

# POPULAR SCIENCE

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*Your Back-Yard Resort*

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*"I heard you checking for all the usual troubles, so I concentrated on the unusual. If you hadn't checked first, I would have had to."*

An illustration of a young man with short, dark hair, wearing a light-colored, button-down work shirt. He is standing in a workshop, looking off to the side with a serious expression. In the foreground, the hood and front end of a dark-colored car are visible, showing the headlights and grille area. The background is a simple, shaded area representing the workshop environment.

# Gus Troubleshoots by Ear

**By Martin Bunn**

"AFTER all," Joe Clark insisted, "this Model Garage is a business. We ought to conduct it like one!"

Gus Wilson grinned at his go-getter partner. "We're not running it exactly like a church bazaar," he commented. "I thought we weren't doing so badly."

Joe's sharp eyes gleamed behind his horn-rimmed specs. "We're not doing so badly," he snapped, "but we could be doing a lot better. We've invested in first-class equipment that enables us to do almost any job and keeps our costs in line. But you're forever turning down jobs because we can't get them done in time. Inefficient! That's what it is!"

"You sound like an after-dinner speech

at the Junior Chamber of Commerce," Gus scoffed. "All right—what'll you have?"

Joe pointed out the office window at Stan Hicks, who was hosing down the driveway. "You've developed that kid into a good mechanic. You told me so when we gave him a raise, but you're still wasting his time on grease-monkey jobs."

Gus felt relieved. Joe wasn't trying to palm off a new mechanic on him. "Promote Stan to a regular mechanic's job and get a new grease monkey—that your idea?"

"That's my idea."

"Well," Gus said, "let me think it over."

He went back to the job he had left on his bench. After a while he heard Stan come into the shop. "Looking for something to do, kid? You might start—" Glancing up, he saw that his helper's face was



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flushed a fiery red. "What's the matter with you?" Gus demanded.

"I—I—I ain't asked you a question for two weeks!" Stan blurted.

Gus laughed. "Swell. Keep it up!"

"Lookit, boss—what I mean is I don't have to ask questions any more—not so many, anyway."

"I get it. You know all the answers."

"Aw, boss—you know I don't mean that," Stan protested in an outraged voice. "What I mean is, you oughtn't to make me go on doin' boy's work. It ain't only that I ought to be earning the raise you gave me," Stan stumbled on. "It's the—the—"

"It's the principle of the thing!" Gus finished for him, with a grin. He gave Stan a resounding smack on the shoulder. "Maybe you're right—I'll talk to Joe about it." He cut short Stan's delighted thanks by jerking a thumb toward the shop door. "Better open up—someone wants in."

THE limousine that rolled slowly into the shop was big, somberly plutocratic, and obviously new. A chauffeur slid from behind the wheel and held open the door. Out stepped a fat man attired in a Prince Albert, striped pants, and a broad-brimmed fawn-colored felt hat.

"Morning, Senator," Gus greeted him.

Senator Bombey grunted, fished a large cigar out of his pocket, and extended it to Gus.

"Thanks—never use 'em," Gus declined.

The Senator looked Stan over. "Vote yet, boy?" he asked.

Stan blushed scarlet. "No—no, sir," he stammered. "Not until next year."

It's *this* year that Senator Bombey has to run for another term. He grunted again and thriftily returned the cigar to his pocket. Then he jerked his chins toward his car. "Who invented 'em?" he demanded.

"Automobiles?" Gus said. "Some people give the credit to Duryea, and some give it to Selden."

"Credit!" the Senator snorted. "Undependable things! This car has been driven only—how far, Jackson?"

"Fifteen hunnert'n six miles, suh."

"... has been driven only one thousand five hundred and six miles," resumed the Senator, who never makes a statement in four words if he can make it in a dozen, "and it has a knock. Listen."

Gus listened. From somewhere under the limousine's sleek hood came a half muf-

fled, rapid click. "Speed her up," he directed. Jackson did. The click, still regular, became more rapid.

"Engine's knocking, all right," he said. "If you want to leave your car, I'll—"

"Time," the Senator pronounced, "is of the essence. I must drive to the National Capital today. Vital legislation is impending. My chauffeur will return for my car at two o'clock. I trust that you will make every effort to have it in first-class condition at that time." He held out a fat hand to Gus. "Good-by, Mr. Wilson. Remember, when you go to your voting place to exercise the free American citizen's proudest privilege, that 'Bombey Serves the People!' . . . Jackson, get me a cab."

He went out. "Windbag," Gus laughed.

But Stan was impressed. He stared at the limousine, feeling that he was playing a part in important events. Senator Bombey had to get to Washington, and he would help him do it, and at the same time prove to Gus that he had what it takes when the chips are down.

"Want me to take care of this job?" he asked with faked carelessness.

"Sure—go ahead," Gus told him placidly.

FOR a full five minutes Stan, his youthful and grease-smeared face reflecting intense mental effort, regarded the Senator's car. Gus didn't have to watch Stan to know how he was going about the job of troubleshooting—his trained and experienced ears told him. He nodded approval when he saw Stan checking the valves with a feeler gauge—a worn valve stem guide or too much tappet clearance causes most clicking noises in auto engines. But this time the valves didn't seem to be at fault, for Gus heard Stan get a sounding rod and start using it in an effort to locate the noise. "The kid's showing good sense," he thought. "That click *could* be caused by a broken piston ring, or maybe a loose piston or a bad crankshaft bearing—but I don't think it is."

Apparently it wasn't, because for the next hour he listened to Stan trying one thing after another. He grinned broadly when he heard a tool being slammed down. Gus knew that licked feeling!

"Guess I'll get my lunch," Stan said.

"Okay, kid."

When he was sure that Stan was out of the shop, Gus started the engine of Bombey's car and listened intently. The muffled, regular click speeded up—became almost a

steady noise—as he pulled out the hand throttle.

Gus scratched his head reflectively. Then he throttled back to idling speed, picked up a sounding rod, and, with his ear close to its upper end applied it to various parts of the engine. "Sounds like the crankshaft," he muttered after a couple of minutes, "but it couldn't—now, I wonder!"

Almost as the thought crossed his mind, he reached in and retracted the oil dipstick about an inch. Instantly the clicking stopped. With a broad grin on his face, Gus switched off the ignition, removed the oil stick, wiped it clean, and examined it carefully. "It would be a dirty trick," he mused with a chuckle, "but I'd like to see what he does . . ."

Laughing, he made his way to the back of the shop and scanned the old engines lying about there. Two were of the same make as Senator Bombey's limousine. Gus quickly pulled the dipstick out of the newer of the two relics and compared it with the one he held in his hand. Close examination showed that in this respect, at least, the engines hadn't changed. Wiping it clean, he carried the rod back and inserted it in the limousine. Then he started the engine. It purred almost noiselessly, and without any click.

Gus laughed again and went down to the Park House for his lunch.

WHEN he got back, Stan promptly announced: "The Senator's bus is ready." "Good!" Gus said. "So you got rid of the knock. What was causing it?"

"I couldn't find out, boss," Stan admitted unwillingly but honestly, "but it ain't there anymore."

"That's queer," Gus said. "I'll take a look—say, will you get me another screw like this from the stockroom?"

As the door closed behind his helper, Gus hurried over to Bombey's car, took out the dipstick, and replaced it with the original. When Stan came back he was busy at his bench.

"Thanks," Gus said. "Now I'll check that engine."

He started it, Stan's eyes popped and his jaw sagged. The half-muffled click was there again.

"Didn't you say you'd got rid of it?" asked Gus reproachfully.

"It wasn't there when I came back from lunch—honest it wasn't!" Stan wailed. "I ought to have asked you to help me, boss. I'm a heck of a mechanic!"

Gus gave him a poke in the ribs. "That's so," he said, "but you're the only mechanic we've got."

Amazement spread on Stan's face. "What do you—? I mean—that is, I am a mechanic, kind of, only—"

"You're promoted."

"But, boss!" Stan pointed at the Senator's car. "After what I did—?"

"Oh," said Gus soothingly, "you didn't do too badly. That's just one of those things that can happen to anyone around here." Gus chuckled and poked his assistant on the shoulder. "You did everything except fix the bus, and there's no need to cut your throat over that."

"Maybe not, but what are we going to do about it?"

"Fix it, quick," Gus told him. He stopped the engine, pulled out the original oil stick, and replaced it with its duplicate. "Try her now."

Stan did. The knock was gone. "I don't get it, boss," he said helplessly.

Gus handed him the dipstick. "Somebody bent this just a bit—stepped on it, maybe. Anyhow, the crankshaft hit it every turn."

Stan took the gadget, shaking his head. "I knock myself out making every test I can think of, and then you come and find the trouble right off."

"Sure," Gus laughed, "because you made the tests. I knew you'd looked for all the usual troubles, so I concentrated on the unusual. If you hadn't checked it, I would have had to. You wouldn't go looking for a needle in a haystack unless you've looked in the sewing box first!"

END

