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P. CORTI

PULVERIZING AND NEBULIZING APPARATUS

Filed Oct. 18, 1921

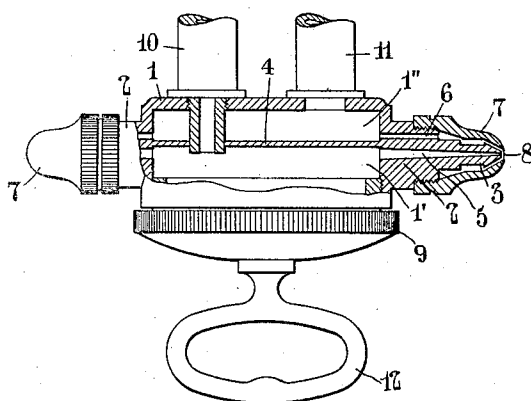


Fig. 1.

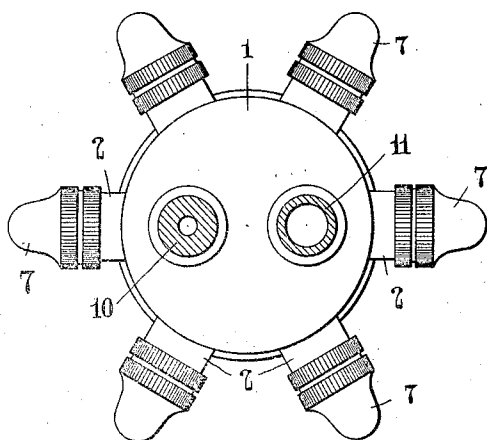


Fig. 2.

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PAOLO CORTI, OF MILAN, ITALY.

PULVERIZING AND NEBULIZING APPARATUS.

Application filed October 18, 1921. Serial No. 508,632.

To all whom it may concern:

Be it known that I, PAOLO CORTI, a subject of the Kingdom of Italy, and resident of Milan, Italy, have invented certain new and useful Improvements in Pulverizing and Nebulizing Apparatus, of which the following is a specification.

This invention relates to apparatus for pulverizing and atomizing liquids, by means of compressed air, of the type comprising a casing divided by a partition into upper and lower chambers with means for supplying thereto air and liquid respectively, and with injection nozzles provided on the casing, each nozzle having supply passage-ways for leading air and liquid from the upper and lower chambers respectively, into a common space within the nozzle, from which space the air and liquid issue as a spray through an outlet orifice.

The object of the present invention is to provide an apparatus of simple construction for pulverizing and atomizing liquids which is capable of giving a more complete atomization than hitherto obtained with existing apparatus.

The present invention consists of an improved apparatus for pulverizing and atomizing liquids of the type first hereinbefore referred to, comprising in combination a casing divided by a partition into upper and lower chambers a conduit connected to the upper chamber for supplying air thereto, a conduit projecting through said upper chamber into the lower chamber for supplying liquid thereto, injecting nozzles provided on the casing, each of said injection nozzles being constituted by a boss formed on the casing, and each boss having holes for air and liquid formed there-through communicating with the upper and lower chambers respectively, and being surmounted by a hood with a common orifice for air and liquid.

The improved apparatus may be used for effecting pulverization and atomization of liquids for therapeutical uses, disinfection and so on, as well as for humidifying spaces, for example for maintaining always the necessary degree of dampness in rooms where substances subject to deterioration through dryness are stored, such as cotton, raw silk, potato-flour, etc. The improved apparatus is especially adapted for producing saturation of the air in rooms with

therapeutical or disinfecting substances intended to be inhaled.

Figure 1 of the accompanying drawings shows a side view of the apparatus constructed according to the invention, partially in section;

Figure 2 shows a plan of the same seen from above.

As seen in the drawing, the apparatus consists in a cylindrical chamber 1 of suitable metal (for instance brass) and of adequate size, from the periphery of which project horizontally a number of spouts 2 each of which ends in a nozzle 3 (for instance, there are six spouts shown in the drawing).

The cylindrical chamber 1 is divided by a metallic horizontal partition 4 into two compartments, into the lower and larger of which open the internal orifices of the above-mentioned spouts 2.

The spouts 2, besides the central hole 5, have a hole 6 in communication with the upper compartment 1' of the chamber 1.

7 are hoods screwed on the spouts 2 and each provided with an opening 8 the internal diameter of which is slightly larger than the outer opening of the extremity of the nozzles 3 so as to form round the nozzle a circular crown for the passage of air under pressure which enters the spaces inside the hoods 7 from the hole 6.

The lower part 1' of the cylindrical chamber 1 has a screw cover 9, which is provided with a handle 12 by which the apparatus can be easily held in the hand.

The compartment 1' of the chamber 1 is provided with a tube of appropriate size 11 through which air is delivered under pressure so as to put the apparatus in action.

The working of the apparatus is as follows:—

The air under pressure passes through the tube 11, enters into the upper compartment 1' of the chamber 1 and penetrates through the hole 6 of each spout or ejector 2 and thus produces the pulverization and ejection through the nozzle 3 of the liquid drawn into the lower compartment 1' through the conduit 10 which communicates with a supply tank, not shown.

What I claim is:—

An apparatus for pulverizing and atomizing liquids by means of compressed air comprising in combination a casing divided by a partition into upper and lower cham-

bers, a conduit connected to the upper chamber for supplying air thereto, a conduit projecting through said upper chamber into the lower chamber for supplying liquid thereto, 10
5 injecting nozzles provided on the casing, each of said injection nozzles being constituted by a boss formed on the casing, and each boss having holes for air and liquid formed therethrough communicating with the upper and lower chambers respectively, and being surmounted by a hood with a common orifice for air and liquid. 10
In testimony whereof he hereunto affixes his signature.

PAOLO CORTI.