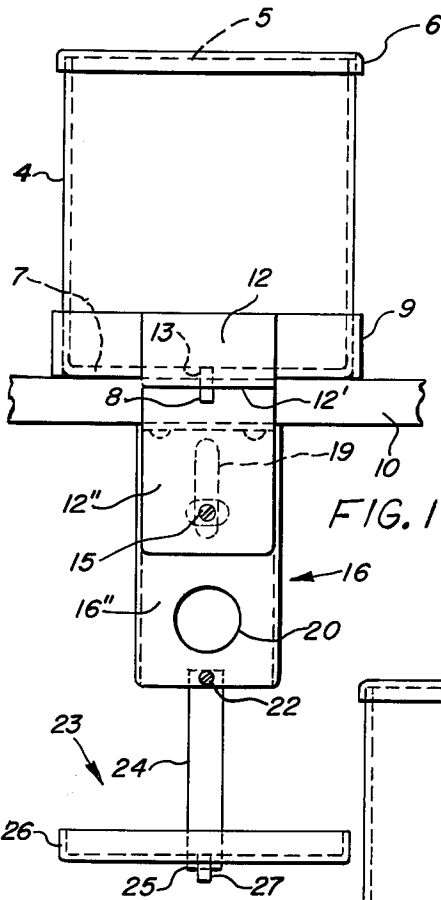


FIG. 1

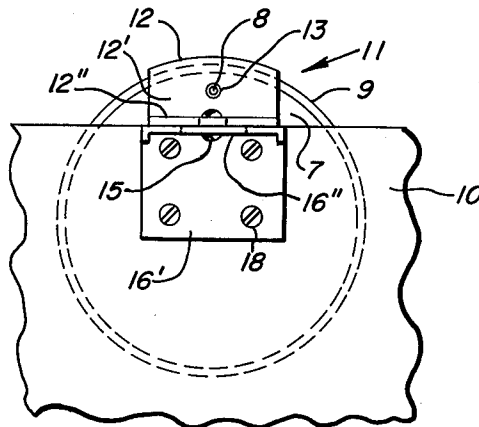


FIG. 3

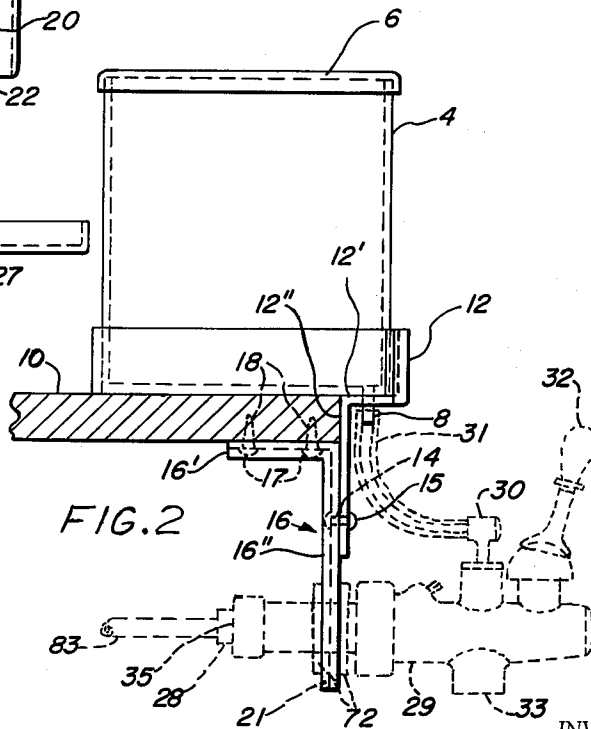


FIG. 2

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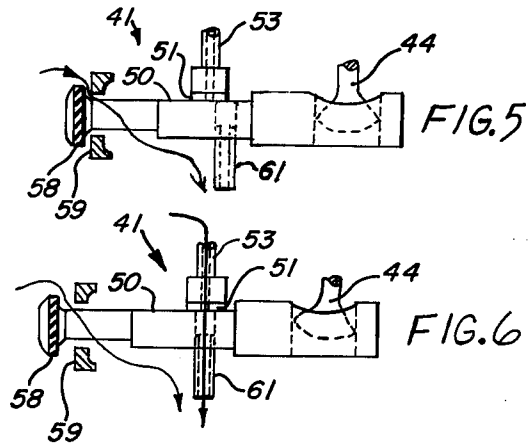
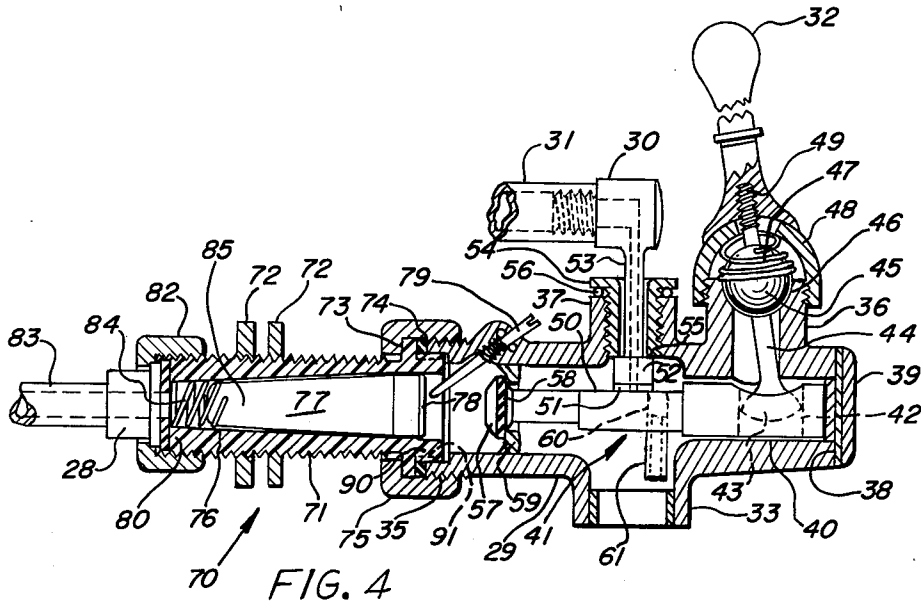
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DRINK DISPENSER COUNTER ATTACHMENT

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2 Sheets-Sheet 2



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DRINK DISPENSER COUNTER ATTACHMENT
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This invention deals with a counter-attached drink dispenser unit. More specifically, it relates to a reservoir and counter attachment therefor, used in dispensing carbonated beverages, and the like.

With the advent of multitudinous soft drinks, including low calorie beverages, there has developed a need for a facile, yet inexpensive, means for dispensing syrup concentrate and carbonated water. Present equipment is too expensive and complicated for profitable multiplication at the counter, which results in loss of business when customers ask for more than one or several brands of beverages.

According to the present invention, a unit is provided which comprises a plastic reservoir into which a syrup concentrate bottle is inverted, said reservoir having a bottom drain being provided with a strong base support which has provision for accommodating the reservoir drain nipple beyond the edge of the counter. Said base also has downwardly-projecting arm which is adjustably-connected with an angle bracket, the upper portion of which is attached to the bottom of the counter. The bottom portion of the bracket has an opening for attaching therein the dispensing faucet. Also, a dip collector is attachable to said bracket.

The invention will be more readily understood by reference to the accompanying drawing in which a preferred embodiment is described, and in which FIGURE 1 illustrates a front elevational view of the preferred assembly, as attached to a counter. A side elevational view thereof is depicted in FIGURE 2, with the dip collector being omitted. FIGURE 3 presents a bottom view of the unit shown in FIGURE 2. FIGURE 4 shows a cross-sectional side view of a faucet used in conjunction with the present invention. A schematic side view of the valve slide in water-only dispensing position, of the faucet of FIGURE 4, is depicted in FIGURE 5, while FIGURE 6 shows the same slide valve in position for dispensing both water and syrup. Similar numerals refer to similar parts in the various figures.

Referring again to the drawing, numeral 4 indicates a cylindrical reservoir, preferably made of plastic, and having an open top 5, the edge of which is protected by a rubber buffer 6. Bottom 7 of reservoir 4 has downwardly-projecting outlet nipple 8. The syrup concentrate bottle (not shown) is inserted, in inverted condition into the open top of reservoir 4.

A frame or ring 9, preferably of metal, and having inner dimensions somewhat larger than the outer dimensions of reservoir 4, is provided to serve as a base for holding reservoir 4 on a counter 10, in a manner such that a portion of the ring and reservoir, indicated generally as 11 (FIG. 3), project beyond the edge of counter 10. The front part of the projecting portion of ring 9 is attached to anchoring plate 12 which extends downwardly and then horizontally backwardly as extension 12' until it reaches the edge of counter 10, after which it is directed downwardly as extension 12''. Horizontal extension 12' is provided with an opening 13 to permit projection there through of reservoir drainage nipple 8. Vertical extension 12'' is provided with a hole 14 for accommodating locking bolt 15.

An angle bracket, referred to generally by numeral 16, is provided with horizontal anchoring arm 16' which has holes 17 for accommodating screws 18 that fasten member 16 to the bottom of counter 10. Vertical arm

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16' of bracket 16 is provided with a vertically-directed slot 19, designed to adjustably accommodate attaching or locking bolt 15 which attaches together plate 12, and bracket 16, after adjustment is made at slot 19 for the thickness of counter 10. The bottom portion of bracket arm 16' projecting below the end of plate extension 12'', is provided with hole 20, into which is mounted the dispensing faucet 29. Below hole 20 is a smaller hole 21, designed to hold 22, which locks drip collector 23, to arm 16'.

Although plate 12 is desirable for the purposes of the invention, it is understood that it may be dispensed with when horizontal extension 12' is attached to the bottom of ring 9, by welding or other means, although such a construction is not as strong as when plate 12 is present.

Drip collector 23 has vertical arm 24 attachable by bolt 22 to arm 16', and it is bent to give horizontal arm 25, which is attached to the bottom of shallow pan 26, the latter being provided with closeable outlet or drain 27.

When in use, the unit of the present invention is attached to the counter, as already described, and a bottle of syrup concentrate is invertedly inserted in reservoir 4. Faucet inlet 28 is connected to a source 83 of water or carbonated water. Faucet 29 is designed to dispense either syrup, through inlet 30, or carbonated water, through inlet 28, or both, and is similar to the faucets described in the Harr patents 2,578,543 and 2,416,581-2. Syrup inlet 30 is connected with reservoir outlet nipple 8 by a tube 31. Handle 32 is used to dispense the desired beverage through faucet outlet 33 which, of course, is disposed directly above dip collector pan 26. Any dripping from the faucet, therefore, will accumulate in pan 26.

A faucet of this type, suitable for the present invention is illustrated in FIG. 4. It comprises a housing 29 connected to a threaded charge water inlet 35, an outlet 33, a handle opening 36, a concentrate inlet opening 37, and a dummy opening 38 which is normally closed off with plug 39. The handle opening 36 connects with cylindrical bore 40, in which may reciprocate the valve slide, indicated generally as 41. The valve slide portion riding in bore 40, in close-fitting relation, is cylindrical in cross-section, and it is provided with vertical slot 42 which accommodates end 43 of lever arm 44, attached to ball 45 riding in socket 46. Ball 45 is held against its socket, in sealing relation by spring 47, which in turn, is held in place by threaded cap 48 which is screwed onto the threads of opening 36. Handle 32 is screwed onto screw 49 projecting from ball 45.

Valve slide 41 is narrowed slightly at its middle portion and, directly under opening 37, it is flattened on top to give flat surface 50, on which slides gasket 51 attached to the lower portion 52 of syrup fed tube 53. Gland member 54 screwed into opening 37 seats on shoulder 55, and also on O-ring 56 which seals it with respect to opening 37.

A spring (not shown) between gland member 54 and shoulder 55 maintains a constant thrust of gasket 51 on surface 50, in sealing relation therewith. Valve slide 41 terminates at the faucet water inlet end with enlarged thrust portion 57, the inner flat surface of which is provided with gasket 58, which seals against ring 59 disposed within the faucet body. Directly under tube end 52, and connectable therewith, is vertical hole 60 drilled through valve slide 41. Into the bottom of this hole 60, is inserted a close-fitting short tube 61. This may be done with long-nosed pliers inserted through outlet 61, after valve slide 41 has been inserted into housing 29. Tube 53 is connected with flexible tube 31 which, in turn, is connectable to drain nipple 8 of reservoir 4 (FIG. 2).

Connected to threaded end 35 of housing 29 is the water flow control attachment, indicated generally by numeral 70. It comprises hollow nipple 71, threaded on its exterior to accommodate fastening bolts 72 for attaching the unit into hole 20 of angle member 16" (FIG. 1). One end of nipple 71 is provided with shoulder 73 and gasket 74 for fastening by means of union coupling 75 to end 35 of housing 29, in outside sealing relation therewith. The inner bore 76 of nipple 71 is tapered to accommodate tapered plug 77 which has larger cylindrical end 78 facing the interior of housing 29. A long screw 79 passing through the wall of housing 29 (in conventional O-ring sealing relation therewith) is used to hold larger end 78 of plug 77.

The other end 80 of nipple 71 is connected by means of gasket 81, and union coupling 82, to the end 28, of water line 83. A spring 84, disposed between gasket 81 and smaller end 85 of plug 77, urges plug toward the inside of housing 29, which thrust is resisted by screw 79. The purpose of plug 77 is to control the flow of water or carbonated water, the flow taking place between the inner wall 76 of nipple 71 and the wall of plug 77. By turning screw 79, the space between the two walls may be altered to adjust the flow of the water.

The inner wall of housing end 35 and outer wall of nipple end 90 are provided with axially-directed corrugations 91 which mesh together, thereby preventing nipple 71 from twisting independently of housing 29.

In operation, when faucet handle 32 is pushed all the way to the left, as in FIG. 4, gasket 58 seats against ring 59, thus preventing charged water from flowing through housing 29, so that no water is dispensed through outlet 33. Also, since the opening of tube 53 at gasket 51 is sealed off by the flat surface 50 of valve slide 41, no syrup is dispensed through tube 61, either. In other words, the faucet is completely shut off. By moving the handle 32 to the right, so that valve slide 41 is in the position as in FIGURE 5, it will be noted that gasket 58 is pushed away from sealing position against ring 59, thereby permitting water to pass past the ring, as indicated by the arrow. However, the opening of tube 53 is still closed off at gasket 51 by flat surface 50 of valve slide 41, so that no syrup comes out of tube 61, so that only water is dispensed. Then, as handle 32 is moved completely to the right, the valve slide 41 is in the position, as in FIG. 6. In this case, the openings of tubes 53 and 61 are practically superimposed, so that syrup flows out of reservoir 4 and out through tube 61. Also, since gasket 58 also is away from its sealing seat 59, it is apparent that both water and syrup are dispensed. One important feature of this faucet is that, during the dispensing, water always precedes the syrup and flows after the syrup is shut off, so that all syrup is washed off, making the faucet self-cleaning.

Tube 61 is important in that it is designed to carry syrup past the carbonated water-intersection point, so that the two liquids do not collide head on, but rather the water flows over and envelops the syrup stream with minimum agitation and thus enables retention of carbonizing gas in solution in the water and carries it along into the glass into which the drink is dispensed. Furthermore, the tube prevents excessive foaming in the glass.

I claim:

1. A drink dispenser counter attachment for dispensing water or carbonated water through a faucet attachable thereto, and/or syrup concentrate stored in a reservoir

disposed on a counter and provided with a downwardly-directed bottom drain near its edge, comprising,

- a frame base for holding a bottom portion of a reservoir, and disposable on a counter with a portion thereof projecting beyond the edge of a counter,
- a horizontal plate attachable to the outer projecting portion of said base, and extending under said frame to near an edge of a counter, and having an opening designed to permit projection therethrough of a reservoir bottom drain nipple,
- a vertical extension attached to said horizontal extension of said plate and extending downwardly adjacent a counter edge and projecting therebeyond, and having attaching means in the portion projecting therebeyond,
- an angle bracket having a horizontal arm carrying attaching means for attaching said latter arm to a bottom of a counter, and
- a vertical arm connected to said bracket horizontal arm and completing said angle bracket and carrying adjustable attaching means coacting with said attaching means on said vertical plate extension, and designed to project below said latter extension when attached thereto, and having mounting means therein for mounting in its lower portion of a dispensing faucet.

2. A drink dispenser counter attachment for dispensing water or carbonated water through a faucet attachable thereto, and/or syrup concentrate, comprising,

- a reservoir having an open top and bottom carrying a downwardly-directed drain nipple near its edge,
- a frame base for holding the bottom portion of said reservoir, and disposable on a counter with a portion thereof projecting beyond the edge of a counter,
- a vertical plate attachable to the outer projecting portion of said frame,
- a horizontal extension attached to the bottom of said plate, and extending under said frame to near an edge of a counter, and having an opening designed to permit projection therethrough of said reservoir bottom drain nipple,
- a vertical extension attached to said horizontal plate extension and extending downwardly adjacent a counter edge and projecting therebeyond, and having attaching means in the portion projecting therebeyond,
- an angle bracket having a horizontal arm carrying attaching means for attaching said arm to a bottom of a counter, and
- a vertical arm connected to said bracket horizontal arm and completing said angle bracket and carrying adjustable attaching means coacting with said attaching means on said vertical plate extension, and designed to project below said latter extension when attached thereto, and having mounting means therein for mounting in its lower portion of a dispensing faucet.

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