CLAIMS

1. Drop dispensing bottle comprising a reservoir with an elastically deformable wall that can be reversed by letting air into the said reservoir through a dispensing head through which the liquid is delivered under the effect of a pressure applied against the said wall, the said dispensing head comprising an insert with a hollow body, a delivery end-piece as an extension of the said body that is pierced with a central channel leading to an expulsion orifice, and an anti-bacterial filtering membrane partially hydrophilic and partially hydrophobic that is mounted across the said insert at the base of the said end-piece in order to allow a passage of a liquid in the direction of delivery and, in the reverse direction, the passage of air required to enter in compensation after a delivery of liquid, the said insert comprising a hollow main body allowing, by its periphery, the said dispensing head to be sealingly mounted in a neck of said bottle, and, by an inner recess, the communication of said dispensing head with the said reservoir,

characterized in that a porous pad is placed in the inner recess for regulating the flow of liquid passing through it in the direction of the said membrane, said pad being axially distant from said membrane, and in that the insert comprises a base extending the said body, on the side opposite to the delivery end-piece, beyond said porous pad, said base entering the reservoir, said base forming longitudinal arches, an end of which opposite to said insert being curved radially towards an axis of the insert for supporting a central pellet, said arches providing between them passageways open to a radial circulation of the air entering the bottle through the said pad to the periphery of the reservoir, the said central pellet having a disk shaped centred in the axis of the insert so as to leave an open space for the passage around it of the air arriving from the dispensing head radially to the wall of the reservoir while forming an obstacle to a direct axial jet leaving the insert.

2. Drop dispensing bottle according to Claim 1, characterized in that the insert is mounted in the neck of the bottle with its base which extends to a narrowing portion of the wall of the reservoir so that the entering air, which is

directed radially to the wall of the reservoir by obstruction of the central pellet, is guided in a laminar flow along the said wall.

3. Drop dispensing bottle according to Claim 1 or 2, characterized in that the insert is assembled in the bottle by force-fitting inside the neck of the bottle and in that it comprises on its top edge a ring of larger diameter resting against the top edge of the neck of the bottle so as to ensure a good positioning of the said insert in the said neck.

4. Drop dispensing bottle according to one of Claims 1 to 3, characterized in that the arches are three in number, placed angularly at equal distances from one another about the axis of the neck of the bottle.

5. Drop dispensing bottle according to one of Claims 1 to 4, characterized in that the arches have a height of between 1 and 5 mm.

6. Drop dispensing bottle according to one of Claims 1 to 5, characterized in that the porous pad is a microporous pad made of hydrophobic material in the form of a felt having an equivalent pore diameter of between 20 and 120 μm.

7. Drop dispensing bottle according to one of Claims 1 to 6, characterized in that the distance between the top face of the porous pad and the membrane is greater than 2 mm.

8. Drop dispensing bottle according to one of Claims 1 to 7, characterized in that the distance between the top face of the porous pad and the membrane is between 4 and 10 mm.

9. Drop dispensing bottle according to claim 8, characterized in that the distance between the top face of the porous pad and the membrane is between 5 and 9 mm.

10. Drop dispensing bottle according to one of Claims 1 to 9, characterized in that the porous pad is made of low-density polyethylene.

11. Drop dispensing bottle according to one of Claims 1 to 10, characterized in that the outer surface of the insert is fitted with a plurality of axially distributed o-rings.