

(54) Title of the invention : VERTICAL MULTI-EFFECT DISTILLATION (MED) PLANT FOR WATER DISTILLATION.

(51) International classification :C02F0001040000, C02F0001060000, B01D0003140000, C02F0103080000, B01D0001260000

(86) International Application No :NA  
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA  
Filing Date :NA

(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

**1)PANDIT DEENDAYAL ENERGY UNIVERSITY**  
Address of Applicant :PANDIT DEENDAYAL ENERGY UNIVERSITY KNOWLEDGE CORRIDOR, RAISAN VILLAGE, GANDHINAGAR, GUJARAT, INDIA - 382 007. -----

Name of Applicant : NA  
Address of Applicant : NA

(72)Name of Inventor :

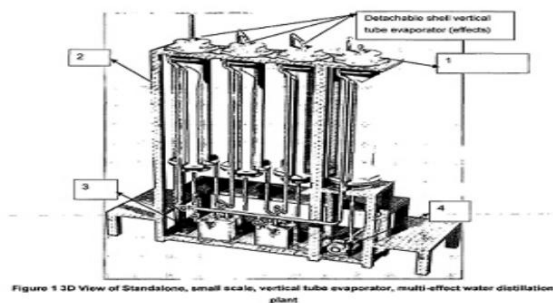
**1)MR.RAHUL DEHARKAR**  
Address of Applicant :PANDIT DEENDAYAL ENERGY UNIVERSITY KNOWLEDGE CORRIDOR, RAISAN VILLAGE, GANDHINAGAR, GUJARAT, INDIA - 382 007. -----

**2)DR.ANURAG MUDGAL**  
Address of Applicant :PANDIT DEENDAYAL ENERGY UNIVERSITY KNOWLEDGE CORRIDOR, RAISAN VILLAGE, GANDHINAGAR, GUJARAT, INDIA - 382 007. -----

**3)DR.VIVEK PATEL**  
Address of Applicant :PANDIT DEENDAYAL ENERGY UNIVERSITY KNOWLEDGE CORRIDOR, RAISAN VILLAGE, GANDHINAGAR, GUJARAT, INDIA - 382 007. -----

(57) Abstract :

Planning a framework for small-scale, energy-efficient operations that can treat a few cubic meters of water per day is the problem of providing clean water in rural areas. This is especially important for rural populations when the available water is brackish. The invention describes a freestanding multiple-effect water distillation system that includes a condenser unit and a vertical tube evaporator as effects. The vertical tube evaporator in the invention aids in the evaporation on the tubes outside; as a result, salt deposits formed on the exterior. The invention's evaporator design enables inexperienced labor, to maintain, by providing access to the tube bundle. The invention uses motive steam as an input to distil brackish water. The water production from the innovation may be optimized based on the water demand at any particular place.



No. of Pages : 7 No. of Claims : 7