

GUS cools a hot one

By MARTIN BUNN

It was a warm winter Saturday—one of those days we sometimes get in January which make you forget that spring is a long three months away and make you feel as restless as if it weren't.

Gus Wilson, standing at the opened shop doors of the Model Garage, looked out at the solid streams of traffic on the highway and said to his partner, Joe Clark: "Every-one who's got a car is out in it today. I almost feel like taking a ride myself."

Joe grunted. "This hasn't been much of a Saturday for us," he observed practically. "Aside from a few gallons of gas, I haven't made a sale since we opened this morning, and you haven't had a repair job in the shop. What the heck has happened to all the customers?"

An impatient honking of horns came from the highway. Gus laughed. "There's a customer out there now—that fellow with the trailer who's holding up the traffic. If he ever gets up his nerve to... He's done it!"

With horn screeching and hands waving excitedly out of both front windows, the car towing the trailer suddenly had cut across the stream of northbound traffic and was heading up the garage driveway. Gus and Joe stepped out as it came to a stop in front of the shop. They saw that it had Maine tags, that a stout gray-haired woman was knitting industriously in its front seat, and that its rear was well loaded down with corrugated boxes, battered suit cases, and an assortment of bundles—all topped off by an old baseball glove and a new and shiny baseball bat laid out as if ready for use.

A little old man hopped out of the driver's seat and came briskly around the front of the car. "You the proprietor here?" he wanted to know. Gus said that he was. "Well," the old fellow said, "my motor's red-hot, and I want to get it fixed up right away. I'm headin' for Florida, and I don't aim to waste any time gettin' there. The boys'll be wonderin' what's happened to me, and the team can't get in any good work-outs 'til I get there to help 'em out."

"Huh?" Gus said. "What team is that?"

"What team?" snapped the old fellow.

"The Saint Pete Colts—a baseball team, and a durned good one! I play shortstop—name's Bill Perkins—and I can hit a good lick too, when I get up there at the plate."

He broke off to glare at Joe Clark. "What you starin' at, young feller?" he demanded. "You've heard tell of the Saint Pete Colts, ain't you? Every player over seventy, and able to give these young squirts who think they can play ball more'n they're lookin' for! It's the climate down there does it! Why, in that Saint Pete sunshine . . ."

"Yes, I know," Gus hurried to agree. He had learned never to let a tourist get started on the Florida or California sunshine. "I'll try to get your car fixed in a hurry. Just drive it in. Maybe the lady would be more comfortable waiting in the office."

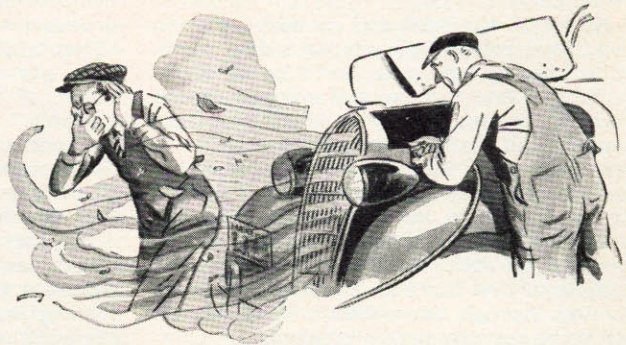
"Her?" Perkins said. "Oh—she'll be all right. I'll unhook the trailer, and she can sit in it out here. She's knittin' for the Red Cross, and she don't want to lose any time."

He unhooked the trailer, and Mrs. Perkins smilelessly transferred herself to it without missing a stitch.

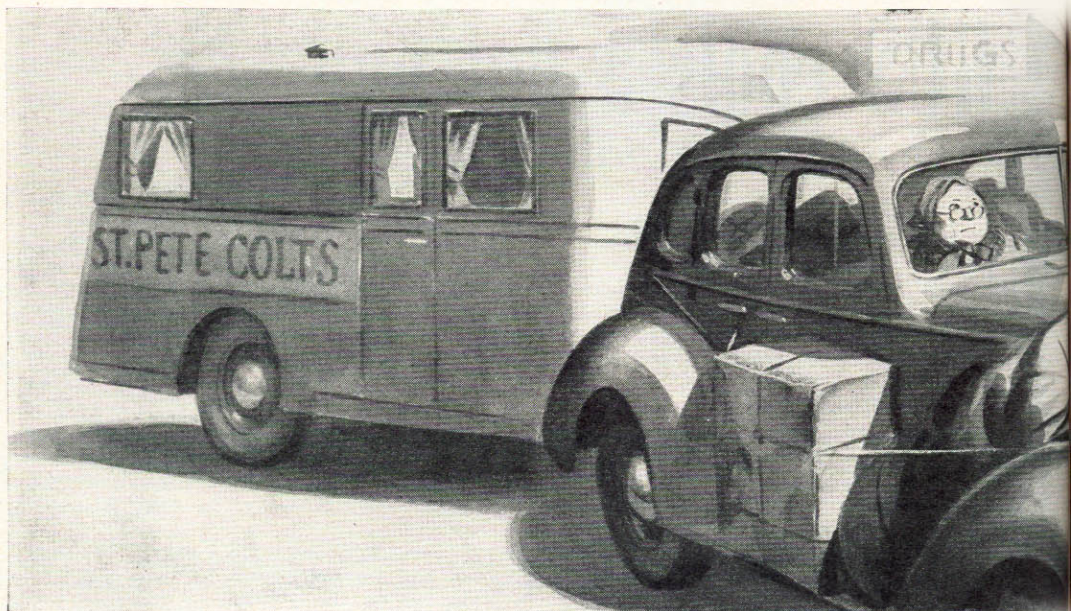
"When did your engine start to heat up?" Gus asked after the new customer had driven into the shop.

"Been doin' it all day, on and off like," Perkins said. "That's why I'm behind schedule—stoppin' every half hour or so to let the motor cool off."

Gus glanced at the pile of baggage in the rear of the car. "Loaded just a little heavily, aren't you?" he asked diplomatically. "That



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will make an engine heat up sometimes."

"I ain't loaded any heavier than I've been on other trips, and I never had a speck of trouble before," Perkins asserted. "Say, mister, I'm right sharp set. Anywhere around here I can get a bite to eat?"

"There's a diner a couple of blocks down the highway," Gus told him.

"I got an appetite like a growin' boy's," the old fellow boasted. "While you're findin' out what's the matter with my car I'll go down there and get me a couple of hamburgers and a slice of pie."

"I never saw anything like that before, darned if I did!" Joe Clark said after he had departed. "Playing baseball and eating hamburgers and pie when he's over seventy!"

Gus grinned. "Well, let's see what's the matter with Shortstop Perkins's bus—I'll bet that it's circulation isn't as good as its owner's!"

He raised the hood and examined the fan belt, then rotated the blades a few turns. "Start her up, will you, Joe?" he asked.

Joe got into the car and stepped on the starter, then let the engine idle. "The fan's working all right," Gus observed after a few moments. "Step on her, Joe—shoot her up to about forty-five." He watched the fan again, then held his open hand near the front end of the engine. "All right, switch her off," he said. "The fan's all right, but in spite of that there isn't much of a breeze coming through the radiator. Probably its air passages are partly clogged."

"You're working on this job wrong-end-to, aren't you?" Joe asked. "I thought that the

first thing you always check on an overheated-engine job is the water circulation."

"A lot of mechanics do," Gus said. "I don't, because I've found that checking the air circulation often is a short cut to finding the trouble. There are at least 50 conditions which will cause an automobile engine to overheat, and pretty nearly every one of them causes it to overheat because, directly or indirectly, it interferes with the easy dispersion of heat from the engine into the water and then the air. Let's have that air hose, Joe."

HOLDING the nozzle of the hose close to the engine side of the radiator core, he turned on the pressure, then began to play the air stream over the core. Joe ducked, but not fast enough, as dust flew out of the front of the radiator, followed by an accumulation of dried-up leaves and long-deceased bugs. "There you are," Gus said. "That trash explains why, although the fan was performing perfectly, there wasn't much of a breeze coming through the radiator."

"Your short cut made good that time," Joe conceded, still brushing himself off. "You certainly made a short job of curing Mr. Perkins's trouble."

"It isn't cured," Gus said unexpectedly. "That partial clogging of the radiator air passages would cause some overheating of the engine, but not nearly enough to make the addition of water every half hour or so necessary. Start her up again, Joe."

Joe started the engine, and Gus took off



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the radiator filler cap. "Speed her up to about 45," he said. There was no noticeable change in the water level in the filler pipe.

"Is the radiator clogged up, after all?" Joe asked, taking his foot off the accelerator.

"Get out and stand here while I speed her up," Gus told him. "Now watch that lower water hose—see how it collapses when I accelerate the engine? The trouble isn't with the hose—it's almost new. What's the matter is that the radiator core is partly clogged, so that the pump draws faster than the core can deliver water to the hose. The result is that the suction of the pump sucks the hose inward, cutting off all the water. I'll have to check the radiator." He drained the radiator and removed the hose.

"Guess Mr. Perkins will have to wait while you reverse-flush the radiator," Joe remarked.

"DON'T want to hold up the old boy any longer than I have to—not when he's just aching to get cavorting around the diamond," Gus said. "Maybe I can do the job without reverse flushing. If the clogging was serious enough to require that, I'd have to do the water jackets, too, to make a decent job of it." He carefully examined the length of hose he had removed, and then took it over to his workbench. "I'll put a wire coil spring inside this. That will keep the hose from collapsing and will allow the

water pump to suck steadily—and that may clean out whatever is obstructing the radiator core."

He replaced the wire-reinforced hose and refilled the radiator with the antifreeze mixture he'd removed. Then he checked the entire water line for leaks. "Tight as a drum," he said. "Start the engine."

He had Joe run the engine at low speed for a few minutes. Then he told him to speed up to 45 again. This time the hose did not collapse, and instead of overheating, the engine stayed noticeably cooler.

"That did the trick," Gus said. "And here's Shortstop Perkins."

When Gus told him what had been wrong, Perkins looked almost disappointed. "Shucks," he said. "Just a little thing."

"Yes, just a little thing," Gus agreed. "But when you multiply a little thing by three you get the equivalent of a big thing—something big enough to lay your car out at the side of the road!"

"What do you mean, three?" Perkins demanded. "There were really only two things wrong—radiator clogged up outside, and radiator clogged up inside."

"You've got your car badly overloaded, and you're towing a trailer behind you," Gus reminded him. "That, by itself, probably wouldn't have been enough to make your engine heat up so much that you would notice it, but added to the clogged radiator it made it heat up plenty."