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Tucchio et al.

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[54] SHOCK ISOLATION METHOD AND APPARATUS

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[57] ABSTRACT

[21] Appl. No.: **236,856**

A shock isolation device for supporting the weight of an object and providing shock and isolation vibration is disclosed which includes a compressible elastomeric material. Apertures are drilled in the compressible elastomeric material for receiving buckling fibers. The buckling fibers are supported in the respective apertures by a buckling support plate positioned on a bottom surface of the compressible elastomeric material. The fibers extend above the top surface of the compressible elastomeric material to support an object above the top surface under normal conditions when no shocks occur. When a shock occurs, the buckling fibers are elastically or plastically buckled under an applied force caused by acceleration of the object and the object contacts the compressible elastomeric material to isolate the shock. A plurality of the buckling fibers are spaced evenly throughout the elastomeric material to support objects of different sizes and weights.

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[51] Int. Cl.⁶ **F16M 1/00**

[52] U.S. Cl. **267/136; 248/633; 188/372; 267/153**

[58] Field of Search **188/268, 371, 188/372, 378; 267/136, 139, 140, 151, 153; 248/621, 633, 634; 52/167.3, 167.4**

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15 Claims, 1 Drawing Sheet

