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Monthly

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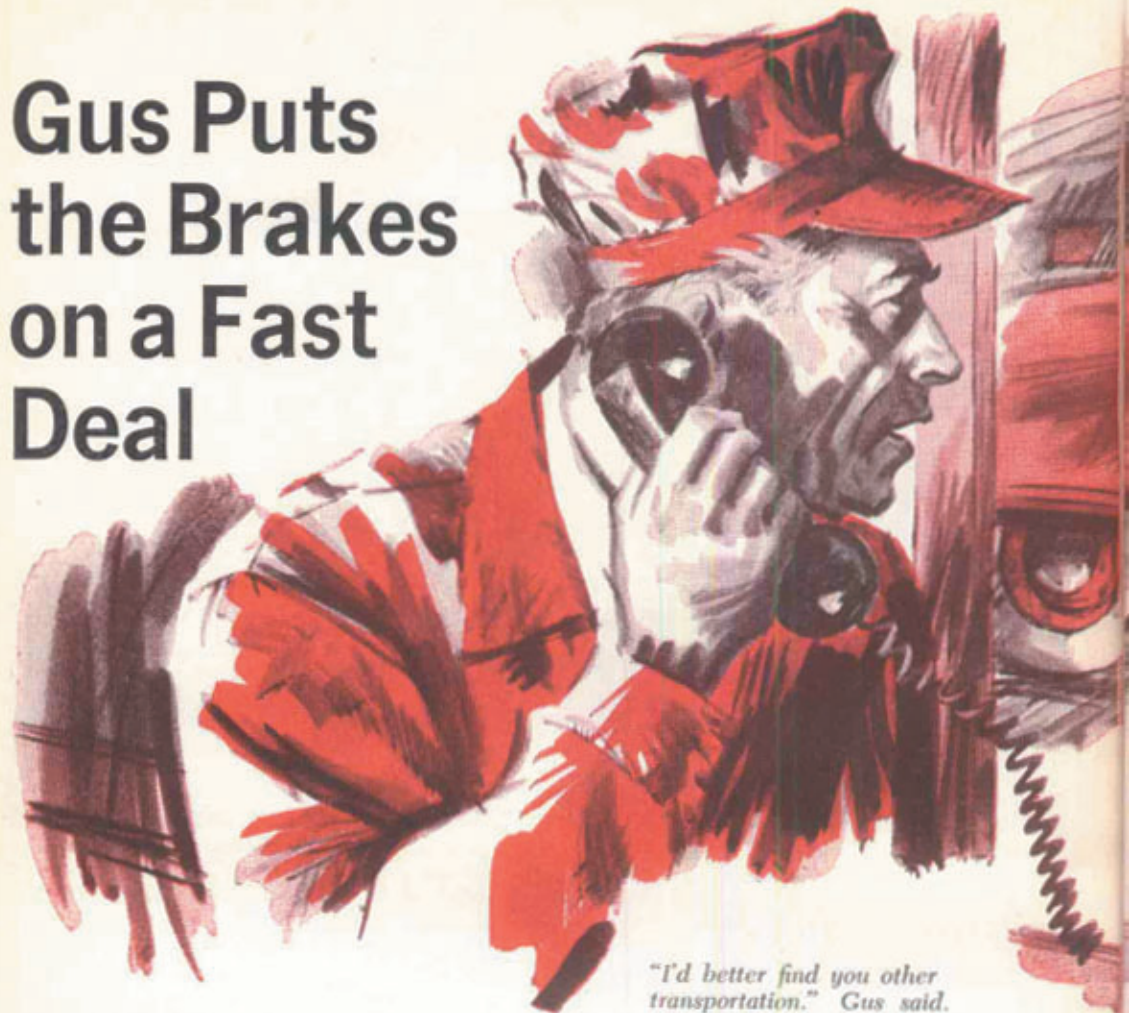
Extra: First Time Ever In a
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Car Features: How to Install a Stick Shift—
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Gus Puts the Brakes on a Fast Deal



"I'd better find you other transportation," Gus said. "You take out your harp while I phone."

By Martin Bunn

GUS stood in the door of the office at the Model Garage. "Not today," he said firmly. "Nor tomorrow or any other time."

The sharp-featured salesman facing him pushed his hat up a bit and planted a foot squarely on the desk chair.

"Look here, Wilson, you don't run this place for your health. Gotta look out for Number One, or who else will? Now here's a perfectly good brake fluid for two-fifty a gallon. Why pay six?"

"Because," retorted Gus, "I've got to know what I'm getting."

"I'm telling you—first-class stuff," the salesman countered. "Can't tell the difference from a brand-name variety."

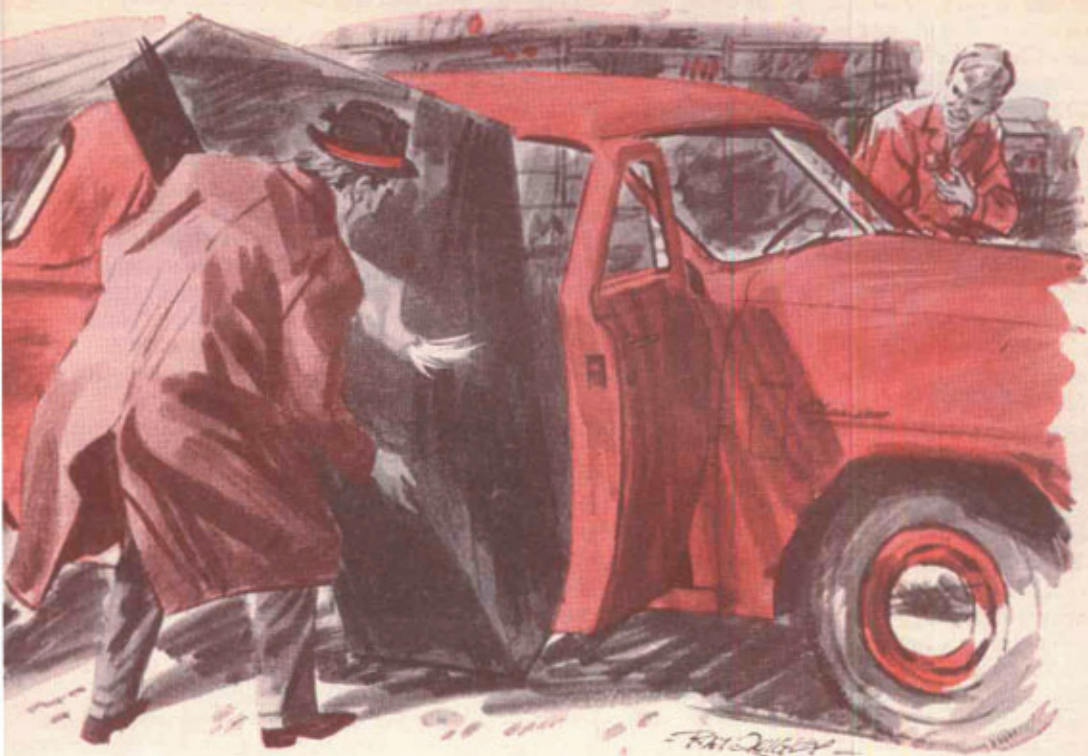
"But my customer might," said Gus.

"Them jerks? Most drivers don't care what you pour into their crates, so long's they run. Besides, by the time any trouble shows, they figure it's wear and tear, so you get a new job out of it."

"Get lost," said Gus, turning away.

The man hitched down his plaid vest. "Look, I don't usually tell Sears about Montgomery-Ward, but"—his voice sank to a confidential whisper—"know who's been buying this stuff from me almost a year? Ideal Garage, down in Newton. That's a good shop, does more business than you—"

Gus swung around, grabbed the man by his coat collar and the seat of his pants, and goose-stepped him rapidly out the door.



"Next time," Gus promised with grim emphasis, "I won't be so gentle. Get!"

Grinning widely, Gus's helper rolled out from under a car as Gus stalked back in. "Good floor show from here, Boss."

Gus merely grunted.

"He's a crumb, sure," Stan went on. "But if Ideal does buy that stuff, it can't be so bad. Lot cheaper, too."

"Anything can be sold cheaper by somebody," returned Gus. "First it was war-surplus fluid meant for airplane hydraulic systems. That played hob in cars. Now creeps like this sell home-brewed fluid, cardboard oil filters, and other just-as-good stuff."

"A filter that goes to pieces sure could clog oil lines," said Stan. "But we've always used a standard brake fluid, so I don't know what could go wrong with other kinds."

"Some cheap fluids are just too volatile," explained Gus. "When the brakes get hot—say when you're tooling down a mountain grade—the stuff boils and forms vapor. That could leave you with a sponge instead of a brake pedal. I'd hate to lose a customer that way."

"Some of today's heavy cars develop so much brake heat they call for heavy-duty fluid, one with a higher boiling point. Use ordinary fluid in one of those and you're asking for brake trouble."

"Bootleg fluids can be tricky in other ways, too. I've got a stunt to show you what can happen if they have petroleum products in 'em, but it'll wait till I get back from town. Did you take care of Mosshart's car?"

"That screwball '51 with only half a front seat in it?" asked Stan. "The one we put up on blocks last summer? Sure, I let it down, checked oil and water, and put in the battery we'd kept on charge here. She started up fine, first try."

"Good work." Gus went briefly into the stock room and toward the back door, pausing to drop something into the tank of degunking fluid on his way out.

A laboring, overstrained engine brought Stan to the door of the shop some time later. He had an uneasy premonition when he saw that it was Mosshart's car, barely moving. The two-door sedan crawled up the shop driveway and shuddered its way

into the garage. Stan hastily directed the driver to a vacant spot on the floor. Steam poured from the overflow as the driver shut off the overheated engine and got out.

"You—you—" spluttered Mosshart, a tall, slender man with amazingly long fingers. "I pay you to lay up my car while I am in Europe six months. I pay you to come put it into condition to drive again today. Tonight I'm playing with the City Philharmonic, so I start for my most important rehearsal. What happens? My engine has no power. The car crawls. It boils. Even my brakes feel wrong. But with such an anemic engine who needs brakes?"

Stan opened the hood and cautiously loosened the radiator cap to release pressure. He found the oil level just what it had been in the garage. But when he tried to push the car within reach of a water hose, it wouldn't budge.

The hand brake was off, the shift in neutral. Stan stepped on the brake pedal. It was stone-hard, with no free travel at all.

"Your brakes are locked," he said.

"Impossible!" snapped Mosshart. "Before I left, I had new linings put in, the drums trued, and the wheel cylinders rebuilt. It's

an old car, but specially arranged to carry this."

Opening the right-hand door, he revealed a huge black instrument case of roughly triangular shape. "My harp, a magnificent instrument. And it won't fit into any ordinary car or taxi. You'll have to fix this one at once!"

Stan breathed in deeply and took a chance. "Looks like the rubbers swelled in the master cylinder and they're blocking the relief port. The fluid can't get back from the wheel cylinders, so it holds the brake shoes out. Happens in old cars sometimes."

Mosshart flexed his fingers nervously. "So fix it. And in a hurry!"

Uneasy because he'd made a snap judgment, Stan nevertheless phoned for a master cylinder to be rushed over. By the time it arrived he had the old one off. He filled and bled the replacement on the bench, hooked it up, and bled the wheel cylinders.

Little air came out. He filled the radiator, started the engine, and drove out. His uneasiness returned when he felt the brake pedal go hard after the first inch.



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The car was so lopy he turned back after two blocks. When he had urged it back into the shop, the brakes were undoubtedly again locked, and Stan was relieved to see that Gus was back.

Evidently Mosshart was telling him his troubles, for after watching the car limp in Gus turned back to the customer.

"Since you've told me how urgent it is for you to reach the city, Mr. Mosshart," he said, "I'd better find you other transportation. Your car needs more work. You take out your harp while I make a phone call. I don't own a station wagon, but I think I can fix you up."

With the deftness of habit Mosshart slid out the huge instrument case. Then, glaring at Stan, he lugged it outside as rapidly as his bulky burden would permit. Gus followed, and soon Stan heard two doors slam and a car drive off.

Stan had jacked up the front end of Mosshart's car. He bled one wheel. To his surprise, it remained locked. So did the other.

"Did you bleed them before putting in that master cylinder?" Gus asked the puz-

zled Stan on coming back into the shop.

Stan shook his head. "Should have, but he was in a tearing hurry, and as I could work on the car where it stood, I barged ahead. Sure goofed."

"If it's what I think," said Gus, "he

CONTINUED

What's this a photo of?



ANSWER: Not bushed baskets full of leaves or bowls of crunchy cereal. They're cigarettes in the pack.



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**FIRE-RING
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needs lots more than a new master cylinder. Let's pull the wheels."

It took more than pull. The shoes gripped the drums so hard they had to be tapped off. Gus removed the shoes and the rubber dust covers on one cylinder. Both pistons could be seen well out from their normal "off" position. He removed the wheel cylinder and with a soft mallet drove out both pistons. They were blotchy with a gray-white deposit.

"No wonder they jammed," muttered Stan. "But how come they're covered with this stuff?"

"It's corrosion that builds up on alu-

out a brake system with kerosene or gasoline.

"Bet you'll find all the other wheel pistons on this car corroded the same way. Standing six months, the fluid had plenty of time to act. If the car had been used, the pistons might not have jammed, but they'd be etched and pitted all the same. Better order four new wheel-cylinder assemblies."

Corrosion had indeed jammed the pistons in the other three wheel cylinders also. Stan removed them, drained out the old fluid, and flushed the entire system with pure alcohol. Then he installed the new cylinders, which came with pistons and dust boots in place. Refilling the system with good fluid, he bled all four wheels. When he took the car out for a thorough road test, the brakes worked perfectly.

"So it was brakes, not my engine?" boomed Mosshart when Gus explained the trouble next morning. He nodded at Stan. "I owe this fellow an apology, and that other garage—Ideal—it owes me one, eh?"

"Ideal!" snapped Stan. "Gus, maybe that salesman told the truth for once."

"When Ideal gets the claim for what this job costs," said Gus, "that fellow will be out a customer. Sorry I couldn't get you better transportation

yesterday, Mr. Mosshart, but that case of yours—"

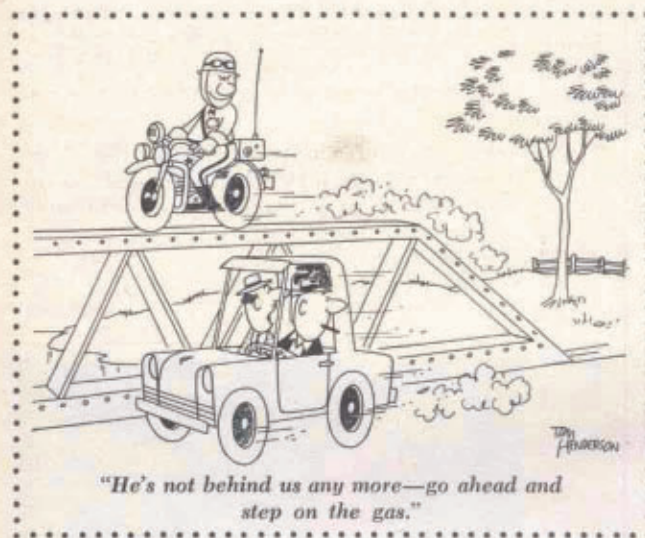
Mosshart waved his long fingers. "No matter. I got to rehearsal. And I played wonderfully last night. It brought me luck, riding in that car." He laughed loudly.

"What did you get to haul that thing in, Gus?" asked Stan.

"Oh, I happened to meet Joe Safford uptown yesterday," replied Gus. "He said he was going to the city to bring back a special—er—container. So when this emergency came up I asked him to give Mr. Mosshart and his instrument a lift."

"Mr. Safford?" burst out Stan. "But Mr. Safford is a—"

"A very obliging man," finished Mosshart. "When he let me out, it impressed the Maestro very much. Bet it was the first time a harpist ever arrived at Symphony Hall in a beautiful big, black hearse!" ■■



minum in contact with salt or acid—which might be present in some phony fluids. Nowadays pistons are anodized to resist corrosion better, but they weren't in '51—and you still take a chance of trouble with poor fluid."

"This sure proves it. Hey, this morning you said you'd show me, but how could you have known—"

"That Mosshart's car would be our guinea pig? I didn't. But go fish out what's in our degunking tank."

Stan sauntered back a moment later with the small round black object Gus had dropped in the tank.

"It's a dust boot with the size marked—one inch. But it's twice that big."

"Swelled up in that petroleum-base cleaner," said Gus. "Some cheap fluids have petroleum products in them. So there's another reason not to use them—or to flush