Aug. 5, 1924. 1,503,811

C. L. BASTIAN

DISPENSING APPARATUS

Filed Feb. 19, 1921

Fig. 1.

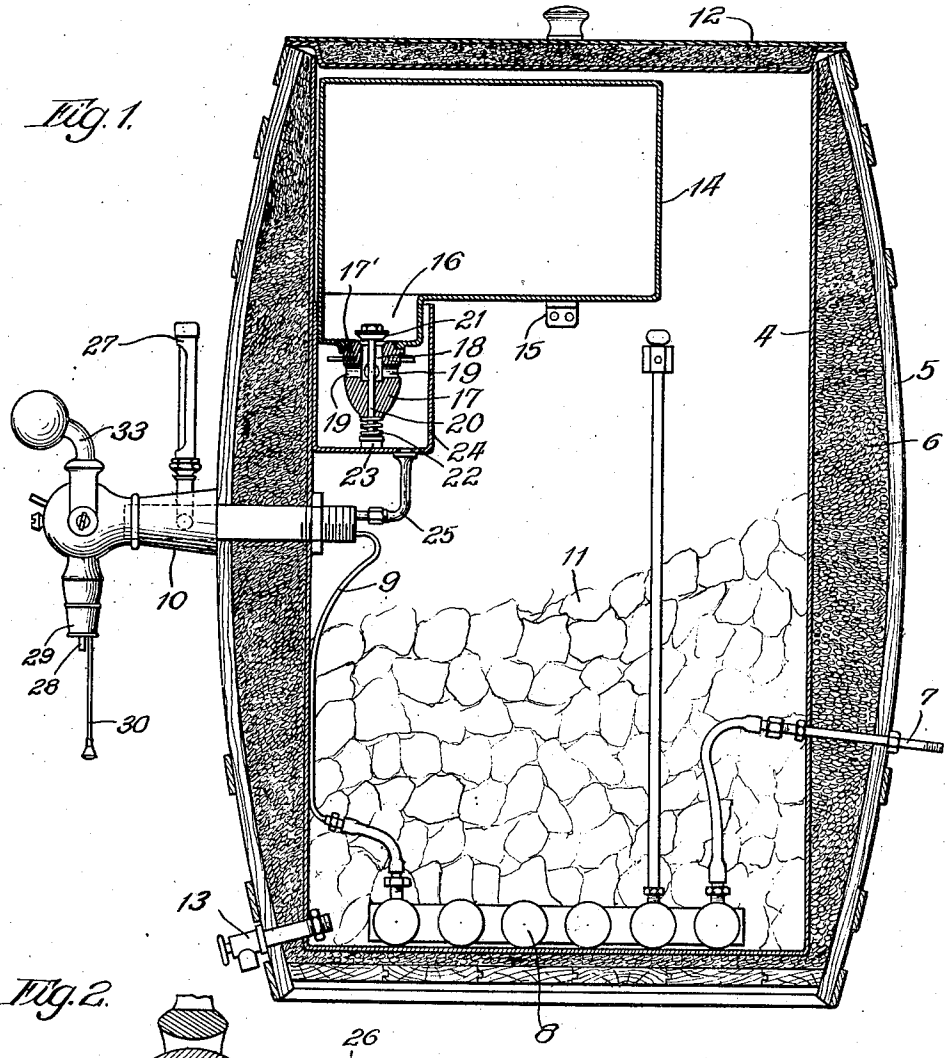


Fig. 2.

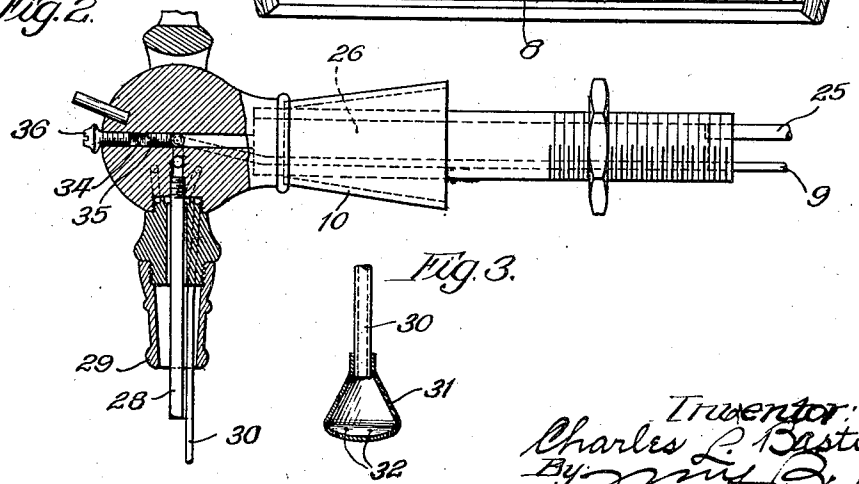


Fig. 3.

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UNITED STATES PATENT OFFICE.

CHARLES L. BASTIAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE BASTIAN-BLESSING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

DISPENSING APPARATUS.

Application filed February 19, 1921. Serial No. 446,447.

To all whom it may concern:

Be it known that I, CHARLES L. BASTIAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dispensing Apparatus, of which the following is a specification.

This invention relates to dispensing apparatus and is primarily adapted for dispensing carbonated beverages such as root beer where the mixture is made in the glass upon a customer's order.

The object of the invention is, generally, to provide an apparatus of simple construction and efficient operation, which will maintain the syrup in a sanitary condition and at a suitable temperature, which will cool the carbonated water to a temperature suitable for dispensing and drinking, and which comprises a draft arm having means for conveniently controlling the flow of syrup and means for spraying the carbonated water in the syrup charge in a glass, to thoroughly break up the syrup, and effect a thorough mixing of syrup and water.

I have illustrated the invention in an apparatus designed primarily for dispensing root beer as a selected embodiment of the invention and referring thereto—

Fig. 1 is a sectional elevation of the invention,

Fig. 2 is an enlarged sectional view of the draft arm and

Fig. 3 is an enlarged sectional view of the fine stream, spray nozzle.

Referring to the drawings 4 designates a cooling tank which may be enclosed in a barrel or keg 5 or in some other display form. The cooling tank is spaced from the walls of the barrel and this space is filled with some suitable insulating packing 6 to exclude heat. The carbonated water enters the cooling tank from a suitable supply through the pipe 7 and passes through the cooler 8 and the pipe 9 to the draft arm 10. The cooling tank is partly filled with ice 11 and a removable, insulated cover 12 forms a closure for the cooling tank and the barrel. A drain cock 13 is provided at the bottom of the tank and barrel.

The syrup jar 14 is removably supported on one or more brackets 15 secured within the tank. This syrup jar is smaller in size than the tank so that the supply of ice can be replenished without removing the jar. At one end of the syrup jar the bottom is provided with a well 16 and the syrup valve is secured to the bottom of this well. This valve comprises a body 17 which has threaded engagement with an opening 17′ in the bottom of the well and is provided with a centrally disposed passage 18 and lateral connecting passages 19. A valve stem 20 extends entirely through the valve body and carries the valve disk 21 on its upper end within the well to seat against the central passage 18 for closing the syrup outlet. A spring 22 is arranged on the other end of the stem between the valve body 17 and a head 23 on the outer extremity of the stem. A charging tank 24 open at the top and connected at the bottom by pipe 25 with the syrup passage 26 of the draft arm is supported in tank 4. When the syrup jar is in place in the tank the head 23 on the valve stem engages the bottom of the charging tank 24 and the parts are dimensioned and proportioned so that in this position the valve will be unseated to permit syrup to flow through the passages 18 and 19 into the charging tank 24. The syrup jar 14 is closed except by the valve and the charging tank is open at the top so that when the valve is open syrup will flow by gravity into the charging tank until the lateral passages 19 are submerged and, since the valve remains open constantly while the syrup jar is supported within the cooling tank 4 a substantially constant level of syrup may be maintained in the charging tank 24, the supply in this charging tank being replenished automatically as a charge of syrup is drawn off through the draft arm. The level of syrup in the charging tank may be observed at all times through the gauge 27 connected with the draft arm outside of the barrel. When the syrup jar is removed from the tank for refilling or for any other purpose the valve will close immediately after the stem head is lifted from the bottom of the charging tank. To refill the syrup jar the valve body is unscrewed and after the syrup jar is refilled through opening 17′ the valve body is screwed back into place to form a complete closure for the jar so that it can be handled and replaced without spilling or leaking.

The draft arm illustrated in the drawing is provided with a syrup discharge 28, a

large stream water discharge nozzle 29 and a fine stream water discharge pipe 30 which carries a nozzle 31 on its lower end to provide it with openings 32. The pipe 30 is of a proper length to project the nozzle 31 to the bottom of the glass so that the fine stream carbonated water will be discharged through the perforations 32 in a fine spray into the syrup charge at the bottom of the glass and preferably with sufficient force to thoroughly break up the syrup and thereby better effect a thorough mixing of the syrup and water.

By extending the syrup pipe 28 so as to bring its lower discharge end below the bottom of the water discharge nozzle 29, the syrup does not come in contact with any portion of the nozzle 29, which is manifestly a very important advantage.

The nozzle 29 and pipes 28 and 30 are connected by suitable passages, in a familiar manner with the pipes 9 and 25 and the draft arm is operated by handle lever 33 in the usual manner for controlling the flow of syrup and water. I prefer to provide the draft arm with a threaded passage 34 connecting with the syrup passage 26 to receive a threaded adjusting plug 35 for reducing the size of the syrup passage if desired. The outer end of the passage 34 is closed by a threaded plug 36.

It is highly desirable to provide means of simple construction and easy to operate whereby the operator may readily draw a desired charge of syrup in an even, steady flow to the glass. My improved apparatus provides a means whereby a competent operator can always draw approximately the same charge of syrup in every operation because he is assured of a steady constant flow and with very little experience can time the manipulation of the draft arm handle to control the charge as desired. It is also highly desirable to provide an apparatus of this kind with means for maintaining the syrup supply in a sanitary condition. The water supply is furnished under sanitary conditions but frequently the same attention is not given to the syrup supply. My invention provides for filling the syrup jar under sanitary conditions and keeping the jar closed until it is replaced in position for use in the cooling tank. The syrup valve is always open while the syrup jar is in proper position in the cooling tank so that the charging tank may be constantly filled with syrup to a predetermined level sufficient at all times to supply an even regular flow through the draft arm. The syrup flows into the glass without spurting but in a steady, even stream so that the operator can easily judge the charge and manipulate the draft arm accordingly.

My invention is shown embodied in a simple form in an apparatus for dispensing root beer and similar beverages but I do not hereby intend to limit myself to this particular embodiment or use and reserve the right to make any changes in the form, construction and arrangements of parts as fairly fall within the scope of the following claims.

I claim:

1. A draft for dispensing apparatus comprising a short and comparatively large nozzle for discharging a coarse stream of carbonated water, a pipe smaller than said nozzle arranged in and projecting below the nozzle for discharging syrup, another pipe smaller than the syrup pipe and arranged in the nozzle and projecting below the syrup pipe and adapted to discharge a fine stream of carbonated water at the bottom of a glass being filled from said arm, and a valve common to the nozzle and the two pipes.

2. The combination with a syrup supply and a carbonated water supply, of a draft arm having a discharge nozzle in communication with the water supply, a pipe in communication with the syrup supply and extending outwardly through and beyond the discharge of the nozzle and located at the longitudinal center of the nozzle, and another pipe of smaller diameter than the first mentioned pipe and in communication with the water supply and extending outwardly through and beyond the discharge of the nozzle and also beyond the discharge end of the syrup pipe.

CHARLES L. BASTIAN.