

UNITED STATES PATENT OFFICE

2,621,908

LIQUID DISPENSING INSTALLATIONS

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Application November 5, 1947, Serial No. 784,204
In Great Britain October 12, 1946

1 Claim. (Cl. 261—18)

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This invention relates to installations for dispensing beer or other aerated beverages in which the beverage overflowing from the measuring vessels during filling thereof is collected in a drip tray or other vessel for subsequent admixture with the live beverage delivered by the delivery tap.

Our invention is concerned with installations in which the beer or other liquid is supplied under pressure to a delivery tap.

According to our invention the delivery tap is of the injector type comprising an outflow passage in the tap for the live beverage, said passage being arranged to induce the flow of returned liquid by suction within the tap through one or more induction passages provided in the tap for the admission of the returned liquid and for its admixture with the live beverage delivered by the tap.

In carrying out the invention the delivery tap contains a constricted passage or nozzle through which the live beverage issues when the tap is turned to open the live beverage supply to the tap, said constricted passage or nozzle opening into a wider passage in the tap forming a low pressure region which is in communication with an inlet port in the tap for the admission of the returned liquid, said inlet port being connected by a supply pipe to the drip tray or other vessel in which the overflowing liquid is collected for return to the delivery tap.

The said supply pipe may be fitted with a hand-controlled valve for cutting-off the supply of returned liquid to the delivery tap.

The delivery tap may also be of the two-way or three-way type having the passages therein so constructed that the tap can be moved from a closed position into either of two positions, in one of which the returned liquid is drawn into and admixed with the live beverage issuing from the tap, while in the other open position of the tap the supply of returned liquid to the tap is cut off and only live beverage is delivered.

Our invention may be applied to counter or wall founts by suitably connecting the tap of the fount to the live beer supply pipe and to the returned beer supply pipe, and in the case of counter founts of the pillar or wall bracket type, the pillar or bracket arm may be provided with a pair of parallel passages for connection to the live beer supply and returned beer pipes respectively.

In our invention no valve is required in the returned beer supply pipe for controlling the supply of returned beer to the delivery tap.

Although the present invention is primarily

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concerned with beer dispensing installations, it can also be used for dispensing other liquids supplied under pressure to the delivery tap, and the term "liver beverage" where used herein is to be understood as including any other liquid supplied under pressure to the delivery tap.

The invention will be more readily understood by reference to the accompanying drawing in which Fig. 1 illustrates, in vertical section, one example of the invention applied to a counter fount of the pillar type. Fig. 2 illustrates a modification applied to a wall fount.

In the example illustrated in Fig. 1, a delivery tap 1 of the truncated conical plug type is rotatably fitted in a tap housing 2 formed on the end of a bracket arm 3 which is secured upon a pillar 4. A diametral passage 5 is formed through the tap 1 and can be registered with a live beverage supply passage 6 formed in the arm 3. An axial passage 10 is formed in the lower end of the tap 1 and communicates at its upper end with the diametral passage 5. A nozzle 7 is screw-threaded into or otherwise secured in the upper end of the passage 10. A radial passage 8 is also formed in the tap 1 and can be registered with a returned liquid passage 9 formed in the arm 3, the passage 8 being so arranged that in one position of the tap 1, the two passages 5 and 8 register simultaneously and respectively with the passages 6 and 9. The passage 8 is also so arranged and the nozzle 7 is of such a length that it partially obstructs the inner end of the passage 8. Both the nozzle 7 and passage 8 open into the axial passage 10 which forms a low pressure region when liquid issues from the nozzle 7.

Secured in the lower end of the tap 1 is a spout 11. To retain the tap 1 rotatably in the tap housing 2, the spout 11 is conveniently externally screw-threaded to receive an internally screw-threaded locking ring or nut 12 adapted to press a packing washer 13 against the lower end of the housing 2. The tap 1 may, however, be rotatably retained in the housing 2 by any other suitable means.

An air inlet passage 14 may be formed in the housing 2 opposite the passage 8 so that when the tap 1 is turned through 180 degrees from the position shown in the drawing, the passage 14 registers with the passage 8 and admits air to the tap for admixture with the liquid issuing from the tap.

When the tap is turned through 90 degrees from the position shown in the drawing, the tap closes the ends of the passages 6 and 9 so that no liquid issues from the tap.

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In the example illustrated, the passages 6 and 9 communicate with a pair of parallel pipes 15 and 16 respectively, which are fitted through the pillar 4 and through a base 17 by means of which the pillar 4 may be mounted on a counter 18. The pipe 15 is adapted to be connected to the live beer supply pipe and the pipe 16 to the returned beer pipe.

If desired, and as illustrated in Fig. 2, the returned liquid passage may be replaced by a pipe 19 fitted externally of the arm 3 and arranged to open into a radial passage formed in an annular housing 20 surrounding the tap 1 in the region of the passage 8, such annular housing 20 being non-rotatably fitted below the tap housing 2 and provided if desired with an air inlet passage such as 14. In such case the tap projects below the housing 2 and the nozzle 7 and passage 8 are formed in that portion of the tap which is enclosed by the annular housing 20.

We claim:

A beverage dispensing device for delivering a gasified beverage under pressure either alone or admixed with an auxiliary non-gasified beverage or admixed with atmospheric air comprising a valve housing having a gasified beverage supply port and an auxiliary beverage supply port therein, said ports being in spaced longitudinally aligned relationship, a valve plug rotatably fitted in said housing, an atmospheric air inlet passage in said valve housing diametrically opposite said auxiliary beverage supply port, a diametral gasi-

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fied beverage conducting passage in said plug, a radial auxiliary beverage conducting passage in said plug, said diametral passage being registrable with said gasified beverage supply port in either of two diametrically opposite positions of said plug, and said radial passage being registrable with said auxiliary beverage supply port in the one of said plug positions and registering with said atmospheric air inlet passage in the diametrically opposite position of said plug, an axially positioned nozzle in said valve member and opening at its inner end into said diametral passage and projecting at its outer end into said radial passage, and an axial outlet passage in said plug and wider than said nozzle, said axial outlet passage opening at its inner end into said radial passage and opening at its outer end through one end of said plug.

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