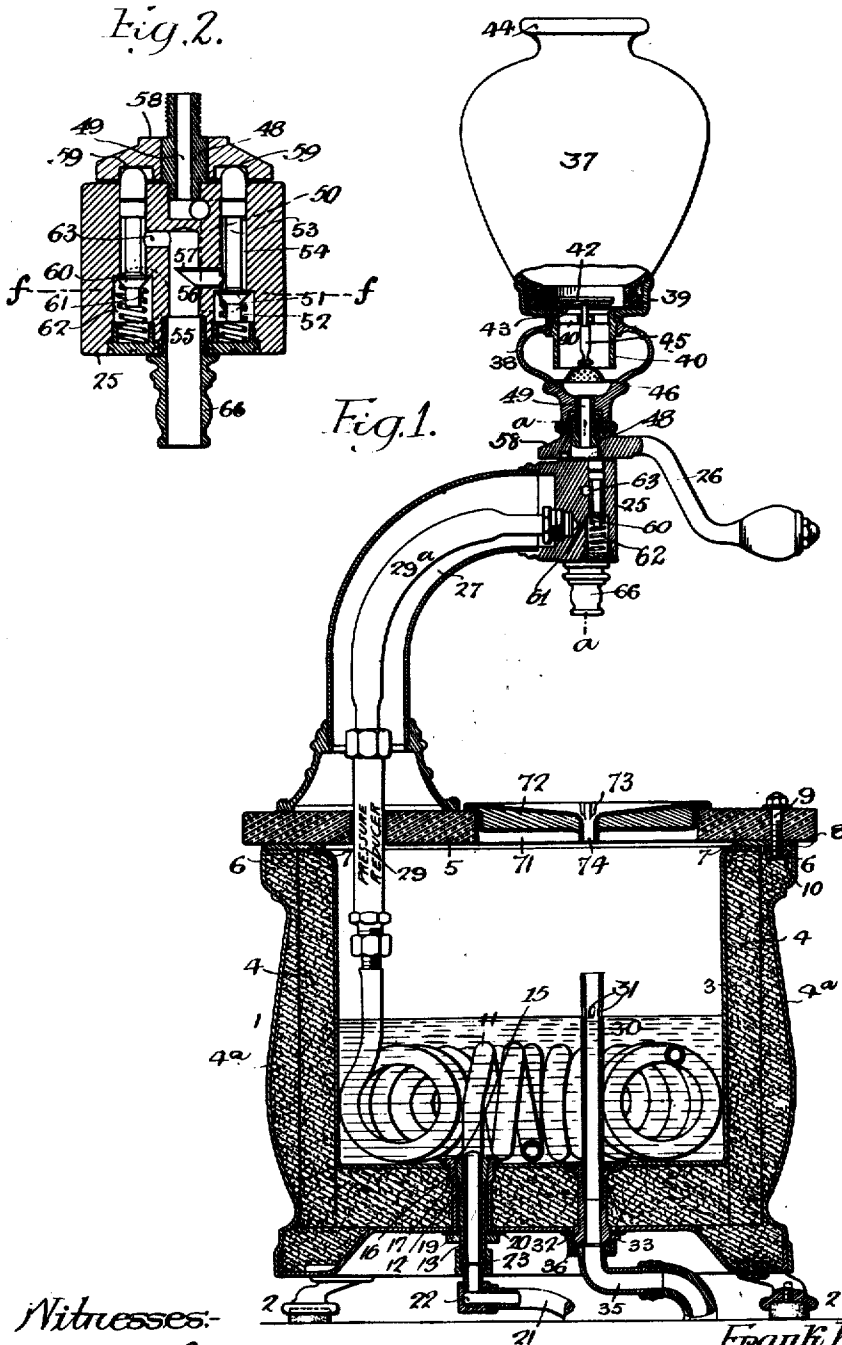


F. W. CALVERT.
DISPENSING APPARATUS.
APPLICATION FILED AUG. 10, 1908.

1,144,890.

Patented June 29, 1915.



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UNITED STATES PATENT OFFICE.

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DISPENSING APPARATUS.

1,144,890.

Specification of Letters Patent. Patented June 29, 1915.

Application filed August 10, 1908. Serial No. 447,904.

To all whom it may concern:

Be it known that I, FRANK W. CALVERT, a citizen of the United States, and a resident of Narberth, Montgomery county, Pennsylvania, have invented certain Improvements in Dispensing Apparatus, of which the following is a specification.

My invention relates to dispensing apparatus adapted to be mounted on the floor, counter, bar or any other suitable place in a drug store or other liquid dispensing establishment.

One object of my invention is to provide a structure in which the charged water shall be cooled to the maximum degree, and to dispose the syrup wholly away from the cooling medium so that while they are both discharged from a common outlet, the syrup will be maintained at all times in such consistency as to readily flow when required for use.

A further object of my invention is to simplify the construction and operation of the several parts, and a still further object of my invention is to regulate the flow of water and syrup and to insure the proper mixing of the same in the discharge outlet of the faucet.

Other features of my invention will be pointed out hereinafter, reference being had to the accompanying drawings, in which:

Figure 1, is a view in elevation, partly in section, of a dispensing apparatus embodying my invention, and Fig. 2, is a sectional view of the faucet taken on the line *a-a*, Fig. 1.

In the drawings herewith, 1 represents the body or base of the structure, in the present instance circular in cross-section and supported upon a series of feet 2. This body contains an ice receptacle 3, which is properly insulated from the outer atmosphere by means of cork filling interposed between said ice receptacle and the outer wall of the body or base, so as to lessen the consumption of ice and maintain the temperature therein as low as possible. Part of this filling is in the form of a compressed cork shell illustrated at 4, while the rest is granulated and indicated at 4^a. The body or base is provided with a cover 5, in the present instance of marble, and the outer casing and the inner receptacle have turned flanges 6 and 7, respectively upon which said cover rests. A washer 8 is pref-

erably interposed between said flanges and the cover; the latter being secured to the flange of the outer casing by bolts 9 arranged to enter lugs 10 carried by said flange. The jacket for the ice receptacle is made of ground cork, compressed under hydraulic pressure, and the various parts of said jacket are hermetically sealed together; in order to make such jacket impervious to the atmosphere and render it a more perfect insulator.

Within the ice receptacle, a pipe coil 11 is disposed for the cooling and passage of carbonated water to be mixed with the syrup; one end of such pipe passing through the bottom of the body or base where a special joint is provided to insure against leakage, while the other end is suitably connected with the faucet. The inlet end of the pipe coil 11 carries a sleeve 12 which may be cast thereon if desired. This sleeve projects through the bottom of the ice receptacle and casing and is threaded exteriorly at 13. The upper end of the sleeve is tapered at 15 to form a joint with a tapered seat 16 of a thimble 17 carried by the bottom of the ice receptacle and the outer casing. The threaded portion 13 of the sleeve 12 carries a nut 19, and between said nut and the end of the thimble 16 a washer 20 may be placed. By turning this nut the tapered portion of said sleeve 12 may be drawn into close engagement with the seat 16 of the thimble 17, insuring a liquid-tight joint therewith. A service pipe for carbonated water is shown at 21, connected to an elbow 22; the latter being provided with a union 23 whereby it may be secured to the end of the sleeve 12 carried by the pipe 11, and the nut of said union engaging the thread 13 of said sleeve.

My improved dispensing apparatus is provided with a faucet 25 of a special type, operated by a handle 26, as more fully described herewith. This faucet is carried at the end of a tubular arm 27 secured to the cover 5 of the base or body of the dispensing structure by suitable means; said arm forming a passageway for the reception of an extension of the carbonated water pipe, which extension includes a pressure regulator indicated at 29, and a pipe 29^a which is enlarged as shown to form an expansion chamber for the charged water. It is desirable that suitable means

be provided for controlling the force of the carbonated water so that the latter may be delivered to the faucet in such manner as to insure proper dispensing of the mixed water and syrup. Any suitable form of pressure regulator may be employed, and as the special character of the same forms no part of my invention further description or illustration is thought to be unnecessary.

By preference, a certain level of water is maintained in the ice receptacle; an overflow pipe 30 being provided as shown in Fig. 1, to drain off all water rising to apertures 31 in the same. This pipe is removably mounted in a thimble or sleeve 32 secured to the bottom of the ice receptacle, which sleeve extends through the same and the bottom of the outer casing. The sleeve 32 is firmly connected to the structure by means of a nut 33; a suitable washer 34 being interposed between said nut and the bottom of the outer casing, and it may be further maintained against leakage by soldering the same to the inside and outside of the metal shell of the ice receptacle. A hose connection is provided at 35, secured to the sleeve by means of a union 36.

Disposed above the faucet structure is a syrup receptacle 37 arranged in an inverted position; such receptacle being carried by a feeding device 38 mounted directly upon the faucet structure. The syrup receptacle has a collar 39 carrying a tubular outlet 40; the latter member entering the well of the structure 38 having a spider 41 in which is mounted a valve 42 adapted to a suitable seat 43 within the structure. When the syrup receptacle is resting upon the projecting portion 44 (shown in the drawing as disposed at the top; the receptacle being in use) the valve is open, but when in the reverse position, as shown, the valve automatically closes as the receptacle is lifted from the feeding device 38. By grasping the stem 45 of the valve, it may be held against its seat 43 while inverting the receptacle to refill the same, and the same operation may be performed when it is desired to refill the receptacle in the feeding device.

Within the well of the feeding device in which the tubular outlet of the syrup receptacle dips, is a strainer 46, through which the syrup passes, and this strainer is cupped, with the cup portion inverted so as to engage the stem 45 of the valve and hold the latter in the open position. This shell of the feeding device is provided with a small aperture 47, insuring the presence of sufficient air within the same to cause the flow of the syrup through the faucet. The faucet handle is arranged to turn on a central stem 48 having a through opening 49 for the passage of syrup from the feeding device.

By providing a syrup receptacle wholly

independent of the means for cooling the charged water, such syrup is guarded against cooling to too great a degree, thereby insuring a free flow of the same when the faucet is operated. It will be noticed that the syrup receptacle employed is supported wholly from the bottom. I find this to be a much better arrangement than supporting it at the top, inasmuch as if it were supported from the top, slight differences in the dimensions of the several parts would prevent the fitting of the receptacle in the feeding device and the proper delivery of syrup therefrom, in connection with the sealing effect so particularly desired when the syrup is not being fed.

While my improved faucet is of the type shown in the patents of Fitzgibbon & Travis, Nos. 757,869, 831,049, and 850,916, it has certain novel features of construction which may be described as follows: In Fig. 2, which illustrates a sectional view of the faucet, a passage 50 is indicated, which communicates with the thorough opening 49 in the spindle 48 on which the hub of the handle 26 turns. The syrup is always within this portion of the faucet, down to a cross passage 51 which communicates with a valve chamber 52. Upon turning the handle, a valve is depressed, that indicated at 53, for instance, and syrup will flow from the valve chamber through a passage 54 into a discharge outlet 55, from a port 56, the latter having a projecting lip 57 which lies in the path of the incoming charged water. The operating handle is provided with a hub 58, having cams 59 so arranged as to engage the water valve simultaneously with the engagement of the syrup valve, which water valve is indicated at 60, and water will then flow from the pressure reducing structure through a passage 61 into a valve chamber 62, passing from the latter to the cross-passage 63, and from this cross-passage into the common discharge outlet 55, the cross passage delivering such water just above the syrup inlet; the water engaging, in its flow, the guard lip 57 placed over said syrup inlet. By this means, the syrup and water flow together and there is no danger of the rush of water cutting off the flow of syrup. In fact, such arrangement has the tendency to cause a little syrup to be pulled out after the manner of the operation of an ejector. The cover 5 of the body or base has an opening 71 for the reception of a drain plate 72 having a concaved upper surface with ribs 73 to support a tumbler, and an aperture 74 in line with the overflow pipe so that all drip from said aperture will be properly taken care of.

The syrup receptacle is always mounted above the faucet, although it is not necessarily carried by such faucet. I might, for instance, provide a large supply of syrup in

a receptacle elevated sufficiently to flow properly when the faucet is manipulated, but located wholly away from the dispensing apparatus and communicating with the same through a suitable pipe.

I claim:

1. The combination with a dispensing apparatus having a connection with a source of carbonated water delivered under pressure, of a faucet mounted above the water supply and having a plurality of passages, one of said passages being in communication with said source of carbonated water and through which such water may be discharged, an automatically feeding syrup receptacle disposed above and carried by said faucet, means comprising a tubular stem whereby the contents of said syrup receptacle are maintained in constant communication with a syrup passage within said faucet, independently of and out of contact with the passage for the water, a pair of valves disposed in said faucet, one of said valves controlling the water discharge, while the other controls the syrup discharge, said faucet having a common delivery outlet for the mixed water and syrup, and a single manually controlled element journaled on said tubular stem for simultaneously actuating said valves.

2. A faucet for liquid dispensing apparatus arranged to discharge a stream of liquid made up of material from two sources such as syrup and water, independent passages in said faucet, the water coming from below and the syrup from above the faucet, a tubular stem at the top of said faucet for the passage of syrup to one of said passages, and a handle journaled on said stem for operating said faucet to discharge syrup and water simultaneously.

3. A faucet for liquid dispensing appara-

tus arranged to receive liquid such as syrup and water from independent sources and deliver the same through a common outlet, a tubular stem at the top of said faucet leading from the syrup receptacle above the faucet through which such syrup enters by gravity through an automatic feed device, a connection at the side of the faucet for the entrance of water under pressure from a point below and wholly independent of the syrup supply, valves in the faucet for controlling the outlet of water and syrup simultaneously therefrom, and a handle for operating said valves journaled on the tubular stem through which the syrup flows.

4. The combination, with a liquid dispensing apparatus, of a faucet, a syrup receptacle disposed above and supported by said faucet, a valved closure for said receptacle, means for opening and maintaining said closure in the open position when placed on the faucet, means comprising a tubular stem whereby the syrup is in constant communication with and is automatically fed to the faucet, said faucet having separate passages for water and syrup and a common outlet for a mixed body of the same, said water entering the faucet from a point below the same and wholly out of contact with the syrup, a pair of valves within the faucet, one controlling the passage of water and the other controlling the passage of syrup to the common outlet, and a single manually operated element for effecting simultaneous action of both of said valves.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

FRANK W. CALVERT.

Witnesses:

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