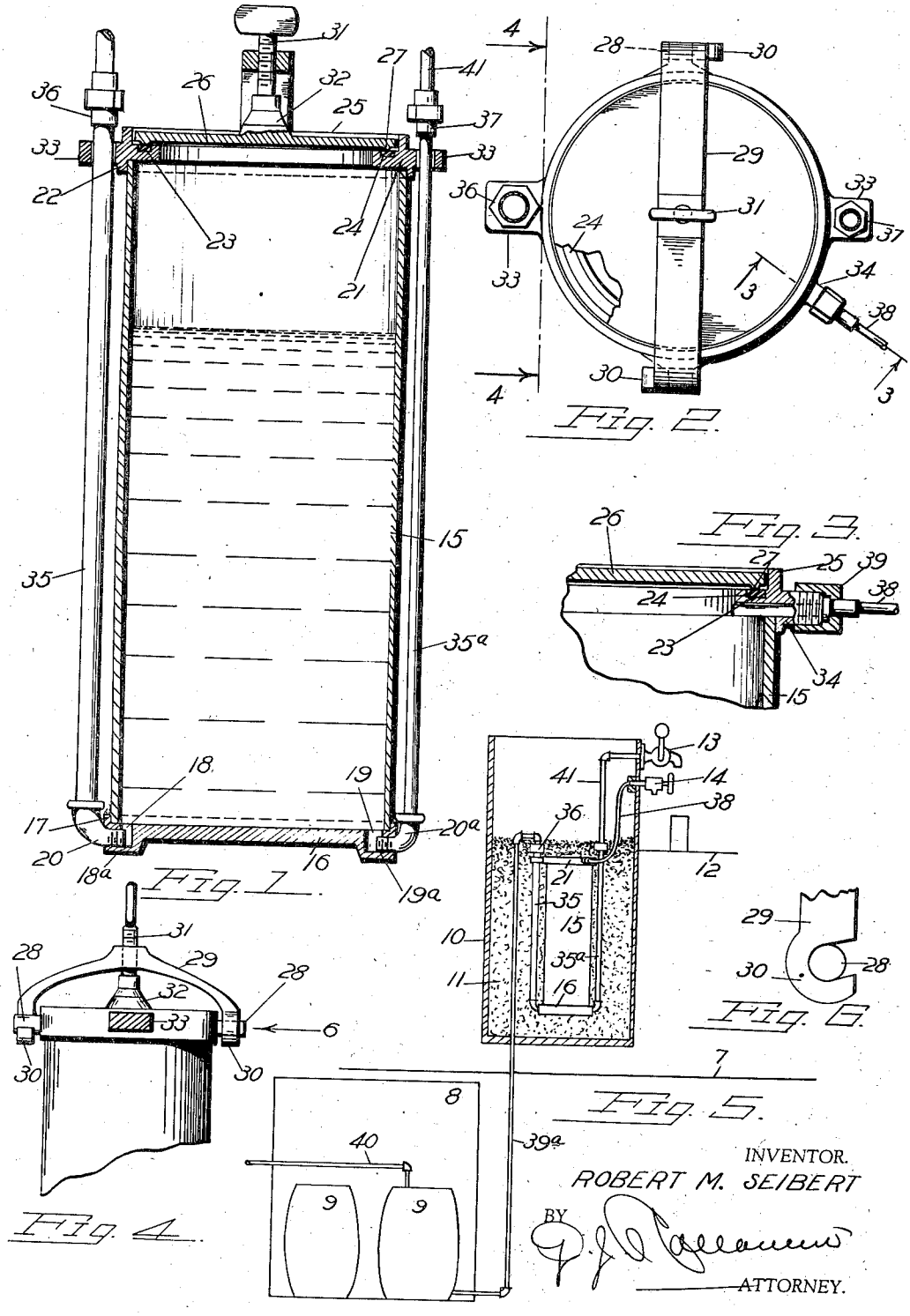
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BEVERAGE COOLER

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BEVERAGE COOLER

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This invention relates to improvements in apparatus for cooling liquids, such as beer, and has for its object the production of a simple and substantial apparatus for this purpose.

Where beer and/or other similar beverages are served in large quantities, they are usually kept in the basement, or some other room separate from that in which it is dispensed. The barrels may be cooled if desired, but means is provided for cooling the liquid previous to its being dispensed.

This invention relates to improvements in an apparatus for cooling the beer. The apparatus is positioned in the pipe extending from the barrel or other storage vessel to the faucet where the beer is dispensed.

One object of this invention is to produce a cooler in which all of the connections are at the top, so as to be accessible at all times, and which can therefore be readily connected and disconnected.

In order to explain the invention so that its construction and operation can be readily understood, reference will be had to the accompanying drawing in which it has been illustrated in its preferred form, and in which

Figure 1 is a diametrical vertical section through the cooler;

Figure 2 is a top plan view thereof;

Figure 3 is a section taken on line 3—3, Figure 2;

Figure 4 is a view taken along line 4—4, Figure 2, a part being shown in section;

Figure 5 is a diagrammatic view showing the relative positions of the several elements used in dispensing and cooling beer; and

Figure 6 is a side elevation, looking in the direction of arrow 6 in Figure 4.

In the drawing, reference numeral 7 designates the floor of a saloon and 8 a basement room in which the beer is stored in barrels 9.

Reference numeral 10 designates a container for cracked ice 11 from one side of which a shelf 12 projects. Attached to the container 10 are the faucet 13 and the vent cock 14. The cooler has been indicated by reference numeral 15.

From Figures 1 and 2, it will be seen that the cooler consists of a cylindrical member 15 whose lower end rests on the upper surface of the bottom 16, which is provided with an upwardly extending flange 17.

The bottom has two holes 18 and 19 that are located on opposite ends of a diameter. Holes 18*a* and 19*a* communicate with holes 18 and 19 respectively, and are threaded for the reception of elbows 20 and 20*a*, whose inner ends are in communication with the interior of the container through openings 18 and 19.

Positioned on the top of the cylindrical member 15 is a ring 21. This ring has a flange 22 that laps the upper end of the cylindrical member. The upper surface of ring 21 has a groove 23 in which is located a sealing ring 24. A flange 25 projects upwardly around the outside of groove 23.

A cover 26, of a diameter slightly less than the inside diameter of flange 25 is provided on its under surface with a circular rib 27 that is supported on the sealing ring 24. Ring 21 is also provided on diametrically opposite sides with lugs 28 to which the ends of the bail 29 are connected. The ends of bail 29 are provided with hooks 30, see Figure 6, which open on opposite sides of the bail so that the latter can be applied and removed by a rotary movement. The bail is provided at its center with a threaded opening for the reception of the screw 31, whose lower end engages the top of the lug 32 on the cover. By means of the screw 31 the cover can be forced into engagement with the sealing ring 24.

The bottom 16 and the ring 21 are preferably secured to the cylindrical member by being soldered thereto, but may be forced into sealing engagement with the cylindrical member by suitable tension members.

The ring 21 is also provided with two perforated lugs 33 and a tubular lug 34. The lugs 33 are so positioned that they are directly above the elbows 20 and 20*a*. Pipes 35 and 35*a* have their lower ends connected with the elbows 20 and 20*a*, and their upper ends projecting through the openings in lugs 33. Couplings 36 and 37 are secured to the upper ends of pipes 35 and 35*a*.

A copper tube 38 is connected with the tubular plug 34 by means of a cap 39, and connects the interior of the cooler with the vent cock 14 (Figure 5).

The interior of the cooler is hot tin-dipped and then silver-plated so that it will resist the corrosive action of the beer. The outside can be finished in any suitable way, as by enamel, or nickel plating.

Referring now to Figure 5, it will be seen that a pipe 39*a* has one end in communication with the barrel near its bottom, and the other connected with the coupling 36 on the upper end of pipe 35. An air line 40 connects the upper end of the barrel with a pump (not shown) by means of which either air or CO_2 under pressure can be applied to the contents of the barrel if the

pressure of the carbonic acid gas absorbed by the beer should not be sufficient to cause the beer to flow to the cooler.

Pipe **35***a* is connected with the dispensing faucet **13** by means of a pipe **41**. The cooler is surrounded by ice in the manner shown in Figure 5.

Attention is called to the fact that by the construction shown and described connection can be made with both pipes **35** and **35***a*, at the top of the cooler, which construction permits the cooler to be readily connected and disconnected, which is of great practical importance because such coolers must be removed and cleaned at intervals. The beer is delivered to and withdrawn from the cooler near its bottom, and the contents are maintained under pressure and this prevents the liberation of CO_2 and the formation of foam in the container.

If for any reason, too great a supply of gas should be present in the cooler, as much of the gas can be discharged through the vent cock as may be desired. Since the cooler is in constant communication with the barrel and its contents maintained at the same pressure as in the barrel, the beer will be kept alive, as the CO_2 will not escape, as it would if the beer were maintained under atmospheric pressure.

The vent is, of course, essential for the purpose of allowing the air contained in the cooler to escape when beer is allowed to flow into it for the first time, as after the cooler has been first installed or after it has been cleaned.

From the foregoing it will be apparent that by means of the construction shown and described, a cooler is provided that can be readily installed and removed owing to the fact that the connections with its interior are all made at the top.

The peculiar construction of the bottom permits the pipes **35** and **35***a* to be positioned on the outside and held in upright position by means of the lugs **33**.

Having described the invention, what is claimed as new is:—

1. A cooling apparatus for use in dispensing beverages, comprising in combination, a hollow cylinder, a bottom having a cylindrical flange lapping the cylinder, a ring positioned on the upper end of the cylinder, said ring having a circular flange lapping the cylinder, the bottom having two openings communicating the inside of the cylinder with the outside, the ring having two perforated lugs, pipes having their lower ends connected with the openings in the bottom and projecting through the openings in the perforated lugs, and means for closing the opening in the ring.

2. A cooling apparatus for use in dispensing beverages, comprising in combination, a hollow cylinder, a bottom having a cylindrical flange lapping the cylinder, a ring positioned on the upper end of the cylinder, said ring having a circular flange lapping the cylinder, the bottom having two openings communicating the inside of the cylinder with the outside, the ring having two perforated lugs, and a tubular lug projecting from its peripheral surface, pipes having their lower ends connected with the openings in the bottom, the upper ends of the pipes projecting through the perforated lugs of the ring, a cover for closing the opening in the ring, and means for forcing the cover into sealing engagement with the ring.

3. A cooling apparatus for use in dispensing beverages, comprising in combination, a hollow cylinder, a bottom having a cylindrical flange lapping the cylinder, a ring positioned on the upper end of the cylinder, said ring having a circular flange lapping the cylinder, the bottom having two openings communicating the inside of the cylinder with the outside, the ring having two lugs having perforations whose axes are perpendicular to the plane of the ring, two lugs positioned intermediate the perforated lugs and a tubular lug, all of the lugs extending from its periphery, two pipes having their lower ends connected with the openings in the bottom, and their upper ends extending through the perforations in the lug, a cover for the opening in the ring and means including a bail connected with the lugs on the ring for holding the cover in place.

4. In a beverage cooling apparatus comprising a hollow cylinder, a bottom secured to its lower end and a ring secured to the upper end thereof, the ring having a cylindrical flange lapping the upper end of the hollow cylinder, a cylindrical flange extending upwardly for positioning a cover, the upper surface of the ring inside of the last mentioned flange having a groove for the reception of a sealing gasket, two diametrically positioned peripheral lugs, a bail having its ends connected with the lugs, a cover having a rib for engaging the gasket and means comprising a screw carried by the bail for forcing the cover into sealing engagement with the gasket.

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