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MONTHLY

GIANT WINTER WORKSHOP

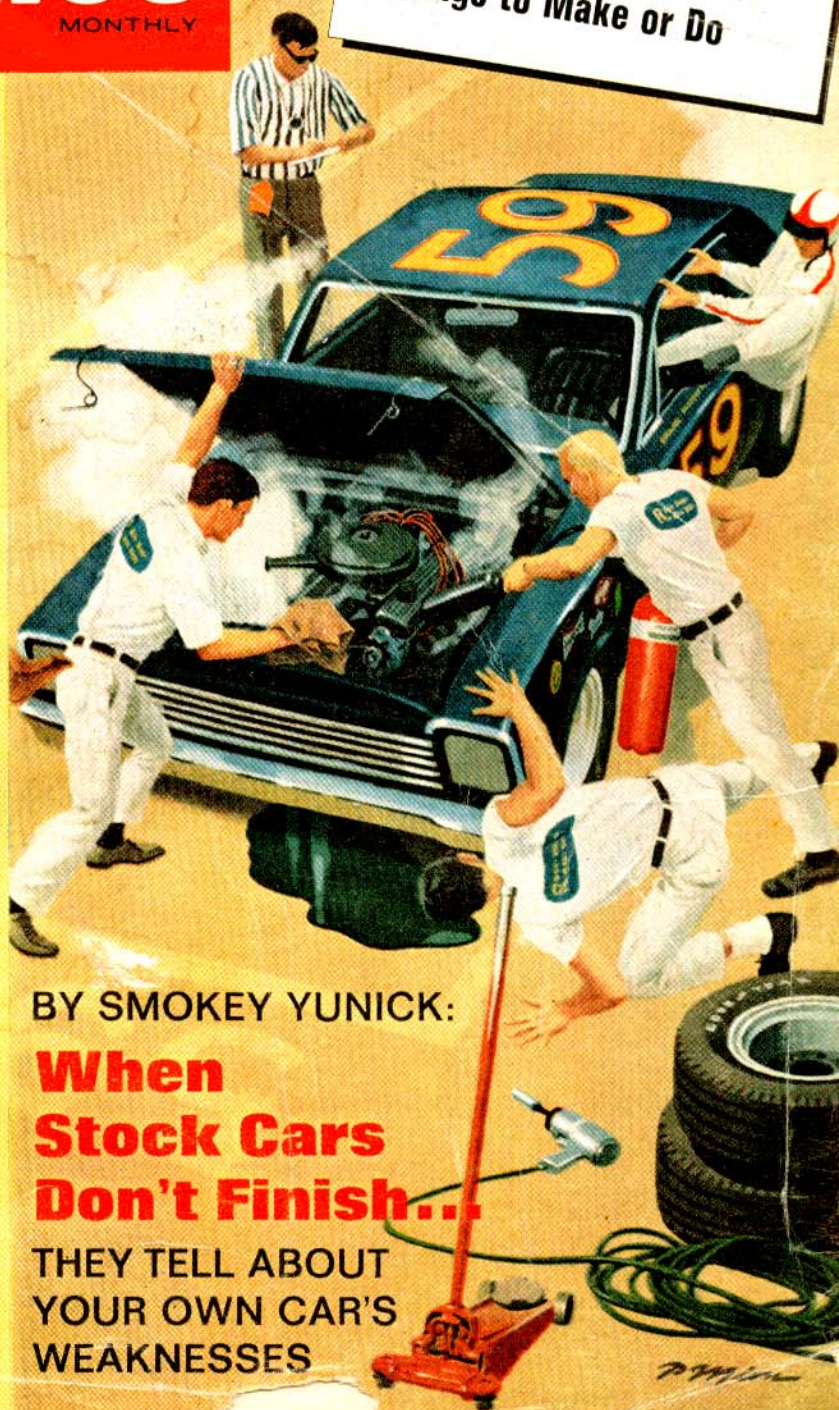
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Handing the extension light to Buzz, Gus cleaned the rebound-plate seat on the rear-axle housing.

Gus Puts the Pressure on a

Crafty old Silas finds himself out of his league when he tackles a husky football star

If Gus Wilson hadn't been so busy going over his books in the office of the Model Garage, he might have noticed the commotion out in the shop sooner. As it was, by the time he heard the angry voices and got up to look through the office window, all he could see was a cluster of large male forms in a half-circle around somebody who appeared to have his back to the wall. Gus's helper, Stan Hicks, was skitter-

ing about, apparently unable to get anyone's attention.

Gus bounded from his chair and pushed his way in between two sets of bulky shoulders. The sight that greeted him was not really funny but it struck Gus that way at the moment. His roar of laughter seemed to break the tension. The circle opened up.

The would-be victim was none other than Silas Barnstable, Gus's most irascible and tight-fisted customer. Silas looked thoroughly frightened. His steel-rimmed glasses were askew, and his eyes darted about like those of a trapped animal.

"Call the police, Gus," he croaked. "I want 'em all put in jail."



ILLUSTRATION BY RAY QUIGLEY

Tightwad

By
MARTIN BUNN

"Hey, wait!" said one of the oversize crew. "Why call the cops? We'll just pick you up and carry you down to the station ourselves." He made a shuffling move toward Silas, who darted away.

As Gus looked around at the ring of faces, he recognized several of the star players on the State University football team. He also decided that they were just frightening Silas and intended no harm.

"Silas," said Gus, "what do you mean by coming into my place of business and starting a fight with these young fellows? Have you been trying to cheat them?"

Barnstable sputtered. "Cheat! Cheat! Gus Wilson, I'll sue you for slander. I sold

these—these *characters* a car in a perfectly legitimate business deal so they could tomcat around while they played their games for that university my taxes support. Now they're out to put me on the spot."

One of the big men grinned and thrust out a hand that enveloped Gus's grease-stained fingers like a fielder's glove. "Name's Buzz Cooper, Mr. Wilson," he said. "We'd like to tell you our story. Maybe you can help."

Gus nodded toward the office. "Come on, Buzz—and you, too, Silas. Let's go inside." Silas sidled ahead cautiously.

On the way, Gus noticed for the first time a 1964 sedan with several "State U" stickers on the windows and a flowing puddle of rusty water under the front end.

Inside, Silas sat more or less subdued while Buzz told how he and his teammates had put in long hours of hard work at Silas's place. "We didn't mind the work, Mr. Wilson," said Buzz. "It helped us keep in shape." He gestured towards the car. "And when Mr. Barnstable didn't want to pay in cash, we accepted the car because we needed it to get back and forth between the dorm and the practice field."

Gus nodded. He knew the new practice field was way out on the edge of town.

"But now we're really in a bind," Buzz went on. "We're due to show up for the big game with Bailey Tech by noon tomorrow—the rest of the team's already gone ahead in the bus. We've got a hundred miles to drive and Coach Thomas is going to be mighty sore if we're late. I'm afraid this heap will never make it."

Gus held up a hand. "Whoa—I get the picture. Now let me ask a couple of questions. Did the car run okay when you got it from Silas?"

"Yes, sir, so far as the engine goes, it seemed to. All we did was replace a radiator cap that was sort of crummy and put in a set of plugs. That's when it started to buck and overheat and all the trouble started."

Silas was getting his courage back. "Nonsense, no trouble at all. Just abuse. You young fellows don't have any respect for the value of things."

Gus had known Silas and his short-sighted economics for years. "Let's make it easy, Silas. Start with the ignition sys-

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tem. How did you save money on it?"

Buzz cut in. "We figured he knew something about it, Mr. Wilson. That's why we asked him to meet us at the Model Garage."

"Kidnapped is more like it," snapped Silas.

Gus's voice grew angry. "Come on, Silas, out with it. If I have to spend time hunting out your shenanigans, you'll pay for it."

Silas looked at Gus craftily. "It might be the button . . ."

Gus's eyebrows lifted. "What button?"



"That time you tried to sell me a new distributor rotor just because mine had a little crack, I fixed it with a shirt button. Didn't cost a cent."

Gus looked at Buzz. "And you put in a set of UJ-12Y plugs."

Buzz nodded. "Sure, that's what the chart called for."

"Okay, that answers that one," said Gus. "Silas put a button under the rotor to keep the spark from arcing through the crack to the distributor shaft. He probably closed up the plug gaps, too. The new U-series plugs have a booster gap in the center electrode to improve firing under partial fouling. Normally, it works fine, but the little extra voltage it backs up is causing the spark to jump past the button to ground." He turned to Silas. "You owe these boys a new rotor, Silas."

Silas squirmed. "I won't buy it from you, Gus Wilson."

"Forget it," said Buzz. "We'll buy

one. We've got other troubles, Mr. Wilson. The engine overheats and blows water out the overflow."

Silas rose from his chair. "It never did when I had it. I even put in a summer thermostat."

Buzz looked firmly at the old man. "And did you put on the rusty old radiator cap?"

"Yep," said Silas defiantly. "Some smart aleck at a service station hid the cap and tried to sell me a new one. I had this one I was saving out in the barn. It was a good fit."

"I suppose you found the thermostat out in the barn, too," said Gus.

Silas reacted hotly. "Think you're pretty sly, don't you? Well, I did. Never throw 'em away. I had one that just fit fine, even if it was from my old car. It worked, too. I tried it in hot water to see, Mr. Smarty Wilson."

"But it doesn't work with a pressure cap, does it, Buzz?" said Gus. "Silas, I'll make you a bet. If that stat isn't an old bellows type when I take it out, I'll buy a new one and do

the job for nothing."

Silas's eyes narrowed. "I'm not a betting man. It worked and that's that."

Buzz Cooper didn't quite see the light. "I can't figure it out. With no real pressure cap, the old stat seemed to work, at least as much as we drove the car. With the new pressure cap, the overheating and overflowing started. I thought the cap was supposed to control that."

Gus opened his desk drawer and took out two thermostats. They both appeared to be about the same size. "Take a look at these," he said, placing them side by side. "One, an old-timer, has a sort of accordion-pleated bellows that expands and contracts to open and close the valve. The other doesn't have anything that you can really see to do the moving, but it has a power capsule filled with a substance that expands and contracts like the bellows."

"Don't make no difference," cackled

Continued

Silas. "Both'll work. I tried 'em both."

Buzz suddenly caught on. "I get it. The pressure cap traps more pressure in the system than the bellows can overcome to expand. The bellows type was intended for the old low-pressure or no-pressure radiators."

"That's it," said Gus. "The water gets hot and builds pressure, but the stat can't open. Eventually the pressure relieves backwards against the pump and into the bottom of the radiator. Then you get a discharge from the radiator overflow."

Buzz opened and closed his huge hands. "Mr. Barnstable, you'd better come across with a new thermostat."

Silas stared at the enormous hands. "All right," he choked. "But you'll have to put it in yourself. I won't pay outrageous labor charges."

Gus winked at Buzz. "You've got a deal and a witness. Silas buys. We'll put in the stat and flush the system. Now, is there anything else wrong with the car?"

Buzz looked glum. "Yes, there is, Mr. Wilson. I sure appreciate your help on these little things, but we've got a big problem. At anything over 45 the car starts to shake. At 60 it vibrates so bad it scares me. We've had all the tires balanced twice; looked for bent wheels; inspected the engine mounts; checked the drive shaft for damage and bends; even went over the U joints—my uncle told me all this stuff in a letter. He runs a garage back home. I'm afraid we're stuck with a real dog."

Gus got up. "Let's take a look."

"You're not going to stick me with any more tricks, Wilson," said Barnstable. "I'm leaving."

Buzz, chin out, swung around toward Barnstable. Gus shook his head. "Go ahead, Silas, I'll put the thermostat on your bill."

With the car over the pit, Gus instructed the other players to get inside the way they usually rode. The car sagged deeply. When he asked them to get out again, it didn't rise very much. Handing the extension light to Buzz, Gus cleaned the surfaces of the drive shaft and the rebounding-plate seat on the rear-axle housing. Working carefully, he placed a bubble protractor on both surfaces in turn. After chalking a few numbers on the side of the pit he turned to Buzz.

"There's your trouble, Buzz. Even unloaded, your angle at the rear-axle U joint is practically zero. Most likely the springs are tired. You should have about two to three degrees' angle."

Gus put the protractor back in its case. "We'll put some wedges between the springs and axle plates. And with all the beef you fellows haul, some booster-type shocks would be a good idea. Anyway, there's nothing seriously wrong."

Buzz gave a sigh of relief. "We couldn't pay you all at once, Mr. Wilson. Maybe I could work it out here at the garage."

Gus laughed. "Nope. I'll tell you what I'm going to do. The car will

be ready by five o'clock. You pick it up then. You can get a good night's sleep and start out early in the morning. My charge will be—one touchdown against Bailey Tech tomorrow."

Monday morning, when Gus arrived at the Model Garage, Stan had a big grin on his face. "Gee, that was a great game, wasn't it?" he greeted the boss. "I guess we know who'll be named Player of the Year."

"Who?" said Gus. "Buzz Cooper?"

"No—you," Stan replied. "State won by one touchdown, didn't they? That was *your* touchdown—the one you told the guys would pay for fixing the car." ■



Light where you need it

This little clip-on flashlight, called the Mini-One, turned up at a recent Paris inventors' fair. It doesn't make tire-changing the happy chore this young lady seems to find it, but it might help at that. It's powered by a nickel-cadmium battery that is directly rechargeable from the battery of your car.