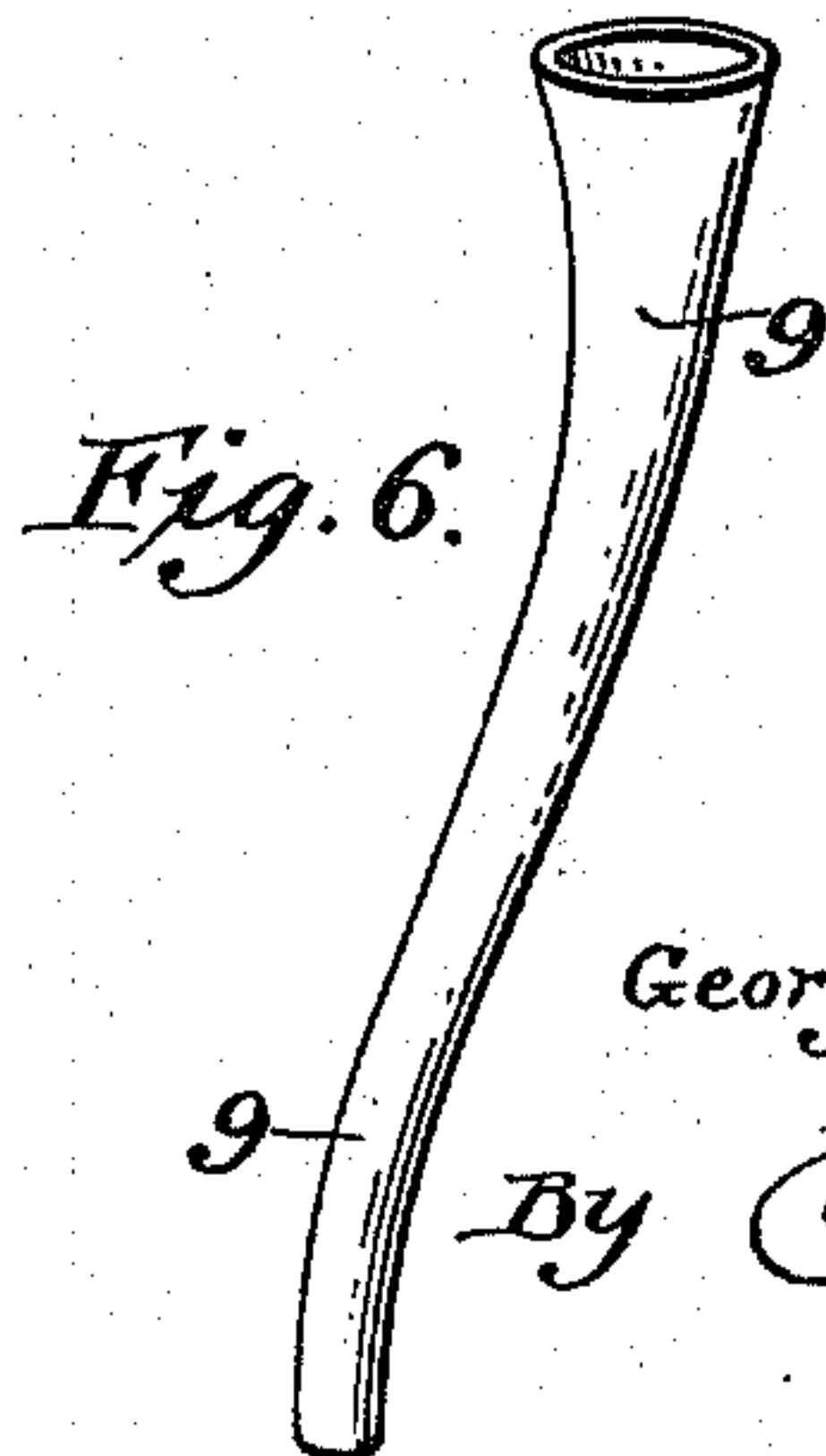
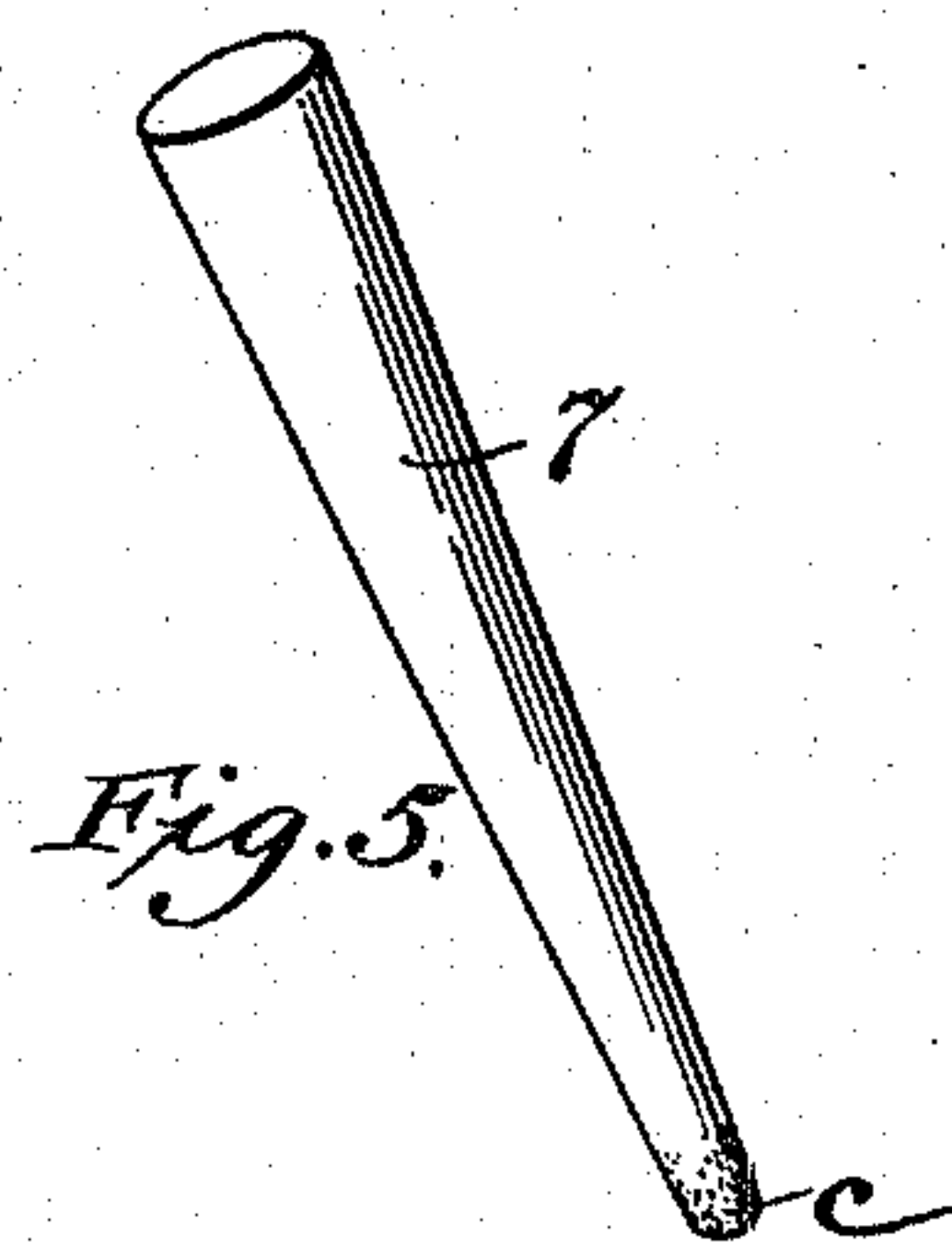
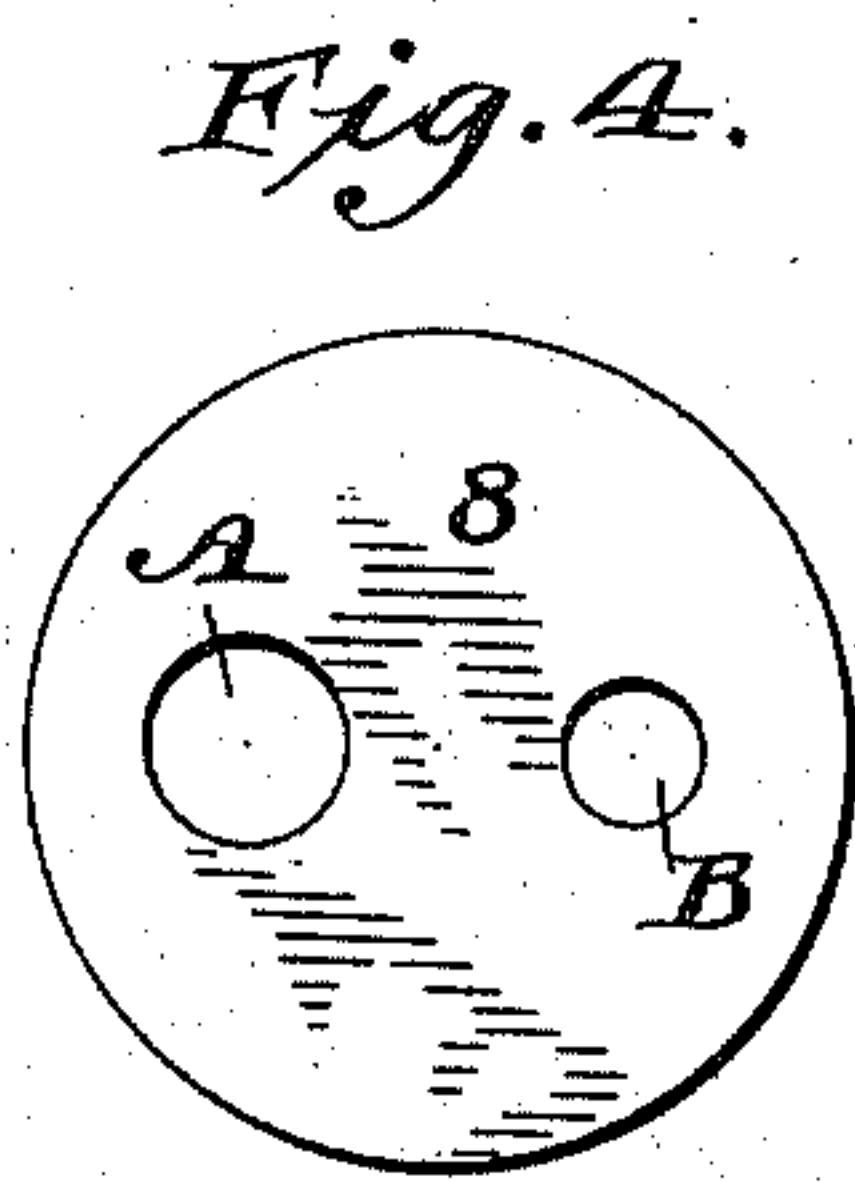
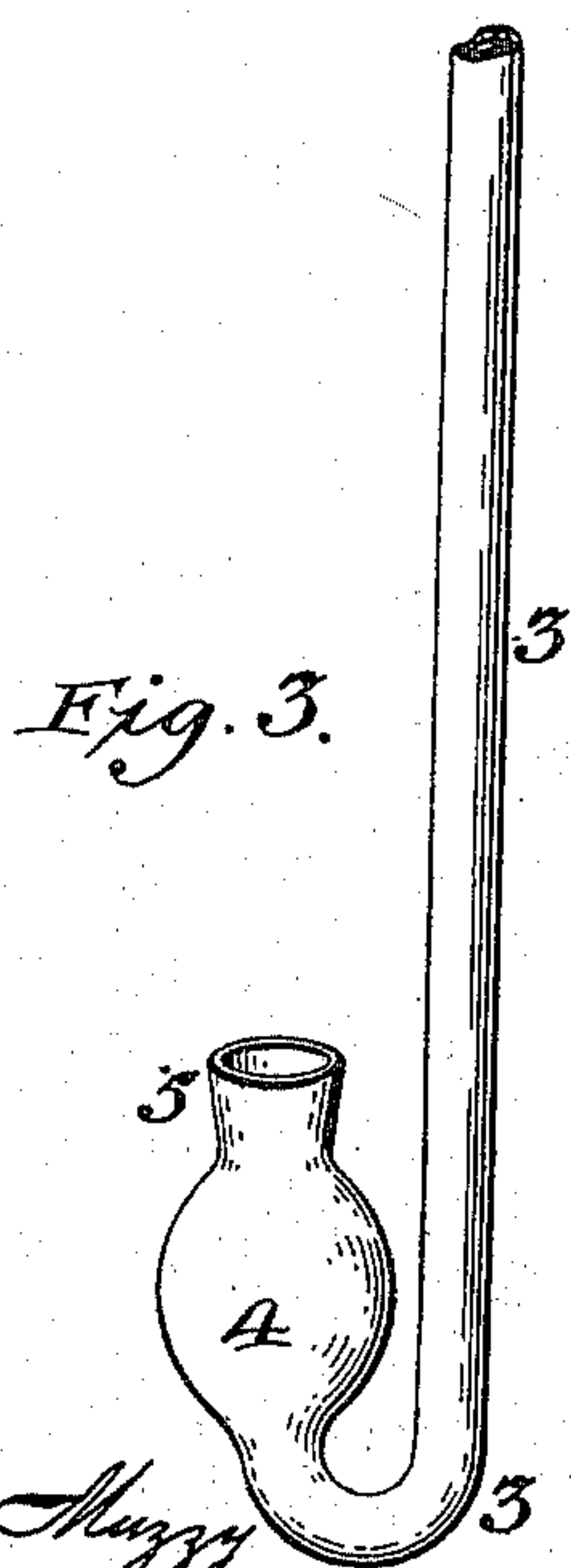
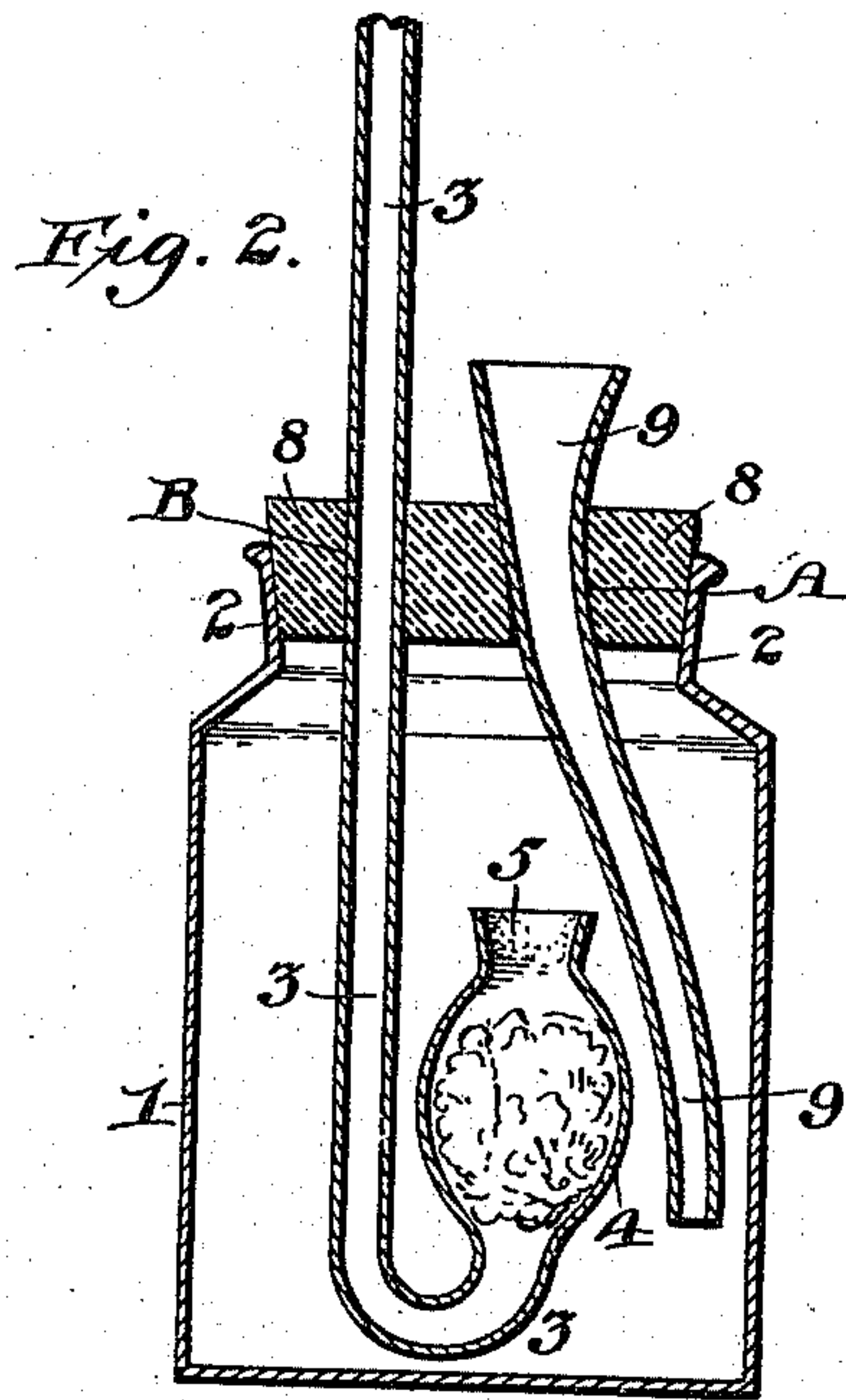
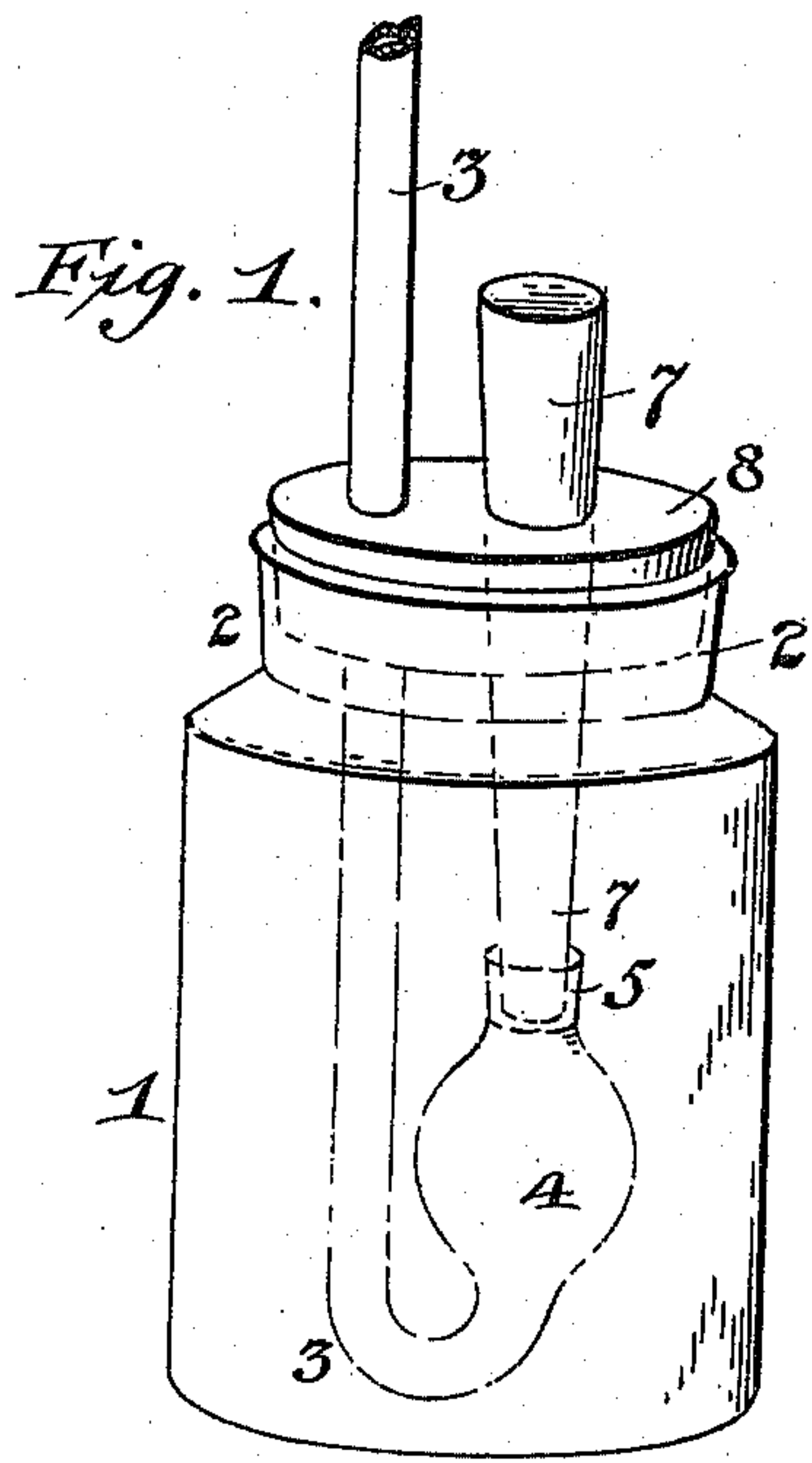


(No Model.)

G. W. SHELTON.
INHALER.

No. 573,363.

Patented Dec. 15, 1896.



WITNESSES

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UNITED STATES PATENT OFFICE.

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SPECIFICATION forming part of Letters Patent No. 573,363, dated December 15, 1896.

Application filed August 5, 1895. Serial No. 558,208. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WASHINGTON SHELTON, a citizen of the United States, residing at Webb City, in the county of Jasper and State of Missouri, have 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 make and use the same.

My invention relates to improvements in inhalers; and it consists in a receptacle for holding a solution of any desired medical quality, an air-inlet tube so arranged as to cause the air to pass close to the surface of the solution in the said receptacle, an air-outlet tube provided at one end with an enlargement or bulb adapted to hold another medicine and the other end adapted to be used as a mouthpiece, whereby air may be drawn into the respiratory organs, carrying the combined vapors of the medicine in the receptacle and of that in the bulb.

It also consists in certain other novel combinations, constructions, and arrangements of parts, as will be more particularly described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved inhaler. Fig. 2 represents a vertical cross-section of my inhaler as ready for use. Figs. 3, 4, 5, and 6 are details of the various parts of my improved inhaler.

1 in the drawings represents a bottle or similar receptacle made of glass or other suitable material and provided with a neck portion 2 at its upper end adapted to receive a suitable stopper 8.

The stopper 8 may be of cork or soft rubber and is provided with apertures A and B. In the aperture A is placed a glass tube 9, which is preferably slightly bent, and when the stopper 8 is in the bottle normally extends to a point near the bottom of said bottle. The upper end of tube 9 is preferably flared, as shown. In the aperture B is fitted a glass tube 3, the lower end of which is bent up and back upon itself, the said bent-up portion being enlarged to form the bulb 4.

The bulb 4 is loosely filled with sponge suf-

ficiently porous to permit of free and easy respiration through the same, and has a flaring mouth portion 5, which is preferably ground on its inner surface to receive a stopper, as will be hereinafter described.

The upper end of the tube 3 extends to any desired or convenient distance above the stopper 8 and may be provided with any suitable mouthpiece or nasal attachment. When the inhaler is not being used, it is desirable to close the bottle 1 tightly, as well as the bulb 4, and I provide for this purpose a solid plug 7, preferably of glass and of a slightly-tapering or conical shape. By arranging the aperture A in the stopper 8 directly above the bulb 4 it will be seen that the stopper 7 will, when inserted in the place of the air-inlet tube 9, close both the aperture A in the stopper 8 and the mouth 5 of the bulb 4, and thus prevent the evaporation or escape of the fumes of the medicines.

The plug 7 is preferably ground along the portion that fits into the aperture A, as well as at its end c, which closes the mouth 5 of the bulb 4, thus insuring snug joints at these points. The plug 7 is removed when it is desired to use the inhaler, and the air-inlet tube 9 is inserted in the aperture A, its slightly-curved shape permitting its lower end to extend to one side of the bulb 4 and to within a short distance of the bottom of the receptacle 1, as clearly shown in Fig. 2 of the drawings.

In using my invention a small quantity of medicine which it is desired to inhale, such as tincture of camphor, menthol, or others, is placed in the bottle. This is preferably charged with ammonia by adding to the solution about three drops of aqua of ammonia to about thirty drops, half a dram, of the medicine. Next some chemically-pure muriatic acid, say six drops, is put upon the sponge which is used in the bulb 4, and the stopper 8, bulb, &c., are placed in the bottle 1. The air-inlet tube 9 extends to a point in close proximity to the surface of the medicine in the bottom of the bottle 1, but preferably never extends into it. By this arrangement a patient using the inhaler draws the air through the air-inlet tube 9 over the surface of the medicine, where it becomes laden

with the fumes of the same, thence into the bulb 4, where it is combined with the vapor of the acid as it is passed through the filling of the bulb holding said acid, through outlet-tube 3 into the throat and lungs. I find that it is preferable to use about the proportions named in charging the inhaler; but different amounts can be also used to a great advantage and without departing from the spirit of my invention, and I do not wish to limit myself to any set formula.

It will be observed that my invention is of very simple and inexpensive construction, and yet experience shows it to be very effective in the uses for which it is adapted.

Having described my invention, what I claim is—

In an inhaler, the combination of a receptacle for containing a medical solution, an air-inlet tube adapted to extend near the surface of the solution in the bottom of the said receptacle, but not into said solution, an air-outlet tube, an upturned portion upon said tube, a bulb upon said upturned portion, and a porous filling in said bulb for holding a suitable chemical, substantially as described.

GEORGE WASHINGTON SHELTON,

Witnesses:

J. P. STEWART,

B. R. TANNER.