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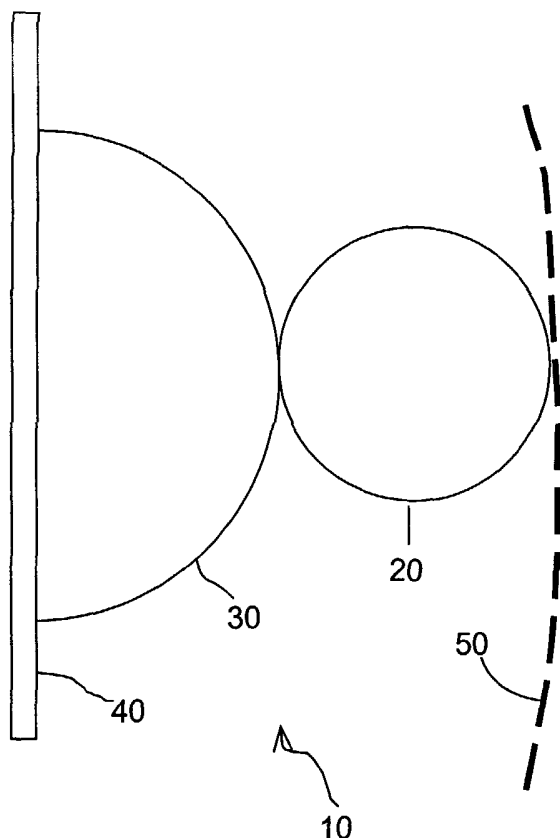
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[Continued on next page]

(54) Title: RESILIENT AND DEFORMABLE MEMBER FOR ABSORBING KINETIC ENERGY



(57) Abstract: The present invention generally relates to devices and methods for absorbing kinetic energy. In particular, the present device is well suited for use in an automobile door, where it can be positioned for the purpose of absorbing the energy of a side-impact collision. In one embodiment, the device includes a first mass, a shell, and a plate, with the shell being disposed between the mass and plate. Both the first mass and shell are preferably constructed from deformable materials, allowing them to absorb energy during an impact. By absorbing the energy through deformation, the present device reduces the amount of energy that is transmitted through the door and thus reduces the amount of energy that may be transmitted to the occupants of the vehicle.



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PCT/US04/17606

A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : Please See Continuation Sheet

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
USPAT, US-PGPUB, USOCR, EPO, JPO, DERWENT

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,017,076 A (BAI) 12 April 1977 (12.04.1977)	1-2,4-6,22,23
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Y		3,7-20
X	US 5,404,974 A (THUM et al.) 11 April 1995 (11.04.1995)	1-2,4-6,9,20,23
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Y		3,7-8,10-19,21-22
X	US 3,473,836 A (HALTER) 21 October 1969 (21.10.1969)	1-2,4,23
X	US 5,165,684 A (PRATT) 24 November 1992 (24.11.1992)	1-2,5-6,23
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Y		3-4,7-22
X	US 4,010,940 A (FREYLER) 08 March 1977 (08.03.1977)	1,4,23
A	US 4,061,385 A (SCHWARTZBERG) 06 December 1977 (06.12.1977)	

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☐ See patent family annex.

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Continuation of B. FIELDS SEARCHED Item 1:

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