

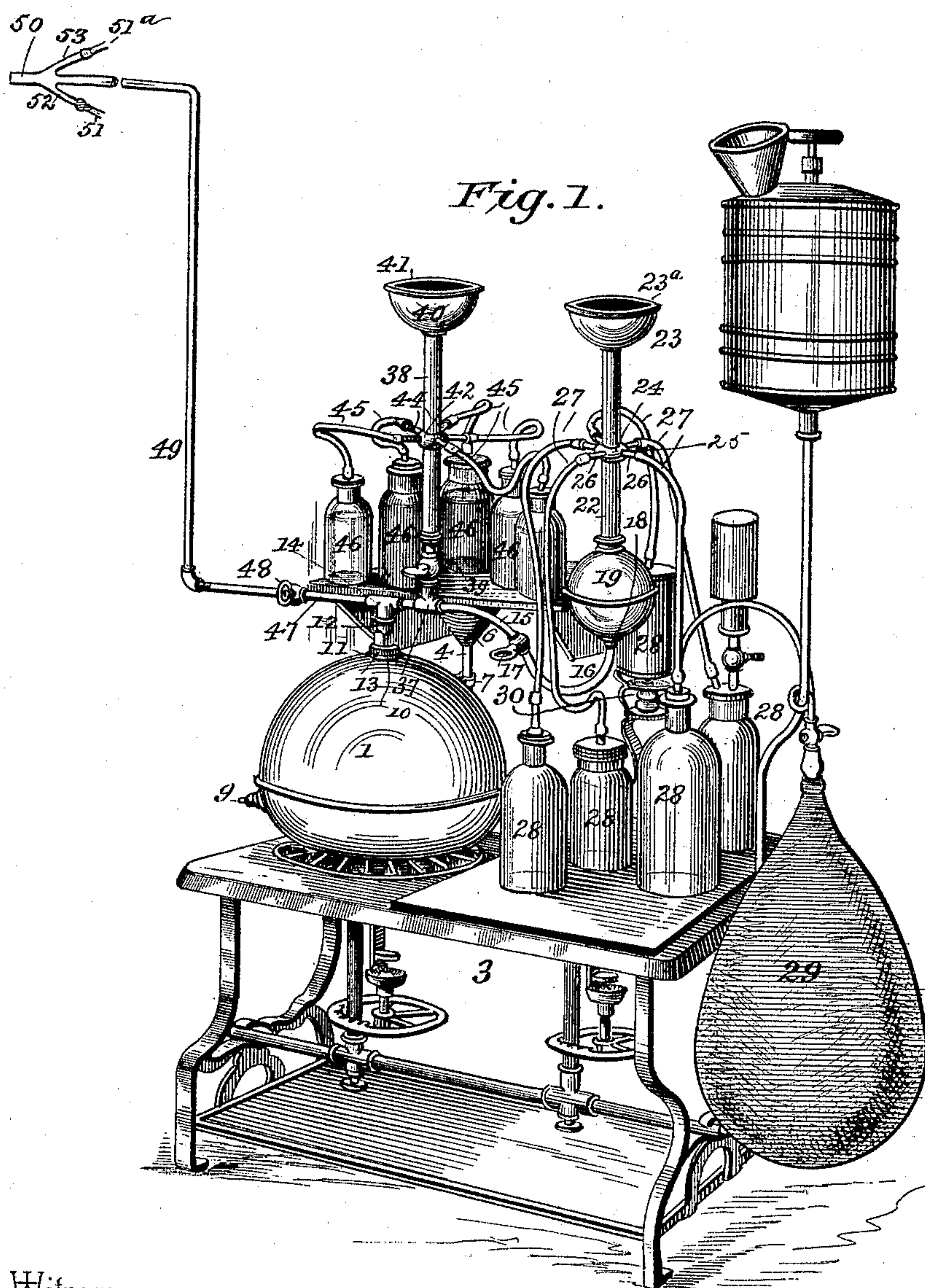
(No Model.)

2 Sheets—Sheet 1.

C. C. COOPER.  
STEAM MEDICATOR.

No. 497,232.

Patented May 9, 1893



Witnesses:

Inventör

D. O. Hathaway

*C. C. Cooper*

By *his* Attorneys,

W. S. Duvall.

*Chas Snow & Co.*

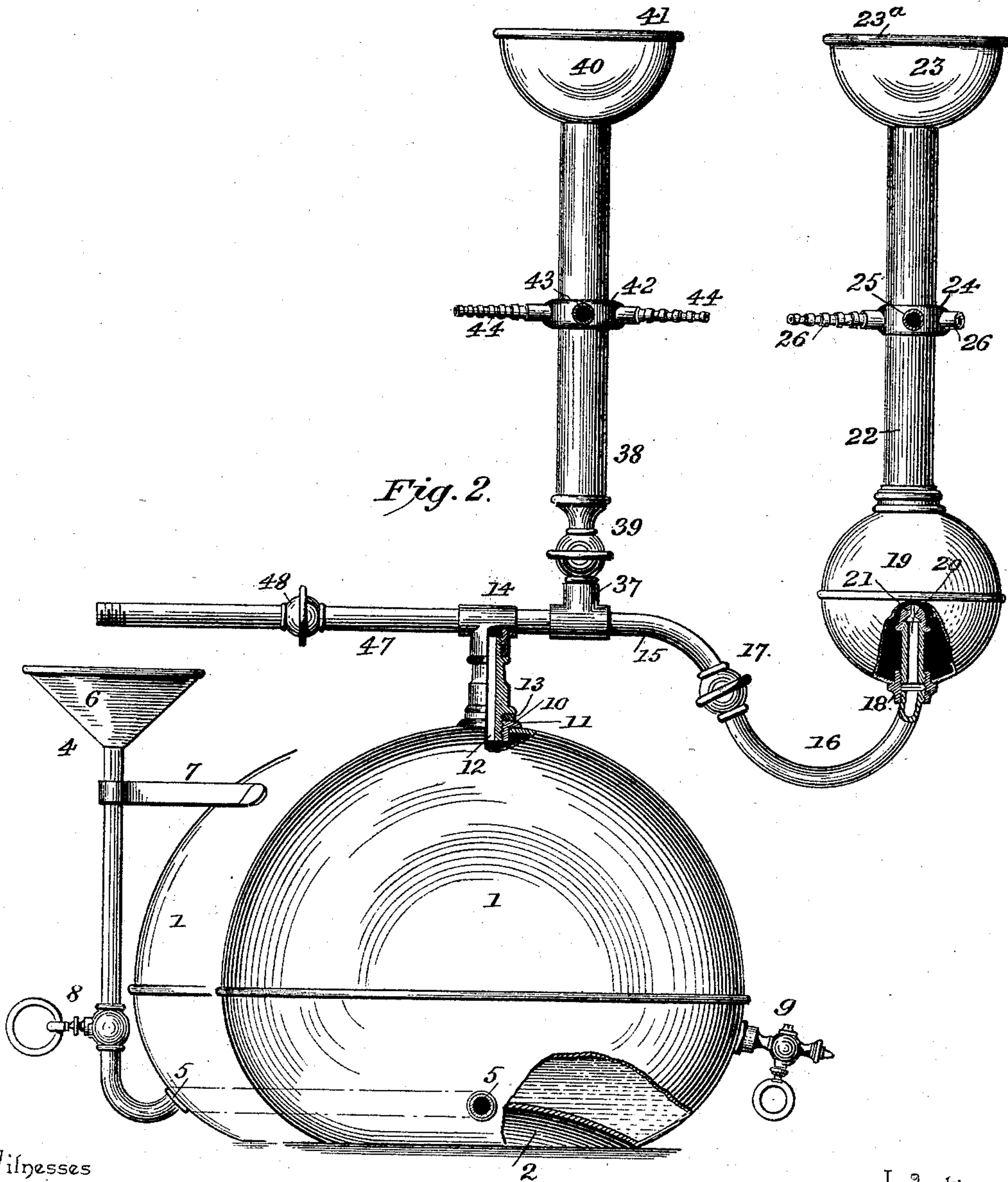
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Inventor



# UNITED STATES PATENT OFFICE.

CHRISTOPHER C. COOPER, OF HAVANA, ILLINOIS.

## STEAM-MEDICATOR.

SPECIFICATION forming part of Letters Patent No. 497,232, dated May 9, 1893.

Application filed September 1, 1891. Serial No. 404,427. (No model.)

### *To all whom it may concern:*

Be it known that I, CHRISTOPHER C. COOPER, a citizen of the United States, residing at Havana, in the county of Mason and State of Illinois, have invented a new and useful Steam-Medicator, of which the following is a specification.

This invention relates to steam medicating apparatus; and it has for its object to provide certain improvements in devices of this character, whereby steam can be thoroughly and effectively medicated without boiling the medicine together with the water, such medicated steam being commonly employed in the treatment of throat and lung troubles.

To this end the invention primarily contemplates improved devices for medicating steam and distributing the same for convenient use.

With these and other objects in view which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangements of parts, hereinafter more fully described, illustrated and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a steam medicating apparatus showing the medicating apparatus and all the appurtenances thereof connected with the apparatus. Fig. 2 is a side elevation partly in section with the medicine bottles and tubes detached from the apparatus.

Referring to the accompanying drawings, 1 designates a steam generator or boiler which is preferably of a spherical shape and provided with a concaved bottom 2 which comes in direct contact with the flame over which the same may be placed. The said boiler is constructed of any suitable material and is designed to be heated by any suitable means, but as illustrated in the drawings is placed directly over the flame of one of the burners of an ordinary gasoline stove 3, and said boiler is further provided with a filling tube 4 communicating with the inlet 5 located near the bottom of the boiler and extending vertically above the top of the same terminates in a flared or funnel end 6 which receives the water with which the generator is filled, and said pipe is suitably braced from the boiler by means of the angular brace rod 7 secured to said boiler and encircling said pipe which is

further provided with an ordinary stop cock 8 shutting off communication between the pipe and the boiler when the latter has been sufficiently filled. A water cock 9 is also secured within the side of the boiler and provides means whereby the water therein may be easily and readily withdrawn therefrom when desired. The top of said steam generator or boiler is provided with a central steam escape opening 10 within which is inserted a bushing 11 to form a secure and steam tight joint and is adapted to receive the inner screw threaded end of the pipe 12 between which and said bushing is located an ordinary packing washer 13 which forms a seat and bearing for said upright pipe 12. A T-coupling 14 is screwed on to the upper end of said vertical steam escape pipe 12 and is adapted to lead the steam into the lateral steam conducting tube 15, which extends in a horizontal direction from the vertical steam escape pipe and is provided with a depending curved portion 16 within which is located a steam cock 17 by means of which the passage of steam is controlled. Upon the end of the lateral steam conducting pipe is secured the threaded bushing 18 upon which is seated and supported the spherical reservoir 19 constructed of suitable material and designed to hold and retain any medicine with which it is desired to impregnate the steam passing there-through. Vertically projecting within said reservoir is the injecting tube 20, the lower end of which is secured within the threaded bushing 18 upon which the reservoir is supported, and upon its upper end is screwed the perforated nozzle or cap 21 which causes a thorough diffusion of the steam and thus will compel the same to take up the medicated substances contained in the reservoir in its upward ascent under pressure. Suitably secured within the top of said reservoir 19 is the vertical escape tubing 22 through which the steam after leaving the medicating reservoir travels in its passage to the devices used for utilizing the medicated steam. It will be readily seen that any suitable means may be employed for carrying the steam thus medicated to the affected parts, external or internal. The upper end of said tubing terminates in, or is provided with the semi-cylindrical enlarged bowl or cup 23, over which may be placed the



instrument used for inhaling the escaping medicated steam or other steam carrying device, and which allows an enlarged area in which the escaping steam under pressure may expand. Intermediate of said bowl or cup and the medicine reservoir the said escape tube 22 is provided with an annular ring or flange 24 provided with a series of perforations 25 communicating with the interior of said escape tube and within which are designed to be secured a series of radiating notched nozzles 26. The said nozzles are designed to be attached to one end of a series of conducting tubes 27, which connect the same with a number of receptacles 28 which may be provided with suitable medicaments, some of which latter substances may be driven off by force from a gas bag 29 being inflated and connected with the medicament bottle or receptacle. One of the receptacles may be independently heated by a spirit lamp 30 as illustrated in the drawings, so that the vapor from the medicine can be forced into the escape tube in case the steam would not sufficiently draw the same up through the conducting tube. This depends entirely upon the nature of the medicines used and the character of the case to be treated.

It must be readily seen that the kind of medicine to be used in the several flasks cannot be definitely specified, as the medicine, as already stated, must depend upon the particular case and must be varied to suit the judgment or discretion of the person employing the apparatus.

Intermediately secured upon the lateral steam conducting pipe 15 between the curved portion 16 thereof and the T coupling 14 thereof is the additional T coupling 37 within which is secured the vertical supplemental steam escape tube 38 corresponding in shape and size to the main escape tube 22 and extending up parallel with the same, and is provided directly above its connections with said T coupling with the steam cock 39 whereby the steam may be admitted through said tube or shut off from the same as may be desired. The upper end of said escape tube is provided with a cup or bowl 40 corresponding in shape and size to the bowl 23 and is also provided with the shouldered flange 41 upon which may be readily seated one end of an inhaler. The said escape tube intermediate of said bowl and said T coupling 37 is also provided with the annular ring or flange 42 which is also provided with a series of perforations 43 communicating by flexible connections with the interior of said supplemental escape tube. A series of radially extending notched nozzles 44 are secured within said perforations and are adapted to receive the ends of the medicament conducting tubes 45 which connect with a series of receptacles 46 corresponding to the receptacles 28 previously described and designed to contain antiseptic solutions which are designed to medicate the steam as it escapes through

the supplemental escape tube 38 and render the same thoroughly antiseptic. After the inhalations of the medicated steam from the first or main steam tube 22 the steam cock 17 regulating the supply of steam thereto is turned off, and the steam cock 39 of the supplemental escape tube is opened and permits the steam to pass through said supplemental tube, and in its antiseptic condition as escaping from this tube is also used as may be found necessary, but it is of course understood that the said escape tubes may be employed entirely independent of each other in treating affected parts, depending upon the nature of the medicines needed. Laterally secured within the opposite perforation of the T coupling 14 is the oppositely extending steam conducting pipe 47 provided with a steam cock 48 which allows the steam to pass therethrough or to be shut off therefrom when desired, and said pipe is designed to be used when both the main and supplemental steam escape tubes are not in operation. A steam pipe 49 is designed to be coupled to the end of the steam pipe 47 and conducts the steam to its outer discharge end 50 with which communicates the nozzle 52 and the atomizer tube 51 to the rearwardly extending nozzle 52, and connected thereto, the latter being connected with any suitable atomizing device for injecting the steam upon the affected parts in the treatment of nasal catarrh, and a similar tube or pipe 51<sup>a</sup> is connected to the opposite nozzle 53 projecting inwardly similar to the nozzle 52 for the atomizer attachment, for the attachment of an inflated air bag to cool the ejected steam sufficiently to prevent scalding or burning the post nasal cavities.

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

1. In a steam medicator, a steam generator, a combined steam conducting and escape tube connected with said generator and provided with a radial series of separate and independent nozzles connected therewith at an intermediate point, and separate and independent tubes connected separately to each of said nozzles and separate medicament receptacles, substantially as set forth.

2. In a steam medicator, the combination of a steam medicator, a vertical steam tube terminating at its upper end in a bowl or cup adapted to removably receive one end of an inhaler, said vertical tube being provided with a series of annular perforations at an intermediate point, a radial series of separate and independent notched nozzles adapted to be inserted in said perforations, and separate and independent medicament conducting tubes removably slipped over each of said nozzles and adapted to be connected with suitable medicament receptacles, substantially as set forth.

3. In a steam medicator, a boiler or generator, a steam conducting tube connected to said boiler, a medicament reservoir supported



upon one end of said steam tube which latter projects therein, a vertical escape tube connected to said reservoir in a line with the projected end of said steam tube, and medication conducting tubes connected with said escape tube above the reservoir and suitable auxiliary medicament receptacles, substantially as set forth.

4. In a steam medicator, a boiler or generator, a steam conducting tube connected to said boiler, a medicament reservoir supported upon one end of said steam tube, an escape tube connected to said reservoir and provided with an annular ring or flange having a series of threaded perforations, radial nozzles inserted in said perforations, and tube connected with each of said nozzles and auxiliary medicament receptacles, substantially as set forth.

5. The combination with a generator comprising a spherical body having a concaved bottom adapted to receive the heat from the heating source, a filling tube secured near the lower bottom edge of said body and extending vertically above the top of the same and provided with a flared or funnel receiving end and a stop cock, an angular brace encircling said tube and connected to said body, and a water discharge pipe located at one side of the generator; of the steam escape tube, and medicament devices connected with said escape tube, substantially as set forth.

6. In a steam medicator, the combination of a boiler or generator, a steam conducting tube connected to said boiler, a medicament reservoir supported upon said steam tube, an injecting tube projecting within said reservoir from said steam tube and provided with a perforated diffusing cap, a vertical escape tube connected to said reservoir and provided with a series of perforations intermediate of its ends and terminating at its upper end in an enlarged bowl or cup provided with an encircling flanged shoulder adapted to receive one end of an inhaling instrument, radiating nozzles inserted in said perforations, and conducting tubes connected to said nozzles and medicament receptacles, substantially as set forth.

7. In a steam medicator, the combination of a boiler or generator, a laterally extending steam conducting tube connected to said boiler, a vertical escape tube connected to one end of said steam conducting tube and having a flared upper end, a supplemental vertical escape tube connected to the steam conducting tube intermediate of the escape tube at one end of the steam tube and the connection with the boiler or generator, and separate sets of medicament tubes connected with each of said escape tubes and suitable medicament receptacles, substantially as set forth.

8. In a steam medicator, a boiler or generator, a steam conducting tube, a medicament reservoir connected to one end of said steam tube, a vertical escape tube supported upon said reservoir and provided with a radial series of perforations, and an enlarged bowl or cup at its other end having an encircling flanged shoulder, separate nozzles removably inserted in said perforations, an auxiliary escape tube connected to the steam tube between its connection with the boiler or generator and said medicament reservoir, said auxiliary escape tube being similarly constructed to the main escape tube and having removable nozzles, and separate sets of medicament tubes removably engaging the nozzles of each escape tube and connected to medicament receptacles, substantially as set forth.

9. In a steam medicator, the combination of a boiler or generator, a T-coupling secured to the top of said boiler or generator, a main steam conducting tube coupled to one side of said T-coupling and having an end and an intermediate escape tube, separate medicament tubes communicating with both of said escape tubes, and a separate valved steam conducting pipe coupled to the opposite side of said T-coupling and having coupling nozzles at its outer end, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CHRIS. C. COOPER.

Witnesses:

C. P. BALLINGER,  
HARRY S. HAGAN.