

(No Model.)

A. DOW.
INHALER.

No. 476,190.

Patented May 31, 1892.

Fig. 1.

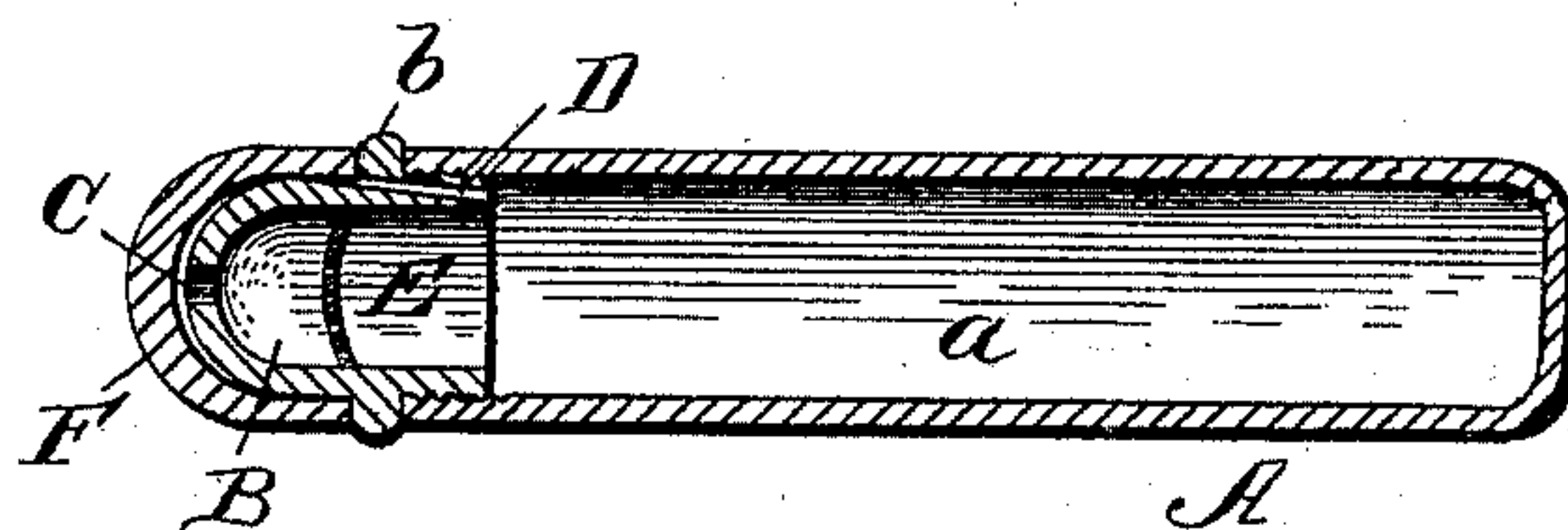


Fig. 2.

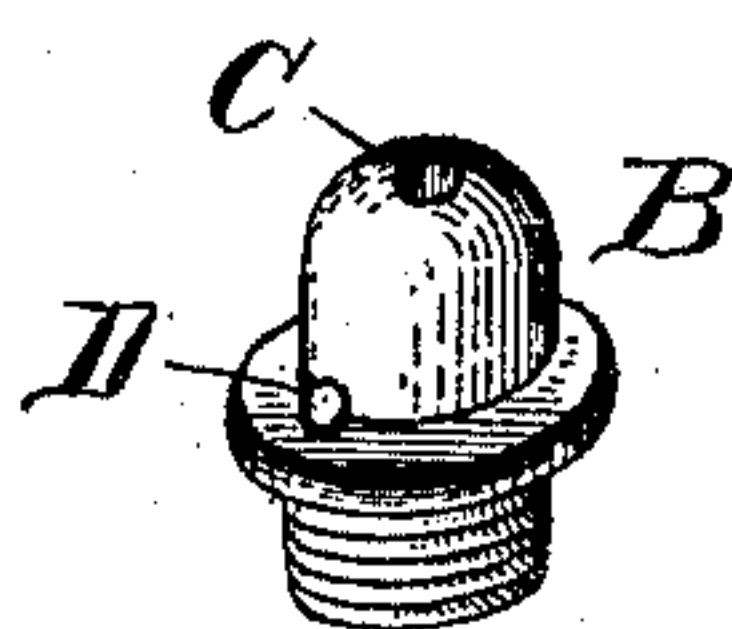
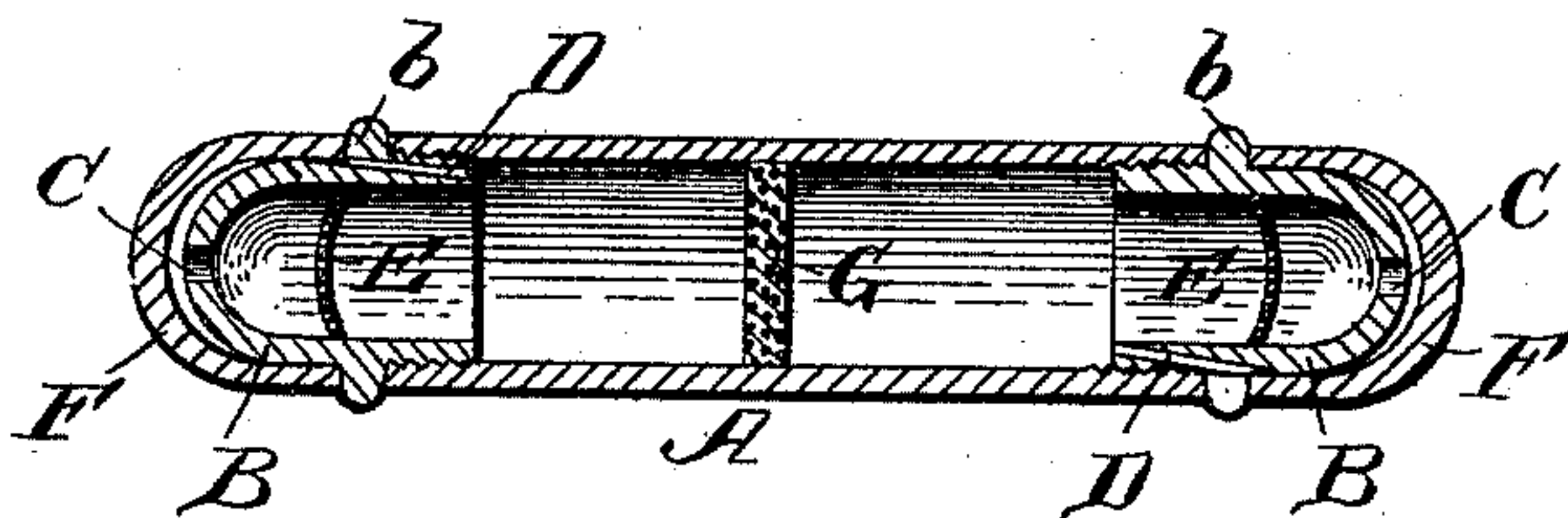


Fig. 3.



Witnesses:

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Inventor:

Alonzo Dow

*By Edmond Bros
His Atty*

UNITED STATES PATENT OFFICE.

ALONZO DOW, OF WOOSTER, ASSIGNOR OF ONE-HALF TO SAMUEL J. SPALDING, OF CANTON, OHIO.

INHALER.

SPECIFICATION forming part of Letters Patent No. 476,190, dated May 31, 1892.

Application filed September 24, 1891. Serial No. 406,673. (No model.)

To all whom it may concern:

Be it known that I, ALONZO DOW, a citizen of the United States, residing at Wooster, in the county of Wayne and State of Ohio, have
5 invented certain new and useful Improvements in Inhalers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to
10 make and use the same.

The present invention relates to improvements in inhalers adapted to be carried in the pocket and to contain restoratives; and the
15 object is to produce a simple and inexpensive device which can be hermetically closed against evaporation when it is not in use, to provide for the inlet and passage of air to and through the medicament when the device
20 is applied to the nostrils, and to enable menthol in a solid state or liquid form to be used without liability of leaking, or any other medicament, either in powdered, liquid, or solid form.

With these ends in view the invention consists in the combination, with a receptacle or
25 shell adapted to contain the medicament, of a plug fixed in one end of said receptacle and provided with a central longitudinal exhalent, passage and with an independent air-inlet
30 passage located at one side of the central passage, and a cap arranged to fit tightly over the plug to tightly close both passages therein and prevent the evaporation of the medicament, all as will be hereinafter more fully de-
35 scribed.

I have illustrated my improvement in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view through an inhaler constructed in accordance
40 with my invention. Fig. 2 is a detail view of the flanged plug, and Fig. 3 is a longitudinal sectional view of my inhaler constructed to contain medicament in solid and liquid form.

Like letters of reference denote corresponding parts in the several figures of the drawings, referring to which—

A designates the body or receptacle of my inhaler, provided with a chamber *a*, which preferably opens through one end of the shell
50 A, the open end of the shell or receptacle be-

ing threaded internally, as shown. Into this open threaded end of the shell is screwed a plug B, having its lower end screw-threaded to engage with the threads formed in the interior of the shell A at the open end of the
55 chamber *a* therein. The plug B is provided above the threaded portion thereof with an annular flange *b*, which when the plug is screwed into the shell A rests against the end of the same. The plug B is also provided
60 with a central longitudinal exhaling-passage C, which extends clear through the plug from the outer to the inner end thereof, and the plug is further provided with an independent
65 inlet-passage D, extending from the outer flange *b* to the inner end of the plug B. A foraminated diaphragm E is arranged within the central longitudinal passage C within the lower or inner end thereof. A cap F is fitted
70 tightly over the plug B and holds itself in place thereon by frictional contact with the surface of the plug, which tapers slightly, as shown, to secure a more perfect fit for the cap and effective sealing of the parts. This cap
75 serves to close the central passage C in the plug, and the inner end of the cap fits tightly to the flange *b*, and thus closes the air-inlet passage D in the plug. The medicament is placed in the chamber *a* of the receptacle,
80 either in the form of crystals or, if it is desired to use a liquid, medicated cotton is saturated with the liquid and then placed in the chamber *a*. By removing the cap F from the plug air is admitted through the inlet-passage
85 D and is drawn through the medicament in the chamber *a* and passes out through the passage C.

In Fig. 3 I have illustrated another form of my invention, in which the shell A is open at both ends and it is divided into two compartments or chambers by a porous partition G
90 of cork or any other suitable material. The open ends of the receptacle are closed by plugs B, of the construction hereinbefore described, which are screwed into the ends of
95 the shell, and over these plugs are fitted the caps F. An inhaler thus constructed is adapted to contain a suitable restorative in one chamber and to carry medicine in the other. The partition G can be moved longitudinally
100

within the case or shell A to vary the relative size of the chambers. If desired, however, such partition can be wholly removed and the device will be the same as that shown
5 in Figs. 1 and 2, with duplicate plugs and caps.

I am aware that changes in the form and proportion of parts and details of construction of the devices herein shown and described
10 as an embodiment of my invention can be made without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes and alterations as fairly fall within the scope
15 of my invention.

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

An inhaler comprising a receptacle or shell

A, a chambered plug B, fitted in said shell and 20
having an annular flange *b*, which contacts with the end of the shell and is provided with an opening C in its outer end and an independent passage D, formed in the wall of said
25 plug and opening through the inner end thereof and the flange *b*, a foraminous diaphragm E, arranged in the central chamber of the plug, and a cap F, adapted to be fitted over the plug and arranged to close both the opening *c* and the outer end of the passage D 30
therein, substantially as shown and described.

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

ALONZO DOW.

Witnesses:

MAHLON ROUCH,
WILL H. HUBBELL.