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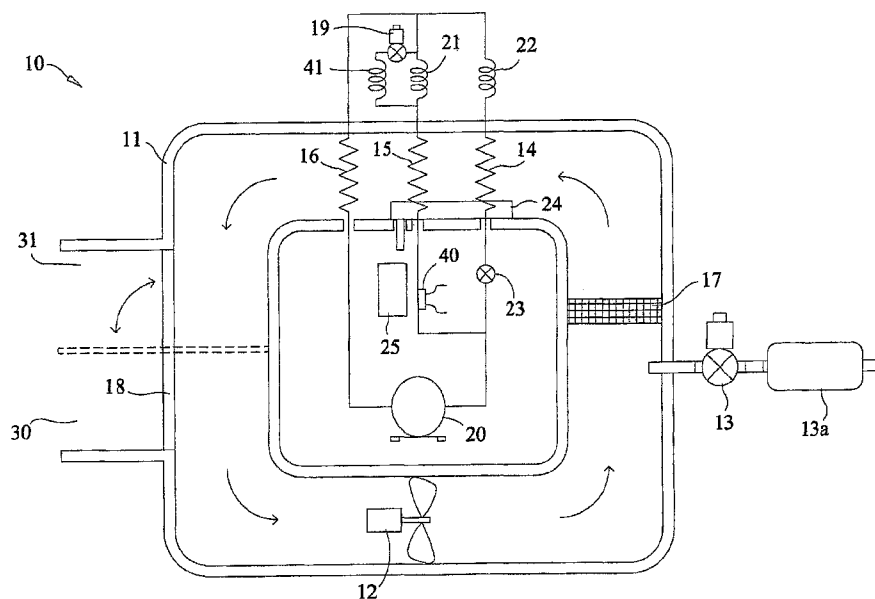
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
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(54) Title: MULTIPURPOSE ADIABATIC POTABLE WATER PRODUCTION APPARATUS AND METHODS



(57) Abstract: Apparatus and methods for transforming water vapor into potable water by using a vapor compression refrigeration system which includes first and second cooling elements disposed in an air passage duct that provides an air circulation pattern driven by a fan or similar device. The circulating air undergoes cooling to a temperature below the dew point to collect water from the air. The collected water is stored in a principal storage vessel where ozone is injected to eliminate bacteria and contaminants. At least a portion of the recovered water is transferred to a secondary storage vessel where it is further cooled by refrigerant from the same compressor.

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