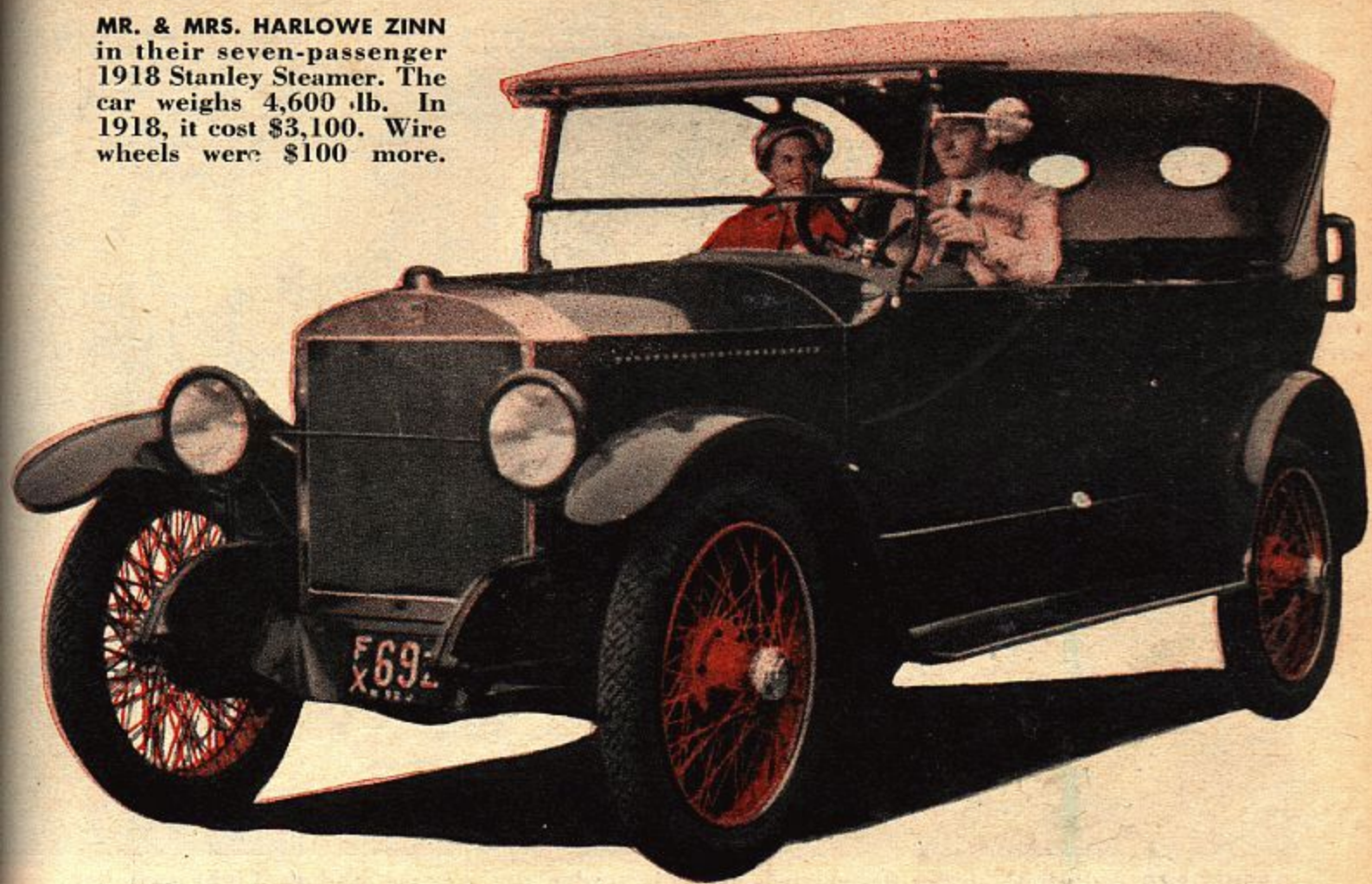


MR. & MRS. HARLOWE ZINN in their seven-passenger 1918 Stanley Steamer. The car weighs 4,600 lb. In 1918, it cost \$3,100. Wire wheels were \$100 more.



His Stanley Steamer Is Only 2 Years Old

The day that the reborn antique rolled down the street under its own steam was a big one for this engineer.

By Gardner Soule

THIS story could be told in 19 words: Like millions of other Americans, Harlowe Zinn bought a used car, fixed it up and now drives it around.

But the used car that he bought was a 1918 Stanley Steamer.

He bought it in December, 1949.

"I thought I could have it in shape in no time," says Zinn, a mechanical engineer who has tinkered with cars for 30 of his 42 years.

But it took him several weeks just to chip away the rust, and 10 months of back-breaking work to make the chassis ready to run.

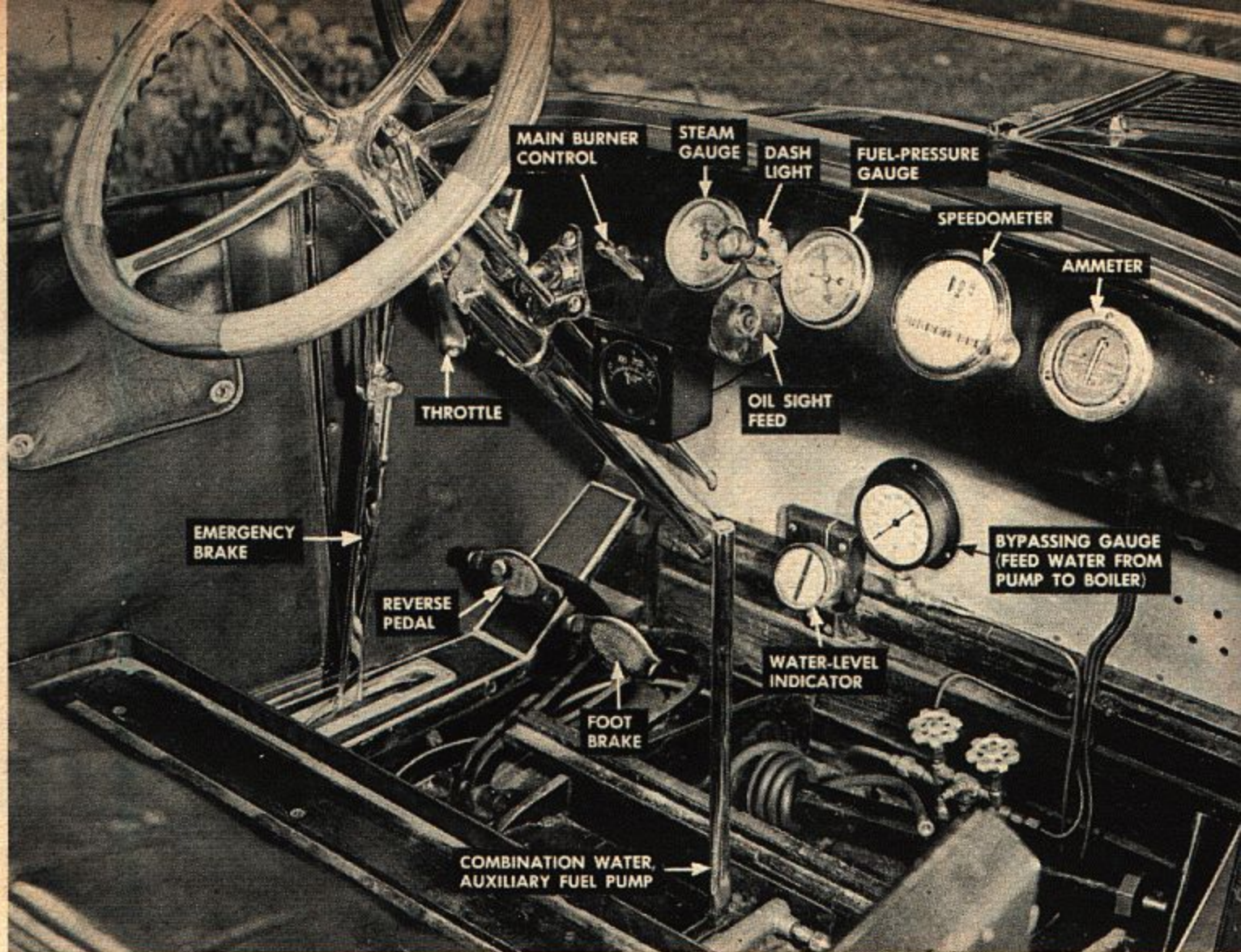
When Zinn did take his first ride in the chassis—in October, 1950—it was the day his steamer was reborn. That makes it two years old next month. And Zinn says now of that first ride:

"It was the biggest day in my life."

She Ain't What She Looks to Be

The steamer looks like a gasoline buggy, but about all the two have in common is that both run on four-wheels.

Under the steamer's hood, there is no engine. Instead, there is a boiler, inside of which water is turned into the steam that propels the car. A burner right under the boiler provides the necessary heat. The boiler is drum-shaped, 23 inches in diam-



DASHBOARD and what's under floorboards are shown here. Klaxon horn button (not shown)

is under the reverse pedal. Light switches (not shown) are at left on dashboard.

eter, 14 inches high and 300 pounds in weight.

Zinn put a new boiler into his car. He had to lower it into its cradle by chain hoist, then line it up with the piping and steam connections. This was one of the shorter chores. It took Zinn a week.

Tubing, Tubing, Everywhere

Yards and yards of tubing carry water, steam and fuel all through the insides of a Stanley. Tubing carries water from the water tank (underneath the car) to the boiler. Tubing carries steam from the boiler through the throttle valve through superheating coils and back to a simple steam engine (under the back seat). More tubing carries fuel from the fuel tank (where your gas tank is) to the burner (under the boiler). There is lots more tubing. It twists and turns, up and down, in and around, behind the dash, under the car, around the boiler.

All the tubing has to be in place, open and functioning. Much of the tubing on Zinn's car had split. Zinn made careful sketches, took it all out, put some back, and in his workshop cut, bent and flared new

tubing to replace more. This took weeks.

When he turned to the engine, Zinn took the casing off, adjusted the bearings and crossheads and saw to it that everything was clean and back in place.

There were dozens of other tasks. After 10 months of work, Zinn thought the chassis would run and he got ready to start it.

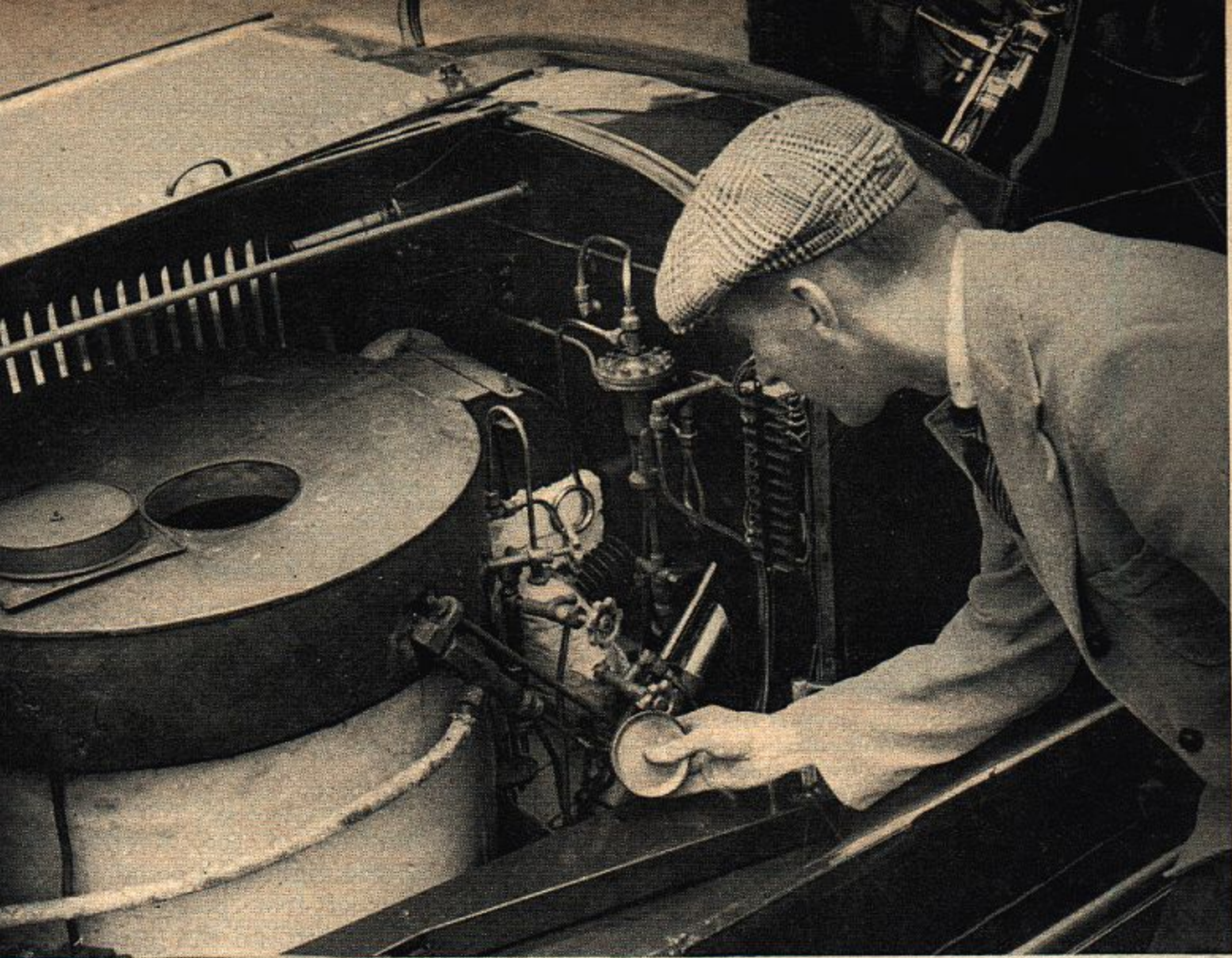
When Zinn let fuel from the main fuel line into the burner, there was a roar. Later, he learned the roar is normal when the burner is cold and you let into it as much fuel as he did. But then he wasn't sure what was going to happen.

Alarmed neighbors arrived.

When Zinn tried to work up steam, the steam poured out in clouds because he hadn't hooked up the exhaust connection.

More alarmed neighbors arrived. So did Mrs. Zinn, a charming brunette, who by then had learned to take almost anything in stride except steam billowing over her home.

But the steam this time was a sign that things were right—not wrong. Zinn had never driven a steamer. He had, however, learned by heart the function of every part because he had handled every single part



BOILER, the white, drum-shaped object with dark top, produces the steam that powers the

car. Stanley boilers never did explode, despite rumors you may have heard about them.

of the chassis and engine as he restored them.

Zinn, his wife and their son Bobby climbed aboard the chassis and rode around their home town, Upper Montclair, N. J.

It was so much fun that Zinn allowed himself four or five short rides late in 1950 before he got busy on the car's body.

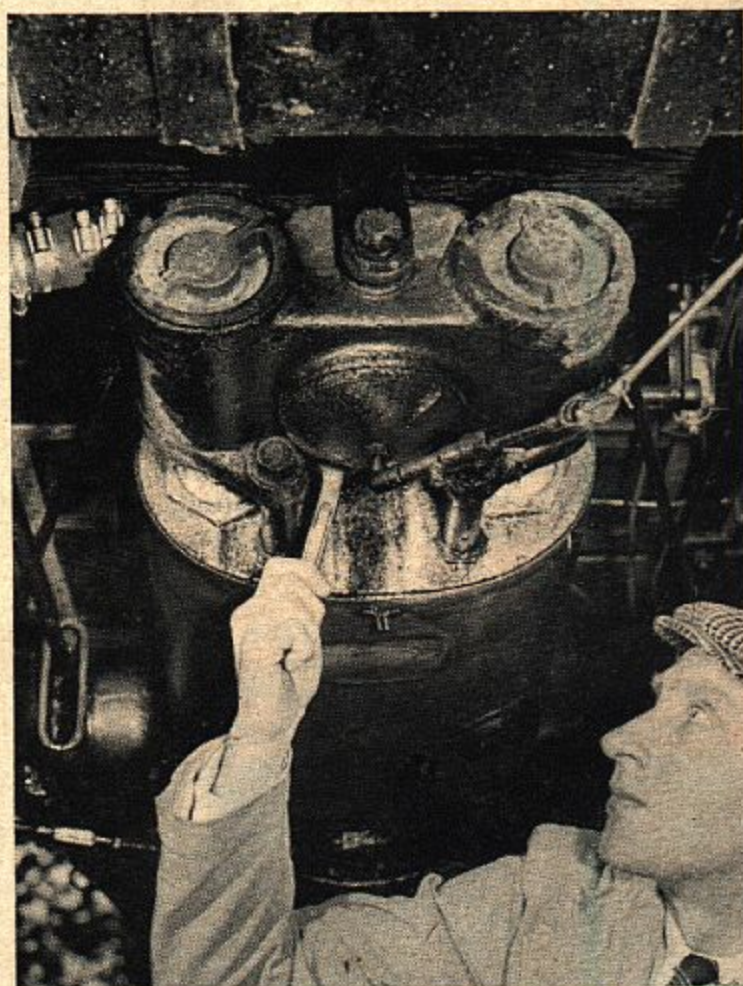
Only the Beginning, Folks

Now he had to fit pieces in to replace pieces that had rusted out completely, sandblast fenders and other parts that could be taken off, and top off with what he calls the "interminable" job of priming, wet-sanding and finishing. Zinn put on six coats of a lacquer primer and four of colored lacquer, and rubbed down each of the coats by hand.

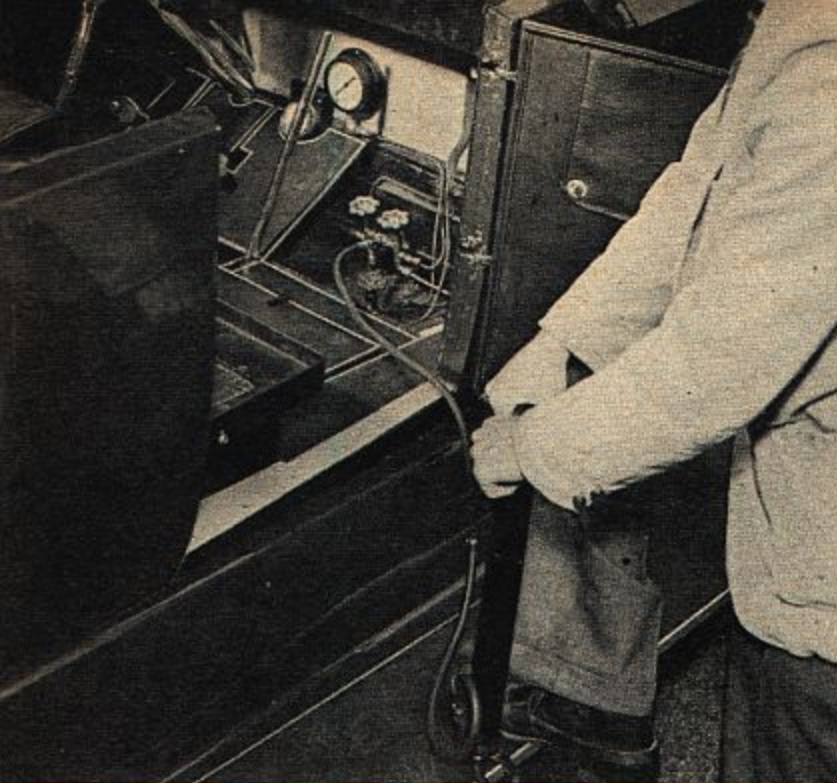
Actually, it took him March, April, May and June, 1951, to do the "interminable" job.

Zinn had the top made and the front seats recovered, and he had the boiler wrapped up in four layers of piano wire to strengthen it. Otherwise he did all the work.

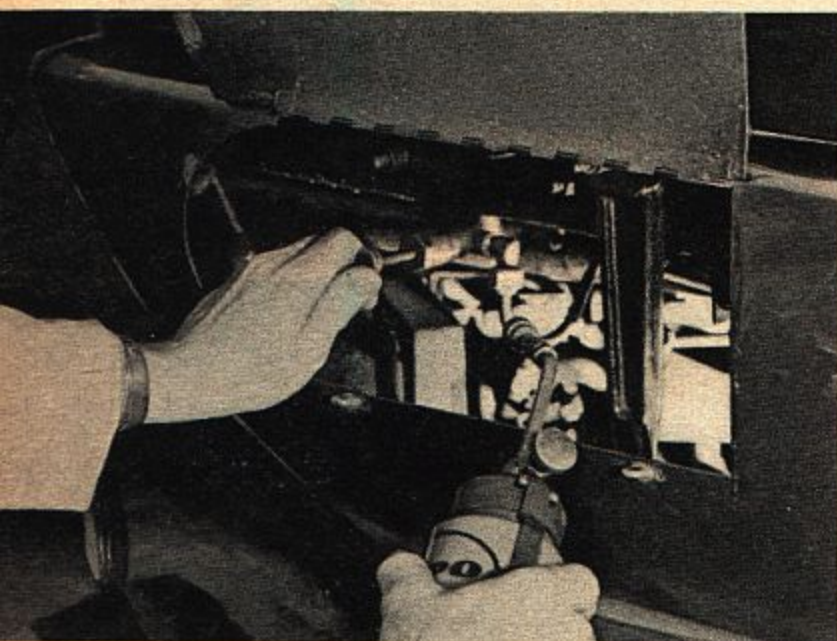
By October, 1951, 12 months after the first ride and 22 months after Zinn received



SIMPLE ENGINE under rear seat has 13 moving parts. Engine is two-cylinder, four by five, slide-valve type, double-acting. Engine, differential, are in oiltight housing.

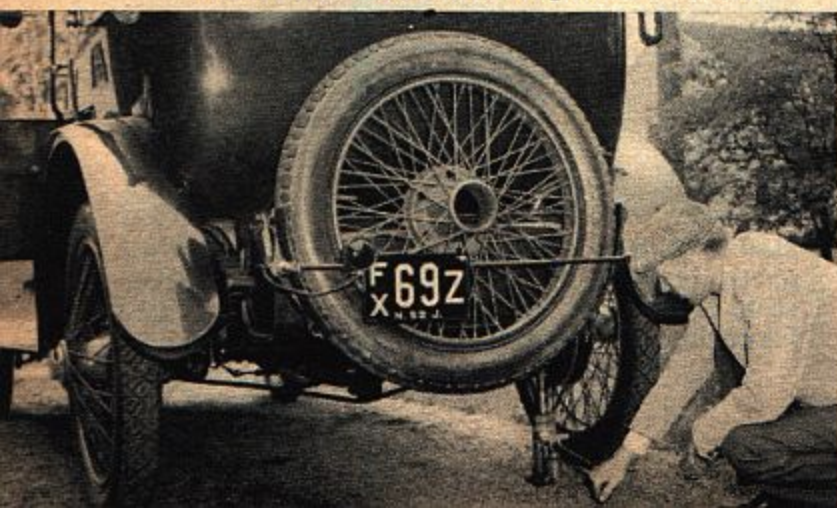


IT TAKES ZINN 30 minutes to start his Stanley, 20 if he's in a hurry. Procedure is shown in photos in this column. First step (above) is to pump air by hand into the pilot tank.



SECOND STEP is to light propane torch and use it to ignite pilot light (that's what's happening here). After pilot light burns for a while, Zinn turns on the main burner.

TO WARM UP ENGINE, Zinn jacks up drive wheel, as do many Stanley owners, before he starts car. Nonskid tires, 34 by 4, on demountable rims, take 60 pounds of air.



the steamer, the car, gleaming in gun-metal gray, was ready for a big test. On October 13, 1951, Zinn drove to Devon, Pa., for a major antique-automobile show. From Devon he returned with a covered silver vegetable dish with an inscription that reads, "First-prize Class S, Antique Automobile Club of America." S stands for steamer.

The Stanley cruises now at about 25 to 30 miles an hour. Zinn thinks he could get it up to 60, but he doesn't plan to try. "I want to preserve this car, not break anything," he says.

120 Miles to a Tankful—of Water

He gets about 110 to 120 miles on one tank of water, 12 to 13 miles to a gallon of fuel (kerosene and non-leaded gas mixed). The Stanley gives him a quiet ride. An occasional hissing of the burner is the only noise.

To drive, he uses (1) the steering wheel, (2) the throttle on the steering-wheel column, (3) the right-foot pedal to brake and (4) the left-foot pedal to reverse. There is no gearshift. In this way, Stanley Steamers anticipated post-World War II gearshift-less cars by 50 years.

Zinn's wife, Marjorie, incidentally, has never driven the steamer. It isn't that she's afraid that a 34-year-old car might break down; she simply has her own 1947 Cadillac.

Get a Horse, Mister!

The Zinns by now are used to the comments (spoken and unspoken) that people make when they see the car. Garage mechanics display awe or reverence when Zinn drives in. Passers-by stare. "Of course," remarks Marjorie, "kids say, 'Get a horse.'"

Drivers are inclined to pass the steamer, Zinn has noticed, then realize it looks different and cut in closely in front of him as they peer at it.

There is a good deal of maintenance that Zinn must do. Those 746 tubes inside the boiler, for instance, must be wire-brushed out occasionally—a job that a gasoline-car owner does not have.

Most of the tubing in the car is copper, and it must be polished. This takes a night or day out of most of Zinn's weeks.

And then in the winter all tubing must be blown out by compressed air else water will freeze and burst it. Some tubes are so small a drop of water freezing can split



THROTTLE, a lever on steering-wheel column, regulates speed of steamer. Zinn locks throttle when parked, unlocks it here. Car did not have mirror in 1918; law requires one now.

them open. Zinn last winter missed one tiny tube. It burst.

Besides all this, Zinn must mix the fuel himself—as fast as he uses it up.

Puts in Every Detail

Zinn restored his steamer with careful attention to insure its being exactly the way the 34-year old car appeared when it was new. Almost every detail—including the spare wheel at the back, the upholstery and every gauge on the dash—is as it was then.

Zinn is chief engineer of the Flintkote Co.

(roofing, insulation, etc.). He is a pillar of his community, with a beautiful suburban home and a Ford station wagon that he drives to work. He had yachting as a hobby—till December, 1949, that is. What makes a man like Zinn buy an antique automobile and spend countless and endless hours restoring it? Why did he do it, anyway?

George Overbury in *The Story of a Stanley Steamer* says that a man does it because of the creative urge. There's something to it in Zinn's case anyhow.

When he was 16, Zinn restored a motorcycle. He bought it for \$2 from a junkman and carried home the pieces in two bushel baskets. He had the motorcycle running in several weeks.

"I thought I could make almost as good time with the Stanley," he laughs.

The Hair-Curling Question

Today, after that 30 months of labor on the steamer, Harlowe Zinn loves to answer questions about his car. There is just one question that can upset him.

It is the question that antique-automobile owners use on each other as a pet gag. But when it comes from ordinary citizens, it can curl Harlowe Zinn's straight hair.

"How on earth," people are forever asking him, "did you ever find a steamer in such *good* condition?"

END