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# United States Patent [19]

**Demon**

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[54] **SHOE SOLE WITH AN ADJUSTABLE SUPPORT PATTERN**

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**Related U.S. Application Data**

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[51] **Int. Cl.**[6] ..... **A43B 13/20**

[52] **U.S. Cl.** ..... **36/29**; 36/28; 73/172; 600/592

[58] **Field of Search** ..... 36/28, 29, 93, 36/132, 136; 73/172; 600/592

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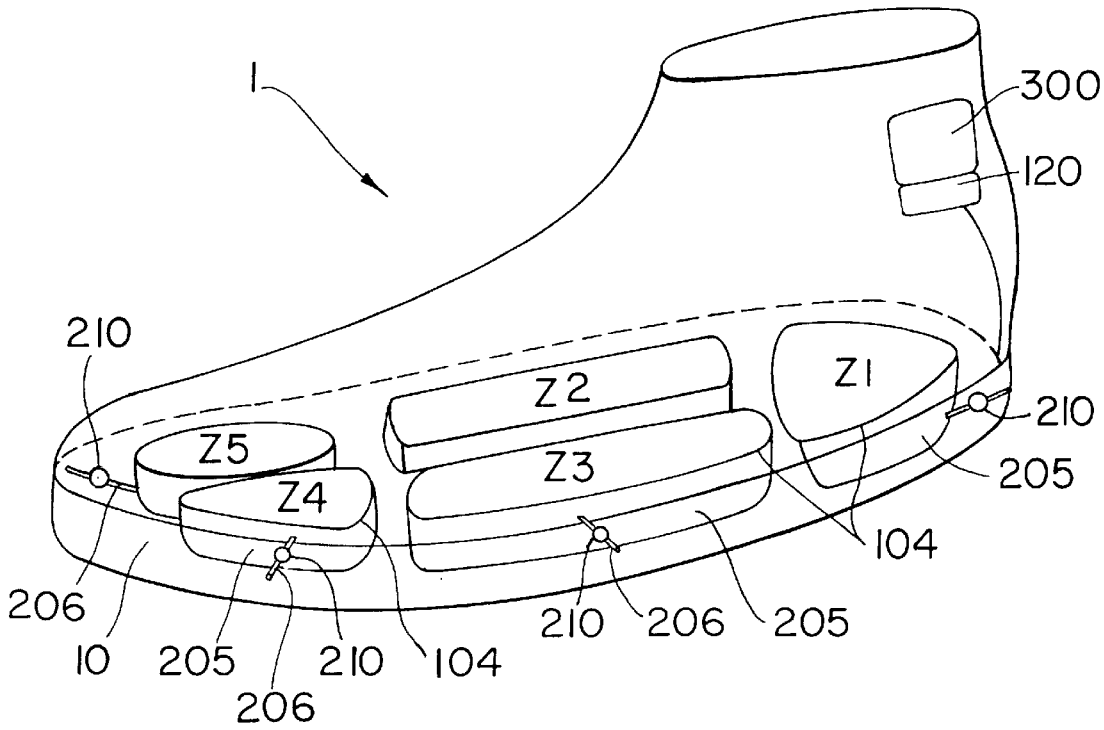
[57] **ABSTRACT**

A shoe having a adjustable cushion sole with fluid bladders disposed therein. Each fluid bladders has an associated pressure sensing device which measures the pressure exerted by the user's foot on the fluid bladder. As the pressure increases over a threshold, a control system partially opens a fluid valve to allow fluid to escape from the fluid bladder. The release of fluid from the fluid bladders reduces the impact of the user's foot with the traveling surface.

**20 Claims, 5 Drawing Sheets**