H. F. LARIOS & A. A. MERRIFIELD.

CAN.

APPLICATION FILED NOV. 20, 1916.

1,284,716.

Patented Nov. 12, 1918.

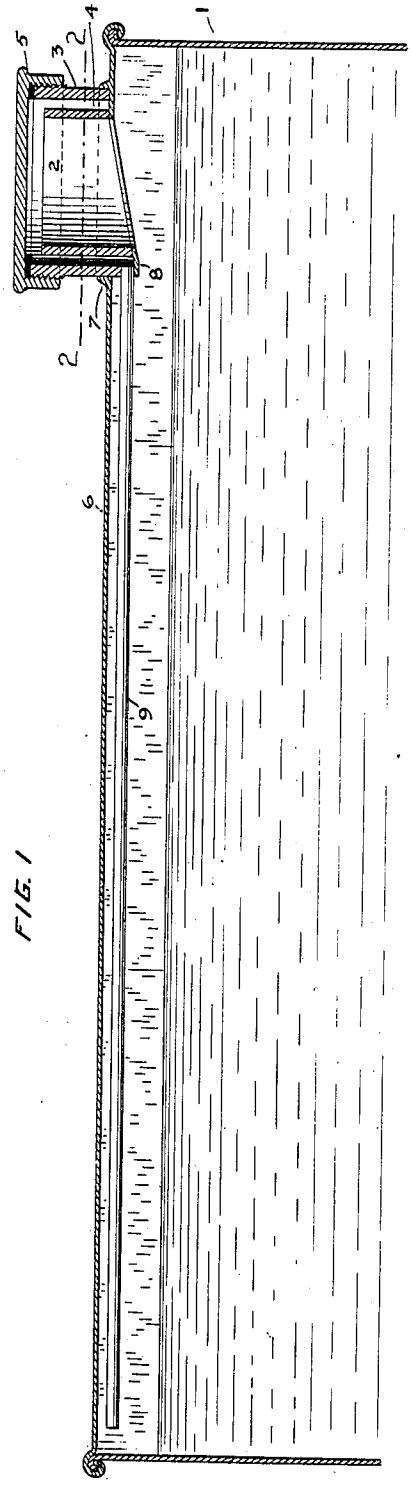


FIG. 1

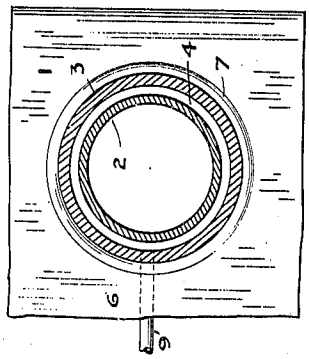


FIG. 2

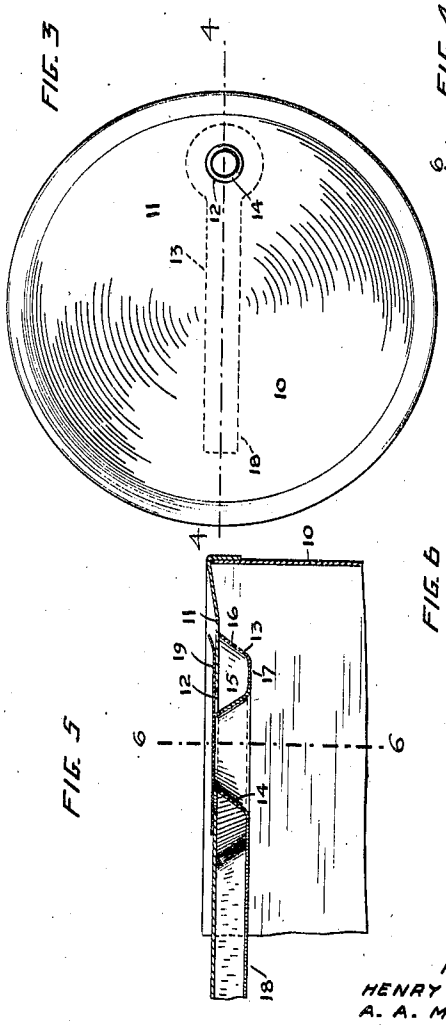


FIG. 3

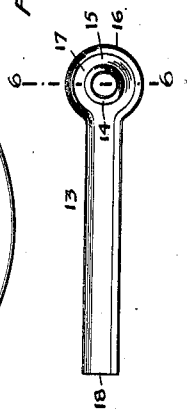


FIG. 4

FIG. 5

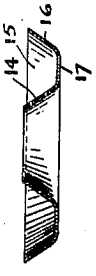


FIG. 6

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UNITED STATES PATENT OFFICE.

HENRY F. LARIOS AND ASAPH A. MERRIFIELD, OF SAN FRANCISCO, CALIFORNIA.

CAN.

1,284,716. Specification of Letters Patent. Patented Nov. 12, 1918.

Application filed November 20, 1916. Serial No. 132,317.

To all whom it may concern:

Be it known that we, HENRY F. LARIOS and ASAPH A. MERRIFIELD, citizens of the United States, residing at the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Cans, whereof the following is a specification.

This invention relates to ventilating spouts for cans and more particularly to a ventilating spout having an inner shell and an outer shell with an air chamber between said shells and a vent pipe connected to the spout in communication with the air chamber.

The primary object of the invention is to provide a ventilating spout of this nature which shall be of extremely simple construction, cheap to manufacture and very efficient.

Another object of the invention is to provide a ventilating spout which by slight modification may be constructed to be received entirely within a can and form what might be termed an interior spout.

With these and other objects in view the invention consists of certain features of construction, combination and arrangement of parts as will be hereinafter fully described, illustrated and claimed.

In the drawings:—

Figure 1 is a fragmentary sectional view of a can showing our improved spout applied thereto.

Fig. 2 is a horizontal sectional view on the plane of line 2—2, of Fig. 1.

Fig. 3 is a top plan view of a can showing a modified form of spout applied thereto.

Fig. 4 is a top plan view of the modified spout.

Fig. 5 is a vertical sectional view of the modified spout and a portion of a can; and

Fig. 6 is a section on the plane of line 6, 6, of Fig. 5.

Referring in detail to the drawing by numerals, 1 designates as an entirety a can to which our improved ventilating spout is applied. In the embodiment shown in Figs. 1 and 2, the spout is formed with an inner cylindrical shell 2, an outer cylindrical shell 3 spaced from the shell 2 and providing an air chamber 4. The shell 3 extends outwardly beyond the shell 2 and is externally threaded for engagement with a cap 5. The top wall 6 of this can is apertured to receive the spout and is formed with a bead 7 around the aperture which acts as a reinforcement and which closely engages the shell 3 of the spout.

The shells 2 and 3 terminate at their inner ends in an inclined plane and they project a slight distance into the can. A wall 8 connects the inner ends of the shells 2 and 3 forming a closure for the inner terminal of the air chamber 4. A vent pipe 9 extends through the shell 3 and terminates in communication with the air chamber. This pipe extends from the spout to a point adjacent the upper end of the can so that when the can is tipped to permit the contents thereof to flow through the spout, air will flow into the can and prevent a vacuum forming therein.

In Figs. 3 to 6 inclusive, we have shown a somewhat modified form of spout embodying the same principle as set forth with reference to the spout illustrated in Fig. 1. In the modified construction the spout and vent tube are formed integrally and are positioned entirely within the can.

Referring to this construction by numerals, 10 designates a can having a top wall 11, which is formed with an opening 12. The spout 13 has an inner frusto-conical passage formed by the shell 14, and around this shell is an air chamber 15 having the side wall 16 and end or bottom wall 17. Extending from the air chamber is a vent tube or air passage 18, best shown in Fig. 4. When the spout is secured to the top of a can said top will form a top wall for the vent tube 18 and an air chamber 15. The shell 14 extends outwardly in a plane flush with the outer face of the can top and is spaced from the edge of the opening 12 to allow atmospheric communication to the air chamber 15. To close the spout and prevent loss of liquid when the can is being shipped, we provide a seal 19 which is soldered or otherwise secured to the top of the can so as to close the spout.

From the foregoing description taken in connection with the accompanying drawing, it will be apparent that we have provided a very simple and practical vent spout for cans which will effectually prevent a vacuum forming within a can when the contents thereof are being withdrawn.

Having thus described our invention, and an embodiment of it, in the full, clear and

exact terms required by law, and knowing that it comprises novel, useful and valuable improvements in the art to which it pertains, we here state that we do not wish to be limited to the precise construction and arrangement of the several parts, as herein set forth, as the same may be variously modified by a skilled mechanic without departing from the spirit of the invention.

What we claim and desire to secure by Letters Patent of the United States, is the following, to wit:—

Claims.

1. A can having a wall formed with an opening therein, a ventilating spout within said can consisting of an air passage having at one end thereof an annular air chamber and a central liquid passage projecting outwardly in said opening and terminating in a plane flush with the outer face of the wall of said can, said annular air chamber communicating with said opening and a detachable seal secured to said can adapted to cover said annular air chamber and said central liquid passage.

2. In combination, a can having a top wall formed with an opening, a ventilating spout within said can in alinement with said opening, the spout being formed with a central frusto-conical shell terminating within said opening and spaced from the sides thereof, said shell forming a central liquid passage, an outer shell encircling said inner shell and forming an air chamber, and a vent pipe formed integrally with said outer shell and communicating with the air chamber.

3. A can provided with an opening, ventilating means and liquid passage connected with said opening, said ventilating means consisting of an air passage having at one end an annular air chamber, and said liquid passage being formed centrally within said air chamber and projecting through said opening in the can, and means to close said air chamber and the liquid passage flush with the outer face wall of the can.

In testimony that we claim the foregoing we have hereto set our hands in the presence of two witnesses, this 31st day of Oct. 1916.

HENRY F. LARIOS.
ASAPH A. MERRIFIELD.

Witnesses:
LOUISE BEARDEN,
E. A. SCOTT.