

Under normal and intended use, this has never been a problem. Even with the jet well full of oil and the air supply turned off during operation, the oil will pull away from jet orifice **42** and move down the jet ball radius **41** towards the capillary break **40**.

Oil cannot, under normal circumstances, be pulled up around jet ball **41** and exit the cap hole **66** without assistance of the Ventura action (vacuum) created by the air velocity **86** flowing through the jet orifice **42**. A low pressure area is created between the top of the jet ball **44** and the inner cap radius **65** as air exits the hole in the top of the cap **66 & 67**. Oil is also drawn out with the air and the net result is an increased availability of air molecules mixing with oil molecules. These molecules or particles are carried into the glass diffuser tube **82**. The larger particles fall back into the jet well. The majority of oil particles are collected onto the inner surfaces of the glass diffuser and returned back to the jet well **84**. (see design patent application for glass diffusers). Typically the smaller, airborne molecules are carried out of the top of the glass diffuser **82**. A visibly detectable mist or fume usually comes out the top of the glass diffuser. Sometimes it has the appearance of a smoke stream, some times it is not visible. The rate of atomization depends on the viscosity and properties of the liquid. Sometimes it is easier to tell if the diffuser is atomizing by smelling the top of the glass diffuser or watching the oil come out of the cap hole **66 & 67**.

CONCLUSION, RAMIFICATIONS, AND SCOPE OF INVENTION

Thus we see that customers are happier about the cap maintaining its position on the jet, so it does not get lost. Out of 18,000 sold since the provisional patent application was filed, no one has requested a replacement for the cap. We also see that the system works more reliably and consistently with a more shapely and attractive form.

The above descriptions and specifications should not be construed as limitations on the scope of the invention, but as exemplification's of one preferred embodiment. Many other variations are possible. For example: The jet and cap can be made of numerous materials. In fact, the jet could be molded as part of the diffuser well. Clear plastic caps could be used to monitor the movement of the liquid.

The assembly will work just fine without the Teflon rod. Holding the cap in place is not required. The size, shape tolerances, colors and length of the cap and jet could all be changed and still meet functional criteria.

The jet does not require an oil supply hole coming from a secondary oil well hole as illustrated FIG. **18**. FIGS. **22** through **28** show other shapes of diffuser wells. FIG. **21** shows air access from below the jet instead of from the side of the jet.

Accordingly, the scope of the invention should be determined by the claims and their legal equivalents, not by the illustrated embodiments.

What is claimed is:

1. An atomization jet assembly for an aromatherapy device using a fluid the assembly comprising:

a jet comprising:

a top end;

a bottom end;

a capillary break positioned circumferentially on an exterior surface of said jet approximate said top end and shaped to provide a break in capillary action;

a slot positioned vertically on said exterior surface, said slot extending from said capillary break to a point approximate said bottom end;

a rod dimensioned for insertion in said slot where, when said rod is inserted in said slot, said slot and rod provide a capillary action; and

a cavity extending from said bottom end to said top end; in which:

said top end comprising an orifice leading to said cavity; and

said bottom end comprising an opening leading from said exterior surface of said jet to said cavity to supply pressurized air to said cavity; and

a jet cap comprising:

a hollow shaped structure comprising a top end and a bottom end; in which:

said top end comprising an orifice which is in alignment with said orifice of said jet; and

the shape of said jet cap being adapted to fit over said jet from the top end of said jet toward the bottom of said jet; wherein the shapes of said jet and said jet cap are similar in profile, such that capillary action exists between said jet, said jet cap, said slot and said rod and said jet cap is retained in place over said jet by tension between said jet cap and jet by compression of said rod by said jet cap.

2. The atomization jet assembly of claim **1**, in which both said jet and said jet cap have a cylindrical profile.

3. An aromatherapy device which comprises using a fluid, the device comprising:

an atomization jet assembly, a base structure, and a particulate separator having a top end and a bottom end; in which: comprising:

said atomization jet assembly comprises;

a jet and a jet cap, in which:

said jet comprises:

a jet comprising:

a top end;

a bottom end;

a capillary break positioned circumferentially on an exterior surface of said jet approximate near said top end and shaped to provide a break in capillary action;

a slot positioned vertically on said exterior surface, said slot extending from said capillary break to a point approximate said bottom end;

a rod dimensioned for insertion in said slot where, when said rod is inserted in said slot, said slot and rod provide a capillary action; and

a cavity extending from said bottom end to said top end; in which:

said top end comprising an orifice therein leading to said cavity; and

said bottom end comprising an opening therein which leads leading from an outer said exterior surface of said jet to said cavity; and

said a jet cap comprises comprising:

a hollow shaped structure having comprising a top end and a bottom end; in

which:

said top end has a comprising an orifice there through which is in alignment with said orifice of said jet; and

the shape of said jet cap being adapted to fit over said jet from the top end of said jet toward the bottom of said jet; wherein where the shapes of said jet and said jet cap are similar in profile, such that capillary space action exists between said jet, said jet cap, said slot and said rod and said jet cap is retained in place over said jet by tension between said jet cap and jet by compression of said rod by said jet cap; and