United States Patent [19]

Alexander

[11] **4,369,657**

[45] **Jan. 25, 1983**

[54] GRAVIMETER

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[21] Appl. No.: **285,592**

[22] Filed: **Jul. 21, 1981**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 108,487, Dec. 31, 1979, abandoned.

[51] **Int. Cl.**[3] **G01V 7/04**

[52] **U.S. Cl.** ..... **73/382 R**

[58] **Field of Search** ..... 73/382 R

[56] **References Cited**

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[57] **ABSTRACT**

A gravity meter is formed by securing two parallel rods of different material at adjacent ends and indicating their differential elongation at the free ends. While capacitor, interferometer, and other devices could be used to measure this differential, the presently preferred indicator is a roller disposed between the free ends and the rotation due to differential elongation is indicated optically by a mirror attached to the roller. The indicator is zeroed while the rods are horizontal and the difference in elongation of the two rods is indicated when the rods are moved to a vertical position. The device may be moved over the earth's surface in the vertical position, while held at a constant temperature, to become a gravity meter.

7 Claims, 7 Drawing Figures