

# POPULAR SCIENCE

MONTHLY

MECHANICS - AUTOS - HOMEBUILDING

S&M  
12

25¢ December

How to Make a

**SANTA WINDOW**

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All About  
1953 Plymouth and Packard



# Gus Rescues



**Gus was nearly frozen working on that stranded station wagon, but the courage and faith of ten little kids warmed his heart.**

**By Martin Bunn**

**B**ACK in town, Christmas Eve was filled with the old holiday magic. A feathery blanket of snow lay everywhere, and it was still coming down. Lights traced colored fantasies behind frosted, holly-decked windows. Here, the evening was warm with

singing and children's dreams, touched with a quiet merriment as eternal as the light from that one Star seen a long time ago. But out on the open highway, an icy wind pushed against Gus Wilson's car with a force that gave the evening anything but a holiday flavor.

It wouldn't last long, though. Once he

# Ten Little Angels



*The small voices rose  
above the wind. "Silent  
Night, Holy Night..."*

reached the home of Charlie Rheingold and his wife, where he had been invited to spend the holidays, the storm would no longer matter. Gus would let it cry in the eaves, while he enjoyed an open fire and waited for Christmas Day.

#### **Gus Takes a Short Cut to Trouble**

He snuggled into the new, 60-buck overcoat, a Christmas present to himself, and listened to the monotonous tick-squee of the windshield wipers. It was cold in the

car, and he wished that there had been time to fix the heater before closing down the Model Garage for the holidays.

An intersection loomed vaguely in the wash of his lights, and Gus slowed to make the turn. The smaller side road was a shorter route to Eastville, the next town. It was just a bit beyond Eastville that the Rheingolds lived.

Gus passed an occasional bright-windowed farm house standing well back from the road. Then, gradually, the farm area

thinned away and the country became lonely, dark and remote in the storm. If he had been going any faster, Gus might not have seen the station wagon at the side of the road, with a half-frozen figure bent under the hood.

### Station Wagon Is Stranded

Gus eased to a stop, backed up and asked if he could help.

"Mister," the man said numbly, "you sure could!"

"It's a bad night. Gus Wilson's the name. I'm a mechanic."

"I'm mighty glad to meet you, believe me. I'm Perry Wingate—lawyer from upstate. I was driving these kids to sing in the church service tonight. The engine died on me all of a sudden."

Gus peered in through the windows and saw 10 small, solemn-faced children huddled close together on the seats.

"And this is Lydia Randolph, my fiancée. This is her Sunday school class." Gus nodded and the pretty young woman in the front seat smiled back cheerfully.

"The heater isn't working, of course, with the motor dead," Wingate went on. "I've got to get these kids out of here before they all get pneumonia. And they're going to be heartbroken if they don't get to the church in time to sing." He nodded hopelessly at the '39 Plymouth station wagon. "She acted just as if she'd run out of gas, even though there's plenty in the tank." Wingate looked a bit sheepish. "I haven't even got a tow-rop."

"Neither have I. Let me have your flashlight, and get inside while I look."

"Don't you need help?"

"I'll let you know."

"Okay, then. . . Say, would you mind if we crammed the kids in your car, with your heater?"

"I wouldn't mind at all, except mine's on the blink. Haven't had time to fix it."

"That's rough. Well, I hope you have some quick luck."

Gus studied the situation. The nearest farm was some distance back. It would take two or three trips, and a lot of precious time to drive the kids back in his coupe—time that would completely erase the Christmas Eve plans the kids were counting on. He couldn't tow the station wagon, and the icy surface of the road made it too dangerous to try to push it. There was always the possibility that a car might come along soon, a car with a rope, but they couldn't take the

chance of depending on it. Even if he removed his tire chains and used them to try to pull the other car, the wheels on his old coupe would just slip and slither on the hilly road. There was just no other way but to find the trouble.

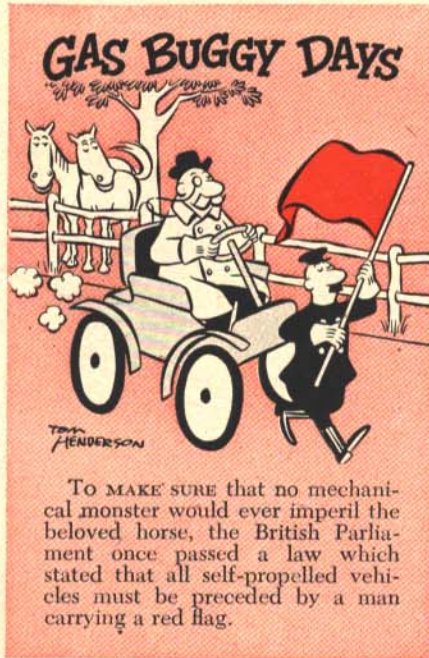
Gus shrugged out of his new coat and made a rapid check of the distributor connections, the coil line, rotor and points. It took only a few minutes, but when he finished he was already shuddering with the cold that seemed to creep into his bones. He looked for bare wires, loose wires, anything that might cause a short, but there was nothing. Then he went

around to the other side to check the carburetor. . .

### Gus Gets Some Unexpected Help

At first, it sounded like ghost voices in the storm. The children were sitting straight in their seats, their small voices rising above the wind. *Silent night, Holy night . . .* It was one way of saying thanks, one way of cheering him up and giving him a little moral support when he needed it badly. . . *All is calm, All is bright. . .* Gus smiled back at them. Now some of the bite seemed to have gone out of the wind.

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TO MAKE SURE that no mechanical monster would ever imperil the beloved horse, the British Parliament once passed a law which stated that all self-propelled vehicles must be preceded by a man carrying a red flag.

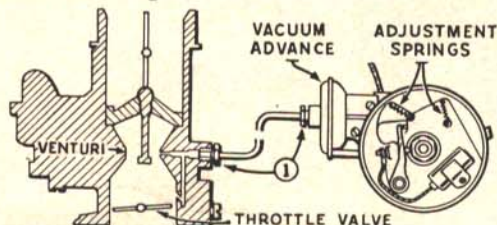


# Care and Feeding of Engines

BY S. P. CORP

## POOR TIMING WASTES GAS

Your ignition distributor interrupts the primary circuit for correct timing of the spark, advancing the timing as your engine accelerates. A vacuum distributor advance connected to the distributor governs timing for sudden loads on the engine, such as fast acceleration.



## VACUUM DISTRIBUTOR ADVANCE HOOK-UP

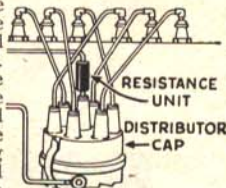
A small pipe line connects this vacuum advance to the carburetor, which furnishes the vacuum. Should this line become clogged, poor engine performance and low gas mileage can result. An engine may backfire and fill this line with gasoline, which would clog it.

To correct, loosen nuts at each end of pipe marked (1), remove pipe from fittings, and blow it clear. **Caution:** When replacing, turn nuts halfway by hand before using a wrench, as threads are very fine and can be crossed, causing an air leak. It is a good idea to have the vacuum advance unit checked for diaphragm leaks, to protect gas economy.

## ONE CAUSE OF HARD STARTING

Your car radio uses a resistance unit to remove ignition interference. This is installed in the high tension lead from ignition coil to the center of the distributor cap. Being a carbon resistance unit, its resistance increases with age and heat from the engine.

Such increased resistance interferes with current to the spark plugs and can cause hard starting, also a high speed miss. As a rule, the correct resistance is marked on the outside of the unit. It can be removed and checked by any radio service man. Remove it by pulling the wires out of each end and placing the coil wire back into the distributor cap.



With unit removed, check starting of engine. If trouble is corrected, get a new unit. Car radios require such a unit for good operation.

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## Gus Rescues Ten Little Angels

[Continued from page 182]

He dismantled the carburetor filter and found dirt inside, but not enough to clog the works. The red, powdery deposit in the bottom was dry. Gus asked Wingate to turn the engine over.

When the other man pressed the starter button, the engine cranked over, but no gas came through.

"Okay, that's enough."

The fuel pump was the next suspect, and it wasn't a nice thought. If the pump needed a new diaphragm. . .

Wingate got out of the car again. "How's it coming?"

"I haven't found a thing yet."

Wingate shivered in the wind and held the flashlight while Gus inspected the pump. The line was dry.

## Gus Gets His First Clue

"You sure you've got enough gas?"

"First thing I checked."

"Did you notice anything strange about the way the car was running?"

"No. Before she quit, she was ticking away like a Swiss watch. . . Wait, I do remember something, only it didn't happen this evening. A couple weeks ago, the car started conking out near the top of a hill, about like this one, but I managed to make the top and she picked up again. It hasn't happened since. Or at least until now."

"That could mean almost anything. I'll go over the fuel line, and if I don't find anything, I'd better go after help."

The station-wagon door opened again when Gus crawled under, and Lydia Randolph spoke over a child's sobbing.

"Perry—any hope of getting on soon? Little Judy's crying. I'm afraid it may start the others to crying, too."

"Mr. Wilson's doing his best. I think we'll be on our way in a few minutes now."

## Kids' Patience Begins to Wear Thin

As Lydia opened the door to get back in, the little girl jumped out, and Wingate threw his coat around her.

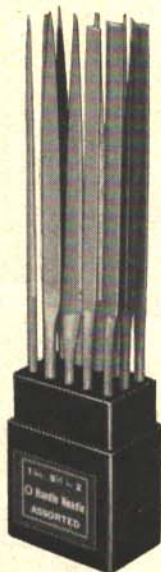
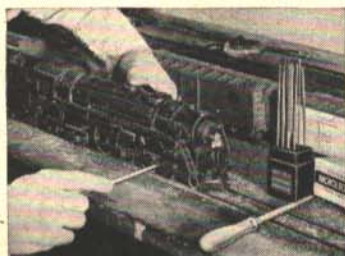
"Judy, listen to me. You don't think Santa Claus is going to let you miss the chance to lead the choir, do you? Of course not. And little girls who cry get their voices all wet and rusty. Now you climb back in there and keep an eye on the other kids. We'll be starting for the church pretty soon."

[Continued on page 234]



# X.F. for Xmas

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## Gus Rescues Ten Little Angels

[Continued from page 232]

"All right, Mr. Wingate," Judy sobbed.

Gus heard the door slam, then Wingate was back with the light. "I guess you heard—Judy was counting on leading the choir."

Gus bit his lip and followed the fuel line down the frame, trying to ignore the cold.

"Move that light a little to the left."

Gus grunted his disappointment and started to crawl out. Then he stopped and asked for the light again.

### Gus Hits Pay Dirt at Last

He took the flash from Wingate and ran it along the line, remembering what Wingate had said about it happening before, on a hill, like the one they were stalled on now. Gus stared at the wooden bed piece above the frame. What might happen on a hill?

Gus inserted a screwdriver between the fuel line and the bed piece where the two ran together. A little pressure warped it away from its original position. He ran a finger over the exposed side of the line, but found nothing. He moved the screwdriver down a few inches and tried again. This time he hit pay dirt!

"Now Mr. Wingate, if you'll get that friction tape from my glove compartment, you'll find your worries over with!"

"No kidding! Okay, hold on."

A moment later, Gus had the line taped securely, and he crawled out.

"Start it up, and turn on the heater for those kids."

The engine cranked for quite a while, but finally gas pumped through, and she caught hold.

### When Driver Shifts, Body Shifts

"This is only a temporary repair. Better put a new fuel line in as soon as you can. What happened was, the line had a hole worn into it by a sharp edge of the wooden bed piece. You see, your station wagon is old, and the body has loosened up to where every time you go up a steep hill and shift into lower gear, the body slips back a little. Gradually, the copper tubing wore through at that point. This evening—and probably that other time you mentioned—when you started up the hill the body shifted enough to make the sharp piece of wood slide off the hole. So your engine ran only long enough to exhaust the fuel in your carburetor and pump and what little was left

[Continued on page 236]

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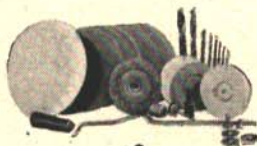
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## Gus Rescues Ten Little Angels

[Continued from page 234]

in the line in front of the break. On level ground, the wooden section keeps the hole plugged up, and you have normal operation. I've warped the line away from the sharp spot and taped it up. . . Well, you people better get started."

"Can't I pay you for your work? No need to tell you how grateful—"

"Forget it. It's Christmas Eve."

## Gus Says "Merry Christmas!"

Gus rapped on the window of the station wagon, shouted a "Merry Christmas!" to the kids and turned to get into his own car. But little Judy was trying to tell him something through the glass. Gus couldn't make out a word. Finally she got the window rolled down and stuck her head out.

"Please, Mr. Wilson, won't you come and hear us sing? We all want you to!"

Then the rest of the kids were all shouting at once. "Please do, Mr. Wilson!" . . . "We'll sing one just for you."

"Do come, Mr. Wilson," Lydia Randolph urged. "It would make them very happy."

In the face of such enthusiasm, Gus weakened rapidly. He felt sure the Rheingolds would forgive him for his tardiness when he told them the story. "Okay," he agreed with a wide grin, "let's get going!"

The children's delighted whoops of approval followed him as he climbed into his stone-cold car and started her up.

## Ten Little Angels Sing

Forty minutes later, Gus was seated in the rear of the church, thawing out comfortably. The children, starched and shiny in white, looked like 10 little angels.

Then Judy's voice lifted above the others, high and clear, as the choir sang the first lovely notes of *Silent Night, Holy Night*. And as Gus sat there, warmed in heart as well as in body, it seemed to him that Christmas had already arrived, on this evening of December 24—and that it was the finest Christmas ever.

END

## Going Is Better

Girl: "Sometimes my father takes things apart to see why they don't go."

Boy Friend: "So what?"

Girl: "So you had better go."—*The LIFE Aetna-Izer*

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