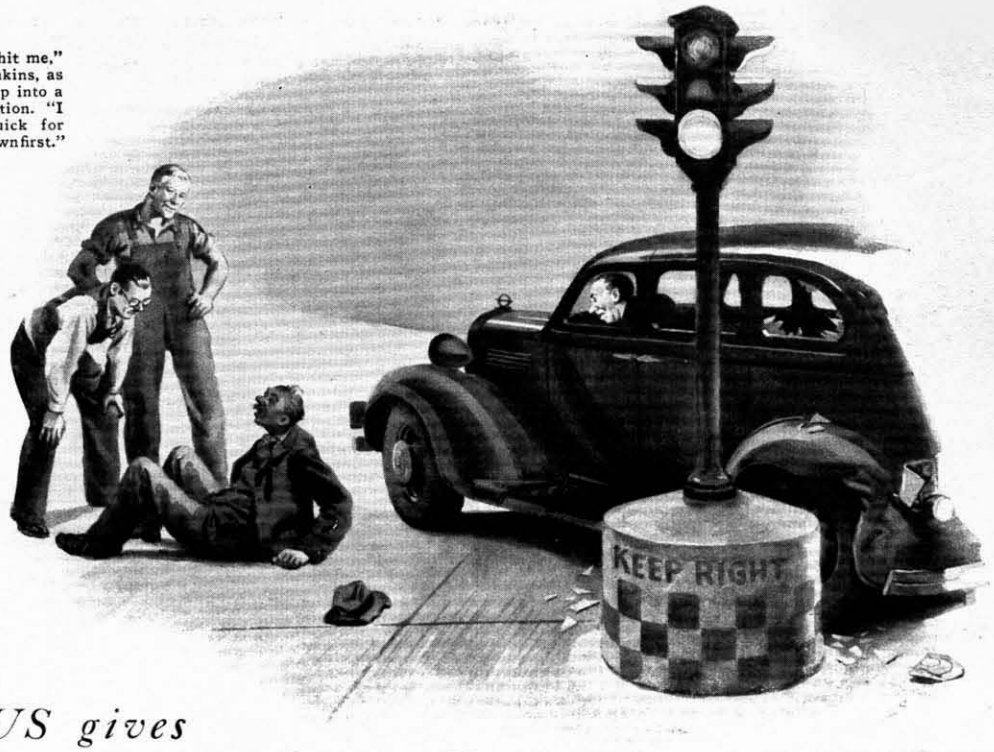

"He didn't hit me," grinned Dunkins, as he popped up into a sitting position. "I was too quick for him. I fell down first."

Gus gives

A Lesson *in* Careful Driving

By MARTIN BUNN

IT WAS later than usual when Gus Wilson, of the Model Garage, tightened the last nut on a rush job and decided to call it a day. The gray-haired veteran mechanic tossed the spanner into the kit, stretched to straighten the kinks out of his spine, and walked over to the sink where his partner, Joe Clark, was already washing up.

"Manville's coming for that bus first thing in the morning," he grunted. "Be sure and tell him—"

Gus's voice was drowned out in the wailing, tearing screech of rubber being dragged over concrete. The noise terminated in a sickening thud and the brittle tinkle of shattering glass.

"Cripes!" shouted Gus, tossing the soap into the sink and wiping his hands on his overalls as he rushed for the door. "Somebody's got bumped down at the crossing!"

The two garagemen ran out into the twilight.

A huddled figure was lying in the middle of the road at the crossing, a few feet in front of a sedan which had slued around and crashed its rear hub against the heavy, concrete base of the traffic light. Behind the wheel of the car a chalky-faced driver was feebly shaking his hands in a state of almost complete nervous collapse. One of the rear windows of the sedan, on the side toward the traffic post, lacked a large section of glass which had broken outward and crashed into the roadway.

Gus and Joe bent over the huddled figure. "It's Rummy Dunkins and he's soused to the eyes!" exclaimed Gus, as he caught sight of the man's face in the glow of the car's headlights and sniffed a heavy aroma of alcohol.

"Sure! Thash me!" grinned Dunkins, suddenly popping to a sitting position. "Only I ain't stewed, not to the eyesh yet, but I will be soon!"

"Where'd the car hit you?" Gus asked.

"What car?" countered Dunkins. "Oh! You mean that car, there? He didn't hit me! I wash too quick for him. I fell down first!"

Gus dragged Dunkins to his feet and let him stagger off down the road. Then the garageman walked around to the window of the sedan.

"Snap out of it, mister. Nobody's hurt!" he grinned to the driver, who was staring pop-eyed at the lurching figure of his imagined victim.

"And maybe that isn't a relief!" the car owner gasped, as his face regained its normal color. He fumbled for a cigarette in a limp package and lighted it with trembling fingers.

"Run the service car down here, Joe," said Gus after a quick inspection of the rear axle of the sedan.

It developed that the owner was on his way to visit relatives in the town, so the garagemen delivered him to his destination after towing his car to the Model Garage.

The next day, just as Gus was finishing the repair work on the sedan by fitting a new hub cap, the owner arrived.

"Good afternoon, Mr. Montrose," Gus greeted him. "She's just about ready for you."

"Looks as good as new," Montrose smiled. "Only thing is, I'm wondering if I've got the nerve to tackle driving again. I haven't been at it long, as you probably guessed, and that affair last night sure took the starch out of me."

"You're less likely to have an accident now than you ever were before," Gus asserted with conviction.

"If I do, it certainly won't be my fault," said Montrose, with equal emphasis.

"I wish Captain Williams of our police force could hear you say that," laughed Gus. "Maybe you don't know that the police departments all over the country are making a drive to cut down the number of auto accidents. They think that when 36,000 people are killed by cars in one year, something has to be done—and they're doing it, too. But what they've done so far isn't a patch on what they could do if people would really coöperate."

"How do you mean, 'coöperate'?" Montrose asked.

"That's easy to answer," replied Gus. "If the average driver would get it into his head that there just weren't going to be any accidents caused by anything he did, that attitude would make a whale of a difference."

Montrose laughed. "I never knew anybody started out with the idea that he was going to get into a crash."

"They don't, directly," Gus explained, "but they do what amounts to the same thing. They are always willing to take a chance. They'd rather trust in Providence and their own good luck than in common sense and careful *(Continued on page 112)*

NEW SUBSTANCES FOR ART AND INDUSTRY

(Continued from page 111)

them in caustic solutions for twenty-three hours; they boiled them in water for seven hours; they sprayed them with gasoline, pounded them with hammers, exposed them to tide and salt spray, scrubbed them with strong alkali cleansers, and, finally, spun them 20,000 times in a machine filled with flying sand grains. In every test, their reports showed, the synthetic-resin paints and varnishes stood up better than similar coatings without the plastic base.

Special types of plastic paints are manufactured for houses, boats, and bridges. One quick-drying varnish is made with an oil-soluble synthetic-resin base. It is rubbed on furniture like lemon oil and permitted to harden.

Another kind of synthetic-resin varnish protects armatures on electric generators from injury by oil, gasoline, or lubricating grease. Installations so protected range from giant armatures, twice as high as a man, to midget ones designed for small grinders.

Strangest of all applications of these varnishes is one reported from an eastern museum. The skeletons of dinosaurs and other prehistoric monsters are being coated with the liquids. They have proved themselves best for protecting the remains of creatures representing life on earth hundreds of thousands of years ago.

Another new use for synthetic resins in the field of science is in holding metals for micro-analysis. The bits of material to be examined are fixed in a block of hardened Bakelite. This gives them a solid support during the work of examination.

MEDICINE, as well as metallurgy, is benefitting from applications of the new plastics. A device made of a thermoplastic substance is replacing the familiar gauze masks worn by nurses and surgeons in the operating room. Oxygen tents for hospital patients now have transparent plastic windows. X-ray operators are protected by lead-filled Bakelite. Shields to protect vaccinations, and an adhesive tape which has a plastic base that makes it unaffected by water, are other applications. Also on the list is a new protective helmet for miners, made possible by the use of light-weight plastics.

How much punishment the latest plastic substance will stand is illustrated by breakdown tests made on a mechanical counter designed for use on high-speed factory machines. At each revolution, a bronze pawl connected with a laminated-plastic ratchet wheel. For seventy days and seventy nights, the apparatus ran at the rate of 516 impulses a minute, a total of 49,000,000 impacts on the wheel. At the end of that time, it was the bronze pawl, and not the wheel, that gave out. Engineers who examined the wheel reported it was good for another 50,000,000 impacts!

Not infrequently, the manufacturers of plastic substances have to develop special formulas to meet the needs of a particular product. For example, when broadcasts from electrical recordings came into wide-spread use, one of the largest producers of the records appealed for a new material that would eliminate squeaks. The engineers and chemists of a plastics laboratory immediately set to work. They solved the problem, developing an entirely new material.

Most of the thousands of new uses for plastics have been found in the last decade. The greater number of synthetic substances now making industrial history have been born since the World War. The field is new. But it is a field of spectacular accomplishments, of amazing possibilities. It represents a crowning achievement of the industrial chemist.

GUS GIVES A LESSON IN CAREFUL DRIVING

(Continued from page 56)

driving. You know the kind of a fellow I mean. The bird who barges across a blind crossing because he thinks there's not much chance that a car will be coming the other way; the dumb-bell who starts on a long drive with poor brakes because he's willing to take a chance that he won't have to stop quick; the fellow who cuts around a curve on the wrong side of the road, or passes another car when he can't see what's coming, because he thinks there isn't much chance of a car coming the other way—and that his luck will save him if there is."

"I see the point there, all right," Montrose admitted. "It's the gambler's instinct you should leave at home when you go out in the car."

"That's it, exactly," said Gus. "If you never gamble on what the other fellow is going to do, you'll be ready for him no matter what fool stunt he pulls."

"Always seemed to me speeding causes a lot of accidents, too," Montrose ventured.

"THAT all depends on what you mean by speeding," Gus replied. "You can run a chance of landing in jail on a homicide charge when you are driving only twenty miles an hour, and yet you may be as safe at twice that speed as you would be at home in bed. It all depends on the time and place."

"How do you figure that out?" Montrose wanted to know.

"Have you an hour to spare?" Gus asked. "If you have, drive over with me to Carville while I do an errand, and I'll show you what I mean."

Montrose readily agreed, and the two men climbed into Gus's car.

"Now," said Gus, as they turned into a wide state road, "this stretch is over four miles long, with no sharp bends or concealed turns. There are only two entering roads, and you can see a car coming on either of them nearly a quarter of a mile away. There's no doubt but what this road is safe for forty miles an hour. Of course, there's drivers would say it was safe for sixty, but there's no satisfying that type. If you made the road really safe for sixty, they'd want to do a hundred.

"Of course," Gus went on as the speedometer needle crept up to forty, "this speed is really safe only if the tires on your car are good, the steering gear is tight and in perfect shape, and the brakes are right. On the other hand, a fellow was nearly killed last year on this road because he was going too fast. He was only doing forty miles an hour, and he had the road all to himself, too."

"What happened—a blow-out?" Montrose inquired.

"Nothing gave way on the car," said Gus. "He was blown off the road! You see there were some icy spots on the concrete, not enough to cause any trouble, ordinarily, but there was a sixty-mile gale blowing, quartering across the road, and as he hit an icy spot an extra hard blast started the car into a skid that ended out there in the field with a busted spring and a damaged mudguard. It sure was lucky for him it happened right there rather than farther along where there's a bank he'd have gone over."

"BLOWN off the road by the wind!" exclaimed Montrose. "I wouldn't have believed it possible that wind pressure could do anything like that."

"It did, just the same," Gus maintained, "and if you don't believe that a 100-mile-an-hour breeze packs a punch, just get caught in one of those Kansas 'twisters' and see what happens to you."

"So the answer is to watch your step on a windy day if there's *(Continued on page 113)*

GUS GIVES A LESSON IN CAREFUL DRIVING

(Continued from page 112)

any chance of slippery spots on the road. I'll make a note of that one," said Montrose.

"Here," said Gus, "is where you see the other side of the speed story." They had turned into a narrow street through the densely populated outskirts of Carville. School had just closed, and children of all ages were thronging the streets.

"Twenty miles an hour would be too fast through here, right now," said Gus as they crawled along at a bare twelve miles an hour, "and you've got to keep your eyes peeled and your foot on the brake every second, in case some youngster darts across in front of you. Yet, you could sail through here at thirty miles an hour in perfect safety at two o'clock in the morning. So you see you can't say offhand that any particular speed is safe or not safe till you know all the circumstances."

"I hadn't thought of it before, but the time of day *would* make a lot of difference," the passenger agreed.

"You bet it does," nodded Gus. "Figures show that the most accidents happen between five in the afternoon and eight in the evening. Twilight coming on, people hurrying home from work, kids out joy riding, everybody a little tired after the day's grind—everything seems to work together at that time of day."

GUS soon finished his business in Carville and headed for home.

"I suppose slippery roads and rainy weather cause a lot of accidents," Montrose volunteered, as the car picked up speed in the open country.

"Well, that's a funny thing," replied Gus. "Of course, slick asphalt or a heavy fog makes driving a lot more dangerous, and does cause accidents. Yet, I was reading, just last night, that four out of five fatal accidents happen on dry roads and in clear weather."

"Well," said Montrose, as they pulled up at the Model Garage, "it looks to me as though the whole problem of safe driving can be boiled down to a mighty simple rule and that is: Never take a chance on either your car or your driving; be sure, and you'll never be sorry—or worse!"

"That's the whole thing in a nutshell," Gus agreed, "and if the police departments can ever get every driver to paste that idea in his hat and stick to it, there'll be so few accidents that the cost of liability insurance will drop to the price of a new tire."

"That won't mean a thing to Rummy Dunkins," laughed Joe, as Montrose drove off. "He should worry! They say Providence always watches over fools and drunkards!"

"Not when the drunk is behind the wheel of an automobile!" grunted Gus as he started work on the next job.

COMMON CHEMICAL KILLS ONION AND GARLIC ODOR

LOVERS of onions and garlic may now indulge their taste and none will guess their secret, as a result of recent discoveries by Yale University physiologists. The persistence of these odors in the breath, which had hitherto mystified scientists, was found to be due to aromatic substances known as essential oils that cling to the surfaces of the mouth, tongue, and teeth after eating.

An instant and effective remedy, the experimenters found, was to wash the teeth and tongue and rinse the mouth with a solution of chloramine, a chemical available at drug stores. The chlorine liberated by the solution, made by dissolving one 4.6 grain tablet for each fluid ounce of water, reacts chemically with the essential oils and deodorizes them.