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to the device and provided in the lower part with an outlet nozzle connected by a conduit to an input nozzle of the liquid that the reservoir 18 contains in the lower part.

The device, in the different embodiment forms as described, can be equipped with several nebulization nozzle heads 1 supplied with liquid to be nebulized from a same reservoir and made of compressed gas from a same source of pressure.

In FIG. 11, a first arrangement of the nozzle head is shown. According to this embodiment, the nebulization nozzle heads 1 are distributed at regular or irregular intervals along a circle, whose center, for example, will be located on the geometric median vertical axis of the expansion chamber. This arrangement is most especially suited for use with an expansion chamber having a cylindrical form.

In FIG. 12, a second arrangement of the nebulization nozzle head is shown. According to this embodiment form, the nebulization nozzle heads are distributed at regular or irregular intervals along a straight line. This arrangement can be used with an expansion chamber having a rectangular cross-section, for a better efficiency, the alignment formed by the nebulization nozzle heads goes along the direction of the length of the this cross-section.

The angle of inclination of each nozzle head relative to a reference can be fixed or even variable.

I claim:

1. A nebulization device comprising:

- a hollow body having a base;
- a nebulization nozzle head mounted on said base, said nozzle head having an open chamber for mixing and fractionating, said open chamber having an outlet nozzle and a first nozzle opposite to said outlet nozzle, a supply hole formed behind said first nozzle, said nozzle head having an inlet formed therein in communication with said first nozzle;
- a source of compressed gas connected by a supply conduit to said supply hole;
- a reservoir containing a liquid to be nebulized, said reservoir mounted under said hollow body, said nozzle head having said outlet nozzle in communication with an expansion chamber formed in said hollow body coaxial with said open chamber, the liquid being sucked into said open chamber, the liquid being sucked into said open chamber by a partial vacuum created by a gas flow from said first nozzle to said outlet nozzle, the liquid being fractionated and mixed with the gas flow by turbulence in said open chamber, said open chamber having a spreading section in front of said first nozzle, said spreading section having a surface of rotation, said spreading section and a zone of said supply hole being coaxial, said inlet being radial to the air flow across said first nozzle;
- a third nozzle formed downstream of said supply hole at an intersection of said supply hole with said inlet, said first and third nozzles both being in contact with said inlet and spread apart from each other, said first and third nozzles being formed by sharp edges and axially aligned, said outlet nozzle being a conical jet having fine particles in a center thereof and large particles around a periphery thereof, said expansion chamber receiving the large particles emitted by said jet such that the large particles flow by gravity toward a bottom of said expansion chamber, said expansion chamber having a transverse wall opposite said nozzle head, said transverse wall being perpendicular to said open chamber, said transverse wall having a hole at a center

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thereof passing through said outlet nozzle, said wall having a convex outer side.

2. A nebulization device comprising:

- a hollow body having a base;
 - a nebulization nozzle head mounted on said base, said nozzle head having an open chamber for mixing and fractionating, said open chamber having an outlet nozzle and a first nozzle opposite to said outlet nozzle, a supply hole formed behind said first nozzle, said nozzle head having an inlet formed therein in communication with said first nozzle;
 - a source of compressed gas connected by a supply conduit to said supply hole;
 - a reservoir containing a liquid to be nebulized, said reservoir mounted under said hollow body, said nozzle head having said outlet nozzle in communication with an expansion chamber formed in said hollow body coaxial with said open chamber, the liquid being sucked into said open chamber, the liquid being sucked into said open chamber by a partial vacuum created by a gas flow from said first nozzle to said outlet nozzle, the liquid being fractionated and mixed with the gas flow by turbulence in said open chamber, said open chamber having a spreading section in front of said first nozzle, said spreading section having a surface of rotation, said spreading section and a zone of said supply hole being coaxial, said inlet being radial to the air flow across said first nozzle; and
 - a third nozzle formed downstream of said supply hole at an intersection of said supply hole with said inlet, said first and third nozzles both being in contact with said inlet and spread apart from each other, said first and third nozzles being formed by sharp edges and axially aligned, said outlet nozzle being a conical jet having fine particles in a center thereof and large particles around a periphery thereof, said expansion chamber receiving the large particles emitted by said jet such that the large particles flow by gravity toward a bottom of said expansion chamber, said expansion chamber having a blocking wall opposite said nozzle head, said reservoir having a wall positioned above a highest level of the liquid to be nebulized, said wall of said reservoir having an outlet nozzle.
3. A nebulization device comprising:
- a hollow body having a base;
 - a nebulization nozzle head mounted on said base, said nozzle head having an open chamber for mixing and fractionating, said open chamber having an outlet nozzle and a first nozzle opposite to said outlet nozzle, a supply hole formed behind said first nozzle, said nozzle head having an inlet formed therein in communication with said first nozzle;
 - a source of compressed gas connected by a supply conduit to said supply hole;
 - a reservoir containing a liquid to be nebulized, said reservoir mounted under said hollow body, said nozzle head having said outlet nozzle in communication with an expansion chamber formed in said hollow body coaxial with said open chamber, the liquid being sucked into said open chamber, the liquid being sucked into said open chamber by a partial vacuum created by a gas flow from said first nozzle to said outlet nozzle, the liquid being fractionated and mixed with the gas flow by turbulence in said open chamber, said open chamber having a spreading section in front of said first nozzle, said spreading section having a surface of