(No Model.)

J. D. ILER.

RECEPTACLE FOR AERATED LIQUIDS.

No. 474,387. Patented May 10, 1892.

Fig. 1.

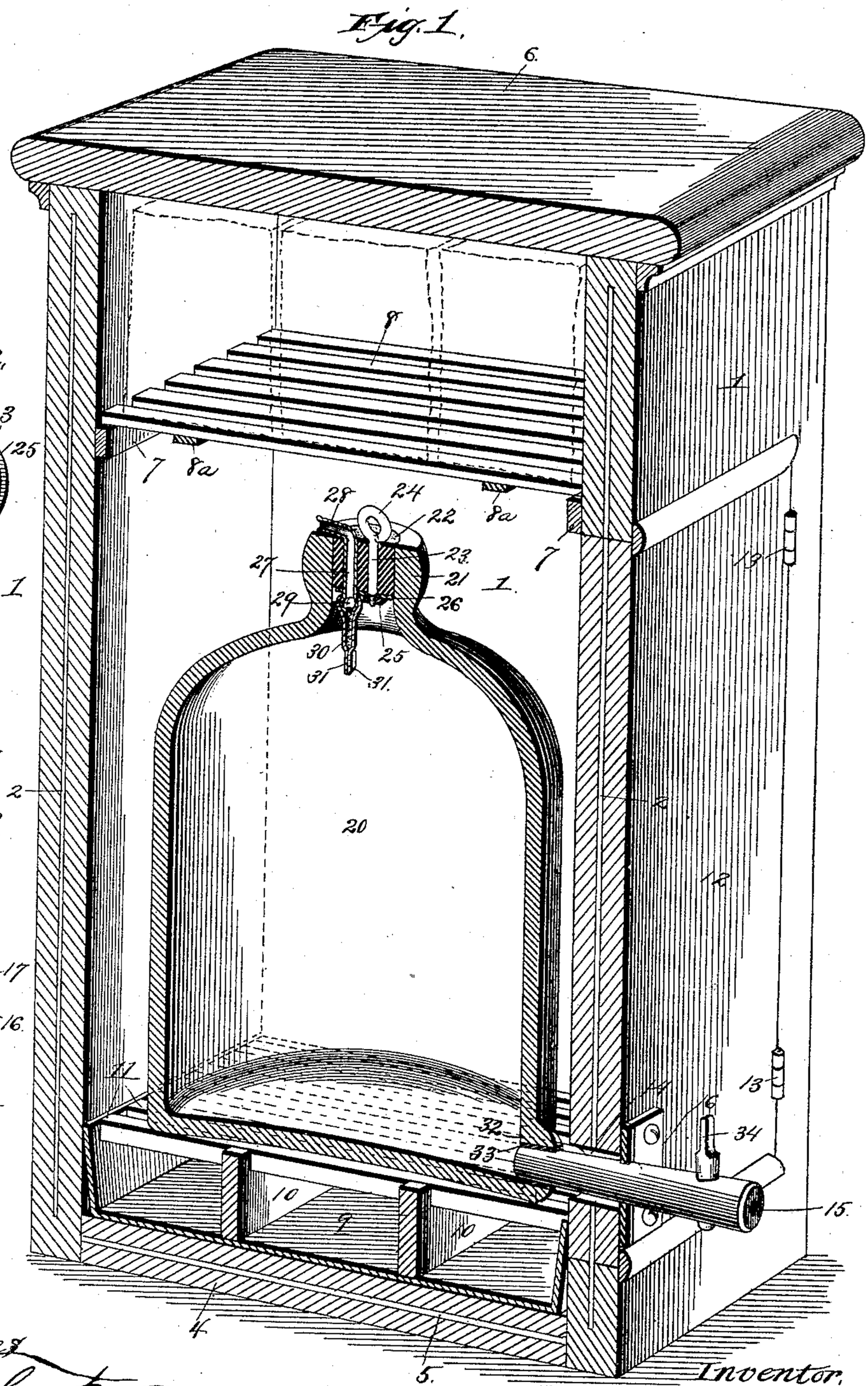


Fig. 2.

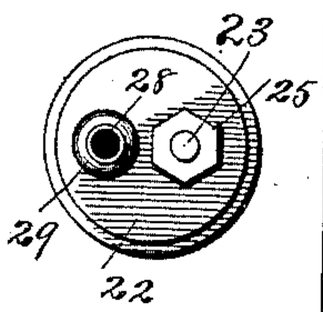
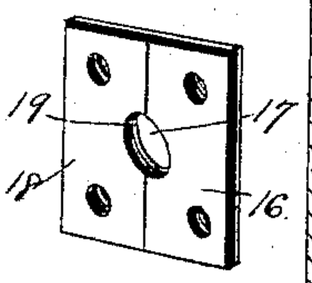


Fig. 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH D. ILER, OF KANSAS CITY, MISSOURI.

RECEPTACLE FOR AERATED LIQUIDS.

SPECIFICATION forming part of Letters Patent No. 474,387, dated May 10, 1892.

Application filed October 22, 1891. Serial No. 409,545. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH D. ILER, of Kansas City, Jackson county, Missouri, have invented certain new and useful Improvements in Receptacles for Aerated Liquids, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to receptacles for beer, mineral waters, and various other aerated liquids; and the objects of my invention are to produce a receptacle which shall be simple and inexpensive in construction and from which the liquids can be readily drawn as required without any liability of deterioration of quality by becoming flat or parting with their aerated charges.

To the above purpose my invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a central transverse vertical section of a receptacle for aerated liquids and an inclosing refrigerating-chamber for the same embodying my invention. Fig. 2 is an inverted plan view of the vent stopper of the receptacle. Fig. 3 is a detached perspective view of the flexible and collapsible vent for the stopper. Fig. 4 is a detached perspective view of the divided flexible guard-shield for the spigot-opening of the refrigerating-chamber.

In the said drawings, 1 designates the walls of a refrigerating-chamber for my improved receptacle, to be hereinafter described, the said chamber being preferably of elongated rectangular form, as shown, and the said walls being preferably double, so as to inclose vertical spaces 2, which are either left empty, so as to constitute dead-air spaces, or which may be filled with suitable material which is a non-conductor of heat, as preferred.

4 designates the bottom of the chamber, which is also preferably double, so as to inclose a space 5, as shown, said space serving, like the spaces 2, either as a dead-air space or being filled also with suitable non-conducting material.

6 designates the top of the chamber, which is preferably removable from said chamber. In the upper part of the chamber is placed any desired number of horizontal strips or beads 7, upon which rests a grating 8, formed, preferably, of parallel horizontal strips or slats connected together by cross-pieces 8^a, as shown. This grating is designed to support a cake of ice, which serves to cool the interior of the chamber. In the lower part of the chamber is placed a pan 9, provided with a number of parallel horizontal cross-pieces 10. Upon the upper edges of these cross-pieces is supported a rack, which is preferably composed of a number of parallel horizontal strips or slats 11, as shown. This lower grating is designed to receive the liquid-holding receptacle, as hereinafter more fully described.

12 designates a door, which is shown as hinged vertically, as at 13, to one side of the chamber, and it is to be understood that there may be only a single door 12 or a pair of such doors, as preferred. As shown, the outer edge of the door 12 is formed near its lower end with a transverse semicircular recess 14, through which extends the spigot 15, to be hereinafter more fully described.

Upon the outer side of the door 12, adjacent to the recess 14, is riveted or otherwise secured a rectangular flap or guard 16, preferably of rubber fabric, packing material, or other similar material. At one edge this guard is formed with a semicircular recess 17, which, when the guard or flap is in proper position, is in axial alignment with the recess 14 of the door.

18 designates a companion guard or flap, which is the exact counterpart in form, size, and material of the flap or guard 16, and which at its margin is provided with a semicircular recess 19, corresponding in form to the recess 17 of the flap or guard 16. This flap or guard 18 is to be secured either to the meeting edge of a companion door 12 (when two doors are used) or to the edge of the door-opening, (when but one door is used.) The edge of the door or the edge of the casing is to be provided with a semicircular recess corresponding to the recess 14 and with its margin matching the margin of said recess 14, so that a circular opening shall be formed for the spigot 15. The companion flap or guard

18 is to be riveted or otherwise secured in position, so that its recess 19 shall match the recess 17 marginally, and thus constitute a circular opening for the spigot 15. It will thus be seen that when the door or doors are closed the margins of the flaps come closely together, as shown in Fig. 4, and the margins of the recesses 17 and 19 lie snugly against the sides of the spigot, and thus prevent any air from entering the chamber around the spigot.

20 designates the receptacle for the aerated liquid. This receptacle is preferably in the form of a jug; but this precise form may be varied as desired, the receptacle being in the form of a demijohn or other similar device. In any event the receptacle is provided with a mouth 21, formed, preferably, at the top of the receptacle, and in this mouth 21 is placed a stopper 22. This stopper 22 is of wood, metal, cork, rubber, or of any other material or composition of materials adapted to tightly close the mouth of the receptacle, and through the stopper is passed a vertical pin 23, having a ring or eye 24 at its upper end and held in position by a nut 25, screwed upon the lower or inner end of the pin or by an equivalent attachment. A plate 26, of metal or other suitable material, lies against the inner or under end of the stopper 22, and is retained in such position by the nut 25 or equivalent attachment.

27 designates a vent-tube, which is of inverted-L shape and which is of metal, wood, hard rubber, or other suitable rigid material. One arm of this vent-tube passes vertically through the stopper 22, beside and preferably parallel with the pin 23, and the upper arm 28 of the tube lies horizontally upon the upper or outer end of the stopper. The lower end of this vent-tube protrudes below the lower or inner end of the stopper 22, and is formed with a spherical enlargement or swell 29, for a purpose to be presently explained.

30 designates a flexible tube of rubber or other elastic material, the upper end of which detachably embraces the lower end of the vent-tube 27 and is retained in position thereon by the swell or enlargement 29 above described. The lower end of this tube is flattened and split longitudinally, as shown at 31, so as to form two companion valve-like flaps, as is clearly shown in Figs. 1 and 3.

An opening 32 is formed in one side of the receptacle 20 near the bottom thereof, and into this opening is inserted the inner end of the spigot 15, a bushing 33 being also inserted into the opening 32 and around the inner end of the spigot 15, so as to form a tight joint.

The operation of the above-described structure is as follows: When the receptacle is in position, as shown in Fig. 1, a cake of ice placed upon the upper rack 8 will chill the interior of the chamber, and the drip from the ice will flow over the receptacle 20, further cooling the same, the pan 9 catching the drip. The interior pressure of the aerated liquid in the receptacle 20 causes the flaps 31 of the flexible vent-tube 30 to press closely against each other, so that there can be no escape of the gases from the liquid, and the latter is thus preserved in its desired lively condition. As the level of the liquid in the receptacle falls successively as the liquid is being drawn, the flaps 31 separate for an instant whenever the spigot-valve 34 is opened, thus maintaining the air-pressure; but said flaps instantly close again, so as to prevent any escape of gas. When the receptacle 20 is to be refilled, the stopper 22 is withdrawn, the finger or a suitable implement being applied to the ring 24 of the pin 23 for this purpose. Whenever desired, as for cleaning or other purposes, the flexible vent-tube 30 can be readily detached from the inner or lower end of the rigid vent-tube 27, and said flexible tube can be as readily replaced.

It will thus be seen that I have produced a simple and inexpensive form of receptacle for aerated liquids which preserves the same at all times in prime condition and from which the liquid can be readily drawn as required without deteriorating the quality of the liquid.

It is to be understood that while I have described the receptacle as particularly designed for containing and delivering beer, mineral waters, and other aerated liquids, it is equally adapted to contain and deliver non-aerated liquids, such as whisky, buttermilk, &c.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

A receptacle for aerated liquids, &c., comprising a body portion of substantially jug form having a mouth in its upper part, a stopper inserted into said mouth, a pin extending vertically through said stopper and provided at its upper end with an eye, a washer surrounding the lower end of the pin, a nut secured upon the lower extremity of the pin, an inverted-L-shaped vent-tube, one arm of which extends vertically through the stopper and the upper arm of which extends horizontally upon the upper end of the stopper, a swell or enlargement at the lower end of the vent-tube, and an elastic auxiliary tube embracing said swell at its upper end and having a longitudinally divided and flattened lower end, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH D. ILER.

Witnesses:
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