The fluent material **62** circulated through the housing **60** may be in the form of geothermal brine at temperatures of 100° C. to 125° C., available in extensive quantities in the Gulf coast of the United States under well head pressures of 1000 psi to 2000 psi, for example. Other fluent materials may of course be utilized in order to accommodate other installational locations for the generator. Also the magnetic discs **28** and **76** associated with the tubular Nitinol gear **12**, as hereinbefore described, may alternatively be associated with the gear roller **16** to generate and extract electrical energy as a result of its rotation.

Other modifications and variations of the present invention are possible in light of the foregoing teachings. It is therefore to be understood that within the scope of the appended claims the invention may be practiced otherwise than as specifically described.

What is claimed is:

1. In combination with a source of heat energy, means for converting the heat energy into electrical energy including: a pair of gears and frame means mounting said gears for rotation in operatively orientated relation to said source, one of said gears comprising a tubular element rotatably mounted by the frame means for exposure to the source of heat energy within a thermal heating region, said tubular element including deformable means in meshing engagement with the other of the gears within a thermally colder region for inducing rotation of the gears.

2. The combination of claim **1** wherein said source of heat energy is of geothermal origin.

3. The combination of claim **1** wherein said source of heat energy includes a body of geothermally heated fluent material.

4. The combination of claim **3** wherein said thermal heating region is established by a container fixed to the frame means in heat conductive relation to said geothermally heated fluent material and a body of heat conducting fluid retained in said container establishing said thermal heating region through which said deformable means is displaced in response to said rotation of the gears.

5. The combination of claim **4** wherein said heat conducting fluid is a corrosion resistant liquid.

6. The combination of claim **5** including coolant conducting means extending through the other of the gears for establishing a predetermined temperature differential between said thermal heating region and a force transmitting location at which said meshing engagement between the gears occurs.

7. The combination of claim **6** including magnetic means responsive to the rotation of said one of the gears for producing cyclically varying magnetic fields and electrical conductor means mounted in operative relation to said fields for withdrawing the electrical energy.

8. The combination of claim **1** including coolant conducting means extending through the other of the gears for establishing a predetermined temperature differential between said thermal heating region and a force transmitting location at which said meshing engagement between the gears occurs.

9. The combination of claim **1** including magnetic means responsive to the rotation of said one of the gears for producing cyclically varying magnetic fields and electrical conductor means mounted in operative relation to said fields for withdrawing the electrical energy.

10. The combination of claim **1** including magnetic means responsive to the rotation of the other of the gears for producing cyclically varying magnetic fields and electrical conductor means mounted in operative relation to said fields for withdrawing the electrical energy.

11. In combination with a geothermal source of heat, energy converting means including: a pair of gears and frame means rotatably mounting said gears in operatively orientated relation to said source for exposure thereto within a thermal heating region, one of said gears including deformable means in meshing engagement with the other of the gears within a thermally colder region for inducing rotation of the gears.

12. The combination of claim **11** wherein said geothermal source of heat includes a body of geothermally heated fluent material, a container fixed to the frame means in heat conductive relation to said geothermally heated fluent material and a body of heat conducting fluid retained in said container through which the deformable means is displaced in response to said rotation of the gears.

13. The combination of claim **11** including coolant conducting means extending through the other of the gears for establishing a predetermined temperature differential between said thermal heating region and a force transmitting location at which said meshing engagement between the gears occurs.

14. The combination of claim **11** including magnetic means responsive to the rotation of said one of the gears for producing cyclically varying magnetic fields and electrical conductor means mounted in operative relation to said fields for withdrawing electrical energy.

15. In combination with a source of heat, energy converting means including: a pair of meshing gears, frame means mounting said gears in operative relation to said source for establishing a temperature differential therein inducing rotation of the gears and magnetic means mounted in operative relation to one of said gears for extracting electrical energy in response to said rotation of the gears.

16. The combination of claim **15** wherein said one of the gears comprises a tubular member made of a sheet of shape memory material having corrugations acting as gear teeth in meshing engagement with the other of the gears.

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