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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0051933 A1**
(43) **Pub. Date: Mar. 10, 2005**(54) **COMPOSITE LEAF SPRING HAVING AN
ARCUATE ATTACHMENT ARRANGEMENT
FOR VEHICLE MOUNTING****Publication Classification**(51) **Int. Cl.⁷** **F16F 1/18**(52) **U.S. Cl.** **267/38**(76) **Inventors:** **David K. Platner**, Shelby, MI (US);
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BIRMINGHAM, MI 48009 (US)(21) **Appl. No.:** **10/656,872**(22) **Filed:** **Sep. 5, 2003**(57) **ABSTRACT**

A suspension system includes a composite leaf spring having an arcuate segment that is located between a retaining pin and a bumper. The retaining pin includes a shank surrounded by a resilient tube. The bumper is located adjacent a rear wall of the bracket opposite the retaining pin. The bumper includes an arcuate face to engage the outer arc of the arcuate segment while the pin is at least partially surrounded by the arcuate segment. The end of the composite leaf spring is thereby securely yet resiliently retained within the front leaf spring attachment system without penetrating fasteners.

