

POPULAR SCIENCE

MONTHLY

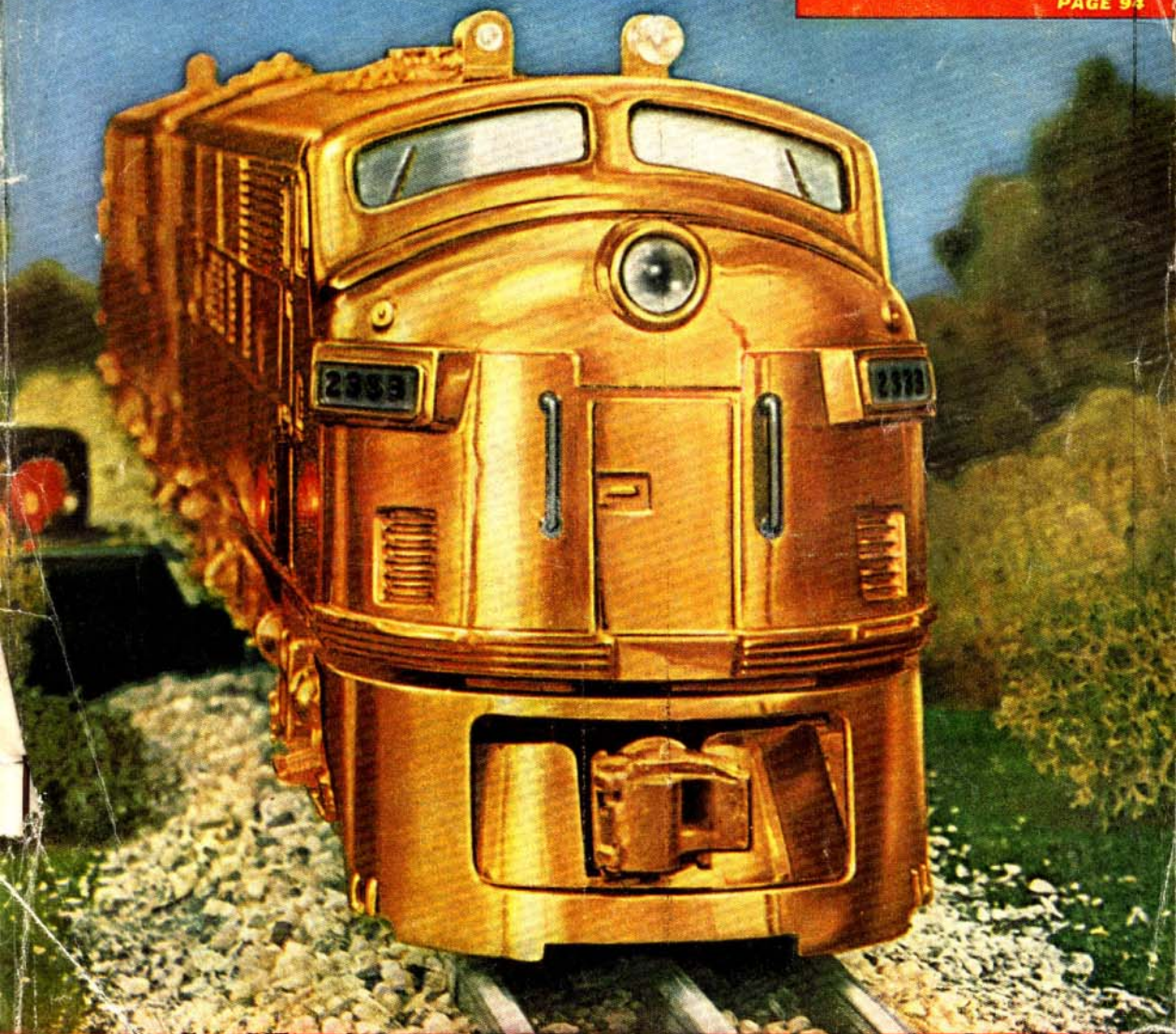
MECHANICS AND HANDICRAFT

December, 1950 • 25¢



Shaw Reports New Ford Drive


PAGE 94



50th Christmas for Electric Trains

When Gus had unscrewed the radiator cap, he called to his assistant, "Now hit that starter button again, Stan."





Gus Fixes the Local Scrooge

The veteran Model Garage owner loosens up a tightwad—and helps a good cause as well.

By Martin Bunn

GUS WILSON was sitting on a stool in front of his bench in the Model Garage repair shop reading a letter and munching one of his lunchtime sandwiches.

"You Gus Wilson?"

It was a harsh, rasping voice, and Gus looked up to find its owner to be a large, bulky man who seemed even bulkier than he was because of the fur-collared storm coat he was wearing.

"That's right," Gus answered, putting the letter and his sandwich on the bench and slipping down off his perch.

"Supposed to be quite a man with automobiles, aren't you?"

the big man boomed sarcastically.

"I'm a mechanic," Gus replied.

"Why, the way I hear it, you've never been stumped by anything that runs on gasoline," the bulky man boomed.

At that point, Gus had an overwhelming desire to answer sarcasm with sarcasm, but before he could speak his visitor went on, "My name's Purcell, William J. Purcell of Evansville."

Gus knew the name only too well, but he was blamed if he was going to acknowledge it. William Purcell was the wealthy owner of a lumber mill just outside Evansville, about an hour from our town. He was a sharp trader who'd made millions in one way or another and who'd never been known to spend any of it on anyone but himself. He held the unenviable position of being one of the most disliked men in our corner of the state.

A Big-Mouthed Big Shot

"You've surely heard of me," the big man boasted. "I own the biggest darned lumber mill in these parts—built it up from nothing. I..."

"Something we can do for you?" Gus interrupted coolly, wiping his hands on a scrap of waste.

"Of course, of course," Purcell blustered. "I don't drive a hundred miles just to pass the time of day in a crossroads service station. Something's wrong with my car and I want you to fix it. But I warn you, no guesswork. I've already been taken by most mechanics in Evansville and I don't intend to start supporting one in this town."

"What's wrong with it?" Gus asked.

"What's wrong with it?" Purcell repeated. "Why ask me, man? That's just what I've come to you



for. All I want to know is, can you fix it?"

"Well, Mr. Bucell," Gus answered, deliberately mispronouncing the name, "we can't very well fix it if we don't know what's ailing it. Where is the car?"

"Purcell, it's P-U-R-C-E-L-L," the big man spelled out. "The car's outside, and if we're lucky we may be able to get it inside."

At that moment, Stan Hicks, Gus's third arm, who had just come back from his lunch, started busying himself around the shop.

"Stan," Gus called, "will you go out front and drive Mr. Rochell's car into the shop so we can have a look at it?"

"The name's PURCELL," the big man exploded. "Confound it man, if you can't remember a name for a minute how the devil can you fix cars?"

Gus ignored the blast.

"Now, Mr. Purcell," he said when Stan had maneuvered the car into the center of the shop, "let's get down to symptoms and maybe we can put our finger on the ailment. What's wrong with it?"

It's Cold-Start Trouble

"Blamed thing won't start," Purcell explained, and then added, "that is, it won't start with the starter after it's been standing two or three hours. If the motor's warm, she'll tick right off when you push the starter button, but if she's cooled down she won't start unless I get someone to push me for a block or so. Once she does start, though, she runs fine. No trouble on the road, but park her for a couple of hours and you're in trouble."

"You've tried to have it fixed?"

The big man's face reddened. "Take a look at these," he grumbled as he pulled a sheaf of dog-eared bills from the pocket of his big coat and shoved them at Gus.

Although Gus is always a stickler for good workmanship and honesty, he had to chuckle inwardly as he riffled through the

stack of bills. The mechanics in Evansville not only had tried just about everything, but had charged Purcell fancy prices to boot. The slips showed that the car now supposedly had a new condenser, a new coil, a new set of points, new plugs, a new distributor cap, a new battery, a new fuel pump, and a rebuilt starter motor.

"Well, can you fix it?" Purcell bellowed as Gus studied the bills.

Gus Asks Some Questions

"Maybe," Gus replied bluntly. "Tell me, how does the motor act after it's been standing idle for a few hours and you try to start it? Does it pop or backfire?"

"Doesn't do a darned thing. Just acts deader'n a door nail, and I can turn her over till the battery's dead and still nothing happens. But if I can get someone to push me, she'll generally take hold and purr along."

"Well, I won't promise any miracles," Gus said finally, "but if you want to leave it here we'll do our best."

"Fine," Purcell agreed, "but mind you, no fancy prices. I've a deal on here in town today so I can give you until five-thirty. If you haven't found the trouble by then, I'll pay you for your time. If you have found it, and fixed it, I'll pay you what you ask plus a bonus." With that, before Gus could reply, he stomped out of the shop.

"And who's that stuffed shirt?" Stan asked as the shop door slammed. "He acts like he owns half the county."

"That, Stan, is Purcell, William J. Purcell of Evansville," Gus mimicked, "and in the eyes of some people—particularly Purcell's—he does own half the county. What he hasn't made in the lumber business, he's made on mortgages. Well, enough grousing. Let's get at this fancy car of his. We've only got a few hours."

Others Had Tried and Failed

In checking over the bills again, Gus realized that most of the obvious possible causes for the trouble already had been taken care of without much in the way of results.

"Any ideas?" Stan asked as Gus dropped the bills on the bench next to his half-eaten sandwich and the letter he'd been reading when Purcell had come in.

"One thing's for sure. The mechanics in Evansville seem to have taken care of

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Gus Fixes the Local Scrooge

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the obvious things, including the great Mr. P's pocketbook." Gus admitted. "But there's an off chance that the carburetor could be the culprit."

With that the veteran mechanic slid in behind the wheel, turned the ignition key, and pushed the starter button. The engine ticked off immediately. Then Gus tramped down hard on the gas pedal, pushing it down to the floorboards. The engine took it without a balk or a splutter. Next, he idled it down and let it run awhile. There wasn't the slightest sign of a roll or a gallop or of choking up.

Could It Be Ignition?

"Well, there's one good hunch shot," he said as he got out of the car. "Might have known it wouldn't be that simple."

"What next?" Stan asked.

"I've a feeling it's probably some quirk in the ignition system, since the carburetor seems to be okay. Bring over the tester and we'll start by checking the new parts that the boys over in Evansville put in."

Methodically Gus went over the coil, the condenser, and checked the timing. He inspected the distributor. Everything seemed as it should be.

"Guess this isn't my day for hunches," Gus admitted, shaking his head. "I'll check the starter, and if that isn't it I guess the best thing we can do is just let 'er sit for a couple of hours. Then we'll watch for symptoms when we try to start 'er again."

Stan watched as Gus operated the starter, using the solenoid under the hood. A faint smile began to spread over Gus's mouth.

"Something wrong with the starter?"

Or Is the Starter the Clue?

Gus shook his head. "No, but come over here and see if you hear the same thing I do. Stick your head down under the hood there while I run the starter."

Stan did as directed and Gus pushed the starter button.

"Hear anything?" Gus asked.

"Yeah, sortuva bubbling sound, like water," Stan agreed.

Gus walked around to the front of the car and unscrewed the radiator cap. "Now, hit that starter button again."

As the starter ground, Gus watched.

"Okay, cut it," Gus called after a few

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[Continued from page 226]

seconds. "Seems to be an awful lot of circulation in that radiator—more than most water pumps can put out. Let's try something."

Loosening the generator bracket, he slipped the fan belt off.

"Now hit that starter button once again," Gus directed as he peered down into the radiator filler opening again. "There's water circulation even when the pump is disconnected," he called, signaling for Stan to take his finger off the starter button. "Now we're getting someplace."

Cracks in the Head Gasket

"What does that show," Stan asked, "a leaky head gasket?"

"It does unless my third hunch is wrong," Gus agreed. "Here, give me a hand getting this head off."

After they had lifted the head off and placed it on the bench, Gus pointed to small cracks in the head gasket and signs of water seepage into four of the cylinders.

"There's our trouble," Gus pointed to small droplets of water. "Put in a new head gasket, Stan, and I think Mr. Purcell's hard-starting troubles will be over."

"Gus," Stan said as he tightened the last of the cylinder-head bolts, "I still don't see how water leaking into the cylinders could have caused the trouble. And if it did, why didn't it show up in other ways?"

"That's my fourth hunch for the day," Gus admitted with a grin, "but I'm more than sure of this one. I reckon it this way. There wasn't enough of a gasket leak there to cause compression loss, but there was enough of a leak to allow a little bit of water to seep into those four cylinders when the engine hadn't been run for two or three hours. Every time Purcell tried to start his engine under those conditions, the little water in each cylinder would foul the plugs."

Stan Gets the Answer

"But what about it starting when he got someone to push him?"

"After several blocks of pushing, the cylinders were able to clear themselves," Gus explained. "Then the engine would catch."

"On the other hand," he continued, "while the engine was still hot, any water

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Gus Fixes the Local Scrooge

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that seeped in would vaporize. Then there'd be no shorting out of plugs and the engine would start with the starter."

Gus was busy on another job when Purcell walked into the repair shop at about five-fifteen.

"Got my car ready?" he boomed.

"Right over there," said Gus, pointing with a wrench.

"Fix it?" asked the big man as the two walked across the garage.

"Well, I think your starting troubles are over, Mr. Purcell."

Purcell slid behind the wheel. "Sure you fixed it now?" he asked suspiciously.

"Try her yourself. She's been sitting here cold for more than three hours."

Purcell grunted and pressed his foot on the starter. The engine caught immediately. "That's more like it," he said, almost pleasantly. Then he soured up again. "What're the damages?"

"Twenty-five dollars," said Gus. "And if it isn't really fixed, bring it back."

The Big Shot Balks but Pays

"You certainly aren't cheap," blustered

Purcell, pulling a roll of bills out of his pocket and peeling off two tens and a five. "But if you've fixed it for good, I guess it's worth it.

"And here's that bonus I promised," he added, reluctantly peeling off another ten and handing it to Gus.

As Purcell's car disappeared down the highway, Stan said, "You did two things just now I've never seen you do before—overcharge and accept a tip. How come?"

In reply, Gus handed Stan the letter he'd been reading earlier in the afternoon. Then he said, "Purcell doesn't know it, but he's just made his first contribution to charity."

Stan looked at the letter. It was a Christmas appeal from the local orphans' home asking for money to help pay off the mortgage.

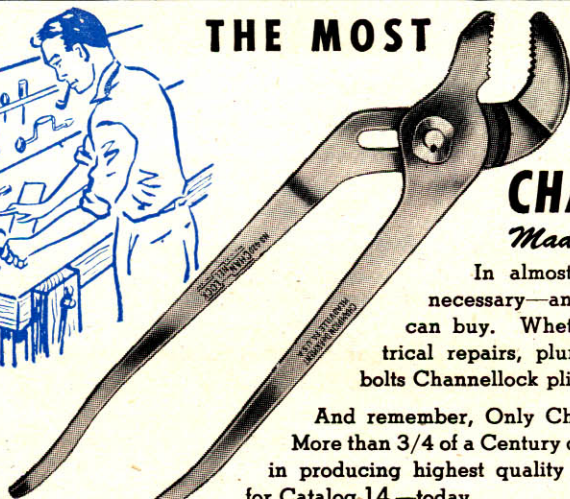
"And guess who holds that mortgage?" Gus asked with a wink. END

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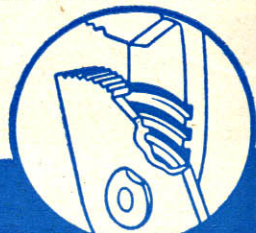
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