

WONDER STORIES of DISCOVERY and INVENTION ~ USEFUL IDEAS for HOUSE, CAR, RADIO and WORKSHOP

Fred Steubi

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Monthly

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1872



A SIMPLIFIED MODEL of "OLD IRONSIDES"

FEBRUARY

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25 CENTS

Even New Cars May Have Mysterious Troubles — Can You Tell

What's Wrong *with* Markin's Car?

Here's Another Chance to Test Your Auto Knowledge and Win a Cash Prize

"**T**HERE!" said Mrs. Markin triumphantly as she pulled on the emergency brake and shut off the ignition. "Your nasty remarks about women drivers don't apply to me at any rate. I didn't have a single accident all day!"

Frank Markin, waiting anxiously for his wife's return with the brand-new car, breathed a sigh of relief as she turned into the driveway beside the house.

"Good work, Mary," he admitted. "Are you sure you didn't so much as scrape fenders with anybody?" He walked around the car, inspecting it with a critical eye, and then stopped suddenly with his gaze riveted on the gasoline tank. "So you didn't have any accidents?" he exclaimed. "Then what put that big dent in the gasoline tank? You're not going to tell me it dented itself, I hope."

"Oh!" gasped Mary. "I didn't do that! I know I didn't back into anybody, and I'm sure nobody ran into me. It must have been done while I was in the stores."

"Humph!" grunted Markin, obviously puzzled. "I'll be darned if I see how anyone could have dented that tank so badly without damaging the spare tire or knocking any paint off the tank. And there doesn't seem to be any particular spot on the tank that looks as if it had been hit. I'll drive it down to the service station."

The foreman of the service station, after one glance at the apparently dented tank, inspected it with unusual care. "I know what did that, but it's the first time I've seen it happen in a dog's age," he finally announced. "Let's have a look at the filler cap."

He unscrewed the cap on the gasoline tank and examined it minutely.

"**T**HE vent hole wasn't drilled all the way through" he explained, "and the air couldn't get in to replace the gasoline that was being drawn out by the vacuum in the manifold. There must have been a little leaking in around the threads so that the vacuum created in the gasoline tank was relieved between the fillings of the vacuum tank, otherwise the motor would have stalled. As it was, the vacuum ran high enough so that the air pressure outside pushed in the side of the tank. Run her in and we'll fit a new tank. It's our fault, of course."

Markin did as directed, relieved to



There's a Prize Awaiting the Best Answer!

POPULAR SCIENCE MONTHLY will pay \$25 for the best letter explaining the trouble with Markin's car and telling him how to overcome his difficulties. Your letter will be judged solely on how accurately you size up the trouble and suggest the remedy. Letters must reach us before February 28, 1927. Address Automobile Editor, POPULAR SCIENCE MONTHLY, 250 Fourth Avenue, New York City.

know that it wasn't going to cost him anything. "It wasn't a smash-up, after all," he told his wife cheerfully when he reached home.

Their plans for the evening included dinner at their friends, the Barkers. They had promised to be there before seven, and it was nearly six now. So they started out immediately. Markin drove slowly and carefully for five miles, until the snail's pace began to make Mrs. Markin fidgety.

"If you keep poking along like this we'll never get there," she worried.

"**A**LL right then, we won't!" retorted Markin. "I'm not going to ruin this car by driving it fast. You can bet on that. Lots of cars are spoiled just by driving hard the first few hundred miles. I want you to understand that I know how to handle an automobile," he finished loftily.

But hardly had he finished speaking when the regular explosions of the motor stopped completely and the car coasted to a standstill.

"Now you're giving the motor a rest

"**I**'LL BE darned if I see how anyone could have dented that tank so badly without damaging the spare tire or knocking any paint off the tank," said Markin, puzzled. "I'll drive it down to the service station."

so it won't be overstrained, I suppose," Mrs. Markin couldn't resist remarking as her husband climbed out and raised the hood.

"I am *not*," snapped Markin. "It quit on me, and from the sudden way that motor ceased firing it must be a wire that's come loose somewhere. Don't worry, I'll find it in a jiffy."

However, a casual inspection failed to reveal any disconnected wires, so Markin got out the new tool kit and systematically applied the pliers to one connection after another until he had tested them all. Every one appeared to be perfectly tight. "That's funny," he said, "there's nothing wrong with the connections as far as I can see. I wonder if something has happened to the timer? Ah, now I've found it. The spring that holds the contacts together is broken. And I haven't a spare one."

"**S**TANDING there looking glum won't fix it," suggested Mrs. Markin. "Here, take this safety pin and see if you can't hold it together somehow."

"This is an automobile—not the baby's clothes," growled her husband. "Still I might be able to bend up a spring that will work till I can get a new one. Give it to me and I'll see what I can do."

He worked steadily a few minutes, then: "I've got it!" he exclaimed jubilantly.

The motor started at once when he stepped on the self-starter, and ran smoothly, although it did miss a bit when he speeded up to twenty-five miles an hour.

Auto troubles seem to run in streaks. The Markins must have been in the midst of a

(Continued on page 150)



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"Such Beasts Never Lived!"

(Continued from page 149)

were quite naked. Structurally, the monster Pterandon was a marvel of lightness, its great wing bones, sometimes twenty feet long, being scarcely thicker than a sheet of blotting paper, while the tiny body was merely an appendage to the wings. Students of this bird estimate that it used only thirty-six thousandths of one horsepower to fly. What it did with its great wings when on earth is an unsolved problem. The bone joints indicate it could not fold them snugly as modern birds do; probably it pointed them upright in walking.

The privileged visitor to the workshop of a museum sees an amazing sight. Boxes and barrels, filled with rocks and bones, cover most of the floor space. Benches and tables stand beneath suspended wire skeletons or framework and are occupied by the staff of preparators. No ordinary stonecutter's tools, as a rule, may be employed; the danger of damaging a valuable link in a half-formed creature of the past is too great. An awl or perhaps a glover's needle must suffice.

The first restoration of an extinct backboneed creature that has come to light was that by G. W. Leibnitz, in 1749. The greatest advance has been in recent years. Within the last few months no fewer than twenty well-equipped expeditions have been in the field scouring the earth, inside and out, for missing links in the procession of extinct creatures.

What's Wrong with Markin's Car?

(Continued from page 61)

particularly unlucky streak, for they had gone only a few miles when the motor abruptly stopped.

"I suppose that confounded safety pin has slipped," he grumbled as he raised the hood. "But it seems to be still on the job. The contact works fine. Turn on the ignition switch again while I see if the current is going through the contacts all right. Lots of juice here, apparently," he went on. "It even makes a fat spark at the contacts. The distributor looks perfect, and certainly all the spark plugs couldn't have gone dead at exactly the same time. I guess it must be in the carburetor this time—maybe a chunk of dirt stuck in the needle valve."

Markin cleaned out the carburetor, taking care to do a thoroughly complete job, for he had experienced a somewhat similar trouble with his old car. It did no good; the motor refused to fire. He tried the compression and found it excellent. Then in desperation he went over the ignition system again, including the removal and inspection of each spark plug.

"Ouch!" he exclaimed involuntarily as he got a severe shock. He had carelessly held the distributor in one hand, working the contact points with the other. "There's some kick in that spark coil—I felt it shoot clear up my arm!"

Finally he threw down his tools in disgust. "Aw, rats!" he grunted. "You wait here while I go telephone for help

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