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(54) Title: **A THERMO-VOLUMETRIC MOTOR**

(57) Abstract

A thermo-volumetric motor (10) comprising a continuous fluid path in the form of a refrigerant path (12), and a solar collector (14). The continuous refrigerant path (12) includes a first heat exchanger (16), flow converting means (18), a pump (19), and a condenser (20). The flow converting means (18) may comprise a turbine or a resilient tube and a rotor. The first heat exchanger (16) comprises a shell and tube arrangement, the shell containing a first phase change substance having a relatively high latent heat of fusion. In use, heat from sunlight absorbed on the solar collector (14) fuses a portion of the first phase change substance. The refrigerant in the heat exchanger (16) cools the first phase change substance causing it to solidify and the refrigerant then absorbs the latent heat of the first phase change substance. The refrigerant thereby expands and flows from the heat exchanger (16) to the flow converting means (18) via the throttle valve (21) thus providing motive power.

