(No Model.)

F. A. CHESEBRO.

INHALER.

No. 351,577. Patented Oct. 26, 1886.

Fig. 1.

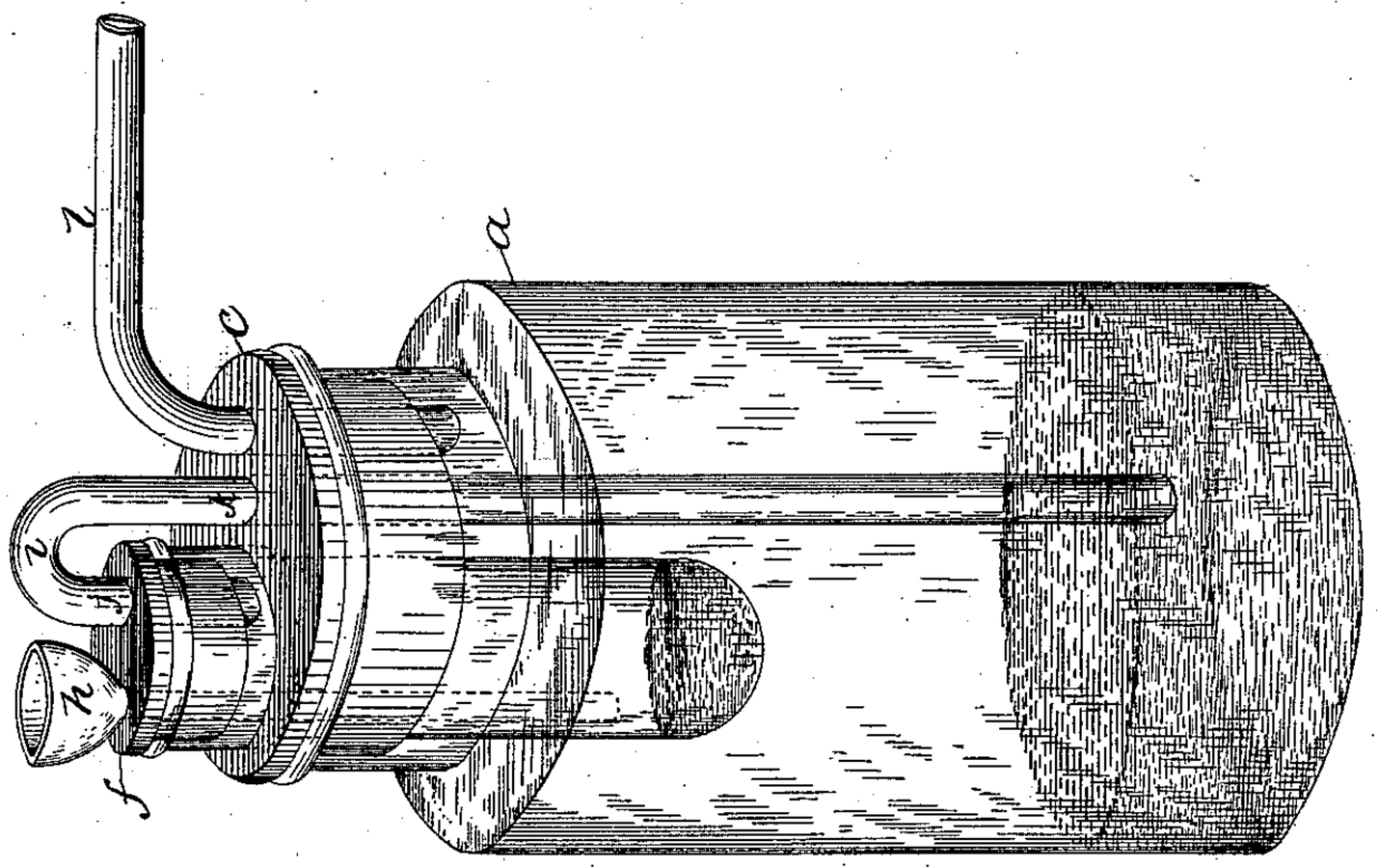
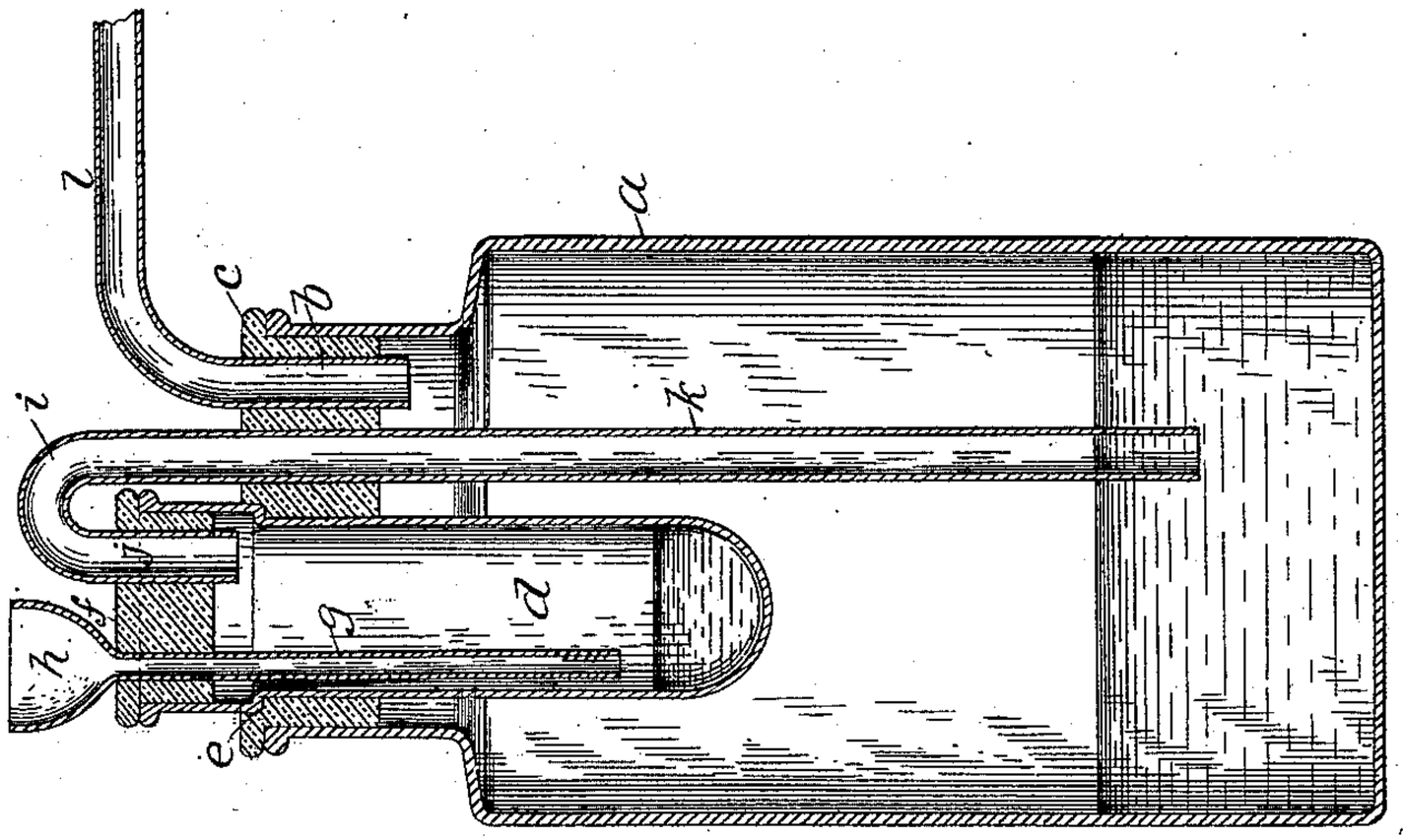


Fig. 2.



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UNITED STATES PATENT OFFICE.

FRANK A. CHESEBRO, OF BOSTON, MASSACHUSETTS.

INHALER.

SPECIFICATION forming part of Letters Patent No. 351,577, dated October 26, 1886.

Application filed June 21, 1886. Serial No. 205,761. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. CHESEBRO, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Inhalers, of which the following is a specification.

My invention relates to inhalers for inhaling or inwardly applying medicated vapors or anæsthetic agents; and has for its object to improve the construction of such contrivances, whereby they may be made more convenient in use, their several parts made strong, and easy of separation and assemblage, and liability of accidentally mixing the acid with the alkali or medicated liquid in the use of the device is obviated.

To the foregoing ends my invention consists in the improvements which I will now proceed to describe, so that others skilled in the art may be able to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, and the invention being particularly pointed out in the claim hereto appended.

Of the drawings, Figure 1 represents a perspective view of my inhaler. Fig. 2 represents a vertical section thereof.

The same letters of reference indicate the same parts in both figures.

In the drawings, *a* represents the main vessel and receptacle for the alkali or medicated liquid.

b represents the stopple for the vessel *a*, composed of any suitable material, its upper portion, *c*, being preferably formed of hard or vulcanized rubber, and the part inserted in the neck of the vessel of a softer compound.

d represents the acid-receptacle extending through and fitting closely in an aperture formed in the stopple *b*. Said acid-receptacle is provided near its upper end with an offset, *e*, adapted to fit a corresponding offset formed in the stopple, whereby the acid-receptacle is given a secure seat in the stopple, as is clearly represented in Fig. 2.

The acid-receptacle *d* is provided with a stopple, *f*, similar in character to stopple *b* of the main vessel *a*, and the air-inlet tube *g*, formed as a single part or piece and provided with the funnel *h*, formed as an integral part thereof, for filling the acid-receptacle *d* without disturbing it or its attached parts, is passed through an aperture in the stopple *f*, and preferably extends down nearly to the acid, as shown. A tube, *i*, preferably constructed of glass, and as a single piece or part, is bent into U-form at its upper end, and has its shorter arm, *j*, extended barely through the stopple *f* of the acid-receptacle *d*, while its longer arm is passed through an aperture in the stopple *b* of the main vessel *a*, and extends down into the alkali or liquid anæsthetic agent in the latter vessel.

l represents the inhaling-tube composed, preferably, of glass, and having its end connected with the main receptacle *a*, which tube is passed through the stopple *b*, so as to communicate with the interior of the latter vessel, above the anæsthetic agent therein.

By constructing an inhaler as hereinbefore described, and forming and arranging the parts as shown, I am enabled, among other things, as will be understood by those skilled in the art, to form the several parts of the requisite thickness or strength, and thus avoid liability of breakage in the ordinary use of the contrivance, a difficulty heretofore experienced with inhalers of common construction. Again, by constructing each part as separate from and independent of each and every other part, and arranging them as specified in the claim hereinafter made, I am enabled to repair such parts as may accidentally become broken or damaged at slight cost and with little trouble, and to easily and readily separate and manipulate the several parts. Each part is also simple in form and construction, making the device cheap of manufacture. Moreover, it will be seen that in the ordinary use of my invention liability of mixing the acid with alkali or medicated liquid in the main vessel by tipping the device to one side is obviated, a matter of importance in contrivances of this character.

I am aware that it is not new to construct inhalers with an acid-receptacle, a receptacle for the anæsthetic agent, an inlet-tube, a tube or tubes connecting one receptacle with the other, and an inhaling-tube, and I therefore do not claim a device embodying these elements, broadly, but limit myself to the construction, relationship, and combination of the several parts as specified in my claim, where-

by the improved results set forth in the explanation of the construction and use of the device are accomplished.

What I claim is—

An inhaler consisting of the main vessel or receptacle and its stopple, the acid-receptacle constructed as a single or separate part, and its stopple, said acid-vessel being extended through and seated in the stopple of the main vessel or receptacle, the air-inlet tube constructed as a separate or single straight stem or piece extending through the stopple of the acid-receptacle, and provided with a funnel as an integral part thereof at its upper end, the connecting-tube *i*, bent into U form at its upper end, and having its shorter stem extended through the stopple of the acid-receptacle and its longer stem passed through the stopple of the main receptacle and into the medicated liquid therein, and the inhaling-tube having one end passed through the stopple of the main receptacle, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses, this 15th day of June, 1886.

FRANK A. CHESEBRO.

Witnesses:
C. F. BROWN,
ARTHUR W. CROSSLEY.