

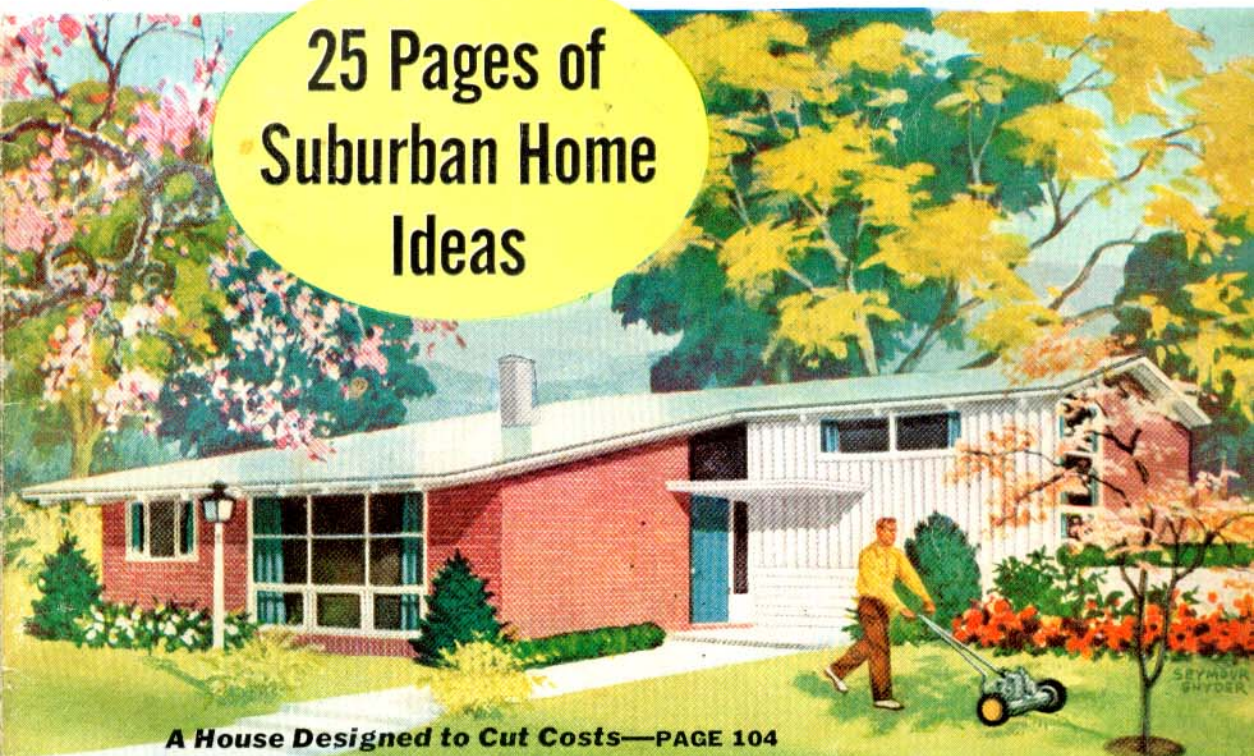
MECHANICS · AUTOS · HOMEBUILDING

POPULAR SCIENCE

April 35¢

MONTHLY

25 Pages of
Suburban Home
Ideas

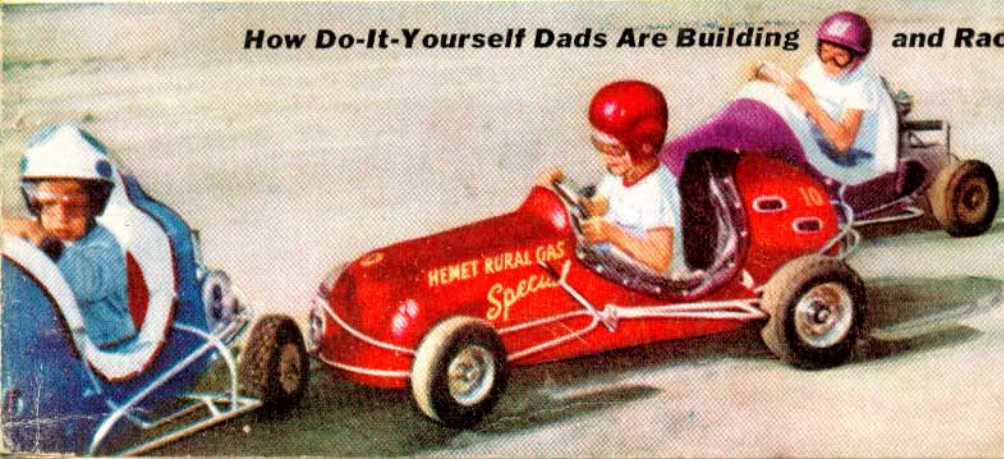


A House Designed to Cut Costs—PAGE 104

HORSEPOWER-RACE NEWS

PAGES
122 to 132

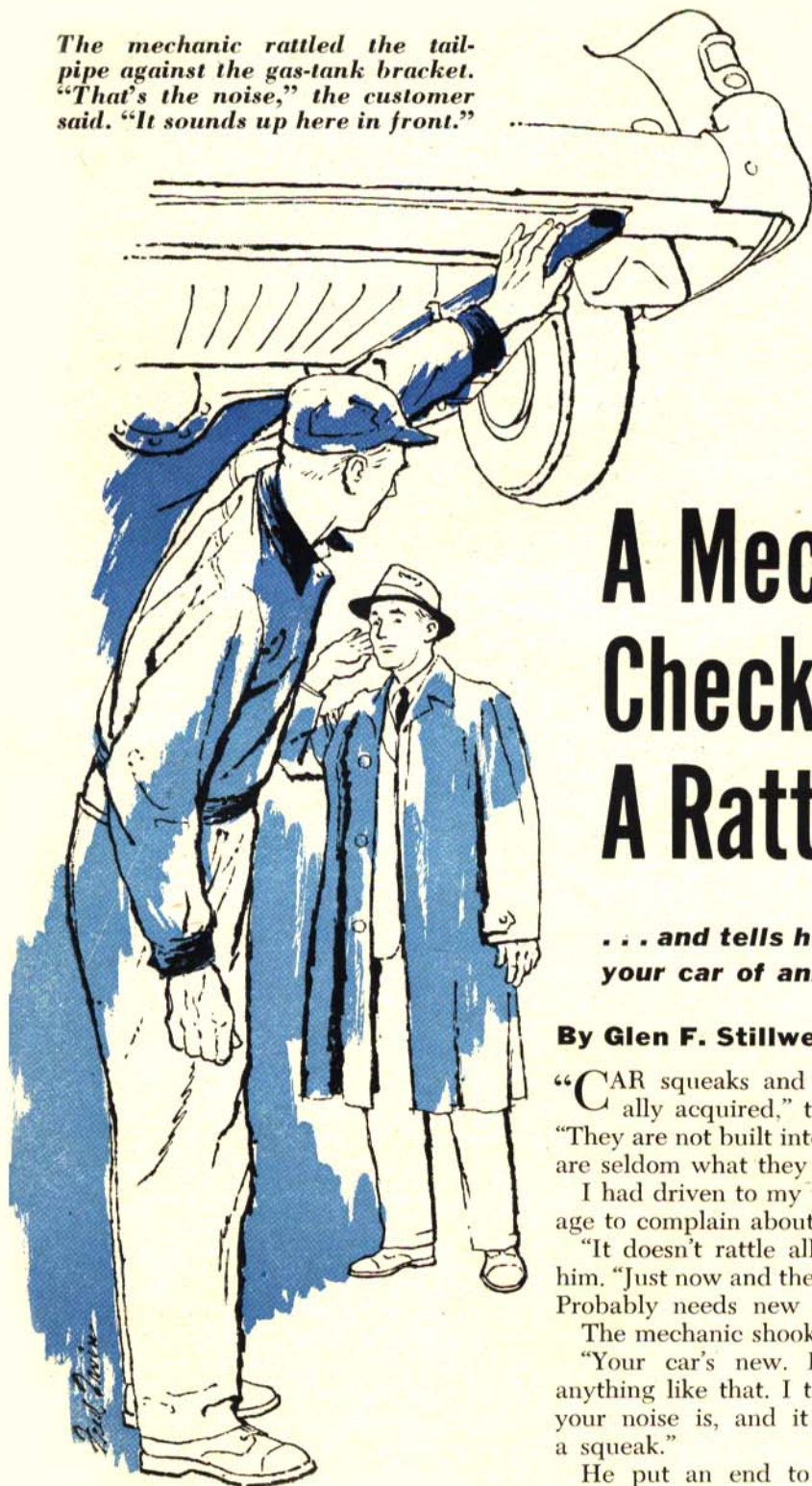
How Do-It-Yourself Dads Are Building and Racing



Midget Midgets

PAGE 166

The mechanic rattled the tail-pipe against the gas-tank bracket. "That's the noise," the customer said. "It sounds up here in front."



A Mechanic Checks A Rattletrap

... and tells how you can rid your car of annoying noises.

By Glen F. Stillwell

"CAR squeaks and rattles are generally acquired," the mechanic said. "They are not built into the car, and they are seldom what they seem."

I had driven to my neighborhood garage to complain about a door rattle.

"It doesn't rattle all the time," I told him. "Just now and then when I start out. Probably needs new rubber bumpers."

The mechanic shook his head.

"Your car's new. It shouldn't need anything like that. I think I know what your noise is, and it isn't a rattle—it's a squeak."

He put an end to the "squeak" by

smearing a little glycerin on the rubber door lining.

"What happens," he explained, "is that all doors must have a certain amount of up-and-down motion or they'd be hard to open and close. When the rubber lining is new and dry, this motion makes a rubbing sound like a rattle. It disappears when the rubber wears smooth."

It was a warm spring day and I decided to loaf around the garage a while, an instructive pastime that I indulge in as often as possible.

Another customer had been waiting while I talked to the mechanic. After pulling my car to one side, I strolled over to the hoist where the mechanic already was starting a quick grease job for him.

A front-end rattle. The customer was poking his nose under the front end. "Maybe I can find that rattle," he said. "Guess I'll have to—if anyone does."

"Is it in the front end?" the mechanic asked.

"Sure thing," the customer replied. "Everyone says so—and I've had mechanics clear across the country try to find it."

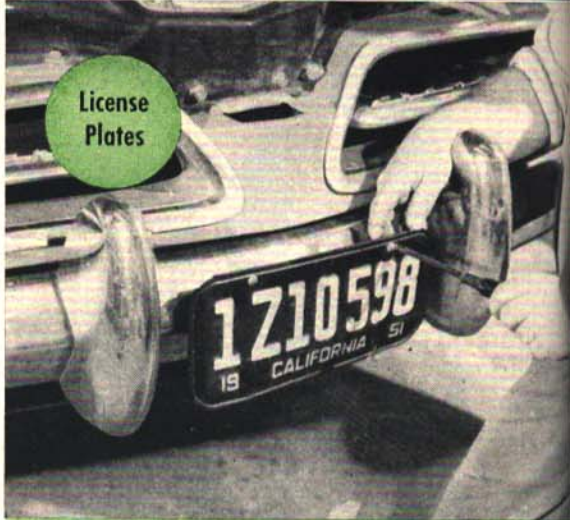
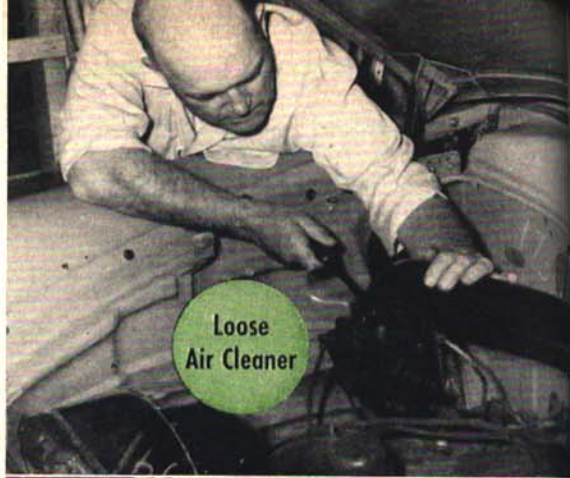
The mechanic, working at the rear of the car, suddenly put down his grease gun and I saw him looking closely at something. Then he glanced at the customer, still poking around the front end.

Sounds are telegraphed. Reaching up, the mechanic rattled the tailpipe against the gas-tank bracket. "That's the noise," the customer said. "It sounds as if it's up here in front."

"Afraid not," the mechanic said mildly. "It's here—this tailpipe is loose. Guess you and everyone else forgot just one little fact. Most car sounds are hard to locate because they telegraph from one area to another."

To me, this seemed a fine thing to know. So I followed the mechanic around for the next hour or so. Here are some things he told me:

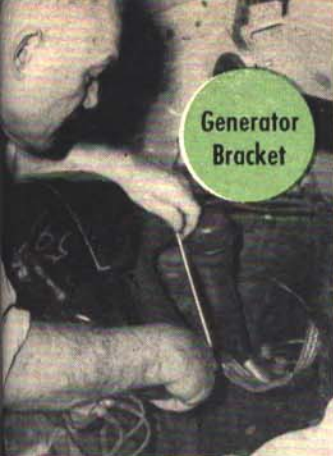
- Don't think a rattle or squeak isn't dangerous just because you've gotten used to it. If the noise comes from worn steering parts, for example, neglecting it may be inviting an accident.



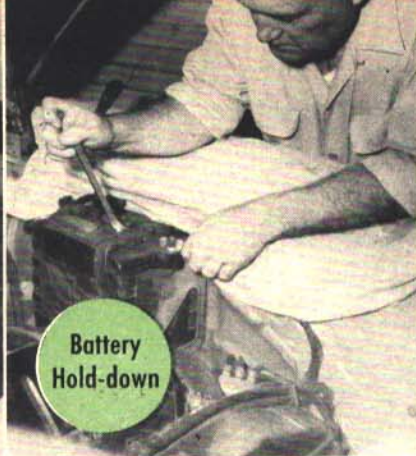
8 Places to Look

- Unusual noises in your car should not be disregarded. It is not difficult for anyone to determine that a remote-sounding, metallic knock heard at evenly spaced intervals originates in the power plant or driven units. If such a noise is heard, the water and oil should be checked immediately. If your water and oil are okay or the noise persists after filling, the car should be headed for the nearest garage.
- Even if you have no squeaks and rattles, it will pay you to check thoroughly at regular intervals for any looseness or undue wear.

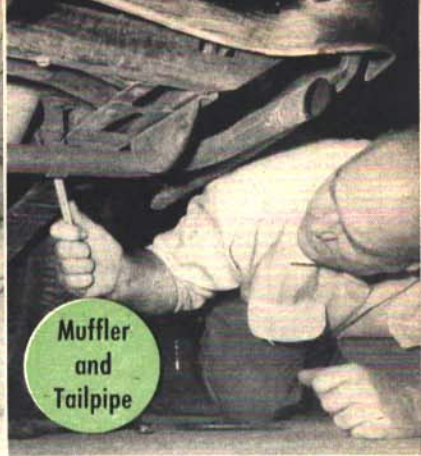
Body noises. These are frequent and usually easy to locate. Thumping noises and rattles often originate in doors and window-lift mechanisms. Check for loose



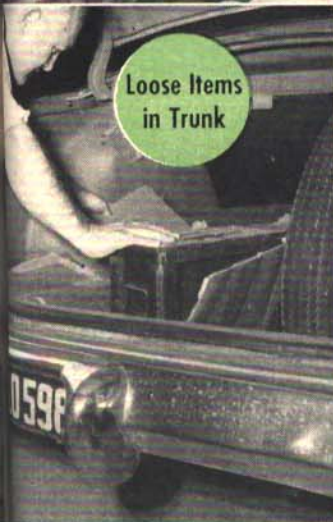
Generator Bracket



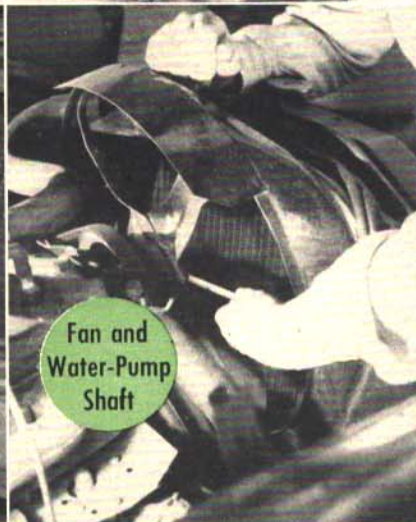
Battery Hold-down



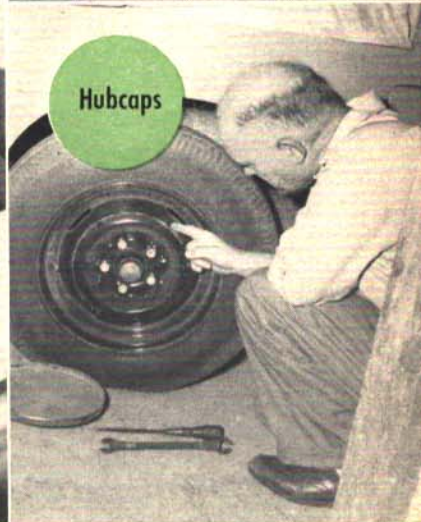
Muffler and Tailpipe



Loose Items in Trunk



Fan and Water-Pump Shaft



Hubcaps

for Disturbing Car Noises

hinges and missing door bumpers. If jingling noises are noticed, check the glove-compartment lid and ash trays. Or there may be a loose wrench or forgotten metal object under one of the seats. If the noise sounds more remote, search the luggage compartment, giving special attention to the spare-tire mounting bracket and any loose equipment that may be rattling around.

Engine noises. Raise the hood and begin at the front to check engine accessories for rattles or unusual noise. Test the blades of the fan and then the belt. A V belt should not be too tight, or excessive wear will result. But a belt that is too loose will cause a squeak or rattle when the engine is accelerated rapidly.

Engine dustpans, heater connections, pump and distributor shafts and air-cleaner components are frequent sources of strange noises.

Check pulleys, all mounting brackets, the throttle linkage, engine-mounting bolts and the gear-shifting mechanism for undue looseness. A check of this kind on one car disclosed that all the cap screws holding the fuel pump to the engine block were loose and one was missing. A few more miles without attention would have resulted in a stalled engine and perhaps a tow and costly repairs. Be sure to tighten the vacuum-pump housing and carburetor-flange cap screws to avoid starting difficulties and road trouble. Check bolts and brackets on the

ALMANAC FOR MOTORISTS

Pithy proverbs, provident counsel and omens and portents of interest to horseshless-carriage operators.



►►These are the days when plenty of unhappy cars, caught in heavy traffic with easy-boiling antifreeze, give excellent imitations of Yellowstone's Old Faithful. Moral: cooling systems will really thrive on just a *little* attention.

►►Now that the weather is growing more amiable, you might check the throttle arm on your carburetor to see if there is an adjustable acceleration-pump link. If so, put it in the warm-weather position. The old boat will be a bit perkier.

►►W h e e l i n g along

at 60 some fine spring morning, Absent-Minded Abner is very likely to pop open the floor ventilator for the first time since way last October. Old Abner sure deserves what he gets: two eyefuls of dirt and grit.



►►Two things to watch next time you replace spark plugs: be certain the threads are engaged right before you touch a wrench, and look for grit under the gasket. Forgetting can make trouble.

►►Don't jeer at a woman's catch-all handbag without looking over your glove compartment. If it has no old envelopes, burned-out bulbs, stale tobacco and partly used lollipops, take a bow.



generator and starter and also on the storage-battery carrier.

Chassis noises. Get your car on a lift if possible, and begin with the front bumper, license-plate bracket, gravel apron and shock absorbers. Examine radiator-mounting bolts for undue looseness, and then go over the entire steering gear, making sure that all nuts are tight and fitted with cotter pins.

Run your hands along frame channels and engine pans for forgotten tools.

Examine the transmission supports, clutch and brake-pedal linkage. Clevis lock nuts should be tight and fitted with the proper size cotter pins. All modern cars have hydraulic brakes, but some have mechanical-linkage systems and equalizers that require attention. Evidence of brake-fluid leakage should be thoroughly investigated.

Strange, hard-to-locate noises often originate in the muffler or connecting pipes. Remember that shaky mufflers frequently leak and may fill a car with deadly, odorless carbon monoxide gas.

Play in the drive shaft. Ascertain the condition of your car's universal joints by checking the amount of play in the drive shaft. The expert often checks up-and-down motion by using an automobile jack under the drive shaft at the universal joint. There is always a certain amount of free rotation, but undue up-and-down movement may indicate a faulty universal joint that would certainly be the cause of a hard-to-find clanking noise.

Next, tighten body bolts, gas-tank support brackets, rear-bumper and license-plate-bracket bolts. Don't neglect differential and drive-shaft stud nuts and cap screws. All wheels should be given attention. Strange as it may seem, the hubcaps on modern cars are sometimes the source of that elusive squeak or rattle. Examine their flanges for shiny areas which may be an indication of movement resulting in noise. Check fender bolts and the gas-tank hinged cover for looseness.

Work? It sure is—but you'll love that silence!

END