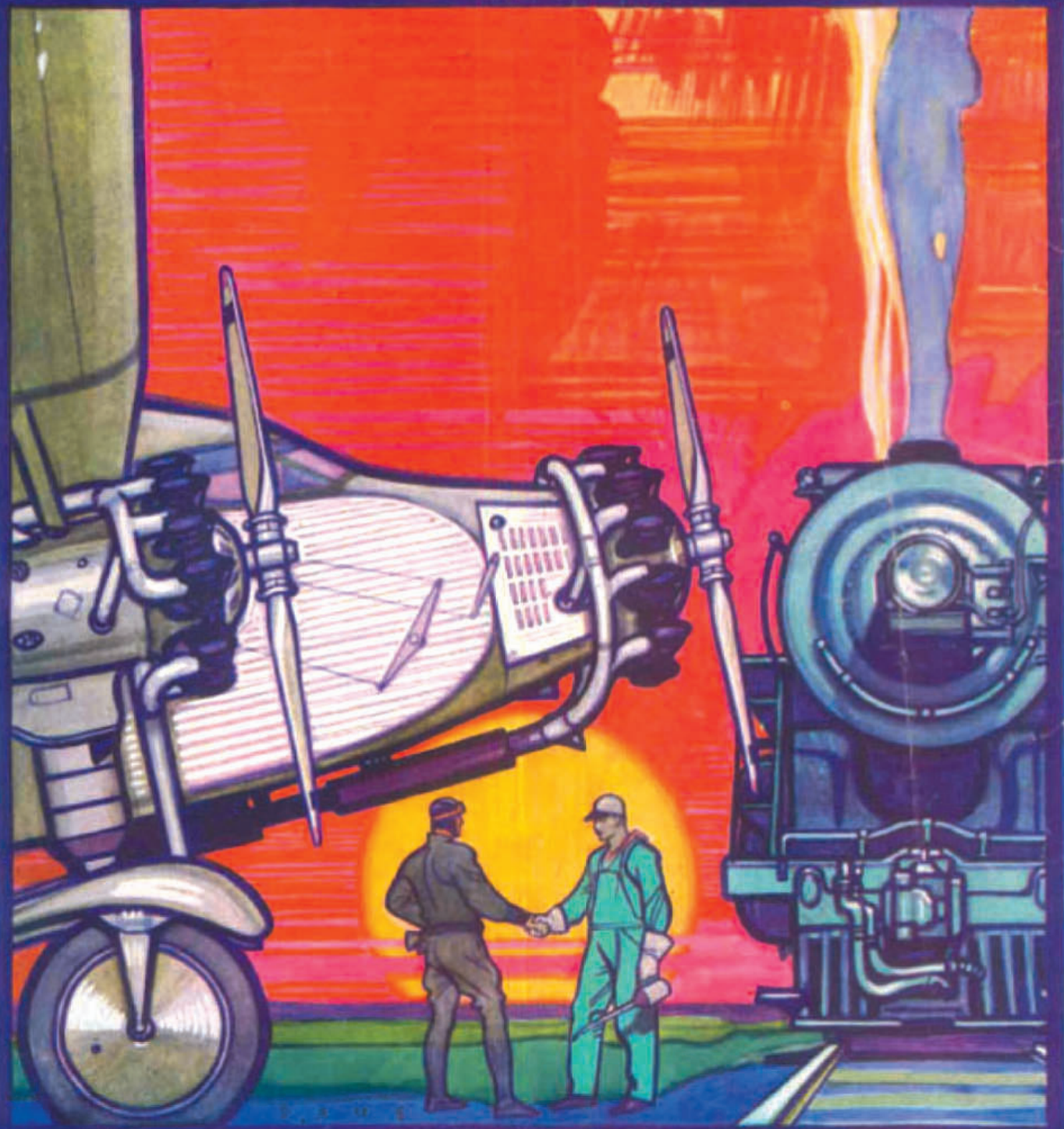


# Popular Science

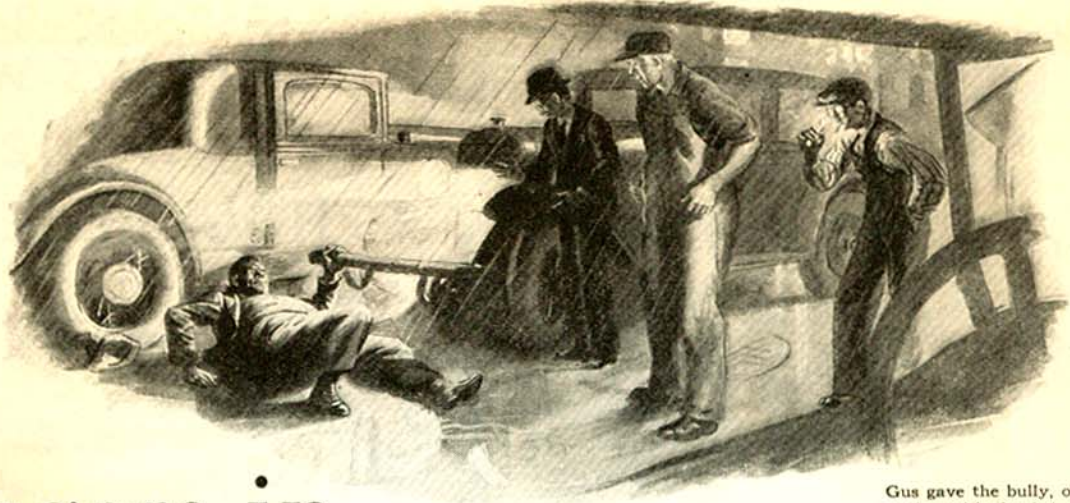
MONTHLY *Founded 1872*

November  
1929  
25 cents



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Gus gave the bully, off balance, a push, and he landed with a thud that took all the fight out of him.

# Dangers in Driving with Bad Eyes

By

MARTIN BUNN

"**J**OE," growled Gus Wilson to his partner, Joe Clark, as the two clattered down the road in their old service car, "I'm about fed up on this auto business. For two pins I'd sell you my share in the Model Garage!"

"G'wan!" Joe scoffed, grinning. "You're fed up on 'hot dogs'—not autos. I told you three was too many."

"Maybe so," Gus agreed. "I do feel as though they're snapping at each other." The veteran automobile mechanic relapsed into a gloomy silence as the car slogged on through the rain. They were rounding a curve, when the headlights revealed two cars jammed together at the side of the road.

"Speaking of fights," Joe whispered as Gus stopped the car, "looks like we're going to see one right now!"

The owner of one of the cars, a big, red-faced chap, appeared to be on the point of hitting the under-sized bespectacled driver of the other car.

"Of course it's your fault!" the big fellow yelled angrily. "Anybody that wears glasses as thick as yours must be half blind anyway. It's a good thing you've got 'em on or I'd sock you into the middle of next week. I've a good mind to do it anyhow!"

"What's the idea of picking on the little guy, you big stiff?" snapped Gus grimly as he stepped up to the speaker, who was almost a head taller than himself. "I'll bet you're to blame, at that."

"Say! Who asked you to butt in?" grated the big fellow. "Somebody's going to get a clout for this and it might just as well be you!"

With that, he aimed a furious swing at Gus's jaw. The veteran ducked and the force of the swing threw the bully off his balance. Gus gave him a gentle push and he landed on the ground with a jarring thud that took all the fight out of him.

"Now let's get the straight of this,"

said Gus, turning to the little chap. "How did it happen?"

"I was coming down Mapes Avenue," he explained, nervously dabbing raindrops from the thick lenses of his spectacles, "and this man was approaching the crossing on my left, so I had the right of way. When I saw he wasn't going to stop I put on the brakes, but it was too late."

"Kind of near-sighted, aren't you," observed Gus as he noted the thick lenses with their deeply concaved inner surfaces. "But I'm fully corrected," said the little fellow hastily.

"He's half blind, I tell you," argued



To a driver with "tunnel vision," only objects that are directly in front are clearly visible.

## Ask Gus—He Knows

**A** MAN learning to drive a car goes through four stages. First there's the nervous stage, when he has to think which foot to move when he wants to put on the brake. Then comes the self-confident stage. He's mastered the mechanics of driving but he's still careful. It isn't long before he gets into the over-confident stage. He thinks he's hot stuff when it comes to handling a car. He isn't happy unless he's showing how fast he can get away in traffic, busting the speed laws, cutting in front of the other fellow, or doing some other fool stunt. By and by, if he survives the smashes, he gets to the stage where he realizes that an automobile is a conveyance to get him from place to place and not a piece of circus apparatus!

the bully, who, by this time, had crawled painfully to his feet and, seeing that Gus had no intention of renewing hostilities, wanted to uphold his end of the argument.

"How about your own eyes?" Gus asked. "Why didn't you see this man's car approaching the intersection? There's no signboards or anything in the way."

"My eyes are perfect and I can prove it."

"All right, prove it then," snapped Gus. "Stand right where you are and describe the radiator ornament on my car."

The big fellow laughed sneeringly.

"What are you trying to do, kid me?" he growled, staring intently at the metal object. "That's no test. It's just one of those metal bulldogs. One of the front legs is busted off."

Gus, who was standing in front of the big chap but slightly to one side of his direct line of vision, did a peculiar thing while the big fellow was gazing at the radiator ornament. He crouched into a pugilistic attitude and started a swing that would have landed square on the point of the jaw if he had not stopped it a foot short of the mark.

Joe and the other accident victim gasped in amazement, for the big fellow seemed totally unaware of Gus's threatening move.

"**I** GUESS that settles it," Gus growled at him as the big man finished describing the bulldog. "If you'll take my advice, you won't ever try to drive again. You have what is called 'tunnel vision'. You only see what is directly in front of your eyes—no side vision at all. A normal man can see a moving object that's almost ninety degrees off to one side. You didn't see my fist move toward your jaw just then, and the chances are you never saw this fellow's car at all until it was right in front of you."

"I passed the license examination," said the big fellow uneasily. "That gives me the right to drive, doesn't it?"



Can't I get glasses to fix the trouble?"

"Sorry, big boy," said Gus sympathetically. "People with tunnel vision are scarce. There's no cure and no way to correct it with glasses. I heard of a fire engine driver who had it without realizing it. He managed to drive the engine for several years, and then he got into a bad smash and the investigation showed his eyes were to blame."

"That's a new one on me," the big fellow muttered. "Still, it would account for most of the accidents I've had. It's cost me plenty of jack fixing up other people's cars after I busted into 'em. Can't even get insurance any more. Guess I'd better get me a chauffeur before I land under the daisies!"

"And if I were you," Gus grinned, "I'd make darn sure that that chauffeur doesn't have the same trouble."

Both of the men's cars were so badly smashed that they had to be towed in.

"How about the little fellow?" Joe asked as they rattled down the road with the first car on the end of the wrecker's crane. "Should a man be allowed to drive

a car who is as nearsighted as he is?"

"Sure," replied Gus, "if he's got enough common sense to know his own limitations. In the daytime, with his glasses on, he can see just about as well as anybody. At night, especially when it's raining, he won't be quite sure of what he sees through the rain-covered windshield. He's liable to mistake a post for a man or a man for a post, but if he drives so carefully that it doesn't matter whether it turns out to be a post or a man, he won't get into trouble.

"Farsighted people," Gus continued, "unless they are unusually farsighted, don't even need to wear glasses when they drive. Color-blind people can drive safely enough, but they're up against it when it comes to traffic lights. I know one man who doped out which light was above the other and went by position instead of color. Once, late at night, he was traveling through a strange town, and as he came to the main crossing, he saw a light where he thought the red ought to be, so he stopped. When the lights changed he started forward and went smack into a

car crossing in front of him. In that town they had the red light where the green ought to be!"

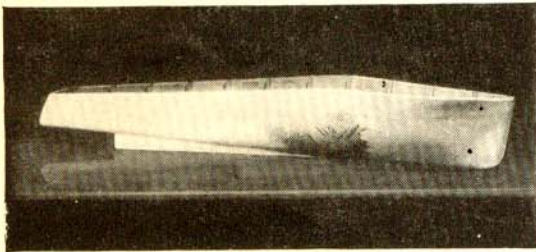
## U. S. Makes Ninety Percent of World's Automobiles

INTERESTING statistics relating to the manufacture and distribution of automobiles were recently made public by the United States Department of Commerce, Washington, D. C. Of the 32,028,500 automobiles in use in the world, 28,551,500, or more than ninety percent, it is stated, were produced by American manufacturers. Approximately one half of the 6,336,843 machines in foreign countries are of American make.

There is, according to these figures, one automobile for every sixty-one persons in the world, an average accounted for by the high ratio in the United States of one automobile for every 4.87 persons. The lowest per capita registration is in Arabia, one state (Asir) having 75,000 persons to each automobile.

# Craft Work with Newspapers

*An Adaptable Material Used in Making Boats, Cameras, Vases, and Other Articles*



Hull constructed by pasting many layers of newspaper on framework of thin wood strips built to the shape required.

WHEN used in conjunction with a boiled starch paste, newspaper becomes an ideal material for many construction purposes. From it the writer has made numerous articles, including the astronomical camera and boat illustrated.

First a framework is constructed, preferably of wood, having slats that are placed fairly close together. The spacing of the slats depends, of course, on the desired final strength.

Next prepare a generous quantity of boiled starch paste. Take sufficient water for the amount of paste required and

ing the paste, and coat the wood frame first; then coat the paper with paste on both sides and apply it to the frame. If the paste is of the correct consistency, the paper will absorb it and appear quite wet.

Layer after layer of paper is applied in this manner until from six to twenty or more layers have been used, according to the required strength. The paper should be forced into complete contact with the preceding layer with the paste brush. Apply pieces of all shapes and sizes, torn to shape rather than cut, as the ragged edges are less liable to form ridges on the finished surface.

As the glue dries it will cause the paper to contract and the finished article will be found to be very smooth and almost as hard as vulcanized fiber. In spite of its smoothness and hardness, it will not be brittle and therefore will not break easily. The covering can be sandpapered and even filed to remove any inequalities in the surface. Any desired finish can be used.—WARREN N. CRANE.

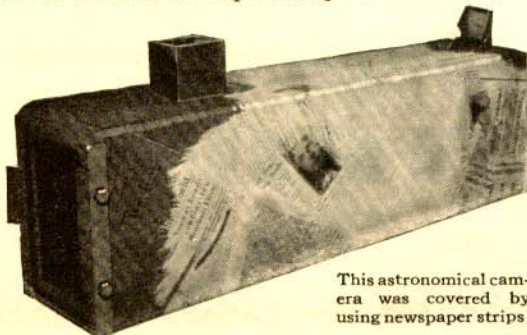


Strips of newspaper were wound around a wide-mouthed bottle in making this very artistic and practically unbreakable vase.

NEWSPAPER can be used for converting a bottle into a useful and artistic looking vase. Obtain a wide-mouthed glass bottle similar to those in which olives are sold. Prepare the necessary strips of paper and soak them in 1 oz. of liquid glue diluted with 16 oz. of water.

Wind the paper around the bottle, layer upon layer. By putting more paper in one place than in another, the curved shape can be obtained. After the vase is of the desired form, it should be brushed thoroughly with the glue solution and allowed to dry.

The vase is then ready for the decorations, which can be applied in the form of enamel or lacquer. The one shown was enameled yellow with red and green stripes.—ARTHUR SCRIVEN.



This astronomical camera was covered by using newspaper strips.