Wheels: From Barbara, "I drive a 1998 Buick LeSabre. While driving through a local construction zone, I hit a pothole. A piece of metal was in or near the pothole and flew up, hitting both doors on the passenger side of the car. Now I notice a rattle whenever I turn to the right. I've been to four or five repair shops and one dealership and have been offered a variety of causes of the rattle, which remains. I've been told the LeSabre has a broken axle, has a broken motor mount, needs a new camshaft, and needs a new starter switch. I have had a new serpentine belt and battery installed, but I don't want to spend more money without a definite diagnosis of the rattle. Can you help?"

Halderman: Noise diagnosis is one of the most difficult customer concerns to pin down unless the noise is caused by a broken part that can be identified. There are certain facts that help to try to narrow it to a particular problem, including:

- It started after hitting road debris on the right side of the vehicle.
- A rattle noise is heard whenever turning to the right.

The most likely cause based on these facts is a fault with the right drive axle shaft. A visual inspection should indicate if the rubber protective boots covering the constant velocity joints on the right axle shaft have been cut or damaged. A damaged serpentine belt is also possible, but would not likely only cause a noise when turning to the right. One method that can be used to help locate the noise is the use of an electronic noise detector. These units include several microphones that are attached to the body of the vehicle and then monitored while driving. The control for the electronic noise detector includes switches for the technician to listen to one microphone at a time. These microphones are numbered and the technician then writes down where each microphone is placed under each vehicle by number. One brand name, Chassis Ears, is a common diagnostic tool at many shops and dealers. While a cost will be involved in the installation and use of the diagnostic tool, it will most likely be able to pinpoint the location of the noise.