

- [54] **VEHICLE DRAG REDUCER**
 [76] Inventor: **Alan J. Bilanin**, 62 Battle Rd., Princeton, N.J. 08540
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Primary Examiner—Robert B. Reeves
Assistant Examiner—Russell D. Stormer
Attorney, Agent, or Firm—Richard C. Woodbridge

[57] **ABSTRACT**

A drag reducing apparatus is attached to the back of a vehicle and serves to reduce drag by capturing at least two vortices which turn the flow inwardly behind the vehicle body thereby effectively reducing the back area of the vehicle. The first and second vortices are captured in cavities formed by a first and a second vertical panel attached to the back of a vehicle. A third horizontal panel can be attached to the top of the first and second panels to create a cavity for the capture of a third vortex formed by the air stream flowing over the top of the vehicle. The panels are preferably hinged so that they can be folded up flat against the rear of the vehicle when not in use. When in use the panels are locked in position so that they don't vibrate when the vehicle is moving. Top and bottom panels can be employed to define the upper and lower limits of the first and second vortex. Other embodiments employ different panel arrangements to improve the efficiency of the vortex capture.

16 Claims, 24 Drawing Figures

