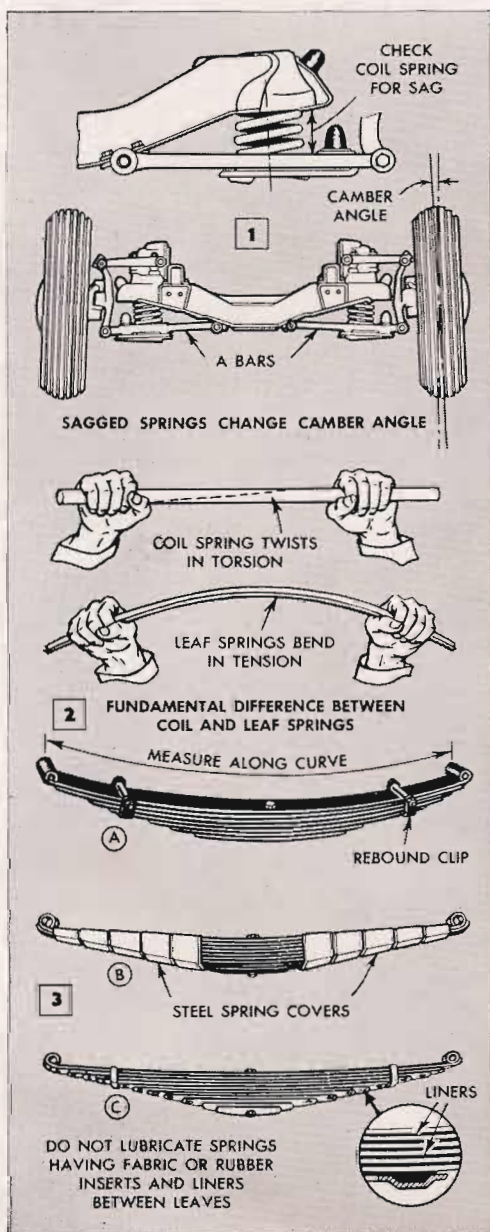


Regular servicing of springs keeps your car riding like new. Straight-line steering and smooth riding qualities that were built into your car are retained by simple check-ups and the proper use of lubricants

## Servicing Springs



WHEN YOU hit a hole in the pavement or a bump in a side road the shock absorbers snub out the rebound of the car axle. But the springs take the real punishment by preventing the shock from reaching the car frame and body. Even when you're cruising on a smooth highway, the springs soften the ride by constantly flexing to equalize irregularities in the road surface.

Lack of lubrication can cause rapid wear in leaf springs, and rust and metal fatigue combine to cause a slow loss of "life" in a coil-spring suspension of the type shown in Fig. 1. Under normal load conditions, spring suspensions of this type are designed to operate with the A-bars, or control arms, in an approximately level position. After years of service the springs may weaken and, in effect, shorten slightly under the body load which, of course, remains the same. This changes the normal position of the control arms and, in some cases, may even change the front-wheel camber as in the lower detail in Fig. 1. This condition can cause a serious loss in steering response and it also results in rapid wear on the tires. Often the defect can be corrected by shimming the springs with spacing washers which fit into the retaining caps at the top and bottom ends. However, if body sag is excessive, or if one spring is lower than the other, then both springs should be replaced. On some older cars it will be necessary to check steering and possibly to realign the front wheels after shimming or installing springs. On certain newer cars, coil springs may be shimmed or replaced without changing the wheel alignment. Coil springs are simply torsion bars, upper detail in Fig. 2, and any surface flaws caused by rust will weaken them. To protect coil springs against rust, keep them well painted or coated with any of the rust preventives which are available. The rust preventive also acts as a lubricant and eliminates regular spring lubrication.

Leaf springs and shackles on nearly all older-model cars and trucks require lubricating at regular intervals. The method of lubricating depends on the type of spring and the provisions made by the manufac-