

(No Model.)

2 Sheets—Sheet 1.

R. SKENE.

INHALER.

No. 302,949.

Patented Aug. 5, 1884.

Fig. 1.

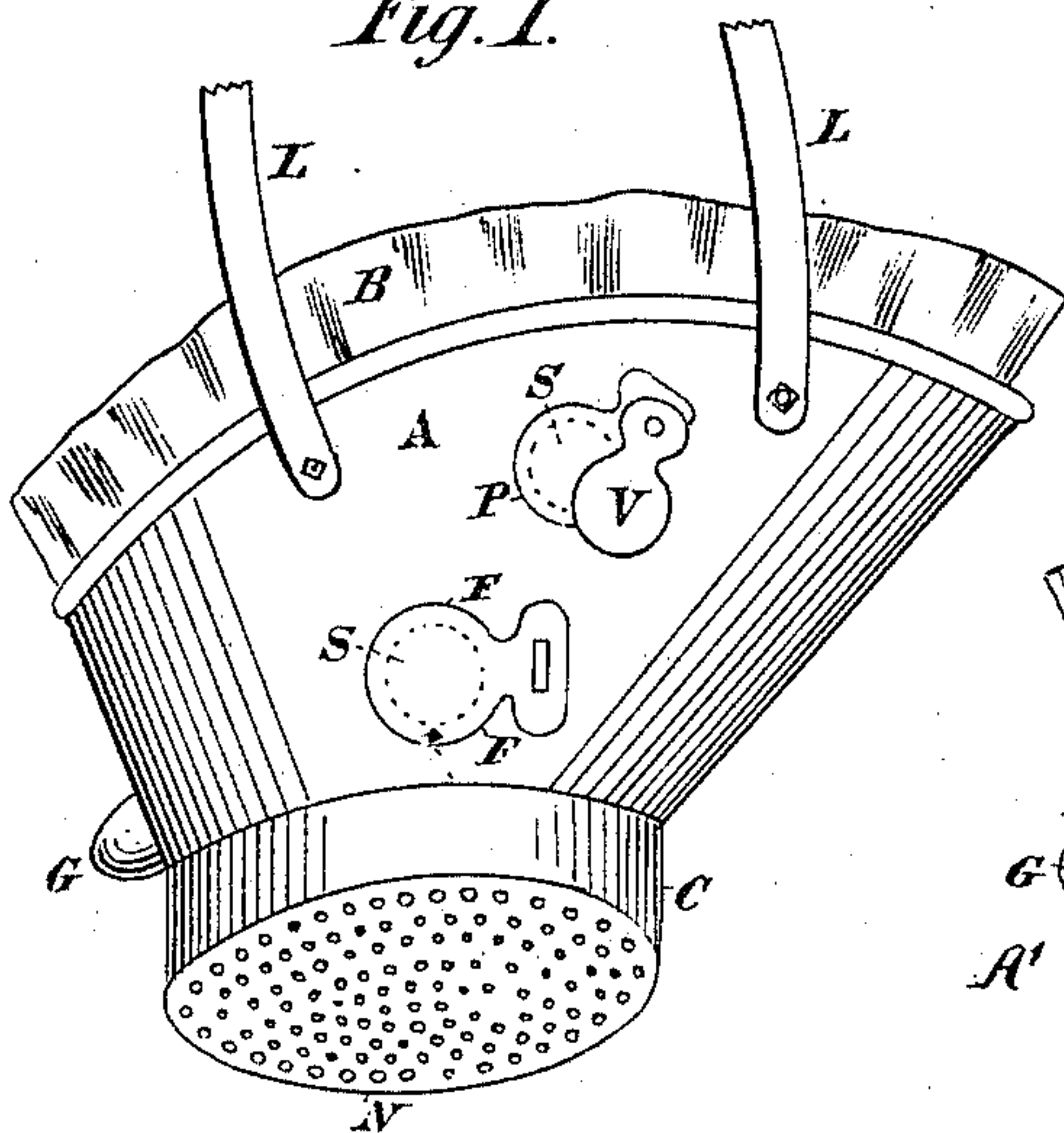


Fig. 2.

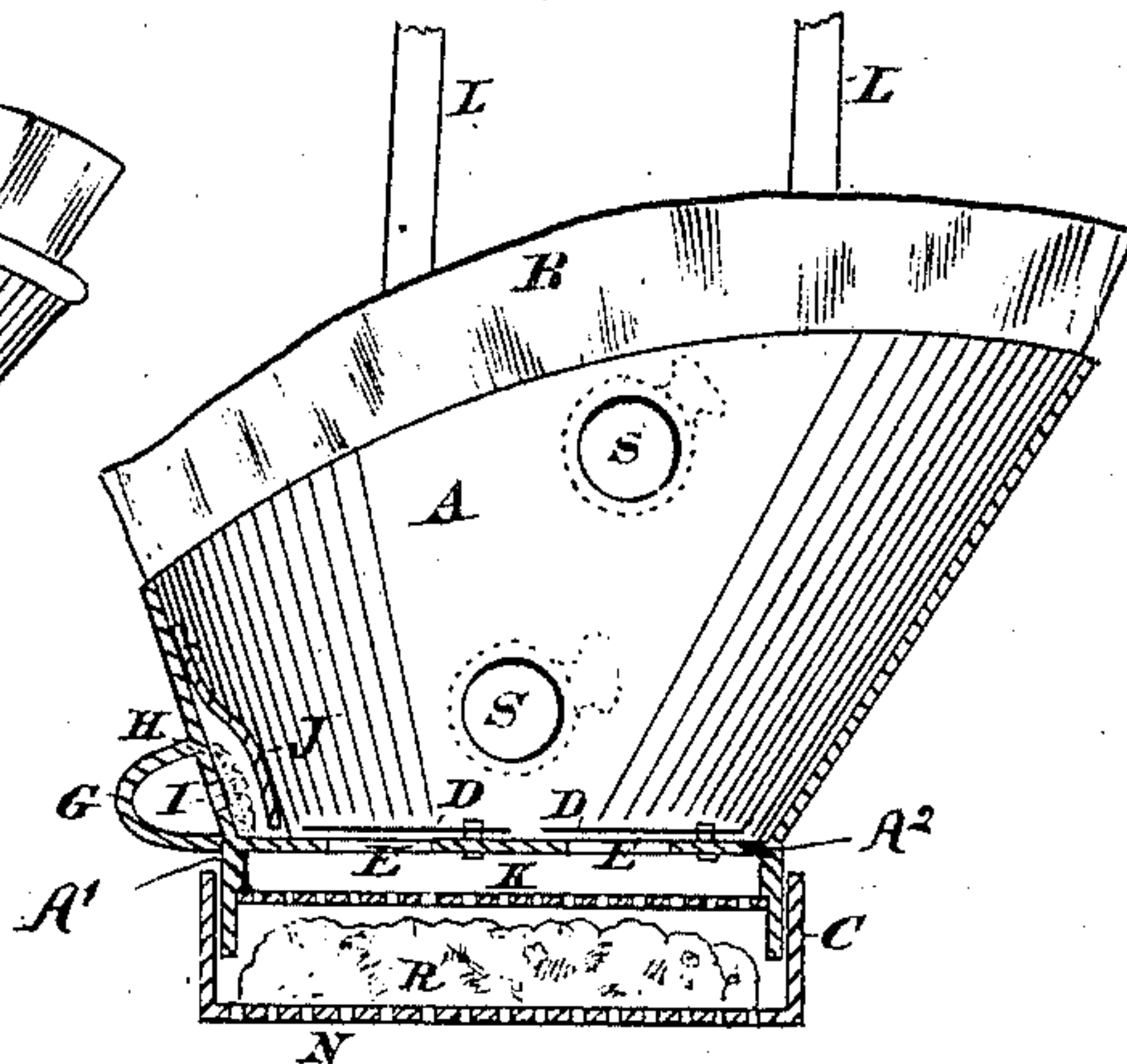


Fig. 3.

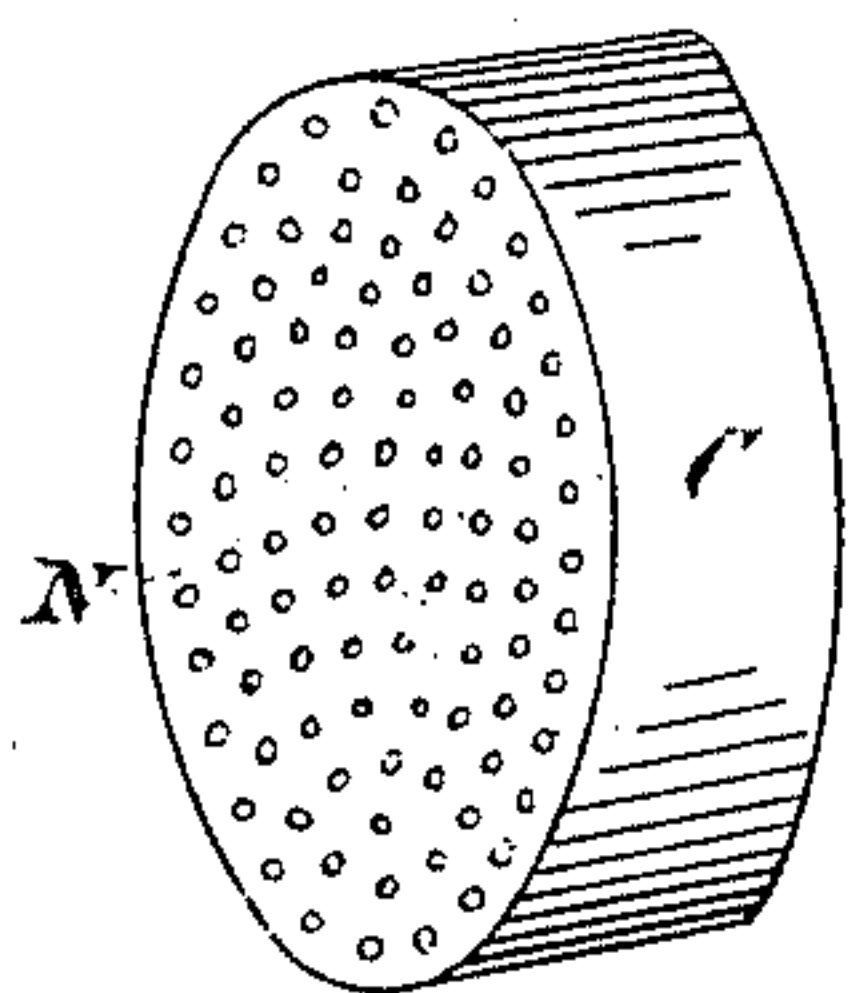


Fig. 4.

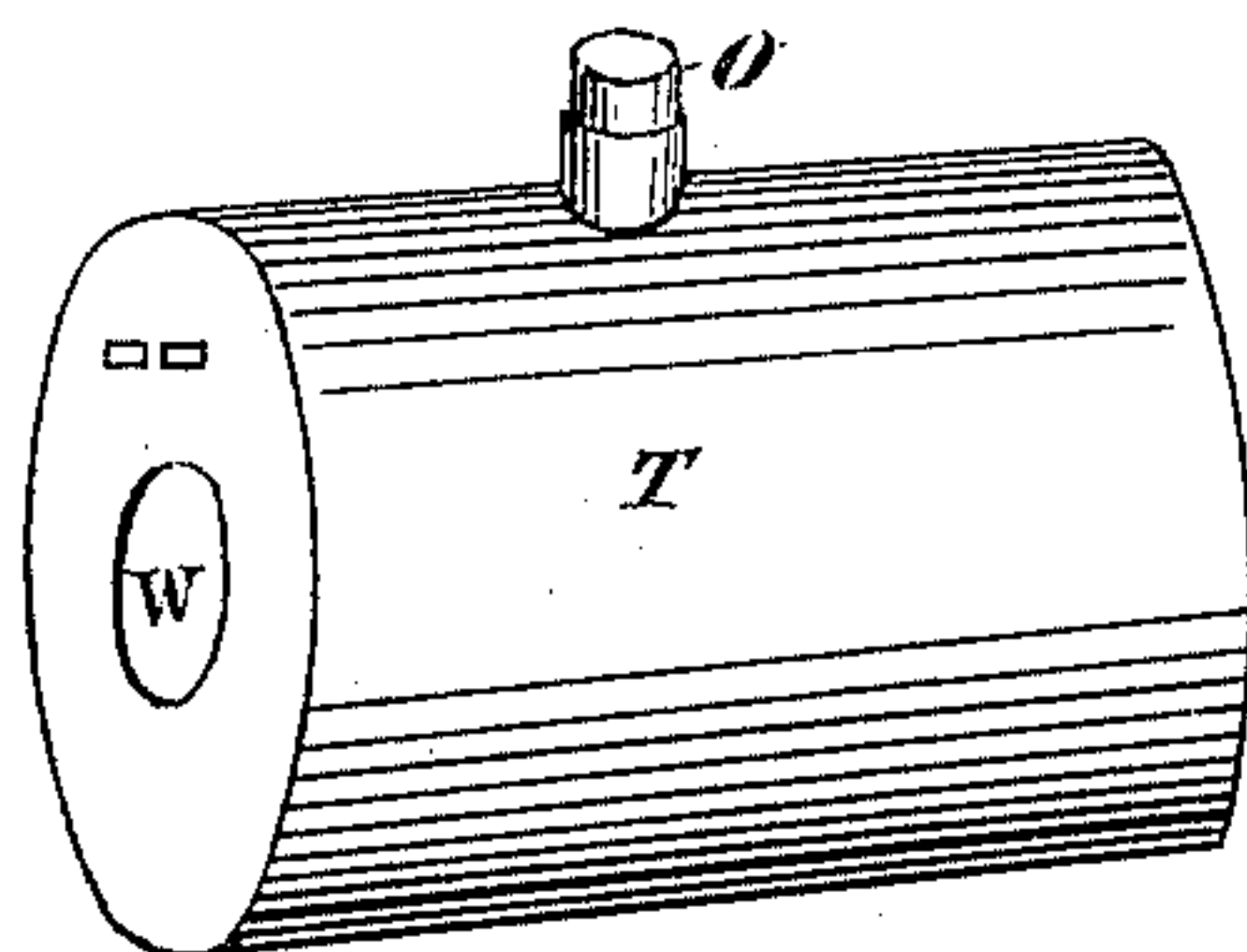
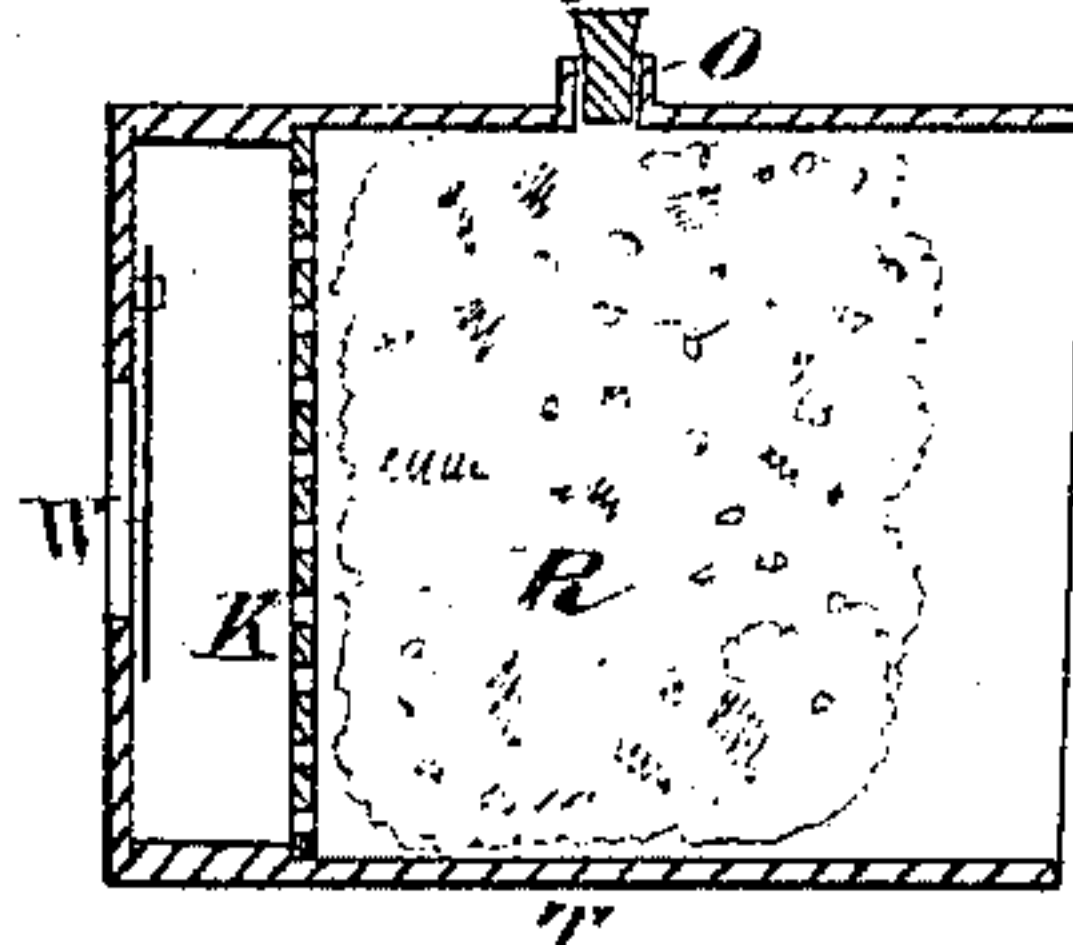


Fig. 5.



WITNESSES.

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(No Model.)

2 Sheets—Sheet 2.

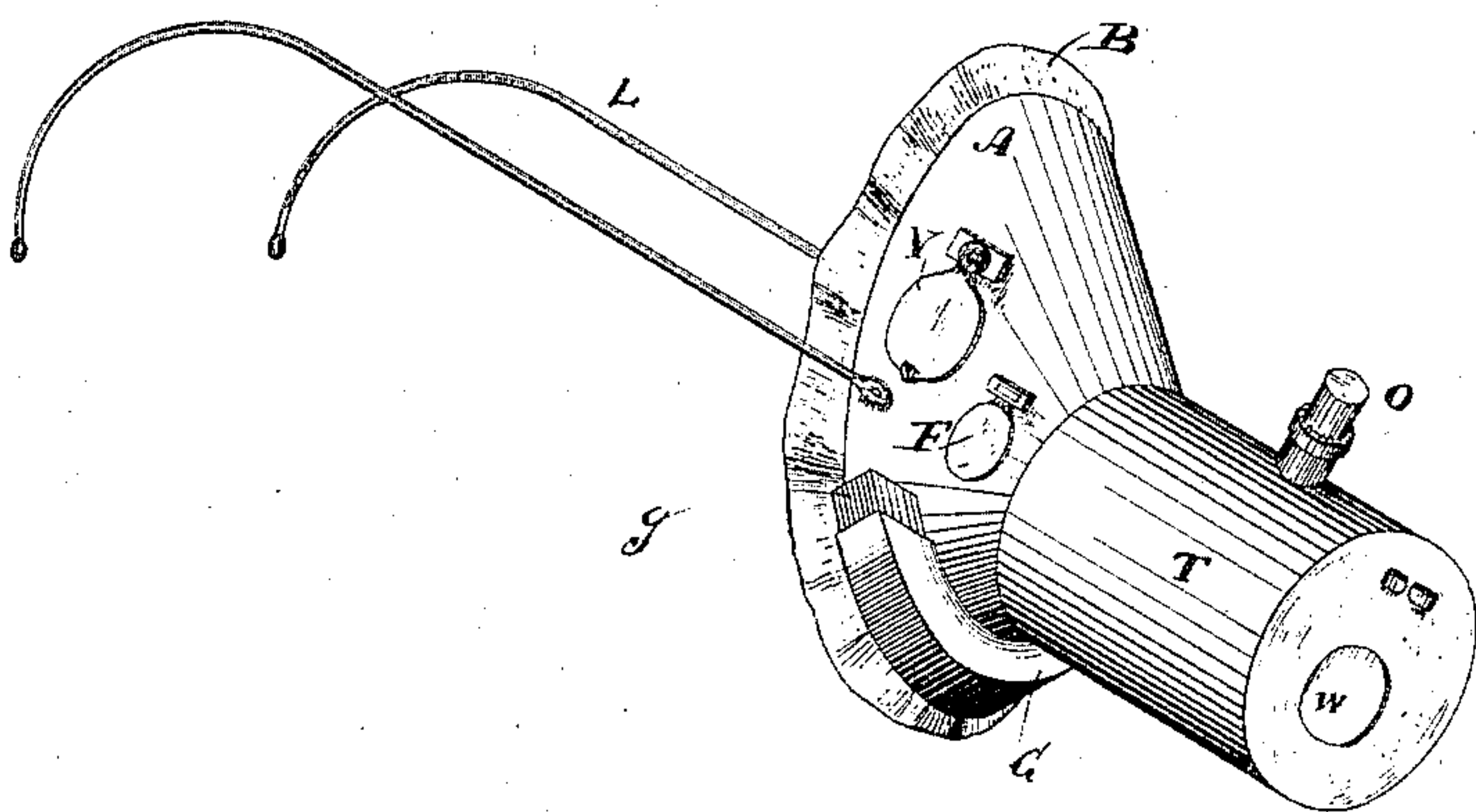
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Fig. 6



WITNESSES

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UNITED STATES PATENT OFFICE.

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INHALER.

SPECIFICATION forming part of Letters Patent No. 302,949, dated August 5, 1884.

Application filed July 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, ROBERT SKENE, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented a certain new and useful Improvement in Medical Vapor-Inhalers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, forming part of this specification.

The present invention relates to a device for inhaling medicated vapors, which can be easily applied to the face of the patient and worn with comfort, provision being made for the attachment of or the interchangeable use of different-sized receptacles for the medicated fluid, and means being furthermore provided for collecting the saliva or condensed breath of the patient.

To these ends the invention consists in the construction and combination of parts, which will be more fully described hereinafter, and then set forth in the claims.

In the drawings, Figure 1 is a perspective view of an inhaler embodying my improvements. Fig. 2 is a vertical section of the same. Fig. 3 is a detail view of a detachable perforated cap adapted to receive a sponge saturated with a medicated liquid. Fig. 4 is a detail perspective view of another form of detachable cap for the purpose of inhaling chloroform. Fig. 5 is a sectional view of said chloroform-cap, showing its front valve opening and the sponge-receptacle. Fig. 6 is another perspective view of the inhaler, showing the chloroform-cap in position and representing more clearly the saliva-receptacle with its stoppered end.

In the drawings, A represents the shield or cover, which is made of metal of the form shown in the drawings, and is so shaped as to fit closely over the mouth and nose, with the lower end terminating in a ring-shaped extension, A', which is closed on the inside with a permanent bottom plate, A², located in front of the mouth, with the end projecting on the outside sufficient to receive the sponge-cap C. A curtain, B, of india-rubber or other soft material, extends around the edge of the shield to prevent it from injuring the face and to render it air-tight.

E E are the inlet valve-openings in the ring-bottom A², and D D are the inlet-valves hinged to the bottom in the center, and which cover the openings E E, through which the vapor is inhaled or drawn into the lungs through both mouth and nose while in the act of breathing.

F F are the outlet or discharge valves, hinged at the sides of the shield A, through which the breath or vapor escapes to the open air, and S S are the openings closed by said valves. All of the above-named valves are made of india-rubber or other soft material, and of the form shown.

A curved cup or receptacle, G, following the contour of the under side of the shield A, serves as a receptacle for the saliva or condensed breath of the patient and communicates with the interior of the shield by means of openings I. A piece of sponge, H, is placed over these openings, and serves as a medium for allowing the saliva and condensed breath to percolate into the cup or receptacle, and preventing the liquid in the latter from flowing back into the shield. A stopper, g, applied to the outer end of the saliva cup or receptacle, as is shown in Fig. 6, serves to close the same, and can be removed for emptying the liquid contents of the cup.

J J are small strips of metal for holding the sponge H in its place, and K is a perforated plate between the valve-openings E E and the sponge R in the cap, to prevent the sponge from obstructing the openings. C is the sponge-cap, which is fitted on the ring-shaped extension A' of the shield A, and closes the lower end of the latter. The bottom or outer plate, N, of this attachable cap c is perforated with small holes, through which the medicated air or vapor is drawn into the shield by the act of breathing.

R is a flat piece of sponge in the bottom of the cap C for the purpose of holding the medicated fluid, the vapors of which are drawn into the lungs by the air drawn through said saturated sponge and the perforated plates by which it is held. P P are additional valves on the sides of the shield A, that are covered with hinged metal plates V V, which may be turned aside and the valves rendered operative when the valves F are an insufficient outlet for the discharge of the breath.

L L are metal springs for holding the device

on the face; but other means may be resorted to for holding the inhaler in position.

In Figs. 4, 5, and 6 I have shown a sponge-cap or liquid-receiver, T, which is specially adapted for administering chloroform or other anæsthetic agent in larger quantities than can be administered by the sponge-cap C. This cap T is made of a shell-shaped body or cylinder having an opening in its end plate that is covered by an india-rubber valve, W, adapted to open in an inward direction. A sponge, R, saturated with the anæsthetic agent, is placed in the cap T and is held away from the valve W by the perforated plate K. It may be stated that this plate and likewise the plate K of the ring-shaped extension A' are made detachable. A stoppered opening, O, in the top of the cap T serves for the admission of the chloroform without requiring the removal of the cap T from the body of the inhaler.

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

1. An inhaler for medicated vapors, consisting, essentially, of a shield or shell-shaped body made of some rigid material, and having a flexible curtain or outer flexible flange, an exterior saliva-cup or liquid-receptacle communicating with the interior of the inhaler-chamber, and provided with inhaling and exhaling valves, and with an attachable and detachable cap or receptacle for the liquid to be vaporized, substantially as herein set forth.

2. An inhaler for medicated vapors, having an outer saliva-cup communicating with the interior of the inhaler-chamber, substantially as herein set forth.

3. An inhaler having bottom openings, and a sponge placed over the same, and an exterior saliva-cup or liquid-receptacle, substantially as herein set forth.

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Witnesses:

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