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(54) **PIEZOELECTRIC LAMINATE MOTION SENSING APPARATUS AND METHOD**

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See application file for complete search history.

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(57) **ABSTRACT**

A motion sensing system utilizing piezoelectric laminates with predetermined surface electrode patterns disposed thereon utilizes a frequency selector to pass motion waves of predetermined frequencies and an electrical circuit for processing the electrical signals for transmission to an activation device for appropriate activation. In particular, the frequency selector is a low frequency bandpass filter for free-fall acceleration wave frequencies. By directing appropriate action, the present invention increases the applicability of the device upon which it is mounted (e.g., for military or other hostile environment use), decreases the possibility of damage, and lengthens its useful life.

25 Claims, 17 Drawing Sheets

