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Mark, K.; c/o Itron, Inc., 2111 N Molter Rd, Liberty Lake, WA 99019 (US).

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(74) Agent: THOMPSON, David, S. et al.; Lee & Hayes, P.C., 601 W. Riverside Ave, Suite 1400, Spokane, WA 99201 (US).

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(71) Applicant: ITRON, INC [US/US]; 2111 N Molter Rd, Liberty Lake, WA 99019 (US).

(72) Inventors: KANN, James, Lee; c/o Itron, Inc., 2111 N Molter Rd, Liberty Lake, WA 99019 (US). CORNWALL,

(54) Title: GAS REGULATOR DIAPHRAGM-POSITION AND PRESSURE-RELIEF DETECTION

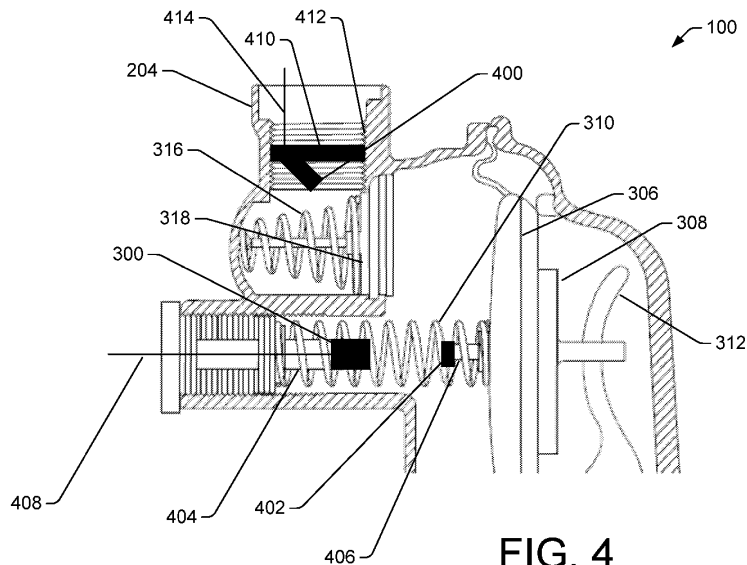


FIG. 4

(57) Abstract: Device(s) and techniques determine if a gas regulator supplying gas at a regulated pressure to a gas meter (e.g., the gas meter of a house or business) within a gas distribution system has one or more lock-up failure events or venting events, wherein gas is vented to the atmosphere. In an example, a sensor obtains information indicating a relative position of a stop stem of a gas regulator and a diaphragm pin of the gas regulator. As pressure increases within the regulator, the diaphragm pin moves toward and/or touches the stop stem. The gas pressure increase may result from debris in the regulator that prevents a valve from fully closing. A signal may be sent from the regulator and/or associated gas meter. The signal may contain information based at least in part on data from the sensor, and which may indicate a lock-up failure event or a venting event by the gas regulator.

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