

SEPTEMBER 1968 50 CENTS

Popular Science

MONTHLY

YOUR TV ANTENNA MAY BE OUT OF DATE!

See Special In-Depth Report
Page 107

A STEAM CAR IN YOUR FUTURE?

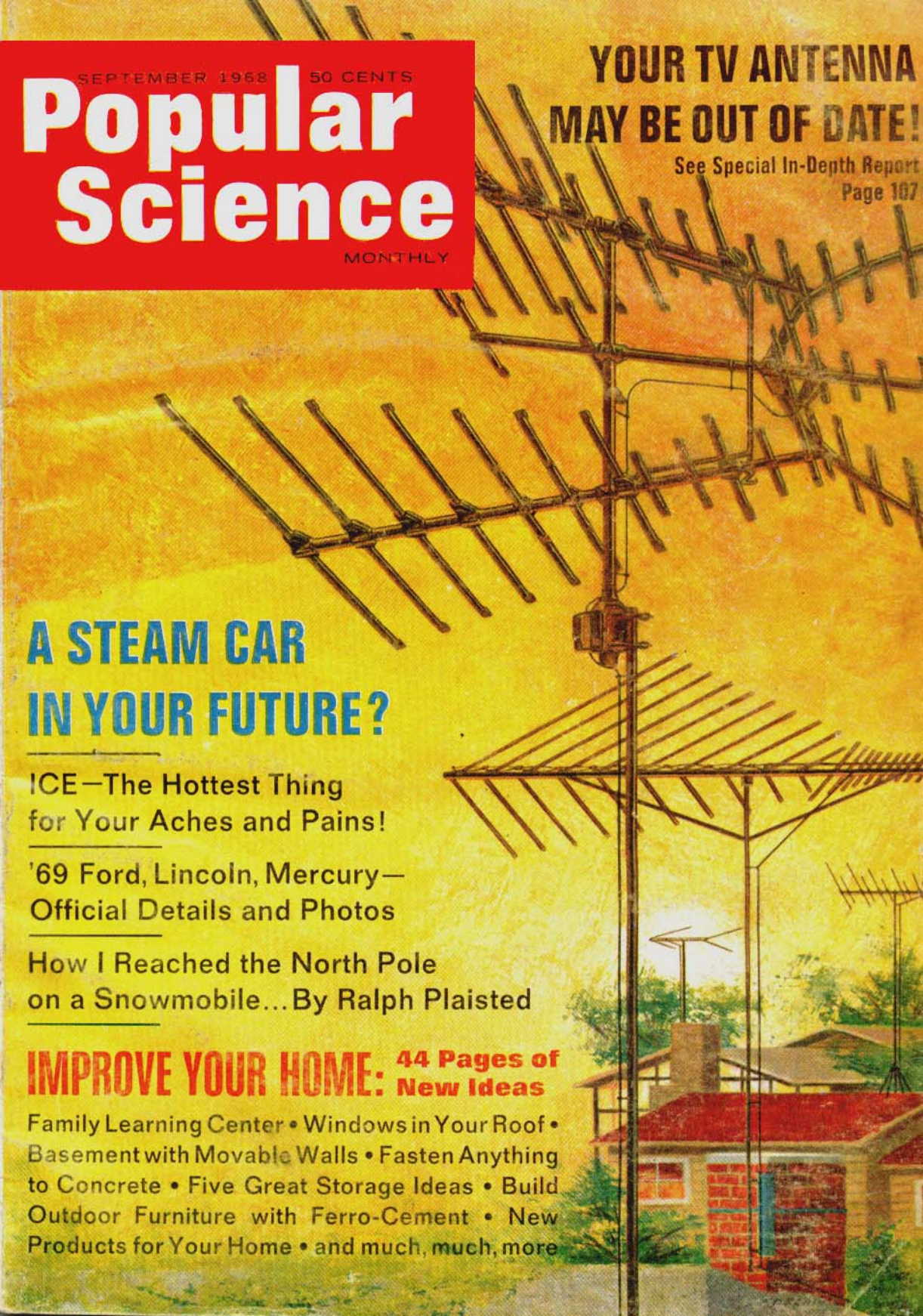
ICE—The Hottest Thing
for Your Aches and Pains!

'69 Ford, Lincoln, Mercury—
Official Details and Photos

How I Reached the North Pole
on a Snowmobile... By Ralph Plaisted

**IMPROVE YOUR HOME: 44 Pages of
New Ideas**

Family Learning Center • Windows in Your Roof •
Basement with Movable Walls • Fasten Anything
to Concrete • Five Great Storage Ideas • Build
Outdoor Furniture with Ferro-Cement • New
Products for Your Home • and much, much, more



Gus Discovers a Secret Mileage Ingredient

By MARTIN BUNN



Stan grabbed the microphone in Heck's wagon as Gus steered his irate customer aside.

When the bakeryman decided he had to save gas— Gus had to figure out how to save a customer

"Do you realize how much I spend on gas?" Lou Heck asked Gus Wilson aggressively.

"I've got a pretty good idea, Lou. You buy most of it right here at the Model Garage," Gus replied with a twinkle. "And at a volume discount."

Gus also knew that the slightly built,

fortyish man—owner and operator of Heck's Homestyle Bakery Products—knew, too, probably to the penny. Those cold blue eyes behind steel-rimmed glasses kept a close watch on the expense records, to make sure that his eight light delivery trucks were an efficient and profitable part of his operation. With Lou



ILLUSTRATION BY RAY QUIGLEY

Heck, gas mileage was close to being an obsession.

"Volume discount, sure. But with gas consumption, I've had it clear up to here." Heck gestured across his Adam's apple. "Like I was telling my boys, the four new trucks in my fleet are off an average of 2.4 miles per gallon compared to the older ones, and this wagon, why, it's awful."

Heck pointed in the direction of a sleek new Ford station wagon he used for personal transportation and special deliveries.

"Well, let's have a look at it, Lou."

"Actually, Gus, this car should be in perfect tune." Heck eyed Gus carefully. "I just had my first dealer-warranty service, and I'll be turning it over to you for maintenance from now on."

Before Gus could ask the purpose of the visit, Heck scurried to the rear of the wagon, opened the tailgate, removed a brown shipping carton and plunked it on the bench.

"I want you to put these on. Like I was telling my boys, they'll save a mint on gas. As soon as I calculate the cost-to-savings ratio, we'll probably install them on the trucks, too."

Gus recognized most of the things Heck fondly sorted through—among them a set of shiny chrome so-called fire-injectors, special carburetor jets, a cylindrical gadget supposed to increase spark intensity, and a "fuel-pressure regulator."

"Very conservatively, these items should double my mileage." Heck's thin lips curled with satisfaction as he waved a fistful of gaudy brochures boldly proclaiming: "Save Gas!" in Gus's face. "I'll radio one of the boys to pick me up and you can put 'em on."

"Lou, you're a good customer, and I don't know quite how to put this, but I can't install these for you."

"What do you mean, you can't install them?" Heck slammed the carton lid shut. "Cost you too much gas business, huh?"

"As hard as it is to satisfy customers with gas mileage these days, if I thought these accessories would help, I'd be selling them myself. But it's been pretty well established that on a properly tuned car, they don't. If you want to talk about mileage..."

"Forget it, Gus," Heck said curtly. "I'll put them on myself."

Monday morning was cool, and so was Heck's greeting to Gus as he eased up to the pumps.

"Fill 'er with regular this time. Like I was telling the boys this morning, I shouldn't be needing high test any more. And be careful to just fill it to the brim. I want to keep a careful record of the mileage."

Gus figured it would be well to keep his mouth shut as Heck methodically en-

Continued

tered the figures into a pocket notebook.

"Shouldn't be stopping as often now." Heck floorboarded the powerful machine as he drove off.

Watching the wagon rocket down the street, Gus was hardly aware that one of Heck's shiny delivery trucks had eased up to the pumps for a daily fill.

"Morning, Mr. Wilson," young Mike McGlenn greeted Gus, a grin on his big, freckled face. "Boss bugging you about gas mileage?"

"Sure is." Gus's grim face relaxed a bit. "If I could just get him to under-

trucks stopped in, it reminded Gus of the strained relations.

"Stan, take over," Gus told his assistant one morning. "I'm going down to the diner for coffee and a doughnut."

"Something bugging you, Gus?"

"Stan, it's just not right when good customers are cold the way Lou Heck has been."

This was just about the time Heck stopped in at the diner for a coffee break. Gus spotted him down at the end of the long counter.

"Morning, Lou." Gus forced a big smile as he eased onto a stool. "I'd like to..."

"You needn't ask. I was just heading over to tell you the great news." Heck's face lit up. "Fluctuates, mind you, but would you believe 22.7 miles per gallon? Did you hear that! Lots of town driving, too."

Gus heard, but his first thought was that Heck was either lying or had miscalculated somehow.

"Yep," Heck continued, "just completed the figures

on 2,000 miles. But that gas you sell is lousy. Car pings."

All Gus could do was act pleased with Heck's superb mileage and offer to check the gas complaint.

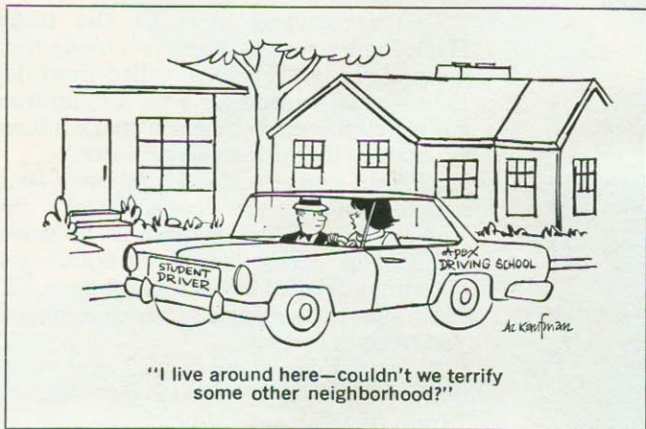
"Fine. Drop me off at the plant. You drive it to the shop and check it over. But you mess up my little gold mine in the process and you've had it."

The big engine did ping a bit on acceleration. Probably a slight timing adjustment would fix it, Gus figured.

But the timing proved almost perfect, as did the tune of the entire engine. Gus spent an extra long time on the engine, including checking out the gadgets Heck had added.

Gus road-tested the car again and finally, back at the Model Garage, retarded the spark slightly to eliminate the spark knock entirely.

"Hey, you still in the gas business?" Mike McGlenn and another Heck driver stood in the open front door.



stand that he's not going to get mileage like he got with the stick-six hardtop he traded on that big wagon. It's just not in the book."

"Well, he's going to get it now. He told us so this morning," Mike replied. "I've got to get on my route. Fill the truck, and, oh, give me two gallons in this can for my—ah—scooter. I'll pay cash for that."

Heck was back on premium the next fill but Gus carefully avoided mentioning the fact.

As the days passed, it did seem that Lou Heck wasn't coming by as often for gas, but Gus passed it off, figuring that what with being so abrupt with the guy, maybe he was lucky Heck was coming in at all. And after all, he was doing the usual business with Heck's delivery trucks and, besides that, regularly picking up can sales from their youthful drivers for their boats and scooters.

Each time one of Heck's neatly lettered

Gus closed the hood and walked toward the pumps with the young men.

"You working on Mr. Heck's wagon again?" Mike asked casually.

"Your boss thinks I've been giving him bad gas. Need gas for your scooter this trip, Mike?"

"No, not this time, I guess."

"How about you, Tom?" Gus turned to the other driver.

"Well . . . no. I'll be docking my boat for the season, I guess."

"Gus, you fixed the ping." Heck was his old, friendly self again, in for his first fill after Gus had worked on the wagon. Whipping out his notebook and slide rule, he checked the odometer and watched the gallonage wheels tumble to a halt as Gus topped the tank.

"What are you trying to pull?" Suddenly Heck's eyes narrowed. "My mileage is back to what it was before I put the gas-savers on!"

"But Lou, I . . ."

"But, nothing. You put my accessories back this instant or you're through with Heck's Bakery Products! Why, I'll be a laughing stock with my boys!"

"Take it easy, Lou." Gus calmly opened the hood. "See, all your gadgets are there. But I think you just gave me the clincher about what happened to your mileage. Will you let me use the radio to call your office?"

"Humph! Go ahead. Use the radio."

Gus motioned to Stan. The pair exchanged a few muffled words. Then Stan grabbed the microphone in Heck's wagon as Gus steered his irate customer aside.

"The dispatcher says Mike doesn't own a scooter, Gus," Stan called out, hanging up the mike. "And Tom hasn't got a boat."

"What is all this nonsense?" Heck demanded.

"It means"—Gus was stoking his pipe, a triumphant gleam in his eye—"you should have installed one more accessory—a locking gas cap."

"Nobody was stealing my gas. It was like . . ."

"Like somebody was secretly adding two gallons of gas to your tank each day, starting when you put on the gadgets. They knew the game was up the day I worked on the spark knock."

"One of my employees? Tell me who it was and I'll fire him!"

"Calm down, Lou. You're going to be awfully shorthanded if you do. All eight of your drivers were in on the plot."

"But how—why?"

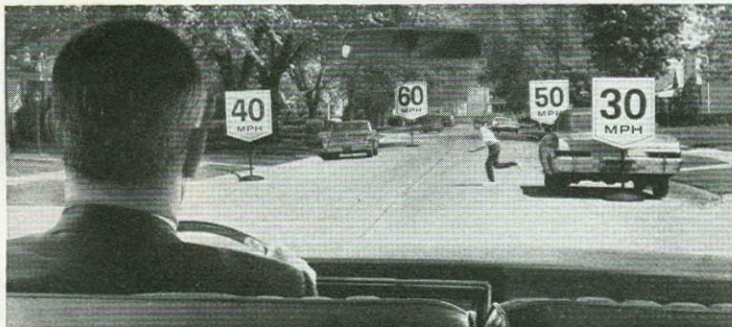
"Well, the way I figure it, they got pretty tired of hearing you go on and on about gas mileage, and they figured they'd—well, teach you a lesson. I started to suspect something fishy with all your drivers wanting two gallons of gas in a can. They were buying regular, which was why your wagon pinged. But they were just needling you, Lou."

Heck seemed to be cooling down a bit. "You mean I shouldn't take disciplinary action?"

Gus grinned, "Well, they were paying for it out of their own pockets—and I don't know how you could have gotten two gallons a day any cheaper than that." P 8

Stopping scale from driver's seat

Chevrolet engineers rigged this demonstration of how far your car would go before it halted, if you wanted to make a panic stop at the moment the picture was taken. The closest sign is where you'd stop if you were doing 30 m.p.h.—69 to 78 feet. Farthest stopping



distance is 228-268 feet. Other stopping distances are 108-124 feet at 40 m.p.h., 160-

186 at 50 m.p.h. Distances are calculated for braking on dry, level pavement.