Another object of the present invention is to provide a multipurpose air pollution & heat reducing device which reduces overall pollution in the surrounding environment, and would lead to a cleaner environment.

Yet another object of the present invention is to provide a multipurpose air pollution & heat reducing device which helps in reducing global warming.

STATEMENT OF THE INVENTION

According to this invention there is provided a multipurpose air pollution & heat reducing device comprising a tank adapted to be secured with a stand and to store pollution reducing liquid therein, at least one layer of the pebbles, constituting a filter layer, being provided inside the tank at the bottom thereof, at least one inlet tube passing through the bottom of the tank being provided for allowing entry of the exhaust pollutants into the tank, corresponding perforated inverted tube being provided over the inner tube such that to discharge exhaust with pollutants near the bottom end of the tank, a liquid filling tube being provide at the top end of the tank, a liquid level indicator secured to the bottom of the tank being provided to indicate liquid level present in the tank, at least one layer of gauze filter disposed in the tank above the liquid level, an outlet being provided near top end of the tank for facilitating exit of the clean exhaust from the device.

BRIEF DESCRIPTION OF THE ACCOMPANYING DRAWINGS

A multipurpose pollution & heat reducing device according to a preferred embodiment of the present invention is herein described and illustrated in the accompanying drawings, wherein:

Figure 1 illustrates a sectional elevation of the device

through the filtering liquid 3 filled in the tank 1 and then it passes through a filter layers of pebbles 4 disposed in the tank 1. An outlet 7 is provided near the top end of the tank 1 for the exit of the filtered / purified exhaust / smoke / air.

The inverted tube 6 has perforation 8 near the lower end thereof such that to allow passage of the exhaust there through into the tank 1 having liquid 3 filled into the tank 1. The perforations 8 are provided in the inverted tube 6 at lower end and till the height up to which the pebbles 4 are filled in the tank 1. The perforations 8 are covered with a gauze filter 9. In one embodiment plurality of layers of the pebbles 4, of different sizes, may be provided in the lower portion of the tank 1. According to an embodiment, plurality of inlet tubes 5 with corresponding inverted tubes 6 provided over the inlet tube 5 are provided as per the requirement of the user and to suit the heavy automobiles, engine or chimney .

A liquid filling tube 10 is disposed into the tank 1 through its top end to fill the liquid 2 into the tank 1 up to a level such that all the filters 4, gauze filter 9 and other fitters are soaked with the liquid 3. The liquid filling tube 10 passes through the top end of the tank 1 and is submerged into the liquid 3 provided in the tank. A lid 11 is provided at the top end of the liquid filling tube 10 so as to cover it in an air tight manner.

A liquid level indicator 12 is provided with the tank so as to maintain the level of the liquid with in the tank 1 by filling the liquid 3 as and when required. A liquid drainage valve 13 is provided at the bottom of the liquid level indicator 12 to drain out the contaminated liquid 3 from the tank 1. Fresh liquid 3 is filled in the tank 1 as and when required.

In one embodiment bottom end of the inlet tube 5 is connected to a manifold (not shown) such that to connect the inlet tube 5 with a hose pipe (not shown) being connected with the exhaust port (not shown) of a heavy vehicle, engine or chimney.

According to an embodiment, at least one layer of another gauze filter 15 is disposed in the tank 1 above the liquid 3 level. According to another embodiment, plurality of gauze filter 15 layers are provided above the liquid 3 level.

The filter liquid comprises a liquid, for example, water or coolant capable to absorb the pollutants entrapped in the exhaust. Thus the liquid absorbs the suspended impurities present in the exhaust and also reduces the heat and the noise. The liquid also absorb dissolved harmful gases or particles, for example, Carbon monoxide or any other gases, present in the exhaust.

In one embodiment, a suction device, for example, an exhaust fan or blower (not shown) is provided with the inlet tube 5 or with the outlet 8 so as to create the pressure difference as the device works on the principal of pressure difference at the inlet and the outlet of the device.

The device is mounted at the outlet of the vehicle, automobile, chimney or anywhere where the pollution is required to be reduced. The exhaust with pollutants enter into the tank 1 of the device through the inlet tube 5, inverted tube 6 and then it passes through the gauze filter 9 to pass thorough the liquid 3 contained in the tank 1. Thus, the exhaust passes through a zig zag passage and through various filters i.e. pebble 4 filter, gauze filter 9, liquid 3 and again another gauze filters 15 and gets filtered. Thus the clean exhaust comes out of the device.

In fact the exhaust first moves up in the inlet tube 5 and then moves down and passes through the liquid 3 in the inverted tube 6. The exhaust then enters into the filter layer of pebbles 4 through the perforation 8 provided at the bottom end of the inverted tube 6 and having a gauze filter 9 provided around the perforations 8. The exhaust then passes through liquid filter 3 and again through the gauze filters 15 to move upward before coming out as filtered / clean exhaust.

It has been noticed that by using this device pollution level reduces in the following manner;

- Particles emitted from the burned fuel 70-80%
- Air Pollution 60-90%
- Green House Gases 60-70%
- Noise Pollution 70-80%
- Heat Reduction in Exhaust Gases 60-70%

Certain features of the invention have been described with reference to the example embodiments. However, the description is not intended to be construed in a limiting sense. Various modifications of the example embodiments as well as other embodiments of the invention, which are apparent to the persons skilled in the art to which the invention pertains, are deemed to lie within the spirit and scope of the invention.

I CLAIM:

1. A multipurpose air pollution & heat reducing device comprising a tank (1) adapted to be secured with a stand (2) and to store pollution reducing liquid (3) therein, at least one layer of the pebbles (4), constituting a filter layer, being provided inside the tank (1) at the bottom thereof, at least one inlet tube (5) passing through the bottom of the tank(1) being provided for allowing entry of the exhaust pollutants into the tank (1), corresponding perforated inverted tube (6) being provided over the inlet tube (5) such that to discharge exhaust with pollutants near the bottom end of the tank (1), a liquid filling tube (10) being provide at the top end of the tank (1), a liquid level indicator (12) secured to the tank (1) being provided to indicate liquid level present in the tank (1), at least one layer of gauze filter (15) disposed in the tank (1) above the liquid level, an outlet (7) being provided near top end of the tank (1) for facilitating exit of the clean exhaust from the device.

2. The multipurpose air pollution & heat reducing device as claimed in claim 1, wherein the inlet tube (5) is disposed in the tank (1) such that the open end of the tube remains above liquid level in the tank (1).

3. The multipurpose air pollution & heat reducing device as claimed in claim 1, wherein the perforation are provided near the bottom end of the inverted tube (6) and up to a height of the layer of pebbles (4) provided in the tank (1).

4. The multipurpose air pollution & heat reducing device as claimed in claim 3, wherein a layer of gauze filter (15) is provided around the perforations provided in the inverted tube (6).

5. The multipurpose air pollution & heat reducing device as claimed in claim 1 wherein a drainage valve is provided at the bottom end of the liquid level indicator to drain out the contaminated liquid as and when required.

6. The multipurpose air pollution & heat reducing device as claimed in claim 1 wherein layers of pebbles (4) comprises a plurality of layers of pebbles (4) of different sizes at the bottom end of the tank (1).

7. The multipurpose air pollution & heat reducing device as claimed in claim 1 wherein plurality of inlet tubes (5) with corresponding inverted tubes (6) are provided with the tank (1) for the entry of the exhaust into the tank (1).

8. The multipurpose air pollution & heat reducing device as claimed in claim 1 wherein plurality of gauze layers are provided in the tank (1) above the liquid level.

9. The multipurpose air pollution & heat reducing device as claimed in claim 1 wherein the inlet tube (5) and or outlet (7) tube being provided with an exhaust fan or blower as per the requirement.