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March 35¢

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# Gus Pulls a Switch

*Three cocky schoolboys get a grounding in auto wiring—and a new respect for their elders.*

**By Martin Bunn**

IT WAS ten-thirty and long past Gus Wilson's usual quitting time when a pair of dim and doleful headlights turned in to the Model Garage and a 1940 sedan pulling a trailer limped up. Three teenage boys and a middle-aged man hopped out.

"We're having battery trouble," the tallest of the boys said. Throwing an impatient look at the middle-aged man, he added, "Again!"

The man came forward, his eyes behind his rimless spectacles as dim and doleful as the headlights of the car. He removed his felt hat and scratched the fringe circling his bald head.

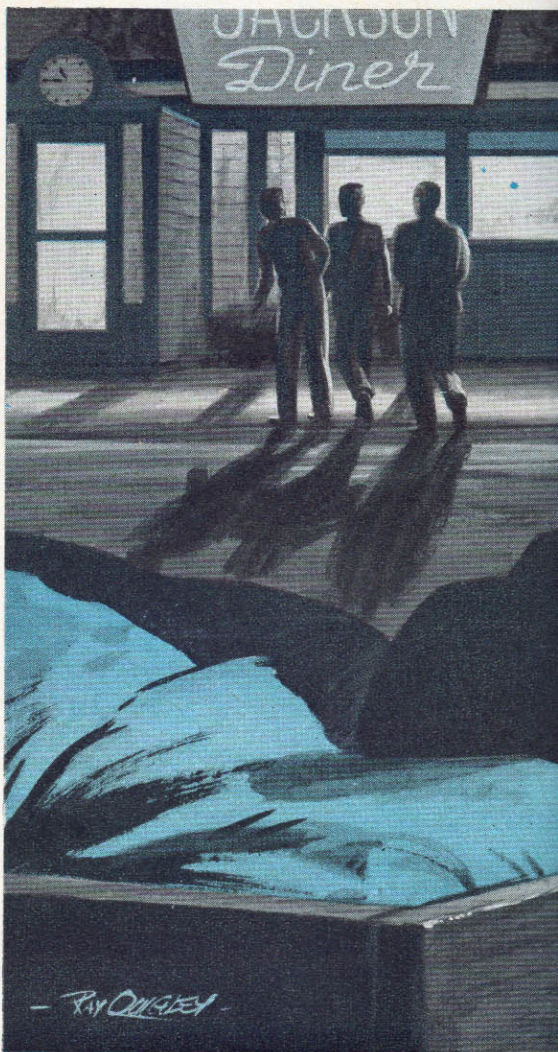
"I fear there is something very wrong with my battery," he said in a precise voice. "Although it is virtually brand-new, this is the third time in three days we have been compelled to have it recharged."

## *Gus Smells Trouble*

"Sounds like a short," said Gus easily. He lifted the hood and began probing around with his flashlight. There was a familiar hot-insulation smell, but it was too faint to pinpoint.

The little man peered over Gus's shoulder. Three pairs of youthful eyes followed the beam of Gus's light.

The boy who had first spoken said, "Mr. Wismer, would it be a good idea to



find some place to spend the night, since we may be stuck here for quite a while?"

"An excellent notion," exclaimed the man. "I'll do that right away."

"Might try the Commercial Hotel," Gus suggested over his shoulder. "I have a couple of rooms there and it's mighty comfortable."

"Thank you. Do you have a phone?"

"Right by the door," Gus said without looking up.

When Mr. Wismer was out of hearing, one of the boys exclaimed, "The only good thing about this rig is Ned's trailer."

The tall boy chuckled loftily. "Thanks, Arnold. Made the whole thing myself,"





*"They don't have much faith in us, do they?" Gus observed, puffing thoughtfully on his pipe.*

he explained to Gus. "Started out with a front axle from the junk yard."

"So," said Gus. He loosened the clamps on the battery cable. "We might as well give it a quick charge while we're looking for the short."

"The Whizzer insisted we use his car," Ned told Gus. "Felt responsible. Didn't even want me to attach my trailer. He was afraid something would go wrong. Something went wrong, all right, but with his precious car, not my trailer."

Mr. Wismer returned from the phone. He shook his head sadly. "No vacancies."

"Where are you bound for?" Gus inquired, clipping on the leads from the

quick charger and easing up the charge-rate control.

"Williamsburg, Virginia," replied Ned. "They're holding the finals of the National Early-American Crafts Exhibit there tomorrow. All the winners of the state contests are competing. We're representing our state. My trailer's full of our stuff."

"What time do you have to be there?"

"We have to check in not later than tomorrow at seven p.m. At this rate we'll never make it."

Arnold, by this time tired and discouraged, could contain his impatience no longer. "Gee, Mr. Wismer, I should



think you would have had your car checked before we left."

"I did, Arnold," replied Mr. Wismer patiently. "Right after my last history class, the day before we left, I had it thoroughly checked over."

"Probably had his wife sweep out the back seat with a whisk broom," one of the boys muttered. Mr. Wismer didn't hear him, but Gus did.

"Tell you what, boys," the proprietor of the Model Garage suggested. "There's a hamburger joint across the street. Why don't you run over and stoke up? It's going to be a long night. If you took turns driving, you could get to Williamsburg easily by tomorrow afternoon."

"Not with this old crate breaking down every hundred miles," Ned retorted.

"Bring back a pair of hamburgers and coffee for your teacher and me," said Gus. "While you're gone we'll scout out the trouble."

This last statement elicited an anonymous hoot as the boys turned and headed across the street.

"They don't have much faith in us, do they?" Gus observed, puffing thoughtfully on his pipe.

Mr. Wismer coughed apologetically. "They're really good boys," he said. "But they're pretty discouraged by now. You know how kids are. They think that because I teach history, I don't know anything about anything else."

#### *Gus Studies the Trailer*

Gus turned back to the car. He couldn't help liking the little schoolteacher who stood beside him. He rocked the trailer with his hand. "Seems pretty sturdy," he said.

Mr. Wismer nodded. "Can't blame this trouble on the trailer, I'm afraid."

Gus turned his flashlight on the under-

part of the trailer, ran it along the steel supports, over the wooden body and back to the two tail lights.

"Where are these plugged in?" he asked.

"On the other side," Mr. Wismer replied. He led Gus to the left rear tail light. "Right here. Ned made an attachment for plugging in the trailer lights."

Gus bent over and pulled the plug out. The wire was suspiciously warm.

"I think we've found your trouble," he said quietly. He examined the prongs of the plug and ran an expert eye along the wires, which were stapled to the side of the trailer. He looked at the bewildered little schoolteacher quizzically.

"What do you say we teach those young smart alecks a lesson?" he suggested. "Do you mind a little deception—in the interest of education?"

Mr. Wismer's pale eyes twinkled. "In the interest of education—why not?"

#### *Mr. Wismer Is Nonchalant*

A half-hour later, when the boys returned, they found the garage dark and the doors locked. Gus had gone home. Mr. Wismer was seated at the wheel studying a map by the illumination of the dome light. He accepted the hamburgers and coffee that the boys proffered.

"Where did the garageman go?" one of the boys asked.

"He recharged the battery and went home," Mr. Wismer replied.

"Did he fix the trouble?" Ned asked.

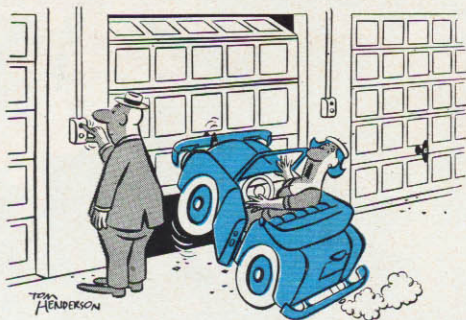
"He just went home," Mr. Wismer said.

"That square didn't know anything about cars," Arnold announced.

Mr. Wismer let that pass.

"We might as well get going," Ned suggested. "We probably won't get far, but we can't sit here all night."

The boys piled in. Mr. Wismer care-



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## Gus Pulls a Switch

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fully folded the map and put it away. There was a moment or two of silence as they waited for their teacher to start the car. Instead, Mr. Wismer thoughtfully drummed his fingers on the steering wheel.

"By the way, Ned," he said, "after the garageman left, I took the liberty of going over the wiring on your trailer."

The air was electric with surprise. Ned was the first to find his voice. "Sir?" he ventured.

"I noticed that you grounded one of your wires to the frame of the trailer."

"Y-yes, I did."

"And the frame of the trailer is attached to the chassis of my car."

"That's right," said Ned.

### Boys Get a Grounding on Wires

"I also observed," Mr. Wismer went on, trying not to show how much he was enjoying himself, "that one of the prongs of your plug appears to carry current from the battery while the other goes to the grounded wire. Is that right?"

"Why, yes, sir."

"Of course," Mr. Wismer said modestly, "I'm only a history teacher and don't know anything about wiring, but"—he paused; in all his teaching career he had never had quite so much attention from his students—"but I probed around a bit, and I'm afraid, Ned, that you overlooked something."

"But, Mr. Wismer," Ned protested, "that's how you're supposed to wire them. You have to have a ground wire, and the ground wire—"

"The ground wire must be attached to the frame," Mr. Wismer said.

"Yes . . ."

"What happens," Mr. Wismer continued, "when the wire from the battery goes directly to the ground?"

There was a thoughtful silence as the import of his question sank in.

"I guess," Ned said, "there would be a short."

"Exactly!" exclaimed Mr. Wismer. He opened the car door. "Come around here

and let me show you something."

The three boys followed their teacher to the back of the car. Mr. Wismer took out his flashlight and directed its beam at the place where the tail light was attached to the socket on the car.

"Well?" Ned's voice was defensive.

Mr. Wismer pulled out the plug and let it drop, apparently by accident, from his hand. "How careless of me," he said. "Plug it back in, will you, Ned?"

Ned quickly inserted the prongs.

"Tsk! Tsk!" muttered the teacher reproachfully. "Just as I thought. You are a bit careless, Ned."

"But, sir—" Ned began.

Mr. Wismer pulled the plug out, twisted it, and re-inserted it. "There," he said. "It just takes a twist of the wrist."

Ned bent down to examine the connection more closely.

"That's just what I did," he protested.

"Not quite," explained the teacher. "The way you connected it, the prong wired to the ground was, most regrettably, making contact with that part of the socket that leads to the battery. A short circuit would have been—as I'm afraid it has been—the lamentable result when the lights were switched on."

Sudden understanding glimmered on the faces of all three boys. "Shall we be on our way?" Mr. Wismer suggested.

### Gus Gets a Salute

They pulled out of the garage and headed down the dark street in silence.

Finally Ned spoke up. His voice was respectful. "I guess you know a lot more than we gave you credit for," he said.

They were passing the long, friendly front porch of the Commercial House. A man was seated there in a rocking chair, smoking a pipe. Mr. Wismer gave two sharp toots on his horn and waved. The man waved back.

"What did you do that for?" Arnold asked, looking around blankly.

"Just giving credit where credit is due," said Mr. Wismer.

END

**NEXT MONTH: Gus fixes a reluctant wagon.**