

P. E. MALMSTROM.

SIPHON BOTTLE.

APPLICATION FILED FEB. 3, 1909. RENEWED JULY 16, 1911.

1,018,124.

Patented Feb. 20, 1912.

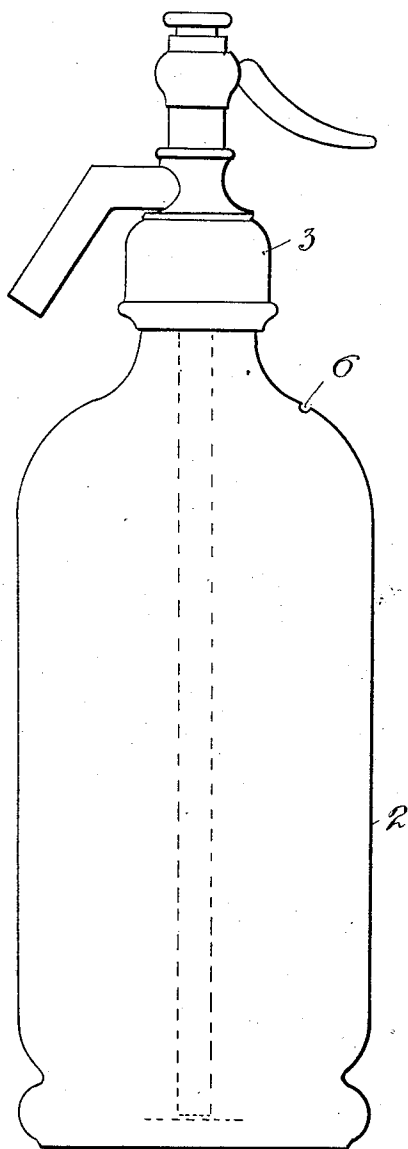


fig. 1.

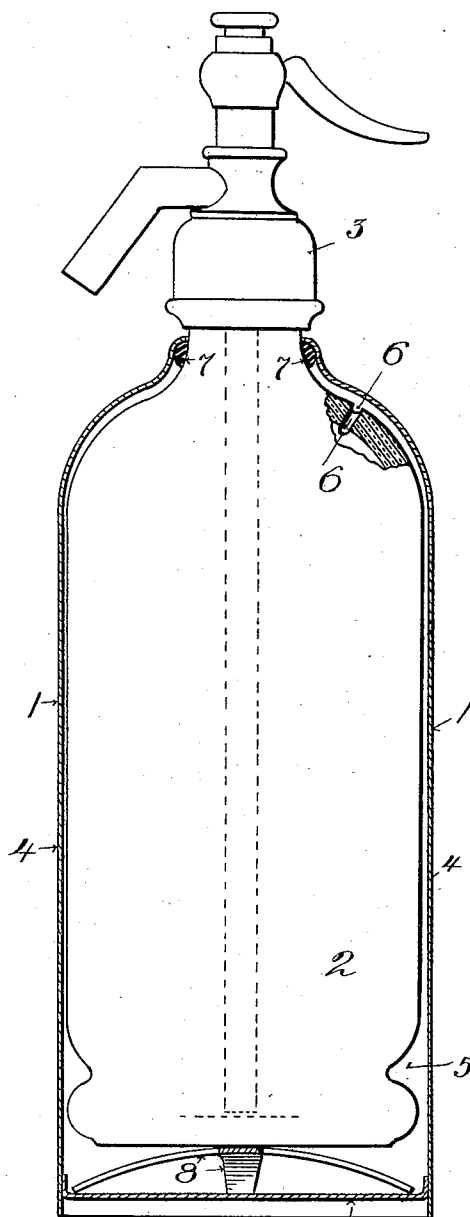


fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

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SIPHON-BOTTLE.

1,018,124.

Specification of Letters Patent.

Patented Feb. 20, 1912.

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To all whom it may concern:

Be it known that I, PETER E. MALMSTROM, a citizen of the United States, and a resident of the city, county, and State of New York, have made a new and useful Improvement in Siphon-Bottles, of which the following is a specification.

The object of my invention is to provide a bottle of this class which may be charged under lower pressure than those heretofore in use, and will discharge all liquid in the bottle.

A further object is to make a bottle which cannot be easily broken and which will be simple and durable in construction.

These objects are accomplished by my invention, one embodiment of which is hereinafter set forth.

For a more particular description of my invention, reference is to be had to the accompanying drawing forming a part hereof, in which:

Figure 1 is a side elevation of the inner lining of my improved bottle, together with the usual siphon. Fig. 2 is a longitudinal section through the exterior casing of my improved bottle, a part of the lining being shown in section.

Throughout the various views of the drawing, similar reference characters designate similar parts.

My improved bottle 1 consists of a lining 2 provided with the usual siphon apparatus 3 and an exterior casing 4 which is about said lining 2 with an airtight fit at its upper end and it is hermetically sealed at its lower end so that a space or chamber 5 is preserved between the lining 2 and the casing 4. The lining 2 may be an ordinary siphon bottle except that it is provided with a perforation 6 near its neck which forms a vent so that the exterior and interior of the lining 2 will always be under some pressure. The exterior of the neck of the lining 2 is provided with a washer 7 which fits snug against same and this is engaged by the exterior casing 4 so that the lining 2, the gasket 7 and the casing 4 form a gas-tight joint as above described. To preserve this at all times, the lining 2 preferably rests on a stiff spring 8 placed on the bottom of the casing 4. The bottom 9 is connected with the rest of the casing 4 with a gas-tight joint.

My improved siphon bottle is preferably used as follows: Assuming the bottle to be

empty, it is charged with water suitable for impregnation, that is, water at any suitable temperature and pressure, say ice-water at 50 lbs. per square inch. This water readily fills the bottle to a point below the perforation 6, the air in the chamber 5 compressing sufficiently to permit this to be done. While this water is cold, carbonic acid gas (CO_2) is forced in under sufficient pressure and bubbles through the water and impregnates same in the conventional manner. When the water is sufficiently impregnated, the siphon bottle is ready for use and may be used at any time. As the liquid is exhausted in the usual manner, it has plenty of pressure to drive out what happens to be near the bottom because of the amount of gas under compression in the chamber 5.

When the bottle is recharged the process above described is repeated, and this recharging eliminates the loss now experienced in charging bottles of this character which have to lose the gas from a previous charge before a new charge can be inserted.

While I have shown and described one embodiment of my invention, it is obvious that it is not restricted thereto, but is broad enough to cover all structures that come within the scope of the annexed claims.

Having described my invention, what I claim is:

1. In a device of the character described, a lining with a neck having a perforation therethrough, a casing exterior to said lining and connected therewith by gas-tight joint to form a chamber about the same adapted to be maintained at the same pressure as the interior of said lining because of said perforation and a siphon connected to said lining, said device being refillable.

2. In a device of the character described, a lining having a perforation in the upper wall thereof, a casing about said lining and separated therefrom to form a chamber therebetween, a gasket between said casing and lining about the neck thereof above said perforation to form a gas-tight joint, and a spring in said casing on which said lining rests.

3. In a device of the class described, a casing, a lining therein with a chamber between said casing and lining, means insuring a gas-tight joint between the casing and lining at the neck of the bottle, said lining having a perforation near its neck

portion, and means interposed between the
bottom of the lining and the bottom of the
casing for pressing the lining upward to
maintain a gas-tight joint between the cas-
ing and lining, and a siphon connected with
5 said lining, the construction permitting of
filling of the lining at low pressure.

Signed at the city, county and State of
New York, this 2nd day of February, 1909.

PETER E. MALMSTROM.

Witnesses:

GUSTAVE I. ARMOUR,
B. V. MOHAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
