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STOPPING AND POURING DEVICE FOR BOTTLES INCLOSING GASEOUS BEVERAGES.

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1,060,464.

Fig. 1.

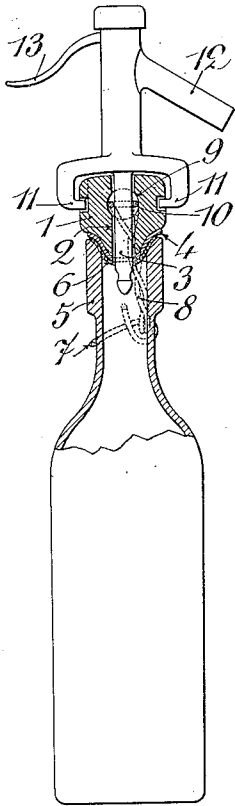


Fig. 2.

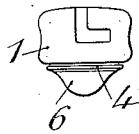


Fig. 3.

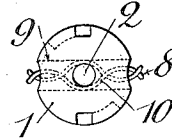


Fig. 6.

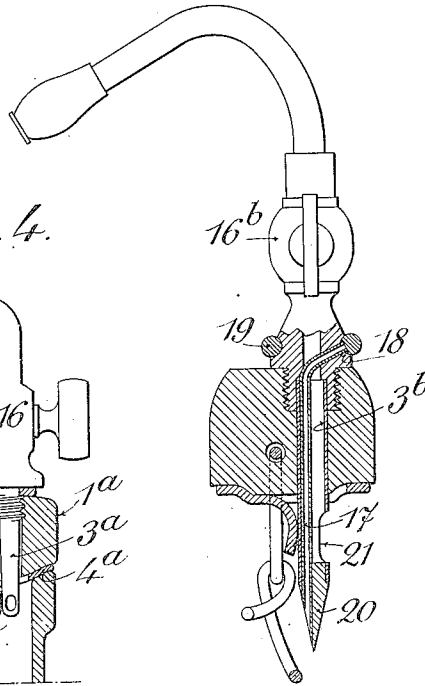


Fig. 4.

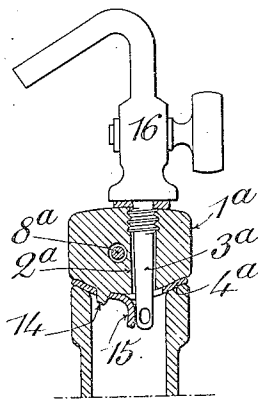
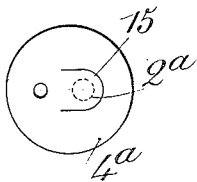


Fig. 5.



WITNESSES

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STOPPING AND POURING DEVICE FOR BOTTLES INCLOSING GASEOUS BEVERAGES.

1,060,464.

Specification of Letters Patent.

Patented Apr. 29, 1913.

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To all whom it may concern:

Be it known that I, MARC LANGLOIS, a citizen of the Republic of France, resident of the Domaine de la Cressonnière at Pont-
5 l'Évêque, Calvados, in the Republic of France, manufacturer, have invented certain new and useful Improvements in Stopping and Pouring Devices for Bottles Inclosing Gaseous Beverages, of which the following is a specification.

This invention relates to a system of stopping and pouring designed for bottles which inclose gaseous beverages.

For the purpose of pouring without losing any part of the gaseous beverages inclosed in bottles stopped with cork, it has already been proposed to employ hollow rods having a pointed end and carrying at their opposite end a cock or a valve. Such
20 pouring devices have drawbacks which have hitherto prevented their use from becoming general; in particular, it is difficult to make their rod penetrate through the cork which is in general very much compressed within
25 the bottle neck; it often happens also that the orifices of the rod are obstructed by pieces of cork.

According to this invention, the bottle is stopped by a stopper of hard material such as porcelain, in which is provided a vertical hole for the passage of a removable pouring tube, such hole being obstructed, until the insertion of the said tube, by an obstructing valve or washer so arranged as to
35 be opened by such tube itself. The obstructing washer may serve at the same time to secure an air-tight joint between the stopper of hard material and the bottle. With such means, the insertion of the pouring
40 tube requires no stress and can be readily done; there is no risk of the tube being obstructed by cork; it can be given a greater diameter than heretofore without inconvenience; moreover the device can be quickly
45 withdrawn from the bottle before the latter becomes empty, and put on another bottle without loss of time, which, in a café or other drinking saloon, allows of greatly reducing the number of the pouring devices
50 used.

Three embodiments of the invention are shown in the accompanying drawings, in which:

Figure 1 is an elevation, with same parts
55 in section on their axial line, of a pouring device shown as being put in place on the

bottle. Fig. 2 is a side elevation of the stopping device separately. Fig. 3 is a plan view. Fig. 4 is a vertical section of another embodiment of the invention. Fig. 60
5 is a bottom plan view of the obturator; and Fig. 6 is a vertical section of a third embodiment of the invention.

The stopping device shown in Figs. 1 to 3 comprises a porcelain stopper 1, provided
65 with a central hole 2 for the passage of the tube 3 of the pouring device; to the lower rounded face of the stopper is secured a rubber washer 4 which, before the insertion of the tube 3 is solid and closes hermetically the hole 2, while at the same time
70 it insures an air-tight joint between the stopper 1 and the neck 5 of the bottle. In order to avoid the contact of the rubber with the contents of the bottle, the bottom
75 of the washer 4 may be provided with a washer 6 of tin or any other suitable material.

The stopper is secured to the bottle, for instance by means of a device similar to those usually employed for the stopping of
80 beer bottles, comprising a yoke 7 which is journaled on the neck and yoke 8 joined to the said yoke 7 and which passes through a hole 9 in the stopper 1 at right angles to its
85 axis. The latter yoke is preferably constituted by two wires twisted together and forming in their middle, that is at the center of the stopper, a loop 10 which leaves
90 a free passage for the tube 3.

The pouring device shown is so fitted as to be secured to the stopper 1 by a bayonet joint; for that purpose the head of the tube 3 is provided laterally with two hooks 11
95 which engage in L shaped grooves provided on the two opposite sides of the stopper 1, so that all that need be done is to thrust the tube through the latter and then turn it slightly to become fastened to the said stopper. Such fastening could, of course, be
100 obtained in any other suitable way, such as screw threading, spring hooks, and the like.

When pouring, the tube 3, terminating in a point, is inserted through the hole in the stopper and through the washer closing
105 such hole, piercing the latter, the pouring device being then secured to the stopper by rotating the same, or otherwise; after which all that need be done is to open the cock or valve of the pouring device to be able to
110 pour out the liquid under pressure.

The head of the tube, in the embodiment

shown, is provided with an inclined pipe 12 and with a lever 13 serving to open a valve located within the head, in the same manner as in an arrangement usually employed in apparatus for Seltzer water and other gaseous beverages. It is obvious that the fitting of the pouring head may be varied without changing the essential features of this invention. Similarly, the length of the tube 3 may be varied, while it is preferable that the latter should be as short as possible. The closing washers 4 and 6 may be loose or secured to the stopper in any suitable manner.

In the second embodiment of the invention (see Figs. 4 and 5) the lower face of the porcelain stopper 1^a is slightly bulged and has a projection 14 which serves for securing and centering the obturating rubber washer 4^a. The hole 2^a used for passing the tube 3^a of the pouring device is located at a certain distance from the axis of the stopper for the purpose of allowing the yoke 8^a of the fastening device being passed through the stopper at the center or nearly so of the said stopper. In this embodiment, the inner orifice of the hole 2^a is obstructed by a flap-valve 15, cut out of the washer 4^a itself; Fig. 5 shows the U shaped incision which furnishes the flap-valve, and in dotted lines the position of the orifice of the hole 2^a, to be slightly covered by the said flap-valve. The inner end of the pouring tube 3^a is preferably blunt or round so as not to injure the flap valve in pushing the same downward against the interior pressure.

The pouring tube 3^a is assumed to be provided with a cock 16 and to be secured in the stopper 1^a by screwing, but it must be understood that the pouring device may be of any suitable construction. When instead of a rubber washer forming of itself a flap-valve, there is employed a washer serving as a joint between the stopper and the neck of the bottle and a distinct flap-valve to obturate the hole 2^a, such flap-valve will be preferably so arranged as not to fall into the bottle when it will be pushed downward by the pouring tube; for that purpose it may be attached to or connected with either the stopper or a washer by any suitable means, such as a hinge, flexible wire or the like.

The embodiment shown in Fig. 6 comprises a device for allowing air to enter for the purpose of facilitating the issue of the liquid up to the last drop in case such liquid be not very gaseous, as certain mineral waters, for instance. And, indeed, if the gas is given off slowly by the liquid, the pouring is interfered with and almost stops if air cannot enter the bottle and establish continuously therein a pressure about equal to the pressure of the atmosphere. Such device may, furthermore, be fitted in various ways, according as to whether the entry of the air

is to be produced automatically or at the will of the person who pours out the liquid; any kind of flap or other valve, or obturator may be employed; the position, the number and the form of the orifices and channels for the entry of the air may also be varied.

According to Fig. 6, in the interior of the pouring tube 3^b is secured a tube of smaller diameter 17, the upper end of which is curved laterally and opens into a duct 18 provided around the lower pipe of the cock 16^b, which is secured on the tube 3^b the upper orifice of the tube 17, which protrudes a little beyond the bottom of the duct or neck, is closed by a rubber ring 19 placed on the neck. As to the lower orifice of the tube 17, it opens into the point 20 which terminates the tube 3^b, a little below the orifice 21, giving issue to the liquid. When pouring out the liquid, the fore finger of the right hand comes naturally on to the ring 19, above the orifice of the tube 17, so that if the outflow begins to slacken, it only requires a slight movement of the finger to remove the ring from the orifice to let the outer air enter the bottle in facilitating the outflow. When the ring is released, it closes of itself onto the end of the tube 17 by reason of its elasticity and obturates the orifice sufficiently to prevent the escapement of any gas which may be given off subsequently by the liquid remaining.

It is obvious that such device may be utilized quite as advantageously, irrespective of the nature of the material used for the stopper employed, as for instance in the case of cork stoppers which the tube 3^b would have to perforate or pierce.

Claims.

1. A stopping and pouring device for bottles of gaseous beverages, comprising a stopper made of hard material and having a longitudinal perforation, means whereby to secure such stopper on a bottle, a pouring tube adapted to be passed through the said perforation, and having a pointed end, and a solid and smooth disk of material easy to perforate and adapted to be placed under the stopper and to be perforated by the point of the pouring tube.

2. A stopping and pouring device for bottles of gaseous beverages, comprising a stopper made of hard material and having longitudinal perforation, means whereby to secure such stopper on a bottle, a rubber disk under the stopper, adapted to stop up the said perforation, a pouring tube adapted to be passed through the said perforation and the said disk, a valve on such tube, a narrow tube in the pouring tube to allow of the entry of air, the upper end of such narrow tube opening laterally out of the pouring tube, closure for the upper end of the narrow tube, and means for securing the pouring tube on the said stopper.

3. A stopping and pouring device for
bottles of gaseous beverages, comprising a
stopper made of hard material and having
a longitudinal perforation and a transversal
5 perforation at a certain distance from one
another, a rubber disk on the under face
of the stopper for closing the longitudinal
perforation thereof, a pouring tube passed
through the longitudinal perforation and
10 the rubber disk and means for securing such

stopper to a bottle, such means comprising
a wire yoke which is passed through the said
transversal perforation.

In testimony, that I claim the foregoing
as my invention, I have signed my name 15
in presence of two subscribing witnesses.

MARC LANGLOIS.

Witnesses:

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GREGORY PHELAN.