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2,343,458

VAPORIZER

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Fig. 1

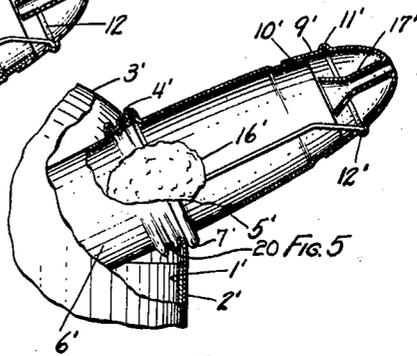
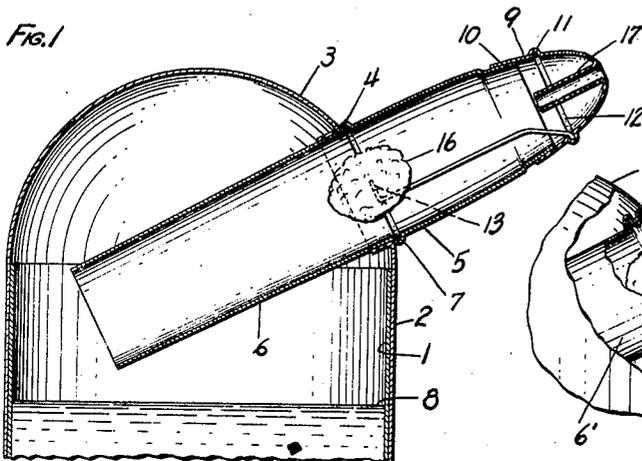


Fig. 2

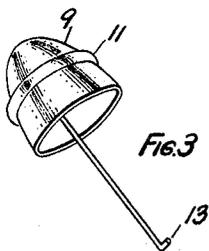


Fig. 3

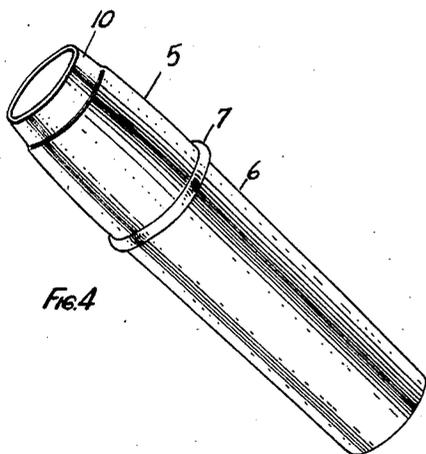
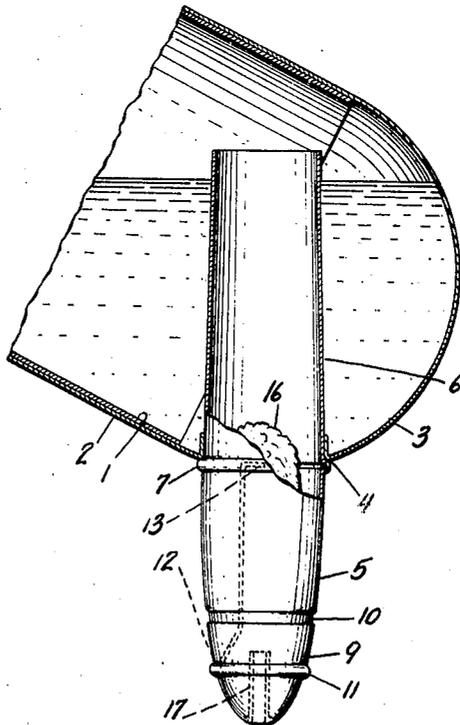


Fig. 4



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VAPORIZER

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3 Claims. (Cl. 21-117)

This invention relates to steam inhalators or vaporizers commonly used for the treatment of diseases and irritations of the respiratory tract, especially of children, such as croup, bronchitis, laryngitis and severe head colds. Such vaporizers are also used for steaming the face or hair in beauty parlors.

More particularly, the invention relates to the type of vaporizer in which no medication or other material is placed in the water in the container, but, if used, is placed in the path of the escaping steam as by being placed upon absorbent material above the water level.

More particularly, my invention relates to an improvement on the type of vaporizer shown in my prior application for Letters Patent of the United States, now Patent No. 2,329,110, dated September 14, 1943, for Electrical vaporizers, the improvement consisting especially in the construction of the steam spout.

In using vaporizers of this type, the user's face is often fairly close to the device and in the prior types there is danger that drops of hot water, formed by the condensing steam at the nozzle, be forced out of the nozzle onto the patient's skin. There is also some danger that the device might be tilted and the hot water run out through the spout. I overcome both of these difficulties by my present invention.

Referring to the drawing, showing one form my invention may assume,

Fig. 1 is a vertical section through the upper portion of my improved vaporizer.

Fig. 2 is a view showing the same tilted through a substantial angle, illustrating how the water will not run out of the steam spout or nozzle.

Fig. 3 is a detail in perspective of the cap or nozzle element of the steam spout.

Fig. 4 is a detail, in perspective, of the body portion of said element.

Fig. 5 is a sectional view showing a modified form of the invention.

As explained in my prior application, I prefer to construct the vaporizer of two cylinders or cups 1 and 2 of sheet metal, which are telescoped so that the part 1 forms the bottom and inside of the container and the part 2 the outside and top. The top is preferably made dome-shaped and is provided with an aperture 4 at one side for the reception of my improved form of spout 5. This is shown as in the form of a long cylinder or pipe 6 provided with a bead 7 between its two ends and which normally serves as an abutment to limit the amount the cylinder is inserted into the container and to act as a steam

and water seal. The spout extends within the container for a substantial distance and is inclined at a sufficient angle to the vertical to prevent the user from burning him or herself in case the device is tipped forwardly. With the long inclined extension, water will not run out the spout if not filled above the water line 8, which is preferably marked on the container, even if the same be tipped up through a substantial angle, as shown in Fig. 2.

The cap or nozzle portion 9 of the spout fits over the tapered end 10 of the spout and is shown as provided with a bead 11 in which is snapped a spring wire 12. The lower end of said wire is bent downwardly and inwardly to form a small hook 13 for the reception of an absorbent 16, such as cotton, on which the medicine is placed. The nozzle, instead of being merely a hole or turned-in portion in the end of the cap, is in this instance in the form of a small tube 17 extending inwardly from the top of the cap a sufficient distance so that any drops of water collecting at the nozzle through condensation will run back through the tube rather than be ejected with the steam on the skin of the patient. To this end the tube may be flared, if desired, as shown in Fig. 5.

From the foregoing, the operation of my invention will be apparent. When it is desired to fill the container, the entire spout 5 or, if desired, merely the cap 9 is removed and the water poured into the container. Before replacing the cap, a piece of cotton is placed on the end of the hook 13 and dipped in medicine, or skin lotion. The cap and spout are then replaced, the electricity turned on, and the device is ready for use.

It is, of course, obvious that my invention may assume several different forms, another form being shown in Fig. 5. In this figure, the middle portion of the spout 6' and the aperture 4' in the dome-shaped top 3' are threaded as at 20, so that the spout may be screwed into the top and thus held by the threads which supplement the frictional engagement of the main form of the invention. By this means, also, the spout may be screwed down to bring the bead 7 tightly against the top of the dome so as to form a water-tight seal. In this figure, I have also shown the inwardly projecting tube 17 as flared so as to cause any water drops forming therein to quickly drain downwardly into the tube, thus preventing them from blowing out of the tube on the face of the user.

As many changes could be made in the above construction and many apparently widely differ-

ent embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

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

1. In a medicinal steam vaporizer, a water containing closed receptacle, a steam directing tubular spout projecting at an angle from the top of the receptacle, a nozzle piece having a groove and removably fitted on the tip of the projecting spout, and an extending spring wire hook, one end of which is sprung into position in the groove in said nozzle piece and the other end of which extends within the tubular spout and provides a holding element for absorbent medicated material.

2. In a medicinal steam vaporizer, a water containing closed receptacle having a dome-shaped top, a steam directing tubular spout projecting at an acute angle from the side of said

dome-shaped top, a nozzle piece on the tip of the projecting spout, and a holding element for absorbent medicated material situated within said spout, said tubular spout also including a part extending at an acute angle within the receptacle and of substantial length so that its inner end is situated above the normal water line of the receptacle to prevent the escape of water through the spout when the receptacle is tipped.

3. In a medicinal steam vaporizer, a water containing closed receptacle, a steam directing tubular spout projecting at an angle from the top of the receptacle, a nozzle piece having a groove and removably fitted on the tip of the projecting spout, an extending spring wire hook, one end of which is sprung into position in the groove in said nozzle piece and the other end of which extends within the tubular spout and provides a holding element for absorbent medicated material, and an inwardly extending tube at the tip of said nozzle piece having a flared inner end for the purpose specified.

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