

POPULAR SCIENCE

July 1948



25c

EXCLUSIVE

**INSIDE STORY
OF THE
NEW FORD**

**16 PAGES OF
PICTURES**



**NEW
DRIVE**

**NEW
FRAME**

**NEW
SPRINGS**

**NEW
POWER**

PAGE 73

Gus Races Trouble

to the Wire

At a tough, hard-fought motorcycle run, he plays a fast hunch for a winner.

By Martin Bunn



"HEY!" Stan Hicks yelled. "What's that?"

"It sounds like the Battle of the Bulge," Gus told him unexcitedly. "But it's just a ham motorcyclist who thinks he's going fast because he's making noise."

The ear splitting ceased. Through the shop door a tall young man pushed a motorcycle. He wore helmet, goggles, and a wide, rivet-studded belt.

"Ah!" Gus greeted him, with mock deference. "Zipp Temple, speed demon!"

The young man flashed a brief grin. "Mr. Dunlap told me to bring my bike to you."

Stan had been regarding Temple with disfavor tinged with envy. "This ain't a cycle shop," he growled. "Mr. Wilson don't bother with them—do you, boss?"

"Well," Gus hedged, "I haven't worked on one for a long time, and I haven't ridden once since the days—" He broke off to light his pipe.

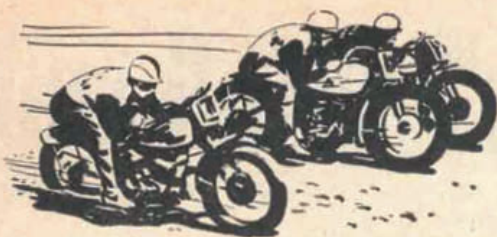
"Huh?" Stan prompted.

"Never mind," Gus said disappointingly.

Most of the regulars around the Model Garage know that Gus and Bill Dunlap, the perennial president of our town's Acme Motorcycle Club, used to compete when

Gus faced the big rider. "If you pull anything," he warned grimly, "you'll have me to deal with."





they were topflight riders back in the early Twenties. But we've never been able to learn much about Gus's riding career; he's never one to talk about himself.

"Mr. Dunlap said you'd try to speed up my bike," Zipp said importantly. "I need all the speed I can get. I'm riding for th' Acemes in th' championship Saturday."

Gus nodded. "Yes, Bill told me when he phoned." He looked the rider over appraisingly. Dunlap had also said that Zipp was a careless motorcyclist. The reason he was going to ride for the Acemes was that quiet Tom Dorsey, who'd beaten him with a lap to spare in the trials, had later injured his shoulder and wrecked his machine. "Cocky as all get out," Gus sized Zipp up.

He turned to the machine, a high-compression twin with overhead valves. A large, straight pipe had been substituted for the muffler. Gus ran a rod into the pipe and found no baffles inside it. "How long you had this thing on?" he demanded.

"Oh, a couple of weeks," Zipp told him. "A fellow at our shop welded it on for me. You can't get nowhere with a muffler on."

"There's a law against running without a muffler," Gus said, "and there ought to be. You fellows who ride motorcycles that sound like machine guns give a good game a bad name. And you're fooling yourself if you think you go any faster. You just make so much racket you think you do. Well, how's she running now?"

"Not so good," Zipp conceded. "She ain't got nearly the moxie she ought to have."

Gus grunted. "I'll take a little ride—if I remember how." He straddled the machine, strode the starter down, and rode out of the shop with confident smoothness.

Five minutes later he rode in again and swung off. "Feels like a compression leak," he said. "It might be bad rings or even a broken piston. More likely it's valve trouble."

"I'm broke right now," Zipp said.

"The club's taking care of the job for you," Gus told him with a grin.

"Okay," Zipp said, and swaggered out.

As Gus removed the plug from the front cylinder, Stan brought him the compression gauge. "Stand on the kick-starter," Gus directed when the gauge was fitted to the plug hole. He watched the indicator hand swing to the 15-lb. mark and stop. The rear cylinder gave the same result.

"Compression leak in both cylinders." He poured a spoonful of heavy oil into each cylinder, directed Stan to kick the engine over a few times, and tested again. The pointer stayed low. "It's not the rings."

"How do you know?" Stan asked.

"Heavy oil would temporarily seal off leakage past the rings," Gus explained. "If the rings were bad, we'd have gotten a much higher reading with the oil. Let's have a look at those valves."

They set to work taking the engine down. Removing the first exhaust valve, Gus held it up for Stan to see. "Warped. I expected it when I saw that nitwit had taken off his muffler."

"Wait a minute," Stan pleaded. "What's a muffler got to do with valves warping?"

Gus pointed an accusing finger at the flaring tailpipe. "An exhaust as big as that, without any baffles in it, sometimes causes an intermittent vacuum around the exhaust ports that blocks heat transfer from the valves. At high speeds they are more likely to burn."

He tossed the valve into a junk box. "No sense in wasting time with them. Run down to the motorcycle shop and get a new muffler and a set of valves. Then we'll tune her up as well as we can. If Zipp doesn't win, it'll be his own fault."

SATURDAY afternoon found Gus out at the Fair Grounds. To his experienced eye the Club's two-mile course offered a wide variety of potential grief. The first few hundred yards were on the half-mile dirt track. Then there was a sharp turn and dizzy dive into a dry stream treacherous with sand and rocks. The trail clawed steeply up the bank, into another abrupt turn and a series of roller-coaster hills, followed by a long stretch deep with loose sand. Twenty-five times around would be a real test of men and machines.

As Gus came back by the grandstand a barrel-chested rider drove off. "That's Juke Crutchly," somebody said. "A tough cookie—he'll show these boys some tricks!"

Crutchly, warming his engine, was riding slowly a little out from the rail. Zipp Temple

whizzed up behind him and couldn't resist showing off. He shot through the narrow hole, brushing Crutchly's shoulder. "Fool kid—asking for trouble!" Gus thought.

Crutchly took off after Zipp, following him closely around the course. The next time they passed they were riding side by side. Crutchly shouted something at Zipp. As they went into the turn Juke hunched his shoulder, and Zipp crashed the fence.

When Gus got there a small crowd had gathered around Zipp. He was on his feet but his face was chalky. Bill Dunlap rode up with Doc Marvin in his sidecar. After a swift examination Doc motioned Dunlap and Gus aside. "The kid isn't hurt, but he's lost his nerve. He shouldn't race—and he won't do you any good if he does."

"There goes the championship!" Dunlap growled.

Tom Dorsey, who'd won the trials, stepped out of the crowd swinging his left arm experimentally. "My shoulder's okay now," he said quietly, "but my bike's got a bent frame. If Zipp will lend me his, I'd like to ride for us."

Gus was checking Zipp's cycle. It hadn't been damaged. Dunlap went over to Zipp, who was lighting a cigarette with excessive nonchalance. "All right, you ride," Dunlap told Dorsey after a nod from Zipp.

Crutchly, smiling unpleasantly, had been watching the scene. He wheeled over to Gus. "Tell this kid to keep clear of me, pop," he advised. "You saw what happened to your boy friend. I might give this one a bigger dose of the same!"

Gus looked at him, his face granite. "I was racing when you were floating chips down the gutter," he said grimly. "If you pull anything, you'll have me to deal with."

THE shadow of the grandstand lay black on the track. Motors crescendoed to a roar as the half dozen riders remaining in the race slewed onto the track, with Crutchly in front. Fifty yards behind the pack came Dorsey, well satisfied to be there. With only a lap to go, he had almost a full-lap lead. "He'll hold what he has!" Gus thought.

And then, just as Tom was slowing for the turn, his engine stopped dead!

Acme rooters groaned. Gus ran. His wind was gone long before he got to where Dorsey was working frantically over his engine. "Wha-what is it?" he gasped.

"Must be ignition," Tom told him. "She quit cold. Got plenty of gas."

There was no time for careful troubleshooting. Already the pack was out of the dry creek and highballing over the rolling hills. Gus swiftly examined the high-tension wiring—no loose connections, no broken wires. He snapped off the distributor cap, quickly checked the rotor and its contact, and ran a practiced eye over the points, breaker arm, and spring. On a hunch, and dishearteningly aware what a long shot it was, he hooked a finger under the little wire leading to the points. "Got it," he yelled.

On the underside of the pigtail loop a tiny spot of bare copper gleamed where the insulation had worn through, shorting the low-voltage ignition circuit.

Tom's quick fingers brought a roll of tape from the toolbox. Gus speedily wrapped the wire, and replaced the rotor and cap.

As Tom kicked the motor over, Crutchly flashed past, with the other riders a few lengths behind. Gus, running back toward the finish line, saw that Tom was fifty yards behind the tail-ender. But he was going!

Tom bumped down the steep grade to the river bed. Sand clawed at his wheels as he dodged the rocks. The rider just ahead of him went down in a spray of dirt; on the steep path up out of the gully he passed another one. Now they were all racing over the succession of hills and dips; on the crests their machines left the ground and came down with bone-racking jars.

Foot by hard-won foot Tom crept up. He passed two more riders. When they went into the deep sand turn onto the track his front wheel was lapped on the leader's rear one; when they thundered out of the dust cloud they were even. As they straightened out he was on the rail and Crutchly was six feet out from it.

But Crutchly wasn't beaten. Down the stretch, their engines deafening, he again drove into the lead. A foot. Two feet!

Now Tom Dorsey used the little throttle he'd kept in reserve. He twisted the hand grip full open. Crutchly started to edge over toward the rail. Yelling he didn't know what, Gus watched the gap narrow.

And it narrowed more sharply still! Dorsey edged deliberately toward the bigger rider, taking the bluff away from him. For a split second Crutchly hesitated to take the dare. That was enough. Hugging the rail, Tom drove his front wheel even with his rival's, then inches ahead.

The checkered flag flashed down as he roared over the finish line.