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*Captain Bullock jerked his head toward Stan Hicks.
"Since he worked on my car this afternoon, I've lost
three speeders—engine skips if I go over 50."*

Gus Puts a Spark in the Holiday Season

By Martin Bunn

"THERE goes a dreamboat," murmured Stan Hicks as the sleek convertible rolled out of the Model Garage.

"The car or girl?" asked Gus Wilson.

"The—that convertible, Boss. All it needed was plug cleaning and new points, but I put in a condenser, too."

"I know, Stan. It's all here on Betsy's bill—except one item."

"Uh—what's that, Gus?"

Gus grinned. "Tender, loving care."

Stan reddened. "Matter of fact, Gus, there *was* something not on the bill. I reconnected the rear-seat speaker with enough wire so it could be taken out of the car for our skating party. I'm going, too, so it was on the house."

"That's okay. Where will it be?"

"Burr Pond, from three o'clock till after dark. Skating, carol singing, and fireside eats. Think I can get away?"

"On a Saturday Christmas Eve? Sure think so, Stan. Should be a quiet day."

But Gus was wrong. Business picked up briskly after lunch. Gus had to go out



on a turnpike call. Stan replaced a bad wheel bearing for a salesman racing home for the holiday.

THE phone rang just as the salesman left. With an anxious eye on the clock—it was 2:30—Stan answered.

"It's Gus," said the receiver. "Need a fuel pump for this car, and every place I've tried is either closed or out of that model—a WC12. Got one?"

Stan checked the stockroom, found a pump, and trudged sadly back to the phone. "Want me to bring it, Boss?"

The receiver chuckled. "Way up here to the interchange? No, Stan. You're saved—Trooper Jerry Corcoran spotted the stalled car. His relief is leaving the police barracks in 15 minutes. Get that pump there and go to your party."

"Sure will, Boss. Yes, sir!"

Walking on air, Stan entered the big granite State Police barracks. He was unprepared for the heavy hand that whirled him about.

"You're Gus Wilson's mechanic, aren't you?" demanded a truculent voice. "Been trying to raise you on the blower for 10

minutes! We have an emergency here!"

"Yes, sir. I know," faltered Stan. "Got the pump right here—"

"Pump? What pump? I've got ignition trouble. Every car that'll wheel is on the road for holiday traffic duty. My own won't. Your job—fix it!"

Belatedly Stan focused on gold bars. The voice came from a red-faced captain. Stan blurted out the tale of Gus's phone call and a trooper took the fuel pump from him.

ONE minute later, Stan was staring woefully at the V-8 in a patrol car.

"Our shop gets the holiday off," explained a gray-eyed trooper leaning over

shorted. Got any spares in the shop?"

A drawer labeled "ignition parts" held only a pair of points.

"Might cobble up a fix with that suppressor condenser off the generator," suggested Stan in desperation, "if you don't mind radio interference."

"I mind!" roared the captain, entering in time to hear. "This is police work, young fellow. Get a condenser!"

Wheeling back to the Model Garage, Stan prayed he wouldn't find still another customer. He got the condenser, tore back to the barracks, installed it, was thanked with a grunt, and watched Captain Bullock roar off as if to a bank robbery. It was now 3:30.



"How's it going?"

it. "This car of Captain Bullock's just won't start, and I'm not mechanic enough to find the trouble. Look."

Distributor cap off, the trooper held the high-tension cable from the coil near the block, snapped the points open. "Not a spark," he said. "But there's battery juice here. Watch."

Taking the primary wire off its terminal on the distributor, he sparked it against the block. "First I thought the points weren't opening far enough, but that's not the trouble."

"Let's see," said Stan. With the ignition still on, he flicked the primary wire against its own terminal. It sparked again. Stan held the points open, again touched the wire to its terminal. Again it sparked.

"Passes juice with the points open," he pointed out. "That means the condenser's

LATER in the evening a spruced-up Gus drove past Burr Pond on his way home from a standing date—Christmas Eve supper at the Parkinson farm. The bonfires were out, but two cars remained, snowflakes swirling around them. Automatically Gus slowed as he saw that one car had its hood up and the other was a police car.

Stopping a short distance away, he could make out a girl in the convertible, its windows

shut against the cold. Outside, a slim young man faced a burly, loud-voiced, apparently angry trooper. As Gus dimmed his lights, the officer came over.

"What do you—oh, Gus Wilson, is it? You're just in time."

"For what, Captain Bullock?"

"To make good on what your mechanic did to my car." The officer jerked his head toward the young man. "Since he put a new condenser in this afternoon, I've lost three speeders—engine skips if I go over 50. Coming by here, I spotted this stalled car. It's him—seems now he can't get his own car started."

"Glad I happened along," said Gus. "Let me talk to Stan a moment."

With a grunt, the officer strode off. Stan's face, as he came up to the Model Garageman, was a blend of embarrassment and relief.

"Sure glad it's you, Boss," sighed Stan.

"Tell me about the captain's car," Gus said. "Maybe we can think it out."

Stan told of his trip to the barracks, of the trooper who had tried to start the dead engine. "He thought it was the point setting, but it was easy to spot a shorted condenser."

"But if he *thought* it was the gap," mused Gus, "maybe he reset it too wide. That'll make a high-speed miss. Here—I've got an ignition kit. Take it and check the gap. I'll wait."

MINUTES later, the police car roared into action and sped away. Stan came over to Gus, grinning wryly.

"You got it, Gus. Points were way out. Should have checked this afternoon."

"Maybe you and the captain were both in a hurry," said Gus. "Now what about Betsy's car?"

Stan's grin faded fast. "It's a tough one, Gus. I know it has new points properly set, a new condenser, a good coil. So—no spark!"

"Did the radio run down the battery too far to start in this cold?"

Stan shook his head. "Starter's got plenty of pep, Gus, I've just got to get it running. Betsy's family is waiting to celebrate Christmas Eve—she wants to introduce me to them tonight. Some introduction, if I can't get her home in her own car without engine trouble!"

"I think I dig," said Gus. "Did it run all right getting here?"

"Guess so. I don't know. She was going to pick me up, but that police job made me late. I got a ride out."

"New points. A hot battery. Stan, did she have that radio working with the ignition on, any time?"

"Yeah! How'd you know? She didn't

realize there's an accessory position. I switched the key over soon as I saw."

Gus grinned. "Take the stone in that ignition kit and dress the points."

"But they're brand new!"

"Ever hear of blued points, Stan? In this cold, circuits have low electrical resistance. With the ignition on, a heavy current went through those points—enough to heat them and form a blue oxide coating that blocks current."

"Gus," said Stan in awe, "if you're right, I'll wash your car free."

Hustling back, he busied himself on the convertible. Soon the starter whirred and was promptly followed by the roar of a willing engine. Stan scurried back with the ignition kit.

"I—uh—didn't tell her it was you, Boss. Just said I had to borrow some tools. Okay with you?"

"Sure is, Stan. Good luck."

"Free car wash, Boss. And thanks!"

The convertible skimmed away. Gus started his own engine, but just as he was about to pull out, a swelling siren froze his throttle foot. The police car braked hard, neck and neck with his own.

"Seems he's done it this time!" roared Captain Bollock.

"Done what?" asked Gus.

"Fixed it. Runs great now. Guess I was a bit

hasty with the boy."

Gus smiled with relief. "He'll understand, Captain."

"Well, I'll go easier on him next time. As for you, Gus Wilson, I've got just two words to say to you."

"I'm listening."

The captain grinned like Saint Nick himself.

"Merry Christmas!" he roared.

Where'd it come from?



THE SAW: The earliest saws were of flint and had serrated teeth. Some have been found on Old Stone Age sites in southern France, (dating back 100,000 years). Flint saws were still in use in the Bronze Age (about 3000 to 1200 B.C.). But the flint saw had the disadvantage of any stone cutting tool: Its edge couldn't be tapered finely enough and so wedged into the groove it was cutting. The thin-bladed copper saw was a vast improvement, and by 1900 B.C. Egyptian copper saws were even being made with the familiar pistol-grip handles. However these still had notched teeth. The technique we use today of raking the teeth all in one direction did not appear in Europe until the Iron Age (beginning about 1200 B.C.).