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**United States Patent** [19]  
**Lokhandwala**

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[54] **POWER GENERATION METHOD INCLUDING MEMBRANE SEPARATION**

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[73] Assignee: **Membrane Technology and Research, Inc.**, Menlo Park, Calif.

[21] Appl. No.: **09/220,971**

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[51] **Int. Cl.**<sup>7</sup> ..... **F01K 25/06**

[52] **U.S. Cl.** ..... **60/649; 60/651; 60/671; 95/50; 95/96; 95/143; 95/144; 95/237; 95/240**

[58] **Field of Search** ..... **60/649, 651, 671, 60/679; 55/16, 23, 31, 33, 68, 158; 95/39, 95, 48, 50, 54**

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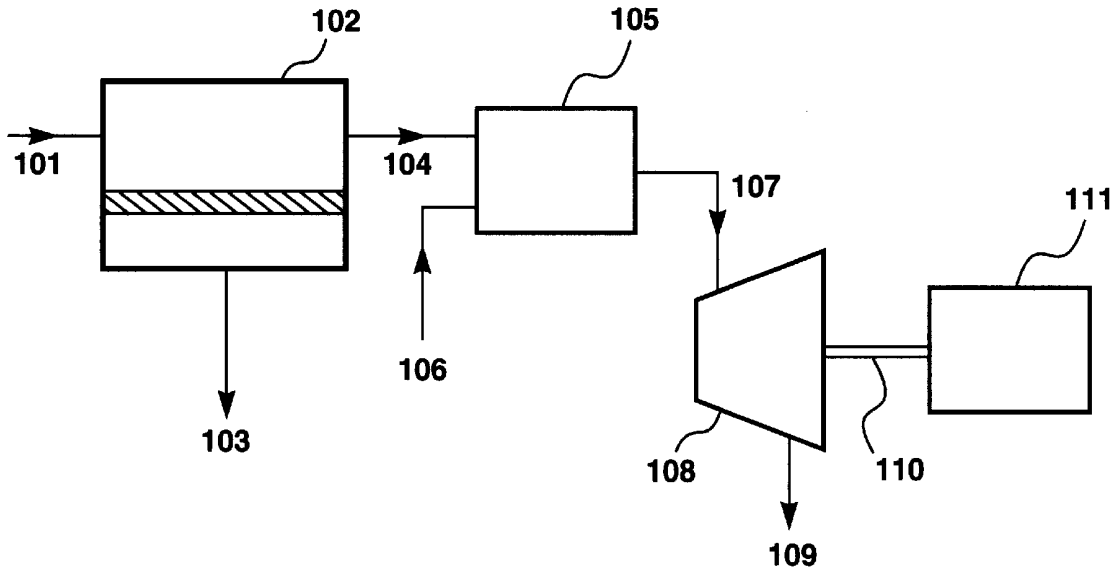
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[57] **ABSTRACT**

A method for generating electric power, such as at, or close to, natural gas fields. The method includes conditioning natural gas containing C<sub>3+</sub> hydrocarbons and/or acid gas by means of a membrane separation step. This step creates a leaner, sweeter, drier gas, which is then used as combustion fuel to run a turbine, which is in turn used for power generation.

**21 Claims, 8 Drawing Sheets**



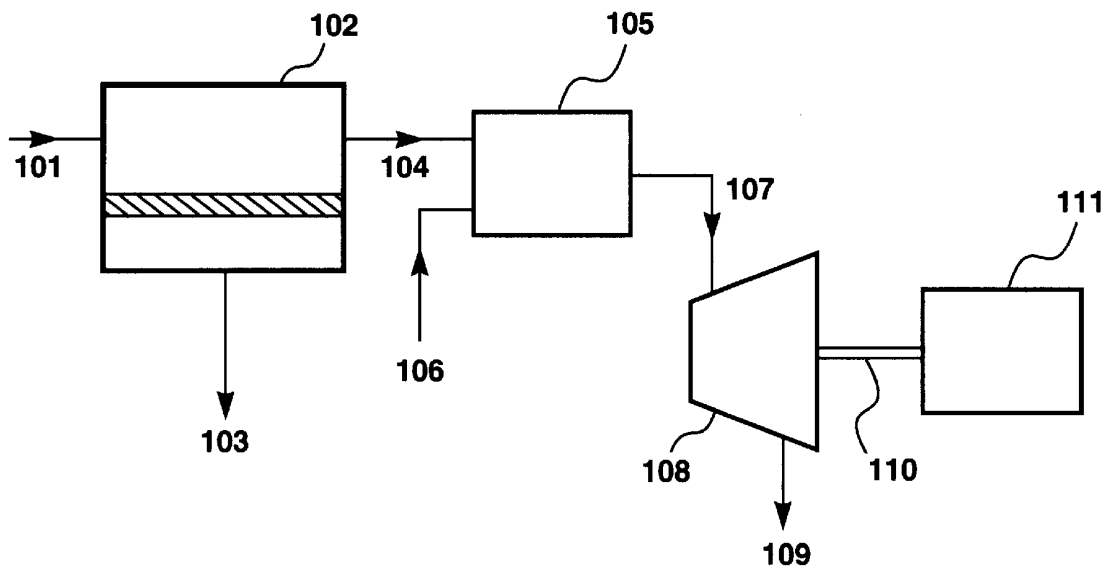


FIG. 1

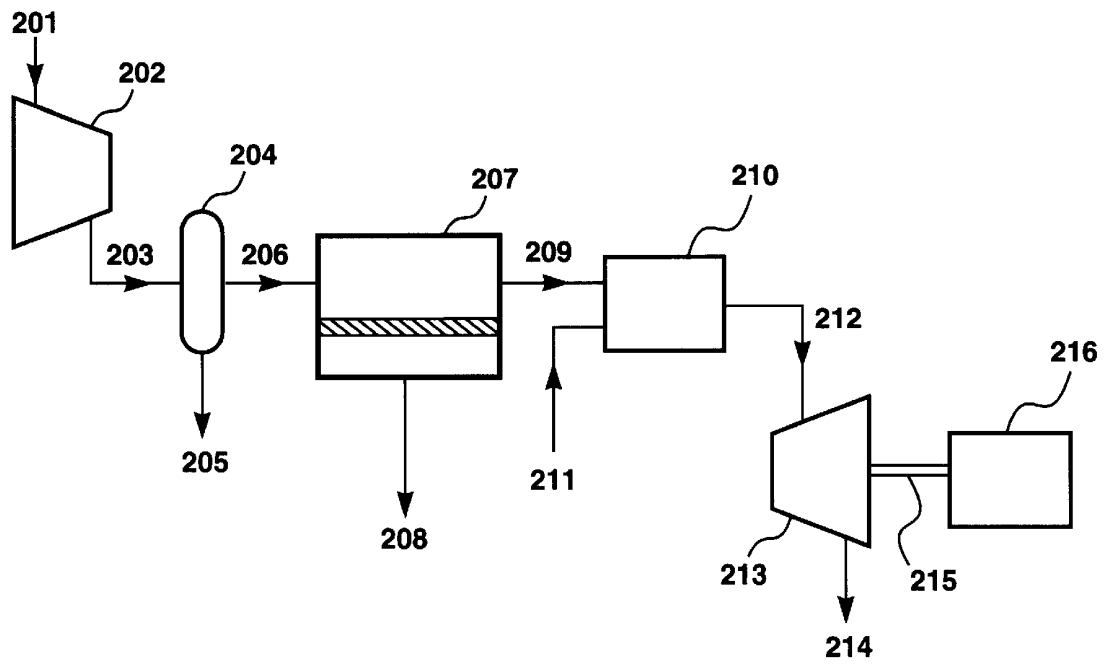


FIG. 2

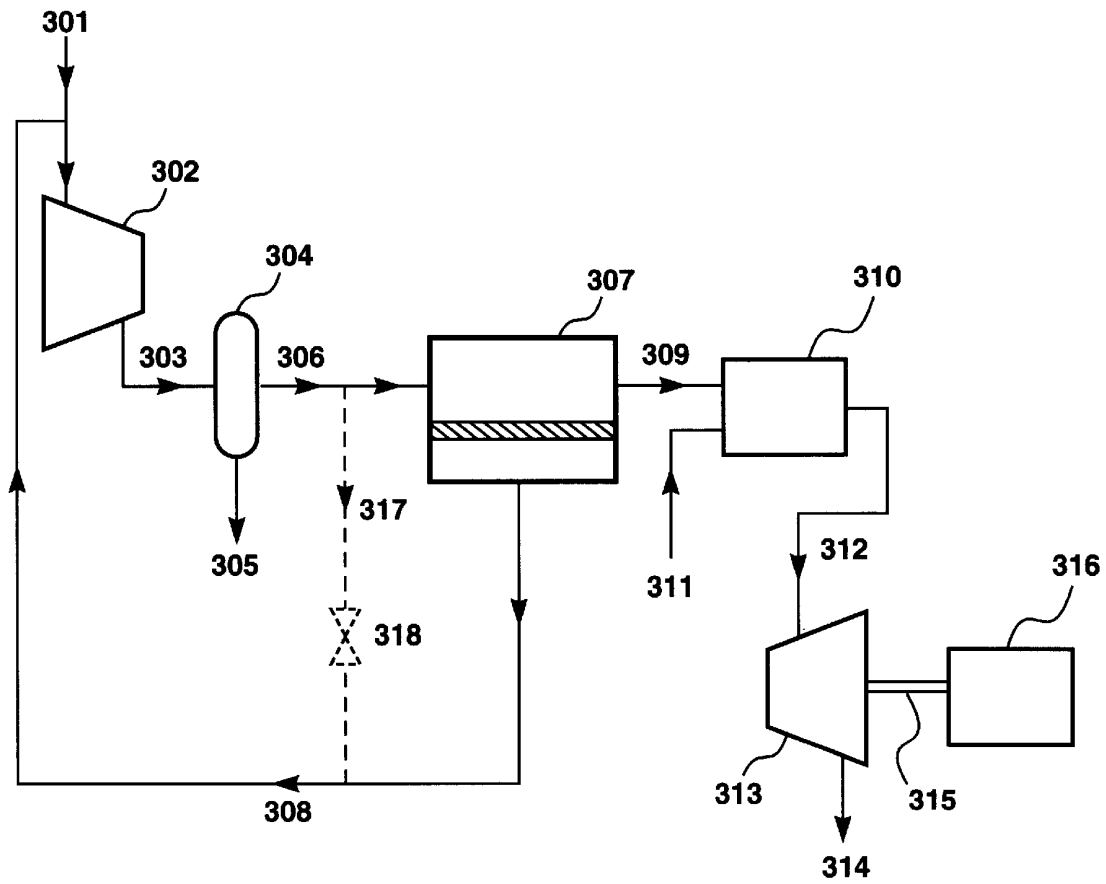


FIG. 3

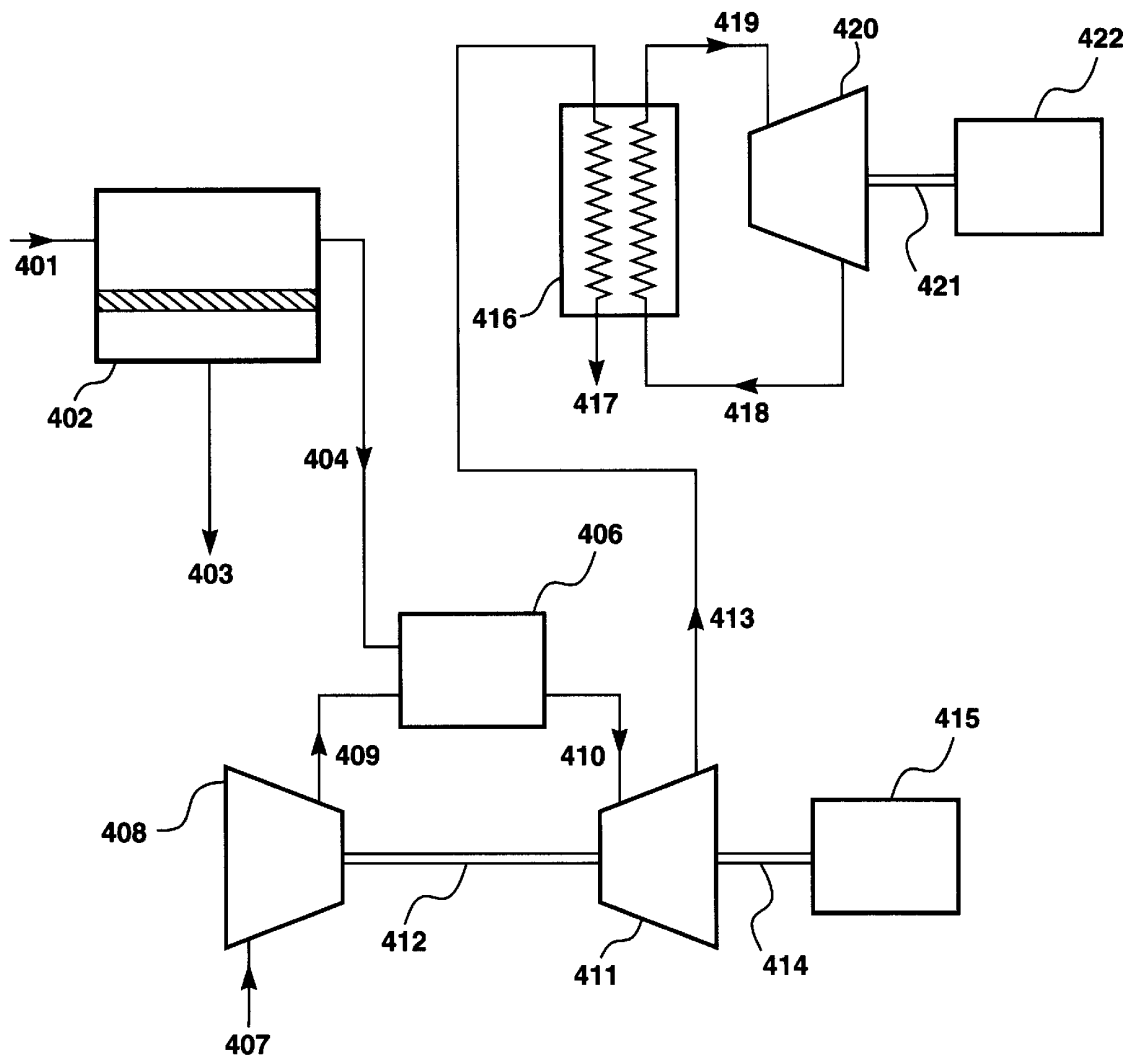


FIG. 4

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