Claims

1. Humidifier cultivation apparatus, comprising:
a storage tank (1),
a pump (2),
a first pipe,
a second pipe (6),
a growing chamber (5), the first pipe being connected to the growing chamber (5),
a drain tank (7), the second pipe (6) being connected to the drain tank (7),
a blower (4),
a humidifier (3), and
additional piping,
their arrangement being such that a fluid is able to be pumped around the apparatus via pump (2), from the storage tank (1) into the humidifier (3), whereupon it will be atomized into a mist, via blower (4), and drawn into the growing chamber (5), whereby it will subsequently condense and be collected as a solution able to be drawn into the drain tank (7) via pipe (6) wherein the pipe (6) is in the shape of the letter U, J, W or the letter J backwards.

2. The apparatus in accordance with claim 1, wherein the pipe (6) is sufficient for the pressure in the vicinity of the blower (4) and near the drain tank (7), the suitable pressure in the drain tank (7) being less than the pressure in the blower (4) area.

3. The apparatus in accordance with claim 1, wherein the pipe (6) is also a component of the passage for the flow of the atomized mist and / or solution between the drain tank (7) and the growing chamber (5).

4. The apparatus in accordance with claim 1, wherein a solution in the storage tank (1) is adapted to flow through the pump (2) to the humidifier (3) and the solution is adapted to volatilize to form an atomized mist which enters the blower (4), the blower (4) being adapted to draw the atomized mist and blow it through the passage and wherein the passage has two pipes, the first pipe being connected to the growing chamber (5), the atomized mist providing the humidity in the growing chamber (5), the condensation of the atomized mist becoming a solution, which flows through the pipe back into the humidifier (3) again, to enable the recycling of the solution to occur; and the second pipe of the blower (4) being connected to the drain tank (7) through the

pipe (6), the drain tank (7) acting to store the solution when the solution enters the drain tank (7), the apparatus being such that when the solution reaches a required level, a switch (701) and (702) is activated to transmit a signal to drain the solution, in the drain tank (7) when the required level is the maximum level, the switch (701) sending the signal to a pump (703), which is adapted to carry the solution via a pipe through to the storage tank (1) again, to be recycled, and when the solution level of the drain tank (7) decreases to the lowest level, the switch (702) is adapted to transmit a signal to the pump (703) to stop working.

5. The apparatus in accordance with claim 1 wherein the additional piping~~pipe~~ is adapted to carry the solution from the storage tank (1) through the pump (2) and to the humidifier (3) connected to a solenoid valve (305), before the solution goes into the tank (302) of humidifier (3) that stores the solution with maximum and minimum scales for the volume of solution in the tank, the humidifier being adapted to evaporate the solution to form the atomized mist that flows in the pipe connected to the blower (4) which is installed outside the humidifier (3), the tank (302) of the humidifier (3) having a pipe that is connected to the growing chamber (5) adapted to draw the atomized mist to the growing chamber (5), and this pipe has no blower to carry the solution in the growing chamber (5) back to the tank (302) of the humidifier (3).

6. The apparatus in accordance with any one of claims 1, 2, 3, 4 and 5, wherein the pressure of blower (4) is 1000 mmH2O to 10 mH2O or 9806.65 Pa to 98.0665 Pa where the blower fan is either waterproof or non-waterproof.

7. The apparatus in accordance with claim 5 wherein the tank (302) of the humidifier (3) is resistant to corrosion, and is made from polyvinyl chloride, polyethylene or stainless steel 316L.

8. The apparatus in accordance with claim 5 or claim 7, wherein a humidity generator (301) which serves to change the state of the solution in the tank (302) of humidifier (3) into the atomized mist is an ultrasonic humidifier or ultrasonic head.

9. The apparatus in accordance with claim 8 wherein the humidity generator (301) has the optimum length of frequency is 0.5-8 MHz and optimum length of the atomized mist size is 2-8 microns.

10. The apparatus in accordance with claim 1 or claim 2, wherein the pipe (6) contains an open valve and close valve which change the direction current and also comprises a flux meter for pressure monitoring.

11. The apparatus in accordance with claim 4 or claim 5, wherein the solenoid valve (305) of claim 5 or the switch (701) and (702) of claim 4 act as transmitters associated with the solution level.

12. The apparatus in accordance with any one of claims 1-7, wherein the blower (4) is integrated into the internal component of the humidifier (3).