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NOVEMBER 1949

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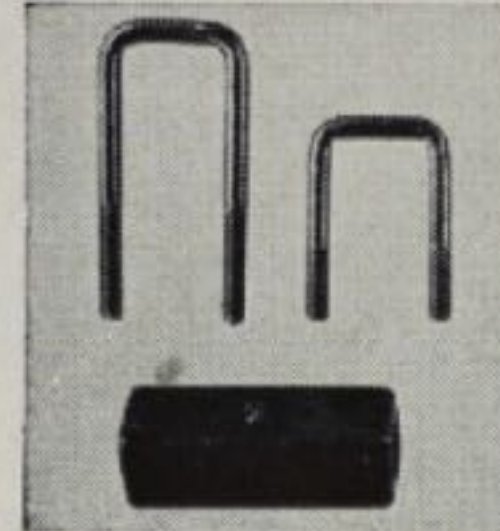
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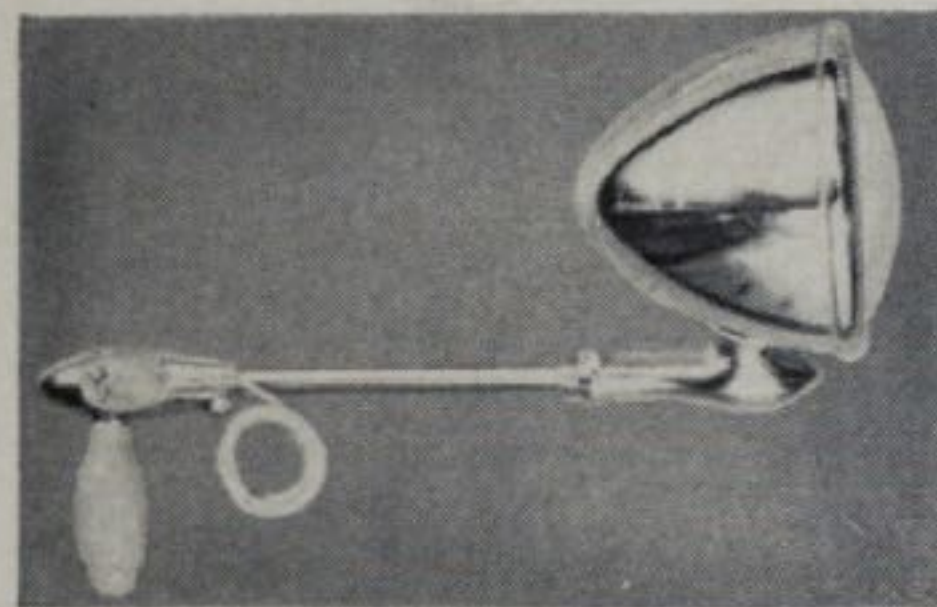
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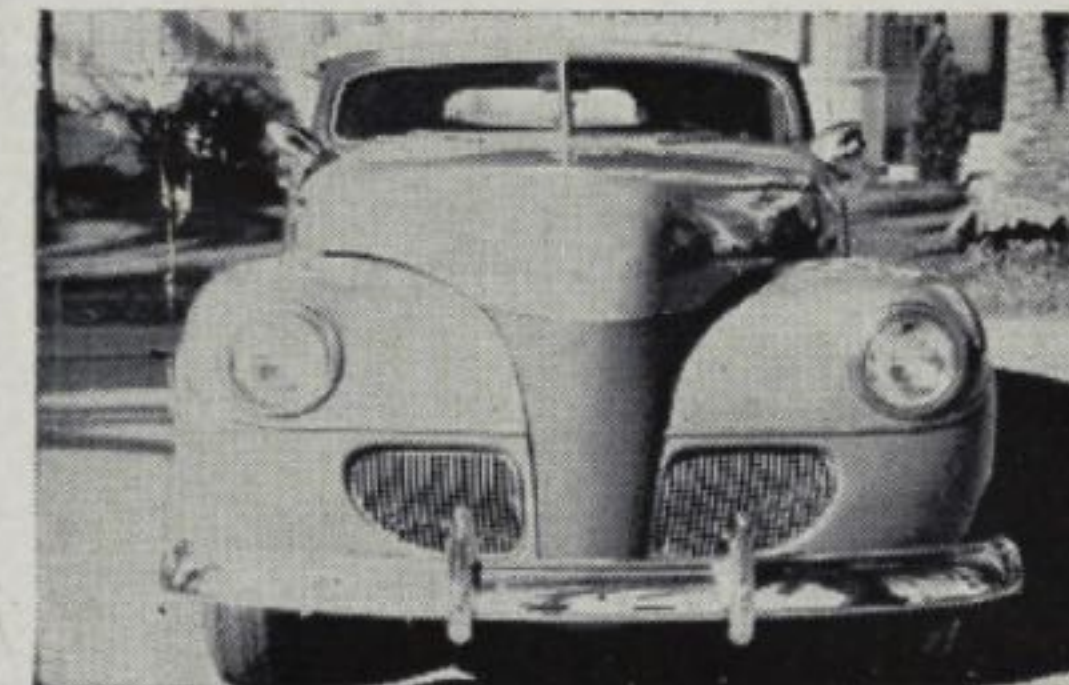
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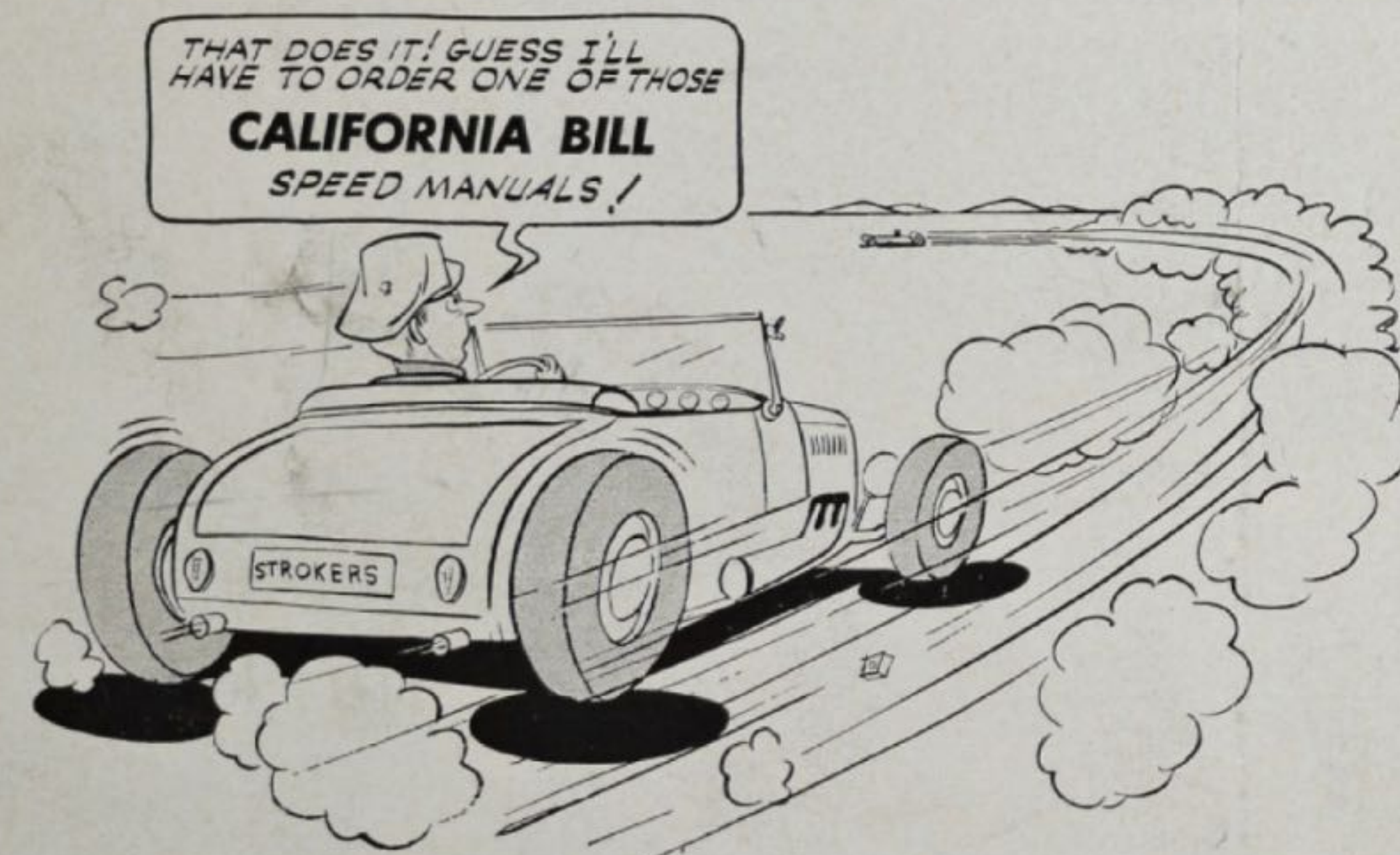


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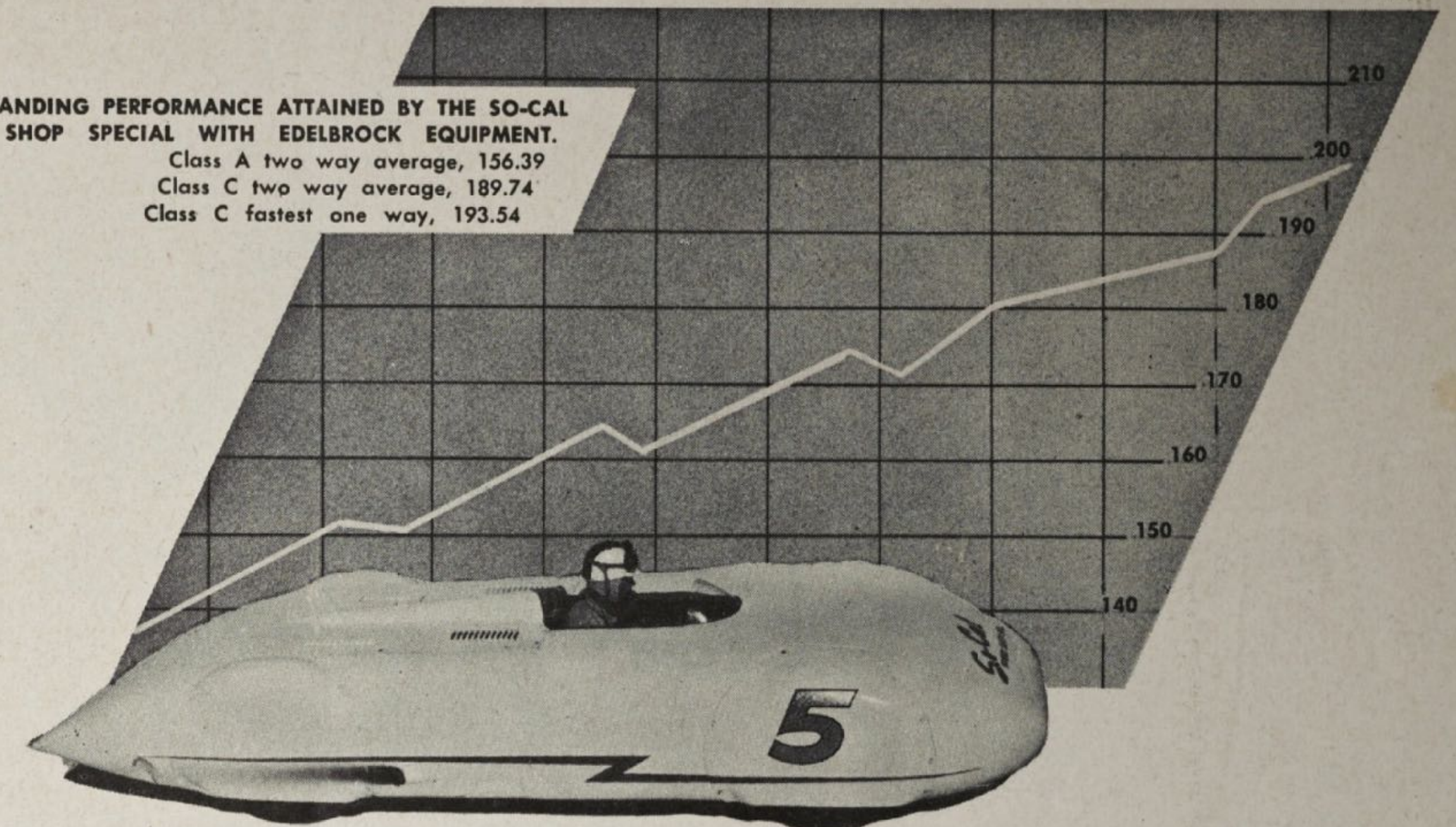
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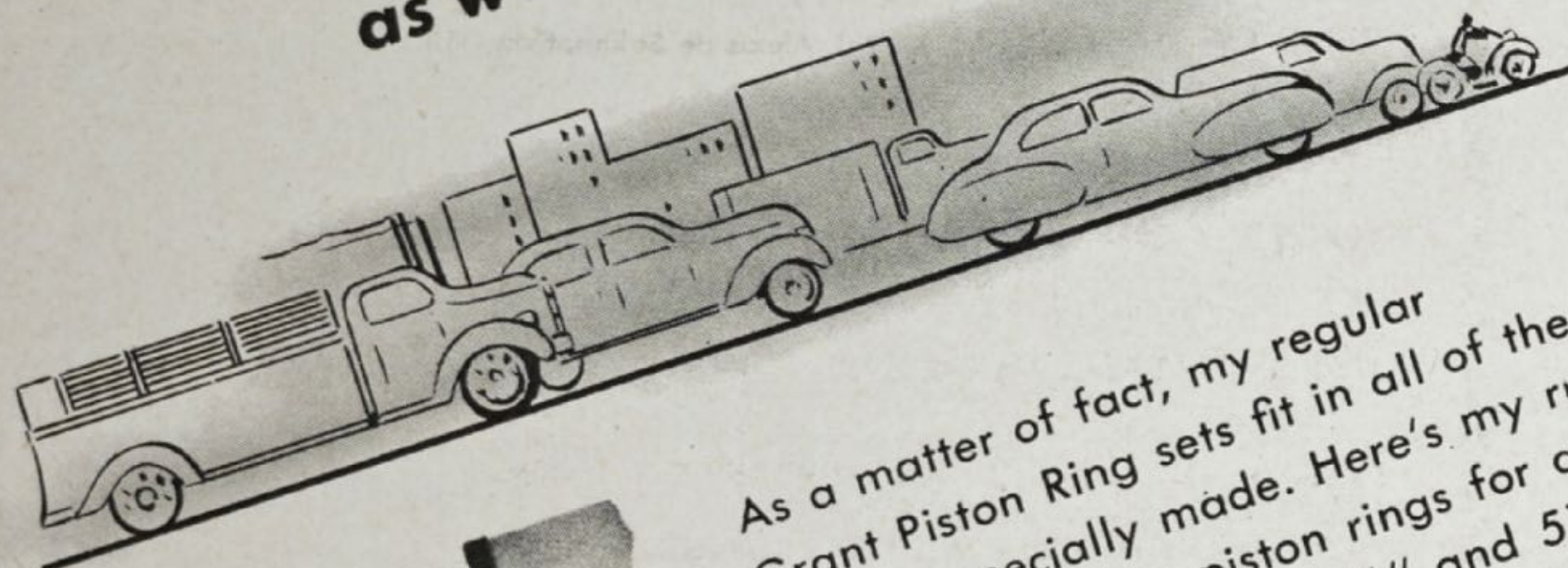
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COVER: Herb Bryers, in a McDowell 4, on one of the hairpin turns at the famous Pikes Peak Hill Climb. Photo by ROY HARPER.



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foreign or american?

PERHAPS the most heated and controversial subject that can be raised in any discussion where automotive-minded persons gather is that of whether foreign cars are superior to American cars.

In many respects, a discussion of this type is somewhat futile, because true superiority is so hard to prove, and because of the wide variety in tastes.

There are people who buy cars by appearance and others who buy the car on its performance.

Even the persons who judge a car by its performance can't agree, since performance includes many factors: top speed, acceleration, economy, steering, cornering ability, and riding comfort.

Cars are built with at least two purposes in mind—with the Europeans having been more concerned with performance than appearance.

One possible reason for this is that most sections of Europe (and particularly England) have different types of roads—the roads being narrow, twisting, and varied surfaced—than those in America. This type of road has made good cornering ability and fast steering an absolute must, at the sacrifice of a soft ride and easy control. This, naturally, has caused a wide breach in basic American and foreign car design.

Undoubtedly, at some time in the future, some domestic and some foreign cars will be almost identical—what with the inherent mechanical instincts of the male American mind clamoring for a high-performance car and the "weaker" sex demanding a car of more comfort. But even then, there will still be a wide variation in the two automotive designs—as long as people are people and not automatons.



Pikes Peak—12½ miles up

PIKES PEAK—ranking second in racing circles only to Indianapolis—has the distinction of being the highest, longest and most unusual race course in the world. Every Labor Day, come rain, shine, snow, sleet, or hail, this course is the scene of a hill climb such as cannot be seen anywhere else in the world.

This year, which saw the 27th running of this annual event, Al Rogers came one year closer to dethroning the all-time champ and “old man of the mountain,” Louis Unser. This is Rogers’ third win (second in a row), as against eight victories by Unser.

Rogers drove Joe Coniff’s powerful 220 Offy over the snaky 12½-mile course in 15:54.26, which gave him

an average speed of 46.85 mph. Considering that this course, a narrow dirt highway with 165 twists and turns, starts at 7,415 feet above sea level and finishes 6,694 feet higher up, his time is quite creditable.

The actual course (from 20 to 50 feet wide) includes straight stretches, shallow turns, sharp switchbacks, double switchbacks, with a sharp right turn not far from the starting line and a sharp left turn just before crossing the finish line. The 30,000 spectators were grouped at the starting line, Half-Way Camp Ground, Glen Cove (half-way up), Devil’s Playground, and the finish line.

by John Staffieri

The Pikes Peak Hill Climb is an AAA-sanctioned event, the drivers receiving points for finishing, as in 100-mile championship dirt track races. This event is sponsored by the Pikes Peak Automobile Hill Climb Association of the Colorado Springs Chamber of Commerce.

Qualifying trials for the hill climb took place two days previous, the drivers receiving their starting positions off their qualifying times. Twenty drivers qualified, including Indianapolis drivers Mack Helling, Russ Snowberger and Johnny Mauro.

Fastest qualifier was Al Rogers, who started first. Similar to European hill climbs in that the drivers are started at intervals and thereby race

against time alone, Pikes Peak differs in that a flying start is used.

Rogers, by annexing first spot, collected a tidy sum of \$5900 in purse and prizes, along with the famous winner’s belt buckle. This buckle is made of gold and silver, and is valued at over \$350. Al, a former San Franciscan, drives a sight-seeing bus up the Pikes Peak Highway on working days, so is quite familiar with the course.

In addition to the belt buckle, the famous Penrose Trophy was also awarded to Rogers. This trophy, a highly ornamental bowl (originally used for champagne) is over 175 years old. It was posted in 1916 by the late Spencer Penrose as a perpetual challenge trophy for the fastest time of the day.

In second spot, and co-favorite of the event, was Louis Unser, also known as “the old man of the mountain,” by virtue of his eight previous wins. It is said, but not rightly so, that Unser raced at the first Pikes Peak event in 1916. It is true, however, that he holds the existing record of 15:28.7, made in 1946.

Unser, driving Richard A. Cott’s Maserati, spun at the summit near the finish line. Rather than lose time by turning around he put the car into reverse and backed over the final marker. His time was good enough to

give him second place and a considerable amount of prize money.

Driving this bended puzzle, Jimmie Good met with difficulty at Glen Cove, when he slid off the turn and flipped his car. The race was stopped for 35 minutes until the ambulance made its way down the incline so that Good could be taken to the hospital. At the Glocker Penrose Hospital, his injuries were diagnosed as a broken collar bone and lacerations.

At about the same time, but on the top of the hill, Johnny Mauro careened into several parked cars only ten yards from the finish line. Mauro drove his own Alfa Romeo, the same car that he drove to eighth place at Indianapolis in 1948. Mauro had four cars in the event, all of which had trouble.

George Hammond, of Colorado Springs, gave the enormous crowd at Devil’s Playground the biggest thrill of the show as he spun on the third of five dangerous hairpin curves. With the help of spectators stationed at that point, he restarted down the hill, backed over the hairpin and then went on to take fourth spot. Hammond drove Johnny Mauro’s Miller Special (an 8). In backing up, Hammond neared the edge of a precipice with a drop of a few thousand feet that would have meant instant death.

Mack Hellings, the nationally known

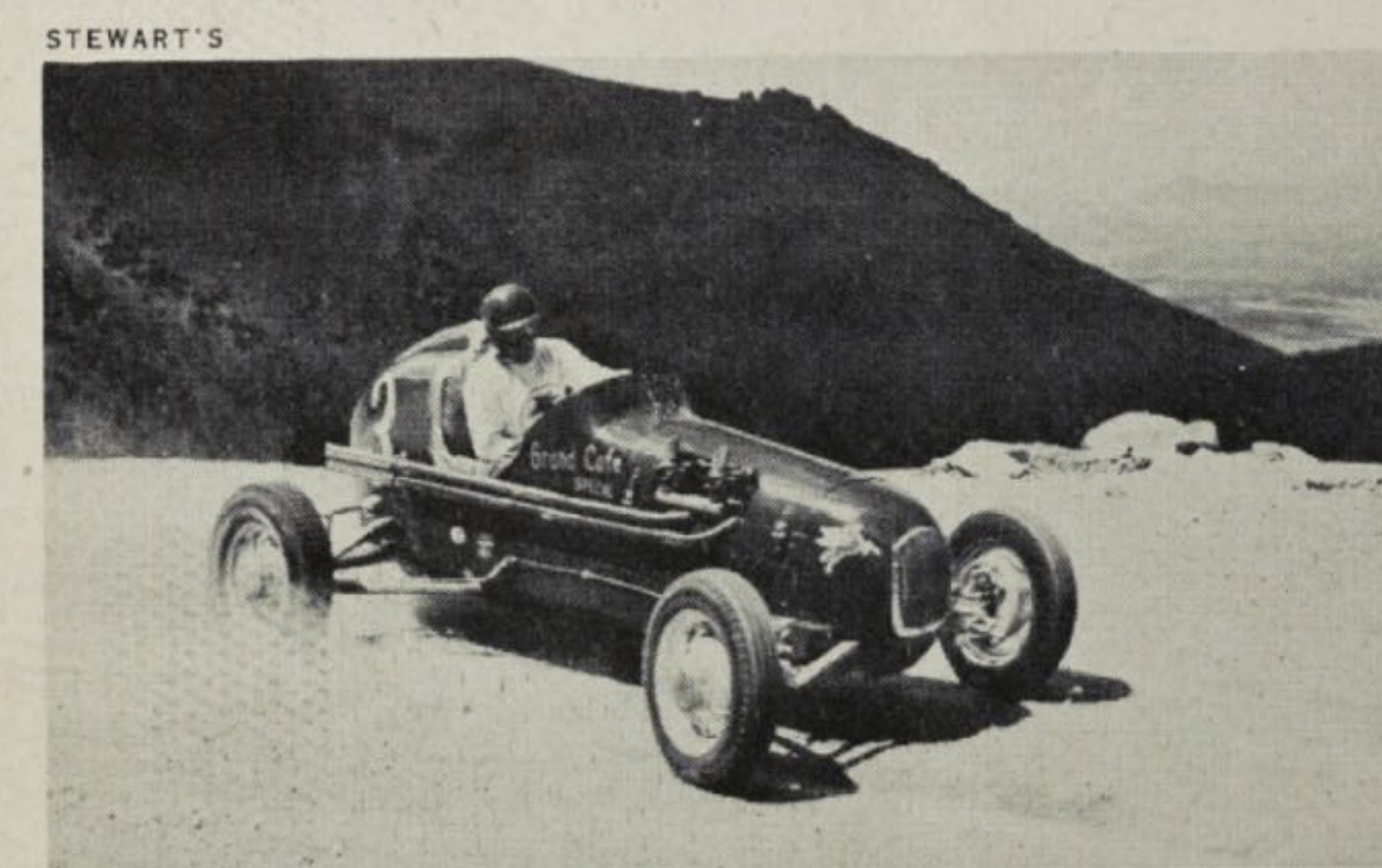
race driver from Burbank, California, made good his bid for part of the \$16,700 purse, driving Don Lee’s Alfa Romeo twin seater. Hellings, having never driven above Glen Cove, managed to take fifth.

Visitors Joe Thorne from New York and Jimmie Jackson of Dearborn, Michigan, were scratched from the program with mechanical difficulties. Of the 20 cars that participated in the event, 18 reached the top. The places, drivers, cars and times are shown below:

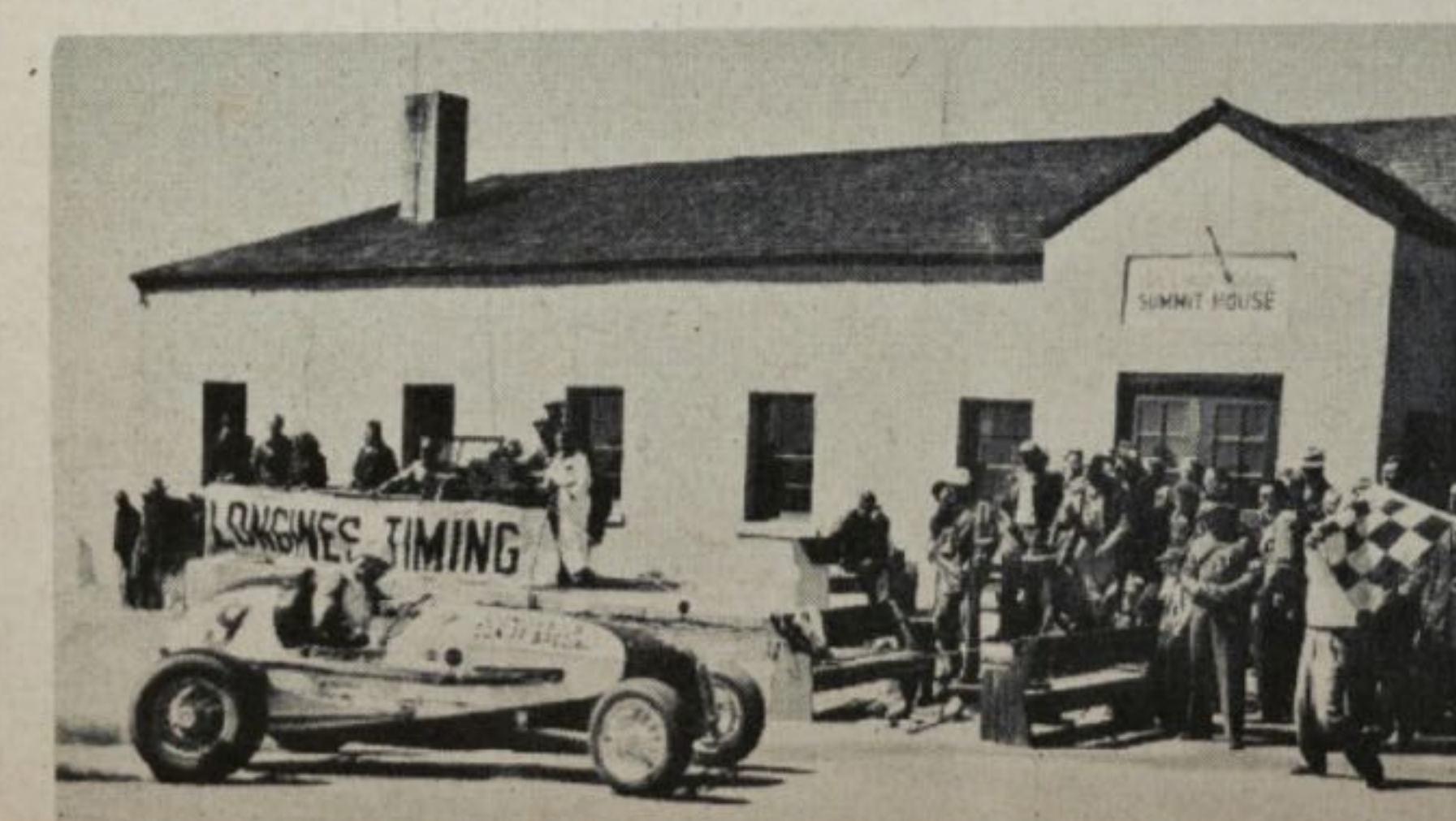
Place	Driver	Type of Car	Time
1	Al Rogers	Offy (4)	15:54.26
2	Louis Unser	Maserati (4)	16:06.22
3	Charlie Bryant	Chevrolet	16:28.62
4	George Hammond	Miller Special (4)	16:52.08
5	Mack Hellings	Alfa Romeo (8)	16:59.50
6	Red Shafer	Maserati (8)	17:02.00
7	Hugh Thomas	V-8 Charger	17:14.57
8	J. C. Shoemaker	McDowell (4)	17:17.32
9	Russ Snowberger	Offy (4)	17:26.28
10	Herb Bryers	McDowell (4)	17:29.57
11	Bus Hammond	Miller Special (8)	17:33.74
12	Walt Killinger	V-8 Overhead	17:41.30
13	Art McKee	Foltz Special (4)	18:13.08
14	Milton Mabe	Miller Special (4)	18:22.96
15	Art Hillis	Westman Spec. (6)	18:54.10
16	Glenn Harrison	Cragar (4)	19:20.66
17	Delmer Desch	Tattersfield (6)	19:23.80
18	Lloyd Axel	McDowell (4)	19:30.03
19	Johnny Mauro	Alfa Romeo (8)	no time
20	Jimmie Good	Cragar (4)	no time

Shortly after this event, one of the most successful in the long series, Mother Nature added her touch of color. For soon after the completion of the program, the heavens let loose a heavy barrage of snow, which very well could have been a tribute to winner Al Rogers or a farewell to the 1949 Pikes Peak Hill Climb.

LEFT—Louis Unser, “the old man of the mountain,” was second. BELOW—Glenn Harrison in the Cragar 4 took seventeenth.



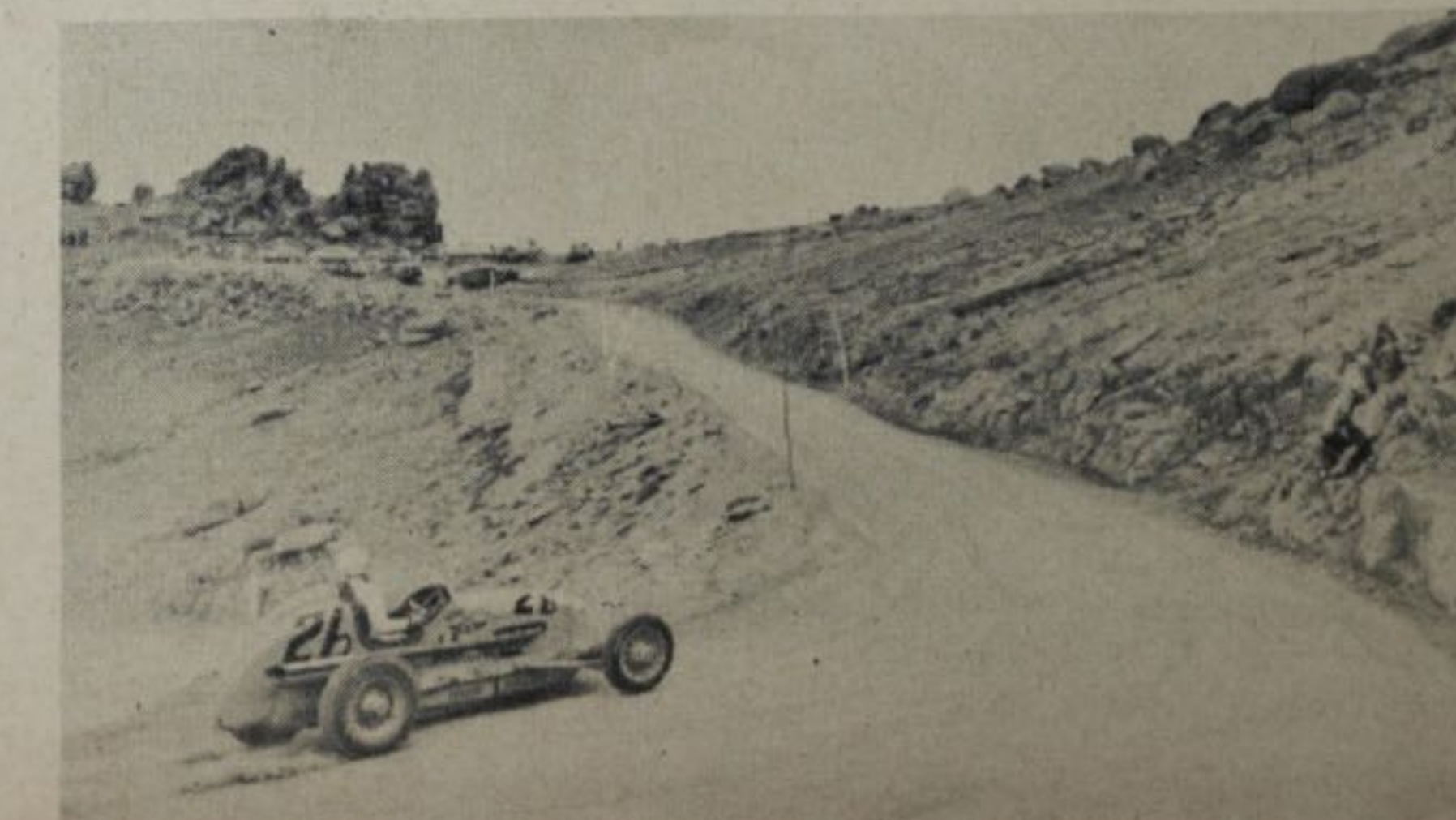
BELOW—Al Rogers flashes across the finish line with the fastest time of the day. This was Rogers’ third Pikes Peak win.



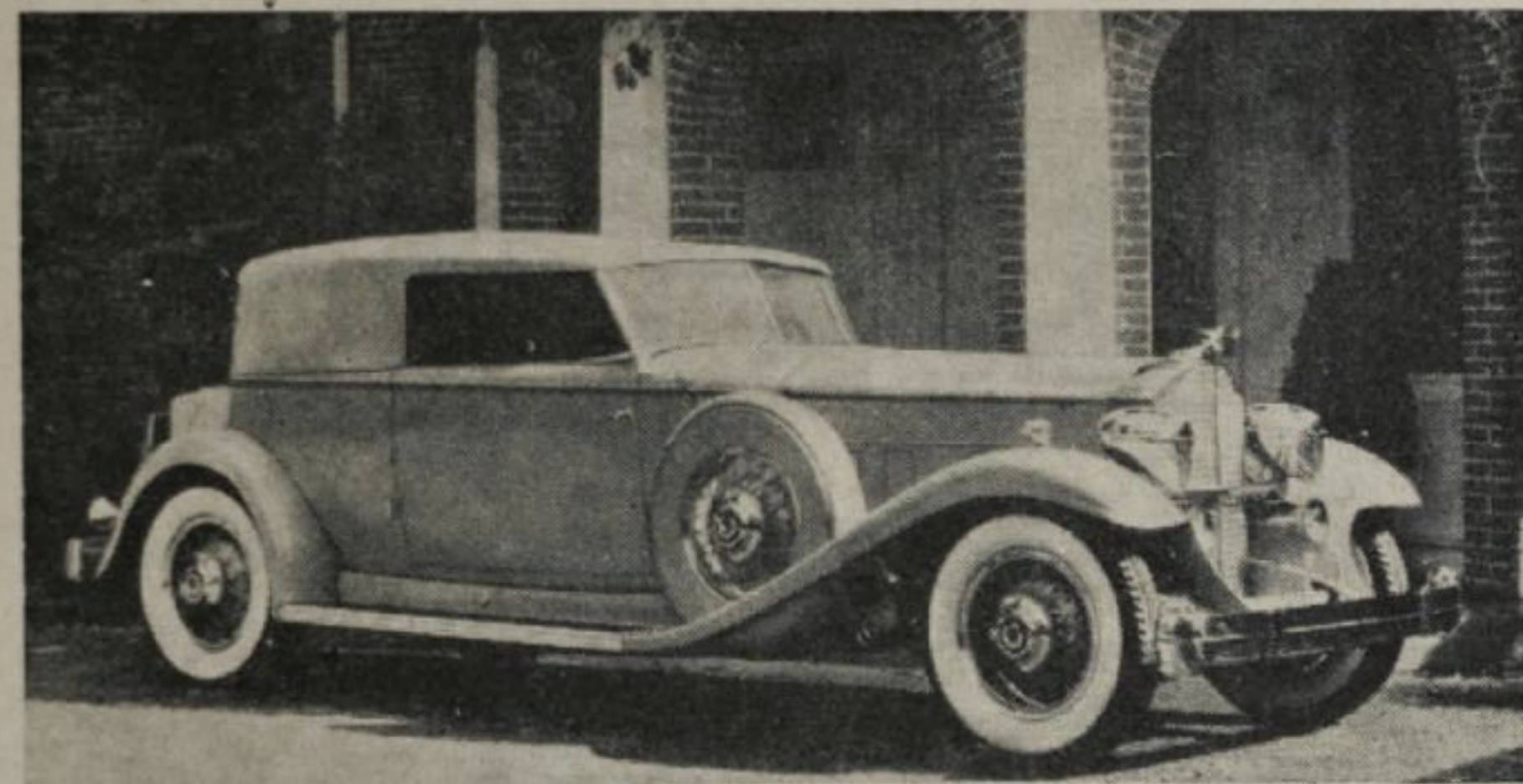
BELOW—Mack Hellings nears the end of the tortuous 12½-mile grind up Pikes Peak. Mack wound up in fifth place.



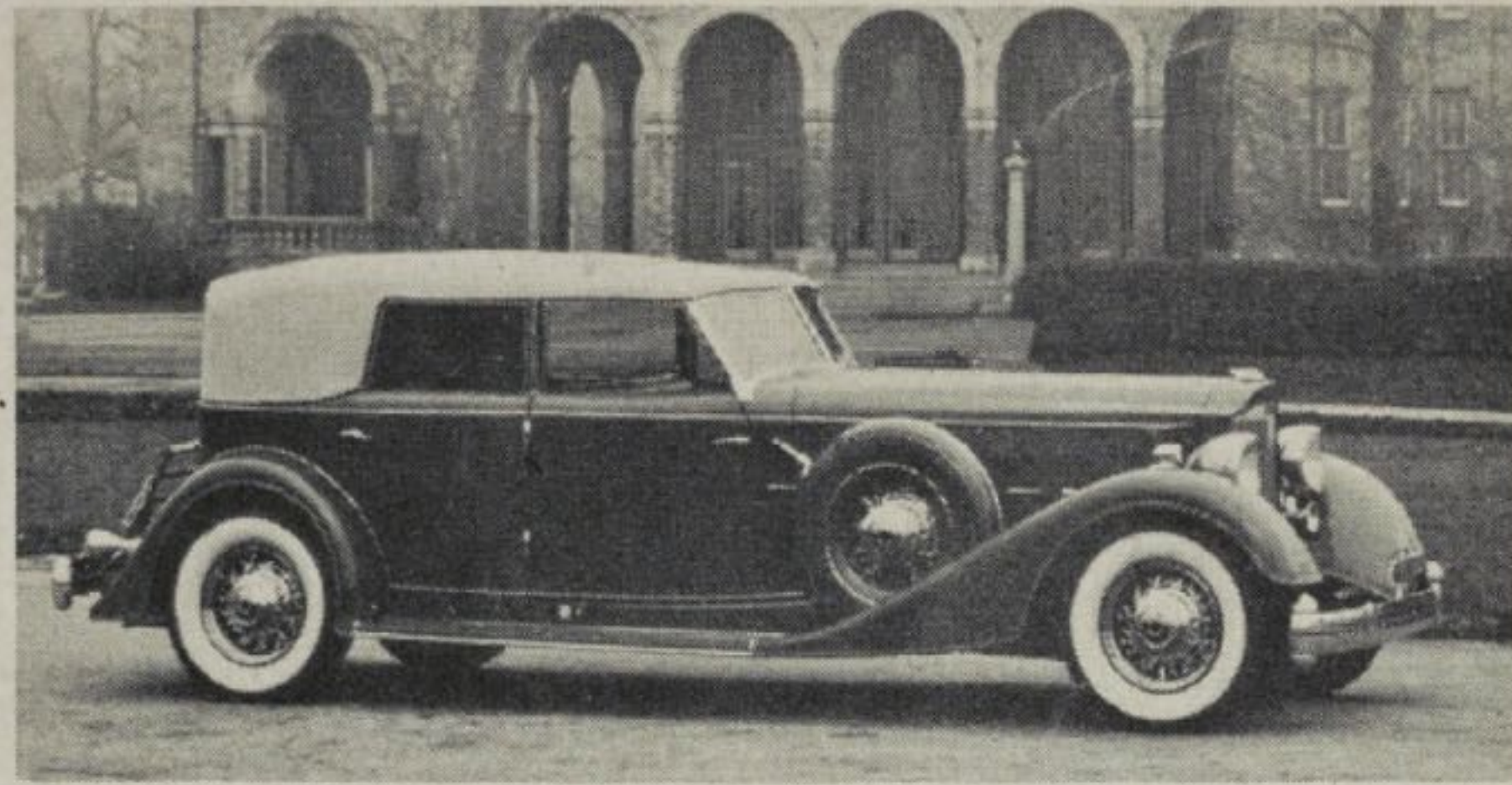
BELOW—One of the many hairpin turns of the Pikes Peak course presents itself to George Hammond in a Miller 4.



Custom Bodies



1932 PACKARD V-12 Convertible Victoria by Dietrich of Detroit



1934 PACKARD V-12 Convertible Sedan designed by Dietrich.

by George Finneran

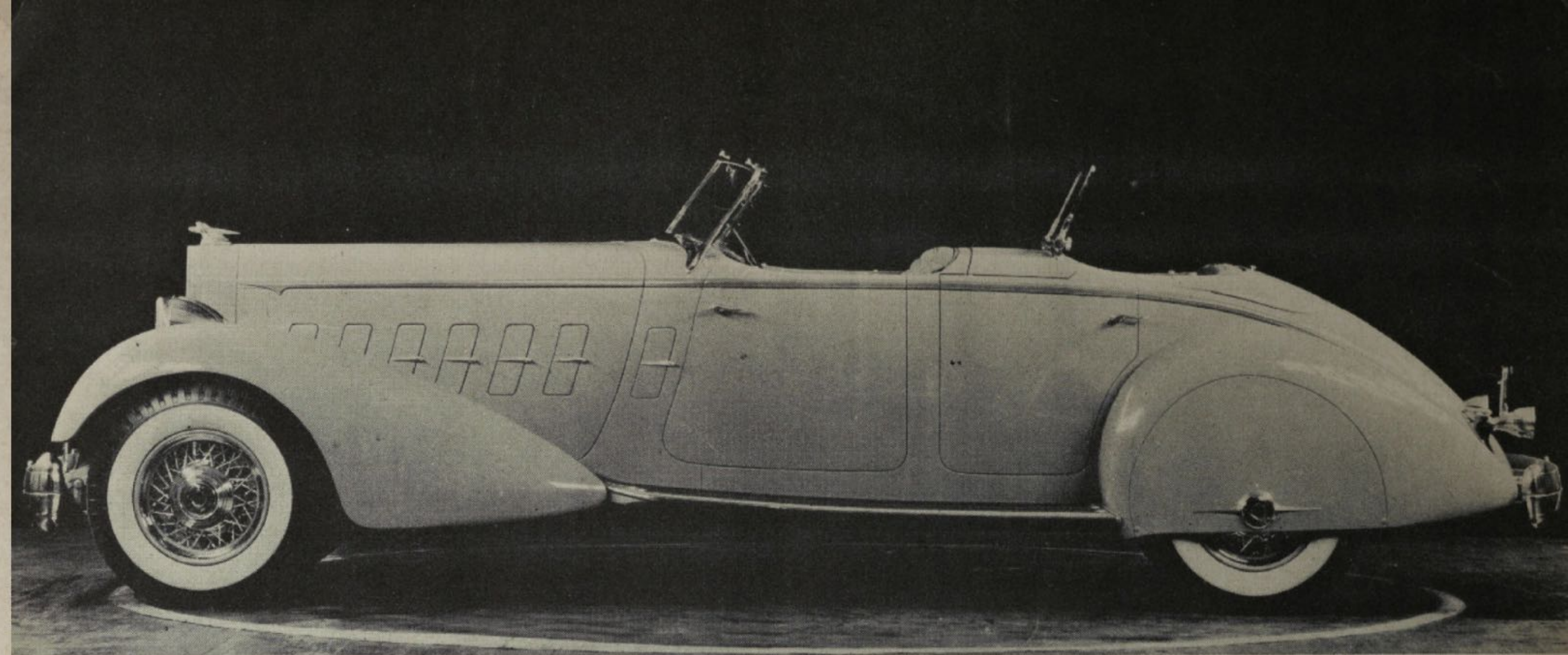
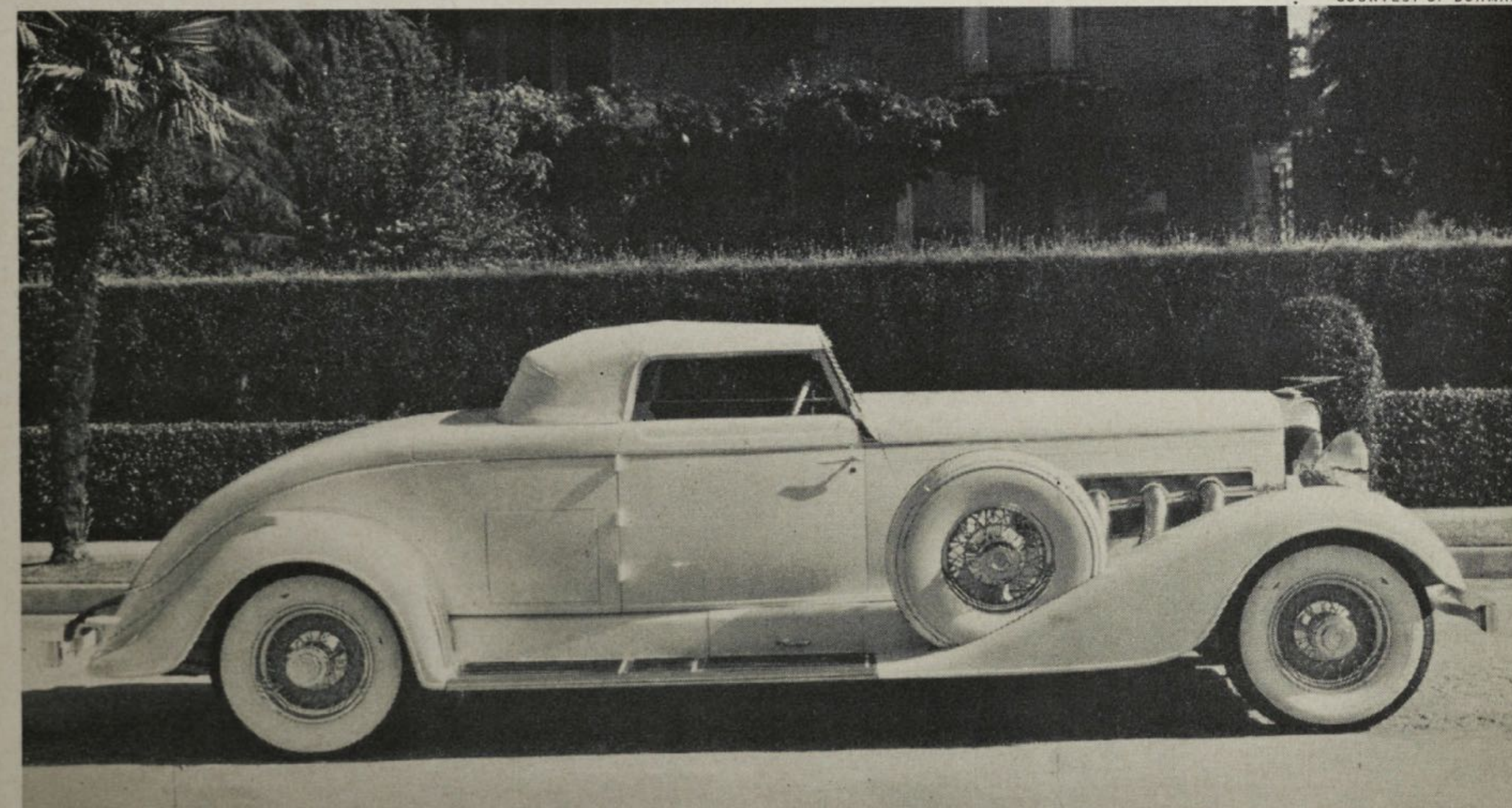
TO be considered a veritable fountain of factual knowledge by the wife, the kids, the boss, or for that matter, anybody, is something most of us do not find terribly objectionable. Consequently, when some weird auto comes whipping down the street and your kid, wife, or boss, says, "Osgood! Lookit! What's that?" there are three things you can do.

One, you can wriggle your toes in the dust, giggle, blush, and say you don't know. Whereupon the kids will fall on you with savage blows, your wife or best girl will leave you, the boss will fire you, and your friends will whisper foul things behind your back.

Two, you can lie like a dog and inform your questioner that the weirdie is a "Gemulchnik V-7, made in Transylvania." This is quick thinking on your part, but someday the poor trusting soul you misinformed so infamously is going to ferret out the truth and push you under the wheels of a passing trolley.

Thré, you can cast a casual glance at the car in question and, because you have just finished reading this article, remark in a firm, sure, virilely resonant voice, "Oh, that. It's a 1932 Stutz V-32 valve, 8 cylinder Speedster, with tonneau cowl and windshield, body by LeBaron." Passers-by will break into wild cheers, the kids will fall on their knees and bow, the little woman will sob happily and return your paycheck, the boss will give you another check

1936 DUESENBERG Convertible Coupe by Bohman and Schwartz of Pasadena, California, built for Mae West of flicker fame



1934 PACKARD V-12 Custom Phaeton—one of the famed aluminum bodies designed by LeBaron of Detroit.

on the spot, and all your friends will be friends.

To know much about custom sports cars produced in the United States, you have to set arbitrary boundaries in time somewhere. For the purposes of this diatribe, we are going to look first at the stuff put out during the early thirties, to be precise, 1930-1935. Now, a lot of people disagree on what is a sports body, and what is custom-made. So: a *sports body* is any convertible, and any car called a "sports car" by the builder. Thus, a sports sedan that is non-convertible is not a sports car unless the builder specifically and officially termed it such. As for *custom-made*, I will stick my neck out and define that term as any car built to special order, whether by a factory or dealer or customer. For instance, Packard in 1930 had a speedster

body "Custom Designed by Packard," built to Packard's order by Packard. Carp and cavil all you want, those are my definitions and I'm stuck with them.

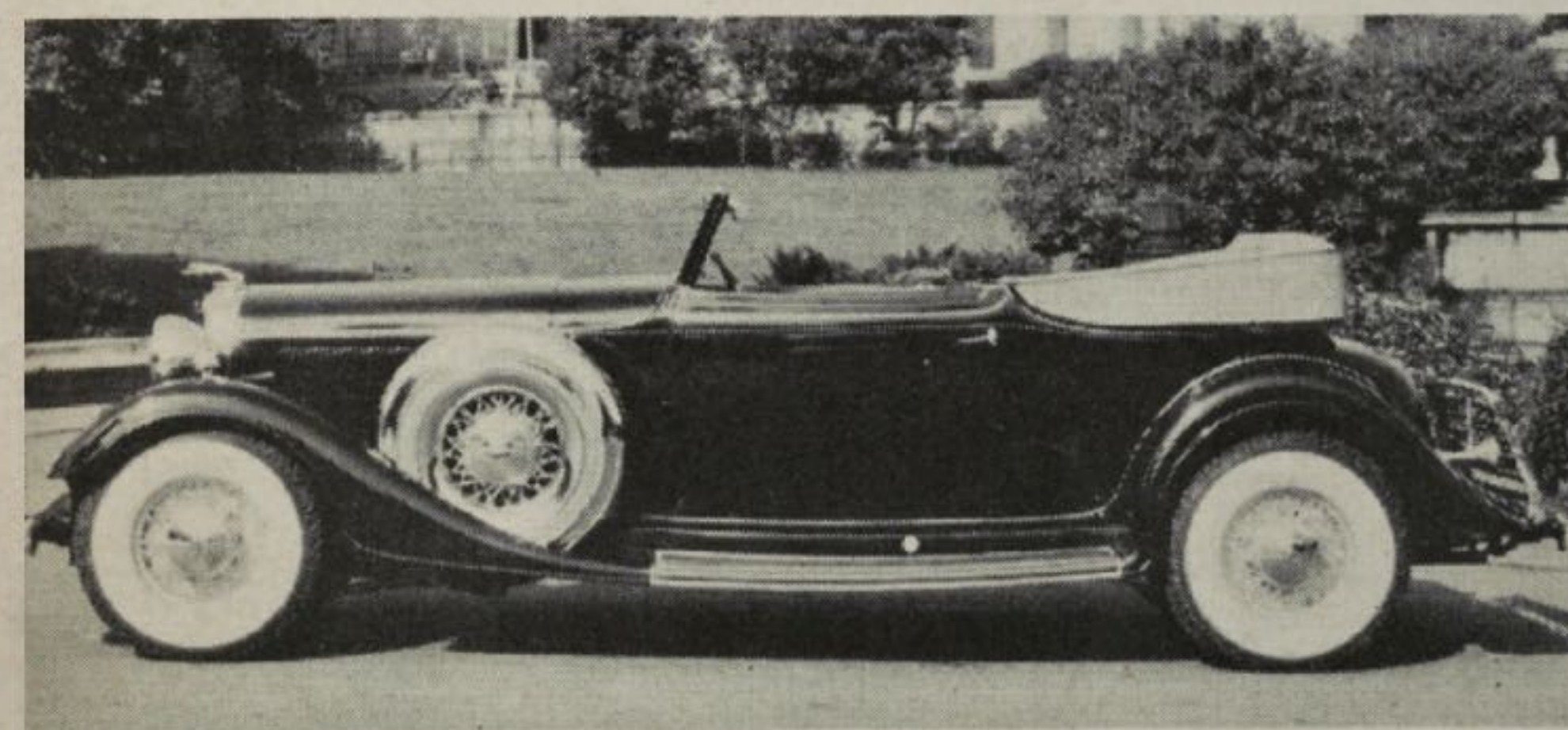
Now we hop into my custom sports body time machine and back-pedal wildly until we get to 1930. This was the year when the economic outlook in the U.S. and elsewhere was termed "a bit black" by our leading optimists. The automobile industry, however, had decided that all God's chillun got money, crash or no crash, and produced some charming jobs to transport the rich from bank to bank. Cadillac, under the influence of something or other, brought out the V-16 *Madame X* body created by Fleetwood. This was hardly a suitable monicker to hang on these creations. One pictures a "Madame X" as secretive, alluringly mysterious, slinky, something out of Terry and the Pirates. The car of the same name was about as subtle as a second-story burglar walking down a main drag with a twenty-foot ladder and wearing a black mask.

However, you "gotta lotta car for your money." There were four body styles available in converts: a phaeton, a convertible coupe, a roadster and a convert sedan. They were usually equipped with a dual set of driving lights that swiveled with the front wheels, dual spots bracketed onto the chrome, vertical "V" windshield, parking lights on the fenders, monster headlights, dual chrome horns under the headlights, and chrome wire wheels. The paint job was quite often a chrome-yellow body, aluminum hood, black fenders, black molding, and black leather upholstery. The dash was machine-whorled stainless steel, with lots and lots of pretty, round instruments by Jaeger. It was, without a doubt, "lotts a car" but it was not representative of the best tradition in auto design. By this time, Europe—France, England, Germany, and Italy—had developed the so-called Continental look: the long, long hood, the sweptback "V" windshield, the sweeping, unskirted fender line, and the whole dropped-down-in-back effect which was to be the key to all sports car design for the next five years in this country and in Europe as well.

So in 1930-31 came the long-low-narrow jobs, tons of 'em. The boat-tailed Auburn Speedster designed by Central

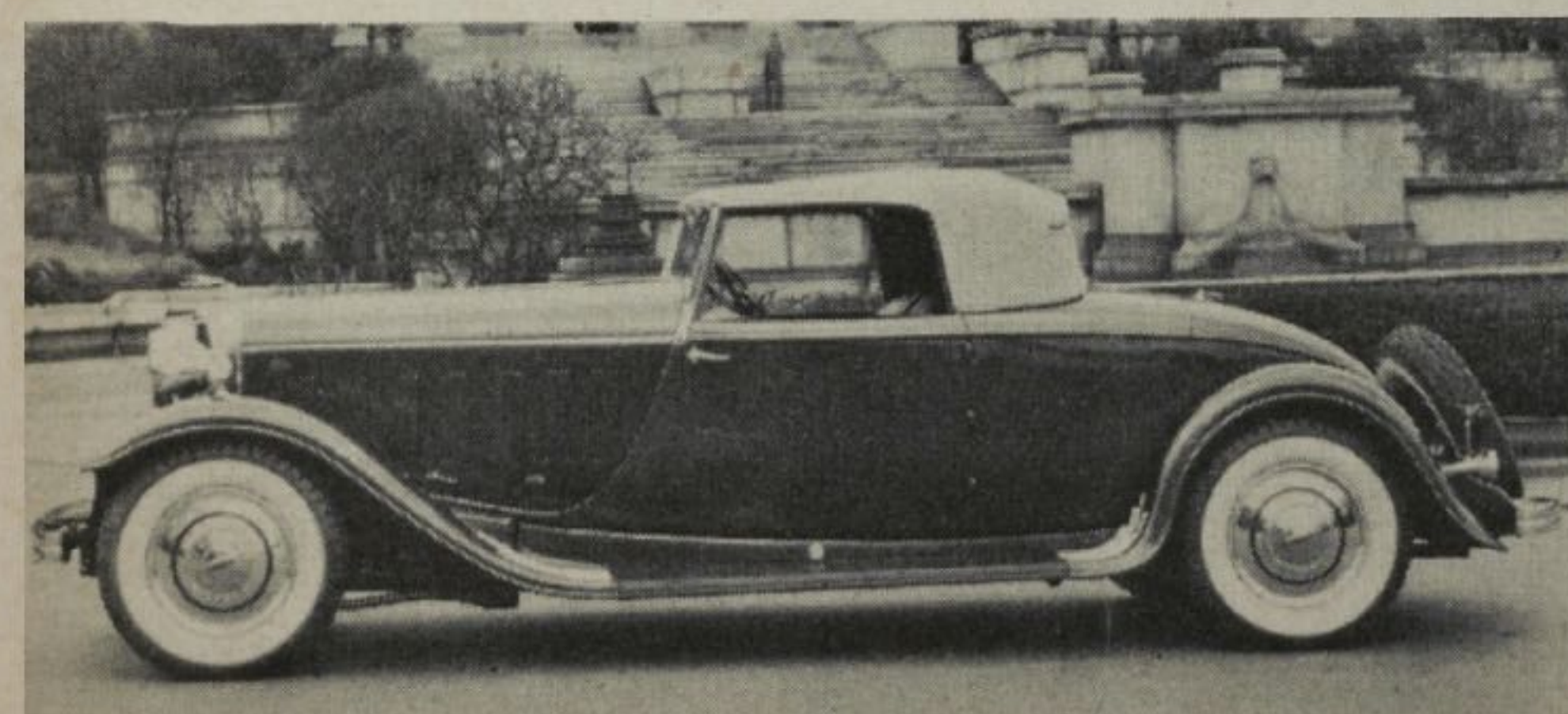
(Continued on page twenty-five)

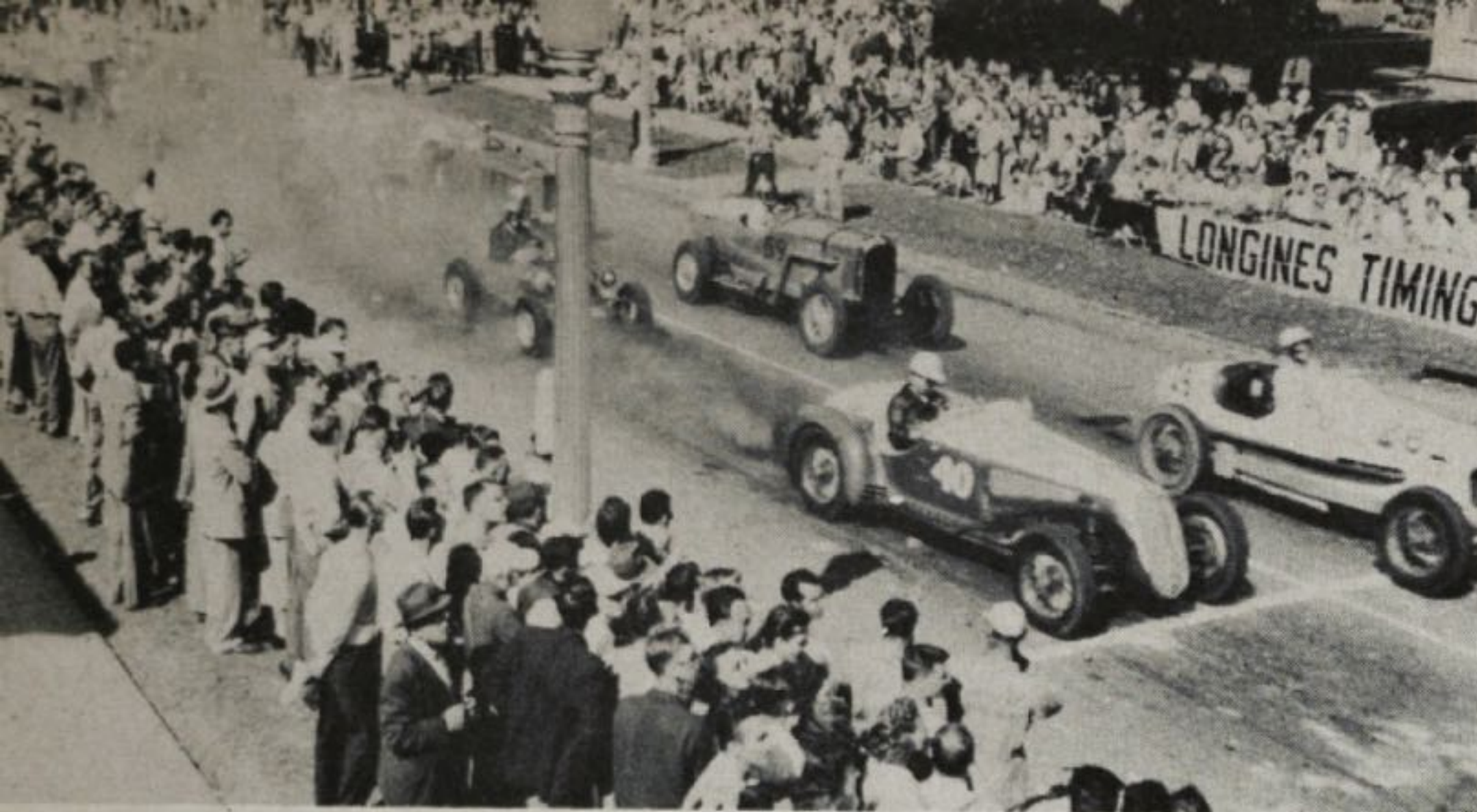
1933 LINCOLN V-12 Convertible Victoria built by Brunn.



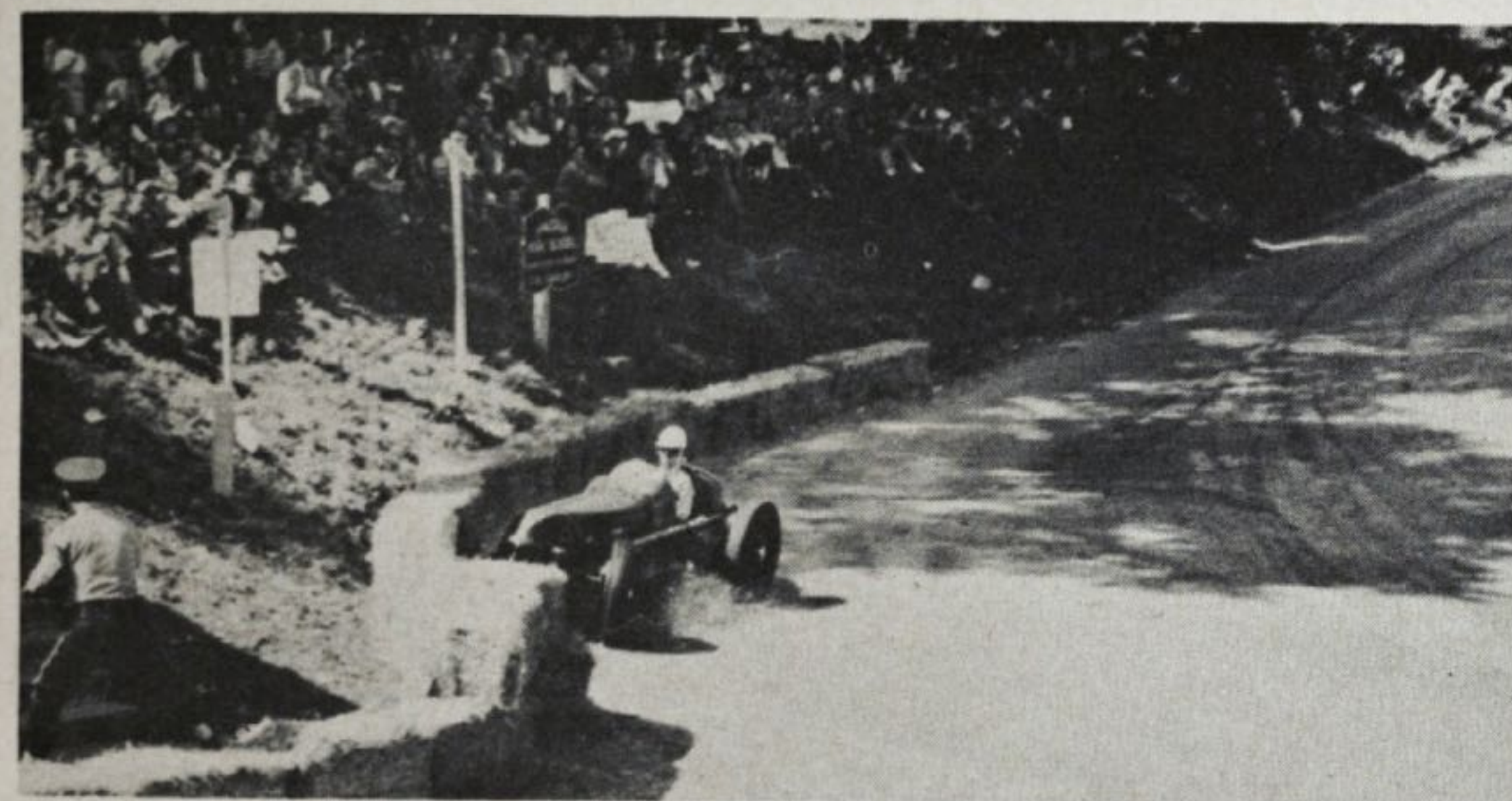
W. EVERETT MILLER

1932 LINCOLN Convertible Coupe by Brunn of Buffalo, N. Y.





START of the Watkins Glen Grand Prix.



GEORGE WEAVER, in a Maserati, overshoots the turn at Milliken's Corner.



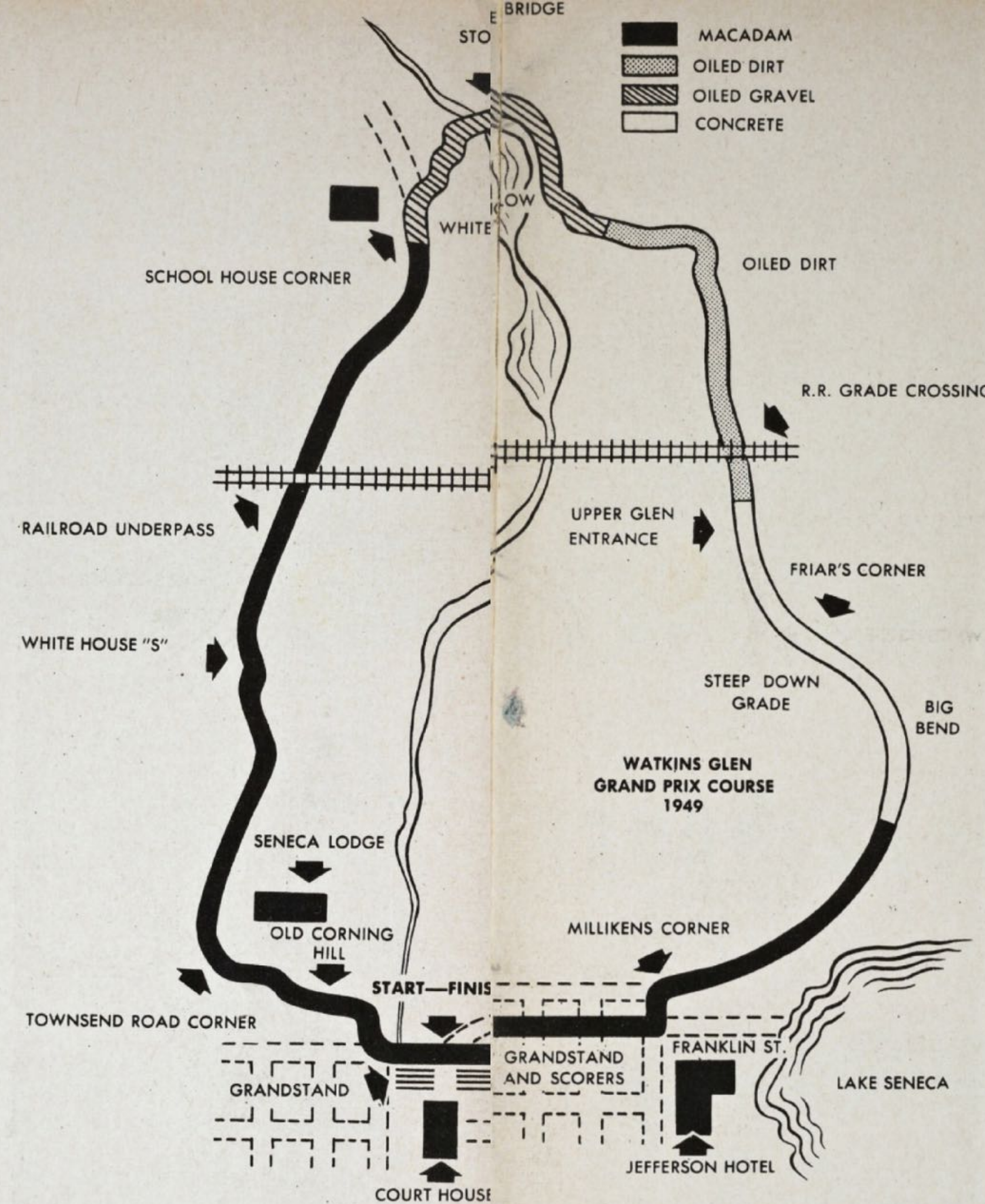
PIT CREW making last-minute adjustments on Gus Ehrman's MG-TC.

AT the Second Annual Sports Car Grand Prix at Watkins Glen on September 17, an estimated crowd of 100,000 saw Miles Collier move up from third place in the final 6.6-mile lap of the 99-mile torturous varied-surface road race to capture the winner's laurels. In doing so, he established the fastest competition time to be clocked on the New York road course. Collier completed the fifteen laps in 86 minutes and 46 seconds, an average of 68.5 mph for the distance, including one required pit stop. The Everglades, Florida, driver rode to victory in a 1929 vintage English Riley two-seater powered by a 3910 cubic centimeter (238.51 cu. in.) Ford V-8 set-up, with single manifold and altered Ford heads.

It was interesting to note that in a sport in which the supremacy of the foreign car is generally accepted, two cars powered by altered domestic commercial engines were

among the first three finishers. Second place was taken by Briggs Cunningham of Green Farms, Connecticut, in his Ferrari and in practically a photo-finish with third-place George Roberts. Roberts drove a BuMerc (a Buick engine installed in a Mercedes chassis and body). Both the second and third place cars averaged 68.4 mph.

The event, which was sponsored by the Watkins Glen Chamber of Commerce and the Sports Car Club of America, was also sanctioned by the American Automobile Association. As the accredited United States representative of the F.I.A. (Federation Internationale de l'Automobile, the international governing body), A.A.A. sanction of the Watkins Glen Grand Prix made this event the only road race of 1949 in the United States recognized as an international event and conducted under the rules promulgated by the Commission Sportive of the F.I.A.



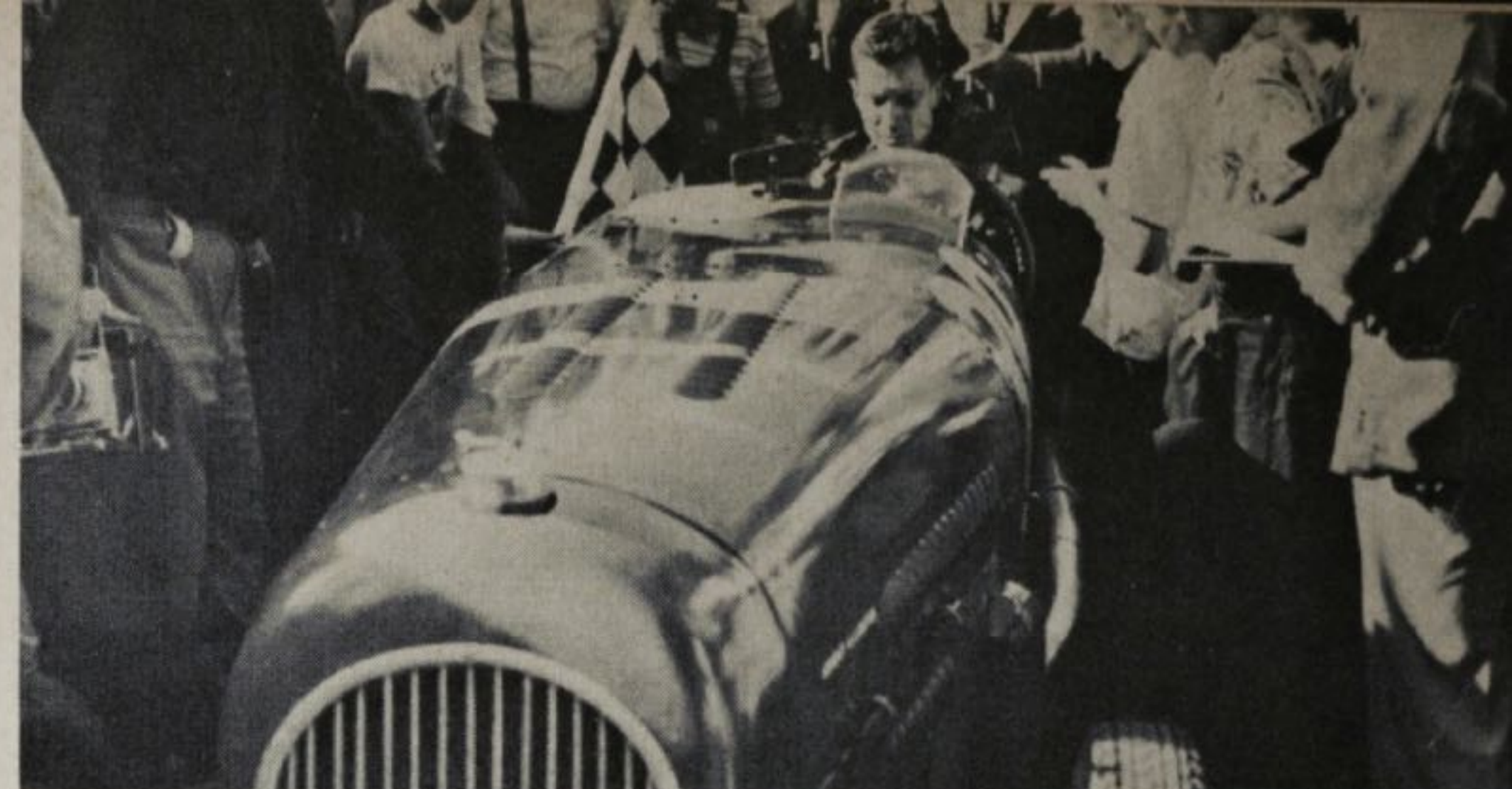
WATKINS GLEN GRAND PRIX

Text and Photos by Hank Ogden

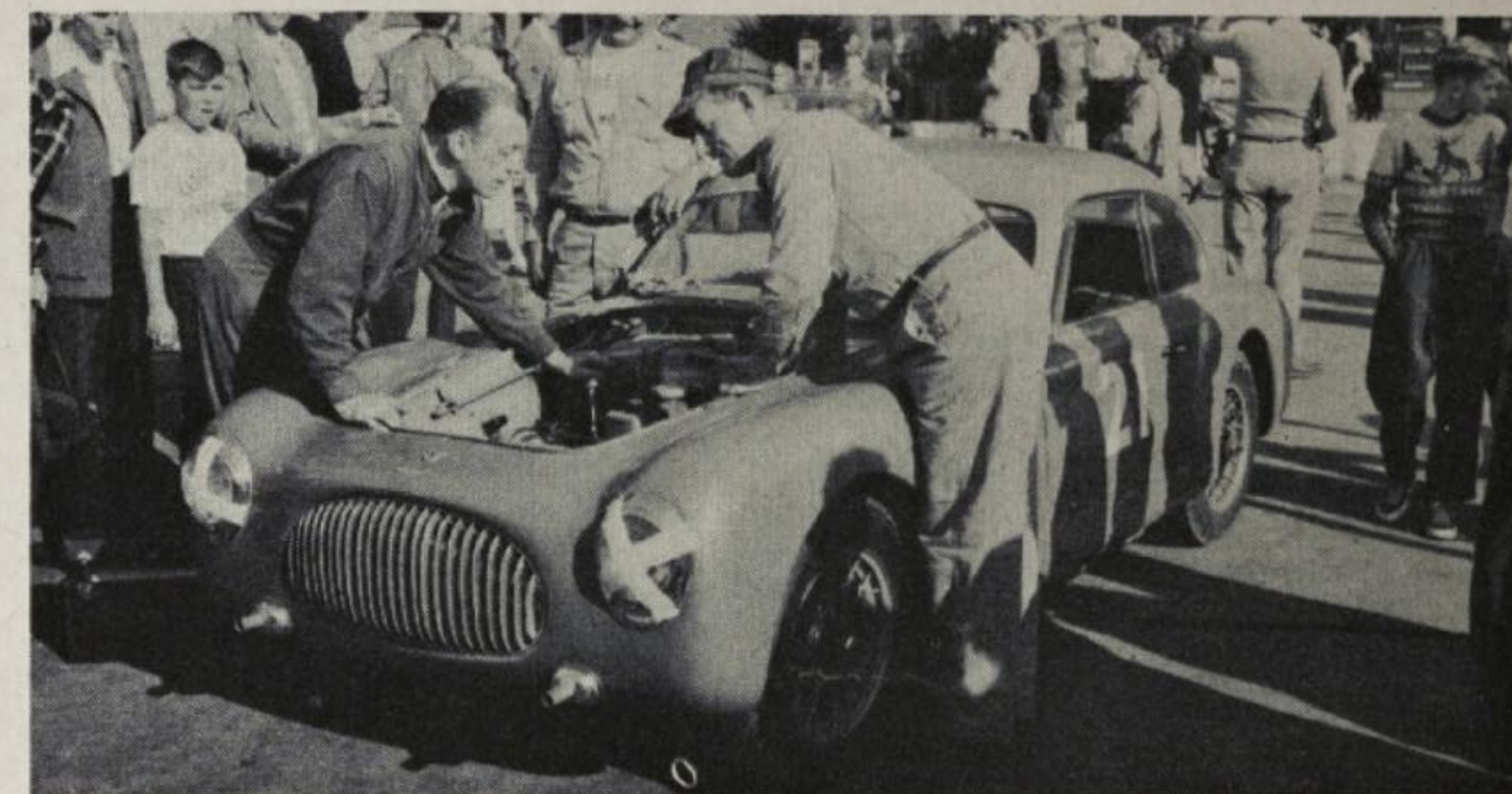
This is pointed out because, should the village of Watkins Glen and the Sports Car Club of America elect to conduct a Watkins Glen Grand Prix in 1950 (as is the present plan), future events will doubtless be invitation events. These will witness the appearance of outstanding European and South American contestants and will revive the excitement of international competition once seen on road circuits on Long Island in New York, Santa Monica in California, and other locations. The basis for a true international-competition United States sports car road race has been formed by the well-planned and excellently conducted 1949 Watkins Glen road meet.

Road Course

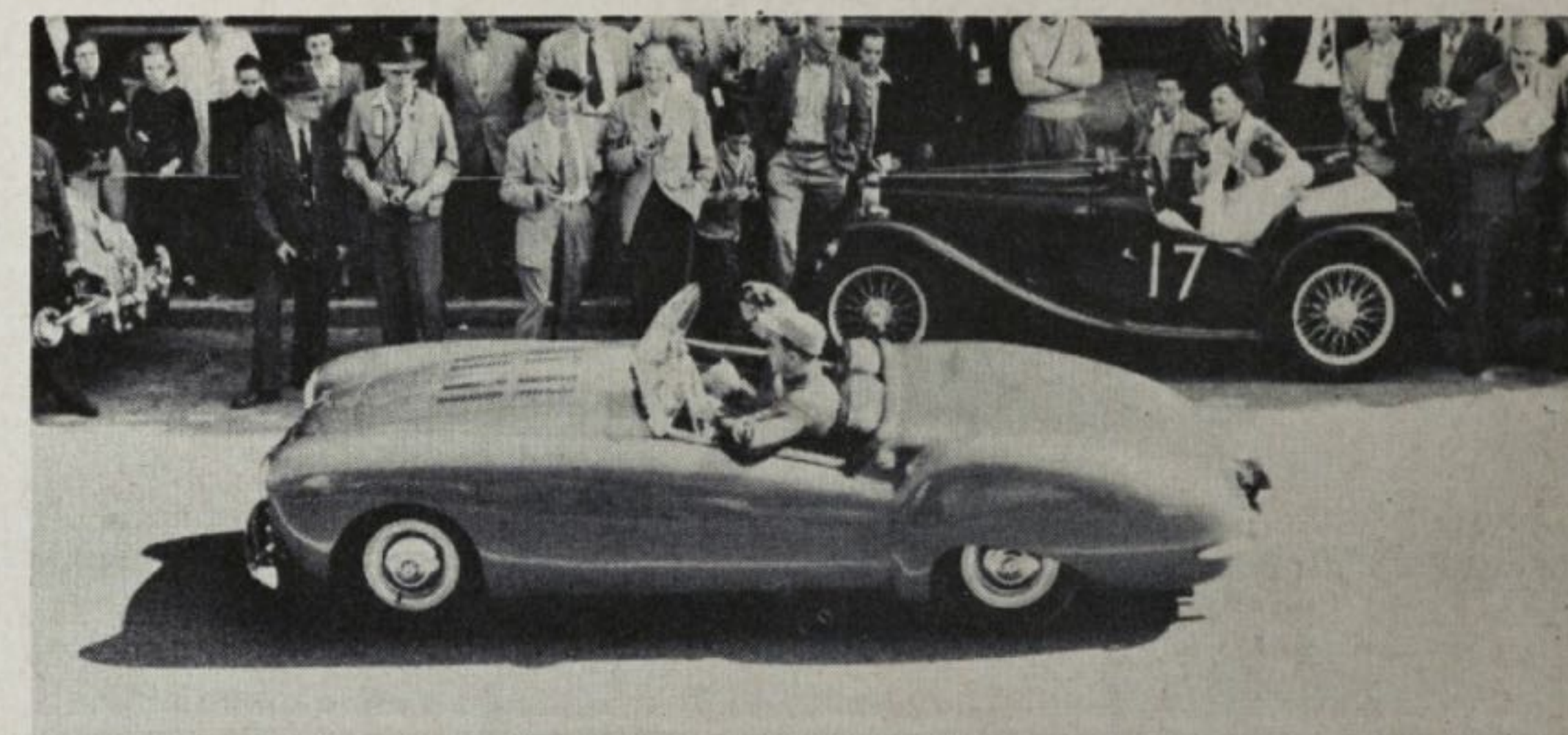
A brief description of the track will give an idea of what a highly sporting circuit the Watkins Glen road course is



MILES COLLIER (Ford-Riley), winner of the Grand Prix.



LOGAN HILL and his mechanics check his Cisitalia before the race.



PRIZE WINNER of the Concours d'Elegance was this custom-styled Fiat.

and how amazing it is for average speeds of close to seventy miles an hour to be made on the circuit.

As it is impossible to view more than a small sector of the track from any one vantage point, I asked Logan Hill, from Riverside, Connecticut (one of the competitors), if I could accompany him on a test run around the entire course. In all, the course has fifteen ninety or nearly ninety-degree turns and sixteen lesser turns, four different types of road surfacing, a railroad underpass and a grade crossing, which add up to plenty of hazards even on a test run. In competition with more than forty contestants, as in the Grand Prix Event, the Watkins Glen Course is as tough a challenge of drivers' skill, judgement and sheer intestinal fortitude as could be created.

(Continued on page twenty-one)

GOLETA MEET

by Nick Alexander

CONDUCTING their first event of the year, the California Sports Car Club recently held a meet on two abandoned roads at the former U.S. Marine Corps Air Station (Goleta) in Santa Barbara.

The 3/4-mile course is a roughly triangular affair, starting at the base of the triangle, along one leg to the apex, where it circles a warehouse, recrosses the first leg onto a semi-circular roadbed and returns to the first leg. A right turn is made at this point, with another sharp left around the warehouse and onto the other leg of the triangle. The finish line is on this leg near the triangle base.

As the cars crossed the finish line, they swung off the course and onto a winding road that led them back to the starting line.

Fastest time of the day was turned by D. G. Satcher in his modified race car, entered in Class IV (open to race cars, unlimited capacity). This car, powered by a '37 Ford V-8 engine, is the same car that went on to take second place in the Hill Climb conducted by the Sports Car Club of America the following month.

One of the most interesting performances was turned in by Robert Doidge, a new driver, who not only took

first in the Novice Class but also took first in Class I. Quite an accomplishment for a new driver.

The individual times in the various classes were as follows:

DRIVER	TYPE OF CAR	TIME
Class I		
(up to 1950 cc—118.95 c.i.—unblown)		
1. Robert Doidge	MG Midget	1:17.15
2. Mike Graham	MG Midget	1:17.3
Class II		
(up to 1950 cc blown and 3 1/2 litres—3500.09 c.i.—unblown)		
1. Jack Early	Blown MG Midget	1:23:45
2. Phil Hill	Blown MG Midget	1:14.3
Class III		
(up to 3 1/2 litres blown and unlimited unblown)		
1. Phil Payne	Mercury Special	1:11.9
2. Roger Barlow	Talbot	1:12.1
Class IV		
(unlimited for race cars)		
1. D. G. Satcher	V-8 Special	1:11.6

(Continued on page thirty-one)

Western Sport Car Events HILL CLIMB

by George Finneran

THE Los Angeles regional group of the Sports Car Club of America held its first hill climb August 14th on an asphalt-paved grade 3/8-mile long in the hills near Sunland, California. The grade was estimated to be approximately 10 per cent, with the first big curve a banked 160 degrees and a switchback of almost 200 degrees near the finish line. The meet was open to members and non-members alike.

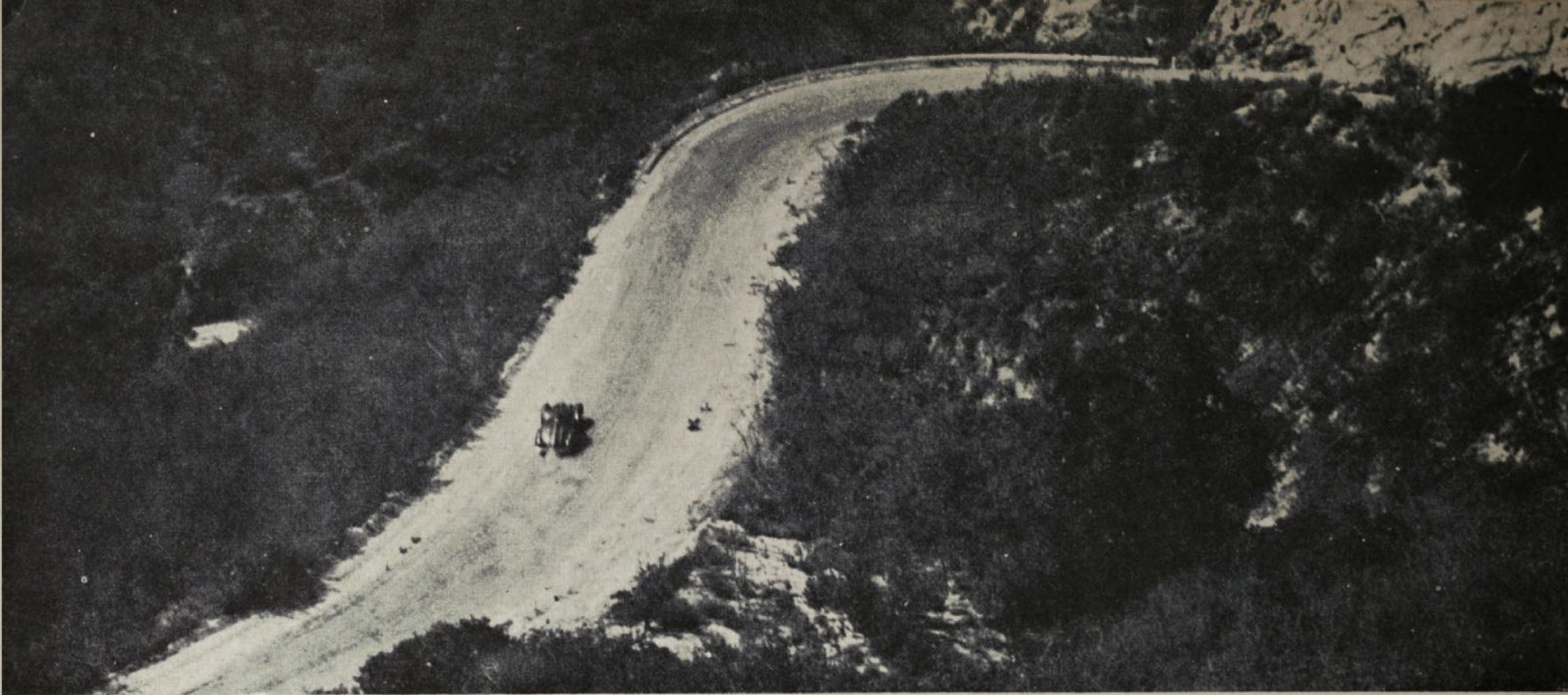
Club member G. Thatcher Darwin, of Beverly Hills, in his modified Mercury "Beetle" placed first with a time of 37.09 seconds for the fastest time of the day. D. G. Satcher took second with an Indianapolis-type track car powered by a stock '37 V-8, and Phil Payne of Hollywood ran third with a V-8 Special equipped with a stock '46 mill on a '32 frame.

The easy victory of the V-8's was a blow to the many foreign car enthusiasts present, both spectator and contestant alike. A blown MG, piloted by Jack Early, finished a close fourth and Roger Barlow in his metallic-blue Talbot was fifth. The balance of the final entries were all foreign cars—Taylor Lucas' black Hotchkiss sedan, John Von Neumann in his green Talbot-Lago, F. Proctor with a Delahaye drophead coupe, Basil Panzer's cream '47 Jaguar drophead, and six MG's ably handled by Miss Fay Taylour and Mssrs. W. Leathers, J. Pollack, R. F. MacMillan, F. Fancher, and Don Basile.

Thatcher Darwin's winning car is a 270 cubic inch mill equipped with Evans heads and manifold, Cannon cam, Weber flywheel, and Spalding ignition. The same car,

November 1949

Motor Trend



JACK CAMPBELL

LOOKING down at a Talbot rounding the first big turn



BLACK Hotchkiss sedan, driven by Taylor Lucas, nears top.



DELAHAYE drophead coupe, driven by F. Proctor, rounds turn.

equipped with a slightly different engine, did 111.8 mph at a dry lakes run in 1948. His average time of 37.525 seconds in this road climb gave him an average speed for

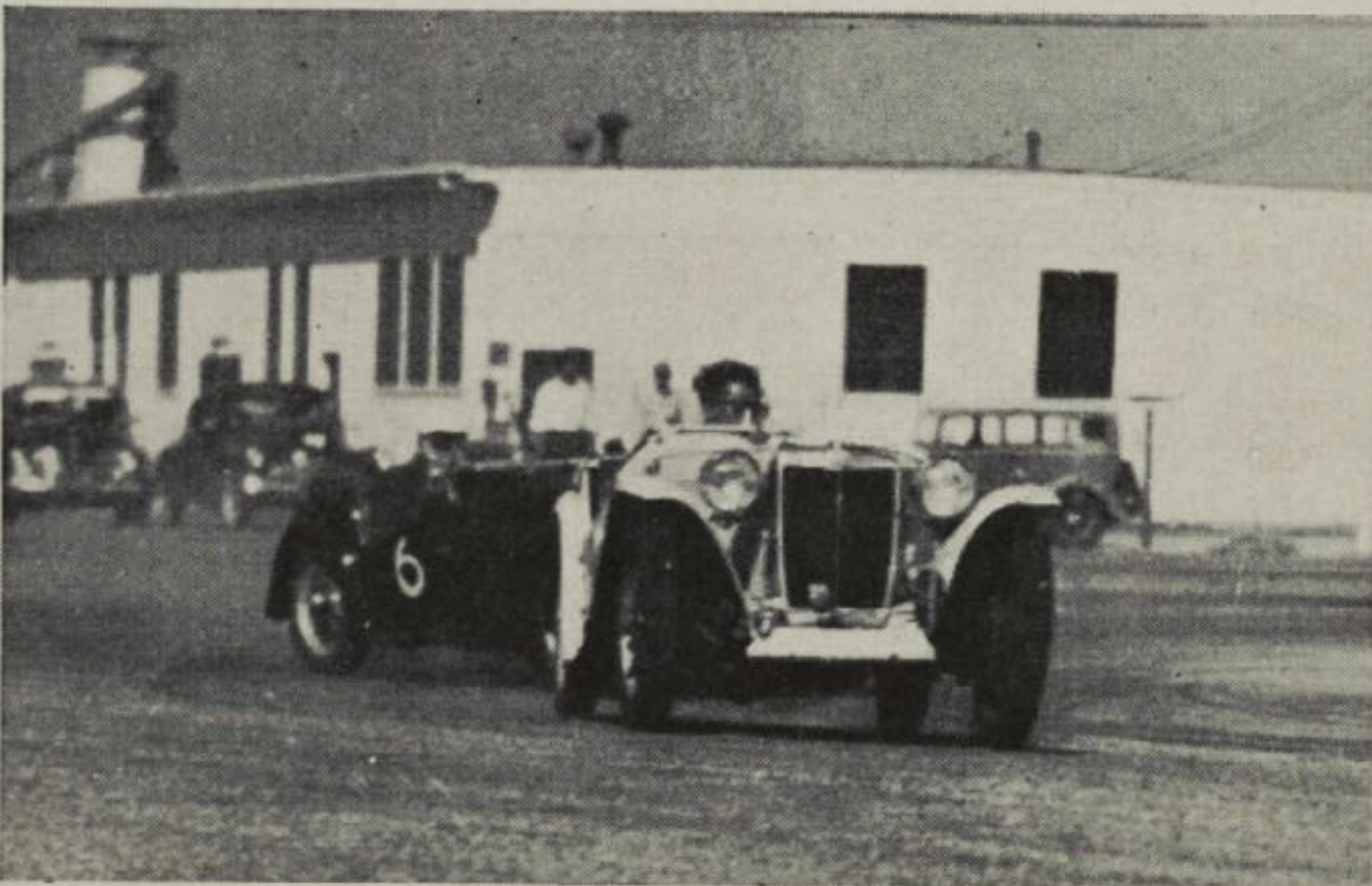
(Continued on page thirty-one)

Thirteen



CROSSING over on the dirt road from the finish to the start

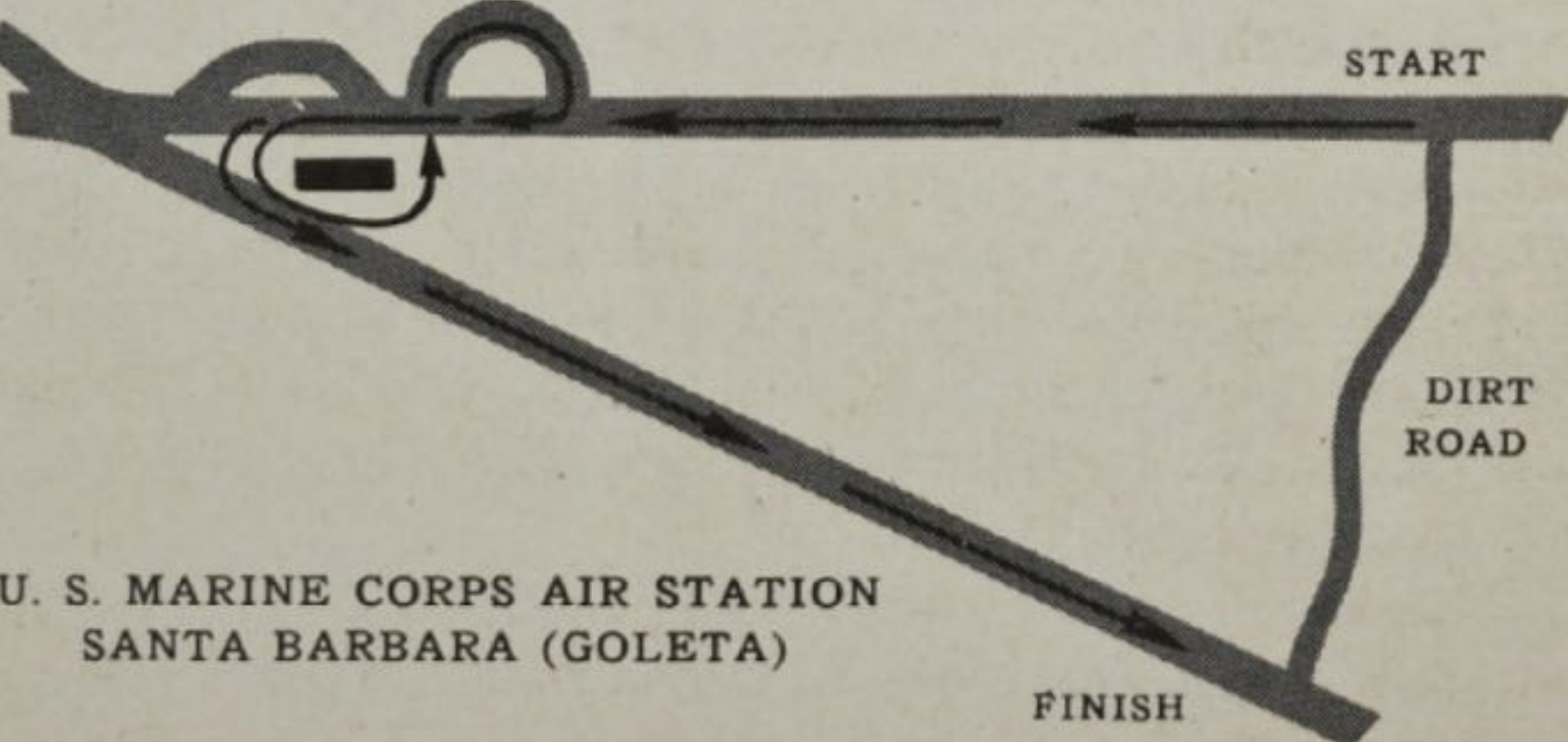
Twelve



JACK CAMPBELL

ABOVE—Two MG's crossed up in one of the match races

BELOW—Map of the course where the Goleta Meet took place.



U. S. MARINE CORPS AIR STATION
SANTA BARBARA (GOLETA)

FINISH

START

DIRT
ROAD

CAR OF THE YEAR

THE 1949 CADILLAC

by John Bond

NOTE: In this article, automotive enthusiast John Bond was asked to describe his idea of the most advanced of the 1949 models. Before making his selection, he considered all models, ranging from the Jeepster through the Lincoln, and gave serious thought to the engine, appearance, and handling characteristics. His final choice may be subject to controversy, but definitely has merit.—Editor

CHOOSING an outstanding "car of the year" for certain years past may be difficult, but for 1949 the selection is narrowed down to three most worthy of consideration: Ford, Oldsmobile, and Cadillac.

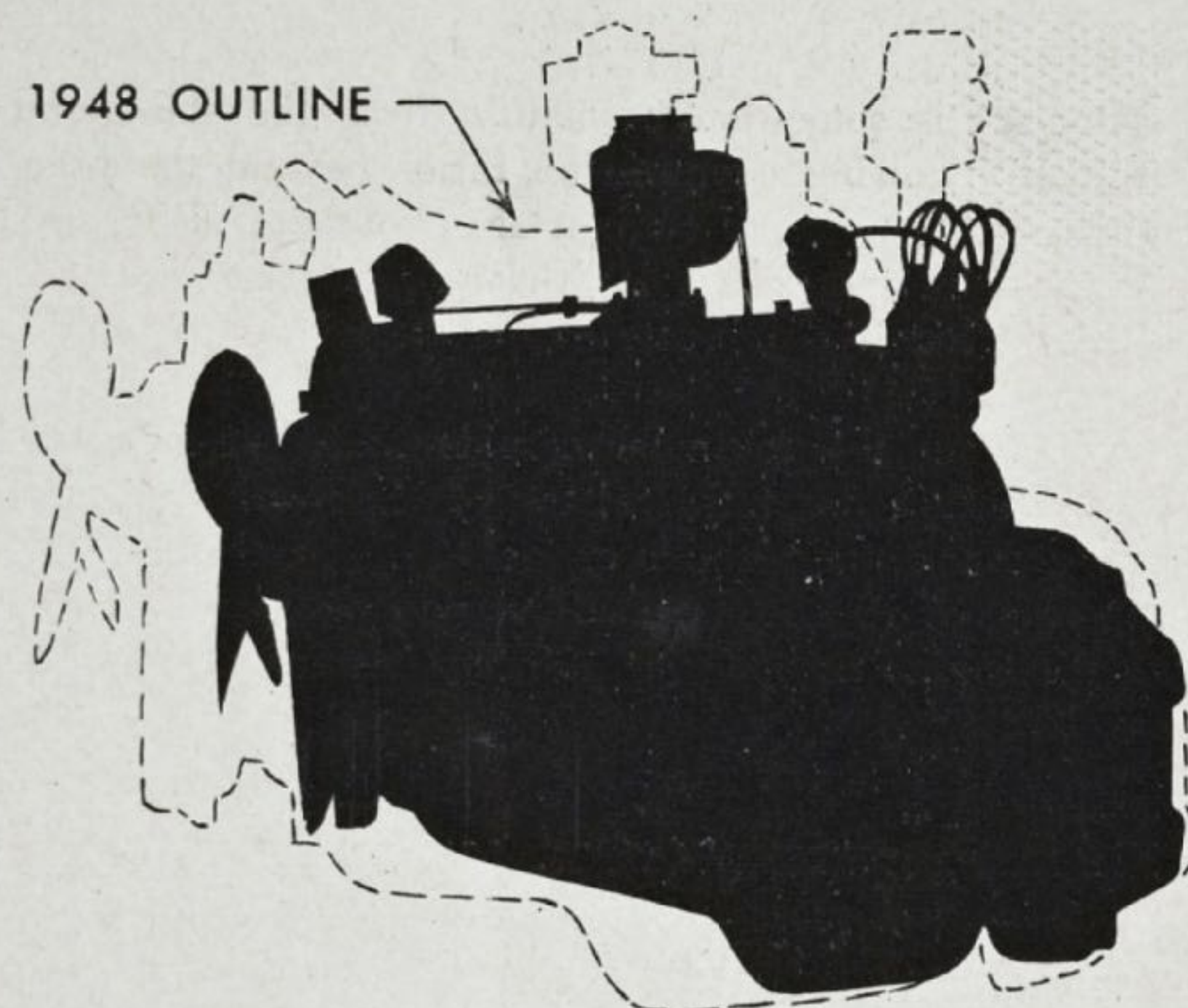
While the Ford has an entirely new chassis and body, plus many mechanical changes, it offers nothing new or outstanding from an engineering viewpoint, since it now falls in line with conventional design practice established by competitors before the war.

The Cadillac was chosen in preference to the Olds because, while both have outstanding new V-8 engines which are similar, they are not by any means the same. The Cadillac, with 10 per cent more piston displacement than the Olds, develops 18.5 per cent more bhp and weighs a few pounds less.

This new engine by Cadillac is not the so-called Kettering engine, which was a small six of 180 cubic inches. The Kettering six was a square engine (equal bore and stroke), had seven main bearings, used a simple combustion chamber shape about like the last Buick Six of 1930, looked externally very similar to the current 216.5 cubic inch Chevrolet, and was even heavier than the Chevrolet. While the Cadillac was developed concurrently with the GM Research 12.5 to 1 compression engine, it is considerably different.

The 1949 Cadillac powerplant, with a cylinder bore of 3.8125 inches and a stroke of only 3.625 inches, is unique in that this gives it a stroke-bore ratio of 0.95:1. (Most engines have a smaller bore than stroke.) The large bore permits large valves in relation to the total piston displacement with resultant good specific output, or bhp per cubic inch. The short stroke makes the engine lighter and more compact as well as giving lower piston speeds.

Cadillac's change-over from "L" head to overhead valve type of design accomplishes two desirable goals. First, the overhead valve engine is recognized as a definite must for getting the most potential advantage from higher octane fuels—provided, of course, that such fuels become available at economic prices. It is not possible to increase compression ratio in "L" head engines to much over 8:1, even with better fuel, because volumetric efficiency falls off at

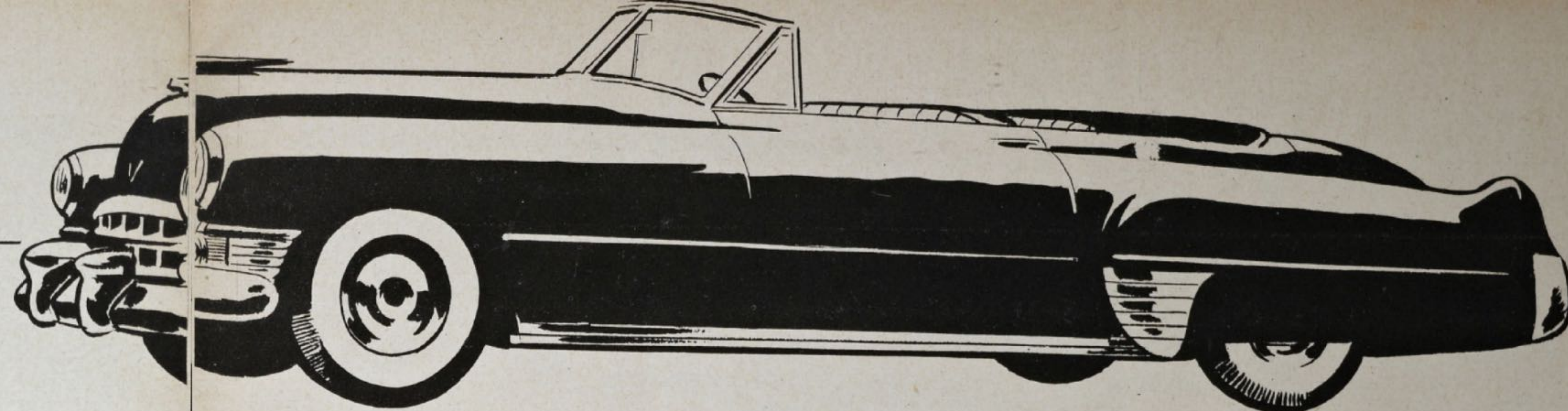


COMPARISON of 1948 and 1949 engine sizes shows reduction in size of later model. Weight has also been decreased 220 lbs.

high speeds with consequent peak bhp loss. Even more important, engine roughness sets in at this point. This engine roughness, which stems from the combustion process itself, can be more easily controlled with an OHV (overhead valve) type head. The second reason for adaption of an overhead valve engine has to do with thermal efficiency. With less surface area in the combustion chamber of an overhead valve engine, more of the heat energy of the fuel is utilized to produce power, and less is lost to the cooling system.

The new Cadillac is the first evidence in the U. S. of a trend toward OHV engines, a trend noticeable even before the war in Europe. In Europe since the war, not one of the large number of new or redesigned engines is a side valve ("L" head) engine. A General Motors executive recently stated to the press that all GM cars would have OHV engines in the near future. (Only the Pontiac 6 and 8, and Oldsmobile 6 are left.)

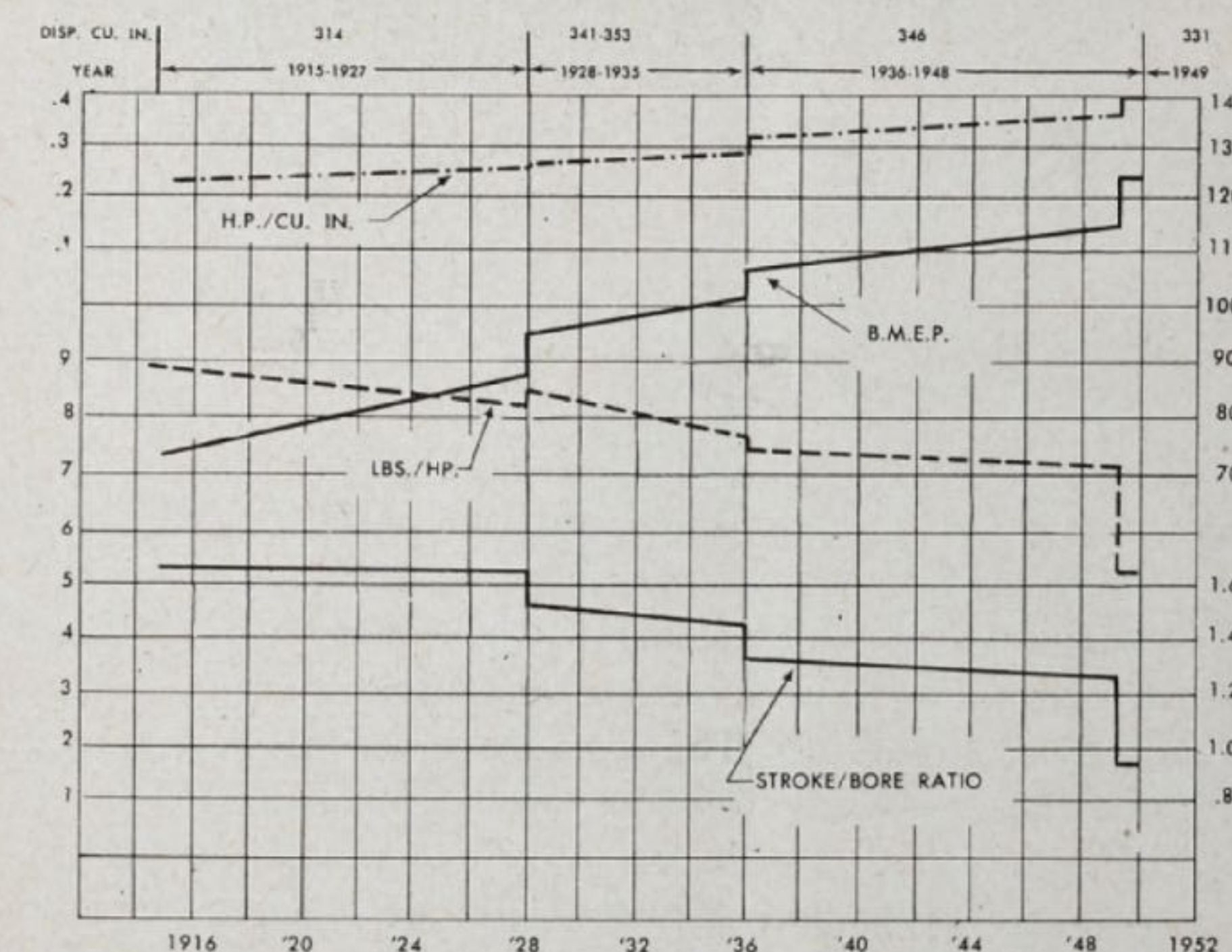
On the other hand, there have been, since the war, new "L" head engines by Willys (the 6), Hudson 6, Lincoln V-8, and redesigns by Ford (6 and 8) and Packard. Hudson's President E. A. Barit recently made the statement that they could go to 9.2:1 compression ratios with only minor changes to their present "L" head designs. Such



ALBERT H. ISAACS

a statement is somewhat premature from the standpoint that fuels requiring compression ratios beyond the practical range of "L" head engines are probably a long way off. The cost of producing 100 octane gasoline is not only very high, but it is a waste of our dwindling petroleum reserves.

Aside from the technical considerations already discussed, perhaps the only real test of the worth of a new car or engine is the net gain or loss to the purchaser. With an increase of 10 bhp, the Cadillac now develops 160 bhp with the engine stripped, or 133 bhp "as installed," with



TRENDS in design characteristics of Cadillac V-8 engines

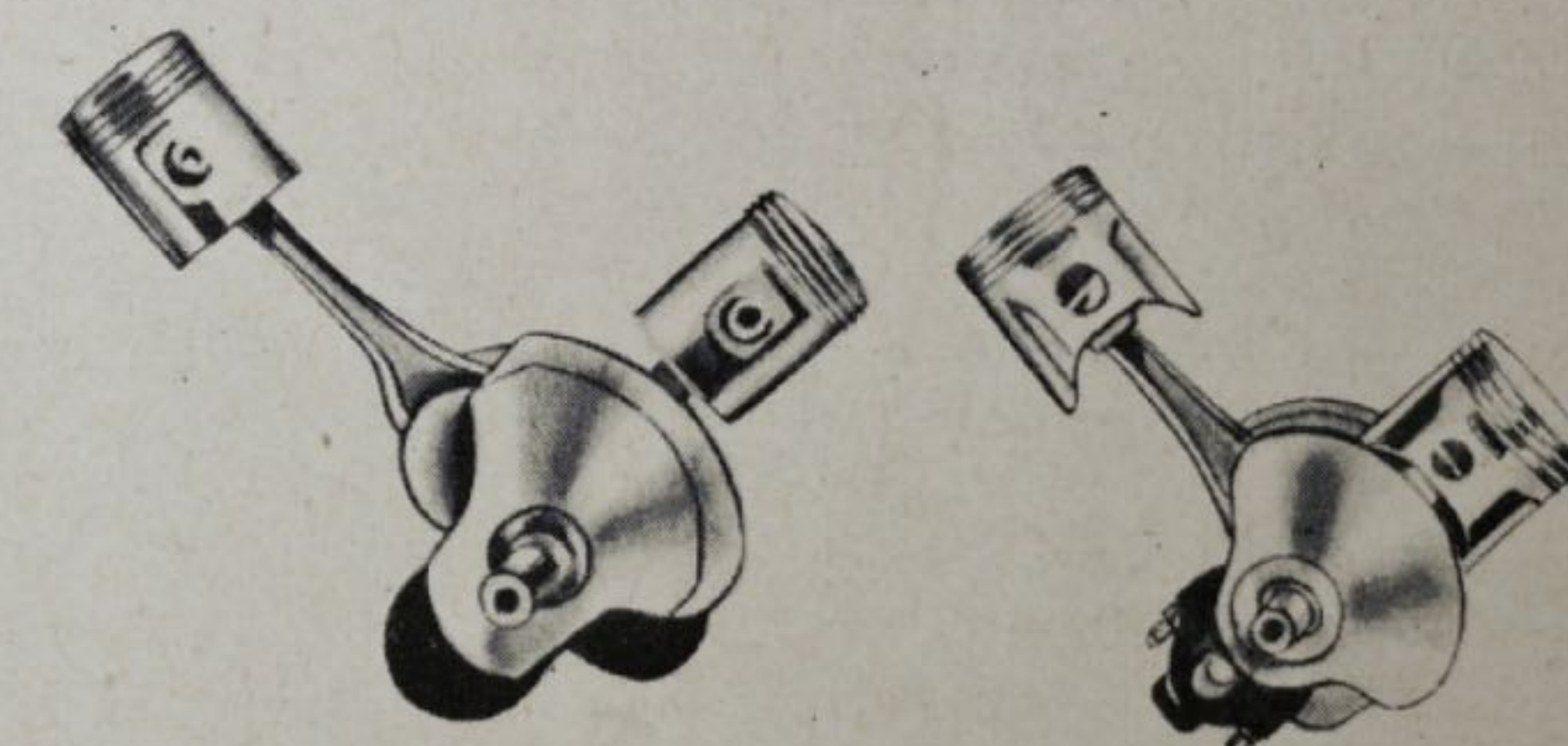
all accessories. This increase in power, together with a very noteworthy decrease in engine weight of 220 pounds (including saving in cooling system), results in a noticeable improvement in acceleration performance. The increase in compression ratio, though only from 7.25 to 7.50, is an automatic guarantee of reduced fuel consumption. Actually, as a result of reduced engine friction and improved thermal efficiency, the average user should get about two miles per gallon better mileage with the new model.

Perhaps an even more important advantage of the new OHV Cadillac engine to its owner is its increased durability.

Cadillac engineers have done a thorough job of development work toward improved stamina in every part of the engine. To give just one example, in a paper read before the Society of Automotive Engineers describing the new engine, photographs were shown of engine bearings after test runs at 4250 rpm or an equivalent of 108 mph. (Of course, the car will not actually travel that fast on the road.) The 1948 engine, with 4.50 inch stroke, was run 131 hours at this speed. The bearings could be described as being in fair condition, and good for many more hours of running. However, they would certainly be replaced if encountered by a competent mechanic in the field. On the other hand, the bearings from the new short stroke engine were in perfect condition after 541 hours at the same speed, or more than four times the test period on the long stroke engine.

Automobile engines are not subject to the annual external sheet metal changes for the benefit of providing a new-appearing model. The new Cadillac OHV powerplant is brand new, and can normally be expected to be continued with little change for a period of at least seven years. By looking ahead, Cadillac engineers have designed an engine which can easily and economically have its compression ratio increased to anything up to 12:1, with assurance to the owner that he can take full advantage of future fuels, with no harmful effects.

Finally, it is encouraging to see a new model offered with no readily visible styling changes, thus reversing the usual "face-lifting" trend, along with using the original model engine.



THOMAS J. MEDLEY

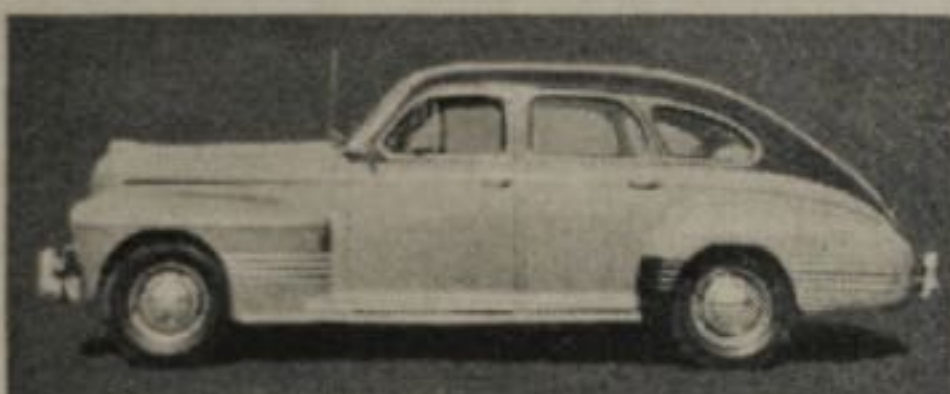
COMPARISON of 1948 and 1949 crankshaft and piston assemblies—major factor in weight reduction and added acceleration

RE-STYLING

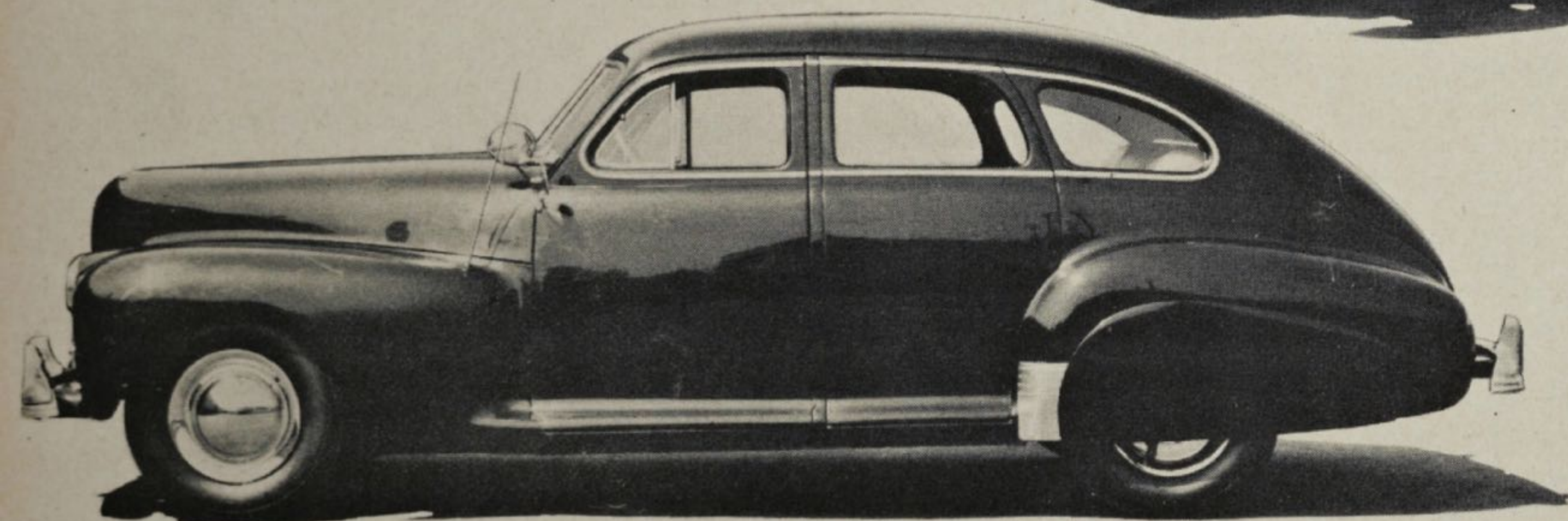
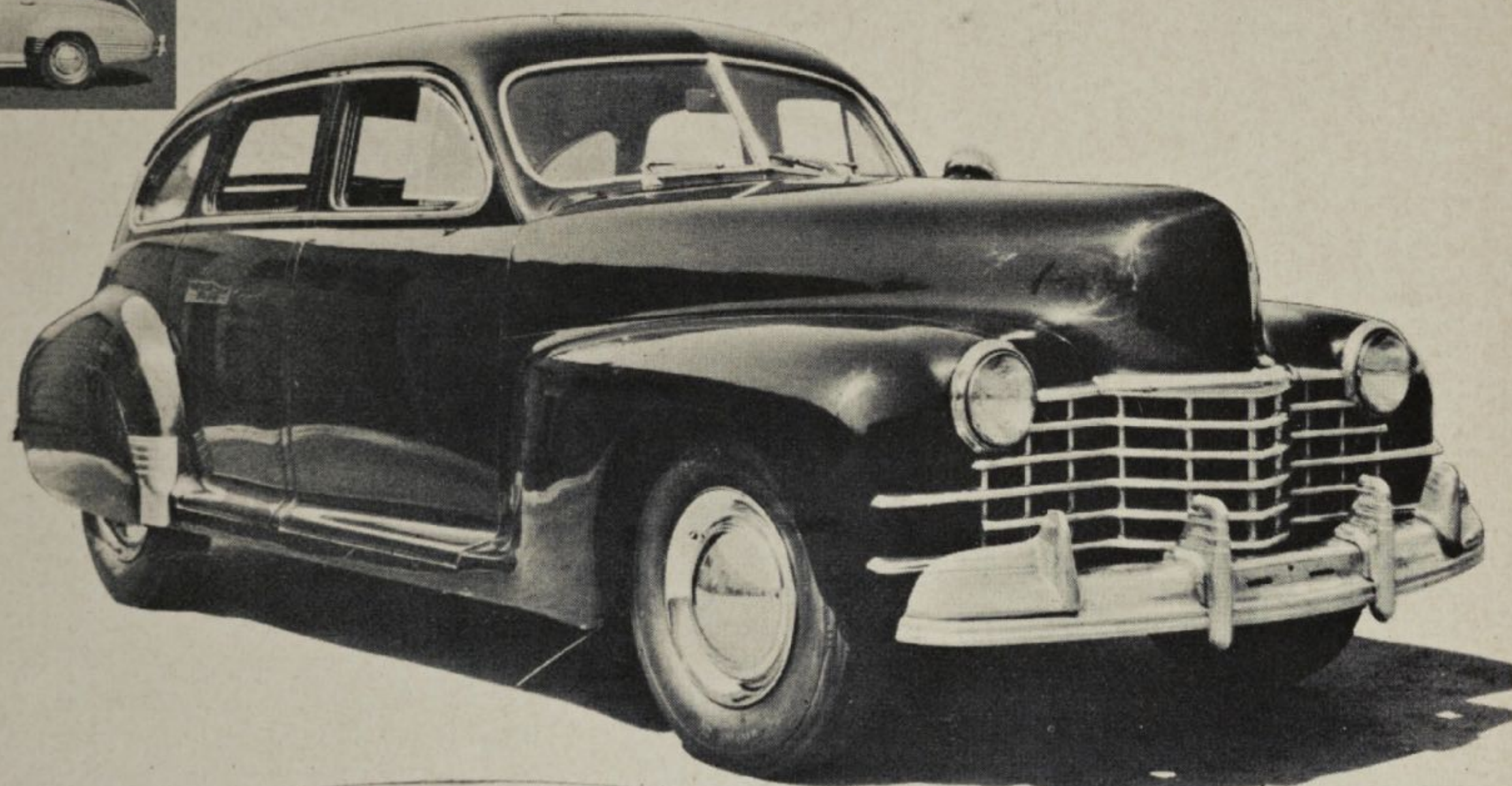
A 1941 PONTIAC SEDAN



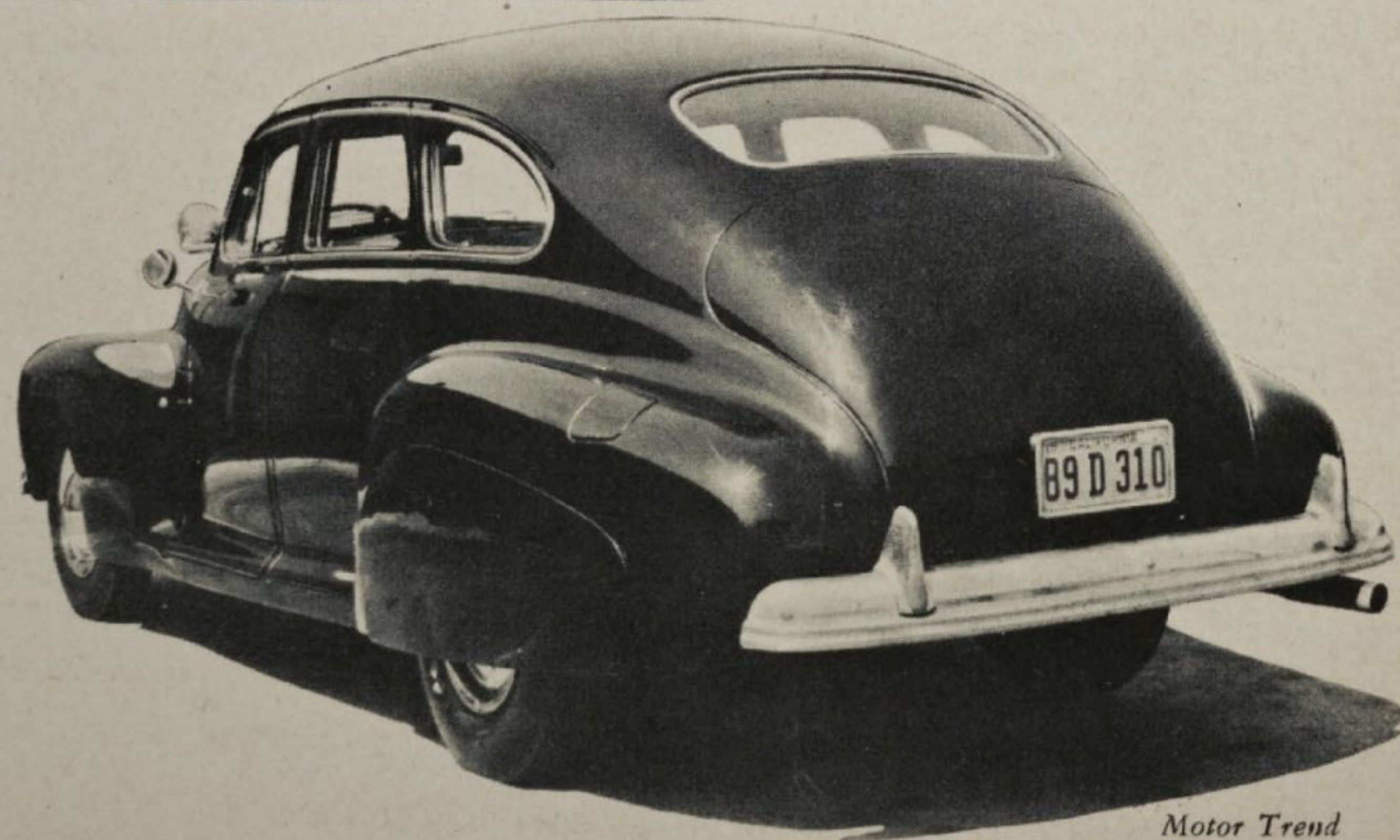
RESTYLING a car does not necessarily mean that the car has to be chopped, channeled and drastically changed in other respects. To prove this contention, the Valley Custom Shop, with a minimum amount of time, labor and expense, restyled this '41 Pontiac four-door sedan for Mr. O. H. Hooker.



THOMAS J. MEDLEY



Changes to the front end of this Pontiac include a shaved nose, reformed fenders and the addition of a '46 Cadillac grille. To permit the fitting of the grille, it was necessary to box out the front corners of the fenders. The impressions on the fenders (where the chrome strips were installed) were removed and a new piece welded in. Three inches were added to the nose of the hood and a new piece was added to the top of the hood to flatten the former dip. All chrome has been removed from the car, except that around the windows and the gravel guard on the rear fender. The rear fenders have also been de-chromed, reformed slightly, and molded in. The license plate has been set flush on the trunk lid with the light set in the bumper splashguard. The chrome around the tail lights has been removed and the lights have been flushed.



Motor Trend

TRENDS

IN DESIGN • POSTWAR AUTOMOBILES



by Austin M. Wolf, Automotive Consultant

Note: This is the second part of an article that is a digest of the article, "Technical Highlights of Postwar Automobiles," Parts I and II, which appeared in the May and June 1949 issues of the SAE Journal.—Editor

DURING the last few years there has been a considerable trend toward locating the front shock absorber inside the coil spring, and coaxially therewith. This originated with Monroe Auto Equipment Co. and started initially with Hudson in 1939. Nash followed in 1941, Kaiser-Frazer in 1946, with Ford, Mercury, Lincoln, Chevrolet, and Pontiac presently incorporating it. The shock absorber is in a more protected position.

Chevrolet has redesigned its front suspension by using stampings instead of forgings in the upper and lower wishbones, effecting a 12 per cent reduction in weight. Pontiac continues with the stereotyped wishbones, the upper one being anchored to a forged pivot shaft bolted to a lower tower riveted at each side to the top of the frame cross-member. Whereas Nash welds together the top channel section wishbone members back to back to form an H, the Ford-built cars, and most others, have the flanges welded together to form a box section.

Rear Suspension

The location of the Buick rear springs on the series "50" and "70" has been changed from in front of the rear axle to over the axle housing but slightly offset to the rear. This change reduces the reaction on the rear engine mountings and permits more freedom in their design to obtain the correct frequency.

Most cars have adopted what is known as the "sea leg" mounting for the rear shock absorbers. The top mounting pin is closer to the center of the car than the lower one so that the shock leans in at approximately a 30-degree angle. This has been found beneficial in providing lateral stability for the rear end and in some instances made possible the elimination of a track bar.

Torsion-bar springing, front or rear, has not yet reached the passenger-car field. The Goodrich Torsilastic spring was incorporated in an experimental car shown at the 1946 SAE Summer Meeting, bristling with installation novelties.

Frame

Most front end cross-members are now "V" shaped in view of the forward location of the engine and so as to provide clearance at the center to permit dropping the sump pan. In the early postwar cars it was sometimes necessary to remove the engine from the chassis to perform this operation.

Hudson and Nash do not have distinct frame members in view of the unit frame-body. A channel member extends, at each side, outside the Hudson rear wheels.

Controls

While there do not appear to be any basic changes in steering gears, improvements have been brought about by careful engineering in the application of this unit. Balances in the joint use of wheel suspension, shock absorbers, sway eliminators, tires, linkage, and steering gears are providing better steering today.

There has been a sudden rejuvenation of the cane handle parking brake control that was originally found on the 1934 DeSotos and Chryslers. In adopting it and in view of the rigging leverage, Chevrolet has gained a mechanical advantage of approximately 22 per cent over its previous system. It is located to the right of the steering column and a 60-degree turn of the handle releases the brake. Studebaker provides a pushbutton release built into the handle axis to prevent accidental release. Pontiac's system is similar to Chevrolet except a "T" handle is used. The Chrysler-built cars retain the depending lever but provide a double pawl mechanism, reminiscent of the Hudson application, to the former central brake lever. The parking brake cables of Pontiac and the Ford-built cars are protected by a rubber seal, where they enter the conduits ahead of the rear axle to prevent entrance of water and foreign matter.

Wheels and Tires

All cars are using 15-inch wheels, with the exception of Crosley, which uses 12-inch ones. The outstanding change has been the trend to lower pressure tires. It was virtually an oversizing program on a one-inch smaller rim diameter to operate at four psi lower pressure than the regular balloon tires.

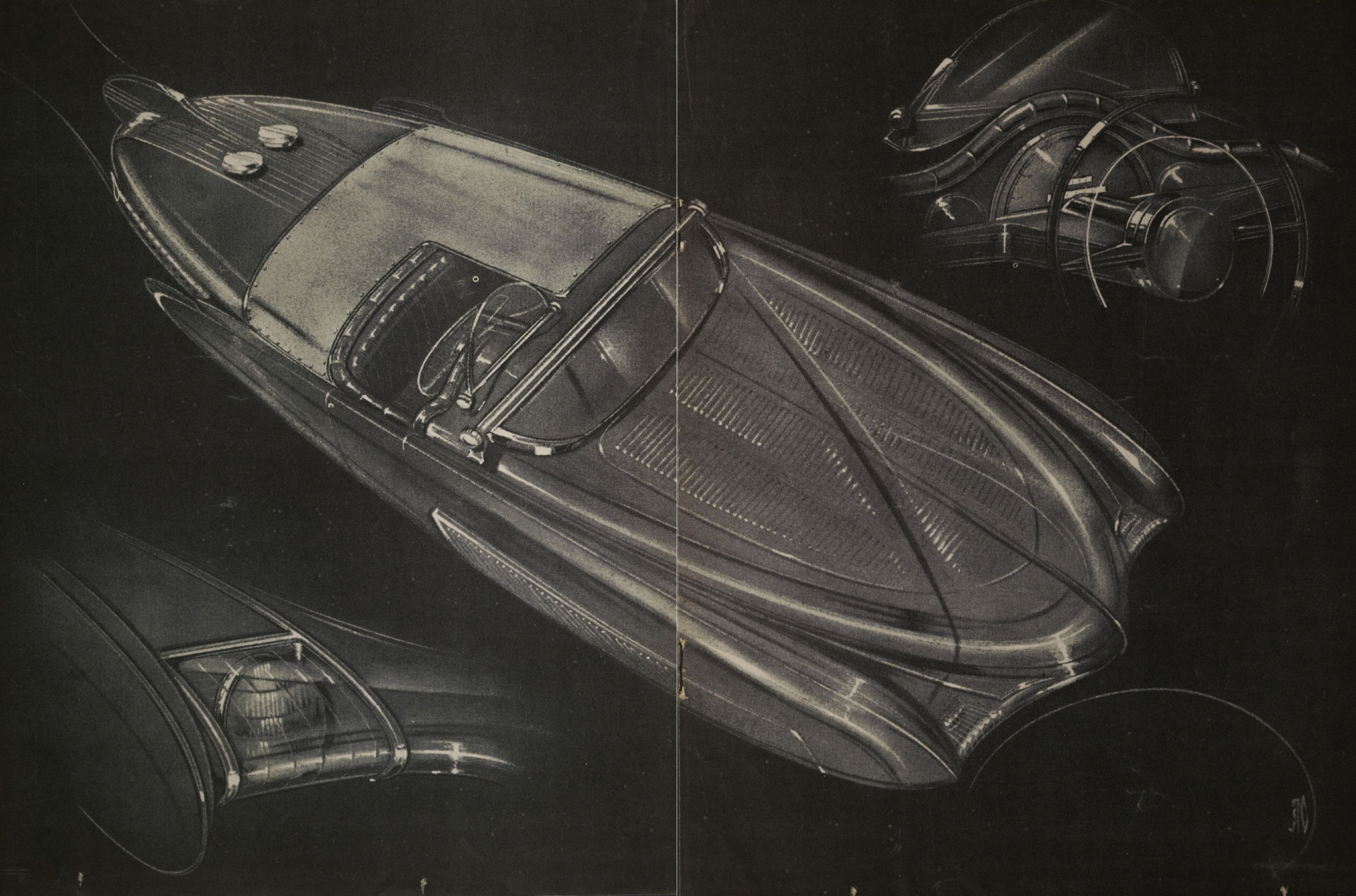
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TREND OF THE FUTURE

The "1950 Road Racer" on the following two pages is dedicated by Colonel Alexis de Sakhnoffsky to those who have a fond place in their hearts for the big Bentleys, SS Mercedes, Aston-Martins and our own Stutz Bearcats and Black Hawks. It is a car designed for high speed touring and road racing, brought up to date by the addition of the latest streamlining practice, without the use of "gingerbread."

Traditional features are the canvas tarp over the extra seat and the use of a racing windshield along with the conventional windshield.

The steering wheel assembly has been designed for sturdiness and simplicity both. Other interesting features include the built-in head lights, the flat hood, twin fuel filler caps, and pontoon-type fenders.



Trends in Design

(Continued from page seventeen)

With the high powering of most cars and lighter loading on the rear tires, the problem of good traction has arisen on wet pavements and particularly on ice. One attempt involves curing a high carbon steel coil spring in the ribs of the tire tread. As the tire and spring wear, the interrupted convolutions of the spring present sharp traction points, as in the case of the Midgely tread of around 1910. Tires are sometimes recapped with camel-back in which sawdust, salt, nut shell fragments or other material is mixed into the stock, with the idea that as the tread wears these particles will fall out and make small cavities which create a gripping action.

Bumper and Grilles

Massiveness characterizes most bumpers and bumper guards. The Cadillac rear bumpers form a continuation of the rear fender portions above it. The rear license light is inserted centrally and within it. The Buick front bumpers are made to harmonize with the general grille design. The rear bumper ends are designed to form a protective encompassing cap for the back of each rear fender. The license plate holders consist of a recessed center portion in each bumper. Oldsmobile, always bumper conscious, provides dual rear bumper guards with built-in license plate lights. The license plate bracket is no longer placed on the trunk lid of any GM cars.

Wrap-around bumpers are universal, front and rear, except in the case of the Cadillac and Buick rear bumpers, whose protective side length is limited. Rear fenders are sometimes recessed to permit closer nesting of the wrap-around ends, as in the case of Oldsmobile and Chrysler.

The motif of most grilles consists of horizontal lines, usually three, interrupted by minor vertical dividers. The center bar either terminates in a parking light at each side or two bars encompass it. Buick, DeSoto, and Mercury still cling to emphasis on vertical lines. Lincoln has the widest grille with its four-bar outwardly sloping and tapering design extending the full front width and encompassing the parking lights. Mercury portrays functional design, since the chromium grille symbolizes air streamers entering the surrounding shell or "air tunnel." Ford shows a bold open design, the lack of vertical spacers being pleasingly

offset by a large center medallion. The Chevrolet grille bars are extended inward and upward to direct the flow of air and hide the radiator core, horns, and other behind-the-grille parts.

Sheet Metal

Fenders are becoming less conspicuous in the new styling, in being visually absorbed by surrounding contours. The metal fender itself, being the part that covers the wheel, has greater proportions than before, especially at the front. In the Nash Air-Flyte, the front wheels are enclosed by the sheet metal, with the elimination of the usual fender cutout, the narrower axle tread (54 $\frac{11}{16}$ from 57 $\frac{1}{2}$ inches) and increased width (77 $\frac{1}{2}$ from 74 $\frac{1}{2}$ on the "600" and 75 $\frac{3}{8}$ on the Ambassador) permitting full wheel lock.

Is the wheel, the greatest of all inventions to the automotive minded, a motif worth preserving or shall it be hidden, as in the case of rear wheels? To those willing to emulate it, it is being better framed by an opening closer to a true circle. Over 10 years ago when front fenders had not fully grown to proper height, the otherwise true arc was replaced at the top of the opening by a cord, truly a perversion. Last year's Oldsmobile Futuramic pioneered the way back to the deserved true relationship between wheel and fender cutout.

When the Packard Clipper came out in 1941 with an integral rear quarter body panel and fender, little was it realized that it was the forerunner of today's vogue. Only the Chrysler-built cars, Studebaker, Buick, Cadillac, and the Oldsmobile "98" have separate fenders. In the Chevrolet-Pontiac-Oldsmobile body the integral fenders may be reached from the luggage compartment for repair bumping. In damage where the fenders are distorted, Ford recommends the use of hydraulic or pneumatic jack equipment and hand tools that match the fender contours by skilled workers, and is conducting a school for them. Replacement of a large portion of the rear fender is done by cutting off the damaged area with an arc welder. In the Chrysler-built cars, the rear fenders, with their down and slightly rearward slope at the forward end, project but slightly and are assembled to the outside of the luggage compartment by five hex-head bolts, which go into self-locking nuts and are fastened to the body by eight hex-head bolts and clinch nuts.

Most hoods continue back to the

base of the windshield, which is permitted by the elimination of the cowl ventilator. The Chevrolet hood is made in two pieces, riveted together, but appearing as a single panel, due to a center molding covering the joint and painted the same color as the hood. Packard and Buick continue with the one-piece hood resting on selective side hinges.

Bodies

Chevrolet, Pontiac, and the Oldsmobile "76" and "88" are equipped with the same body shells in two types, one with a streamlined back and the other with a trunk back, and known as the GM "A" body. The streamlined side rear window back edge slopes forward instead of continuing downwardly on a curve. On the four-door models, the front contour of the rear fender is part of the rear door. The Chrysler-built cars are equipped with the trunk-back type of body to preserve headroom above the rear seat. The Oldsmobile "98" and the Buick series "50" and "70" utilize the same body shells, known as the GM "C" body.

In the Chevrolet design 53 per cent of the total weight is supported by the front wheels, compared with 51 per cent in the previous model. Total weight with a six-passenger load results in the weight being almost equally divided, front and rear. The front seat was moved forward more than seven inches, the rear seat slightly over 4 $\frac{1}{2}$ inches, the engine three inches and, with shorter wheelbase, the engine is now four inches farther ahead of the centerline of the front wheels.

The Willys all-steel station wagon was introduced in July of 1946 and initiated a movement away from the stereotyped wooden body. In 1948 Packard introduced its all-metal construction station wagon, including the top. Ford and Mercury in the 1949 models followed this all-steel construction and wood trim. Chevrolet has two station wagons, the all-steel one using decalcomanias to simulate wood grain, protected by three coats of gloss synthetic lacquer. The wooden construction has a hard top and the lower body panels connecting the fenders are separate steel stampings attached to the body.

A dynamic appearance is imparted to General Motors and Chrysler-built cars by a decided downward slope of the belt line molding starting at the windshield pillar. Plymouth uses a con-

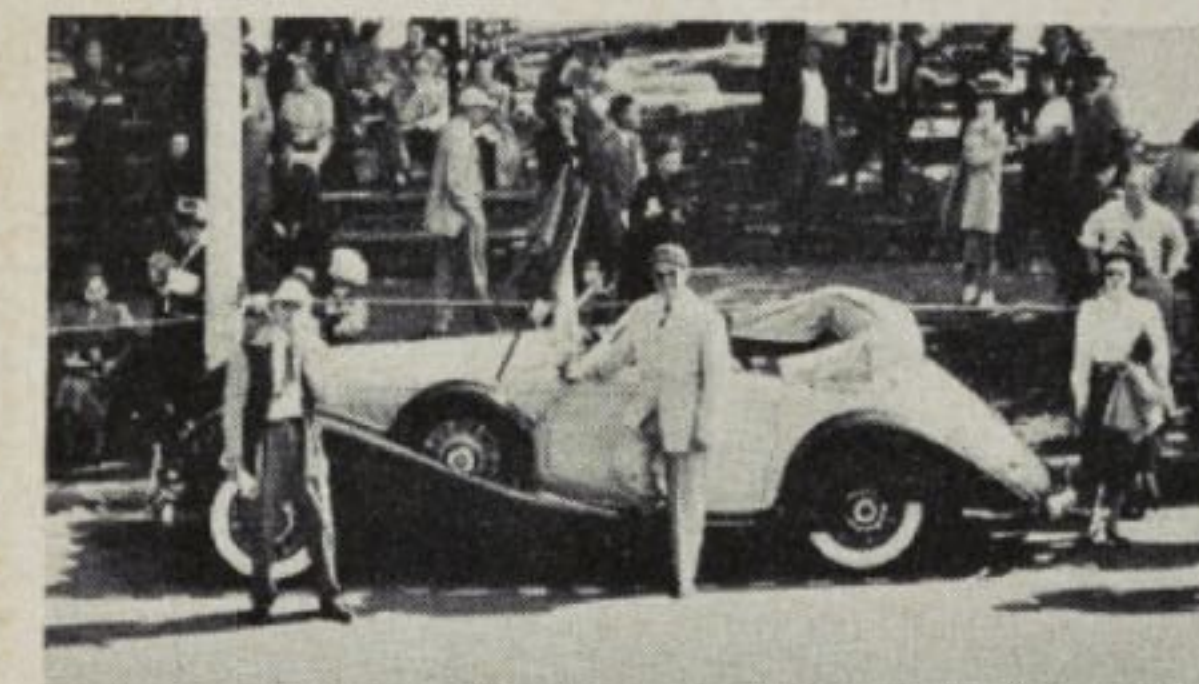
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Watkins Glen Grand Prix

(Continued from page eleven)

Concours d'Elegance

The first of the day's three events was a placid affair, though highly interesting. It was the Concours d'Elegance for non-racing machines and represented modern vintage, and veteran class cars, including everything from a three-wheeler English Morgan, a beautiful Delahaye, Jaguars, Bentleys, Rolls, DuPonts, Alfas and the first-prize winning custom-styled Fiat, to vintage cars of practically everything but the steamer and electric classes.



JAMES MELTON, whose gray Mercedes-Benz served as an official safety car.

Last in line was the beautiful gray 540-model Mercedes-Benz. Its owner-driver, James Melton, later used it as the official course safety car.

Entries

Entrants in both racing events, the Seneca Cup and Grand Prix, were divided into four classes; A, B, C, and D. Class A included cars of 1100 cc (67.1 cu. in.) and under. Class B entrants were cars of 1101 cc to 1500cc (91.5 cu. in.) and supercharged cars of Class A displacement. Class C was open to cars of from 1501 cc to 2000 cc (122 cu. in.) and supercharged cars of Class B displacement. Class D was entered by supercharged cars of the Class C displacement group and others of 2001 cc (122.06 cu. in.) and over displacement.

Briggs Cunningham, whose 1995 cc (121.7 cu. in.) Ferrari technically rated a class C classification, voluntarily moved into the larger displacement Class D grouping. This was because it was generally considered that the 166-Type, 12-cylinder, 1948 Ferrari was among the fastest cars entered for the competition.

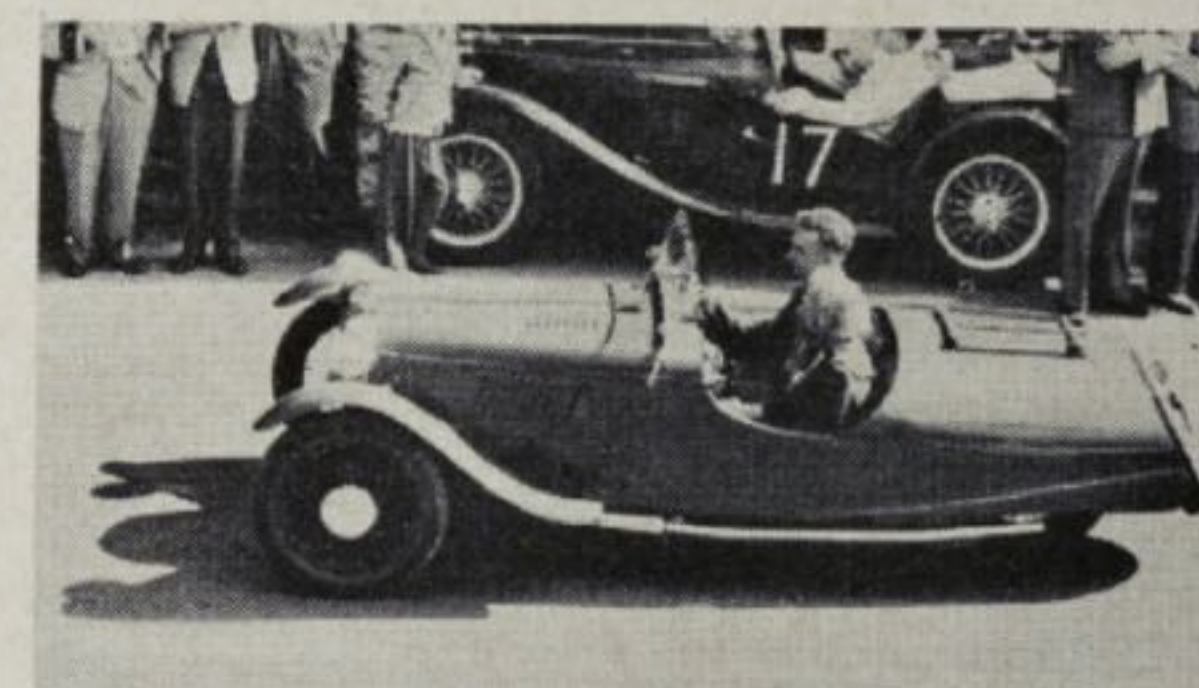
Seneca Cup Race

The initial racing event was for the Seneca Cup, which was four laps (26.4 miles), and used a LeMans type start. For this type start, originated at the famous LeMans, France, road course, all cars competing in the event lined up on a forty-five degree diagonal to the

course, left rear wheel to the curb. Ignition switches were off, handbrakes set and doors closed. The drivers waited on the opposite side of the street and at a starting signal, ran to their cars, vaulted in and got underway as quickly as possible.

The entire field got off in good order with the exception of two cars. George Huntoon, Miami, Florida (driver who had captured the Bridgehampton event in this same No. 23 blue 2.6 litre D.O. Alfa earlier this year), had trouble starting the 8-cylinder 1935 car. Cameron Argetsinger, at the wheel of Milliken's No. 3 blue 35 A-model Bugatti, also had starting trouble. Hard driving on the part of Huntoon put him up through the pack from twenty-second spot at the end of the first lap to second at the end of three laps. Unfortunately, a vapor-locked fuel line in the final lap blasted his chance to place.

George Weaver of Boston, Massachusetts, who had drawn a position six cars removed from the starting line in the field of thirty-four entrants, got off first. Weaver's No. 11 red Grand

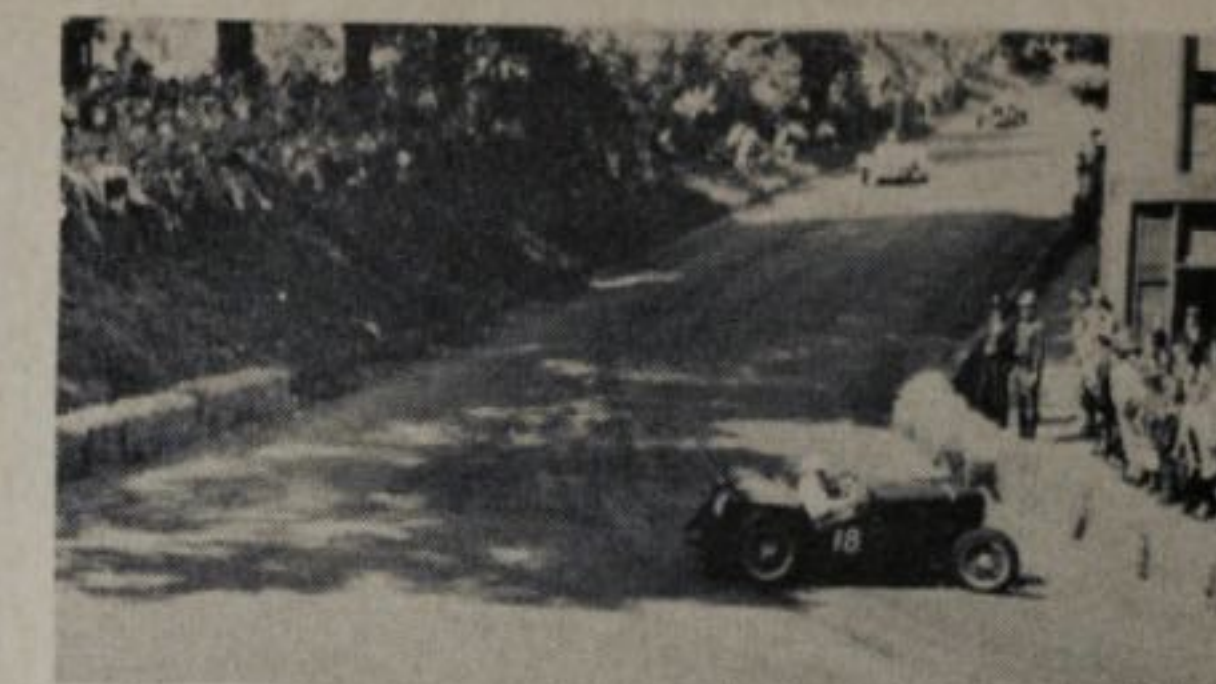


ODDEST entry in the Concours d'Elegance was the Morgan Three-Wheeler.

Prix R. I. type Maserati (an 8-cylinder 2939.5 cc — 179.28 cu. in. — supercharged car) had been a hard-luck car for Weaver in road-racing competition. Originally the car was a 4.9 litre (299.02 cu. in.) job, modified to 3 litres (183.08 cu. in.) to bring it down to the Indianapolis 185 cu. in. allowance for supercharged engines.

In 1948, at the initial Watkins Glen road race, Weaver was the first driver to finish a lap in competition and was clocked at 63 mph flat. That year, on the second lap, Weaver's brakes gave out and he was out of competition. It was generally conceded, however, that had his brakes continued to operate, Weaver would have been very much in the running.

This year, near the end of three laps and when he had built up approximately a mile lead on his nearest competitor,



FITCH spins out in his blown MG at Milliken's Corner during the Seneca Cup event.

it looked as though Weaver would again be the hard luck driver. As he roared down the steep downgrade into Milliken's corner, the red Maserati broad-sided and crashed through the straw retaining bales and headed up the bank. Huntoon's car moved into view at the top of the long downgrade as spectators cleared aside the jumble of straw bales surrounding Weaver's car. He got underway again in time to lead Huntoon through the right angle turn onto Franklin street by only a few car lengths. Weaver flashed across the finish line a lap later, the winner of the Seneca Trophy, at an average speed of 66 mph. To many of the spectators, Weaver seemed the best bet for the long Grand Prix grind. But, in the final stages of the 26.4 mile event, Weaver's brakes failed entirely and he was through competing for the day. Weaver's time was approximately 1.5 mph faster than Frank Griswold in Griswold's victorious race over the same distance last year in an Alfa-Romeo sports sedan.

The Grand Prix

The green flag for the Grand Prix was given from a standing start with motors running, the cars lined up two abreast in positions attained from a drawing. However, all classes were grouped separately at the start, with

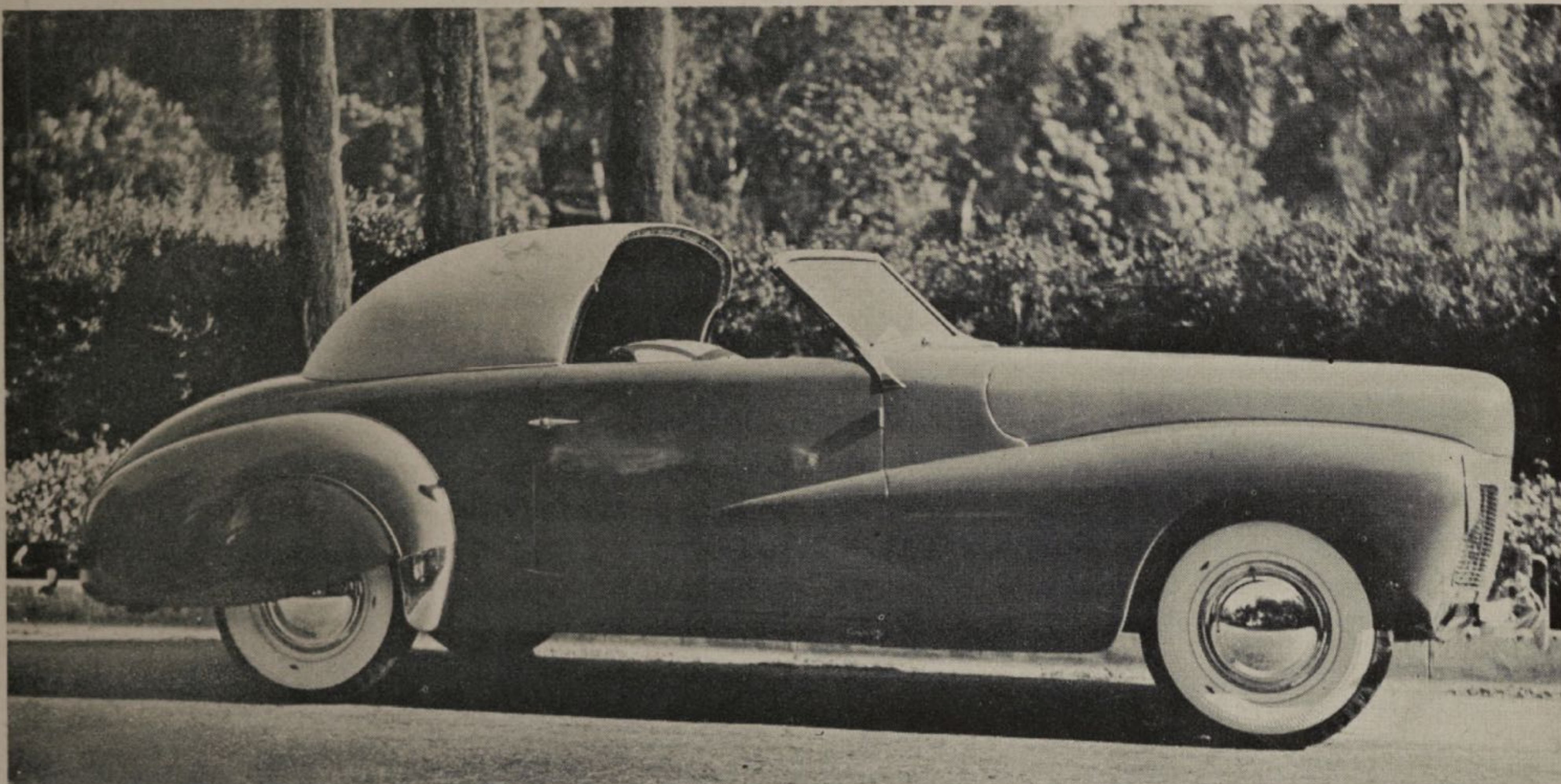


SENECA CUP event was started with a LeMans type start, diagonally to curb.

the larger and presumably faster Class D entrants in the front of the starting line-up, Class C next, then Class B and finally Class A, in a forty-four-car field two abreast.

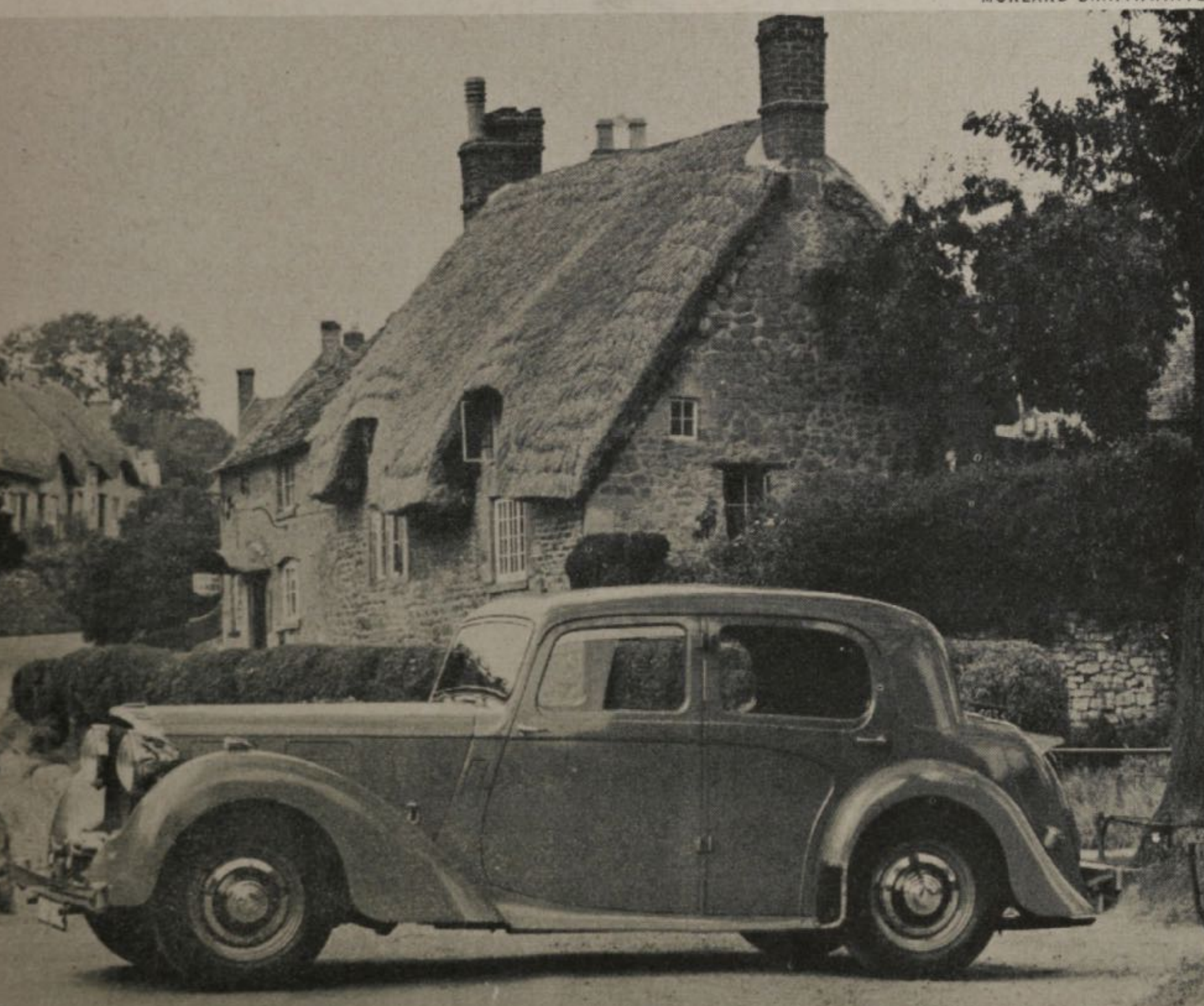
On the pole was Milliken in No. 23, a blue Alfa. Californian Mel Ord

(Continued on page twenty-four)



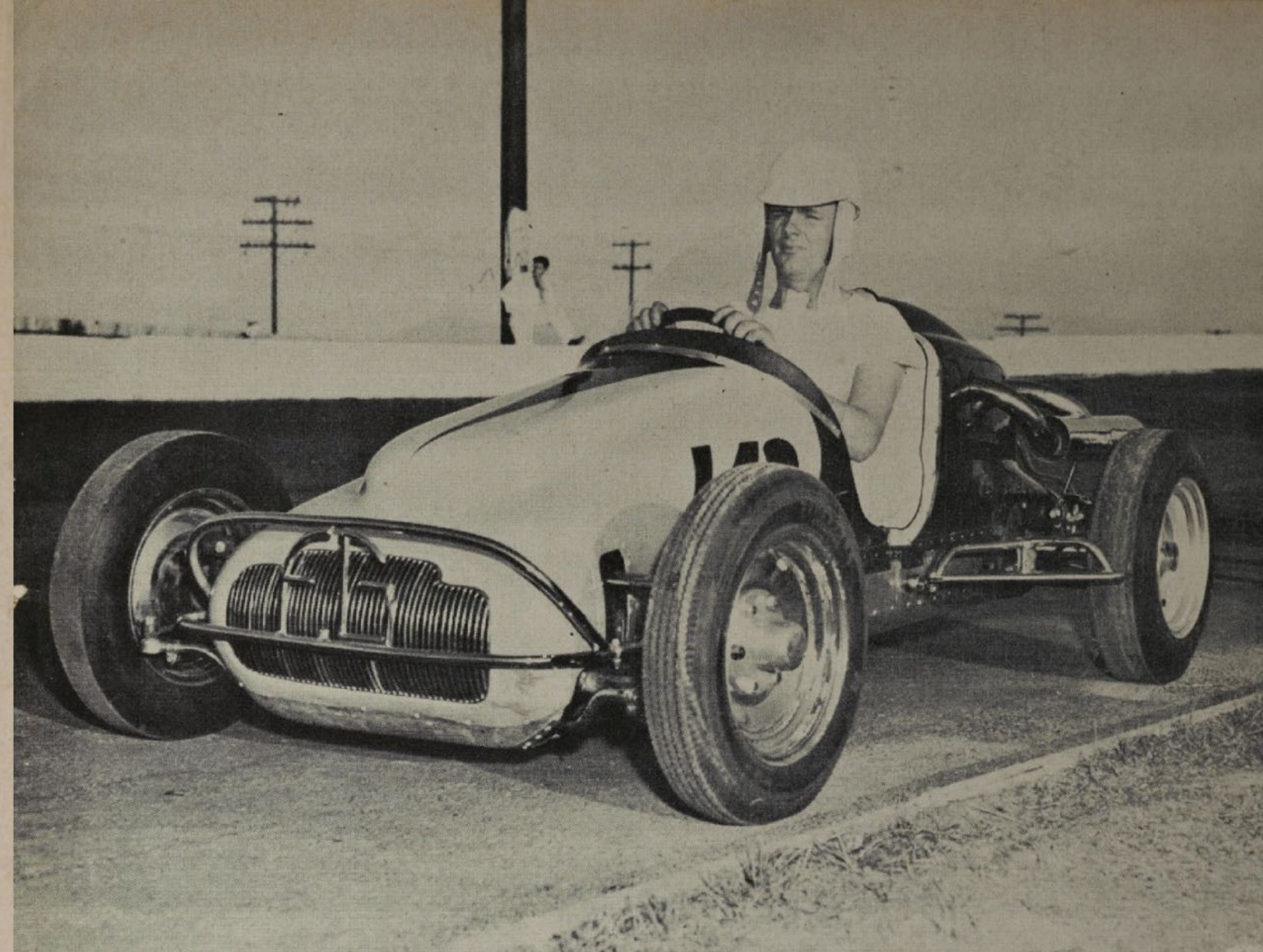
PETER STENGEL

MORLAND BRAITHWAITE



CUSTOM BODY—The above car lays claim to the fact of being possibly the best-designed Ford custom car (insofar as coachwork is concerned) of its time. The car was built in 1940 for Peter Stengel by Coachcraft at a cost of about \$6,000, and took about four months to build. The chassis is a 1941 Mercury, with special fenders and body. The top is a three-way top, which can be used all the way open, halfway open, or fully closed. Built-in, no-draft ventilation is used. The power-plant is a '41 Mercury V-8 engine, with Eddie Meyer heads and dual manifold.

ALVIS "FOURTEEN"—As typically British as the charming background is the Alvis "Fourteen" Four-Light Saloon. Its small size is in harmony with the overall European trend in auto manufacture and its materials and workmanship automatically place it in the "quality" class. The four cylinder, 1892 cc (115.4 cu. in.) engine has pushrod overhead valves, single S. U. carburetor and rates 13.58 indicated hp. Other features are: four-speed transmission, Marles worm and double roller steering, Girling brakes, semi-elliptic springs front and rear, the rear springs being underslung. Wheelbase is 108 inches. Highly popular in the home market, Alvis has shipped relatively few cars to this country. The car sells for about \$2800, plus tax, in England.



TED MANNING

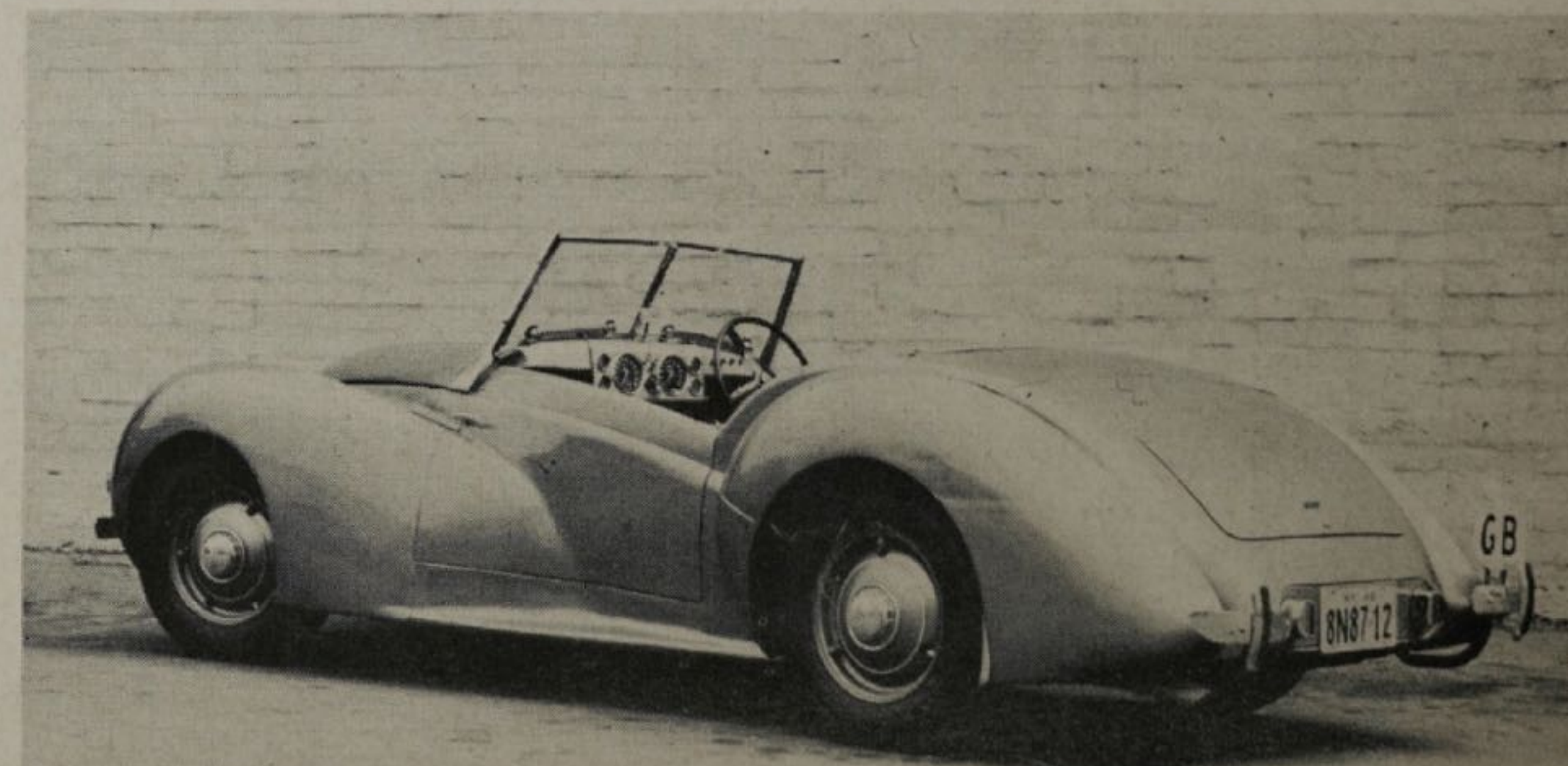
REAR-ENGINE MIDGET—This rear-engine midget, powered by an outboard engine, has a remarkably clean design. Unfortunately, its appearance did not make up for a lack of performance. The car belongs to Fred Glass and has been raced, in the past, at Culver City Stadium Speedway, all the way up the California coast and inland to Sacramento. The car uses independent suspension at all four wheels, using flat leaf springs. Handling characteristics were quite favorable.

CUSTOM CADILLAC—Designed and built in Rochester, New York, last year by Dean Fellows Mix, the 1941 frame and engine of this car were completely rebuilt. The body was lowered seven inches, without any changes in the frame, and gives full road clearance. A stock engine, Hydra-Matic transmission, oversize tires (8.20x15), hand-boarded top grain, tan, cowhide upholstery, broadloom carpeting, a leather instrument panel, a hand-formed sheet metal grille and metallic blue paint complete the specs.

HEALEY—This sports car is powered by a four-cylinder, overhead valve (pushrod operated) engine of 2443 cc (149 cu. in.) capacity. Bhp output at 4500 rpm is 104. A four-speed, synchronous, gear box is used with the engine. Wheelbase and tread are, respectively, 102 and 54 inches. The Healey is a car that has been designed as a high speed touring and competition car combined. The frame is of box-section construction, with rigid cross-members. The car is noted for its high performance, being able to exceed 100 mph, and at cruising speeds, giving about 30 mpg.



JACK CAMPBELL



Watkins Glen Grand Prix

(Continued from page twenty-one)

was at the wheel of No. 40, a yellow and tan Alfa, P3 model, 2900 cc (176.9 cu. in.) supercharged 1938 vintage, in the outside front rank starting position. Ken Hill of Wayne, Pennsylvania, was another starter well up for the green flag in a red, cigar-shaped Mercury on a weird home-designed chassis. This car had a wheelbase reminiscent of an airlines taxi or an amusement park tumblebug. Beside him in the line-up was the chunky red and white F.W.D. Miller. This was an ex-Indianapolis car made by the F.W.D. Truck Company of Clintonville, Wisconsin, and the car that Louis Meyer had driven to a "500" victory. The racer was originally set up in 1932 and was one of two four-wheel drive Millers designed at that time with 4200 cc (256.2 cu. in.) four-cylinder unsupercharged engines. The principal fault of the car was its hard shifting quality, which, on a course requiring multiple shifts for grades in lieu of braking, was tough on Bill Milliken, its driver. The Miller failed to function smoothly in the race's later stages. It unquestionably had terrific straightaway speed but was outclassed by the easier handling cars.

Another interesting entry was the black and silver No. 55, driven by Paul Timmins of Boston, Massachusetts, registered as an "Ardun Special." It had a standard Ford V-8 100 block equipped with an Ardun conversion assembly, suitable for any 24-stud Ford or Mercury engine. The heads are of aluminum alloy with radially inclined overhead valves, actuated by push rods and rocker arms. Twin manifolds and carburetors are also a part of the modification, which is reported to deliver 175 hp at 5200 rpm. The Ardun-Ford ran among the first ten for three laps, then dropped out.

One of the cleanest designed cars in the starting group was No. 16, a Jaguar driven by Dave Garraway of Chicago, Illinois. This was a 1939 SS100-model, six-cylinder 3500 cc (213.58 cu. in.) job, which later tagged a hay bale, tore up one fender but still finished well up in the field.

With six freight trains tied up at the railroad crossing, sixteen Elmira and Binghamton radio hams strategically located about the course to wireless reports of any hazards that might develop on the raceway, and with forty-four starters lined up with en-

gines running, Starter Nils B. Mickelson gave the contestants the green flag. The 1949 Watkins Glen Grand Prix was underway with Huntoon hustling into the lead.

At the end of the first lap, Huntoon had been passed by George Roberts in No. 6, a BuMerc, Cunningham, in the Ferrari, was third, Milliken's four-wheel drive was fourth, Sam Collier, brother of the eventual victor, in a supercharged MG, was fifth, Timmins, in the Ardun Special, was sixth, and George Felton of Boston, Massachusetts, was seventh. Felton, nicknamed "Fearless" Felton, because of his wild driving of a twenty-two-year-old Vauxhall that ran out of brakes in the 1948 race, had his giant four-cylinder antique road-racer screaming madly through the turns. An Allard was in ninth spot followed by another Allard, a Jaguar and an MG.

Two laps later the BuMerc still led, with the Ferrari second and Miles Collier in his Ford-Riley was up from fourteenth to third position. T. L. H. Cole, Jr., of New York City, in a tiny 1498 cc (91.38 cu. in.) four-cylinder H.R.G., had moved up to fourth.

The rules required that each car, at sometime during the race, must make one pit stop and take on a minimum of one gallon of fuel as a test of pit crews' efficiency. Mel Ord in the No. 40 Alfa, riding in fourteenth spot in the third lap, was one of many cars that took on the required fuel during the early stages of the race.

At the end of the fifth lap the four leaders were the same and John Fitch of Brewster, N.Y., in an MG had worked through the pack into sixth position.

Not until the ninth lap did the lead change again when Cunningham, in the Ferrari, moved into first position. Neil Allen of Pacific Palisades, California, in a TC model MG, which had moved into the first ten at the one-third stage of the race, was forced out after he struck a hay bale and bent his front-end assembly.

On the tenth lap, leader Cunningham lapped Fitch in the fifth place MG and the balance of the field scrapped it out among themselves. Cunningham in the Ferrari, Roberts in the BuMerc (another Cunningham entry), Collier in the Ford-Riley and Cole in the H.R.G. were all running in the same lap. Cunningham was a

full mile ahead of the second and third place drivers. His required pit stop closed the gap again. Going into the start of the fourteenth lap, Roberts in the BuMerc temporarily regained the lead and then lost it to Cunningham just before the white flag signalled the final lap.

Back in third place, a quarter of a mile behind the two leaders, Miles Collier began to press the Ford-Riley for the last ounce of speed. He picked up Roberts and passed him on the stretch beyond the White House "S."

Now in second place, Collier still trailed Cunningham as the cars vaulted through the grade crossing. On Big Bend at the start of the steep downhill concrete stretch he moved up to less than a car's length behind the Ferrari. He waited his chance and finally poured through on Milliken's Corner to take the lead at the Franklin Street right angle turn. He flashed across the finish line in a Frank Merriwell finish with several car lengths lead. It was a thrilling story book finish of a race that had seen four different leaders.

Naturally, the higher-powered Class D cars received most of the spectators interest but one of the truly amazing performances of the day was that of Tom Cole in the tiny out-powered Class B H.R.G., in which he finished fourth after averaging 66.6 mph. Not only Cole, but four other Class B drivers beat out the best of the more powerfully engined Class C group.

The five first finishers in each class and their relative positions in the finishing field were as follows:

Class D		Pos. in Class	Pos. in Field	Avg. Speed
Miles Collier	Ford-Riley	1	1	68.5
Briggs Cunningham	Ferrari	2	2	68.4
George Roberts	BuMerc	3	3	68.4
George Felton	Vauxhall	4	9	60.8
Dave Garraway	Jaguar	5	18	59.3

Class C		Pos. in Class	Pos. in Field	Avg. Speed
James E. Pawley	Lea-Francis	1	10	60.9
Sam Collier	M.G.	2	15	59.9
John Bentley	M.G.	3	20	58.2
Bob Grier	B.M.W.	4	28	54.6
Charles Moran, Jr.	M.G.	5	30	49.0

Class B		Pos. in Class	Pos. in Field	Avg. Speed
T. L. H. Cole, Jr.	H.R.G.	1	4	66.6
John Fitch	M.G.	2	5	62.2
Fred G. Wacker, Jr.	M.G.	3	6	62.0
Karl Brocken	M.G.	4	7	61.2
Gus Ehrman	M.G.	5	12	60.7

Class A (Only four finishers in this class)		Pos. in Class	Pos. in Field	Avg. Speed
Logan Hill	Cisitalia	1	8	61.0
Jos B. Ferguson, Jr.	Cisitalia	2	11	60.8
Antonio Pompeo	Fiat	3	22	57.2
Robert Keller	Fiat	4	35	56.2

Custom Bodies

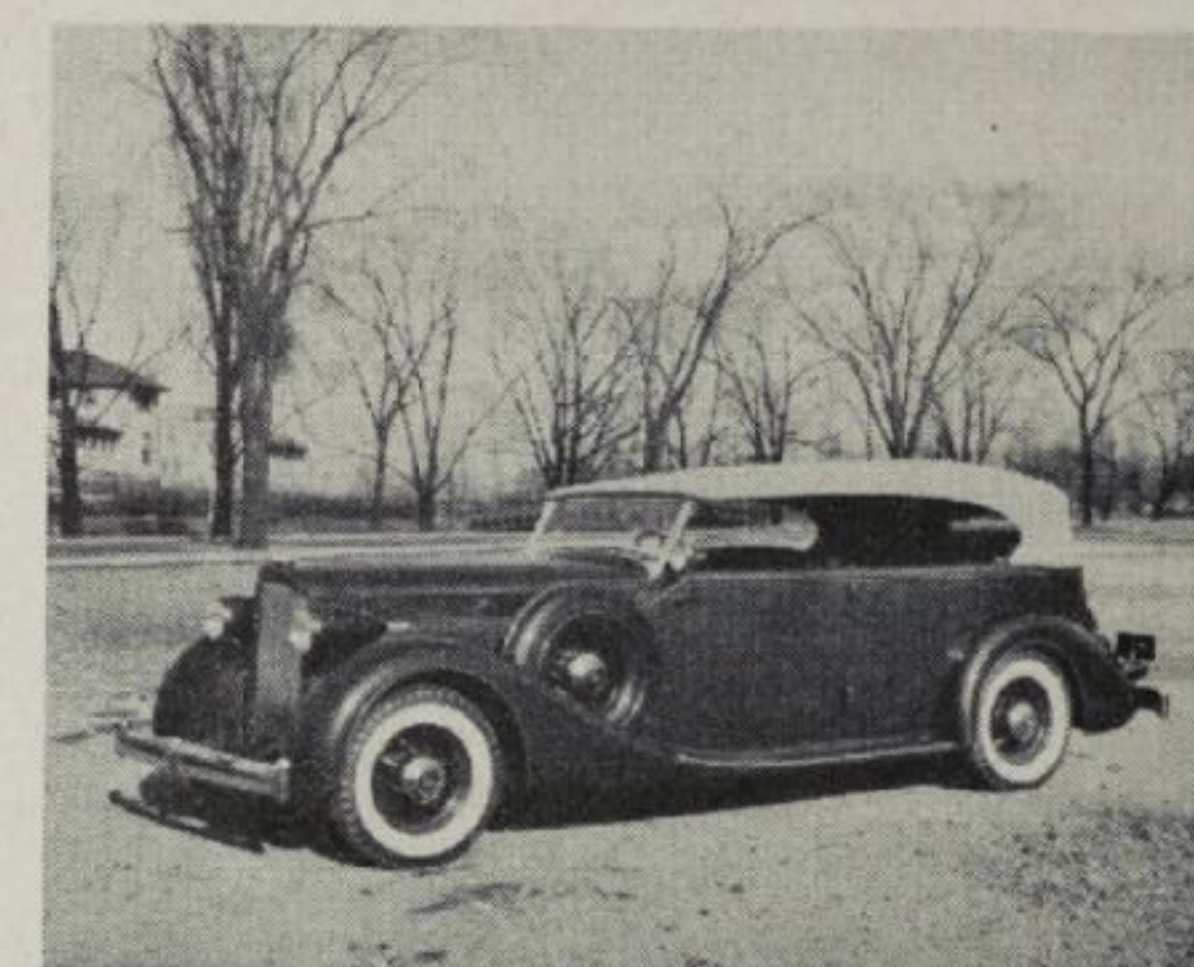
(Continued from page nine)

Body had lots of company on the road. Blackhawk—amalgamated into Stutz in late '31—had its L-6 Speedster, Franklin had two models of same, Packard designed one for themselves, and Stutz listed six—two by LeBaron.

At this point, it would be well to mention that a great deal of confusion in the terminology of the sports car existed here in the U.S. The speedster is usually defined as a two-passenger roadster with a boat-tail rear—like an upsidedown canoe pointing north. Unfortunately, Stutz called some of its phaetons "speedsters," and in regard to other terms, the rest of the industry did their best to louse things up for future researchers. Franklin had a body by Walker called the "Pursuit," which was supposed to look like the Stutz Torpedo by LeBaron. Eye-witnesses claimed a Torpedo was just another name for a phaeton, which was one body style that didn't seem to need any *more* names. For instance, there were sport phaetons, special phaetons, touring phaetons, touring cars, tourers, all-weather phaetons, convertible phaetons, and, believe it or not, just plain old phaetons. There were convertible coupe roadsters, convertible Victoria coupes, convertible sedanettes, convertible sedancas, convertible sedans, convertible cabriolets, and convertible club coupes. It seems likely that part of the production of a custom car was putting ten men to work figuring out what to call the body style that would mean just the opposite of what it actually was. The Lincoln convertible roadster by LeBaron was a convertible coupe; the Murphy body V-16 Cadillac all-weather phaeton was a convertible sedan, and so on, ad nauseum.

Well anyway, in 1931, most American sports cars were strictly in the Con-

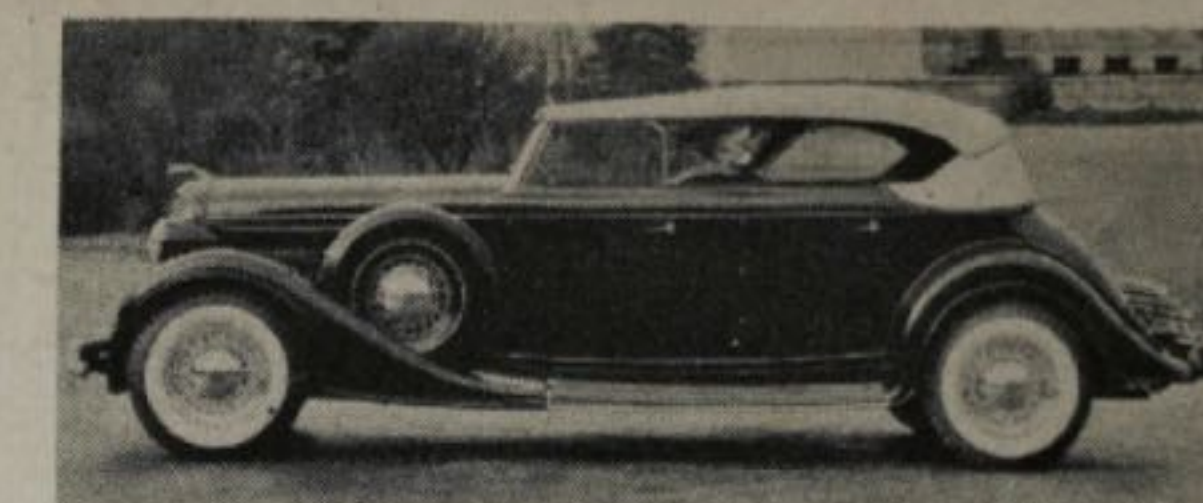
tinental tradition. Some of the names tacked on the bodies by their designers or the factory showed the influence of the style centers of the world; Weyman Bodies created a Versailles, Chaumont, Longchamps, and a Monte Carlo for Stutz—all closed sports sedans and coupes, to the best of my knowledge. Blackhawk got a Monaco, Deauville, and a Chantilly from Weyman also. Cadillac had an Imperial by Fleetwood, and so did Chrysler with the famous LeBaron phaetons, coupes, and sedans—all convertible. In 1932, Stutz cornered the market in fancy names and came up with a Prince of Wales by LeBaron, a Patrician Coupe by Rollston, and rather logically, a Continental Coupe by Waterhouse.



COURTESY OF PACKARD

1935 Packard Phaeton by Dietrich

And prices! With an applestand on every corner, breadlines in every city, and with the banks showing more runs than a handful of nylons in a rose bush, Cadillac listed its new V-12 line in 1931 as \$3900 up, and the V-16 at \$6000 up. Lincoln gave the market a quick appraisal and switched in 1932 to a V-12 for the masses at \$4600. The Marmon brothers figured that what the country needed was another V-16 and not a five-cent cigar, so they allowed as how you could have a convert sedan for \$5200 and up. Auburn said, "Hey fellas, wait for me!" and busted out all over with their V-12 in 1932, offering the Midas-touch general public four models of speedsters in which to drive down to the relief office. Pierce-Arrow, hitherto a fairly quiet, substantial family-car-type firm, produced from its opera hat a line of V-12's all by LeBaron at a special, only-ten-to-a-customer, marked-down price, starting at \$5000 for the converts. To the perennial visitor from Mars—the one always called down to view things ob-



1934 Lincoln Sport Phaeton by Brunn

jectively for writers—it would seem that the auto industry had taken Herbert Hoover's "two cars in every garage" and revised it to "a cylinder for every man, woman and child in this here country." When in 1933, Packard introduced its V-12, and in '34, Franklin took a whack at it, the industry probably achieved this remarkable zenith.

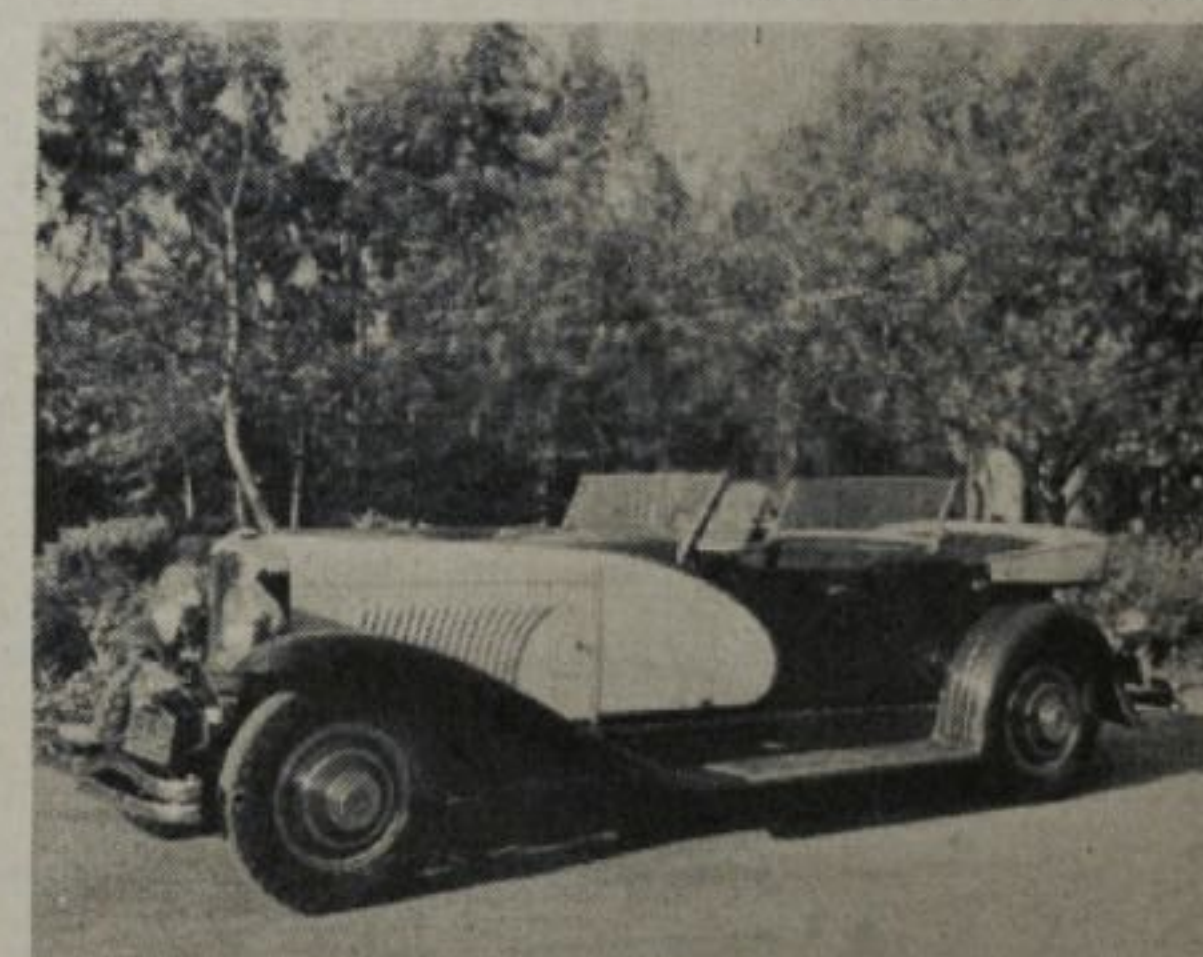
Most of the multi-cylinder jobs were custom cars. Company policy was to list a four-door sedan and a coupe in their larger line, and then specify all other bodies could be had on order. Stutz was the only major quality car producer who did not try a 12 or 16. Instead they doubled the valves and dreamed up the DV-32 whereupon, they announced in 1932, could be had a Sports Bearcat on a "116 inch wheelbase for \$5900 up." No body maker is specified in the listing, however, it could be assumed that either LeBaron or the factory itself drafted the style on this one. I personally would like to see this one if it ever got off the drawing board.

To get back to the body makers. Very little is known about the men whose names were cast into the neat, conservative plaques that were tacked to the body behind the fender spare. Brunn—who did Lincolns and Packards mostly—was in Buffalo, Dietrich in Detroit until taken over by Packard in 1934, Derham in Philadelphia, Murphy, Bohman and Schwartz in Pasadena, Rollston in New York, and all the rest—Holbrook, Willoughby, LeBaron, Judkins, Brewster, Fleetwood,

(Continued on page thirty)

DUESENBERG Phaeton by LeBaron

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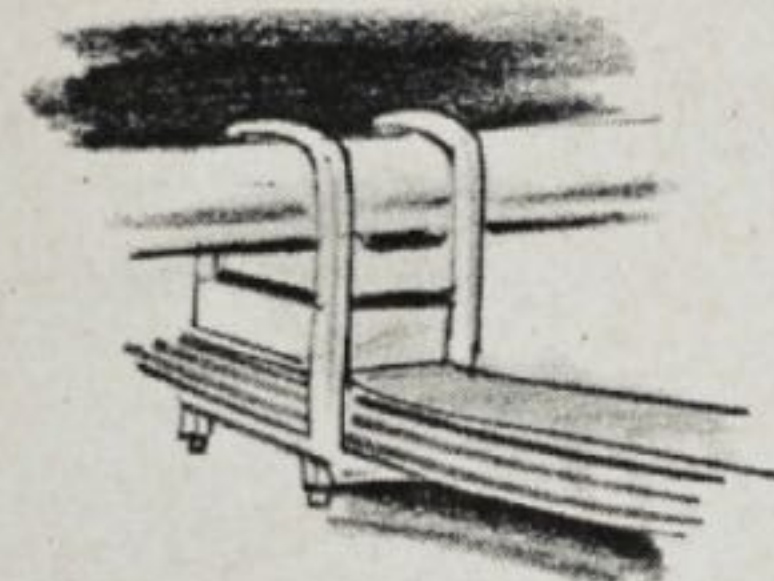
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Styling Hints

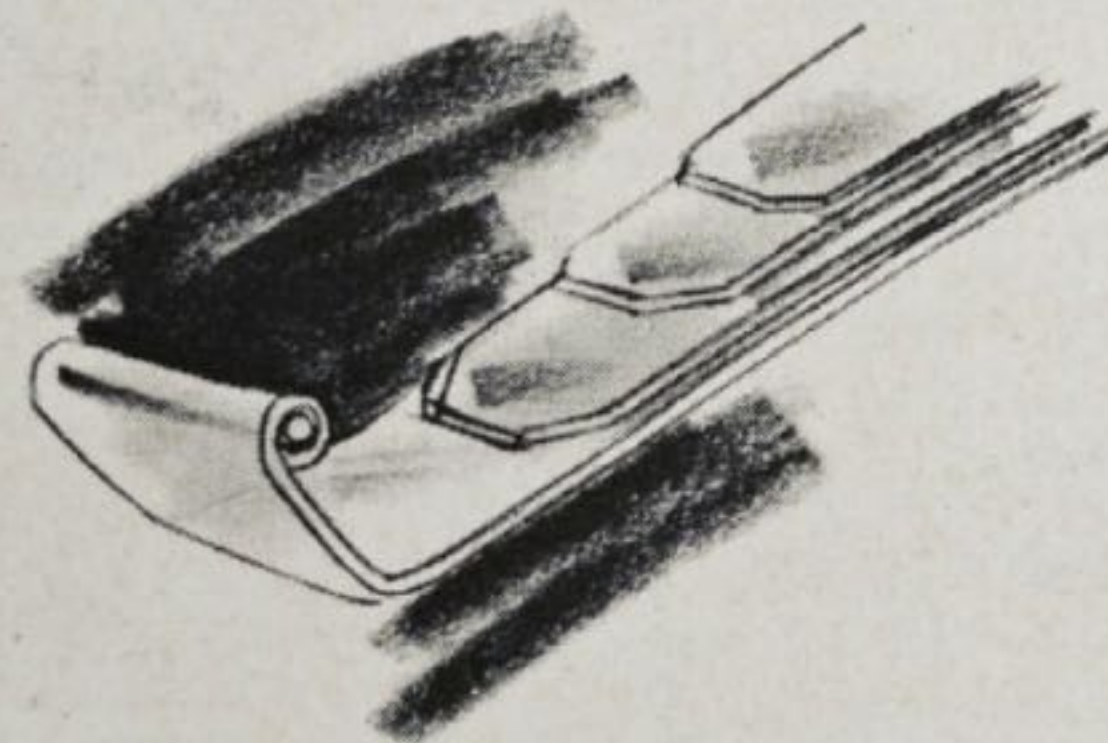
NOTE: Restyling and customizing are two things that, like other arts, are better left to the masters. However, there are many small items that an individual, with the proper tools, talent and patience, can perform. That is why this page, each month, will be devoted to styling hints—hints that an individual can take advantage of, either by doing the work himself, or by contracting a stylist to do the work for him.—Editor.

THE two items that are generally foremost in a person's mind who wishes to restyle or customize his car are to lower the body and to strip all the chrome off. Taking these in order, lowering can be done by several methods, depending on the type of car and whether the front or rear is being lowered.

The rear end of GMC and Chrysler products can be lowered by the installation of lowering blocks between the axle and the spring.



For Ford products that use transverse springs, lowering can be accomplished by the use of longer shackles or by the tempered heat system. An acetylene torch is used to bend the spring



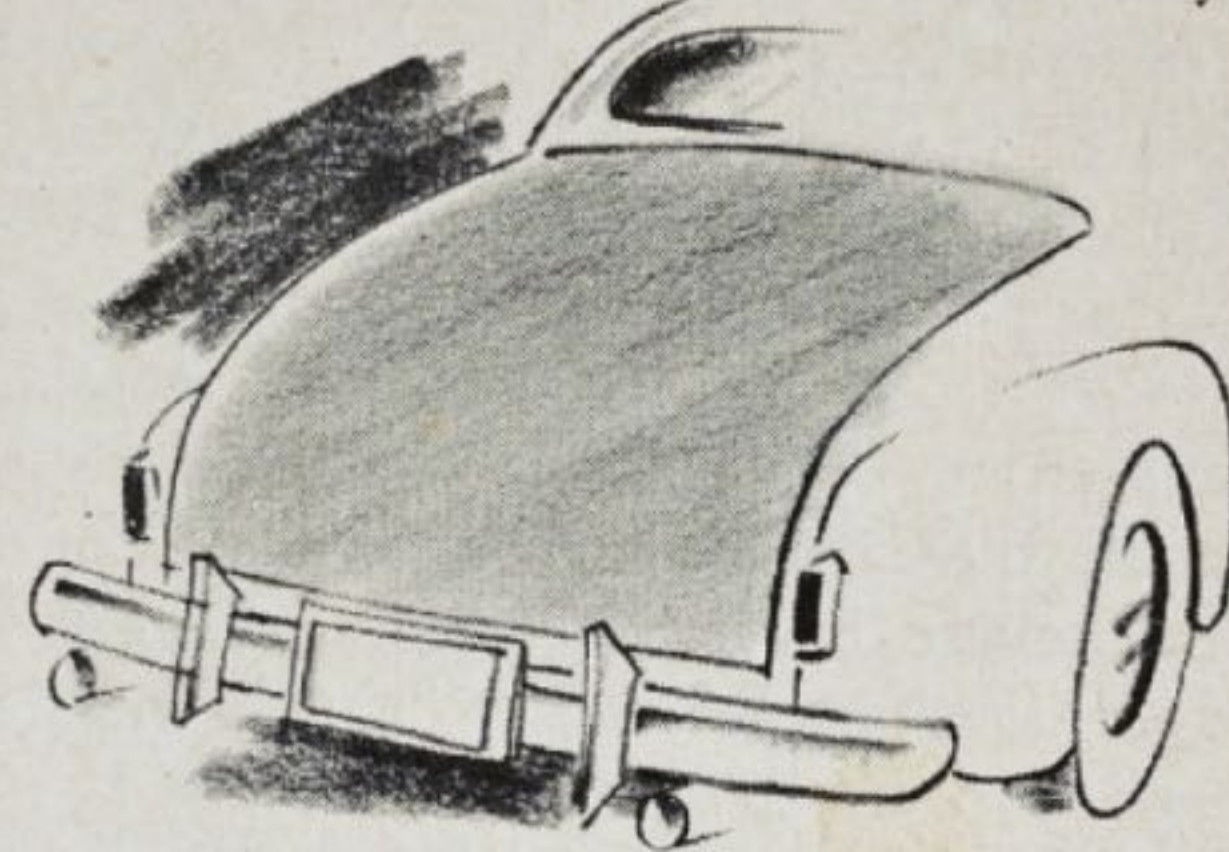
near the shackle and give it a reverse curve. This will lower the rear end as much as two or three inches. After bending the spring, temper it by the use of a torch flame that is using a considerable amount of acetylene.

Dechroming

The amount of chrome removed from the body depends on the individual. Generally some chrome is left on the car to give it a certain amount of trim.

Most individuals prefer to have a smooth hood and deck lid, which is easily done by removing the ornament, latch and trunk handle, respectively.

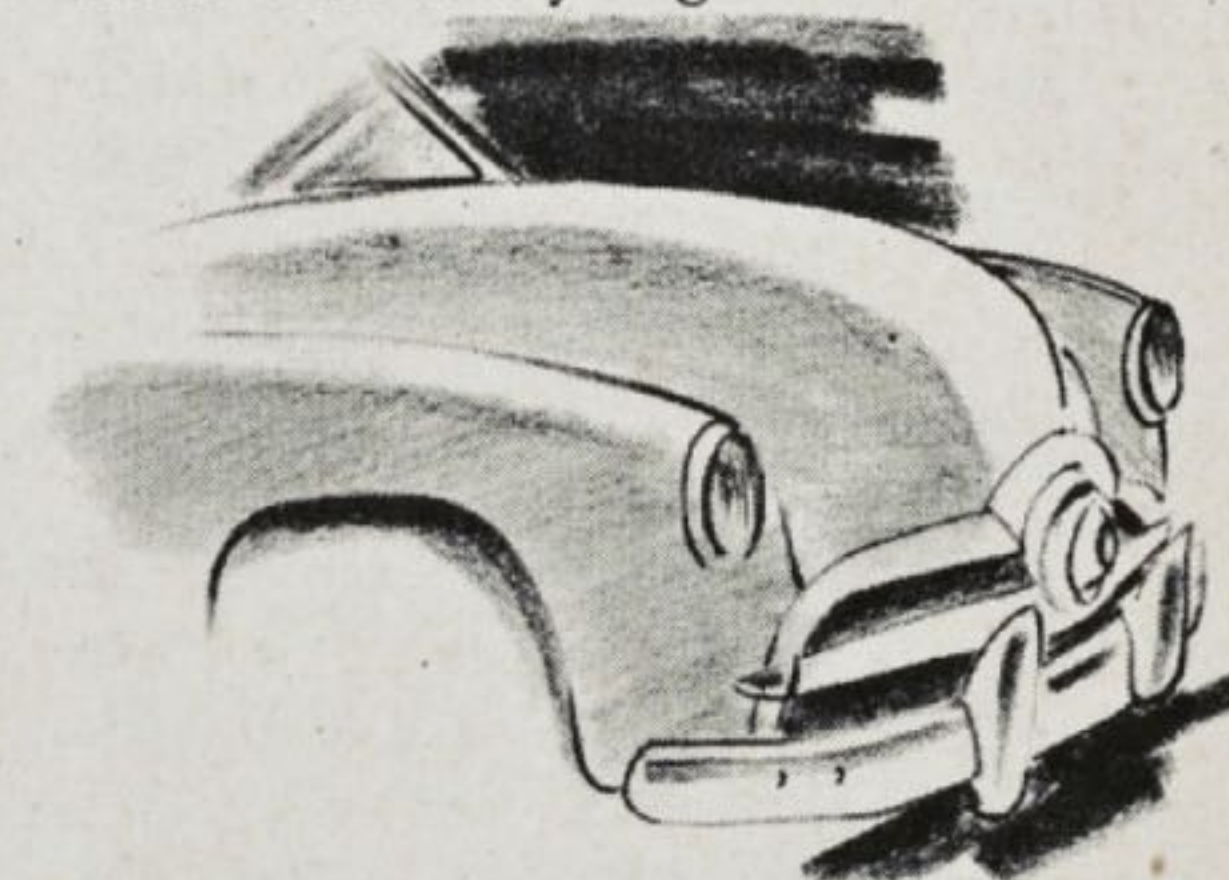
After removal, weld metal plugs into the holes and then lead as necessary.



Leading

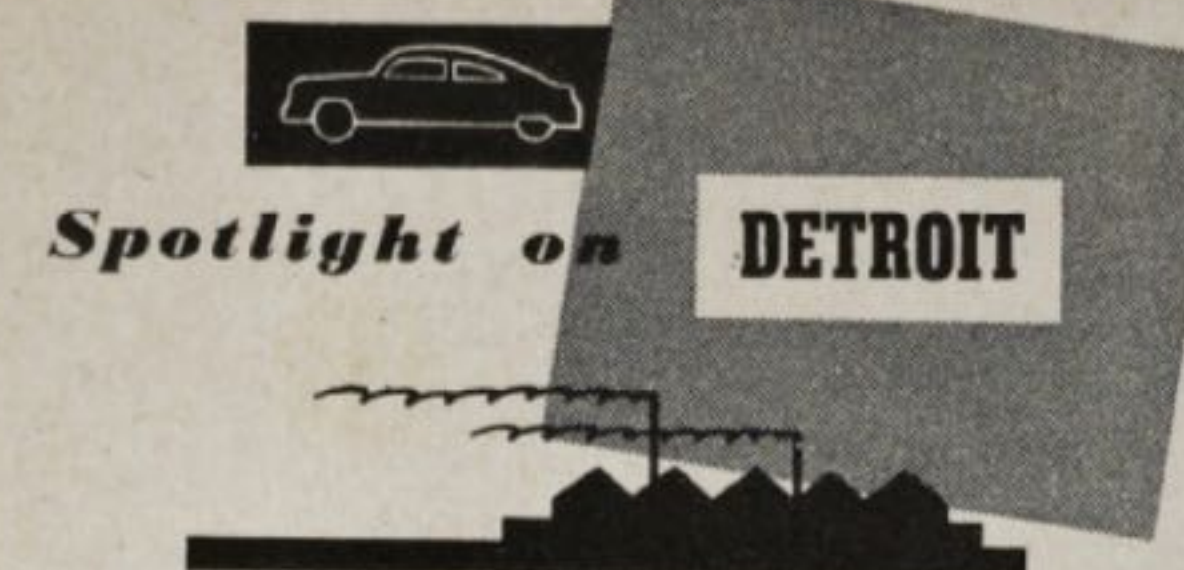
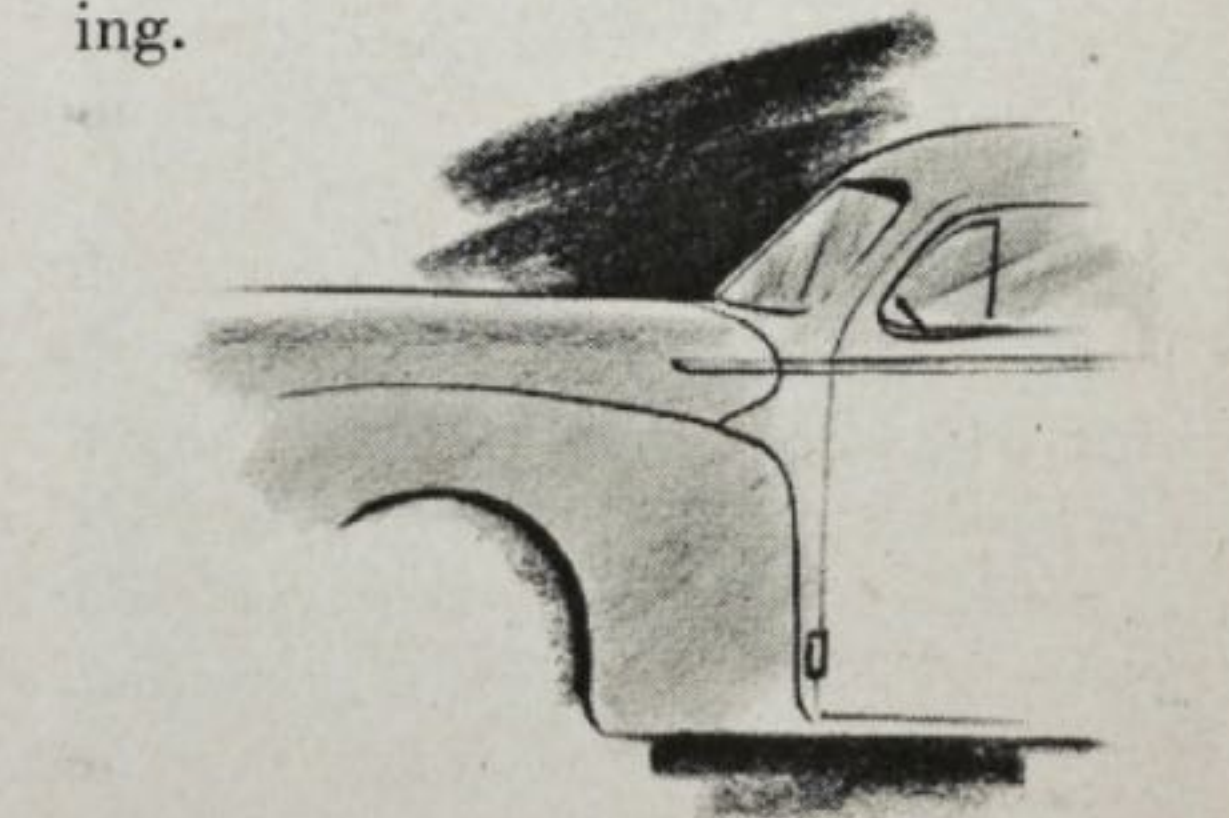
Leading is quite a process in itself, requiring the use of a torch, lead, buffer, file and emery cloth.

First, weld or braze up all the holes. Buff these clean with a sanding disc, then tin with metal tinning compound (apply with a rag or steel wool). Wipe clean with a dry rag.



Apply the lead with a torch and a hand paddle (an oak paddle designed for applying lead). Press the lead in firmly to form it into the indentation.

Next, buff the surface with a buffing machine and then file to perfection with a body file. Use a fine emery cloth to get a perfect job before priming.



STILL the hottest item on Detroit's agenda is the automatic transmission... with all manufacturers probably swinging over to this type of transmission by 1950 or 1951.

Hydramatics are now being used on Oldsmobile, Cadillac and Lincoln, along with its announced adoption by Nash on their new model Ambassador.

Torque converters being used include the Dynaflo on Buick and the Ultramatic on Packard. Similar units will also be used on Studebaker next year and on 1950 Chevrolets.

Still to swing over to the automatic transmission are Mercury, Ford, Chrysler products, Kaiser, Frazer and Hudson. It is believed, however, that some of these manufacturers will announce automatic transmissions as optional equipment concurrently with the introduction of their 1950 models.

FOLLOWING close on the heels of Crosley's new Hydra-Disc braking system was the recent announcement by Chrysler Corporation of their new hydraulic disc brake.

This system consists of two flat pressure plates, separated by six steel balls, the entire unit being placed in a housing. As the brakes are applied, the outer plate rotates, forcing the steel balls out of their sockets and up on a ramp. This action forces the two pressure plates apart and, in turn, causes them to exert pressure against the rotating brake housing. This furnishes the braking action.

WHETHER or not car manufacturers will continue the use of additional glass in future models is another hotbed of discussion. Studebaker started this trend in 1946, but whether or not the added vision (particularly in the rear) aids the driver is a moot point.

With two passengers seated in the rear of a car, the driver's vision has been cut off as effectively as if the car did not have the added glass area. There is no argument, however, about the windshield; it is almost unanimously agreed that added glass area here is a definite aid to driver vision.

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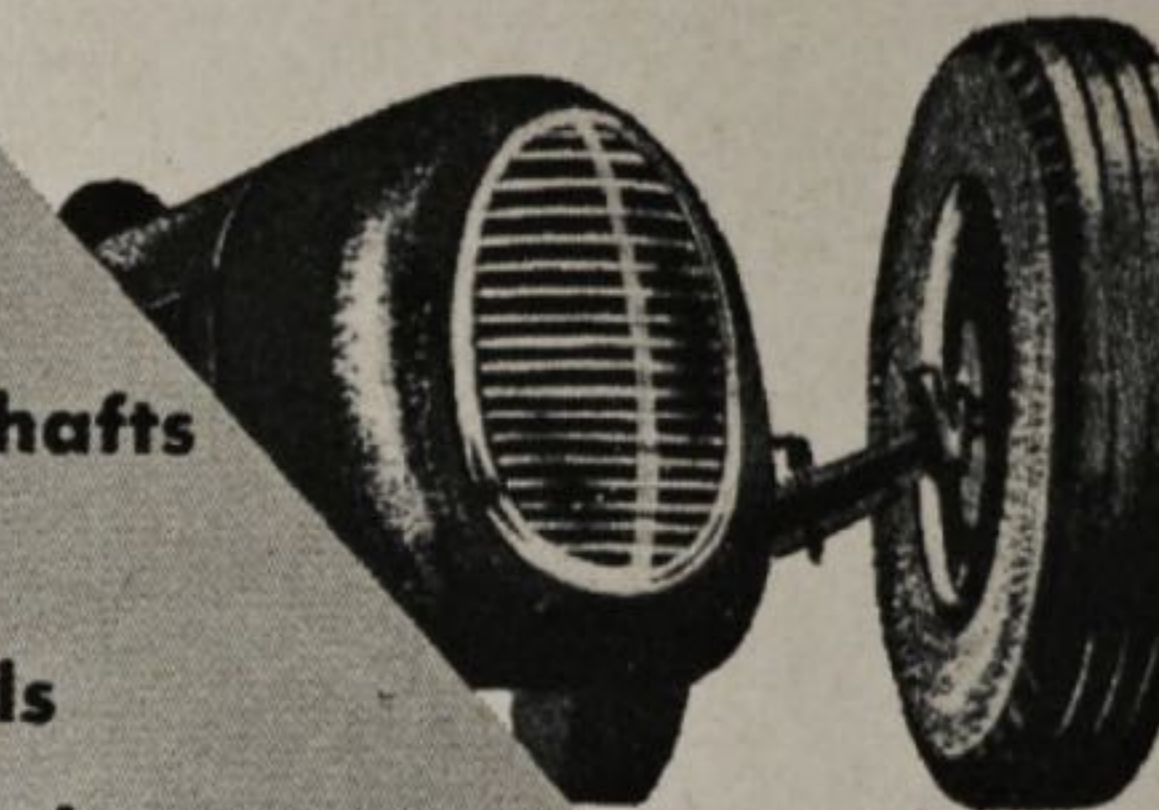
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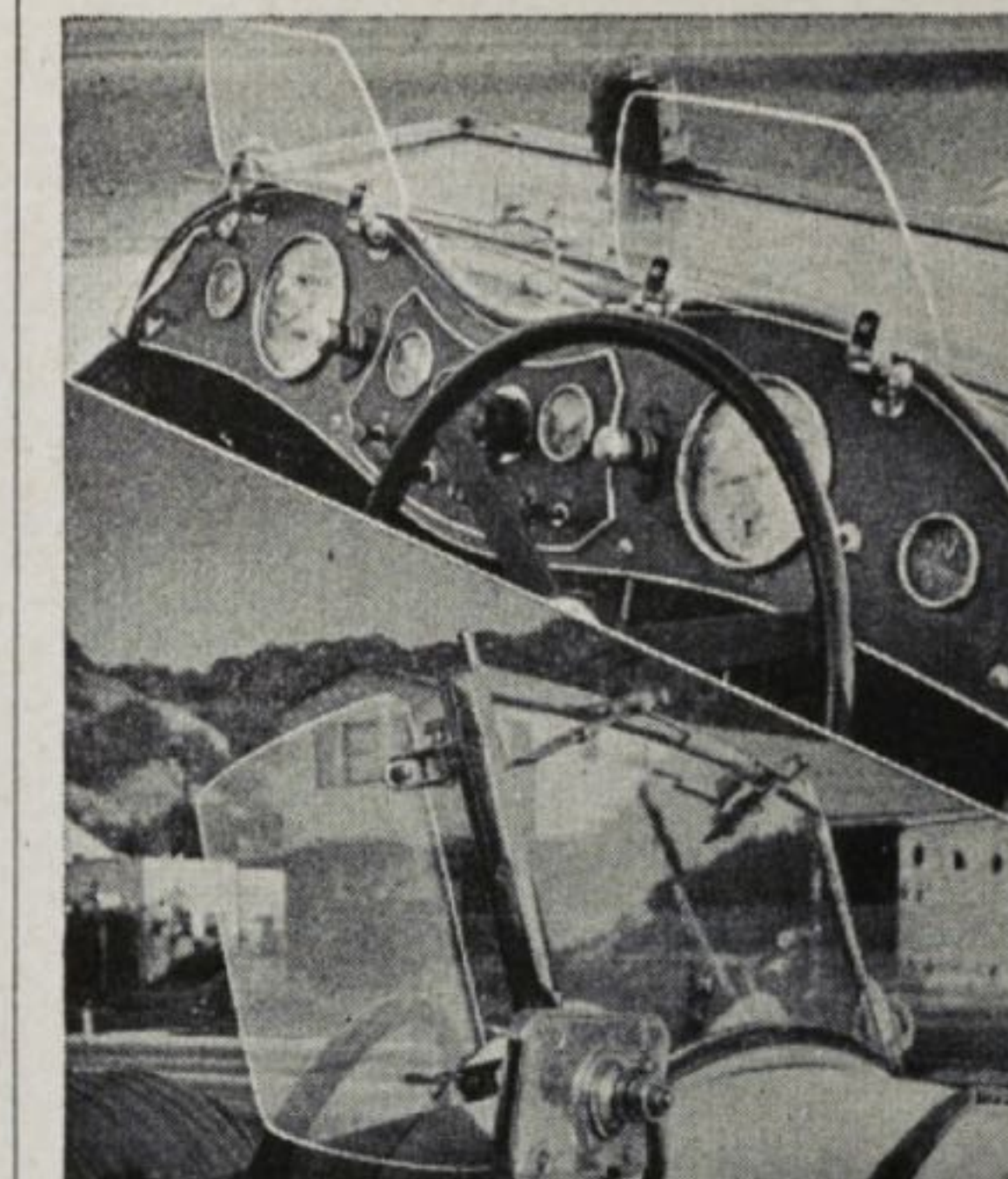
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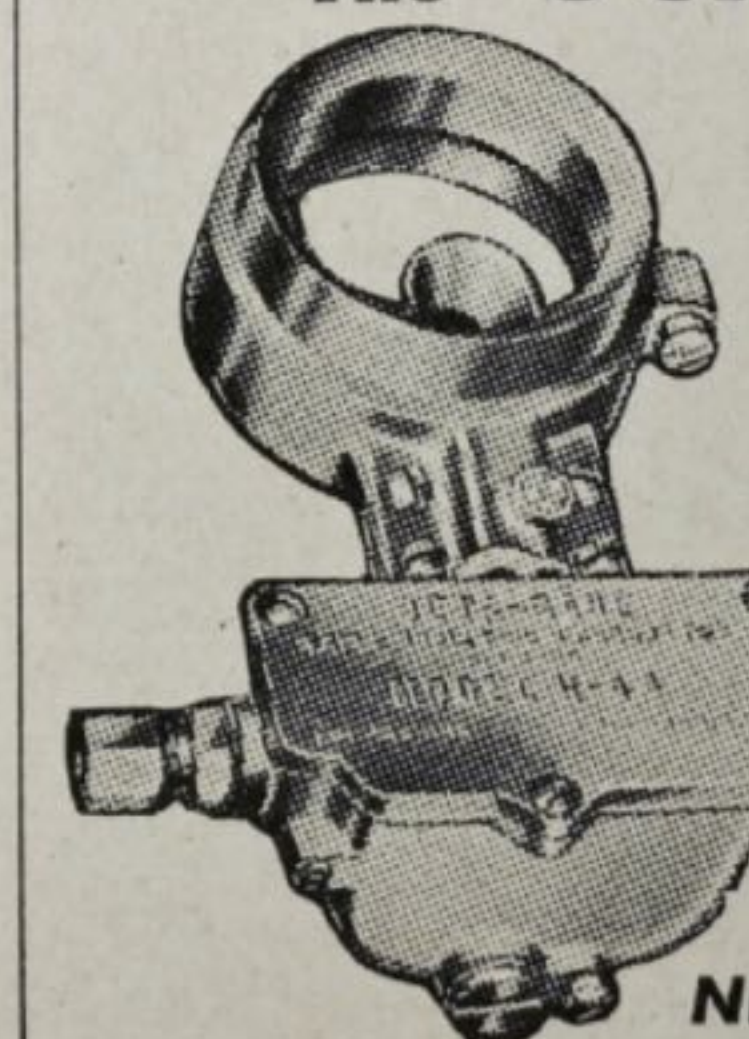
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DUSTER DATA

Text and Photos by Tracy Gilpin

BACK in 1908 when Carl Laemmle was advertising a free booklet on how to start a motion picture business and people to their eventual regret ignored the ads in droves; when the E.M.F. Roadster (later to become the Studebaker E.M.F. and, still later, just Studebaker) was nicknamed "Each Morning Fixit"; the Cadillac was an awkward four-cylinder creation that developed thirty horsepower and sold for \$1,400; the year that George Schuster in the Thomas Flyer won



EARLY 1908 model Jewell with its distinctive piano-box style body. What would correspond to the keyboard section of a piano is the section behind the seat in which the one-cylinder engine is housed.

the New York to Paris race after traveling 2,385 miles overland and 3,246 by water to best his nearest competitor by twenty-six days—that, too, was the year of the Model C Jewell, a \$600 roadster that was a thousand pounds of shaking, quivering, bucking horseless carriage.

The creators of the Jewell, the Forest City Motor Co. of Massillon, Ohio, made much of the fact that the Jewell was powered by a two-cycle engine and compared the idle stroke of the four-cycles with "trying to drive a nail, and missing the nail every other time."

Actually the Jewell was just what the manufacturer claimed it to be when it was advertised as a "marvel in compactness" and "the simplest engine in the world," but simplicity and compactness don't always mean efficiency.

The Jewell had a two-cycle, 10-hp, 4½-inch bore, 4-inch stroke single-cylinder valveless engine that in the model pictured here is still able to jog along the highway at a rickety 25 mph wide open.

While its cooling system might be subject to complaint today, its manufacturers prided themselves on its under-the-floorboard-mounted radiator, similar in location and design to the Olds of the same period, and positive direct gear-driven pump that permitted its owner to travel 150-200 miles without a water stop.

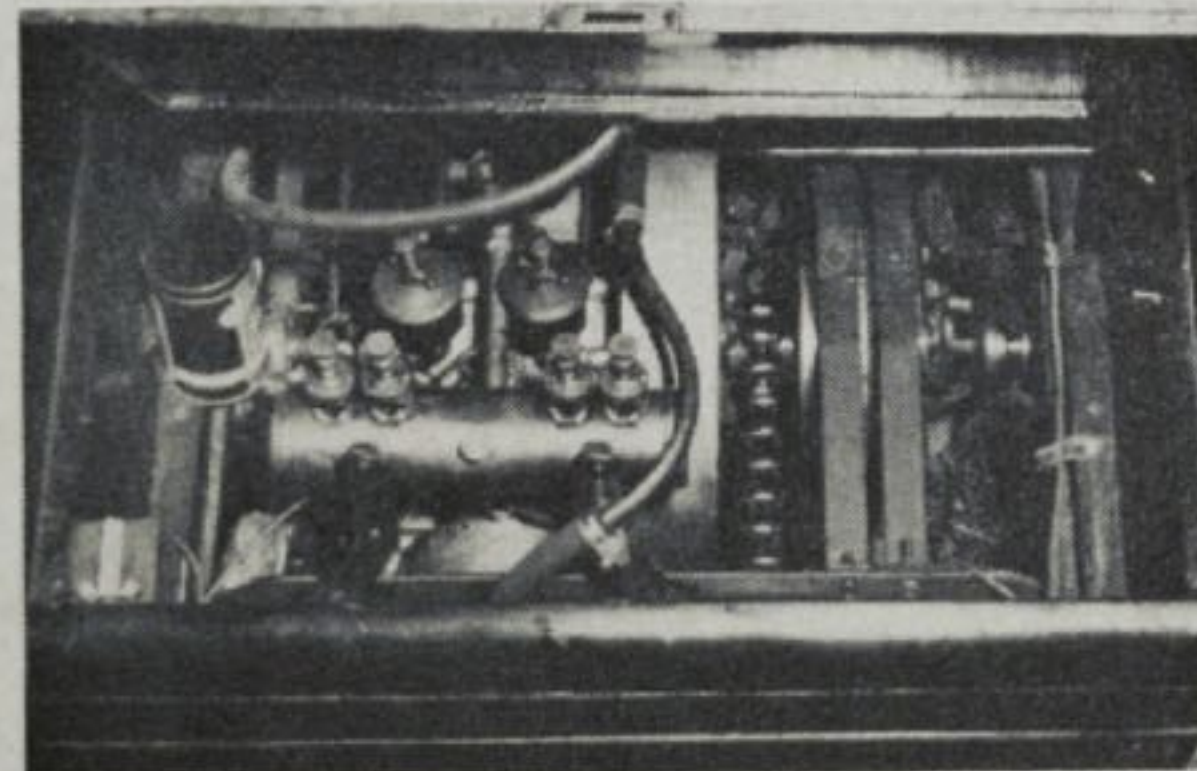
Brakes were of two types, foot-operated on rear axle and hand-activated transmission brake. The tires, of course, were clinchers and were 28x3's covering hickory-spoked artillery styled wheels. Tires were a major item and ranged in price according to tire size, starting at about \$26 for a 28x2½ to \$110 for a 36x5; tubes ran the range from \$6 to \$22 depending upon tire size. More than twenty per cent of the retail value of the Jewell was wrapped up in its set of tires and spare.

Patent leather fenders set off a body that looked not unlike the judges' platform at a Newport Tennis match of the same era. The body was known as a piano-box design because of its physical resemblance to that musical instrument.

It was, in fact, a definite stinker in the automobile market, but then so were some dozens of other cars based on the standards of the day.

The Jewell had more flaws than a Woolworth diamond, which makes it all the more surprising to find the pictured model in running condition after more than forty years.

This early 1908 model was unearthed in a barn on Philadelphia's Main Line, its steering wheel broken, wheel rims rusted, and piano-box body in battered condition, but the motor was complete, although rusted. The new owner's



THE JEWELL engine was unprotected from road dust, grit and mud. One can look into the engine box and see the ground.

greatest thrill was unearthing an unopened box of ten Parkins Spark Plugs, enough to fire up the Jewel for another forty years. \$350, plus six months part-time labor, put the car in condition to pass state inspection.

The car is strictly a collector's piece as its drip-system oiler uses a pint of oil every twenty-five miles, its steering arrangement is only a cut better than reins and on a moonlit night the squared-brass kerosene lights give visibility for at least ten feet. Add to this the completely undependable starting nature of its one-barrelled two-cycle engine, plus the accompanying jerks and bucks and the lack-lustre Jewel's disappearance from the car market is not too lamentable.

Two other automobiles, both bearing the name Jewell, manufactured by the Jewell Motor Car Co. and the Croxton Motor Car Co., also appeared on the market about this same time and are often confused with the Forest City Motor Co. product whose car name was more simply spelled.

The Jewel pictured here is strictly a strip model lacking any of the fancier accessories of the day. Instead of today's Hollywood mufflers, the 1908 motorist was more interested in a chain boot, a leather affair which encased the chain-drive assembly. The average chain on a bootless car was good for a season (a few thousand miles) because of damage caused by mud and grit. Another popular item of the day was the rain apron, a tent-like affair with slits provided for the protrusion of the motorist's and passengers' heads. Rain aprons of rubber cloth backed by whip-cord sold for about \$10 for runabout two-holers and \$18 for the five-hole touring car models. Replacement tops sold by the pound, the average price being two dollars a pound, which made the average cost of a new top \$75 and up.

Windshields, called "glass fronts," were extra equipment at \$25 and up.

Tires wore quickly, cut and punctured readily, and it was the lucky motorist who rode a hundred miles without a flat or a blowout.

Trends in Design

(Continued from page twenty)

cave chrome molding for highlighting effect.

The hard-top "convertible" has taken a strong hold. One of the best examples is seen in the Buick Riviera, with its rear window of wide curved glass that extends around the rear corners of the car and occupies part of the area normally covered by the rear quarter panels.

The Studebaker Starlight coupe provides a distinctive appearance, the rear windows being reminiscent of Jaray streamlining. In the DeSoto Carry-All sedan the rear seat folds down to the floor, whereby the reverse sides of the back and cushion form a wooden floor with chrome strips that extend through to the front deck lid, giving 62 cubic feet of luggage space. The Plymouth station wagon has a similar folding seat, which gives a continuous floor when the seat is not used. The spare tire fits into a circular floor well and is reached by removing a lid therein. Chevrolet does likewise, except that it is located behind the rear axle. The Dodge Wayfarer three-passenger roadster has removable plastic side windows. The Jeepster, introduced last year, has a low-hung Continental-appearing body with the rear passenger compartment accessible via a fender step; the front end remains the conventional Jeep but in highly ornamental form.

Lincoln has abandoned the unit body and frame construction, leaving the field to Nash and Hudson. It has been noted that gasoline tanks are being secured to the luggage compartment floor. Chevrolet is now anchoring the top of the shock absorbers to the body floor just back of the rear seat. It will be interesting to note the increasing "underneath attachments" in the future since, if this process continues step by step, the unit body and frame shall have been achieved.

Body Shell and Windshield

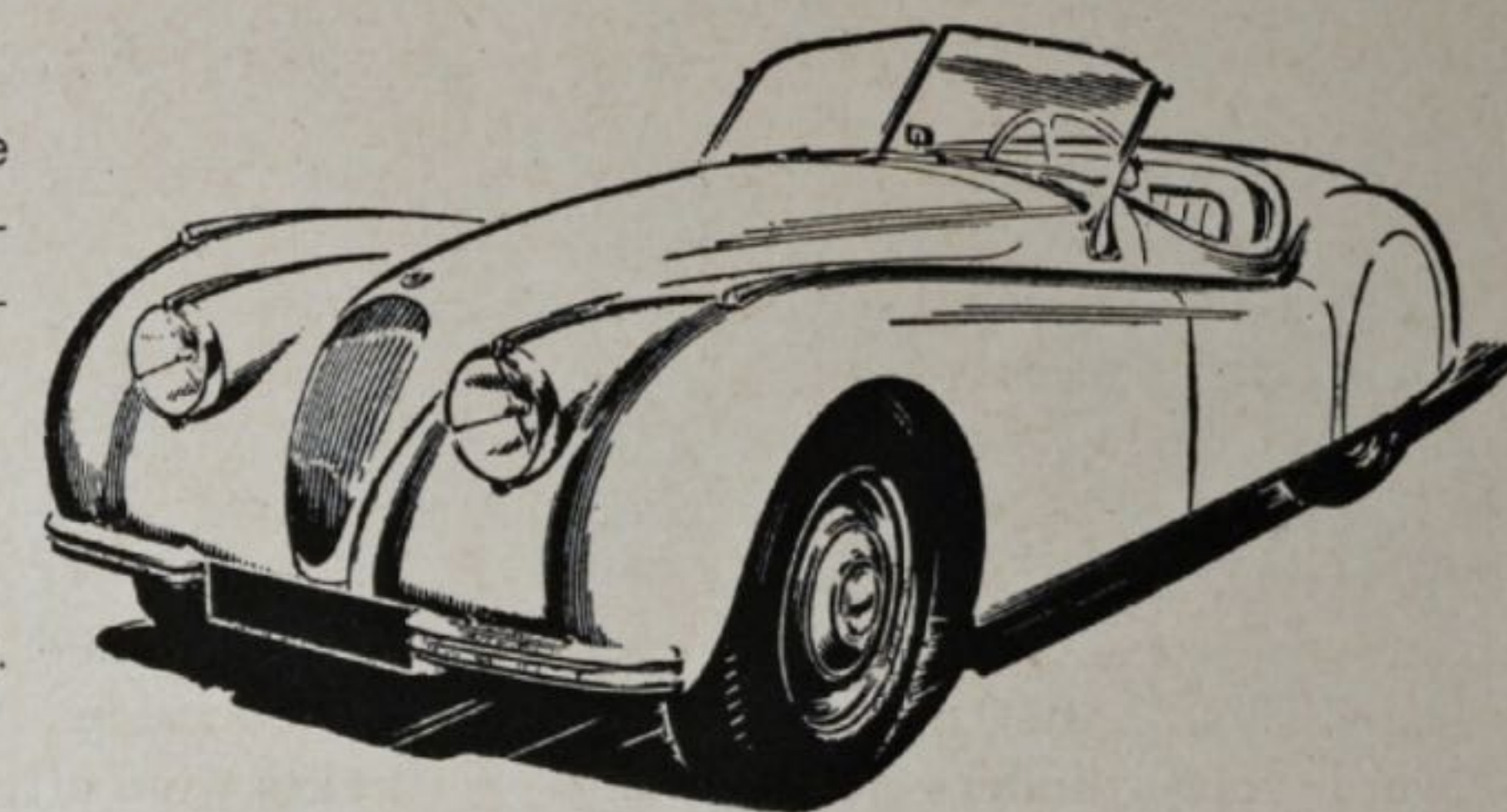
The GM "A" body roof has been lowered 2½ inches and has been moved farther to the rear. The windshield glass is held to the body in a cushion of rubber outside the actual body shell. Should any great impact force be imposed on the glass from the inside, it will be unseated from the channel and fall away from the body. The Nash Air-Flyte roof has been lowered six inches. In the GM "C" bodies,

(Continued on page thirty-three)

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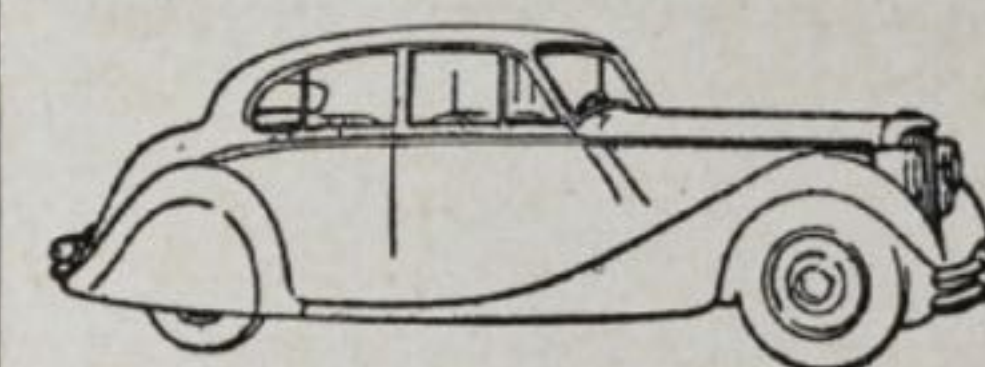
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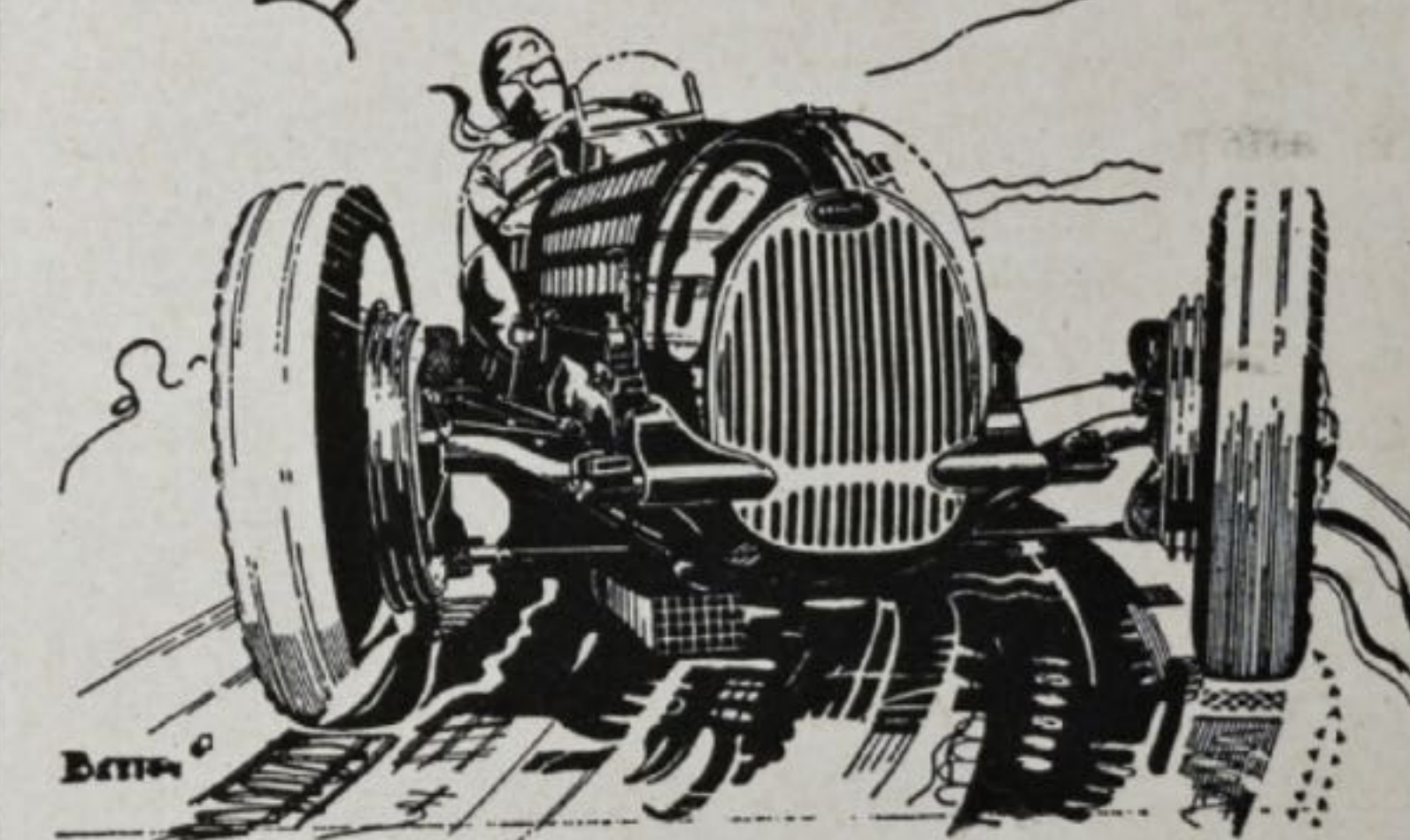
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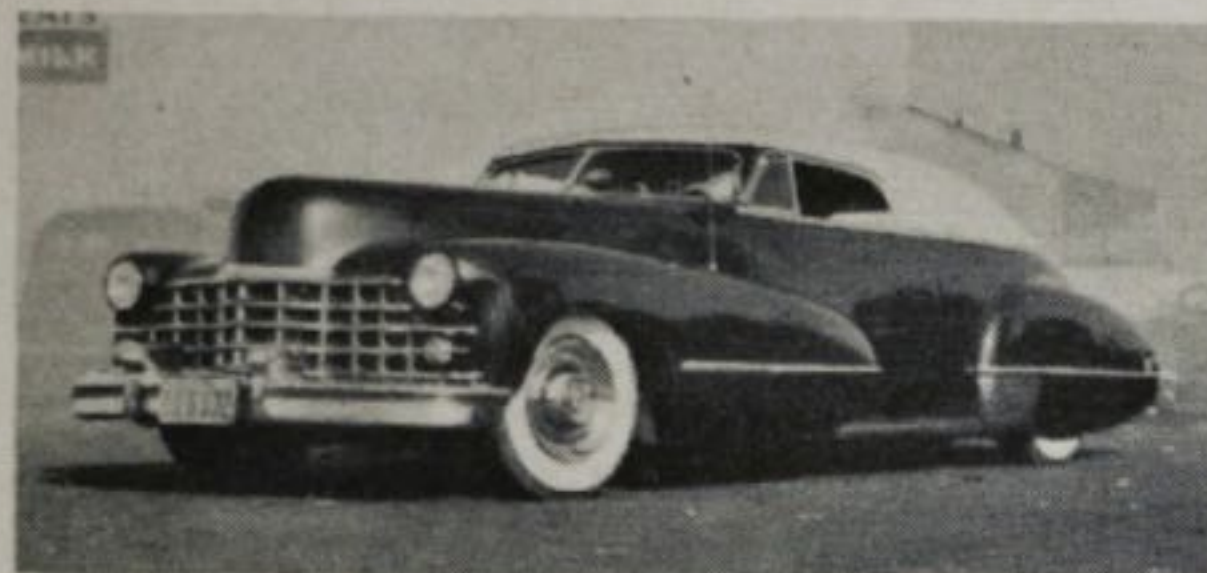
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Custom Bodies

(Continued from page twenty-five)

Waterhouse, Walker, Weyman, Locke, Hayes, Seaman—were around Detroit, or somewhere else for all I can discover.

In general, the theory of design used by most of them was the continental, as mentioned before. Now while this theory called for a certain streamline effect—the almost flat windshield, the V'd grill, the low silhouette—there were several departures from pure airflow lines (not airflow in the Chrysler sense). For one thing, all the boys used the biggest, flattest headlights to be found. Then too, very few of them could overcome European influence and put the spare tire or tires anywhere but in front fender wells. Dual windshields and tonneau cowl on the back seat were *de rigueur* for all phaetons except touring cars, which were usually seven-passenger anyhow.

The rolled cowl over the dash, external hinges (sometimes chromed), ostentatious radiator caps (which were always getting swiped and still are), chrome wire wheels or chrome discs over wire, all genuine leather upholstery, stainless steel, nickel, or sometimes leather dashboards, built-in bars, vanity sets, dual speaker radios, just plain gadgets—these were some of the standard gimmicks of the custom trade. Mechanically, most of the engines and chassis were absolutely stock; some changes were made after delivery, but only on order. Packards in particular were quite often equipped with dual manifolds, special rear axles, reground cams, and high compression heads, but only the 8's. Most of these cars could build up to a respectable 80-90 mph and hold it without any trouble anyway, so speed equipment was not a hot-selling item. By the time the body had been completed, enough lead to supply New York subways with slugs for a year had been poured on; as a result, even roadsters were over two tons. Murphy in Pasadena was using lowering blocks in 1927. Aluminum hoods were the cat's pajamas, tops were beautiful to look at and screaming hell for ten men to put up and down, doors slammed with a most soul-satisfying "THUMP," and there were enough instruments on the dash, and lights on the outside of the car to please even the most hardened, cynical, anti-plutocrat.

As many as five shades and colors of

lacquer went on custom bodies and sixteen coats was considered a bit thin. A Packard 12 Phaeton once owned by your correspondent was listed by the factory as being originally painted "pale lavender body, taupe moldings, deep purple fenders, and crimson striping on moldings and fenders." When I bought it, it was all black, chrome and all. I always wondered what had happened. Maybe someone didn't like the crimson stripe.

By 1934, a vaguely disquieting thought began to permeate the rosy pink cloud in which the quality car companies had been living. "Is depression?" asked some, little furrows on foreheads.

"Is depressions," responded rest of world sadly. "No more can buy hi-class-type car."

"Try," says quality cars, offering V-12's, 16's, straight and V-8's in large numbers, still more custom bodies, same prices.

"Tombe morte," said the more literate. "Drop dead," said the brutally frank.

Most of the custom boys complied, one by one. Marmon went, Franklin sludded off on its new V-12, the Cadillac V-16 and V-12 became "on special order only" and Stutz went down fighting. For 1935, you could buy a Packard 12, Lincoln 12, Pierce 12, a supercharged Auburn Speedster, and pretty soon a Cord, and you could get custom bodies from about eight men—and that was the end of an era. It was also the end of the continental style in cars; hoods broadened and joined the fenders high up on the hood side-panels; front and rear fenders became skirted, bodies fattened and over-all height went up again. Of course, the Renaissance was to come in 1939 with Darrin and the Lincoln Continental, but the years between were lean for the Long-Hood boys. What little was produced during the late '30's, the pre-war and post-war custom stuff, and general odds and ends will be covered in a second article at a later date.

Oh yes, I almost forgot, there was another sports car produced in the early thirties and up to 1936. Now what was the name of that thing, a Gooseberry? The Goldberg? Boozenburg? DUES-ENBERG! That's the one—a very adequate little car, remind me to touch lightly upon it next time.

NOTE: The second part of this article, covering the custom body era from 1935 on, will appear in the December issue of MOTOR TREND.—Editor.

Hill Climb

(Continued from page thirteen)

the course of almost 43 miles per hour.

D. G. Satcher's red and cream job is equipped with a '37 V-8 stock mill, Edelbrock manifold with dual carbs, and twin mags—nothing else. The body was built up from three pieces of an old Indianapolis job dropped on a Miller frame, and V-8 cross members. This car made the fastest time of the day during a qualifying run at the Goleta Meet the month previous.

Phil Payne's third placer is a stock V-8 '46 mill on a '32 frame, with no racing equipment except a speed shift designed by Phil and modeled after the MG's side lever system.

Goleta Meet

(Continued from page twelve)

Class I Touring

(up to 2 litres—2000.05 c.i.)

1. Karl Tunberg Triumph 1:26.35

Class II Touring

(over 2 litres)

1. Taylor Lucas Hotchkiss 1:17.5

2. Basil Panzer Jaguar 1:18.9

Novice Class

1. Bob Doidge MG Midget 1:17.15

2. Bill Pollack MG Midget 1:18.7

There was an estimated crowd of 300-400 watching the 28 contestants in their time trials and the later match races. The two winners in each class were pitted against each other in the elimination match races, with the winner of each match being stair-stepped down until only two cars were left.

Jack Early, in a blown MG, was given a 50-foot handicap over D. Satcher in the final match race. Up until the cars entered the back stretch, Early held onto his lead, but, at this point, the superior power of the race car allowed Satcher to move into the lead.

This course was made available to the 80 members of the California Sports Car Club through the co-operation of Mr. Hardin, the airport manager, and Mr. George Carey, who made all the preliminary arrangements at Santa Barbara.

Taylor Lucas (president), Fred Proctor (secretary), Johnny Von Neumann and Michael Graham (events committee) are now all busily arranging for future events at this same locale. In addition, they hope to eventually build a course at this airport for the purpose of conducting 100-mile road races.

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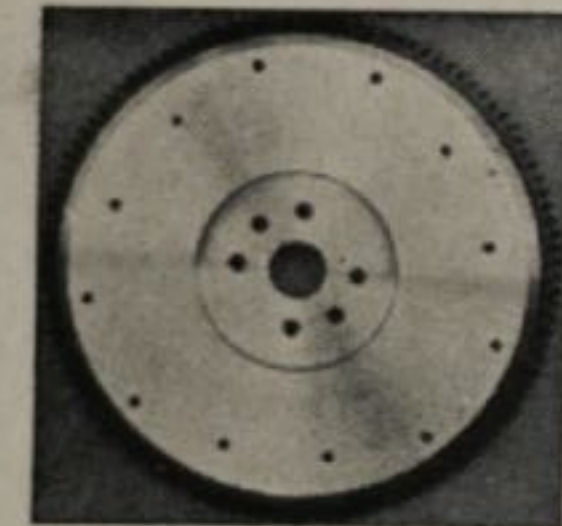
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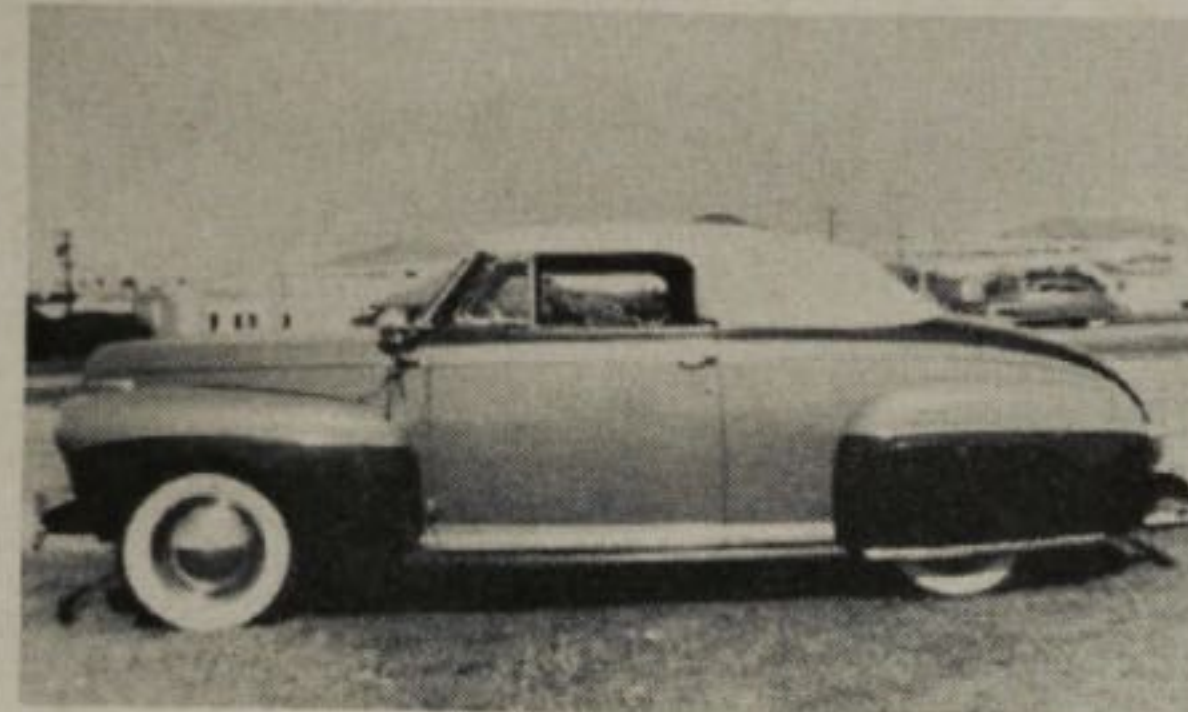
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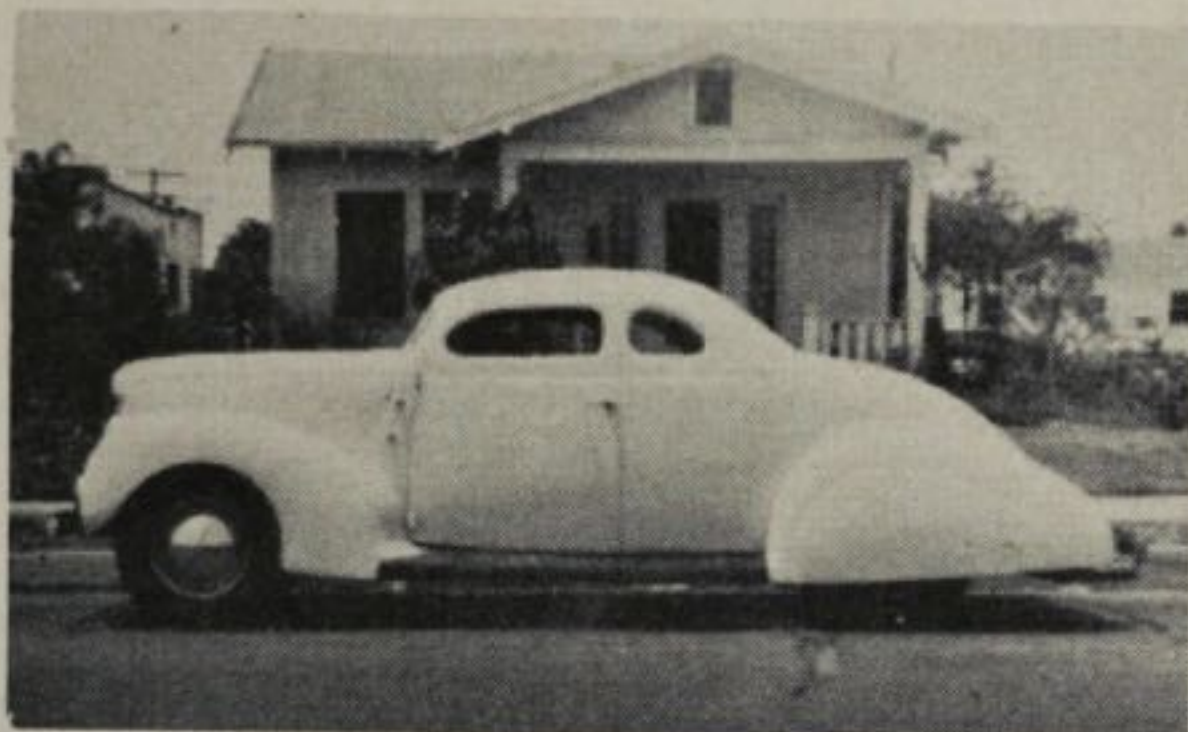
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CUSTOM CREATIONS

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DARK-COLOR paint on the lower part of this '41 Ford Club Coupe convertible is a metallic Ensign Blue, with the remainder a matching lighter shade. Top is of Carson design, nose and deck have been shaved, and license plate has been flushed. The seats and upholstery are a matching blue color. The car belongs to Don Lucey of San Francisco, California.



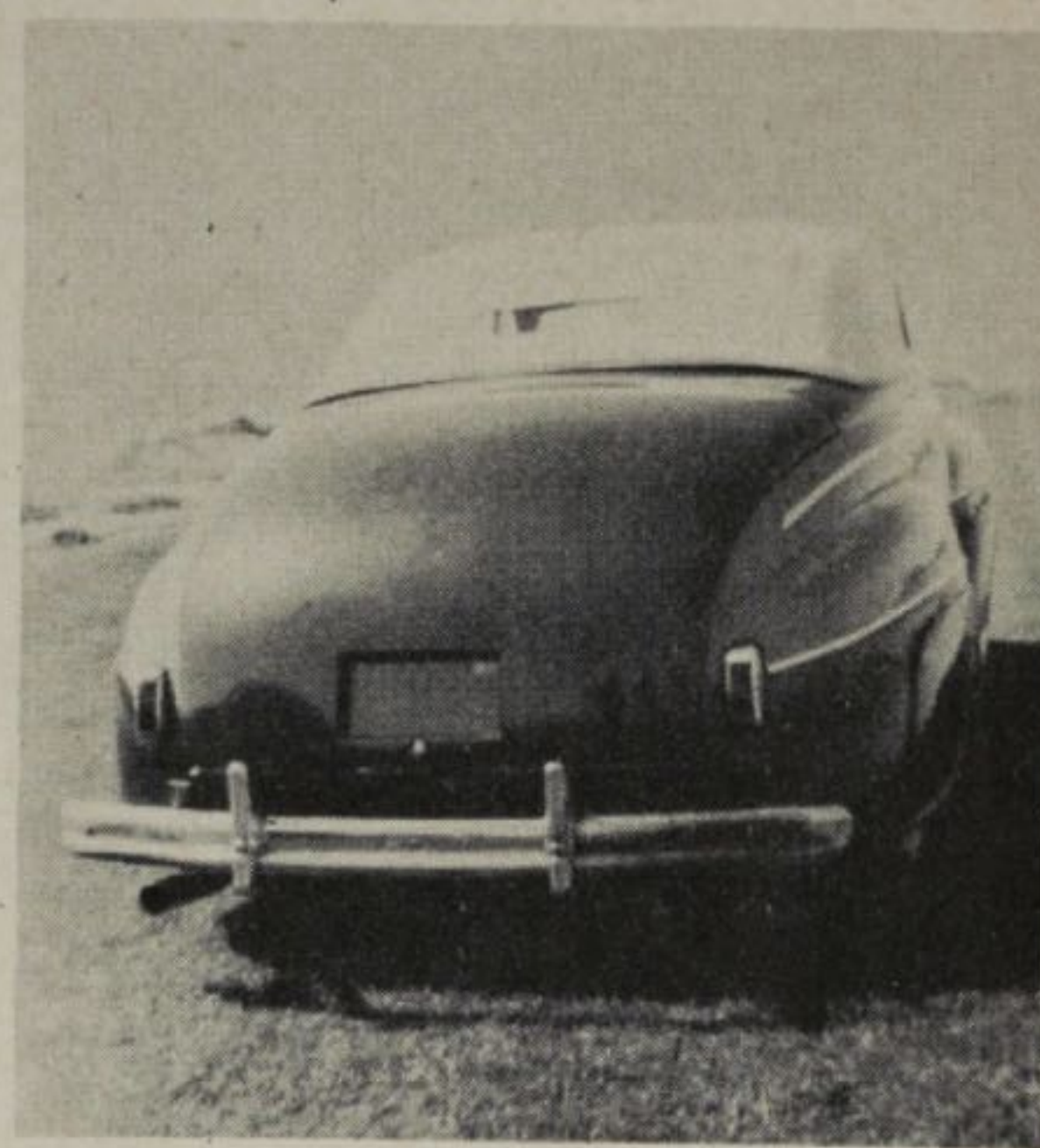
ORIGINALLY a '38 Ford V-8 coupe, this car now has a channelled frame and has been completely dechromed. It is all sealed in, has had the molds removed, while the front end is from a late Packard. The car now belongs to Dick Fowler.



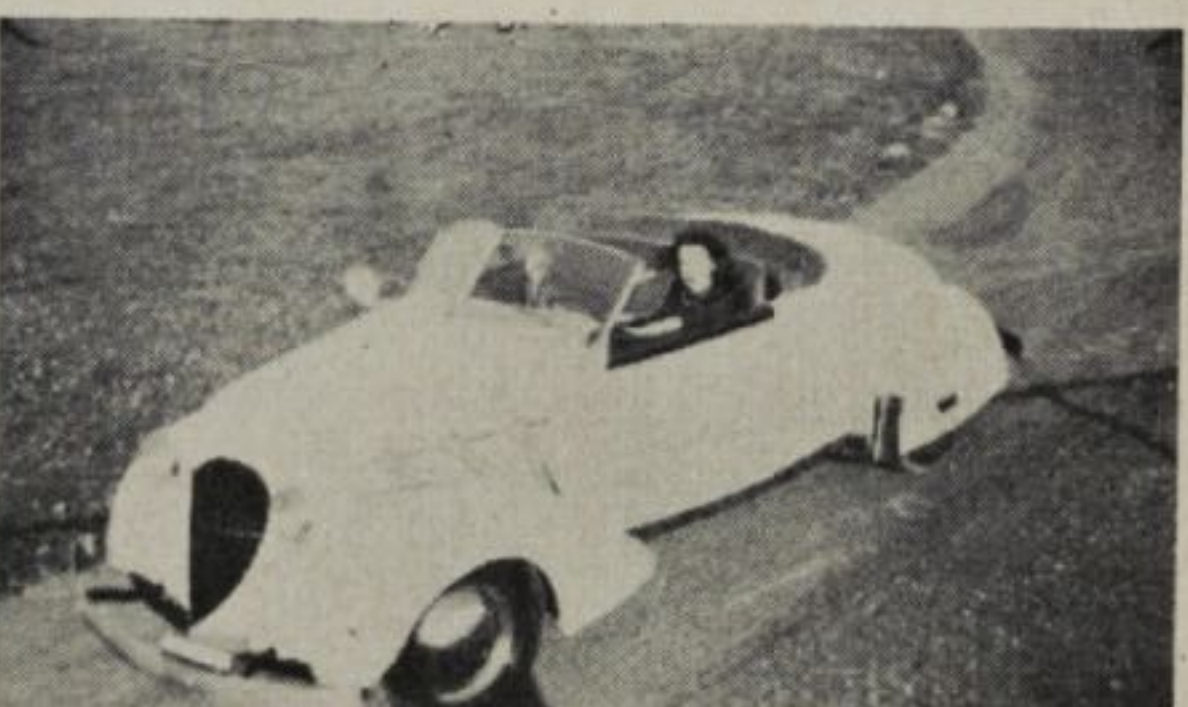
UNUSUAL FEATURES of the above car, a '41 Buick convertible, are: the rear fenders, which have been rolled forward several inches; tubular bumpers, which have the tail-lights set in one tube at the rear, giving it a neon effect; the special grille; and the Cord-type concealed headlamps. Car was constructed by Barris.



CUSTOMIZED CHEVY (a '41 two-door sedan) that comes from St. Louis, Missouri. The hood and turtleneck have been smoothed off, with the special grille effect



GEORGE VINAS of San Antonio, Texas, owns this custom '36 Ford convertible. The car has a '40 column shift, '40 head-lights, a chopped windshield, and Carson top. It also has '39 bumpers and tail lights. Note resemblance to the '37 V-8.



FROM MORRISTOWN, New Jersey, comes this photo of a '36 Ford Roadster built by Max King in 1940. This custom car was one of the first in the state and is powered by a '40 Mercury engine, equipped with 8:1 heads, a Tattersfield dual manifold, a 3.54:1 differential and standard transmission. The top has been removed.



brought about by a late model grille, partially covered by sheet metal. Note '48 Pontiac tail lights and late Buick bumpers. Owner of this car is Richard Avetta, Jr.

Trends in Design

(Continued from page twenty-nine)

box-section roof rails extend from cowl to wheelhouse, the rocker panels from front-door pillar to wheelhouse, the center pillar and the cross-member under and at the back of the rear seat. At the rear of the body the cross-member is a strong channel section. In the Chrysler-built cars there has been a slight narrowing; the Dodge, for instance, dropping from 75 $\frac{3}{4}$ to 72 $\frac{7}{8}$. The Chevrolet front bumper and sheet metal have been narrowed from 72 $\frac{1}{8}$ to 70 $\frac{1}{2}$, while the rear dropped from 74 $\frac{3}{4}$ to 73 $\frac{5}{8}$.

Better forward and side visibility through increased windshield area and lowered hoods is a distinct contribution to safety, together with lowered and wider rear windows and lowered rear-deck lines for rear vision.

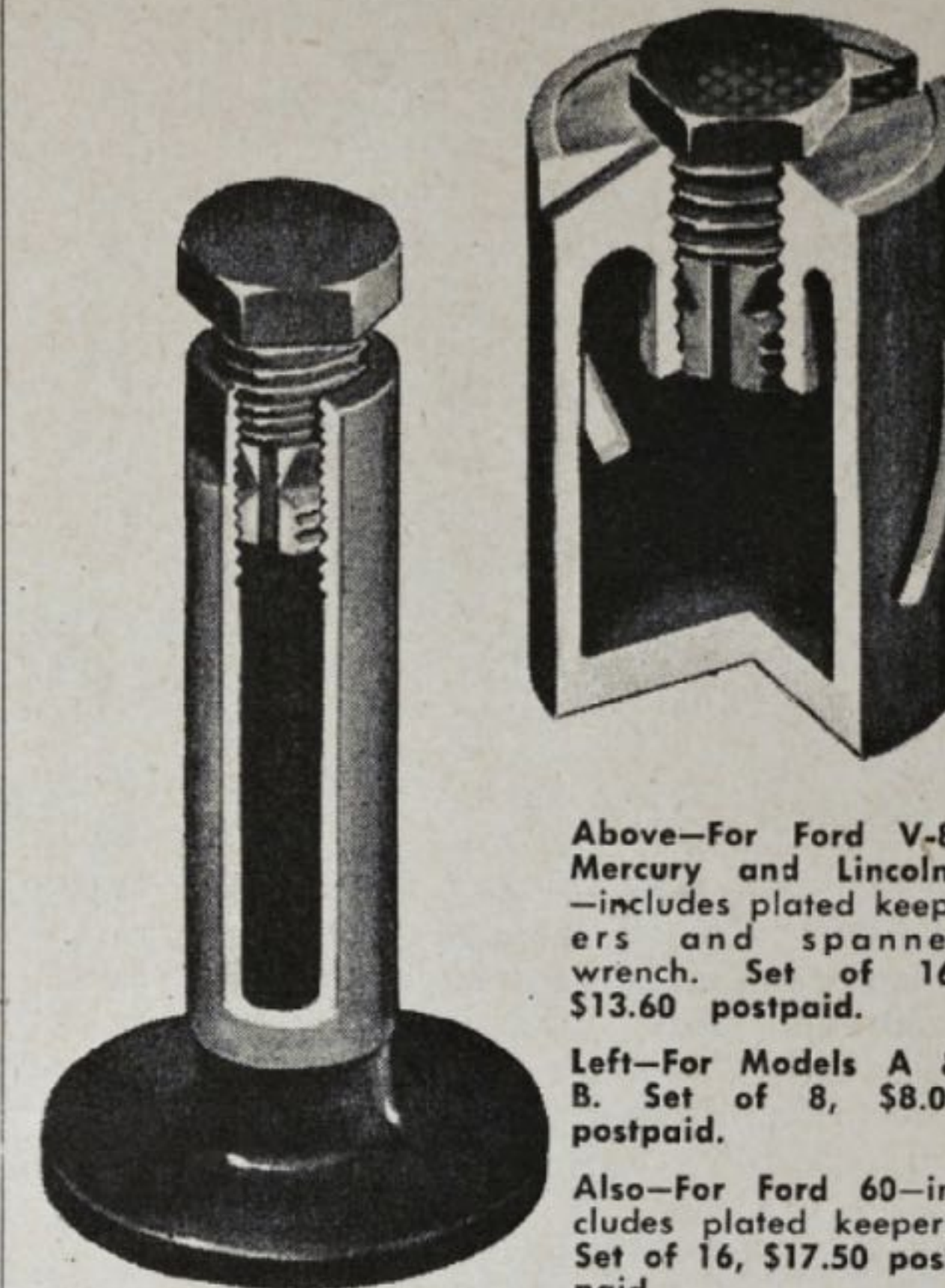
The curved windshield is not new, having been used in one piece in the 1934 Chrysler Airflow Imperial. The windshields of all GM cars are curved and of two-piece construction. The sides curve back on a smaller radius. All Ford-built cars have straight "V" windshields except the Lincoln Cosmopolitan, which is curved and of one piece, as is the case with the Nash. The Hudson curved windshield is of two-piece construction. All Chrysler-built cars, Kaiser-Frazer, Packard, and the Studebaker Champion have "V" windshields. The Studebaker Commander began in 1947 to use a one-piece straight "V" windshield with a small-radius center.

The popularity of windshield visors among car owners is a challenge to the body engineer. The old cadet visor is a far cry from the present version but its field use is an indication of a real need. It is interesting to note that it is optional equipment on all GM "A" bodies. Part of their 5 $\frac{1}{2}$ -inch increased width is due to the important narrowing of the windshield pillar from 4 $\frac{1}{4}$ to 2 $\frac{1}{2}$ inches, as measured in the line of vision. The dream of bringing this dimension close to man's interpupillary distance is at last close at hand. In addition, the pillar, as in the case of all curved windshields, is moved back toward the driver and the curve in the new windshield glass covers that area.

NOTE: The third and concluding part of the article on Postwar Automobiles will appear in the December issue of MOTOR TREND—Editor.

November 1949

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Thirty-four

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been waiting for. However, for twenty-five
cents I think it should have a few more
pages, even if they were filled with adver-
tisements...

E. Parriott
St. Helena, California

—You will notice that with this issue, we
have added four more pages, allowing for ad-
ditional features and articles.—Editor.

STYLING HINTS

Let's have a "how-to-do-it," on custom
cars, i.e., sinking a license plate, tail lights,
leading in holes after chrome strips have
been removed, etc. There are a lot of us...
who have the time and skill to do these
things, but can't afford to have all the cus-
tom work done.

The whole family was very enthused over
the initial copy of MOTOR TREND. Son
Wes, one-year-old, ate two pages and found
it very digestible!

Helen and Doug Callender
Seattle, Washington

—In answer to the above, note the new fea-
ture on page twenty-six.—Editor.

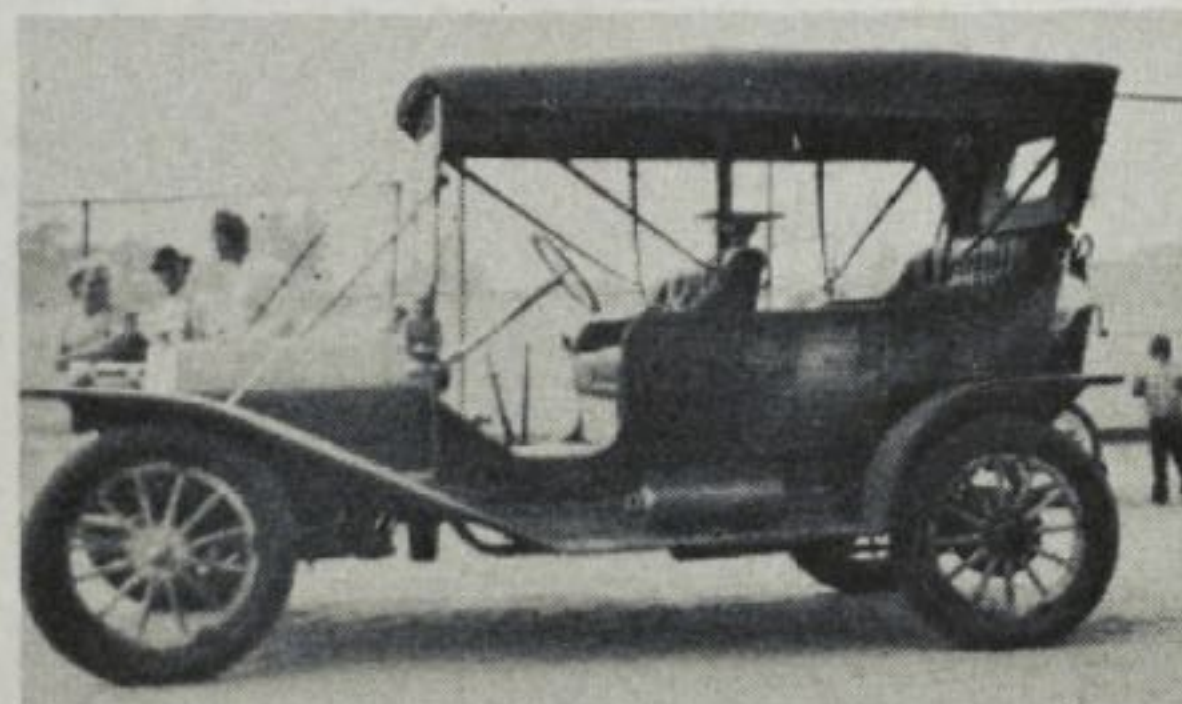
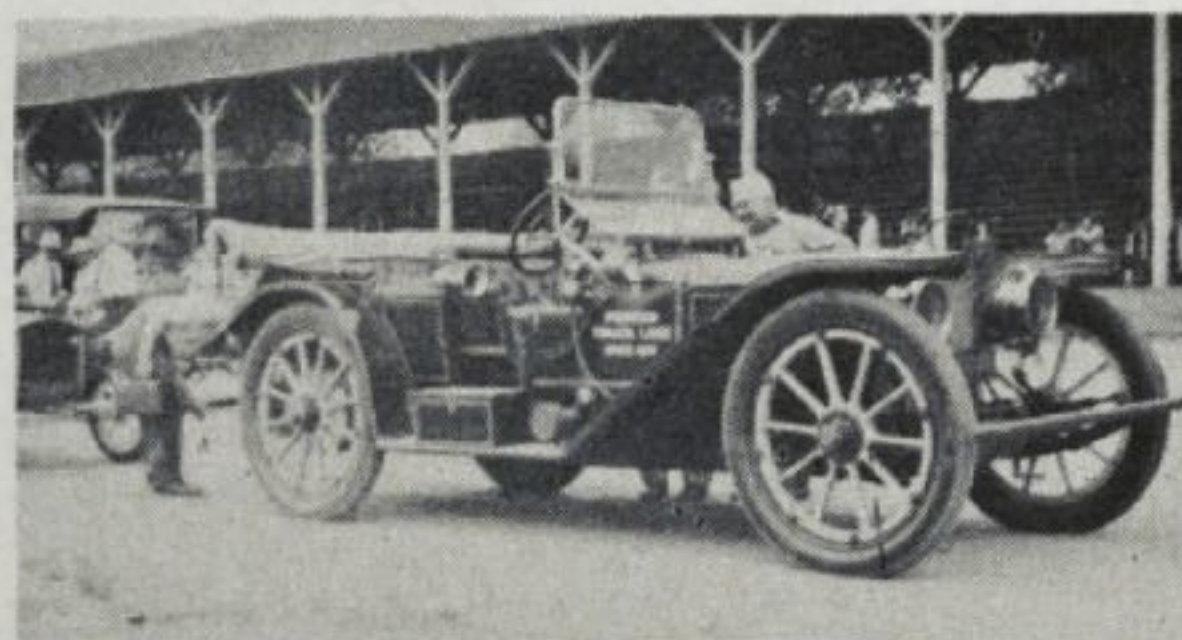
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mobile made for sale to the public...

I'm enclosing ... some snapshots made of a
show (the first field meet of Colorado's
Horseless Carriage Club) here in Denver...

Ray C. Shaffer
Denver, Colorado



—The second column of the "Duster Data"
series, written by Tracy Gilpin, appears on
page 28. The cars shown are a 1907 Ameri-
can (top down) and a 1911 Parry.—Editor.

SOUTH AMERICAN RACING

... Stock car racing (road racing) is very
popular down here in South America, and
they race incredible distances... they are
usually run in laps requiring up to 12 hours
running time per lap... As the bumps on
the roads are so bad, and as many of the
laps are run at night, it is common to see up
to six pairs of headlights welded onto "I"
beams that, in turn, are welded onto the
frame... by the end of the race they have
shaken off...

There is a trend here in Peru, and for
that matter, all over the continent, to have
more and more races through city streets...
it is common to see a number of Bugatti's,
Alfa Romeos, an occasional SSK Mercedes-
Benz, along with blown MG's, Talbots, Jag-
uars, BMW's, etc....

George H. Poske
Lima, Peru

"BATHTUBS" ON WHEELS?

... I believe that there are a great many
people in this country who are "car con-
scious," and a majority who still appreciate
workmanship and craftsmanship in both the
body and the engine... In our mad pace
to speed up production since the war's end,
both of these phases have been sorrowfully
overlooked. However, as things settle down
to "normal" again, people will once more
become as fastidious as they were in the pre-
war years. The manufacturers will then have
to give them something besides those nice-
looking "bathtubs" on wheels...

A. Ward Shanen
Philadelphia, Pennsylvania

TOPPER CAR

Can you give me some information con-
cerning the custom car used in the movie,
"Topper," which was made in 1939?
... it appears to be one of the slickest cus-
tom jobs I have seen...

Randy Wells
Sand Springs, Oklahoma

—Look for pictures of this car in the next
issue of MOTOR TREND.—Editor.

EUROPEAN COVERAGE

I certainly hope you... include some-
thing on European coverage. To the sports
car enthusiast this is mandatory...

—In the next and future issues, there will
be pictures of these events and also a column
that will deal with what's new on the con-
tinent.—Editor.

JAGUAR HORSEPOWER

NOTE: In the October Issue of MOTOR
TREND, it was stated that the horsepower
of the Jaguar Saloon 3½ litre was 102 (in
Motoring Showcase). This was a typographi-
cal error, for the sentence should have read:
"For the 2½ litre, bhp at 4600 rpm is 102
with a compression ratio of 7.3:1. For the
3½ litre, bhp at 4250 rpm is 125 with a com-
pression ratio of 6.75:1."—Editor.

Motor Trend

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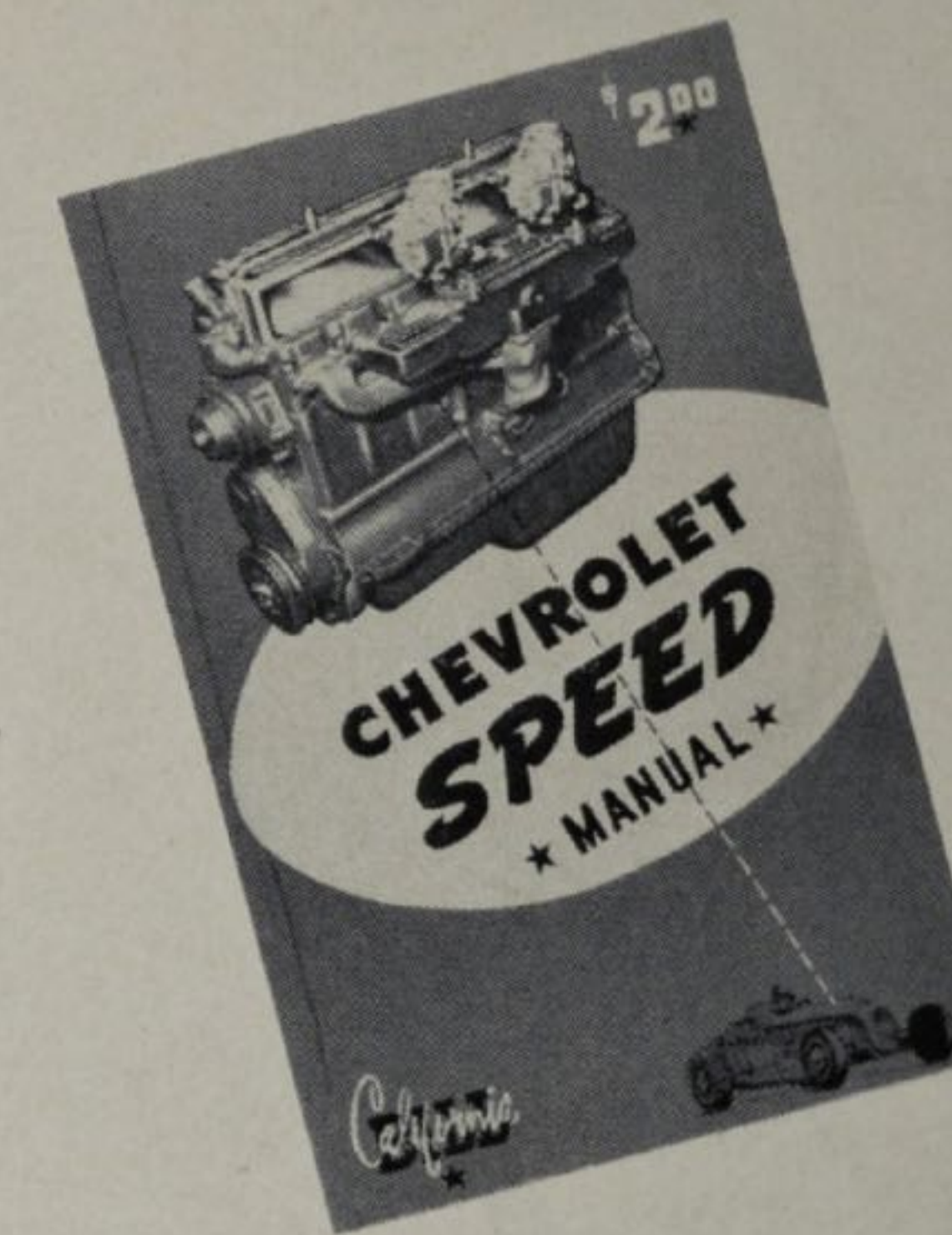
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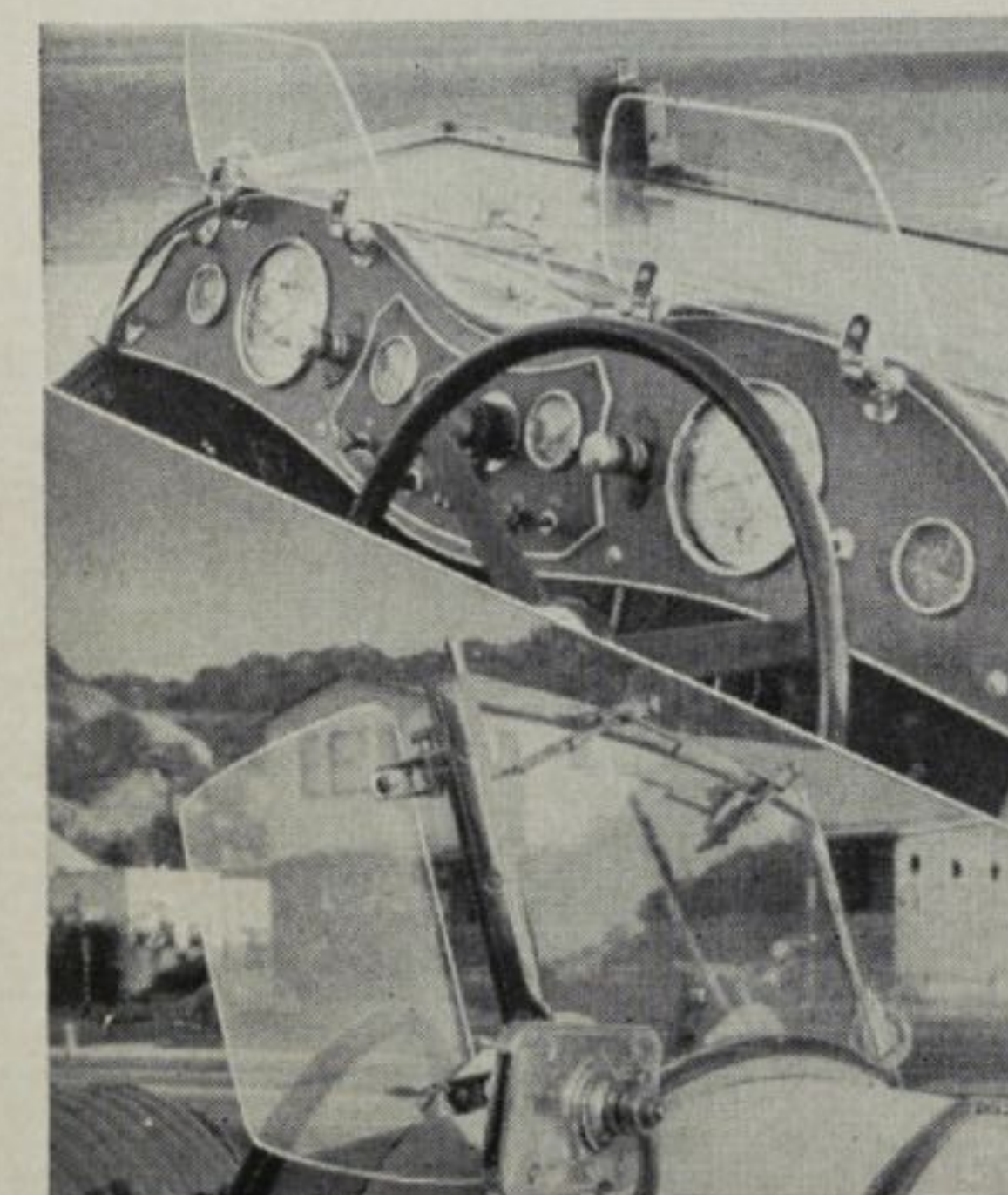
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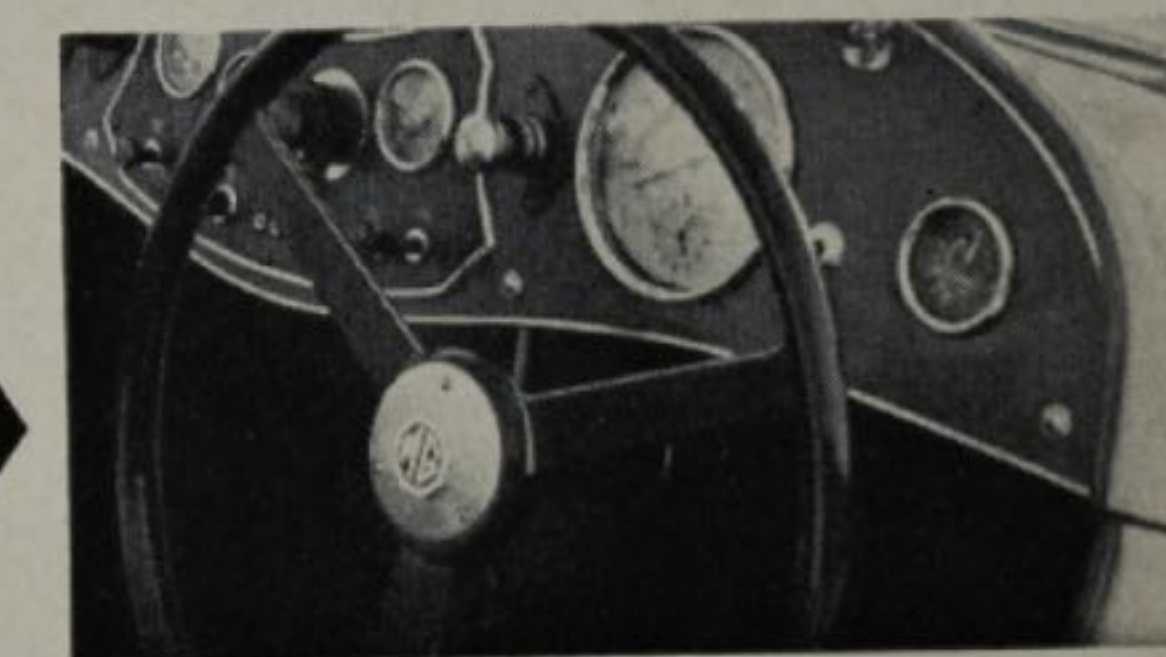
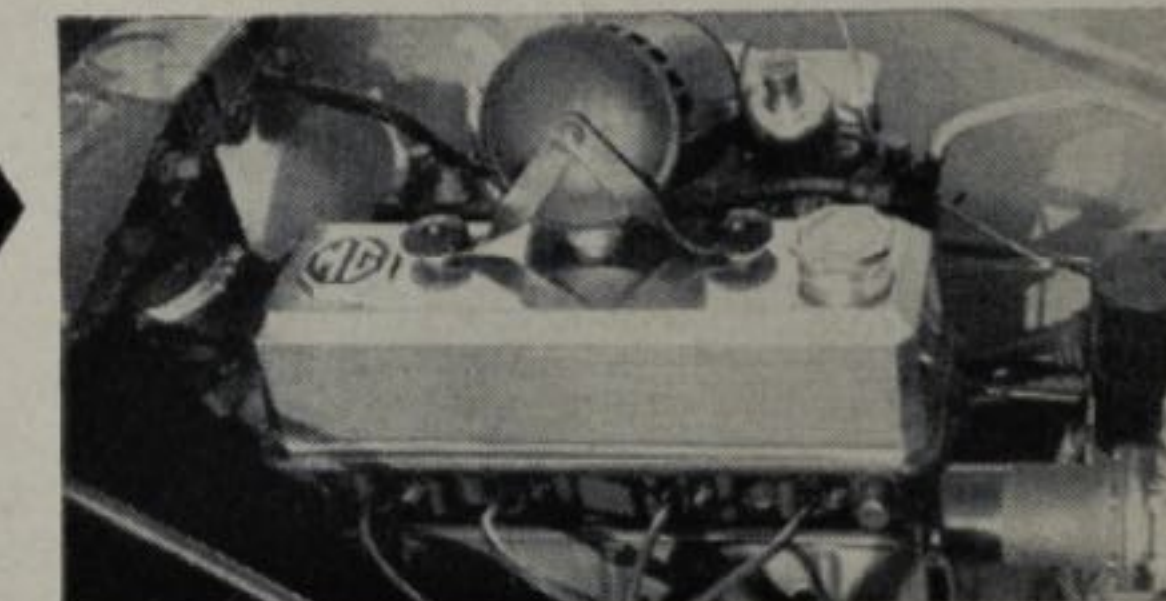
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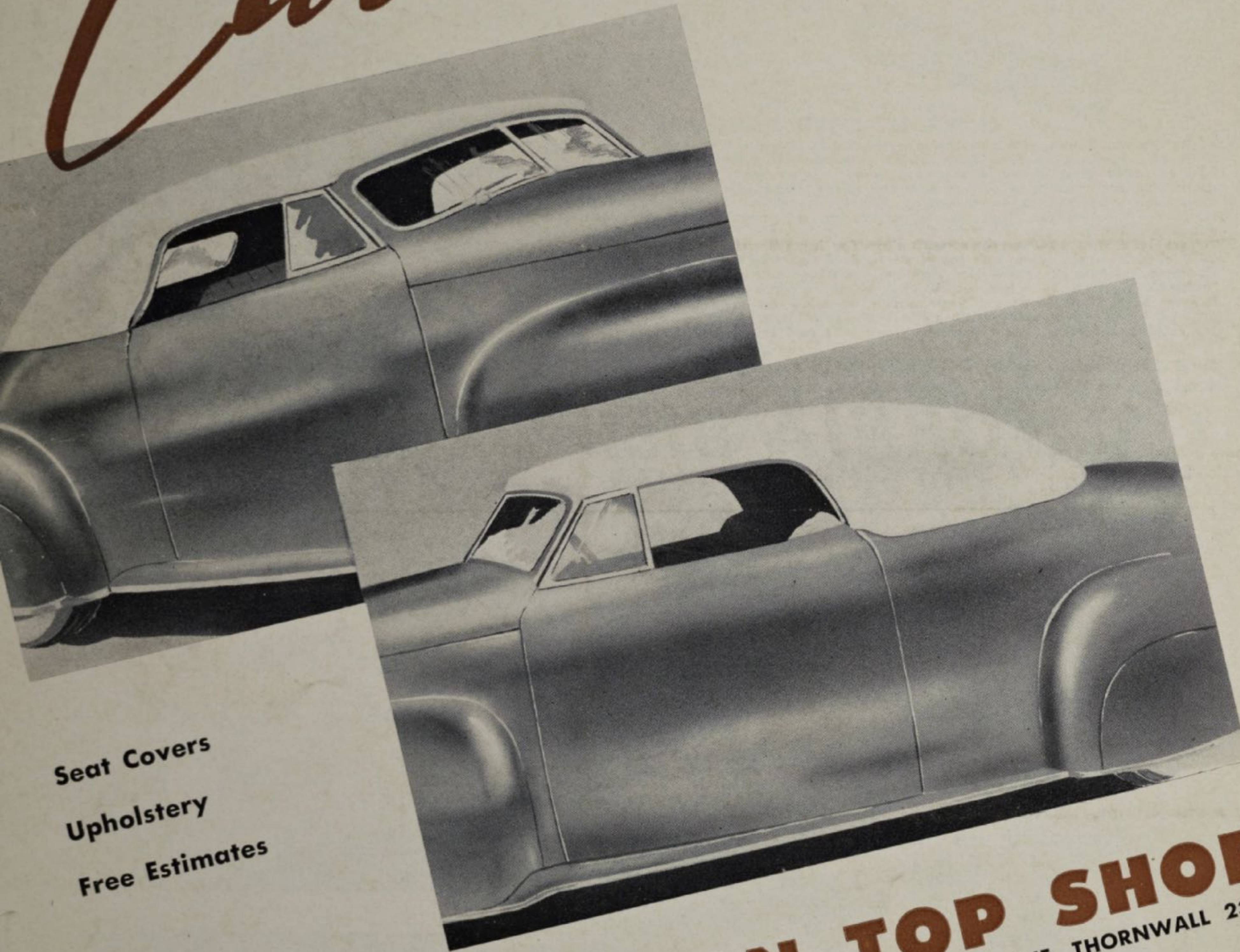
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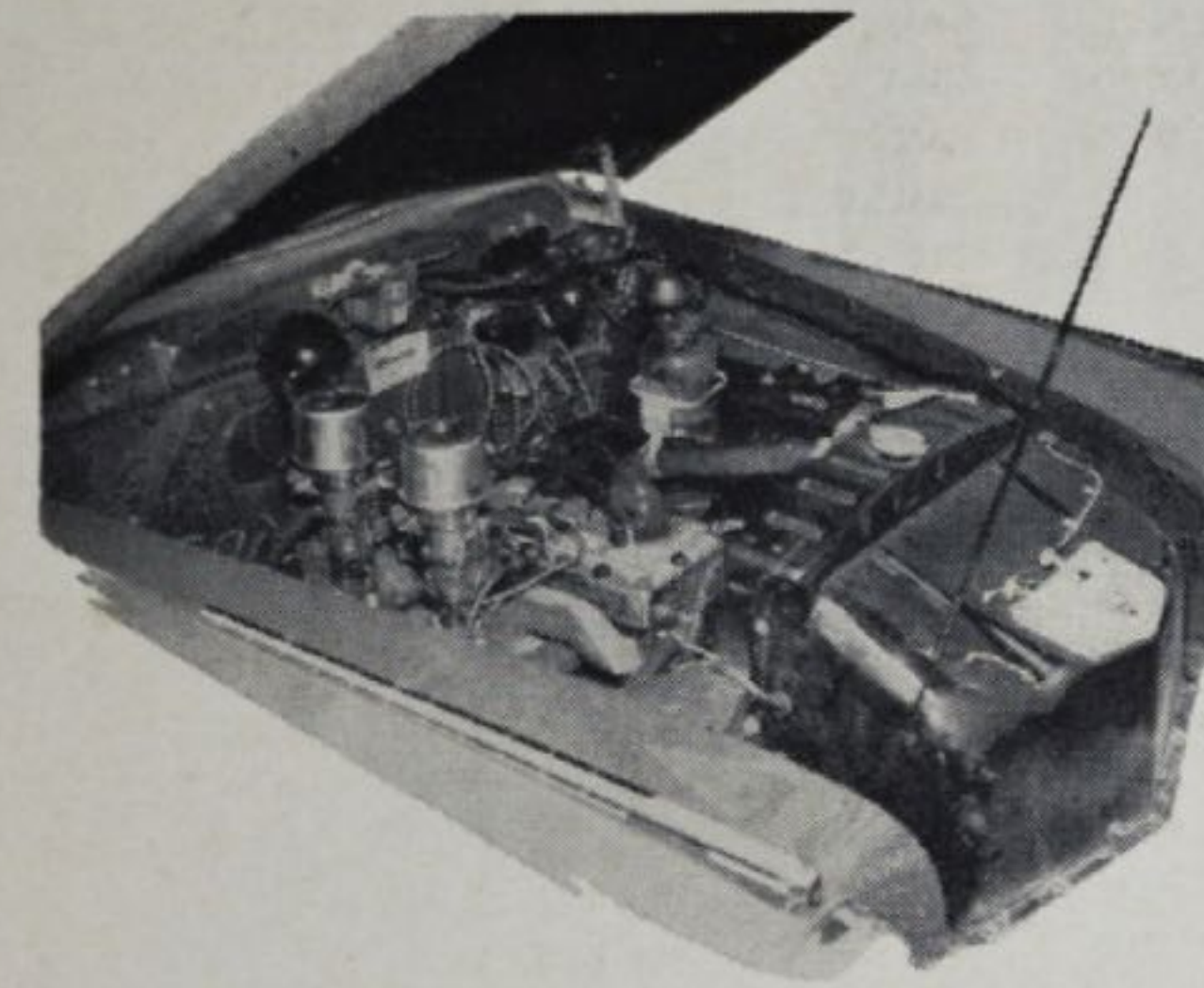


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P. O. Box 511
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June 14, 1949

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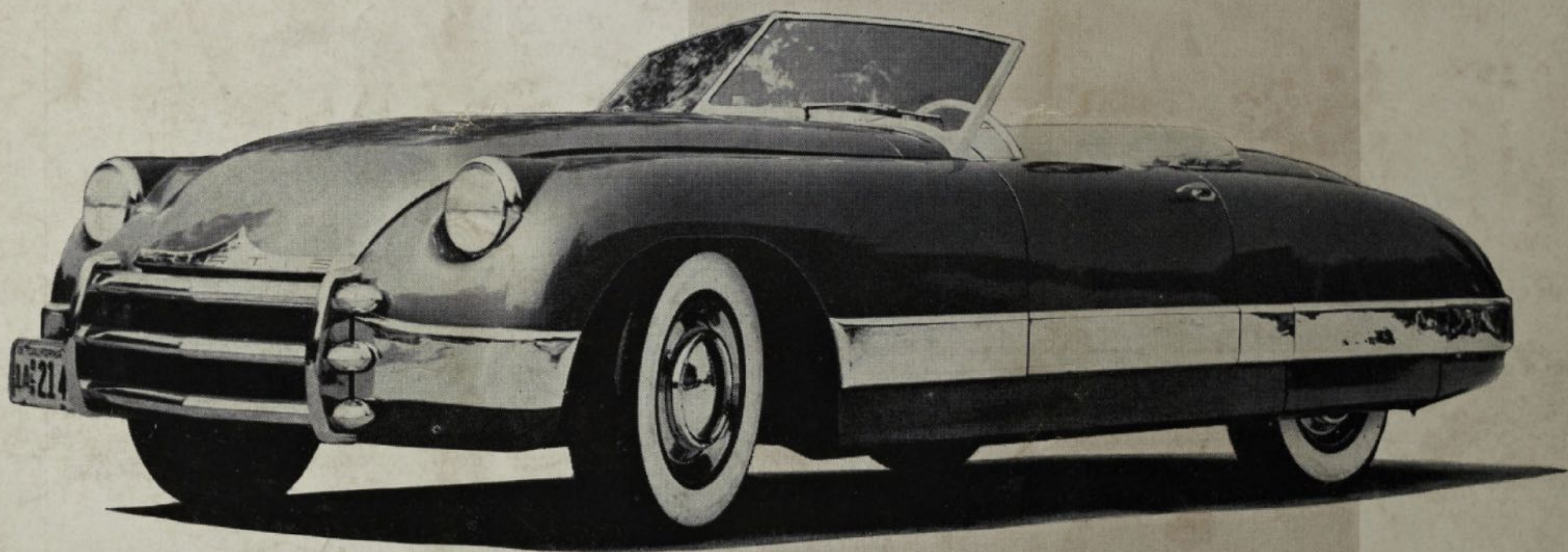
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