WHEELS: Greg of West Milton writes: "We have a 1997 Mercury Grand Marquis which has been a wonderful automobile (and still is) except for one peculiar noise. The sound is similar to the sound that a dry speedometer cable used to make before we had electronic units. It has been doing this for about five years and 40,000 miles. In the beginning, it was barely audible and over time has become quite annoying. It seems to correspond to the rhythm of the wheel rotation.

I have a friend who is a certified Ford mechanic. He has tried to find the problem to no avail. Also, another friend who is an ASE certified mechanic has tried without success.

I have installed a new set of tires; tested the car without the wheel covers; inspected the bearings in both universal joints and had all four rotors turned and installed remanufactured calipers, along with new brake pads. I also replaced the rear right side axle bearing and seals. In addition, I inspected the parking brakes and backed them off a little to insure that they are not rubbing. I'm out of ideas! I might add that I am a fair amateur mechanic, having restored eight antique autos, and just completed a street machine with modern drive train and suspension, including a fuel injected computer controlled engine and tranny. Any suggestions you have will be appreciated. Thanks".

Halderman: I asked several others for their opinion and they suggested looking at the following:

- 1. U-joints on the driveshaft. The driveshaft should be removed and each joint moved through its travel to check for any looseness or binding. A U-joint will make noise at about three times faster than the rotation speed of the wheels due to the differential gear ratio. This may not be your concern if the noise is heard at the same rate as the speed of rotation of the wheels.
- 2. Check the dust shield to see if it is touching the rotor. A loose wheel bearing may cause the rotor to move and touch the dust shield.
- 3. The wheel bearing dust cap often includes an anti-static spring. This spring grounds out any static electricity created by the wheel bearings. A lack of lubrication inside the dust cap can cause this spring to make noise.

