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1,944,108

ELECTRICALLY HEATED ATOMIZER

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Fig. 1.

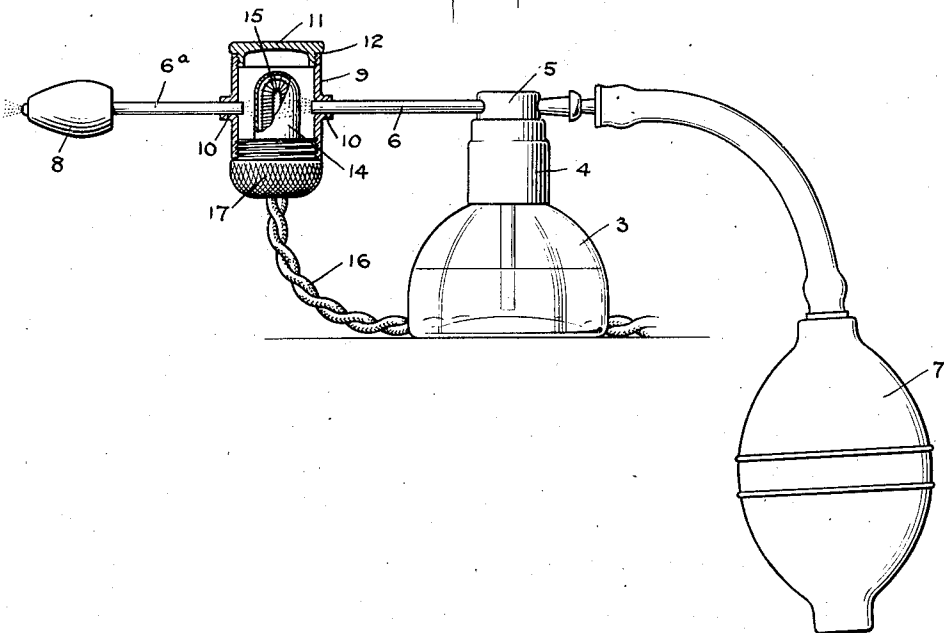
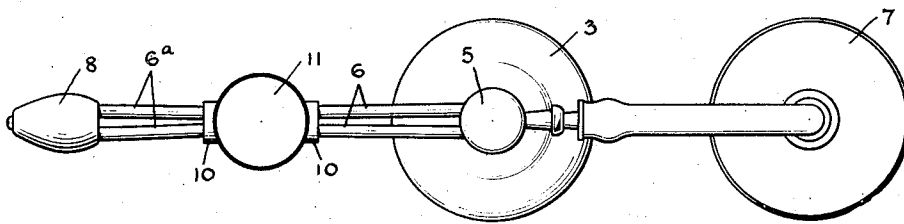


Fig. 2.



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ELECTRICALLY HEATED ATOMIZER

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3 Claims. (Cl. 128-173)

My invention relates to hand operated devices for applying a medicament to the nasal passages, or throat, in vaporous or spray form, in the treatment of colds, and head and throat afflictions.

In carrying out my invention I provide a suitable spray device and mount thereon electric means for heating the medicament to be used.

The invention consists of the combination, arrangements, and constructions hereinafter described, pointed out in the appended claims, and illustrated in the accompanying drawing in which

Figure 1 is a sectional side elevation of my invention, and

Figure 2 is a plan view thereof.

In the drawing like numerals indicate similar parts in the different views. A suitable container 3, preferably made of glass, is provided with a sleeve 4, of suitable material, secured liquid tight to the top of the container. Into this sleeve is preferably threaded, liquid tight, a cap 5 carrying at one side one or more horizontally disposed hollow tubes 6 and 6a and at the opposite side, and suitably connected thereto, a rubber bulb 7. At their extreme ends the tubes 6a carry a nasal piece 8, which is perforated to permit exit of the sprays in using my invention. Between the nasal piece and the container 3 I mount my heating device. This consists of a housing 9, preferably of metal but which may be made of glass or other suitable material, with which the tubes 6 and 6a have slip fit air tight connection in the bearings 10. A cap 11 is threadingly connected to the top of the housing in an air tight manner, the surface 12 assuring against leakage of air. A gasket may be here provided if desired. The cap permits access to the housing for purposes of cleaning the housing, etc. Into the bottom of the housing I mount, also in an air tight manner, a heating element which consists of a member 14, of proper material, within which is positioned a properly insulated suitable resistance coil 15. The coil is connected to an ordinary electric cord 16 in any proper way. The nut or base 17 rigidly receives the member 14 and is preferably made of bakelite. The member 14 lies in the path of travel of the sprays through the tubes 6 and 6a and is, for convenience, sometimes referred to herein, and in some of the claims of this application, as a heating element.

In operation, the medicament contained in the container 3 is, upon compression of the bulb 7, lifted to the tubes 6 in any suitable manner, and driven therethrough in the form of a spray. In passing through the housing 9 the spray first strikes the heating element 14, which has been heated by admitting current thereto, thence on through the housing and out of the nasal piece 8. The sprays, being heated by contact with the

heating element, are delivered to the afflicted parts while hot, thus greatly increasing their medicinal effectiveness.

I am aware that variations and substitutions in and for the construction shown in the drawing may be made, and I do not therefore desire to be limited to the exact arrangement shown. I believe I am the first to produce a hand operated device for delivering direct to the nasal passages, or the throat, a medicament in a vaporous or spray form which, with the air carrying it, is heated in the course of its travel through the instrument.

What I claim is:

1. A device of the character described, comprising in combination, a container adapted to contain a medicament, means for delivering said medicament in the form of a spray, said means comprising an air bulb and a tube connected with said container on opposite sides of the vertical axis of the container, and a housing into which said tube extends, said housing containing an electric heating element disposed centrally thereof in spaced relation to the walls of the housing and against which said spray strikes and is heated.

2. A device of the character described, comprising in combination, a container adapted to contain a medicament to be atomized, means for atomizing said medicament, a conducting tube communicating with the said container, a nasal piece at the extremity of the said conducting tube, a chamber intermediate the lengths of the conducting tube, and means in the chamber for heating the said atomized medicament in its passage through the said tube, said heating means being arranged in the conducting tube in the path of travel of the atomized medicament so as to be enveloped by said medicament whereby the latter is heated by contact with the heating means.

3. A device of the class described, comprising, in combination, a container adapted to contain a medicament to be atomized, means for atomizing said medicament, a conducting tube communicating with the said container, a nasal piece at the extremity of the said conducting tube, and means interposed in said conducting tube for heating the atomized medicament in its passage through said tube, said means including a removable housing having a slip fit on spaced adjacent ends of said conducting tube and constituting a heating chamber, and a heating element projecting into said chamber in the path of said atomized medicament.

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