

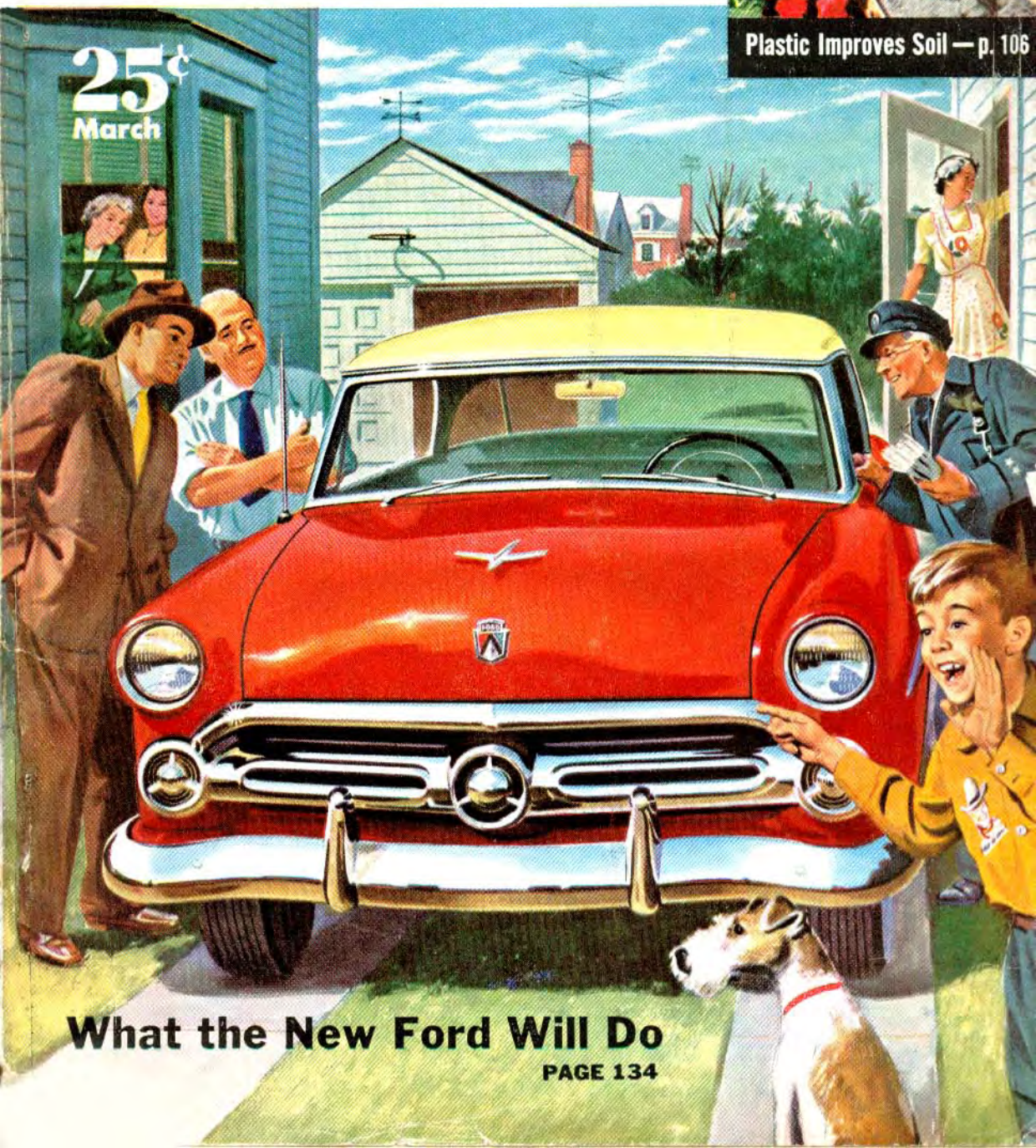
POPULAR SCIENCE

MONTHLY
MECHANICS AND HANDICRAFT



Plastic Improves Soil — p. 106

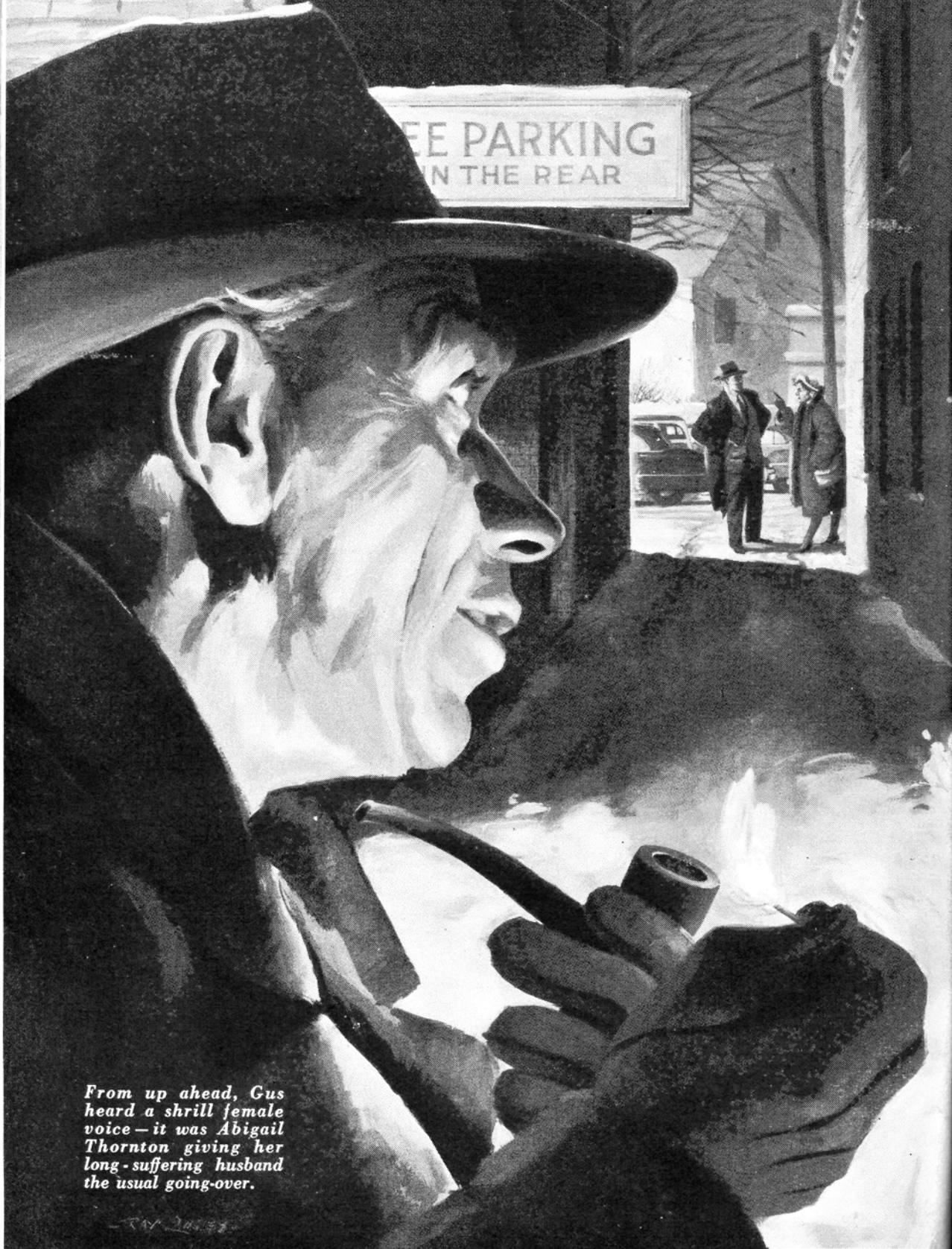
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March



What the New Ford Will Do

PAGE 134

**Faced with the double dilemma of a stubborn woman
and a stalling car, Gus pulls a fast one.**



*From up ahead, Gus
heard a shrill female
voice — it was Abigail
Thornton giving her
long-suffering husband
the usual going-over.*

Gus Gets a High-Pressure Job



By Martin Bunn

IT WAS dark when Gus Wilson left the movie and turned into the narrow alley that led to the parking lot. Suddenly, from up ahead, he heard a shrill female voice.

"I just can't understand you, Ned. You spend money like we were millionaires. The old one was perfectly good, but no, you had to go and squander hard-earned cash on a new one. And now look what you got. Tomorrow morning you're going to take it right in to those people and demand your money back . . ."

Gus didn't have to see the woman's face; he recognized the voice—it was Abigail Thornton giving her long-suffering husband, Ned, the usual oral going-over. In business, Ned Thornton was an aggressive go-getter—the town's top real-estate man—but when it came to Abigail he was just a timid soul. "Oh, I let her rant," he had once told Gus, rather sheepishly. "She seems to enjoy it."

As Gus got into his car he could still hear Abigail's strident tones piercing the night.

New Car Won't Quit Stalling

Gus had just finished checking the gas tanks at the Model Garage the next morning when a shiny gray sedan rolled up to a stop. Gus didn't recognize the car, but he knew the driver. It was Ned Thornton.

"Hi, Ned," Gus greeted him, sympathetically recalling the previous night's incident. He walked around the car, admiringly. "I see the real-estate business is good."

"Sure, sure," Thornton replied glumly. "The fact is, Gus, I just had to get a new car. The old buggy was eating up gas, and besides, you can't drive prospects around in an old beat-up jalopy."

"Well, you sure got yourself a beauty. Get a good trade?"

"Thought so when I made it. But now I'm not so sure."

"Why? What's the matter?" Gus asked him. "Plenty," Thornton grumbled. "Ever since the 500-mile check she's been using even more gas than the old bus, and she stalls just about every time I stop in traffic."

"Had it back to the dealer again?"

"At least a half-dozen times. They've tested it and worked on it, and each time they've claimed there's nothing wrong."

"But they should make good on it."

"Oh, Gus, not you too," groaned Thornton. "Abigail's been needling me about that for days now. She—ah—objected to my spending money on a new car [Gus thought *that* was putting it mildly] but that's not the half of it. You know that big tract of undeveloped land that belongs to the hospital, out on the south road?"

Gus nodded.

Help Wanted—in a Hurry

"Well, one of the big steel companies is interested in it. Two of their top real-estate experts are due here on the 12:08 to look it over as a possible site for a new plant."

"Something big?" asked Gus.

"Big is right. They want at least a hundred acres. If I can put this deal over, it'll be a break for everyone—the hospital can use the money, and jobs for a couple of hundred people certainly wouldn't hurt this town."

"Plus a nice fat commission for Ned Thornton," Gus added with a grin.

"Right," Thornton agreed cheerfully, "and if I ever needed to make an impression and have things run smoothly it's today. Fat chance, though, with that," he added, jerking his head toward the new car. "I won't even be able to get those men from the station to the country club for lunch without stalling a dozen times."

Gus climbed into the car and started the engine. It caught easily and ran smoothly.

"Oh, sure, she runs fine until she warms



up," Thornton explained in answer to Gus's quizzical look. "Then the first time you slow down for traffic or stop for a light, she dies."

"What's the dealer's mechanic done on it?"

"Well, first off, he thought it was vapor lock, but he gave up on that. Then he checked the distributor and adjusted the points. Finally, he put on an entirely new carburetor—said the original one had a bad float."

"Make any difference?"

"Not one bit. That's why I've given up trying to get them to do anything about it. I'd rather pay you and get it done right."

Gus looked at his watch. "It's just 9:15 now," he said. "If you'll—"

"Holy smokes. Is it that late already? The Stevens boys are due at my office in 15 minutes. They want to look at the old Davis house."

"Well, hop in," said Gus. "I'll drive you down. It'll give me a chance to see how she runs. Then I'll bring it back here and try to find the bug."

The car performed beautifully on the way to town and Gus got Thornton to his office in plenty of time. "I'll do my best to have it for you by noon," Gus called after him.

Stop Sign Stops Engine

The trip back to the Model Garage wasn't quite so uneventful, however. At the first traffic light, the engine died. Gus had a hard time coaxing it back into action again. A few blocks farther on, when Gus braked for a stop sign, it died again. Under load it seemed to run perfectly—but idling, it had

a definite tendency to choke up and conk out.

"Acts as if the choke were pulled all the way out," thought Gus as he pulled into the garage.

"Hi, boss," young Stan Hicks called as Gus cut the engine. "Whose new buggy?"

"Ned Thornton's," replied Gus. "It stalls every time you stop and I've only got till noon to try and find out what's wrong."

New Cars Are Tougher

Gus's hunch about the choke proved to be a dud. The carburetor seemed in top condition. A run-through of the ignition system failed to turn up anything either. And when Gus dollied his test rig up beside the car, Stan knew that the boss's hunches weren't paying off.

"Troubles?" he inquired.

"It's a funny thing, Stan, but I always hate to work on a brand-new car. With the old clunkers you generally know what to look for because you know what's apt to wear out. But on a new job, you expect everything to be perfect, so where do you look?"

Just as Gus finished hooking up the test rig and was about to start up the engine, the office phone rang.

In a few seconds Stan was back. "It's Mrs. Thornton, Gus. She wants to know if their car is here and when it will be ready."

"What'd you tell her?"

"I had to tell her it was here. She's still on the phone. Says she's got to have the car by 11 o'clock so she can drive to the city for a big bargain sale."

"Oh, blast that female!" Gus exploded, with unaccustomed severity. "Doesn't she know Ned needs this car if I can get it ready for him? Stall her off, tell her anything—tell her it won't be ready before late this afternoon."

Stan Encounters anirate Wife

It was quite a few minutes later when Stan finally came back into the shop. He gave a low whistle. "Boy—can that old gal beat her gums! I couldn't get a word in."

"Did you stall her?" asked Gus without taking his eyes off the test gauges.

"Sorry, boss, I couldn't," replied Stan apologetically. "The last thing she said before she hung up on me was that she was gonna call a cab and come over and sit right here until the car was ready."

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Care and Feeding of Engines

BY S. P. CORP

ABOUT AUTOMATIC CHOKES

Whenever an engine stalls during the warm-up period in cold weather, here are the checks to be made with regard to the automatic choke:

1. Automatic choke should allow a very fast idle when first started in cold weather, usually 1000 rpm or more.
2. Use manufacturer's specifications to learn correct idling speed after warm-up, usually about 500 rpm. Carburetor choke linkage is out of adjustment if these speeds are not correct, and will cause trouble.
3. Faulty operation of water thermostat will cause engine to run too cool in cold weather, wasting gas. Dash heat indicator should show 160° while driving, unless a high-opening thermostat is used.

TYPES OF AUTOMATIC CHOKES



One make of carburetor combines a climatic control with the automatic choke. This control is affected by different grades of fuel and can be adjusted for smooth operation during warm-up. Always make adjustment with carburetor on car and engine cold. For average driving, Index (1) should be in center. Loosen clamp and move housing one notch at a time. If engine sputters during warm-up, move one notch to RICH, tighten clamp, and check engine.

Where choke is mounted on exhaust manifold, test by removing air cleaner. Choke valve should be wide open. Have someone step on starter and watch valve. It should close and stay closed till engine starts, opening slowly as engine warms up. Remember, engine will run at a fast idle until warmed up.

IF YOUR CAR LOAFS TOO MUCH

No pep on a hill? No pick-up on the level? Get new Sealed Power Piston Rings! If it's a late-model car or truck, get a Sealed Power KromeX Ring Set. The Sealed Power MD-50, best steel oil ring ever made, controls oil even in badly tapered and out-of-round bores. A postal to Sealed Power Corp., Dept. H-3, Muskegon, Mich., will bring you the new illustrated booklet, "More Power, Less Oil, Less Gas!" It can save you real money!



Gus Gets a High-Pressure Job

[Continued from page 198]

"Brother, that's all I need. Here, you disconnect that fuel pump. I've got a phone call to make."

Gus Pulls a Fast One

When Gus returned, he was grinning from ear to ear. "Well, that takes care of that."

"Takes care of what?"

"Abigail Thornton," Gus said as he picked up the fuel pump and began examining it. "I just called Jim Staid who runs the hack stand. He's gonna stall her as long as he can by taking his time with that cab. Now if I can only get this car to run."

Gus turned the fuel pump over and over in his hands. "Stan," he said thoughtfully at last, "want to get me another fuel-pump gasket just like this one?"

When Stan came back from the stock room, Gus took both gaskets, put them in place on the pump housing one on top of the other like a sandwich, and began bolting the assembly back onto the side of the crankcase. Then, when he had recoupled the fuel lines, he pushed the starter button. After a dozen or so turns, the engine took hold and settled down to a smooth idle.

"I think that's got it," said Gus. "Close the hood, Stan, and I'll test-run her on the road. If she's okay, I can drop her off at Thornton's office in plenty of time for him to meet that train."

"Hey!" shouted Stan as Gus started to back the car out of the shop. "What do I do when the terrible-tempered Mrs. Thornton shows up?"

"That, Stan, is your little problem."

Just a Little Thyrostrat Trouble

Half an hour later, Gus was walking back to the garage. Ned Thornton's car had run perfectly—it hadn't balked at a single traffic light even after it had warmed up—and the real-estate man had been jubilant when Gus turned the car over to him at exactly 11:40.

Stan was sitting in the garage office, feet propped up on the desk, when Gus walked in.

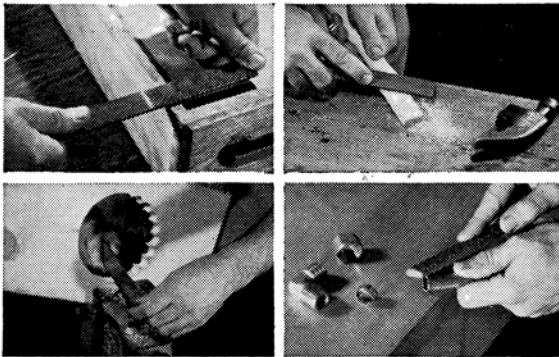
"Mrs. Thornton been here yet?"

"Come and gone," Stan replied smugly, buffing his nails on his shirt front, then inspecting them critically.

"How'd you get rid of her?"

"Well, the poor woman seemed so upset

[Continued on page 248]



The rasp that outgrew its name

It was originally designed for shoemakers. And it's still called a "Shoe" Rasp. But with its four types of cutting surfaces, users have found it "as versatile as a multi-blade jackknife." You can use it on hundreds of jobs—on wood, metal, plastics, leather, etc. On flat, concave, or convex surfaces. It's practically—

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Gus Gets a High-Pressure Job

[Continued from page 246]

about not having the car to drive to that sale down in the city that I told her to take yours."

"You what!" bellowed Gus.

Stan's feet came down off the desk with a slam. "Hold it, boss, don't blow a valve." He grinned. "I was just kidding—your car's still out back where you left it. What I really told her was that the thyrostrat on the automatic sensigear wasn't synchrophased, and that you had to tow the car to the dealer's place to have it duo-timed. That seemed to satisfy her. She stomped off muttering something about how she'd told Ned that car was a lemon and now she had proof."

Gus chuckled. "For once, your double talk paid off."

New Diet Cures Overfed Engine

"Say, what was really wrong with the car?" asked Stan. "You took off so fast I didn't get a chance to find out."

"High fuel pressure," explained Gus. "It was about double what it should've been. On cold starts, that didn't matter too much—the engine could take it—but after it got warmed up the extra gas would choke it out at idling speeds."

"How did an extra gasket on the fuel pump fix that?"

"It moved the pump housing out a bit and shortened the stroke of the pump arm. That cut down the pressure. I've a hunch that when Thornton took the car in for its 500-mile check, the mechanic discovered an oil leak around the flange of the pump and when he replaced the gasket he used one only about half as thick as it should've been. That lengthened the stroke of the pump arm and hiked up the pressure."

Keep Your Fingers Crossed

"Just like I told Mrs. Thornton," said Stan. "It was a simple case of crossed wires to the thyrostrat that caused a loss of power."

"Well, I don't know anything about thyrostrats," grinned Gus, "but how about you applying your power to that grease job out on the rack—and keeping your fingers crossed that Ned Thornton clinches that real-estate deal for the hospital. And you might try crossing your toes, too. Maybe that'll help save Ned's skin when he shows up at home tonight and Abigail finds out he had the car all afternoon."

END

Next Month: Gus takes a gamble at long odds.