Gus Hits a Hot Spot

AN OLD CAR. UNLIKE AN OLD DOG, CAN LEARN A NEW TRICK

By Martin Bunn

TAN HICKS came through the door of the Model Garage shop with a wide grin on his grease-streaked face. "Noah's outside," he announced.

Gus Wilson looked up Irom the bench job he was finishing. "Noah?" he asked. "Noah

who?"

"I dunno his name," Stan said, "but he's in a car that's as old as Noah's ark. He

wants to see you."

"Sounds like C. Watson Griggs," Gus said. "Tell him I'll be right out. And don't be fresh-he lives on his place in the country now, but he's still the leading citizen of this town."

When Gus went out, he saw an expensive, well-kept sedan of pre-Roosevelt vintage. Bolt upright behind its steering wheel sat a man who seemed its counterpart. A stiff straw hat topped carefully brushed white hair, a high collar set off a blue polka-dot bow tie, and though the day was hot, he wore a blue serge suit and vest.

"Why, Mr. Griggs!" Gus exclaimed.

"Where's Hamby?"

Griggs blinked through glasses safeguarded by a black ribbon. "Hamby," he said solemnly, "is serving his country. Since day before yesterday . . . Mr. Wilson, I've had a most disconcerting experience!"

"I can understand that," Gus assured him. "Hamby's the sort of man it isn't easy to replace—as good at taking care of a

car as he is at driving it."

A wave of Griggs' hand stopped him. "We must make sacrifices, Mr. Wilsonall of us," he said. "I let the Army have Hamby willingly. And I shall make no effort to replace him. While he is serving his country, I shall do my bit by driving myself."

"That's very patriotic," Gus commented. "Yesterday I practiced on the driveway," Griggs continued, "and was pleased to find that I had retained my old skill. When I left home this morning to attend a directors' meeting at the bank, everything went well until I attempted to apply my brakes while descending a hill. The pedal went down without causing the car to slacken its speed, Mr. Wilson, and it required considerable manipulation with my foot to bring it back to its normal position-'pumping,' I think, is Hamby's word for the operation.

"A few minutes later, I pressed on the

brake pedal at a traffic light that had turned to red, but again it went down without slackening my pace. Traffic on the cross street had started by the time I reached the light. I was helpless, Mr. Wilson! My car shot across the intersection, and a truck approaching from my left avoided me only by swerving behind me. The driver of a car from the other direction saved it from being struck only by a sharp turn."

Gus whistled. "That was a close call." "Indeed, Mr. Wilson," Griggs continued.
"My brakes, I decided, needed prompt attention. I drove slowly until I came to the first garage, where I had my braking system checked from end to end, but they could find nothing wrong with it and told me to try it out for myself. To my surprise the brakes worked perfectly. I paid the man and drove on, thinking that in the course of his examination he must unknowingly have corrected some slight maladjustment.

"But after a few minutes, a car some distance ahead of me slowed down suddenly. I also attempted to reduce my speed, but again I depressed the pedal without the brakes taking effect. Only the fact that the car ahead of me speeded up again saved me from crashing into it. Now many and many a time Hamby has said to me: 'Gus Wilson is the man to go to when you are in a jam with a car. If he can't make it run, nobody can.' So, Mr. Wilson, here I am."

US was glad of an excuse to grin. "I'll 7 try to live up to Hamby's opinion," he said. "If you'll drive into the shop, Mr. Griggs—or perhaps I . . . "

"Not at all," Griggs said. "My only difficulty has been with the brakes."

He stepped on the starter, and there was a report like a pistol shot.

"You need a new muffler. Mr. Griggs,"

Gus told him.

"Yes, I noticed that the car was making an unusual amount of noise," Griggs agreed. "Hamby told me when he left that I should bring it in to you to have a new muffler installed."

"First let's see what's wrong with your brakes," Gus said.

Griggs consulted his watch. "I'm due at the directors' meeting. If you will make



At the wheel sat the counterpart of the well-kept ancient sedan

whatever repairs are necessary and deliver my car to the bank, I shall be obliged to you."

When Griggs had left, Gus called Stan. "Here's a chance to do a little trouble-shooting," Gus told him. "When the brake pedal goes to the floor board without operating the brakes, what's likely to be the cause?"

Stan scratched his head. "It might be a leak in the system," he said. "Or air in the system."

Gus nodded. "It might be, but it also might be lack of brake fluid in the master cylinder. That's the thing to look for first. Check the supply tank."

But the check showed the tank to be full. "All right," Gus said. "Block the front wheels and jack up the rear wheels."

Gus started the engine and shifted into low. When he pressed the pedal, the brakes acted promptly and evenly. Gus switched off the engine and got out.

"Let her down," he told Stan. "We'll have to bleed the system. There must be air in it—although there's no spongy feel to the pedal. Get that bleeder drain off the shelf and a clean pint can."

Gus removed the bleeder screw from one of the wheel cylinders, screwed in the brass bleeder drain, and placed the rubber tube attached to it in the can so that its end was below the surface of the small quantity of brake fluid that he had poured into it.

"Press the pedal all the way down with your hand—slow," he told Stan. "Do it ten times. That gives a pumping action that forces the fluid and any air that may be in it out of the wheel cylinders."

Stan pumped, but no telltale air bubbles appeared. After they had bled the other three wheel cylinders with the same result, Gus took time out to light his pipe.

"Either Mr. Griggs is nuts, or I am," he remarked. "Maybe a road test will decide which. Fill up the supply tank with fresh fluid, Stan, and we'll go for a ride."

Gus drove out of the shop and up the street, stopping every half block or so. For five minutes the brakes acted perfectly; then suddenly the pedal went down to the floor board without applying the brakes. When Gus pumped it carefully with his foot, the pedal gradually returned to its "off" position, and for a minute or two the brakes

acted normally. Then the pedal went down to the floor again without slowing the car and had to be pumped back to normal.

"This isn't getting us anywhere," Gus

Only sharp swerving by a truck and another car kept him from having a bad smash-up at the intersection



POPULAR SCIENCE

said as he pulled in to the curb and stopped. "This is a job that's got to be thought out."

Just then Trooper Jerry Corcoran roared up on his motorcycle and stopped beside them. "Oh, it's you, is it?" he said. "Say, Gus, don't you know that there's a law against driving without a muffler?"

Gus grinned at him. "This is C. Watson Griggs' car," he said. "You don't think he'd have a car without a muffler, do you?"

Jerry grinned back. "He might have, now that Hamby's gone to the war," he said. "But if there's a muffler on that antique, it must have a hole as big as a quarter blown through it!"

"Holy cats, Jerry," Gus said, "you've given me the answer."

Back in the shop, Gus crawled under the car. After half a minute he wriggled out.

"Get a new muffler from the stockroom and install it," he said. "Then drive the car down to the First National and leave word for Mr. Griggs that it's ready."

"O.K., boss," Stan agreed. "But how about fixing the brakes?"

"A new muffler will fix them," said Gus. Stan scratched his head. "Now I'm getting nutty," he said. "I don't get it, boss."
"I didn't get it either," Gus said, "until

Jerry made that crack about the muffler having a hole blown in it. When you take the old muffler off, you'll find the hole, and you'll also see that the copper tube carrying the brake fluid to the rear wheels runs close alongside the muffler where hot gas will blow on it from the hole. Heat from the muffler vaporizes enough fluid to cause a soft pedal. Pumping on the pedal builds up pressure that liquefies the vapor so the brakes work O.K. again—until the heat does some more vaporizing. When the engine has been shut off a few minutes, the vapor liquefies itself."

Stan shook his head. "Sometimes," he said. "I wonder why I don't get an easy job." "Sometimes," Gus told him, "I do, too."

