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C. MELDAU.

CONTROLLING STOP COCK FOR BEER APPARATUS.

APPLICATION FILED NOV. 13, 1906.

Fig: 1.

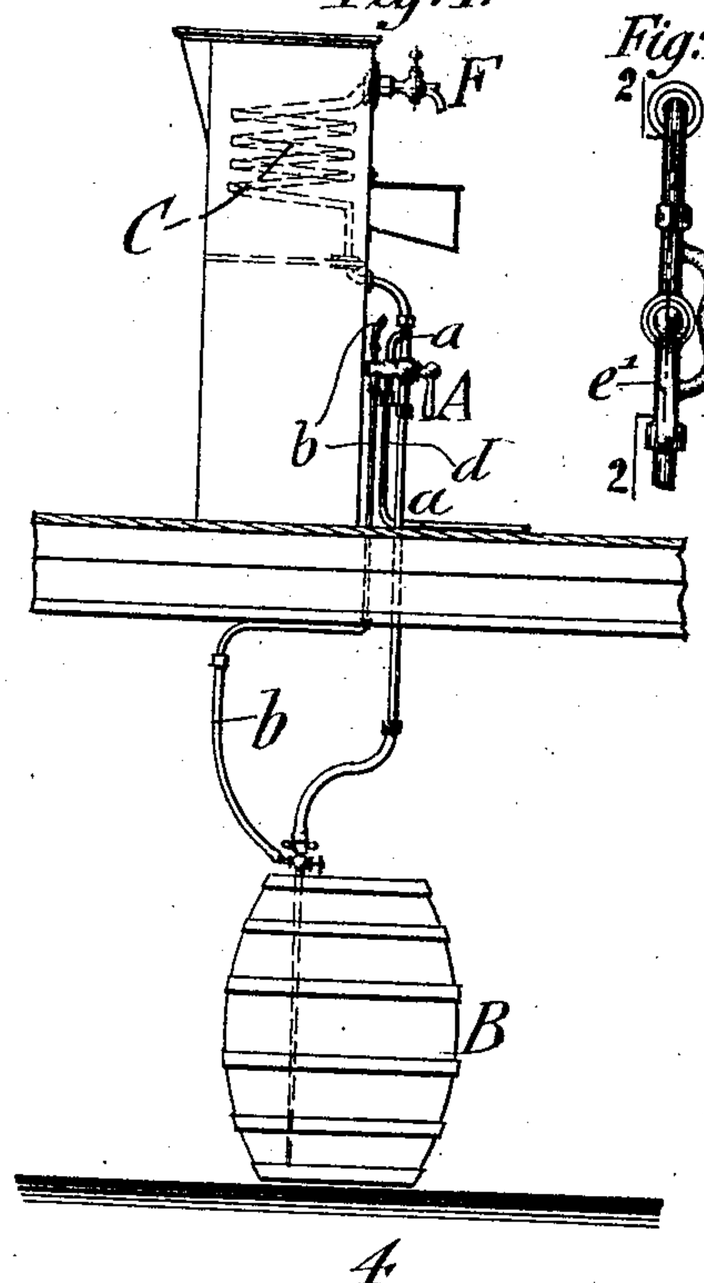


Fig: 1a

Fig: 2.

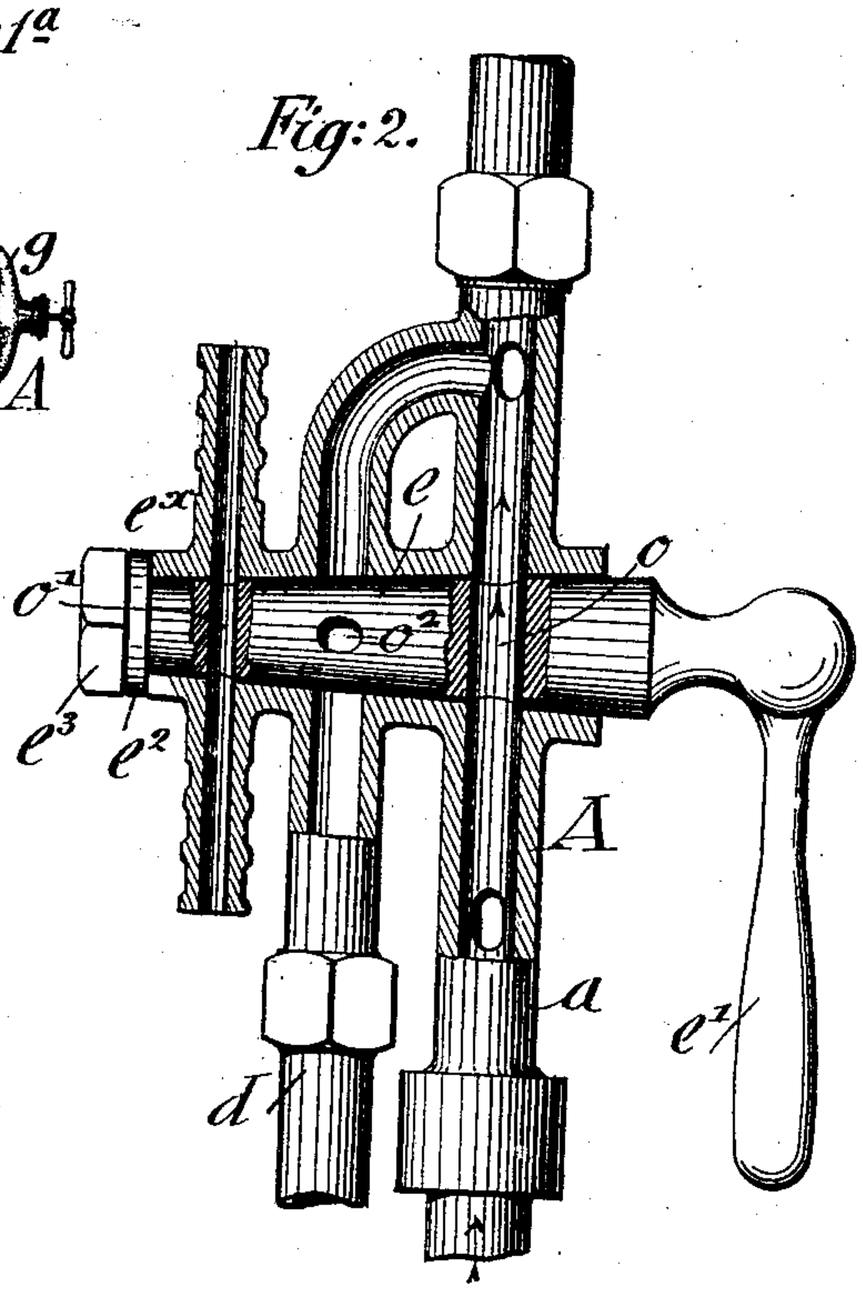


Fig: 3.

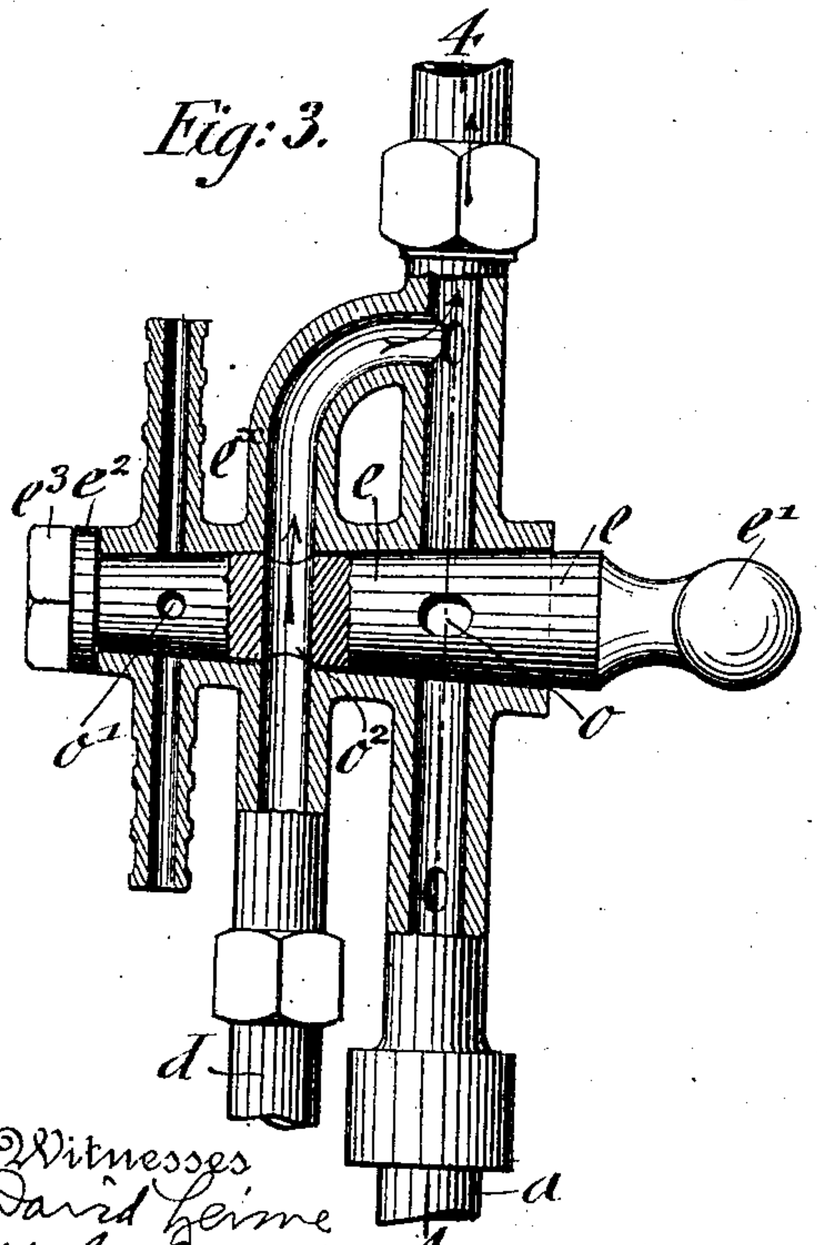
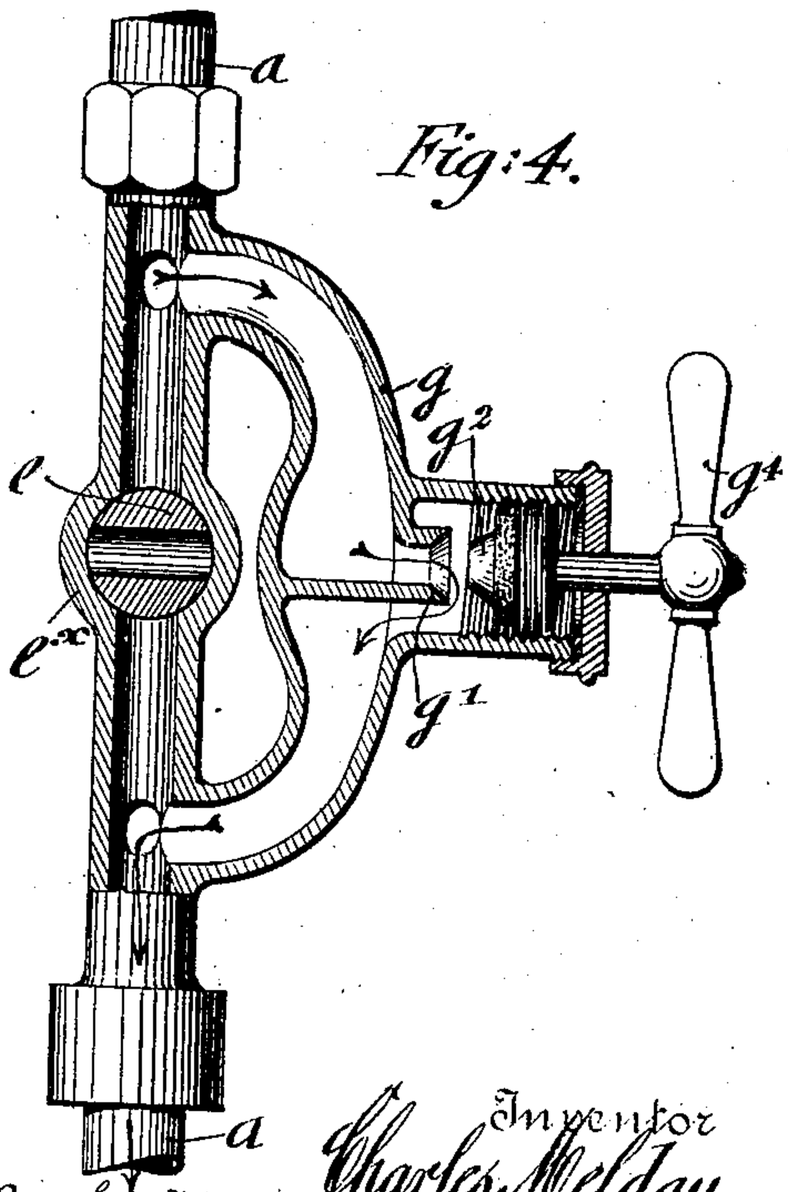


Fig: 4.



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CONTROLLING STOP-COCK FOR BEER APPARATUS.

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Application filed November 13, 1906. Serial No. 343,254.

To all whom it may concern:

Be it known that I, CHARLES MELDAU, a citizen of the United States, residing in New York, in the borough of Manhattan, county and State of New York, have invented certain new and useful Improvements in Controlling Stop-Cocks for Beer Apparatus, of which the following is a specification.

This invention relates to stop-cocks for beer apparatus and has among its objects to furnish such a device by which the passage of beer to the dispensing-faucet and of air to the barrel is controlled by one spigot, by means of which the beer-supply pipe is also opened to the passage of water when said supply-pipe and the air-pipe are closed by said spigot.

A further object of the invention is to provide a stop-cock which is entirely independent of the faucet from which the beer is drawn and which is interposed between said faucet and the barrel in such a manner that the beer-supply pipe is divided into two parts, provision being made for flushing these parts independently. By this arrangement it is not necessary to have the water-pipe extend through the ice-box to the faucet.

A further object of the invention is to provide a device by which the pressure upon the beer in the cooling-coil can be controlled.

A still further object of the invention is to furnish a device by which the flushing of the pipes before a new barrel is tapped is made absolutely necessary. This is caused by the fact that when such a barrel is tapped the air-pressure has to be turned off and the device is so constructed that this turning off of the pressure will automatically cause the water to be turned on and the pipes to be flushed. In this manner the cleansing of the pipes is not left to the pleasure of the bartender.

With these ends in view, the invention consists in the novel features of construction and combinations of parts to be hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents a side-elevation of a beer apparatus with my improved controlling stop-cock shown in position thereon, Fig. 1[a] is a front-elevation of the stop-cock drawn on a larger scale than in Fig. 1, Fig. 2 is a vertical section on line 2, 2, Fig. 1[a], showing my improved controlling stop-cock in open position so as to supply beer from the barrel to the cooling-coil of the faucet and air under pressure to the barrel, Fig. 3 is a similar section, showing the stop-cock in closed position and ready to supply water for the cleaning of the pipes of the cooling-coil of the faucet, Figs. 2 and 3 being drawn on a larger scale, and Fig. 4 is a vertical transverse section on line 4, 4, Fig. 3.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A represents the controlling stop-cock of a beer apparatus of the well-known construction. The main supply-pipe *a* of the stop-cock A is connected with a barrel B, which is usually located in the basement below the bar or other place at which the fermented liquid is drawn for use. Parallel with the main supply-pipe *a* is arranged an air-supply pipe *b* by which the air is supplied under pressure to the barrels so as to lift the contents of the latter to the cooling-coil C, which is located in the bar and connected with a discharge-faucet F for drawing off the beer or other liquid in cold state. Between the main supply-pipe *a* and air-supply pipe *b* is arranged a water-supply pipe *d* which is connected at its upper end with the beer-supply pipe. The main supply-pipe, air-pipe and water-pipe are connected by a transverse, conical, tapering body or casing $e^{\times}$ for the conical spigot *e* of the stop-cock, said spigot being provided with a handle e^1 at the front end and a washer e^2 and a fastening-nut e^3 at the opposite end so as to be held tightly in the bushing of the pipes. The spigot is provided with two parallel openings or channels *o*, o^1, the opening *o* being of the same size as the interior of the beer-supply pipe, while the channel o^1 corresponds to the size of the air-pipe. When the stop-cock is turned into open position, with the handle in downward direction, as shown in Fig. 2, the openings *o*, o^1 establish communication between the beer and air pipes and permit the air-pressure to act on the liquid in the barrel and the latter to rise from the barrel to the cooling-coil, and then to the dispensing-faucet F. A third channel o^2 is located at right angles to the openings *o*, o^1. The size of the channel o^2 corresponds to the interior diameter of the water-supply pipe. When the stop-cock is placed in position so as to close the main supply-pipe and air-pipe, communication is established between the opening o^2 and the water-supply pipe, as shown in Fig. 3. In this position the handle e^1 is in horizontal position.

In a plane at right angles to the plane of

the beer, water and air supply-pipes, is arranged a by-pass pipe *g* which communicates at its upper and lower ends with the beer-supply pipe *a*, respectively above and below the spigot *e* of the stop-cock. At the middle portion of the by-pass pipe *g* is arranged a valve-seat g^1 and a valve g^2, the stem of which passes through the cap of the valve-chamber and which is provided at its outer end with a handle g^4 by which the valve g^2 can be screwed on the valve-seat or moved away from the same. The valve-seat is made smaller than the valve-chamber so that a channel is arranged alongside of the valve-seat for the passage of water.

The air-pipe may be omitted from the controlling stop-cock in some cases, the main feature of the invention being the combination of the beer-supply pipe with the water-pipe so that the cleaning operation can be accomplished immediately after the barrel is emptied, both at the upper part of the supply-pipe and the lower part of the same.

When the controlling stop-cock is used in the ordinary manner for drawing off beer or other fermented liquids the valve g^2 of the by-pass pipe is closed on the valve-seat, so that no water can pass through the by-pass pipe. The stop-cock is then opened and the liquid lifted from the barrel to the main supply-pipe *a*, through the cooling-coil C, to the faucet F, so as to be drawn off for the customer. The air-pressure is applied to the air-pipe until the barrel is emptied. The beer-supply and air-pipe are opened at the same time by bringing the openings *o*, o^1 together when the faucet is opened. When the barrel is empty the faucet is closed, and thereby the beer-supply and air-supply pipes closed off from the barrel. At the same time, however, the connection of the opening o^2 in the spigot of the stop-cock with the water-supply pipe is established and water forced through the main supply-pipe, the cooling-coil and faucet so as to thoroughly clean the same, ready for connecting with the next barrel. After the main supply-pipe, cooling-coil and faucet are thoroughly cleaned by the water passing through the same, the by-pass valve g^2 is opened, as shown in Fig. 4, and water then supplied through the water-pipe *d*, passes around the closed stop-cock, into the pipe below the same connecting it with the barrel, so that that portion of the beer-supply pipe is thoroughly cleaned, and then the water is discharged. After the lower part of the pipe is cleaned the by-pass valve is closed again and the stop-cock of the water-supply pipe closed. The connection of the lower ends of the main supply-pipe and air-supply pipe with the barrel is then restored and the stop-cock placed again in open position, as shown in Fig. 4, by which the beer or other liquid is again supplied to the dispensing-faucet F.

It is obvious that the positions of the beer, water and air channels relatively to each other may be altered to meet the different requirements of the controlling stop-cock.

My improved stop-cock for beer apparatus has the advantage that not only the supply-pipe, cooling-coil and dispensing-faucet can be cleaned by the simple turning of the controlling stop-cock from its open into its closed position, but that also by the by-pass pipe and auxiliary by-pass valve the lower portion of the beer-supply pipe leading to the barrel can be cleaned, and thereby all the supply-pipes of the beer apparatus placed in good and clean condition before the next barrel is tapped for use and sale.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In beer apparatus, the combination, of a beer-pipe leading from the barrel, a pipe for supplying air to the barrel, a pipe for supplying water to the beer-pipe, and means for closing said air-supply pipe and simultaneously opening a passage leading from said water-pipe to the beer-pipe.

2. In beer apparatus, the combination, of a beer-pipe leading from the barrel, a pipe for supplying air to the barrel, a pipe for supplying water to the beer-pipe, and a single stop-cock which closes the beer-pipe and the air-pipe and simultaneously opens the water-pipe whereby when the air is cut off from the barrel the beer-pipe is flushed.

3. In beer apparatus, the combination, with a beer-pipe leading from the barrel, of a pipe for supplying air under pressure to the barrel, a pipe to supply water to the beer-pipe, and a single stop-cock arranged in the beer-pipe intermediately of its length adjacent to the connection of the latter with the water-pipe and operative to close the air-pipe to cut off the supply of air and to simultaneously establish communication between the water-pipe and the beer-pipe.

4. In beer apparatus, the combination of a beer-supply pipe, a water-pipe connected to said beer-supply pipe intermediately between the ends of the latter, a pipe which supplies air to the barrel, a stop-cock which opens said beer-supply pipe below its connection with the water-pipe and opens said air-pipe while simultaneously closing the water-pipe, a by-pass pipe connecting the beer-supply pipe at opposite sides of said stop-cock, and a valve in said by-pass pipe.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

CHARLES MELDAU.

Witnesses:
PAUL GOEPEL,
JOHN A. E. WARD.