

# POPULAR SCIENCE

MONTHLY

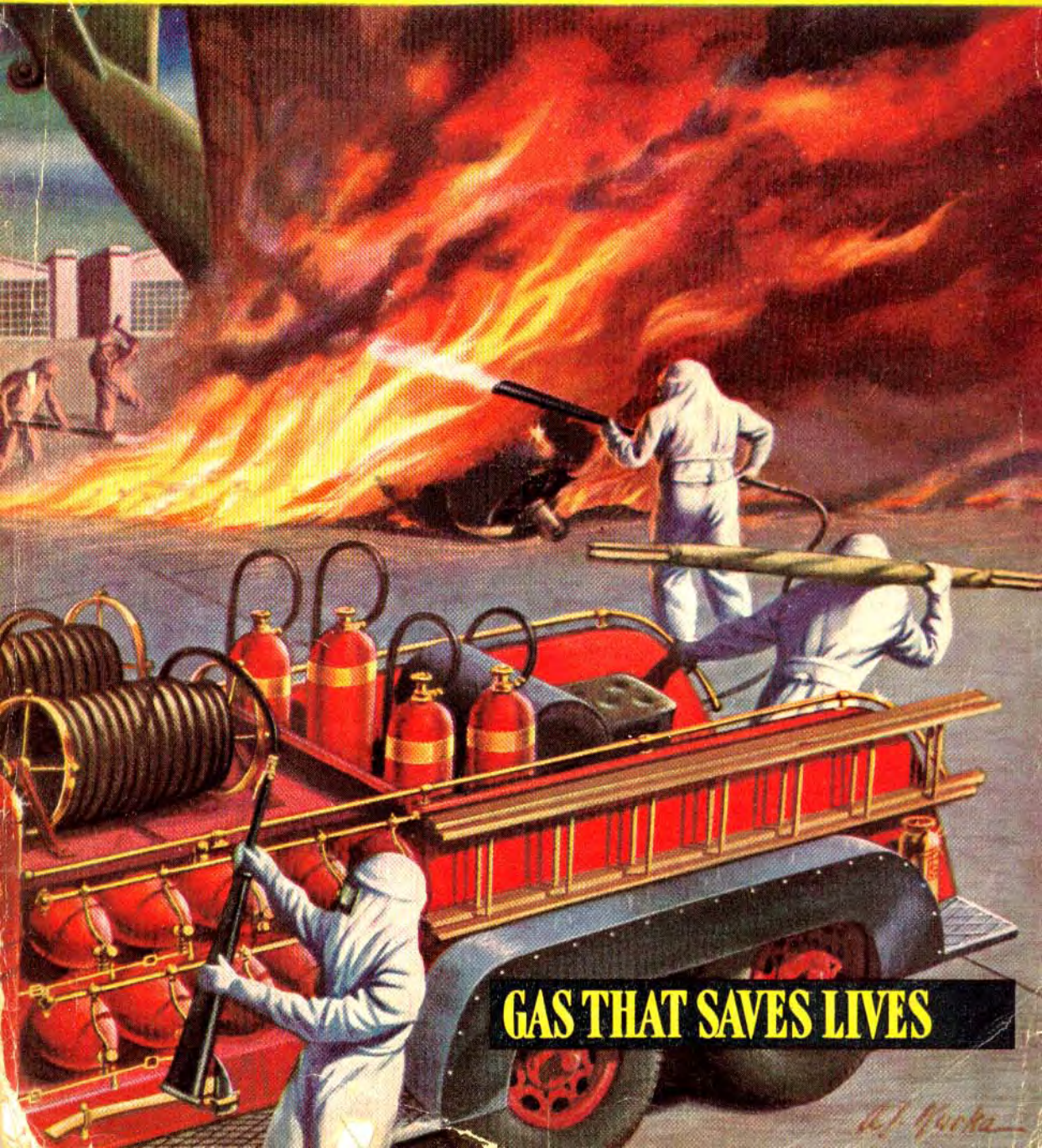
20¢

JUNE

20¢ IN CANADA

## HOW ARMY DYNAMITERS ATTACK

PAGE 44



**GAS THAT SAVES LIVES**

*W. J. Burke*



# GUS solves a mystery



*With a truck and its driver both apparently allergic to graveyards, the Model Garage boss has spooks plus motor trouble to lick—at 3 a. m.*

By MARTIN BUNN

ONE evening when Gus Wilson was working overtime in his Model Garage shop the door was pushed open and a man he didn't know came in. He was a middle-aged, competent-looking citizen obviously plenty worried about something. He gave Gus a quick look and said: "You're Mr. Wilson, I take it."

Gus grinned and said that he was guilty. "My name's Horner," the visitor told him. "I'm the new general superintendent over at the Johnson and Fredericks plant. We're losing sleep over a truck mystery, and Mr. Fredericks suggested that I see you."

"Glad to know you, Mr. Horner," Gus said heartily. "Sit down. We used to do Johnson and Fredericks' work, until they grew so big they had to have their own maintenance shop. How many trucks are you running now?"

"Seven. Six new ones, and an old one. It's the old one we're having the trouble with. Perhaps you remember it," said Horner, describing it.

Gus nodded. He never forgets a vehicle he has worked on.

"I suppose you know," Horner went on, "how we are operating our plant since we converted it to 100-percent war production—that we are making parts for some larger manufacturers, and that we also are subcontracting some of our work to several

Gus was wakened by the telephone on the table near his bed. He switched on a light sleepily and looked at his watch. Five minutes to three

smaller plants up-state. We make some of our deliveries and pick-ups by truck. On one of the most important of them we're using that old truck. The driver is a colored man named Peter. He's hard-working and dependable, but he's no mechanic.

"Peter leaves our plant about nine o'clock every evening with parts we've finished that day for a big plant up in Millboro. He makes quite a few pick-ups and deliveries, covering about 140 miles. He gets back to the plant about two o'clock. In the morning his truck is serviced, and it isn't driven until he starts out again that evening.

"That brings us to the mystery. When Peter came in one night about a week ago I happened to be in the plant and he complained to me that he'd had trouble coming in from his last stop, which is at Springdale; that his motor had missed badly all 40 miles of the way, and on several occasions had almost died. I left a note for John Dill, the man who has charge of our trucks. Next day Dill checked the ignition, which he says he found O. K., and cleaned out the carburetor. Then he road-tested the truck and found that it ran perfectly. But that night Peter came in from his trip almost an hour late and said that exactly the same thing had happened again—that the truck had sputtered all the way from Springdale home."

"Springdale," Gus repeated reflectively. "Yes, I remember it—it's a little place a mile or so back from the highway. There's an old church there with a big graveyard full of old tombstones."

Horner laughed. "That graveyard is what's bothering Peter worse than anything

else," he said. "He says that his motor always starts missing just about the time he comes in sight of the church on his way back to the highway from Springdale after he has made his pick-up, and he swears that if it ever goes dead on him while he's passing the graveyard he's going to quit his job right then and there! Well, Mr. Wilson, any bright ideas?"

"Not a one," Gus told him cheerfully. "I've got to see the truck, first. What else has Dill done to try to scotch the grief?"

"Dill spent a whole afternoon working on the carburetor and fuel pump. He checked the fuel line all the way from the gas tank to the carburetor. He checked the distributor and replaced a few parts. When he got through, that old truck ran like a new one. But that night Peter had the same trouble."

Gus scratched his left ear with the forefinger of his right hand—a sure sign that he is thoroughly puzzled. "If that dirt road was a rough one, it might jar something loose," he said. "But I drove over it only a couple of weeks ago and I remember that it wasn't rough. Let's see now—a plugged filler cap wouldn't let the engine run for a hundred miles before it began to get in its dirty work. . . It might be vapor lock. . ."

"Dill thought of vapor lock yesterday," Horner interrupted. "He insulated the gas line from the fuel pump to the carburetor. But last night the truck acted the same way only worse—Peter had a real job getting it home at all."

Horner scowled, and went on: "You can guess, Mr. Wilson, that in my job I've got plenty of things besides balky trucks to worry about. This morning I even called up the dealer from whom the truck had been bought. The dealer sent a service man around, and after he had checked everything thoroughly he said that he was stumped, too. If Peter has any more trouble with it, as I have a strong hunch he is going to, I wish that you would take it tomorrow morning and find out what's the matter."

"Sure, send the truck around," Gus told him. "I won't promise that I'll be able to solve your mystery, but I'll do my darnedest."

Before daybreak on the following morning, Gus was awakened by the jingling of the telephone on the table near his bed. He switched on a light and looked at his watch. Five minutes

to three. He picked up the receiver sleepily and said, "Hello."

"Horner speaking," a voice at the other end of the wire said crisply. "Sorry to wake you up, but we're in a jam. It's that truck again! A few minutes ago our subcontractor's factory up in Springdale called me and said that one of their men, on his way to work on a late shift, had seen our truck standing in the middle of the dirt road in front of that church with its lights on but no one in it. Apparently the motor has gone dead for good this time and Peter has gone off somewhere in disgust. Whatever has happened to him we've got to have those parts first thing in the morning—and we can't leave the truck standing there in the road. Can you send a wrecker after it?"

"I'll have to go myself," Gus said. "I won't need the wrecker, but you'll have to send someone with me to drive the truck back here in case I can't locate Peter. . . What? . . . Oh, yes, I know what *must* be the matter with your truck—it came to me after I got into bed, the way ideas sometimes do!"

"I hope you're right," Horner said testily. "I'll go with you myself. Stop at my house on your way out of town, will you?"

Gus dressed fireman fashion, got into his old roadster, and drove around to the Model Garage. There he stopped just long enough to get a five-gallon can of gasoline and put it in the back of his car. Then he drove over to Horner's house and found the superintendent waiting at the curb.

"Well, what's your idea of what's the matter with that confounded truck?" Horner demanded as soon as he got in.

"Wait until we get out to it," he said. "I *must* be right—but then I might be wrong!"

"Cold comfort!" Horner growled, and lapsed into a grouchy silence. A little under an hour after they started Gus turned off the concrete onto a good dirt road. A half disk of dying moon was shining sickly above the rising mist, and in its light they saw the steeple of the old church. Then, after a minute or so, they saw

twin red lights in the road ahead of them.

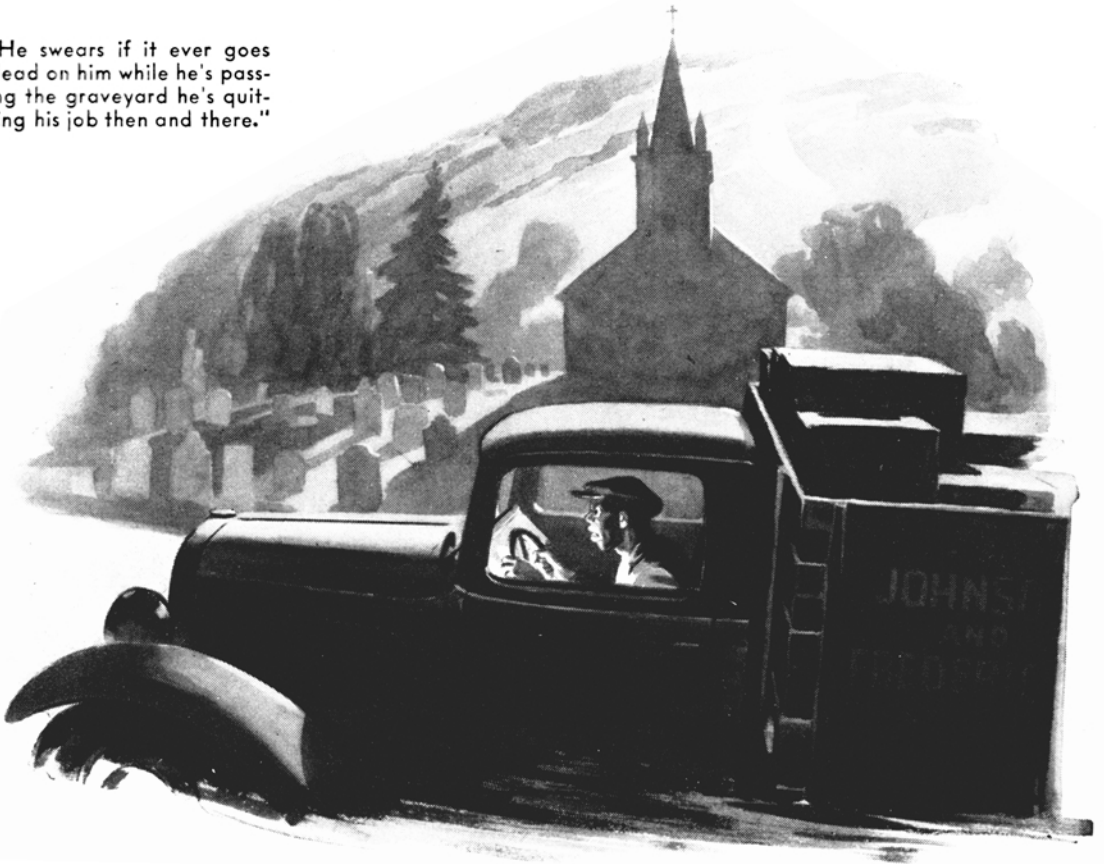
Gus drove up beside the stalled truck and stopped. Its headlights were full on. The mist drifted eerily in their glare. Horner shouted: "Peter! Peter! Where are you, Peter?"

His voice died away, and there was no sound but the purr of the road-

## GUS SAYS:

People keep asking how to keep thieves from stealing their tires. If you put locks on wheel lugs, thieves swipe the whole wheel. If you put a lock on an axle nut, a drop-center tire still comes off easily. The best bet is to lock your car inside a secure garage!

"He swears if it ever goes dead on him while he's passing the graveyard he's quitting his job then and there."



ster's engine. Over in the old graveyard the mist wasn't so heavy, and it rose slowly in crazy spirals in the sick moonlight that shone down on the fish-belly white of the old tombstones.

Then somewhere inside the truck there was a low moan, and a voice said: "Oh, Lawd! Oh, dear Lawd—" and was swallowed up by the silence.

Gus felt something prickle up his spine and turn his back hair into hackles. He saw Horner's mouth gape open. Then the voice in the truck said again: "Oh, Lawd! Oh, dear Lawd!"

One jump took Gus over the roadster's unopened door into the road; another jump took him to the truck. Its seat was empty. He switched on his flashlight, and in the back saw several boxes, and something long under a strip of burlap. There was another moan. Gus pulled the burlap away. A colored man was lying there, his face sooty gray and his hands clasped tight over his eyes.

Gus put his hand on his shoulder, and felt it quiver. "What's the matter?" he asked gently. "Are you hurt?"

The colored man sat up slowly at the sound of his voice, took his hands away from his eyes, and looked at him. "No, sir," he

said, "I don't guess I'se hurt, but I'se sure pow'ful skeered." He looked sideways toward the graveyard, and covered his eyes again. "This—here truck's hoodooed, and them spooks over there is after me. A while back they was over here a-hootin' an' a-hollerin' at me. Oh, Lawd! Oh, dear Lawd!"

Horner had got his voice back. "Stop that nonsense!" he barked. "There's nothing to be afraid of! You ought to be ashamed of yourself! When your motor stalled why didn't you walk back to Springdale and call up the plant?"

Peter Jackson shivered again. "Boss," he said simply, "I was skeered to stay here, but I was more skeered to leave!"

Gus patted his shoulder and laughed kindly. "You're all right now," he assured him. He went over to his roadster, got his can of gasoline, and emptied it into the truck's gas tank. Then he stepped on the starter—and the engine took off smoothly.

Horner stared at him. "Now, what—" he began.

"Wait until tomorrow, and I'll tell you all about it," Gus said. "You'll have to drive the truck home—Peter hasn't recovered yet. I'll take him with me."

About ten o'clock the next morning Gus was whistling (*Continued on page 210*)

## Gus Solves a Mystery

(Continued from page 135)

over a job when Horner came in. The superintendent was in a bad humor. "I don't want any more hanky-panky!" he snapped. "I want to know what the devil was the matter with this truck. I see you've been working on it."

Gus led the way around to the truck's side. "As you see," he said, "I've removed the gas line from the fuel tank. Notice that little pinhole in the pipe that normally reaches down into the tank? When the line was in position that hole was a couple of inches above the bottom of the tank. So long as the gasoline was above the level of the hole there wasn't any reason why the engine shouldn't run all right—which is what it did. But as soon as the level of the gasoline got down to the hole the fuel pump started to draw air as well as gasoline through the fuel line, and that made the engine lose power and miss. Because the hole—probably helped by vibration—got a little larger each day, the engine missed worse each day. Yesterday the hole got so large that the pump drew too much air with the gasoline, and the engine stalled. When I put that five gallons of gas into the tank last night it brought the level well above the hole, so of course the engine ran perfectly again."

"It sounds simple enough—now," Horner said. "But how did you figure it out?"

"It just popped into my bean after I went to bed last night," Gus said modestly. "I knew that Peter drove exactly the same route every night and that the missing started at the same place every night, so it couldn't have been anything else but the fuel line, and you had checked and rechecked all of the fuel line *outside* of the tank. It was just one of those things that make the automobile game interesting. No harm done except that Peter Jackson got scared out of a year's growth—to say nothing of you and me!"

## Plastic from Corn and Pine

PINE STUMPS and cornstalks supply the ingredients of a new plastic which is said to have excellent characteristics for many industrial uses. Invented by James H. Hunter, of Lansdowne, Pa., the substance is produced by mixing Vinsol and corn protein. The Vinsol, a product of the destructive distillation of long-leaf pine stumps, is a heavy, resinlike material of excessive brittleness, but when mixed with the corn protein it makes a useful plastic.



## AIDING BY SAVING



Any tools which help to *make things last longer* contribute valuable savings toward winning the war . . . by making more guns, ships, planes, tanks and supplies available for our Armed Forces.

If you are a repairman—auto, tractor, household appliance, farm or shop machinery—you are serving valiantly in this great conservation effort. . . . And finding yourself gainfully busy besides!

Among your most essential tools are *files*. And your best buys today are Nicholson or Black Diamond brands. They're quality files that give you the maximum number of efficient work strokes per file or per dollar. They're used in thousands of industrial plants; preferred by most experienced mechanics. They carry the guarantee of *Twelve perfect files in every dozen*. Obtainable through hardware and mill-supply houses.

NICHOLSON FILE CO., 23 ACORN ST.  
Providence, R. I., U. S. A.

(Also Canadian Plant, Port Hope, Ont.)

**NICHOLSON**  
**FILES** FOR EVERY  
PURPOSE

NICHOLSON  
U.S.A.  
MADE IN U. S. A.



FREE TECHNICAL BULLETINS on Special-purpose Files for Stainless Steel, Aluminum, Brass, Plastics, Die Castings; Die Making; Foundry, Shear Tooth and Lathe filing. Name ones wanted.