



US 20050051934A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0051934 A1**
Platner et al. (43) **Pub. Date: Mar. 10, 2005**(54) **ATTACHMENT ARRANGEMENT FOR A
COMPOSITE LEAF SPRING WHICH
ACCOMMODATES LONGITUDINAL
MOVEMENT THROUGH SHEAR
DISPLACEMENT**(52) **U.S. Cl. 267/47**(57) **ABSTRACT**(76) **Inventors: David K. Platner, Shelby, MI (US);
Ramin Rezakhanlou, Murcia (ES);
James Trotter, Auburn Hills, MI (US)**

Correspondence Address:
CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009 (US)

A suspension system includes a composite leaf spring attachment system having a bracket, a mount and a shear damper mounted therebetween. The mount is rectilinear in cross-section to receive a rearward leaf spring segment of the composite leaf spring. During flexing of the leaf spring, the rearward leaf spring segment of the leaf spring slides within the mount. The shear damper in combination with sliding of the leaf spring through the mount accommodates this longitudinal lengthen during flexing. Also, due to the width of the of the leaf spring segment the shear damper may alternatively be utilized alone to accommodate the flexing of the leaf spring as the significant width of the composite leaf spring provides a large mounting platform for a significantly large shear damper heretofore unavailable with relatively thin conventional steel leaf springs.

(21) **Appl. No.: 10/656,841**(22) **Filed: Sep. 5, 2003****Publication Classification**(51) **Int. Cl.⁷ F16F 1/18**