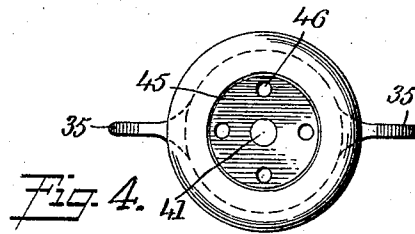
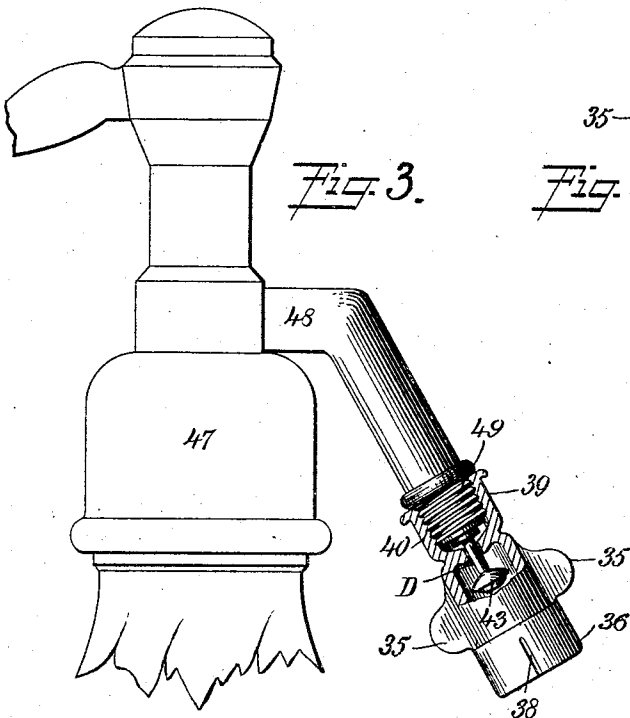
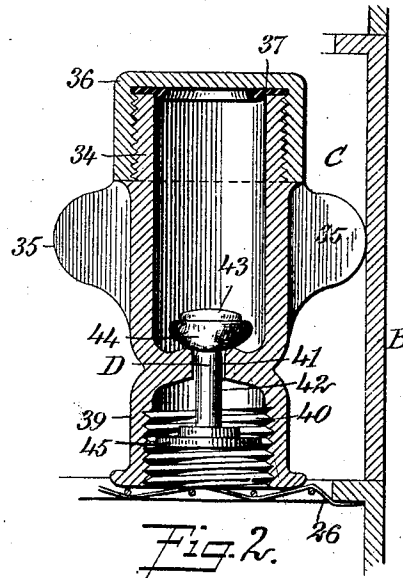
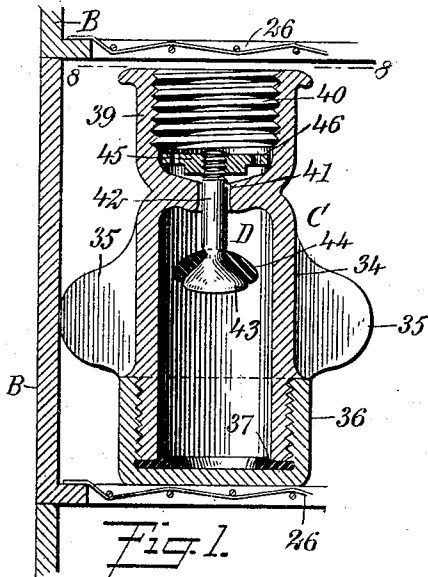


D. BRESCIA.
CHARGING CAPSULE FOR SIPHONS.
APPLICATION FILED JUNE 12, 1908.

968,532.

Patented Aug. 30, 1910.



WITNESSES
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DOMINGO BRESCIA, OF QUITO, ECUADOR.

CHARGING-CAPSULE FOR SIPHONS.

968,532.

Specification of Letters Patent.

Patented Aug. 30, 1910.

Application filed June 12, 1908. Serial No. 438,088.

To all whom it may concern:

Be it known that I, DOMINGO BRESCIA, a subject of the King of Italy, and a resident of Quito, in the Republic of Ecuador, South America, have invented a new and Improved Charging-Capsule for Siphons, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a capsule adapted for attachment to the outlet tube of a siphon receptacle, and adapted to be charged with liquid carbonic acid gas or gas of a similar character, the capsule when charged being automatically sealed, and automatically opened when applied to a siphon, at which time the gas in the capsule is permitted to mingle with the liquid in the siphon and thus charge the said liquid.

It is a further purpose of the invention to provide a simple construction of capsule that will retain its charge intact until properly applied to a siphon.

It is also a purpose of the invention to so construct the capsule that it will be not only simple and durable in construction, but will be capable of ready and expeditious application to the siphon receptacle.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a partial vertical section through the charging vessel and a vertical section through a capsule, showing the latter in its initial position; Fig. 2 is a view practically the same as that illustrated in Fig. 1, but showing the capsule inverted or in a position that admits of the seating of the valve; Fig. 3 is a side elevation of the upper portion of a siphon and a sectional side elevation of a capsule applied thereto; and Fig. 4 is a plan view of a capsule looking down on its mouth.

Each cartridge C as is shown particularly in Figs. 1 and 2, consists of a tubular body 34, having opposing exterior ears 35 to facilitate the application to a siphon, and a cap 36 firmly screwed on one end and provided with a suitable gasket 37, the capped end being the bottom end of the capsule, and the cap 36 being provided with slots

38, (see Fig. 3,) so that a spanner may be readily employed to screw it to place. At the opposite end of the said body 34 a neck 39 is constructed having an open mouth, and this neck is provided with an interior screw thread 40. A central opening 41 is produced in the partition between the neck and the body of the capsule, and loosely receives the stem 42 of a valve D. This valve within the body of the capsule is provided with a head 43, carrying an elastic packing 44, (see Figs. 1 and 2), and within the neck 39 a disk 45 is screwed to the said valve stem. The disk 45 is never fully seated on the partition dividing the neck from the body of the capsule, since when a capsule is upright in the charging vessel the entering carbonic acid gas or other gas supplied, should be permitted to enter the body of the capsule to fill the same. The partition is inclined with respect to the wall of the body, so that the edge of the disk 45 engages the partition above the opening 41, and thereby the disk is held spaced above the opening, and cannot seat directly against the latter, to close it. The disk is offset and is provided with apertures 46 as is best shown in Fig. 4. When the capsule is fully charged the head 43 of the valve D, closes the aperture 41, thus sealing the gas in the body of the capsule.

In Fig. 3 I have illustrated the head or cap 47 of a siphon bottle, wherein the outlet tube 48 is provided with a thread 49 tapped to screw in the neck 39 of a capsule. The bottle may be filled with pure water, a syrup or a non-aerated liquid of any kind, but when a charging capsule is screwed upon the outlet tube 48, the tube coming in contact with the disk 45 will unseat the valve by forcing the head 43 of the valve away from its seat, whereupon the gas in the capsule will escape and mingle with the liquid in the bottle. The capsule may then be removed and the liquid may be recharged at any time by the application of another capsule. The cap 36 is provided in order to facilitate the introduction of the valve D.

With reference to the general operation, the capsules are placed mouth upward in baskets and are packed therein as closely as possible. The baskets are then placed one upon another in a basket carrier, and the latter is placed in a charging vessel which has a suitable inlet and outlet and can be inverted. Liquid gas is pumped into the ves-

sel until a suitable pressure is indicated on a gage. At this time the charging vessel is reversed, being turned end for end, and the capsules are thus automatically closed, being
 5 turned mouth downward. The gas remaining in the vessel is exhausted to permit the gas in the capsules to exert full pressure upon the valves D completely to close the openings 41. Finally, the vessel is returned
 10 to its normal position, is opened, and the basket carrier is removed with the charged capsules. As hereinbefore stated, when a capsule is screwed upon a siphon tube, the valve of the siphon is opened and the gas
 15 enters the siphon and impregnates the liquid.

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

1. A charging capsule for siphons, comprising a hollow body having an opening, a valve at the inside of said opening and adapted to close the same, and a member at the outside of said opening and rigidly connected with said valve, said member having
 20 a gap therethrough, said body having an inward extension adjacent to said opening and between said valve and said member, said extension being adapted to engage said member to prevent the seating thereof at
 25 said opening.

2. A charging capsule for siphons, comprising a hollow body having an opening, a valve at the inside of said opening and adapted to close the same, and a perforated
 35 offset member at the outside of said opening and rigidly connected with said valve, said body having an inwardly disposed extension at said opening inclined toward the bottom of the capsule to hold said offset
 40 member, whereby said member is prevented from seating directly against said opening.

3. A charging capsule for siphons, comprising a hollow, open-ended body, a cap closing one end of said body, said body having
 45 an inclined partition therein intermediate its ends and provided with an opening, a valve at the side of said partition adjacent to said cap and adapted to close said opening, and a perforate member at the
 50 other side of said partition and rigidly connected with said valve, said member being adapted to engage said partition above the opening thereof, whereby said opening is obstructed partially only.

4. A charging capsule for siphons, comprising a hollow body having an open end, and below said open end an inwardly extending inclined partition provided with an opening therethrough, a valve at the inside

of said opening and adapted to close the
 60 same, and a perforated member at the outside of said partition and rigidly connected with said valve, said member being extended to engage said partition above said opening, whereby said opening is obstructed partially
 65 only.

5. A charging capsule for siphons, comprising a hollow body having a neck adapted for attachment to a siphon tube, and provided with an opening between said neck
 70 and said body, a valve stem movably arranged in said opening and having a head adapted to close said opening, and a disk at the end of said stem remote from said head, said disk having openings therethrough,
 75 adapted to permit a fluid to pass through said disk and said opening between said neck and said body.

6. A charging capsule for siphons, comprising a hollow body, a neck adapted for
 80 attachment to a siphon tube, a partition between said neck and said body and having an opening therethrough, a valve stem loosely arranged in said opening and having a head at the inside of said body, said
 85 head being adapted to seat against said partition when in a predetermined position to close said opening, a disk mounted upon said stem and at the side of said partition remote from said head, said disk being off-
 90 set to prevent its seating fully against said partition, and having openings therethrough, and a packing carried by said head.

7. A charging capsule for siphons, comprising an open-ended, hollow body having
 95 one end exteriorly threaded, a threaded cap mounted upon said threaded end and closing said end of said body, said body having ears whereby it can be manipulated, said body having a partition intermediate its
 100 ends and provided with an opening therethrough, said end remote from said cap being adapted to attach to a siphon, a valve at the inside of said partition, a stem rigid with said valve and extending through said
 105 opening of said partition, and a member rigid with said stem and having perforations therethrough, said member being offset whereby it can obstruct said opening
 110 through said partition partially only.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DOMINGO BRESCIA.

Witnesses:

WILLIAMS C. FOX,
 I. VALENCIO.