

POPULAR SCIENCE

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MECHANICS - AUTOS - HOMEBUILDING ★

July 35¢

New Way
To Set
Ceramic Tile PAGE 182

The **ABC'S** of
Color Television
PAGE 82



He Rides a Kite

PAGE 98



Gus Meets an Invasion

Taming old Ezra's tractor in time to save his hay from the hoppers has Gus hopping, too.

By Martin Bunn

BUSINESS was rather quiet around Gus Wilson's Model Garage when that hot east wind started blowing. The rush of the harvest season was still more than a month away. But with that wind came the grasshoppers—and action aplenty.

The hoppers swept over the countryside. Up to two inches in length, they had been appearing periodically in the area, but the oldest residents declared that they had never before seen such hordes of the pests as now invaded the fields.

Farmers sprang into frenzied activity, moving into the fields to cut the green grain and stack it for hay, before the hoppers ate it to the ground. Cars skidded into ditches on the highway, radiators boiled from becoming clogged with crushed grasshoppers.

Gus Wilson and his helper, Stan Hicks,



Swiftly, Gus checked the distributor cap for

found themselves busier than apple pickers in a hail storm.

In the midst of the confusion came an urgent telephone call from Ezra Hendricks, who ran a farm a few miles out of town. Ezra was an irascible old character who with his close neighbors, Pete Blinstock and Tom Hanratty, was often a source of amusement to Gus.

Gus Gets a Call for Help

"Get on out here, Gus," Ezra Hendricks yelled over the telephone. "The dangd hoppers are eating my place bare to the bone, right before my eyes."

Gus grinned at Stan Hicks, brushed a



cracks, the primary and secondary wiring for breaks. "Let's try her now, Ezra," he said.

grasshopper from the back of his neck.

"You don't tell me!" he roared. "What do you want me to do, Ezra? Come out and shoo 'em away?"

"No, you lantern-jawed idiot," Ezra howled. "I'm cutting my grain and the tractor won't run."

The grin left Gus's features. This could be serious. Gus had put that queer old tractor—a converted auto—in shape for harvest hardly two months back. A balky tractor at this time, with every rig in the country busy, could cost Ezra tons of valuable hay.

Gus tossed his field kit into his car and took off for the Hendricks farm. When

he arrived he found not only Hendricks, but also his two neighbors, Pete Blinstock and Tom Hanratty, huddled around the tractor. A hayrake and a hayrack, both horse-drawn, stood close by.

Friends in Need

Despite their constant wrangling, these three old codgers were the best of friends. Blinstock and Hanratty had rushed to aid Ezra in putting up his threatened hay.

"You old goat," Hanratty was yelling, shoving his round, florid features within inches of Ezra's gray, bristling beard. "I tell you the whole shebang's haywire,

from stem to stern. I could cut more hay with a dull scythe."

"The gas tank's full of water," Pete Blinstock insisted. "Old Ezra's so tight that he cuts his gasoline half and half with water."

"Bah!" Ezra exploded, his tattered hat crawling with grasshoppers as long as a man's finger. "Here comes Gus Wilson. He'll have this thing perking like a kitten in no time."

"She'd better perk," Gus said grimly, jerking his kit from the car and preparing to go into action. "How's she act, Ezra?"

"Won't pull the hat off your head," Ezra grumbled. "Jerks along, backfiring to beat the band. Sounds like a Gatling gun."

"Backfiring, eh!" Gus grunted, stuffing tools into the capacious pockets of his coveralls. "Ignition trouble."

The cover for one side of the tractor's hood had been removed to let the engine run cooler in the stifling weather. Swiftly, Gus checked the distributor cap for cracks, the primary and secondary wiring for breaks.

"Let's try her now, Ezra," he said, stepping back.

Motor Runs—but Gus Isn't Happy

Ezra stepped on the starter. The motor ran smoothly. This might be one of those jobs that haunt garagemen. You have a balky engine, go over it, finding nothing wrong, yet in some puzzling, mysterious manner you have corrected the trouble. But Gus didn't like it. It was too easy.

"I'd better ride around the field with you once," he told Hendricks, climbing onto the step behind the right front wheel, bracing himself on the frame with a knee.

Gus squatted down as they got under way, his ear attuned to the motor, feel-

ing the shower of grasshoppers on his back as they came from the falling and disturbed grain.

As they completed a circuit of the field, Gus dropped off before the farmhouse, waved Ezra on. Blinstock and Hanratty picked up the reins of their teams and began raking and forking hay into the rack for stacking. Mrs. Hendricks, a buxom, gray-haired woman, emerged from the house to greet him.

"The only time that you ever come to see us, Gus, is when we're in trouble," she said. "Now, you come right up to the house and have a snack before you go back to town."

Trouble in the Air

"Now, don't you go to tempting me, Ma Hendricks," Gus protested, thinking

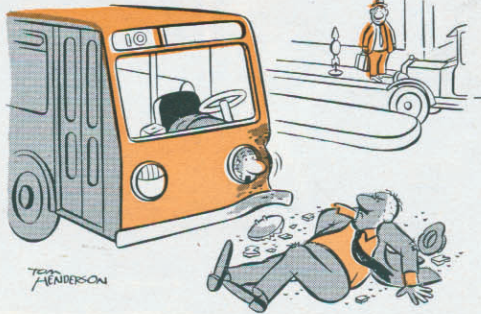
of Stan Hicks all alone at the garage. "And don't you try to dodge me, Gus Wilson," Mrs. Hendricks said firmly, and she took Gus by the arm and urged him toward the house.

In the cool, high-ceilinged kitchen, facing pie and milk that had his mouth watering, Gus paused with his first bite in mid-air. Borne on the wind came the sounds of distant explosions and loud voices raised in wrath. He got up, rammed his hat down on his head and made for the door.

"Excuse me, ma'am," he said. "Sounds like we got trouble again."

At the corner of the field he waited for the tractor, which was coming on slowly, bucking and backfiring. There was a note to the motor that had a familiar ring to Gus, yet still seemed somehow different. He couldn't quite pin it down. The engine seemed to run on all cylinders, then miss on one, clear up, miss on two. At times it seemed to be running on only three of the six cylinders.

Gases from unfired charges gathered



"Are you okay?"

[Continued on page 194]

Gus Meets an Invasion

[Continued from page 130]

in the upright exhaust stack, exploding with a belching of black smoke. It sounded not like one loose ignition wire making and breaking contact, but like two or three. Beside the tractor ran Hanratty and Blinstock, yelling varied instructions to Ezra.

"Pull out the choke, you blue-faced walrus," Hanratty screamed. "She ain't getting enough gas."

Check and Double-Check

Ezra stood up on the tractor, shaking his fist as he yelled back. Gus ducked his head under the instrument panel. He began checking the wires in front of Ezra's quivering and bony knees. A loose ammeter or ignition-switch wire, bouncing around, could be causing the missing. But why hadn't it missed, Gus asked himself, when he rode the tractor around the field? Gus couldn't find any loose wires, but just for luck he tightened the connections on the instrument panel with a deep-socketed spin driver. Then he jammed his hand down on the starter button. The motor broke into a smooth, even song.

"Now," Gus declared, straightening up to look into three pairs of cagey eyes, "what do you know about that?"

"I only know that she's hitting and I'm cutting," Ezra said excitedly. "Stand back, Gus."

It's Easy When You Know the Answer

As the old man shifted and then eased up on the clutch, the motor took hold smoothly, then missed. Gus walked along the side, peering in at the motor through the open side of the hood. Suddenly he signaled Ezra to kill it, worked on the engine a few moments with both hands, then dragged the side of the hood out from behind the tractor. He clamped it firmly in place.

He walked off down the field in a cloud of hoppers, chuckling to himself. In Mrs. Hendricks' kitchen he ate his pie and drank his cold milk.

"Don't you dare tell those boys what

was really wrong, unless it happens again," he told Mrs. Hendricks with a grin. "Then you go out and show them up by fixing it yourself. It was the darndest thing I ever saw, for a fact. With one side of the hood off, those big grasshoppers were getting in there on the motor, and actually shorting out the plugs by standing on the tops of them with their forefeet, their hind kickers on the block. The shock of the juice passing through their bodies held them there. It didn't seem to cripple them a bit, either. When the motor stopped they hopped off the plugs, spry as you please. When I rode the tractor around the field I had my shoulders in the hood opening so they couldn't jump in."

Mrs. Hendricks had a happy gleam in her eye.

"Gus," she said fervently, "I'd get a store of enjoyment out of making those three look like even worse monkeys than they act—the poor dears. I surely would. Here, you'd better have another piece of pie." END

NEXT MONTH: Gus rides out a storm.

JUNIOR couldn't wait to try out the midget electric racer he had built, so while his father was playing golf, he borrowed the battery out of the family sedan. With commendable restraint he ran the racer only a few minutes. Then he replaced the battery, tightened the terminals well, and sounded the horn. A vigorous toot indicated plenty of charge left, and Junior decided to say nothing about the loan. But his father had hardly got into the car that afternoon when he promptly got out again, without even trying the starter.

"You should have told me about using the battery, son," he said. "Now it looks as if I'll be a bit late for my appointment."

...How Come?

ANSWER: When his father turned on the ignition, he noticed the ammeter swinging to charge. Junior had put the battery in backward, and it was necessary to reverse it to prevent reverse charging and damage to the plates.