



Stan pulled into the Model Garage with a spick-and-span sedan in tow of the wrecker

# Gus Deals in Opposites

HE PROVES THAT THE SAME SYMPTOMS DO NOT ALWAYS POINT TO THE SAME TROUBLE

BY MARTIN BUNN

IT WAS getting along toward supper time of a warm fall evening, and a half dozen of us Model Garage regulars were sitting around Gus Wilson's shop watching him work, when his partner Joe Clark stuck his head in at the door that leads from the office and said: "Oh, Gus, I forgot to tell you—Alex Kerr called up a little while ago and said he wanted his car towed in. He didn't say what was wrong. I sent Stan for it. He ought to be back any minute now."

Alex Kerr is a mild-spoken, apprehensive-looking little man who runs the cigar store across the street from the railroad station in our town. Gus Wilson and he are about as different as any two men can be, but that doesn't keep them from being firm friends.

Big Ez Zacharias burst out laughing at mention of Alex's name.

"Betcha a dollar there ain't a derved thing the matter with his car," he offered, and took

a big bite off a plug of chewing tobacco. "He's worse'n an old woman with that bus of his—every time he hears a rattle he's dead sure his motor's comin' apart. He only drives it a couple of days a month, and I betcha every time he brings it home he washes it off an' polishes it."

Ez chuckled at the thought of Alex shining up his five-year-old bus.

"Why, I met him at the Pleasanton crossroads one day, an' he flags me down an' asks me if the dirt road I'd jest come over was muddy. 'Muddier'n Jason's bog,' I tells him, 'but nothin' you can't plough through.'"

Ez laughed out loud and slapped his thigh with a resounding thwack.

"Alex shakes his head," Ez sputtered again after a pause, "and says he guesses he won't try it—he don't want to get his car muddy!"

"Well, Ez," Gus told him, "nobody ever will accuse *you* of taking too good care of your car. Maybe Alex is a little overcareful, but there's no *maybe* about your being over-careless!"

Ez grinned, pushed his postman's cap onto the back of his shaggy head, and shifted his quid over to his left cheek. "I can't afford to baby my automobiles," he said defensively. "I gotta get the mail over that rural route of mine, ain't I? Anyway, cars is

built to take it, and I aim to see that any car I drive goes any place I have to. When I'm deliverin' Uncle Sam's mail, I've got no time to be nursin' and foolin' around with a temperamental car."

A horn honked briefly outside the open shop door, and Stan—he's the Model Garage's current grease monkey—slowly maneuvered the wrecker and a respectable-looking '39 sedan into the shop. Alex Kerr got out of the sedan, looking even more worried than usual.

"Hello, gents," he told the Model Garage regulars briefly but courteously, and hardly waited for a reply to his greeting before jumping right to the point.

"Say, Gus," he said with a rush of words. "I'm in bad trouble. I guess I've stripped a lot of teeth out of my flywheel. That's bad, isn't it—a pretty big repair job?"

"Well, it is sort of a big job," Gus admitted. "You have to remove the transmission and clutch before you can take out the flywheel to change the ring gear. The old ring gear must be cut off; then the new ring must be heated to expand it so it can be pressed on the flywheel. It's what's called a shrink fit.

"But before we start worrying about that, let's make sure that we're doing our worrying about the right thing. Flywheel teeth don't get broken off so often. What makes you so sure you've stripped yours, Alex?"

Alex looked relieved.

"Well, it sounded as if I had," he said. "This afternoon I thought I'd go over to Pleasanton to see my sister."

"Ain'cha askeered of that Pleasanton mud hole and of using up your A coupons?" Ez asked, and he looked around at the rest of the boys with a sly twinkle.

"I got a right to see my sister," Alex retorted. "She's been sick in bed for the last month, and, anyhow, I haven't driven my car a mile in three weeks, and I always go easy on my A coupons."

Satisfied that he had justified himself, Alex turned back to Gus.

"Well, when I tried to start up," he said, "there was a terrible noise, and the motor stopped dead almost as soon as it started. I didn't know what was the matter, so I went into Henry Miller's hardware store and asked him. He came over to my garage with me, and I stepped on the starter again. The motor did the same thing—made that noise and stopped almost as soon as it started. Henry said: 'You've stripped some of the teeth off your flywheel—you better not monkey with it.' So I phoned Joe Clark, and he sent the wrecker—and here I am."

WE ALL had to laugh at the idea of anyone who was having car trouble asking Henry Miller's advice—Henry being strictly a Sunday driver and notoriously a left-handed mechanic. Even Gus Wilson had to grin at that one.

"About that noise," he asked Alex. "What did it sound like?"

"Oh, I dunno exactly—it sounded like broken teeth to me," Alex said. He scratched his head. "Wait a second, now—yes, I've got it. The noise was three or four clicks—loud ones."

"Clicks, hey?" Gus said. He got into Alex's car and stepped on the starter. The starting motor took off, but after it had turned the engine over maybe about a quarter of a revolution there was a sharp *click-click-click-click*, and then it stopped dead.

Gus switched off the ignition and got out of the car.

"You can quit worrying, Alex," he said. "There's nothing the matter with your flywheel—none of the teeth have been broken. The only bill you'll have to pay on this job is for the wrecker and for recharging your battery."

"Recharging my battery?" Alex looked incredulous. "What's my battery got to do with it?"

"Everything," Gus told him. "Your battery is so run down that it can't feed the starting motor enough juice to turn the engine over. Those clicks are the tip-off—some types of solenoid-starter relays always



"In the end she always starts off, and then runs all right all day, even on bad roads"

give off a series of loud clicks when you step on the starter if the battery is run down. I'll put a rental battery in your bus now, and you can stop by the day after tomorrow and get yours."

AS SOON as Alex had driven out of the shop Ez Zacharias slapped his thigh with one of his ham-sized hands and let out a bellow. "What did I tell you?" he demanded. "He's just like an old maid with that bus.

"Say, I've been havin' trouble somethin' like his—only I ain't heard any of them clicks. Sometimes when I try to start up in th' mornin' my motor acts th' same way—like broken flywheel teeth was jammin' the starter-motor drive gears. The starter turns the motor over pretty near a full turn, near as I can make out, and then she goes dead.

"But I don't start worryin'. No, sir! I just wait a couple of minutes, and then step on her again. Sometimes I have to do that a half a dozen times, but in the end she always starts off, an' then runs all right all day. First off I thought my battery was run down, but it ain't. Well, cars is built to take it. What's the use of gettin' in a stew every time somethin' ain't just right?"

"You're a wonderful guy, Ez," Gus told him. "I'll bet that car of yours uses mighty little oil, too."

"Huh?" Ez grunted. "How do you know that? I don't generally get down here to town to buy my oil. But you're dead right—I never saw a car that uses so little."

"Ever take a look to see what's in your crankcase?" Gus asked.

"Me? No!" Ez said. "Why should I? Car's runnin' fine, except for that hard startin' some mornin's."

"Take a look," Gus advised. "It might save you some money."

Ez stared at him. Then he got up. "So you figger there's somethin' serious the matter, do you?" he said. "O.K., Gus—that's plenty for me. Wait a minute till I drive it in, and then *you* can take a look."

A half minute later Ez drove his mud-spattered sedan into the shop. "Have you ever washed that jalopy since you bought it?" someone asked when he got out.

"No, sir, I ain't," Ez said shamelessly. "What would be the use—I'd get it all muddied up again next time it rained, wouldn't I?" He turned to Gus. "Go ahead, perfer-sor—let's see what's in the crankcase."

Gus placed a large can under the car and opened the crankcase plug. A black, pasty semifluid began dripping slowly into the can. Gus rolled a drop of it between his thumb and forefinger. "Sludge," he said. "Much more water than oil. Your crankcase is full of it—that's why you *thought* you didn't

need any oil. Man, you've been driving this car with practically no engine lubrication. You'll be darned lucky if you haven't scored your cylinders or your pistons."

Ez was looking serious now. "What do you mean—water?" he growled. "Where would all that water come from?"

"It came from one of the cylinders," Gus said. "The odds are about a hundred to one that it got into the cylinder from the water jacket through a loose or broken cylinder-head gasket, although there is just a chance that it got in through a crack or a sand hole in the cylinder. I'll have to do some checking to make certain, but probably the trouble is a bad gasket."

Ez looked relieved. "Well, that ain't so bad that it couldn't be worse," he said. "Get it fixed up as quick as you can, will you? . . . Say, Gus, how the dickens did you know there was water in my crankcase?"

Gus laughed. "Oh, I just used my head—that's what it's for," he explained. "You said that when you stepped on your starter in the morning—after your car hadn't been used for several hours—the starting motor would turn your engine part way over and then stop; and that after you had waited a while it would give it another part turn; and so on until finally it started.

"That made me guess that your starter motor was working against water in one of the cylinders—water in a cylinder can't be compressed by the piston, but if you continue to apply pressure to the piston it will force the water, little by little, through the ring gaps into the crankcase. The fact that your car was using very little oil was good supporting evidence—naturally, all that water in the crankcase kept the oil level up, although what you were using for lubrication wasn't oil, but watery sludge. . . . I don't think you've done much real damage this time, Ez, but if you keep on misusing your car, someday you're going to get into real trouble."

Ez bit off a fresh chew.

"Who, me?" he said. "I ain't worryin'—not while you're around to worry for me!"

## GUS SAYS:

Reduced antiknock in our wartime gas gives the motorists one more thing to watch—but it isn't all bad. Some drivers have discovered that they can cut down on knocking by easing up on the accelerator. And that is a good way to lengthen tire life and increase mileage, too!