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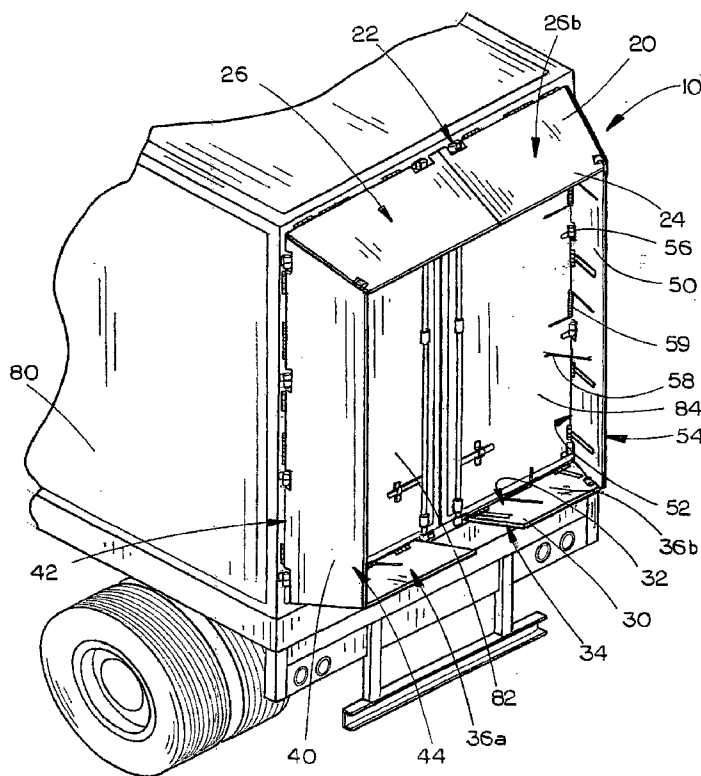
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(54) Title: AIR DRAG REDUCTION APPRATUS FOR TRACTOR-TRAILERS



(57) Abstract: A air drag reduction apparatus includes left and right planar panels and top and bottom planar panels for mounting to the rear doors of a tractor trailer along the top, bottom and side edges thereof. Hinges are interposed between the panels and the doors so that the panels can pivot about the hinges between an extended drag-reducing position and a collapsed position generally adjacent the rear doors. Stop devices releasably secure the panels in the extended position, and biasing devices such as tensioning springs are operative to bias the panels outwards and rearwards to the extended position and are further operative to permit the panels to pivot between the extended position towards and to the collapsed position upon impact and contact from an external object occurring and then return to the extended position substantially immediately upon contact ceasing thereby significantly reducing the impact damage.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/18544

A. CLASSIFICATION OF SUBJECT MATTER

IPC: **B62D 35/00**(2006.01)

USPC: 296/180.4,180.5

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. : 296/180.4,180.5

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,498,059 A (SWITLIK) 12 March 1996 (12.03.1996), see figures 1-17.	1-18
Y	US 6,485,087 B1 (ROBERGE et al.) 26 November 2002 (26.11.2002), see figures 1-9.	1-18
Y	US 6,799,791 B2 (REIMAN et al.) 05 October 2004 (05.10.2004), see figures 1-6.	1-18

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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