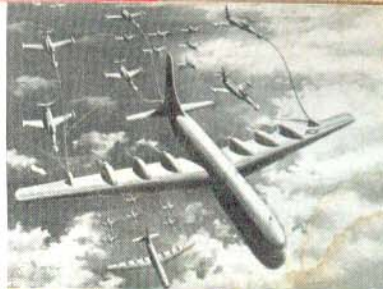


POPULAR SCIENCE

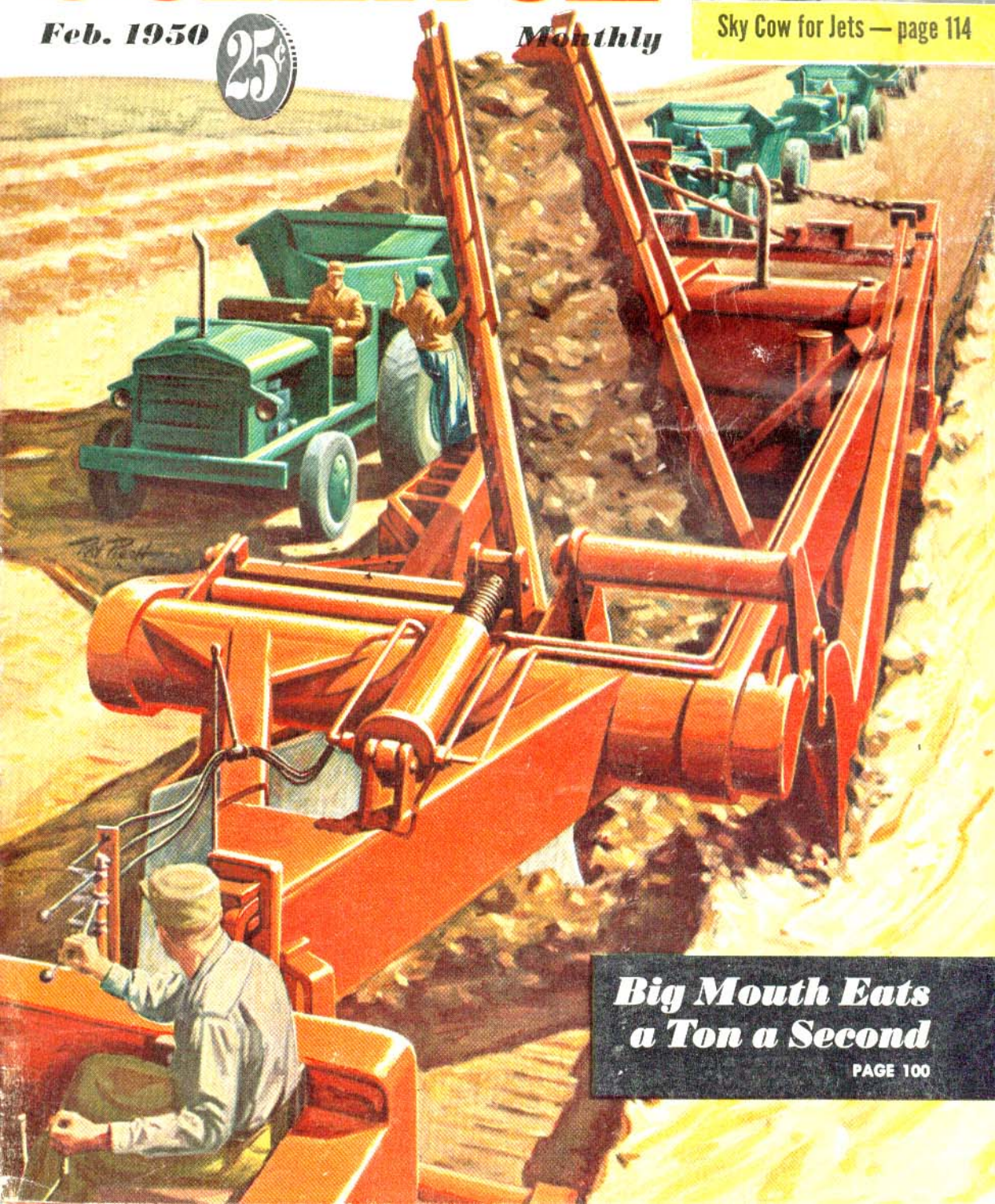
Feb. 1950

25¢

Monthly



Sky Cow for Jets — page 114



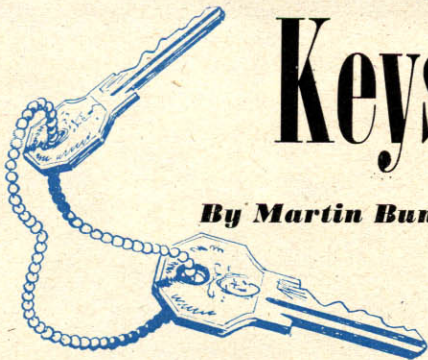
**Big Mouth Eats
a Ton a Second**

PAGE 100



Gus and the Flying Keys

By Martin Bunn



DURING his years in the Model Garage, Gus Wilson has seen a lot of disgruntled motorists. But not one of them was more fed up with a car than Val Murdock the day Officer Cecil O'Toole handed him a ticket for reckless driving on Main and Center Streets.

It was strange, too, about Val. Usually, he is a very careful driver. And it would seem he had every reason to be pleased with the car. It was brand new, a superduper convertible equipped with automatic transmission and all the other modern improvements—a job to take anyone's fancy.

Gus got into the case just by chance. It was late Saturday afternoon. As he stepped from the Men's Shop after buying a couple of shirts, a small object hit the pavement with a metallic clatter. It had come from the midst of a crowd gathered around Val's car—stopped dead in the middle of the intersection.

Gus looked down. A set of car keys. Stooping to pick them up, Gus heard Val's angry voice: "I'll never drive it again! I'm through!"

The situation *must* be bad, Gus decided, if it could cause Val to throw away his keys.

"It's the crazy gadgets on this car!" Val yelled. After listening a moment, Gus worked through the crowd to where O'Toole was writing a ticket.



Later, after helping clear away the traffic snarl Val had created, Gus heard the story.

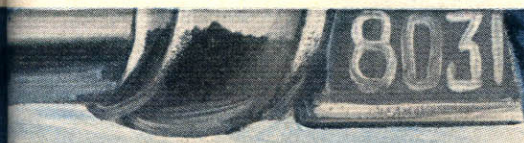
Val had been out of town all week. Only a few minutes after getting home on the afternoon train, barely able to wait to try out the No-Shift-O Eight that had been delivered two days before, he had his first disappointment. The battery was dead.

It was obvious what had happened. Val, Jr. The key in the ignition, turned to the left, and the radio on—but not tuned to a station. That was the first thing Val had found, that and a lot of mud on the floor mat.

Val wanted to try the car, desperately. But what could be done about the battery? He phoned the Model Garage. No answer. It was already after four o'clock. If Gus had closed shop, Val figured there wasn't much chance of finding a rental battery anywhere.

Briefly, Val longed for the old cranking days. If he could get the engine started, the generator would soon build up a charge. Now that he thought of it, there was a way. Vaulting the hedge, Val went next door. Yes, his neighbor would help. ▶

The battery was easily removed from ▶



the neighbor's car. Luckily, he was one of those rare individuals who keep the corrosion cleaned away and the terminals coated with petroleum jelly.

Carrying the battery to Val's garage, they hooked it up in parallel with the dead one, pressing into service two lengths of welding cable and four C clamps to make the connections. The engine was soon running smoothly.

Val had returned the borrowed battery and was just straightening down the cleaned floor mat when his wife Marge opened the back door. "Oh, Val," she called, "would you go over and pick up the laundry?"

Traffic was light on the side street, and after driving a couple of blocks Val began to relax and enjoy what the salesman had extolled lyrically as clutch freedom. Automotive engineers really had a lot on the ball, he decided. Gears that shift themselves, and no clutch pedal to bother with!

He overtook an ancient sedan. The street ahead was clear. He sheered out from behind the slow-moving car, and pressed the accelerator all the way to the floor board. The transmission downshifted sweetly, and exultation flooded Val's middle-aged soul at the smooth surge of power that swept him swiftly past the old car. Some bus, this baby!

But the Car Keeps Going

A block ahead a green light blinked to yellow and then to red. Val didn't slow down—maybe it would turn green again before he got to it. It didn't. He took his right foot off the accelerator and braked lightly, while his left foot pawed instinctively for the clutch pedal—which wasn't there. "Dumbell!" he reproached himself, and braked harder.

But the car kept right on going! As the stop line flashed under the front wheels Val really stomped down on the brake. The car slowed, but it was around the corner into Main Street before he could stop it.

He had shifted the selector lever to "Neutral," but the engine was racing. Puzzled, he fiddled with the accelerator. After a few seconds the engine slowed to idling speed. Funny about that, he thought. Must have done something wrong. Better be careful.

Pulling into the parking lot adjoining the laundry, Val eased the car to a halt and, through habit, reached over and turned off the ignition. Back with the package of laundry, he suddenly remembered he had intended to leave the engine running. "Oh, well," he thought resignedly, "there should be enough juice now to start it once."

Will the Engine Start Again?

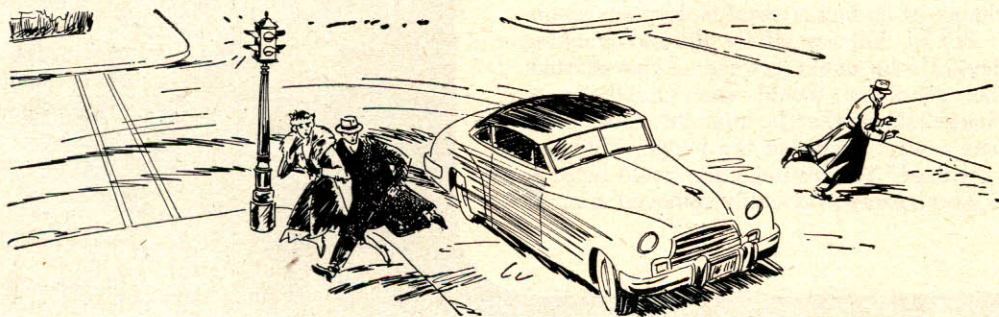
In the parking space next to his a horse-faced man in a battered sedan was regarding the new car and its owner with an expression that Val classified as sardonic.

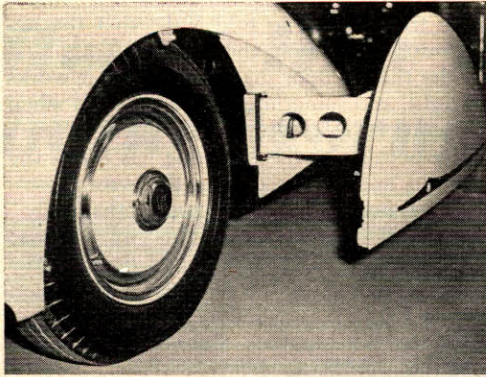
A little disconcerted by this inspection, Val forgot he wasn't in the old coupe. He reached his left hand out to where the starter button should have been—but it wasn't there. "Watch what you're doing, you dope!" he chided himself. He located the button and pressed it—but nothing happened. There wasn't a peep from the starter.

Puzzled, Val checked over the controls. There, that was it! He had forgotten to shift the control lever to "Neutral." A neat little safety feature that! No juice could flow through the starter circuit until the car was in neutral.

The engine finally caught, but Val was so badly flustered that he shifted the selector lever from "Neutral" to "Reverse" instead of to "Drive," with the disconcerting consequence that when he released the hand brake and pressed the throttle pedal, the car shot backward. Only his frantic application of the brakes stopped it in time to avert, by inches, a crash with a delivery wagon parked twenty feet behind.

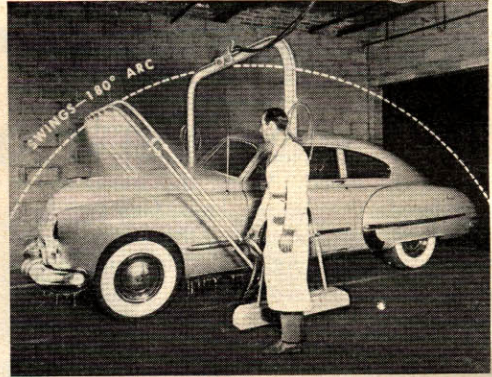
Val mopped the cold sweat off his brow





Fender Skirt Swings Outward

WHEELS are fully enclosed on the latest Rolls-Royce Wraith model, but tire changing is made easy. The entire skirt swings out on a hinge, giving ready access to the wheel. Two catches keep the skirt locked in place during normal operation.



Washer Sprays Entire Car

STANDING in one position, an operator can swing this counterbalanced arm back and forth to wash a car from end to end. Fully self-contained, the spray-jet washer even has its own soap supply. It's made by Phillips Pump and Tank Co., Cincinnati, Ohio.

and tried again. This time he manipulated the selector lever according to Hoyle, and went in the direction he expected to go.

The traffic thickened and slowed as he neared the intersection of Main and Center. Out on his little safety island Officer O'Toole, tired, nervous, and short of temper after four straight hours of duty, was controlling the lights manually, and making the most of every chance to keep the cars moving.

When the last automatic light before Center Street turned green, the block between it and the intersection was clear of traffic. Val's car was the first in line, and he took advantage of the break by speeding up to the 25-mile limit. But just before he reached the intersection O'Toole switched the Main Street light to red. In an instant Center Street cars were half-way across the intersection or making right turns into Main, and impatient pedestrians were flooding the street.

Why Val Threw Away the Keys

Val's right foot moved swiftly and surely from the accelerator to the brake pedal. But again his car kept on going! It missed the rear end of a truck by a scant inch, and a fear-paralyzed shopper by half as much. Women screamed. Men cursed. Horns squawked. Val put everything he had onto the brake pedal, and the car came to a grinding stop a yard short of the safety island. Val jumped out.

Officer O'Toole blew a whistle blast that set brakes to whining two blocks away, and switched the Center Street light to red. Then, his face fiery, his jaw out, and his eyes blazing, he stalked over to Val. "What in blazes is th' matter with you?" he roared.

Val Murdock is a peppery sort of citizen. His temper slipped its leash, and he blew his top. "There's nothing the matter with me!" he yelled. "It's the crazy gadgets on this car!"

It was then that Val reached into the No-Shift-O, snatched the ignition keys, and hurled them as far as he could.

By the time Gus got out into the street, the mutual fury of O'Toole and Val had set most of the onlookers to laughing. Gus didn't join in—he has seen too often the tragedy an out-of-control car can cause. After listening a moment, he worked his way through the crowd to where O'Toole was writing out a ticket while Val glared. "Hello, Cecil," he greeted. "Hello, Val—here're your car keys—you might want 'em. Anything I can do?"

O'Toole looked up from his writing. "Mebbe you can get this bus out of the middle of the intersection," he growled. "I wouldn't trust this nut to do it."

Gus and Val got into the car. Gus pressed the starter button, but nothing happened. "Oh, Lord," exclaimed Murdock. "I forgot to tell you. The battery's dead. If it was only the old car, we could get a shove. I don't know if you can push these things." ➤

"You sure can," Gus said, "if you know how. Cecil, ask that lead car over there to give us a fast shove up the street, will you?"

As the other car nudged its bumper against the rear one on Val's car, Gus moved the selector lever to "Neutral." Slowly, the cars picked up speed. When the speedometer registered 20 miles per hour, Gus switched on the ignition and moved the selector lever to "Drive." The engine quickly caught.

"Easy, isn't it?" Gus asked. "You won't do any damage if you do it just as I did. But you should always remember to move the lever to 'Drive,' never 'Low.' And don't push any of these cars faster than 25 miles an hour or more than two miles."

For several blocks the No-Shift-O performed beautifully. Then, when Gus took his foot off the accelerator, the car didn't slacken speed. Quickly he moved the lever to "Neutral" and applied the brake. As the car stopped by the curb, he set the hand brake. "Accelerator's jammed," he said. "Let's take a look. If I can't find the trouble right away, I'll get the wrecker and tow your car in. It's only a few blocks, but I'm not driving a car with a stuck accelerator even that far."

A few minutes later Gus straightened up.

"The trouble is," he told Val, "that the accelerator rod, under the treadle, is jammed by the rubber floor mat. Sometimes it works all right, and sometimes it doesn't—and when it doesn't it holds the throttle open. There's really nothing to fix—someone has taken the mat out and replaced it in the wrong position. I'll put it back so the rod works freely."

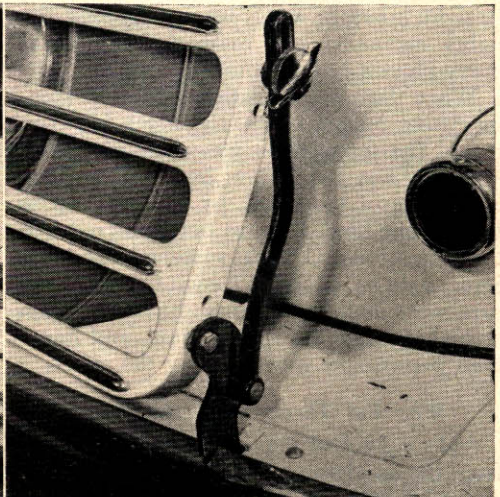
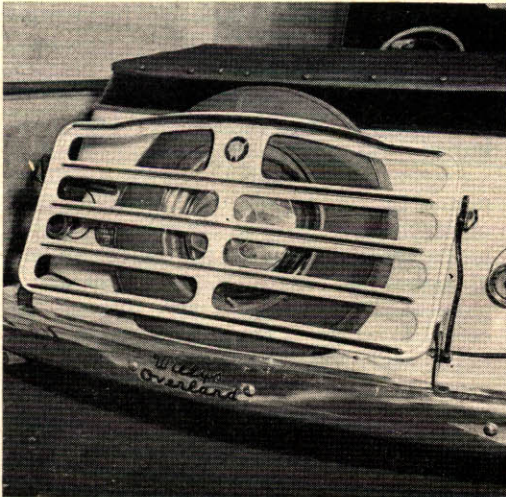
Val looked guilty. "I'm the guy who did it," he confessed. "My kid had tracked dirt all over the mat. So I took it out and washed it—you know how a fellow is with a brand-new bus. But say, Gus—I'm not sure I'll ever trust that automatic shift again."

"Of course you will," Gus reassured him. "As soon as you get to understand it. It's an improvement—a big one. In a couple of days you'll wonder how you ever got along without it. And I don't think there's much chance you'll ever be bothered again with a sticking accelerator. But if you should, just remember to move to 'Neutral' in a hurry."

"There's another thing, too. A car with an automatic-shift device has to be driven, just as much as a Model T had to be driven. No one ever has built a human brain into an automobile—and you can take it from me no one ever is going to!"

END

Folding Rack from Old Car Boosts Luggage Space



SHORT of luggage space, B. C. Bowker, of Toledo, bought an old-style, outside rack at a junk yard and put it on his Willys Jeepster as shown. For use, it swings down flat.

The rack was mounted by removing the bumper and cutting small holes through the body metal to accommodate brackets made

of $\frac{1}{4}$ " steel strap. Each bracket consists of a vertical member welded to the upper of two clamping pieces located horizontally across the bumper braces.

Before installation, the rack was painted to match the car and its chrome trim reconditioned. Such racks once were widely used.