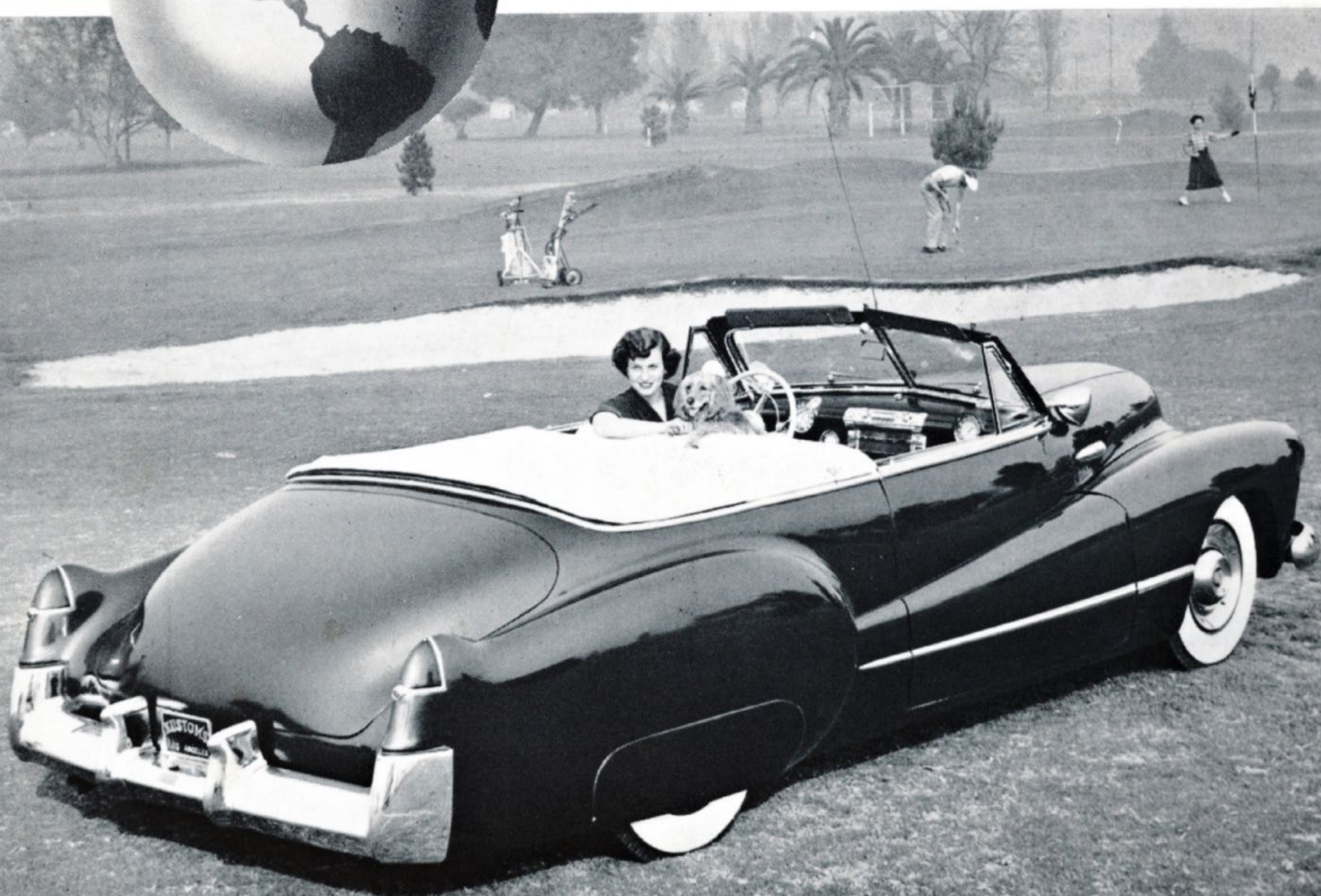


FEBRUARY 1950

MOTOR trend



T W E N T Y - F I V E C E N T S

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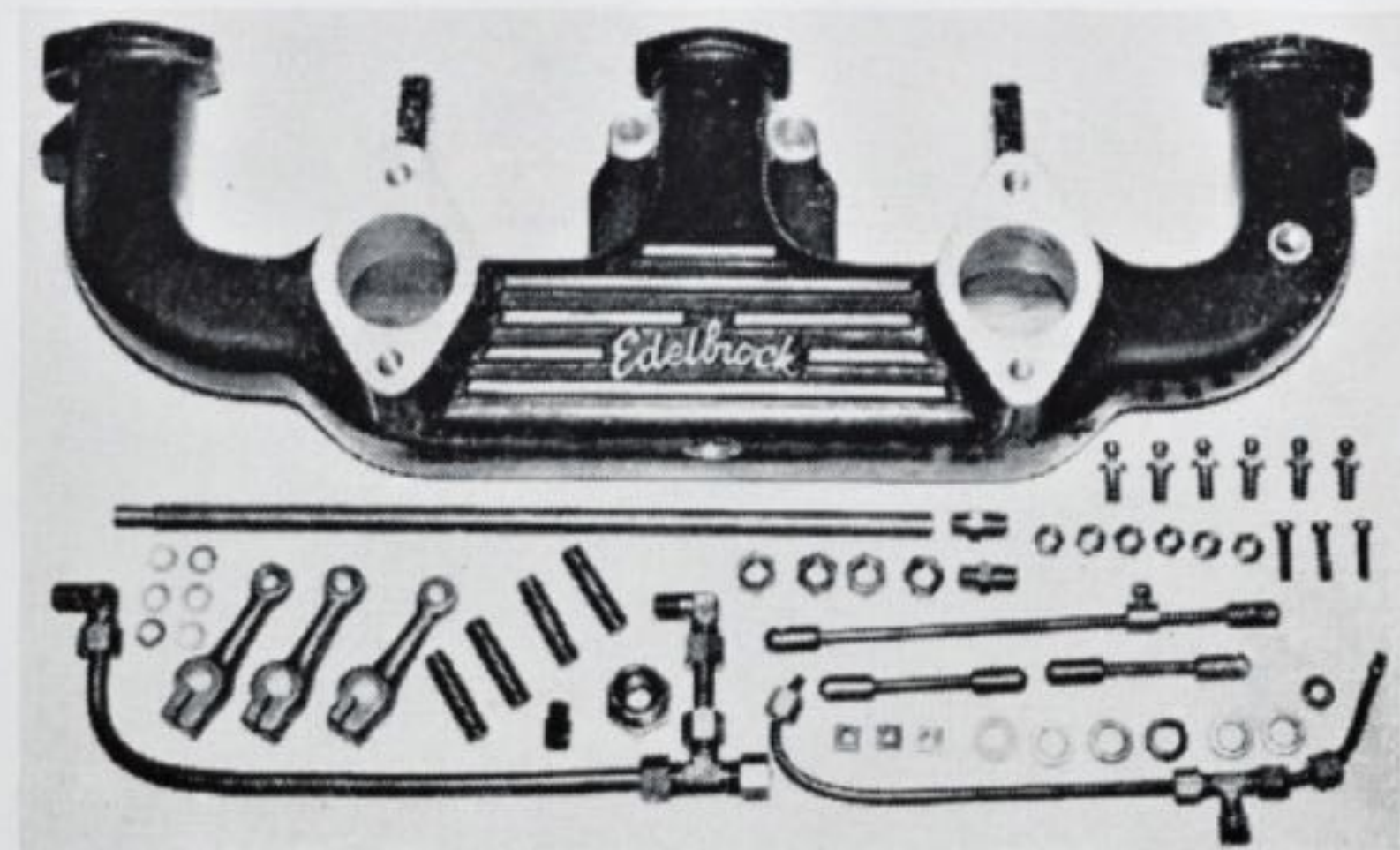
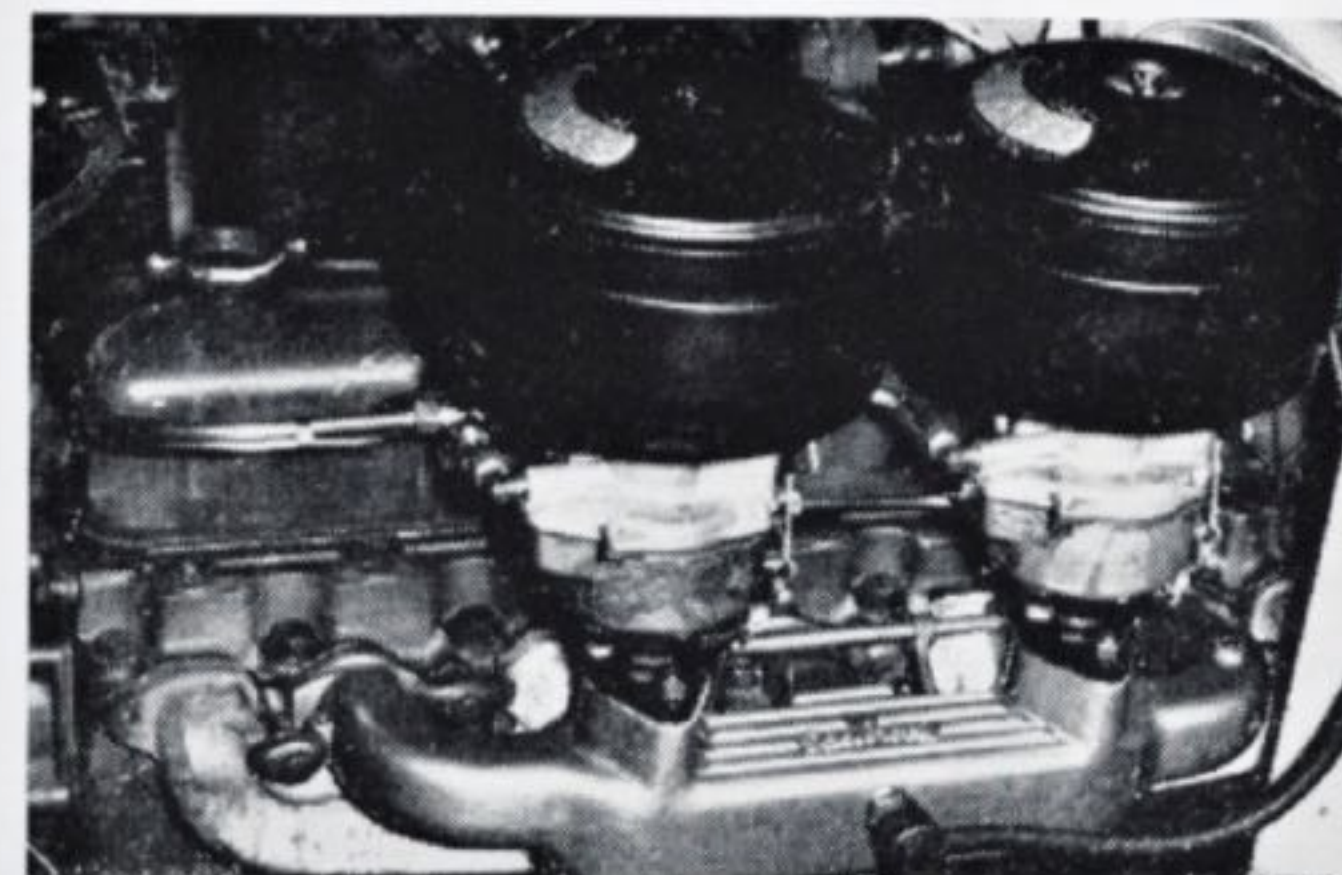
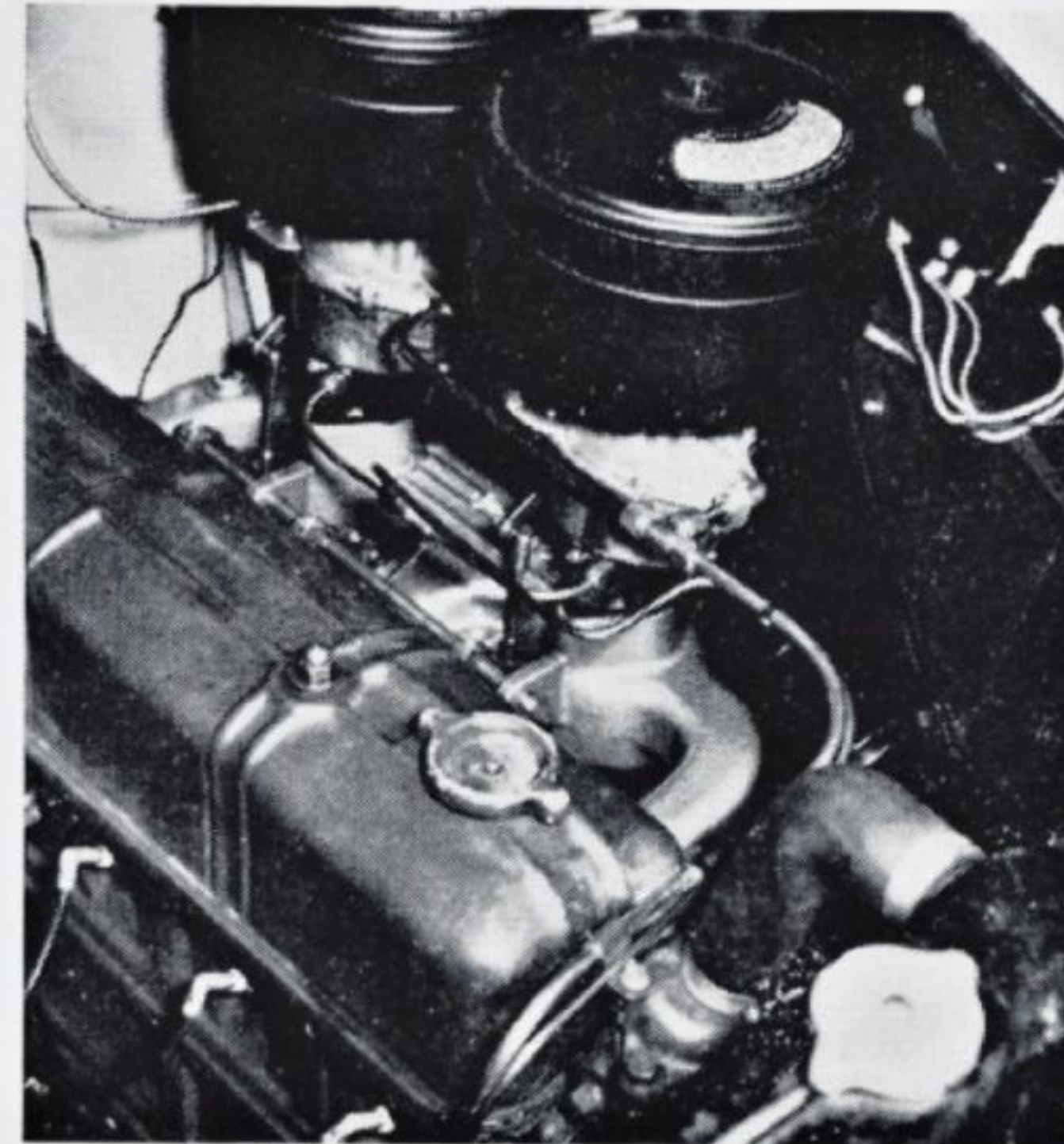
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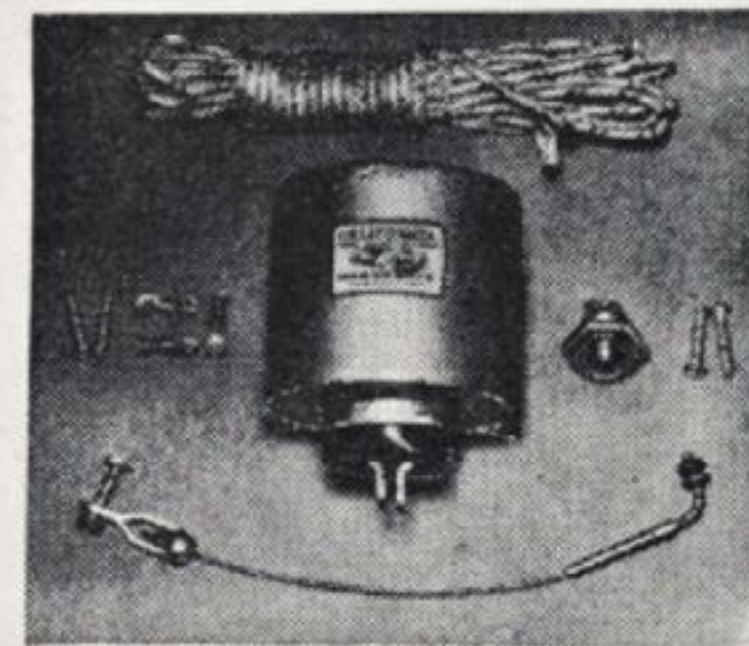
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ELECTRIC



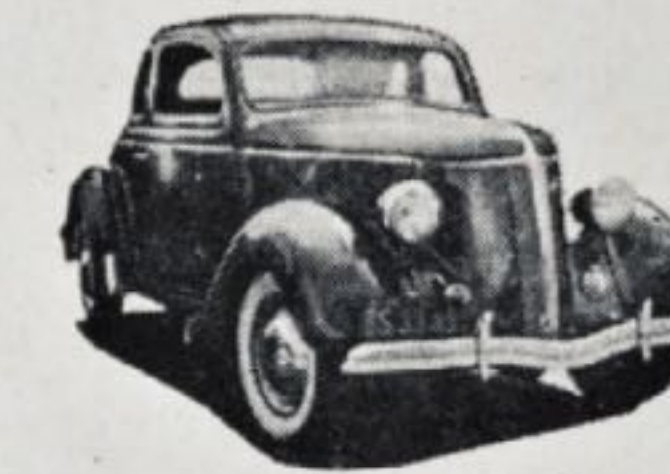
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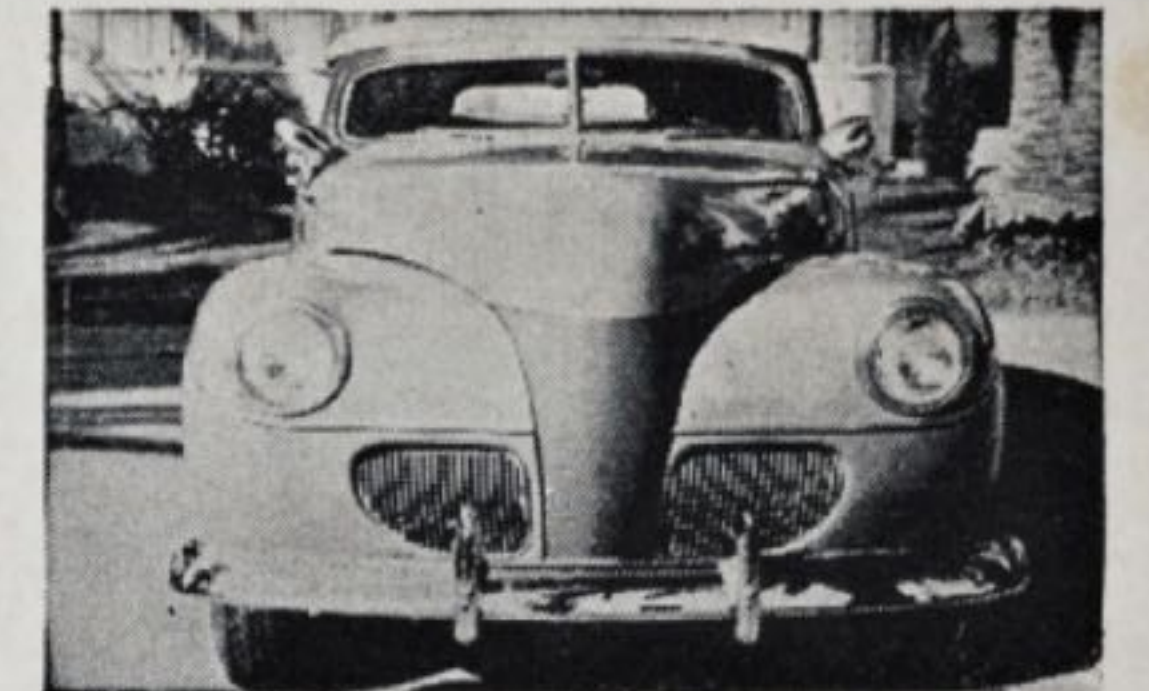
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SHARP!



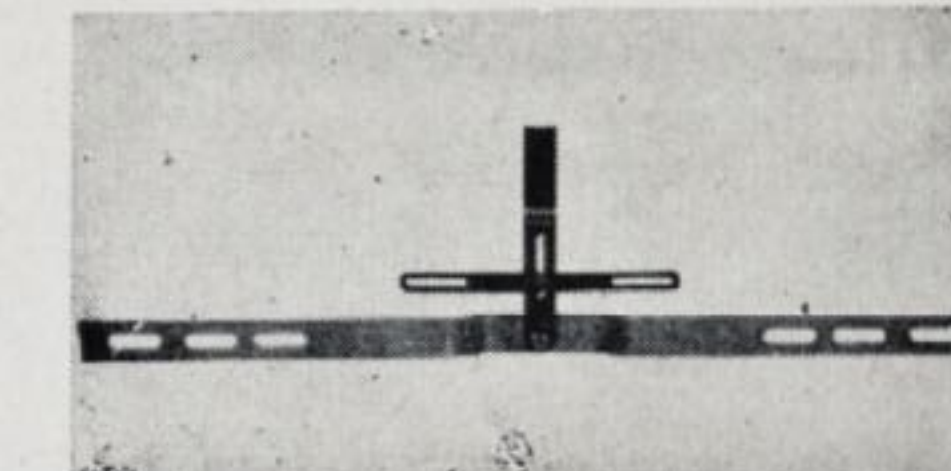
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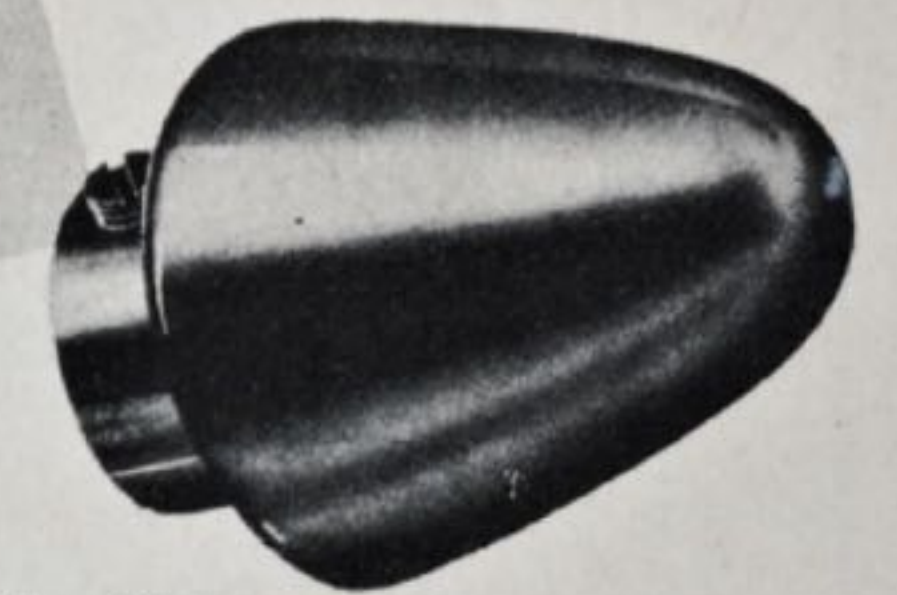
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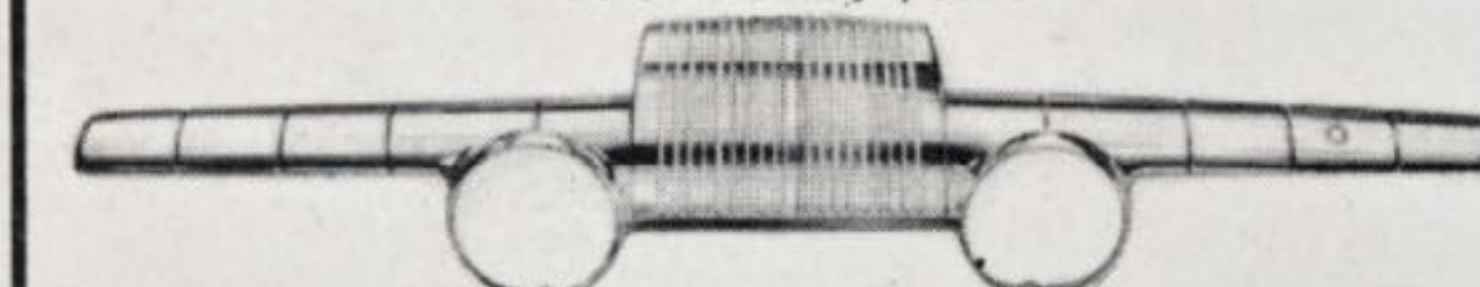


CHROME DASH PANELS

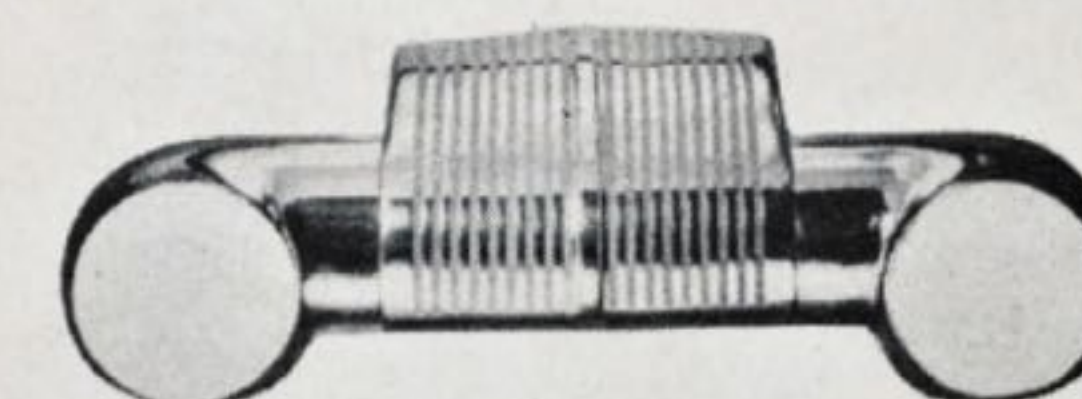
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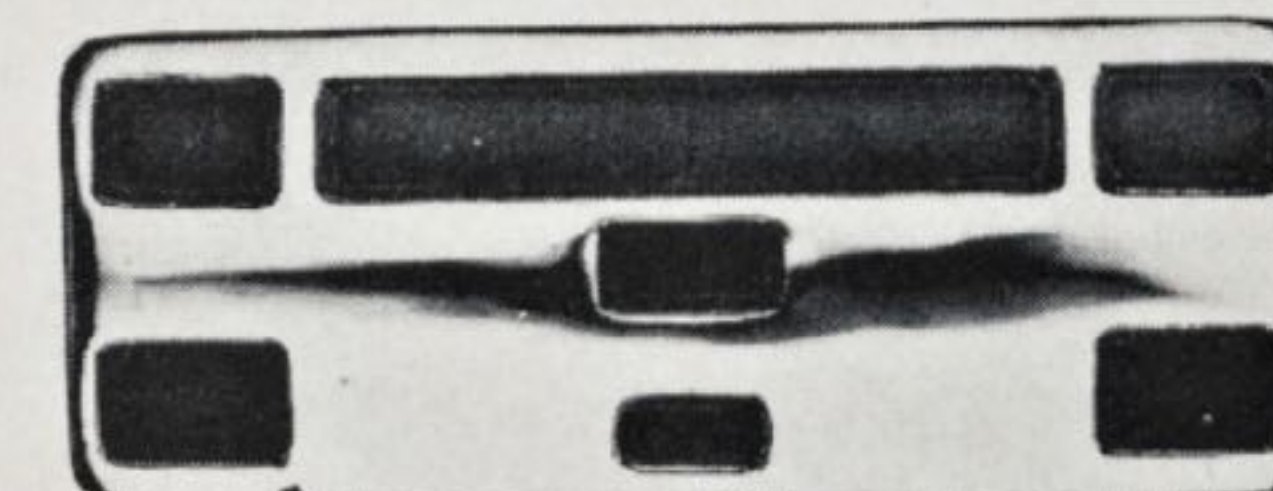
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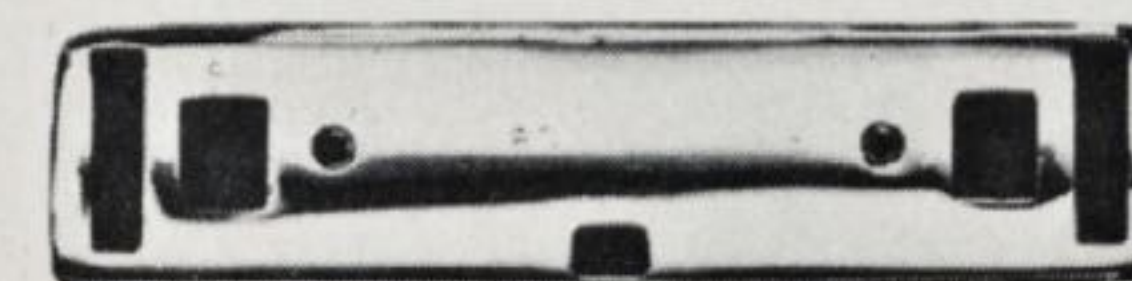
1942-'48 FORDS, \$15.95



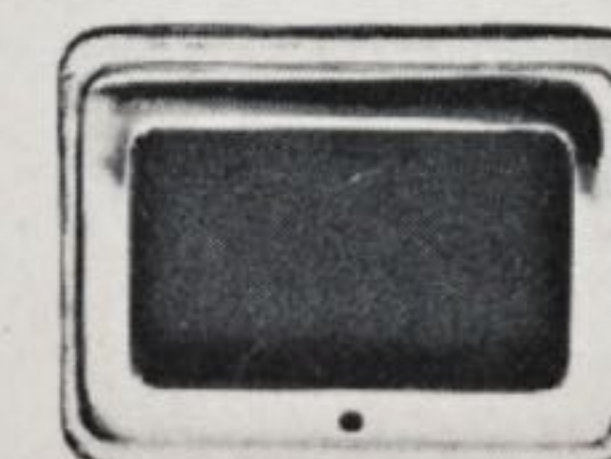
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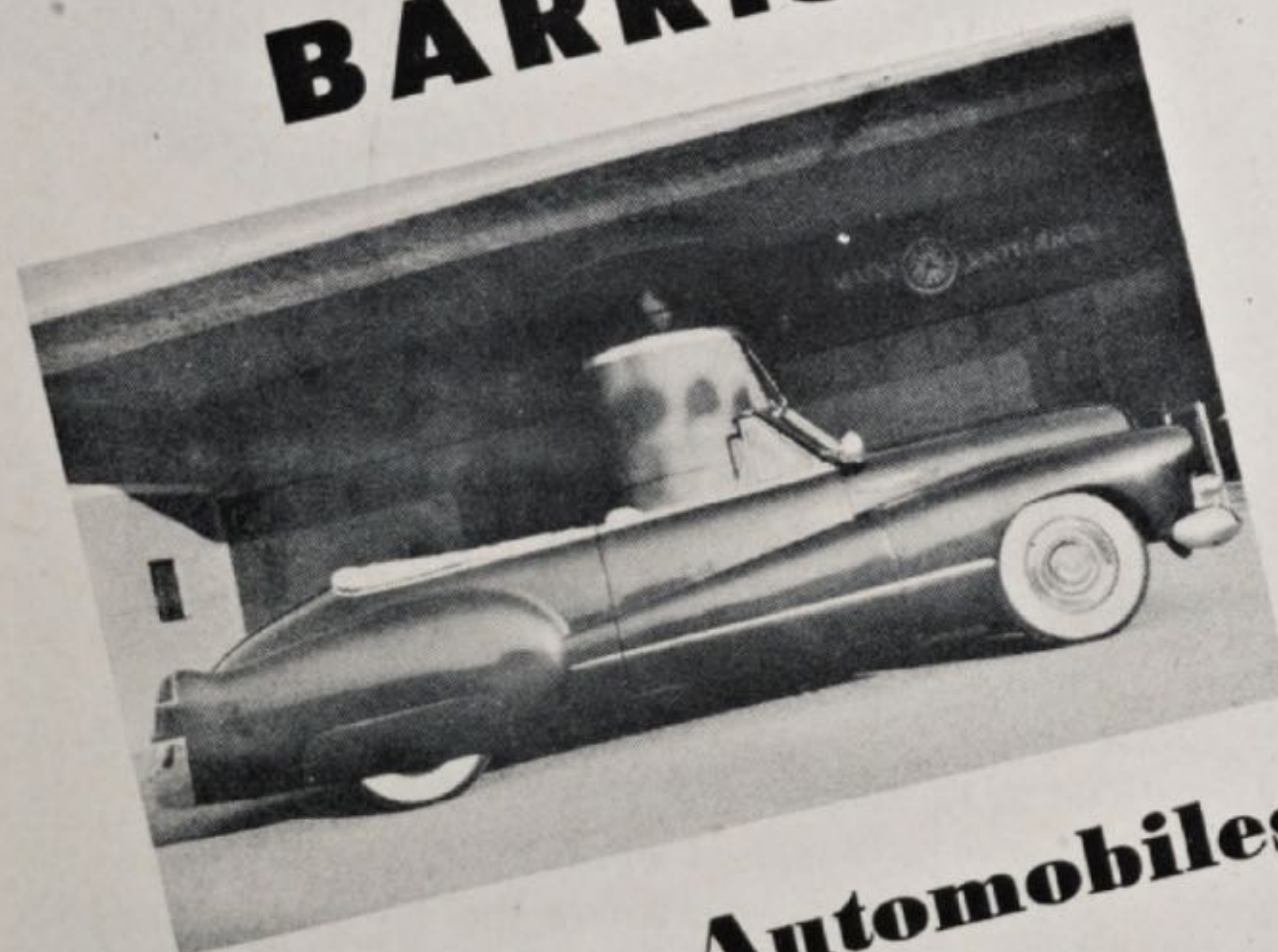
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FEBRUARY 1950

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CONTENTS

WHAT ABOUT PERFORMANCE? By The Editor—5

MOTOR TRIALS—6

MOBILGAS GRAND CANYON RUN By Nick Alexander—8

A SPORTS CAR—DEFINED By G. Thatcher Darwin—9

THE MIGHTY MITE By George Finneran—10

GRAND PRIX RACING By Roger Huntington—12

STYLED FOR A STYLIST—14

POWER WITH LUXURY By George Finneran—15

TRENDS IN DESIGN By George Jergenson—16

TREND OF THE FUTURE By Col. Alexis de Sakhnoffsky—18

ANTIQUE FIELD MEET By Fred W. Fisher—20

SPORTS CAR GYMKHANA—22

SPOTLIGHT ON DETROIT—23

TENDENCE CONTINENTE By A. Devereux—24

STYLING HINTS—26

DUSTER DATA By Tracy Gilpin—28

IDENTIFYING CUSTOM BODIES—31

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COVER: Helen Mario completes a lovely picture, seated in the Buick styled for her husband by Barris Kustom Shop (see p. 14). Photo by THOMAS J. MEDLEY.

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what about performance?

SINCE our second issue of MOTOR TREND, in which we gave you two road tests, one on the MG and one on the Studebaker, we have attempted to constantly improve our reports of the new cars. We realize that the general public, being very interested in performance of new cars, are nevertheless unable to take each car as it comes off the assembly line and give it a road test.

In these road tests we are trying to cover as much as possible, crowding varied types of road surfaces and performance data into a few hundred miles and a few hours. Therefore, it is sometimes difficult to cover all features of the car.

In future issues of MOTOR TREND we hope to give you additional data, such as a chassis dynamometer check of the automobile (which will give you

the power output at the rear wheels), and true fuel consumption checks. In line with our 1950 program of road testing we are obtaining more equipment so that our tests will be as comprehensive and as accurate as possible.

Although it may sometimes appear that nothing but the advantages of the car are written about, we are doing our utmost to give you our unprejudiced opinion of the car. If we see a place where the cars can be improved, we do not hesitate to say so, for we know that the car manufacturers are always open to suggestions.

We, too, are open to suggestions. If there is a particular point about a car that you would like to find out about before making a purchase, let us know. We want to put ourselves in the position of you, as a buyer, so that we can better serve you, our readers.

MOTOR TRIALS



KEEPING APACE WITH THE HUDSON PACEMAKER

by Walter A. Woron, Editor

The car for this road test was furnished to MOTOR TREND by Jack Gaynor, Hudson car dealer at 1122 S. La Brea, Inglewood, California.

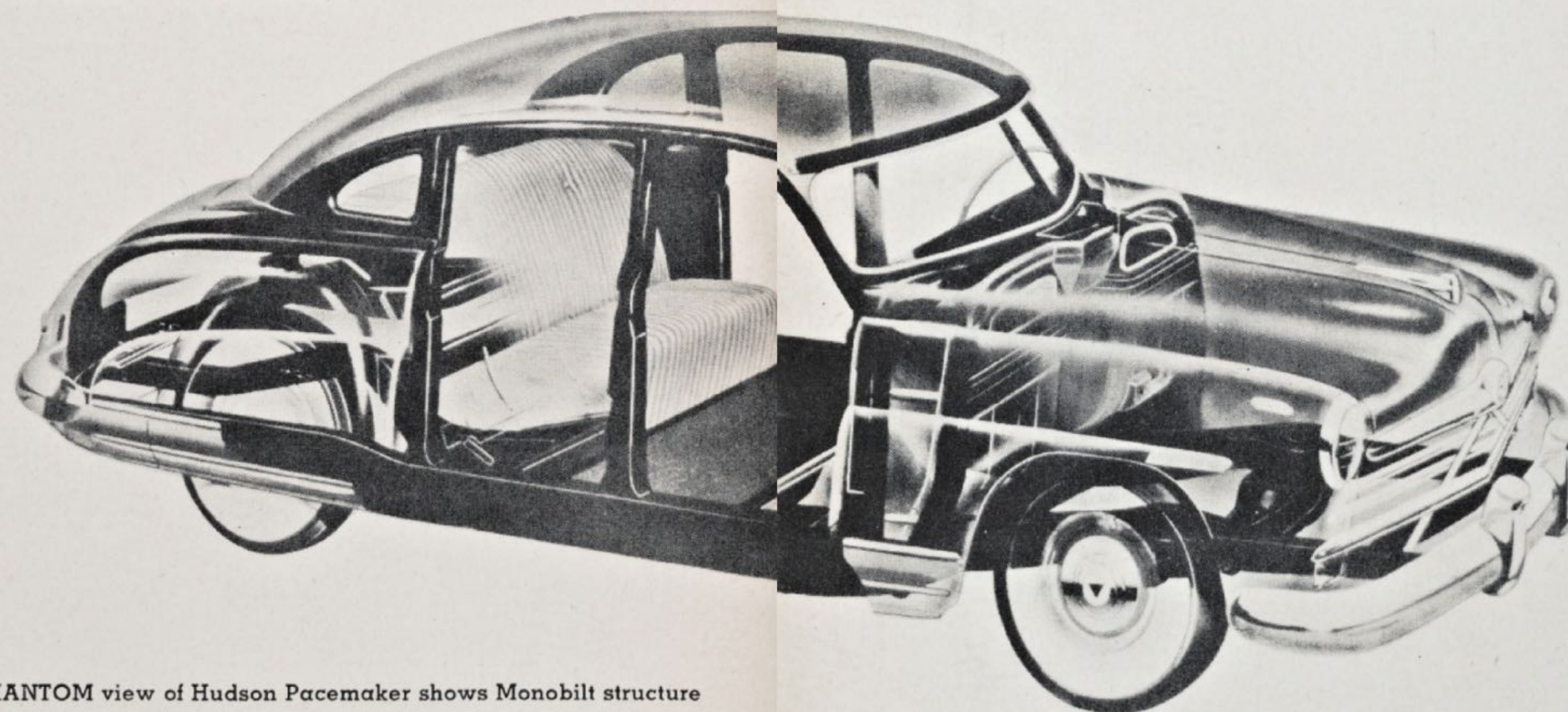
THE HUDSON Motor Car Company's invasion of the smaller car class shows an apparent trend by many of the large-car companies to get into the lower priced field. The new Hudson Pacemaker, although actually not a small car nor in the low-priced field, nevertheless should give serious competition to the Pontiac-Dodge-Buick Special class.

Anxious to determine how this new car performed, we arranged for a road test with Jack Gaynor, Hudson dealer of Inglewood, California. At 9:25 on the morning of an overcast day, we drove a four-door sedan Pacemaker, painted a beautiful peacock green, out of the garage and headed for the open highway. The speedometer reading at that time was only 172.8 miles, the mileage having been registered in the two days previous to our picking up the car.

The car we used for the test had a conventional transmission, but we soon found that the shifting mechanism was anything but "conventional." The car is very easy to shift, making it particularly adaptable to speed shifting. The combination of helical cut gears and the cork friction surface of the single plate clutch makes clashing of gears almost impossible, unless you accidentally shift from low to reverse.

The shortened hood makes visibility from behind the large steering wheel very good at all times, with no apparent blind spot being evident; however, as with many curved windshield cars, there is a double headlight reflection from oncoming cars at night, but which you become accustomed to.

The steering gear ratio is 13.2 to 1, which makes it very easy to steer and to park. There is the feeling at the wheel that you always have positive control. When a front tire pulls off the pavement onto the shoulder of the road, the car is very easily corrected, with no fighting of the wheel being necessary. Around sharp turns the car has good



PHANTOM view of Hudson Pacemaker shows Monobilt structure

recovery and does not lay over noticeably. Even with the low pressure tires of 15x7.10 (inflated to their normal pressure of 28-30 psi), there was no noticeable tire squeal. Although the suspension is conventional, apparently the distribution of weight on the front wheels, in combination with the steering gear ratio and the center point steering, makes for easy control.

In testing the car for lugging ability it was found that the car would idle down to eight mph in high and would then accelerate without bucking or jerking. However, there was a small amount of vibration just as the throttle was floor-boarded.

Arriving at our test strip, we set up a quarter-mile course and then began the speedometer check. When the speedometer indicated 30 mph, it was actually doing 28.5. At 60 mph the speedometer was apparently more accurate for we were doing 59.3 mph.

After this calibration, we prepared for the acceleration trials. Results of these tests are shown in the following table:

TEST	TIME (AVERAGE)	
	With Overdrive	W/O Overdrive
Standing Start 1/4-mile	:19.83	:20.06
0-30 through gears	:04.79	:04.56
0-60 through gears	:16.45	:15.38
10-60 in high gear	:18.06	:17.95

Two flying runs were made (in opposite directions) through a 1/4-mile trap, with the average being 37.73 mph. Since the approach to the 1/4-mile course was comparatively short, with a longer approach the car might have attained a higher speed. The speedometer was still climbing at the end of the 1/4-mile trap.

During the acceleration trials and after constant use of the brakes, it was noticed that there was a small amount of brake fade; however, the brakes cooled off very rapidly so that in the space of a half mile when the brakes were reapplied, they provided a sure, gradual action. The Hudson brakes are not the kind that tend to throw you on

your head the instant you touch them, but instead slow you to a gradual stop.

After the acceleration trials, we drove the car at high cruising speeds through the desert and then began an ascent to an altitude of close to 7,000 feet. At about 6,000 feet we began to run into snow, making a good test of the car through various types of climatic conditions. On one particular test strip of a seven per cent grade, the car in overdrive was able to maintain a speed of 58 mph. When the car was dropped out of overdrive (by accelerating the throttle), the speed picked up to 63 mph.

The fuel consumption check we made was not quite as fair as we would have liked, considering that the car was driven at high speeds, that the acceleration features of the car were being used, and that there was a considerable amount of mountain driving during the test. However, the overall average of 14.5 miles per gallon seems to indicate that the car in normal driving should maintain an average of about 18 to 19 mpg.

Desirable features of this new 119-inch-wheelbase car are manifold, and although some of them may seem to be small in importance, they show an evidence of many hours of research. The door panels have been cut out so that the window controls and door handles are recessed, providing elbow and body clearance. The doors and the back of the seats are covered with colored Dura-fab, which is a vinyl plastic that reportedly does not scuff, crack, split or peel, is stainproof and can be cleaned with a damp cloth. The sun visors are mounted with a hinge at the center, which should eliminate the vibration and rattle that accompanies the end-mounted type.

As with the Super and Commodore custom series, the Pacemaker has a Monobilt structure, which has a base of eight transverse cross members. These cross members are up to 6 1/8 inches in depth and are joined to four longitudinal members. The outside frame rails are outside the rear wheels. Vertical members extend upwards from the outside rails to the roof. The body and roof panels are then welded directly to these body and frame members. This frame construction, along with the front coil springs and the rear leaf springs, the four airplane-type shock absorbers and low pressure tires, contribute to the very soft ride of the Pacemaker. Stabilizers are used at both the front and the rear, giving added riding stability and helping to eliminate front end sway.

(Continued on page twenty-two)



PACEMAKER acceleration qualities are graphically portrayed

February 1950



PHOTOGRAPHS BY THOMAS J. MEDLEY

THE Pacemaker was also tested in the desert country

Seven



by Nick Alexander

ON FEBRUARY 15-16 of this year, the world's largest stock car mileage test will be resumed by the General Petroleum Corporation. Known as the 1950 Mobilgas Grand Canyon Run, this year's event is a resumption of the famed economy runs started by Gilmore in 1936.

The route the cars will travel in this year's run is from Los Angeles through Death Valley to Las Vegas, where the contestants will spend the first night of the two-day trek. Leaving Las Vegas the next morning, they will cross Hoover Dam and head for the finish line at the Bright Angel Lodge, on the south rim of the Grand Canyon. All cars competing in the run of 751.3 miles must finish within an elapsed time of 18 hours and 30 minutes. Failure to do so eliminates the car from competition.

The run is intended to provide a test of performance, in a two-day period, encompassing all conditions that the average driver would encounter in a full year of driving. He will subject his car to altitudes from below sea level to those in excess of 7,000 feet. Temperatures from 10 below zero to 85 above may be expected. And, under the AAA rules, he must comply with all applicable speed, safety and traffic laws and requirements. The trip, therefore, represents a test of economical operation of each car under all

types of driving conditions and with strict observance of proper safe-driving methods.

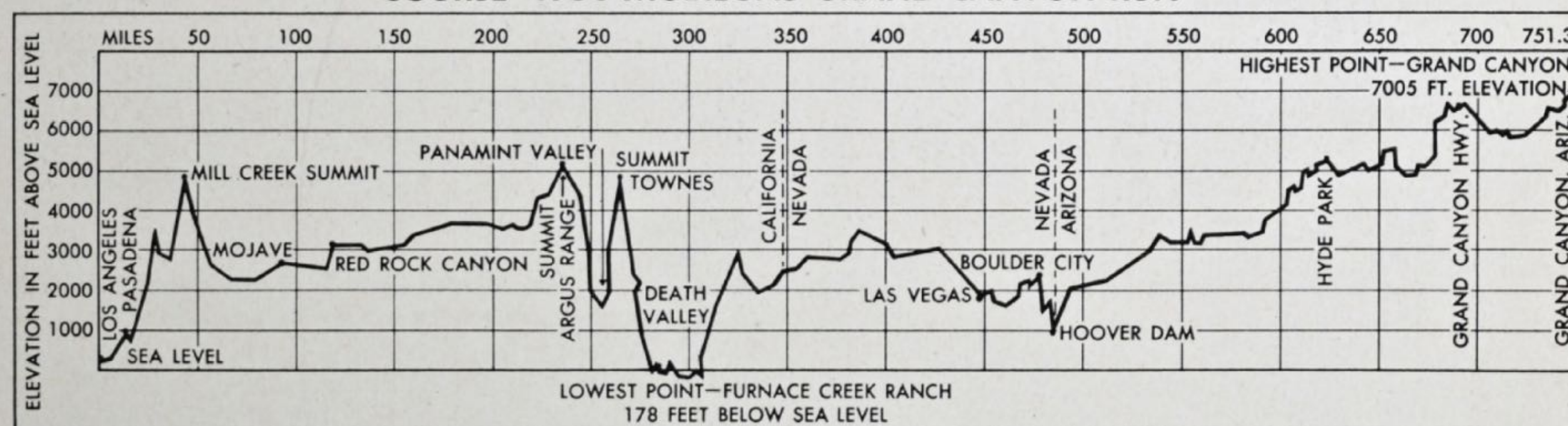
Each car entered must be a four-door, metal-top, 1950 stock sedan model (four cylinder class excepted), not driven more than 5000 total vehicle miles. The car must be catalogued, advertised and sold through regular channels by the manufacturer.

All scores for the event are based on a ton-mileage-per-gallon basis, i.e., weight of cars and passengers in tons multiplied by miles, divided by gallons of gasoline consumed. This method is designed to determine the true performance and provide an equitable scale for all automobiles regardless of size or weight.

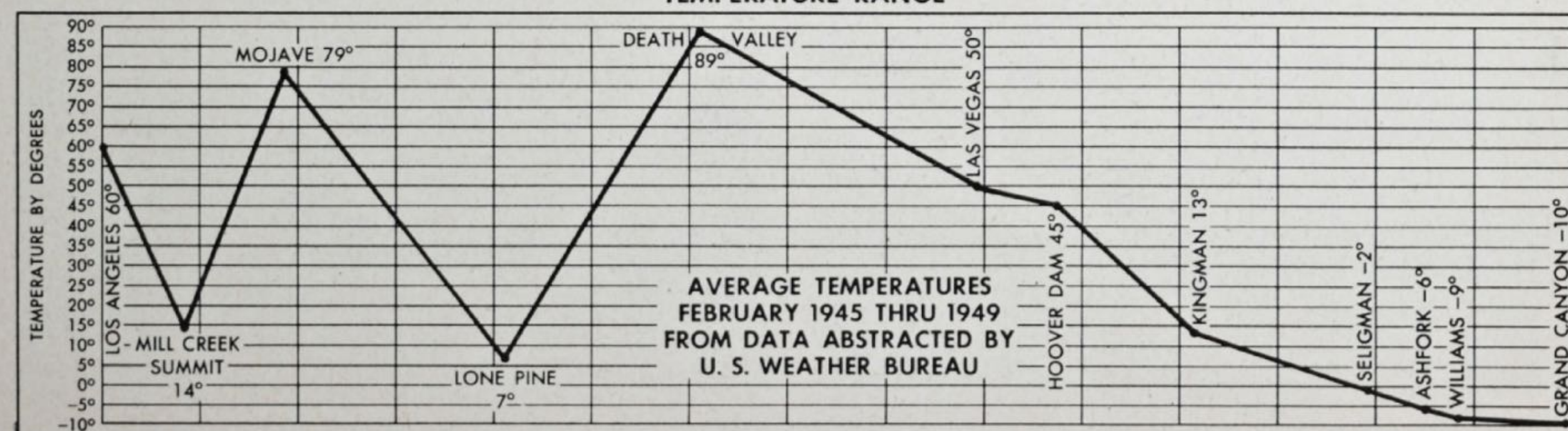
Practically every major U.S. car manufacturer will be represented and include the following: Cadillac, Chrysler, DeSoto, Ford, Frazer, Kaiser, Lincoln, Mercury, Nash, Oldsmobile, Packard, Plymouth, Studebaker, and Willys.

The American Automobile Association, which has sanctioned top automotive events both here and abroad, states that they are happy to sanction an event of the "Economy Run" type, but one which this year has more scope and meaning to automobile manufacturers and the motoring public at large.

COURSE-1950 MOBILGAS GRAND CANYON RUN

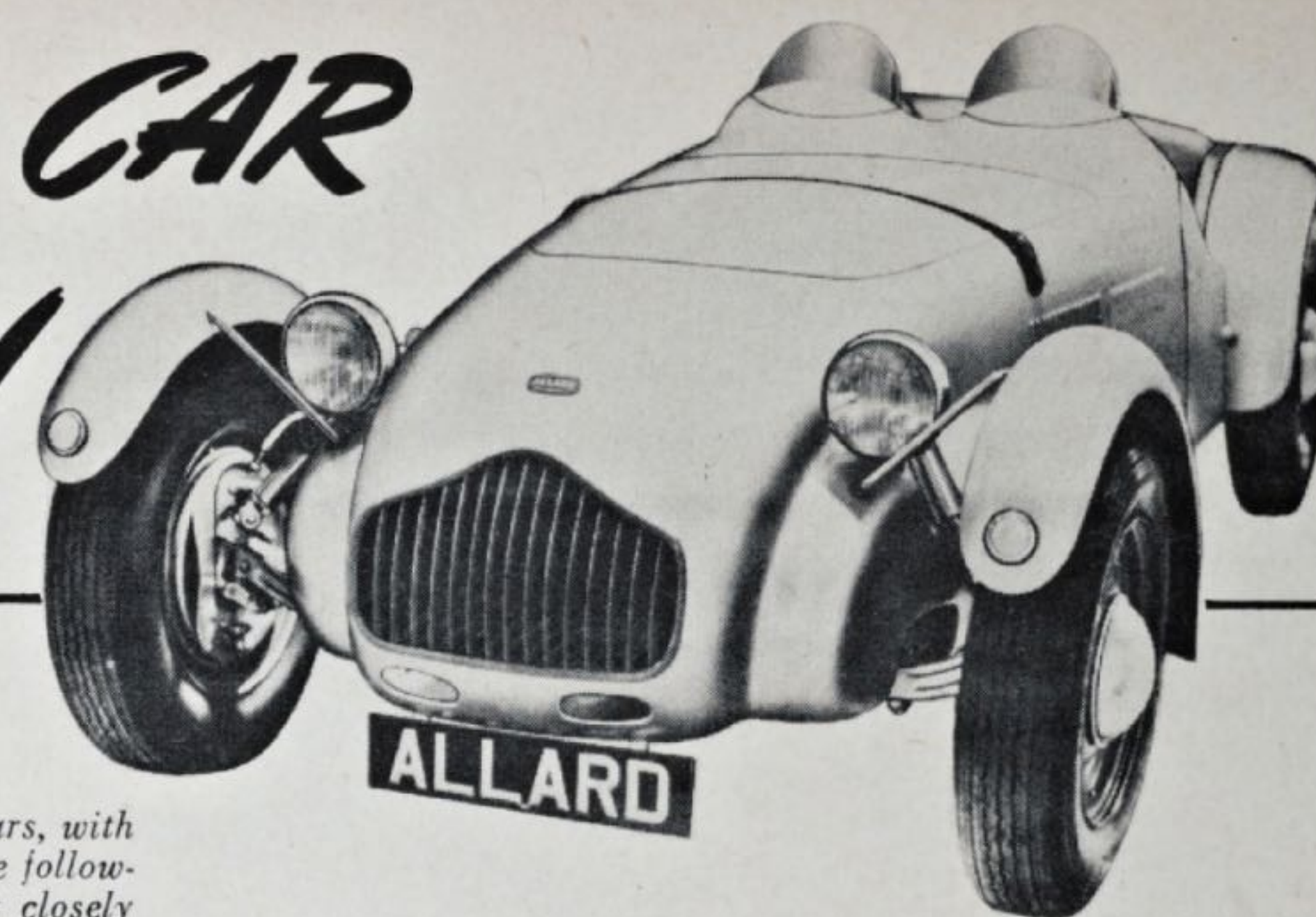


TEMPERATURE RANGE



A SPORTS CAR ...Defined

by G. Thatcher Darwin



NOTE: Many varied descriptions are written about sports cars, with none of them agreeing on more than a few of their points. The following description, as set forth by author G. T. Darwin, most closely agrees with our conception of a sports car.—Editor.

FREQUENTLY in conversations or through correspondence columns, one runs across references to sports cars phrased in such a way that considerable doubt is left in the reader's mind as to whether the speaker or writer is aware of exactly what constitutes a sports car. At this point, members of certain opposing factions will probably be rolling up their sleeves and looking about for suitable weapons of offense and defense. The reason is, of course, that a precise definition has eluded the experts ever since the sports car grew into being, and the proponents of the many shades of opinion often feel quite strongly about the matter, showing an inclination to regard the question as a personal issue.

A sports car is an automobile (1) specifically designated by its maker as suitable for normal road usage and possessing that degree of tractability, flexibility, and comfort generally regarded as requisite; and also (2) specifically designated by its maker as suitable for competitive events, and endowed with the superior performance, increased sensitivity of control and more efficient safety attributes (all relative to "for-road-only" cars) regarded as requisite; (3) seating at least two people; (4) capable of operating on conventional fuel normally obtainable for road use; (5) having a selective speed transmission, including a reverse gear, and normal differential gears (excepting Frazer-Nash and others, mass-produced with solid drive axles); (6) equipped with lighting system, windshields, fenders, exhaust silencers, and all other items considered requisite for road use, or required by local statute; but (7) with such equipment designed and installed so as to be readily removable when desired, and/or required or permitted by competition regulations; and (8) fully licensed for road use in its home area.

Now, let's take a second look to thoroughly analyze the picture. Many questions will be answered when it is realized that the sports car, as a distinct type, grew into being during and shortly after the first world war, although its ancestry can be traced back even further. Its *raison d'être* was to satisfy those impecunious sportsmen who required a car for normal road usage, and who also wanted to enter the amateur competitions which flourished after World War I, just as they are now experiencing a revival after this most recent fracas. These men, with tremendous enthusiasm but limited means, could not afford two cars for both the Dr. Jekyll and Mr. Hyde of their natures.

Don't be deceived or misled by the manufacturer's designation. He may call it a "sport convertible," or a "sportsman," or even a "speedster," but it isn't a sports

car unless he says it's for competition, and the car has the stuff to substantiate his claim.

Naturally, the sports car must possess a high degree of mechanical refinement in order to qualify for competition use. Its road-holding, mechanical reliability, braking capacity, driver visibility, sensitivity to all controls, and accessibility for maintenance and adjustment must all be of a very high order. Acceleration and top speed are not of first importance since they are largely controlled by engine size. Obviously, however, the performance must be the very best obtainable per unit of displacement, compatible of course, with reasonable reliability and life expectancy of stressed parts. The criterion of a good sports car is not "what it does," but "how it does it." Controllability at speed is the essence. Some sports cars are so refined as to almost anticipate in advance your next command.

Although most sports cars are two-seaters, four-seaters may also qualify. Several years ago all entries for the Le Mans twenty-four hour race, France's great annual sports car classic, were required to have seating for four.

A sports car should be capable of operating on normal high test gasoline, and should be licensed for road use. These are merely guarantees against the appearance in sports car classes of out-and-out racing cars, disguised perhaps by the addition of lights and fenders. The provision requiring conventional transmission and differential gears is for the same purpose.

Full road equipment such as fenders, windshields, lights, mufflers, etc., is included on all genuine sports cars. Competition regulations governing speed trials, circuit racing, hill climbs, etc., often permit the cars to run stripped of these components, and for this reason, they are usually designed to be easily removed and replaced. These considerations, plus the need for easy access to the mechanism for tuning and adjustment, are responsible for the spidery appearance of the traditional or classic sports car.

When one thinks of sports cars, one invariably thinks of MG. Because of the large numbers sold, this make must be regarded as the overwhelming favorite of all time. Many other makes have stout armies of adherents, some of which border on the fanatic in their loyalty and enthusiasm. Bugatti and Frazer-Nash ownership is almost a cult, and "one-make" clubs are not uncommon.

Is there such a thing as a hard-top sports car? Although the purists will throw up their hands in dismay at such rank heresy, and the author confesses to suffering fits of

(Continued on page twenty)

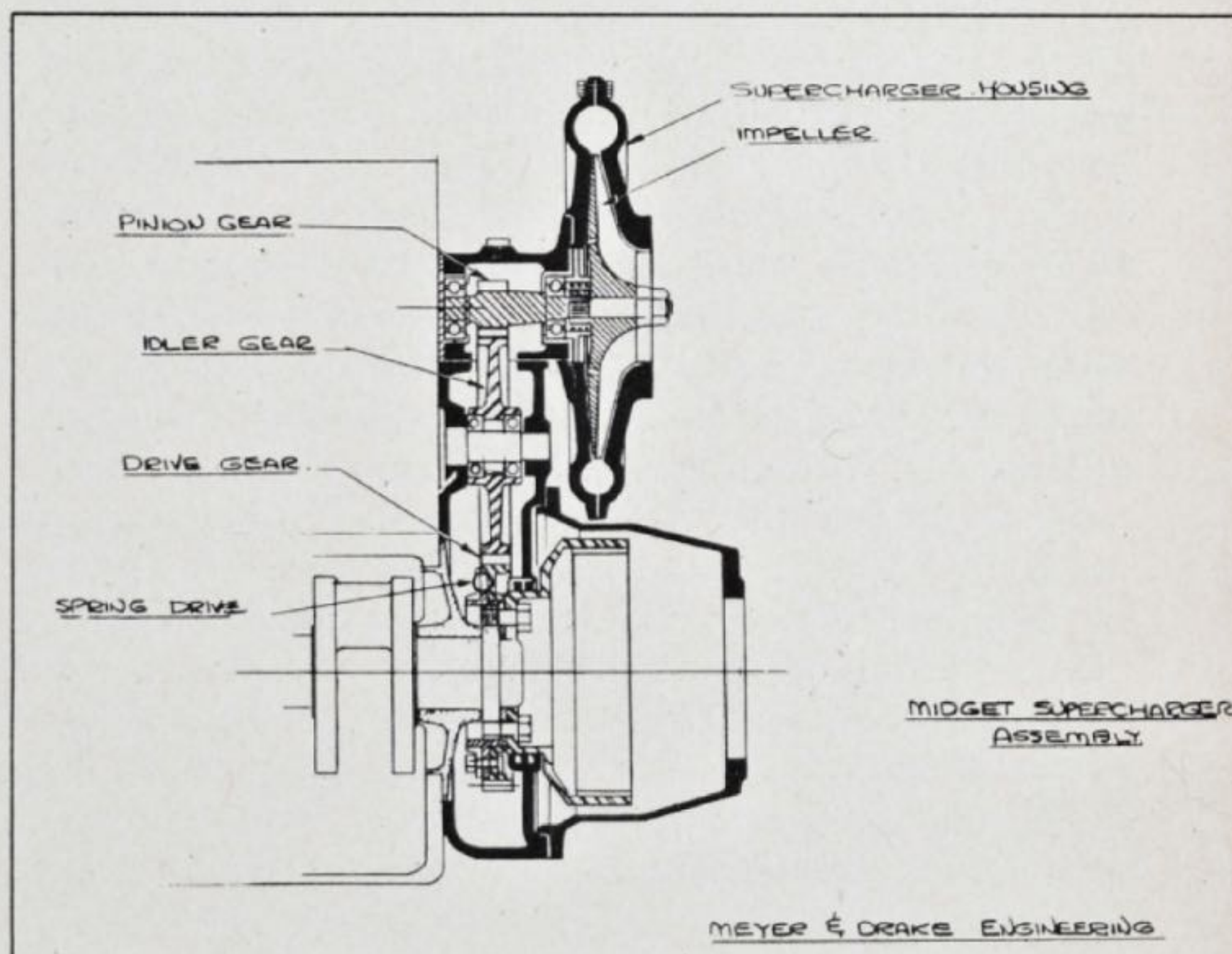
MEYER

DRAKE SUPERCHARGED SPECIAL

The "MIGHTY MITE"

by George Finneran

PHOTOGRAPHS BY THOMAS J. MEDLEY



CROSS-SECTIONAL view of Meyer-Drake supercharger

blower to use? What other kinds did you study before choosing the centrifugal blower?

Mr. Goossen: Well, after some pro and con discussion on whether to use the Rootes blower or the centrifugal type, it was thought that the latter would satisfy our requirements by giving us more pressure at the high engine speeds the Offie midget turns out. We have had successful experience with the centrifugal type on both V-8 and straight 8 Indianapolis engines of the 183 cubic inch capacity built by us. However, we intend to try out the positive-displacement blower (Rootes type) in the near future in order to get a direct comparison of the two types on our midget engine.

Question: How did you go about getting what you wanted for your engine requirements—technically?

Answer: First, it was necessary to determine the pressure desired at certain engine speeds, as well as the volume of air required for a given size engine. With this information, the next step was to calculate the speed of the impeller and

blade widths which would satisfy these requirements.

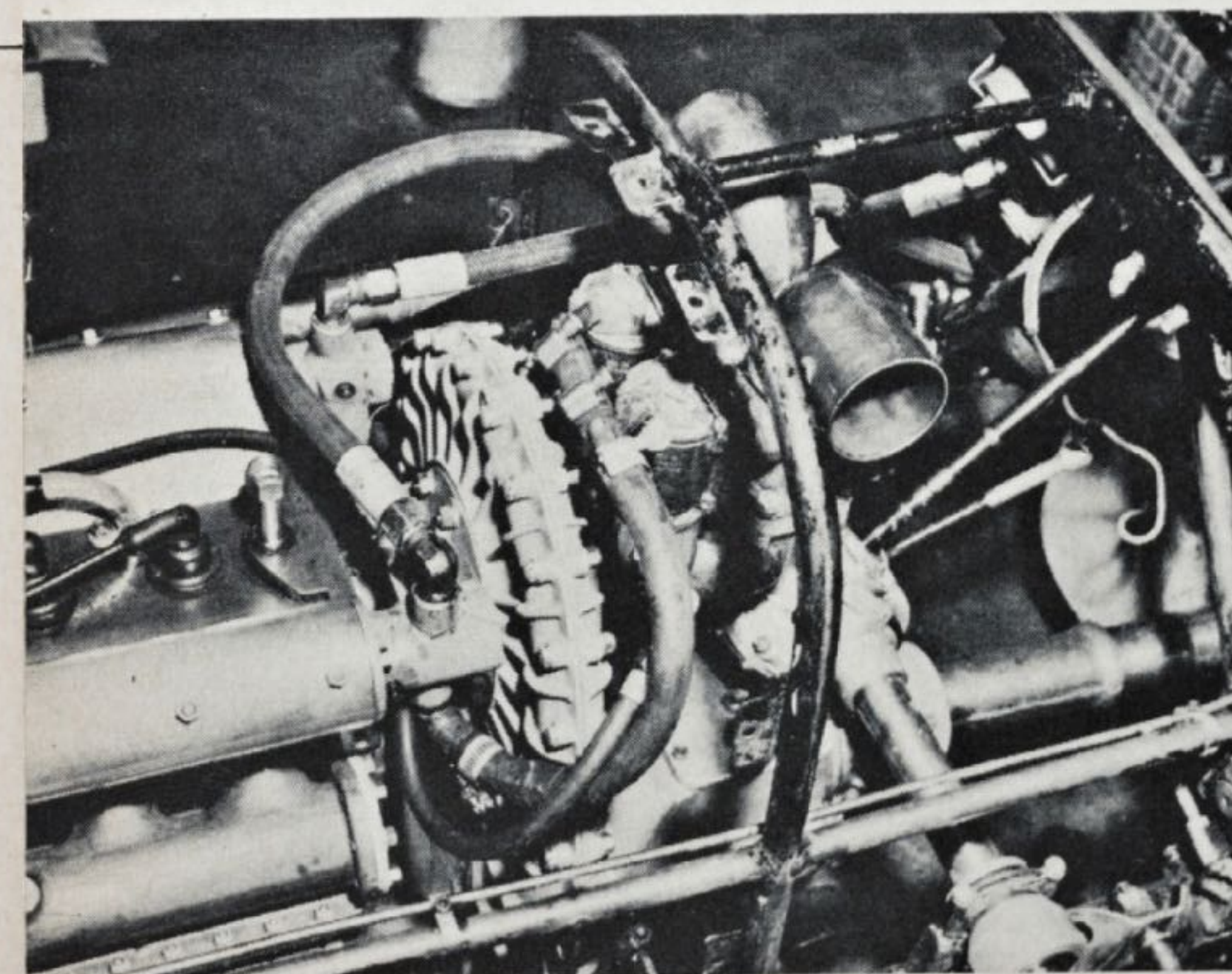
Question: What about acceleration and deceleration shock? This has always been a problem with many superchargers fitted on stock commercial cars. How did you go about getting around this problem?

Answer: Shock control has always been a problem with superchargers, especially the centrifugal type because of the high inertia forces resulting from a high-speed impeller. Any sudden change in engine speed would absolutely require a compensation device to take up this shock.

There are two methods of controlling shock; either use a flexible shaft to drive the impeller, or drive the impeller through a spring coupling. In our V-8 and straight 8 engines, torsion bar drive was successful; however, on the midget, the spring type worked out best. Incidentally, the three-litre (183 cu. in.) Mercedes uses this latter type of shock compensation.

Question: Before going into materials and specifications, what is the best way to describe the Offie blower set-up?

Answer: Perhaps the easiest method would be to trace the fuel from the carburetors through the blower to the engine cylinders. Right back here behind the firewall you see the blower (see photograph). Air enters the two carbs, then the mixture passes through this fabricated steel manifold to the entrance side of the impeller chamber. The mixture enters the chamber axially, and leaves radially at the circumference of the impeller chamber with high velocity, passing into the spiral housing surrounding the impeller chamber. This spiral housing gradually increases in area to the proper outlet size, converting the mixture's velocity to pressure (or kinetic energy into pressure energy). From the supercharger, the mixture goes through the outlet pipe to the bottom of the "after-cooler." This cooler is composed of two flat, pickled-magnesium plates bolted together to form a 3/16-inch slot, 13 inches long, extending from the bottom of the engine to the intake manifold. The plates are finned on both sides to cool the mixture as it passes up through the slot. The air-fuel mixture at the point of entry into the slot is approximately 140 degrees. The mixture then enters the conventional intake manifold, at each end of which, however, are two pop-off valves set at 50 psi in case of a back-fire or an accidental igniting of the mixture while in the blower. The blower delivers the mixture to the



OFFIE BLOWER is mounted behind engine, axis parallel to crank

February 1950

engine at a maximum pressure of 20 psi or 88.93 inches of mercury.

Question: Now back to the blower. What are its mechanical specifications, materials used, etc.?

Answer: As you can see from the photographs, the blower is mounted at the back of the engine directly behind the cylinders. The impeller rotates on an axis parallel to the crankshaft and blows toward the engine. The impeller is driven through a train of three gears—the crankshaft gear, an idler gear, and the impeller pinion gear. The pinion shaft passes through a piston-ring seal into the impeller chamber. To explain the seal: an inner sleeve is pressed onto the steel impeller hub, rotating with it and having three circumferential grooves. In these grooves are fitted 1½-inch diameter by 3/32-inch bronze rings. These rings have running clearance in the inner sleeve, but are held stationary by a tight fit in an outer sleeve, which surrounds them. This outer sleeve also forms a cap for the impeller shaft bearing. A labyrinth seal is thereby created through which the high-velocity mixture is effectively blocked off. The impeller is machined from a magnesium forging, is 8¾ inches in diameter, has 24 blades, and is statically and dynamically balanced. The impeller-to-engine ratio is 5½ to 1, with an alternate ratio available of 5.13 to 1. This means that the top rpm of the impeller is 35,000, and if your readers want a little exercise in simple mathematics, the tip speed is, of course, $8.75 \times \pi \times 35,000$ rpm. The gear train is housed in a magnesium casting bolted to the rear end of the crankcase. The pinion drive gear and shaft are SAE 4620 carburized and hardened steel, the idler and the drive gear are SAE 4340 (chrome-nickel-moly) steel with nitrided teeth. The pinion and the idler gears are mounted on super-precision ball bearings although we are experimenting with plain floating-type bearings similar to some aircraft design, lubricated by high-pressure oil. At present, the pinion gear is lubed by low-pressure oil flowing directly onto the gear and the idler and driver gears are lubed by oil mist.

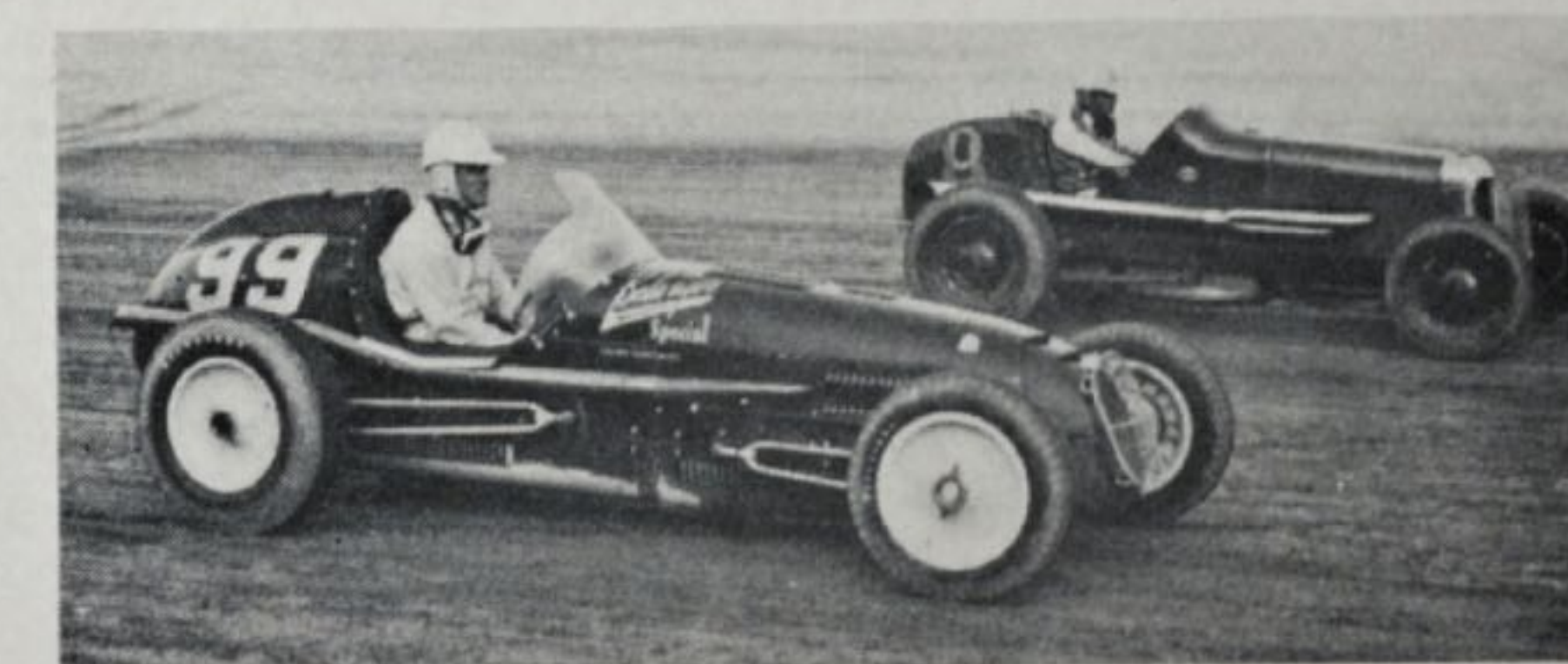
Question: What is the present compression ratio given by the blower and your modified engine?

Answer: 7½ to 1 with 29 psi blower pressure.

Question: What are the engine modifications?

Answer: The bore was enlarged 1/16 inch, both the intake and exhaust valves were enlarged to 1 23/32 inches, and the pistons were re-designed to run a lower compression ratio. It's a three-ring piston. Of course, the carburetor set-up is new, and we are using a new fuel pump system. We removed the floats in the carbs and meter methanol into the float chamber, using a stand-pipe and an overflow (or suction) pump driven off the intake valve camshaft to keep the proper level in the float chamber. This gets rid

(Continued on page thirty)



BELANGER SPECIAL, 98-inch wheelbase car, uses blown Offie

Eleven

Motor Trend

A LIGHT summer breeze rustled the leaves along a quiet country road in the beautiful, forested Belgian valley of the Eau Rouge. Suddenly, out of nowhere, a distant hum swelled to a shattering scream as a low, silver car flashed in the sun and was gone.

This is road racing, foreign style, and that was Hermann Lang pushing his Type-163 Mercedes on the fast leg of the Spa road circuit. He hit better than 180 mph along there—along the same road you might drive today when touring Europe.

All right, so you saw a Novi Special turn 160 mph on the back stretch at Indianapolis. But we can promise you that you haven't seen everything in auto racing by any means till you've watched a rear-engine Auto-Union take the brow of a hill at that speed!

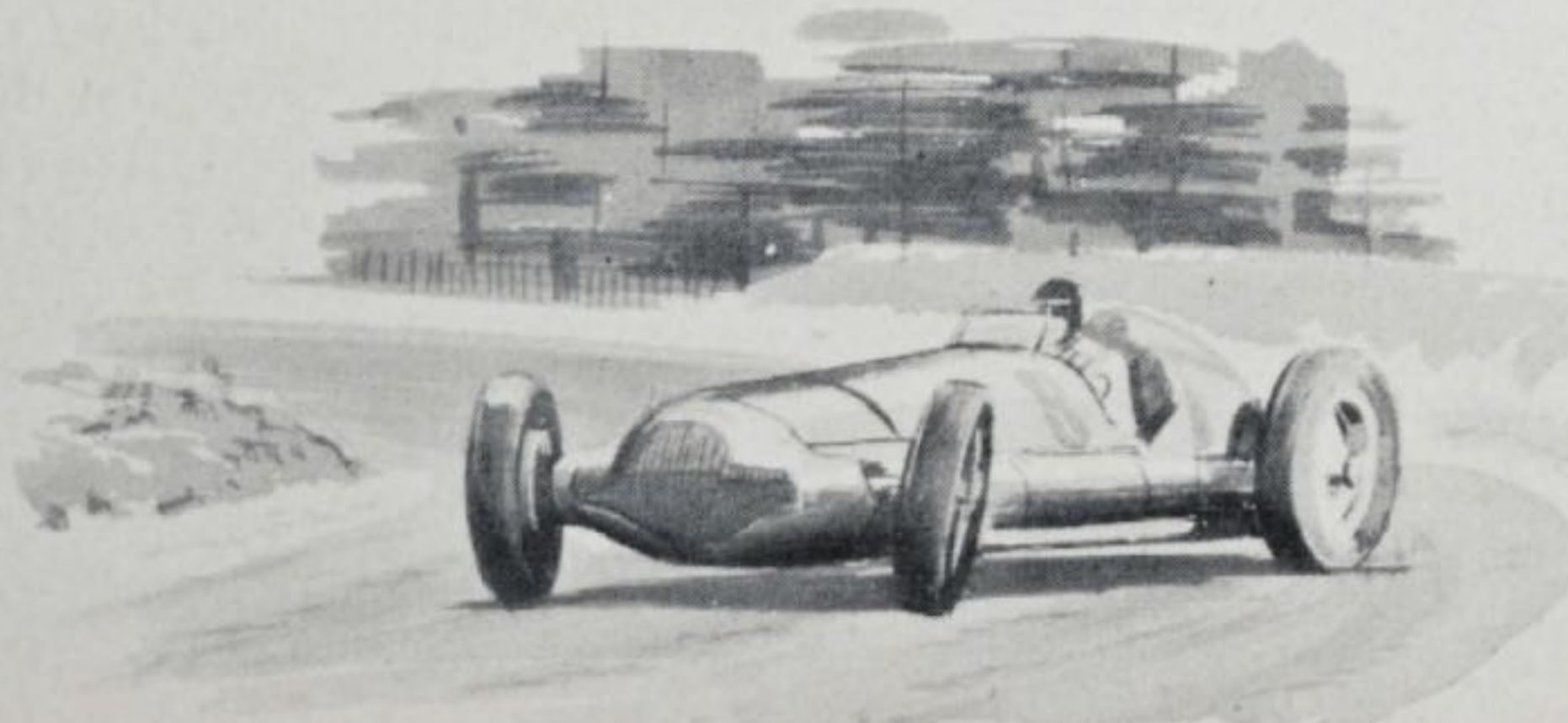
Road racing is as violent, exciting, colorful, and car-killing a sport as anything we see here in America. And the demands on the skill of the driver are even greater than track racing. It was about like a Ford "A" paddling an Offie in the German Grand Prix of 1935 when the great maestro himself, Tazio Nuvolari, tooled his little 250 hp Alfa through a driving rain to defeat a whole field of 400 hp German cars. Nuvolari won on his driving skill alone, but he wouldn't have had a chance against those same boys on a circular speedway like Indianapolis. Road racing is a driver's playground—and proving ground.

How did this very specialized form of portable sport all come about? Down through the years since the turn of the century, four major factors have been responsible for the maintenance of auto racing in Europe: (1) The love of speed and appeal of personal competition, (2) to push technical progress, (3) for advertising propaganda, and (4) for political propaganda.

Of course, that first factor, love of speed and competition, has always existed and always will. It had a lot to do with maintaining European racing during hard economic times when manufacturers couldn't afford to sponsor teams.

The factor of technical progress was linked very closely with that of advertising propaganda. They both suffered a serious decline shortly after World War I and from which they never recovered. In the early 1900's, racing served as a fine development ground for such items as brakes, axles, tires, and engine parts—and the European buyer really wanted to know whether his favorite manufacturer, say Mercedes, could beat Peugeot in a race. But by the 1920's, racing car design had become so widely separated from passenger car development that these factors, especially the advertising, had little to do with upholding the motor-ing sport.

The factor of political propaganda varied by periods. As a matter of fact, the initiative of the French in organizing early European racing was largely an effort to publicize the supremacy of their own auto industry. As competition increased, the political motive practically disappeared — only to be renewed with fantastic vigor in 1934 after Hitler's Third Reich came to power. With this gov-



GRAND PRIX RACING

by Roger Huntington

ernment backing, both Mercedes and Auto-Union were each laying out about \$1,000,000 a year to establish absolute German supremacy in road racing during the five years before World War II.

So we see the somewhat remarkable fact that what we call the "purse" had nothing to do with maintaining European racing. Cash prizes were comparatively small; manufacturers sponsoring teams did not make expenses, and the competition was too tough to give amateurs much of a chance. It was "motoring sport," pure and simple.

The most colorful and romantic phase of European road racing was the fabulous "Grand Prix" (French for Grand Prize) series of races. This series was started in 1906 under the supervision of the International Association of Auto Clubs, and has been continued, except for the periods of the two wars, right up to the present time.

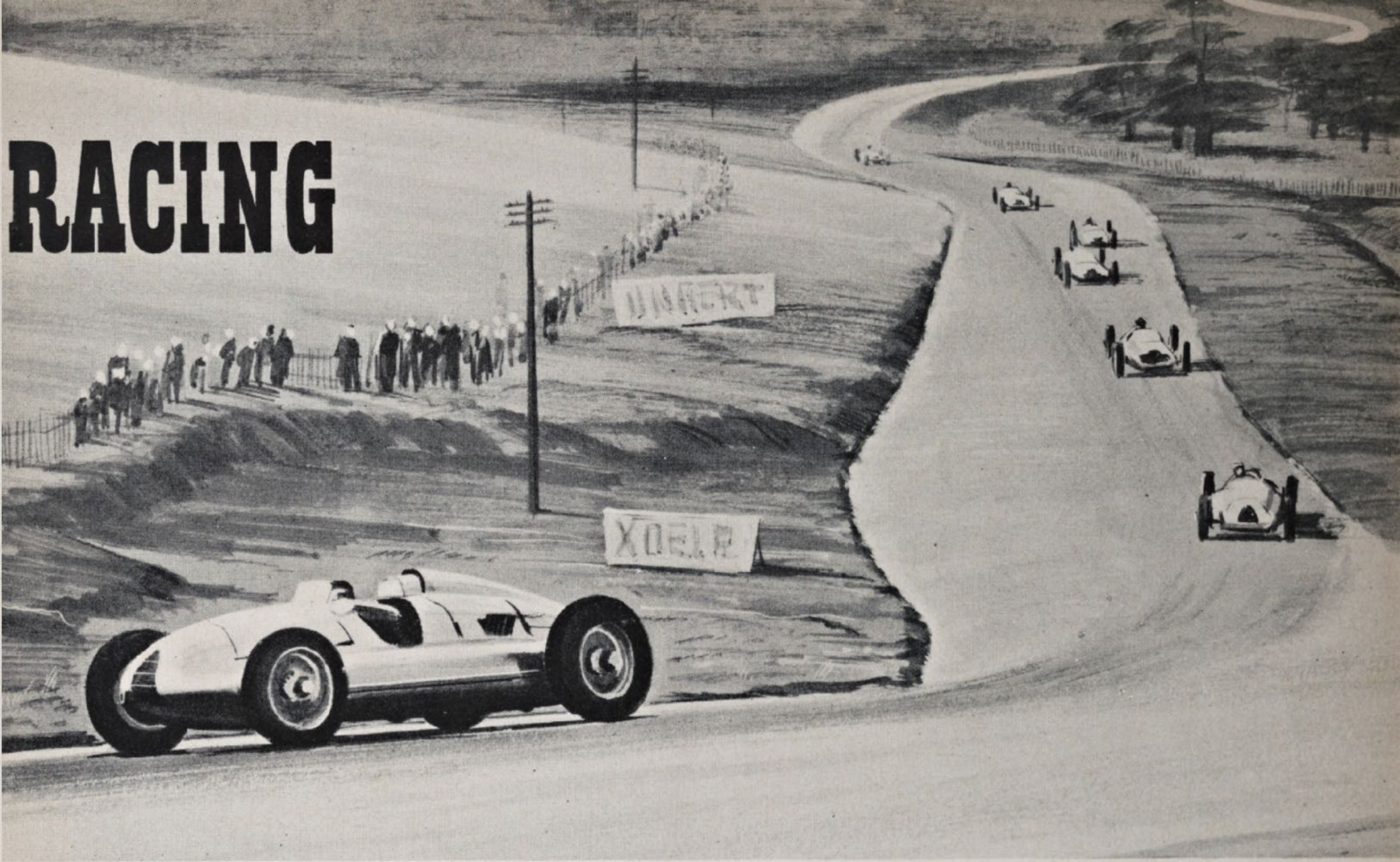
The regulations under which the contests were run were carefully chosen with an eye both to maintaining close, safe competition and to direct the design of the racing car in channels that would benefit stock car development. The rules were fairly successful in both these aims.

Here is a brief review of the major regulations governing the Grand Prix series up to World War II:

- 1906 Maximum weight, 2,204 lbs.
- 1907 Fuel mileage minimum, 7.8 miles per gallon
- 1908 Max. piston head area, 117 sq. in. total; min. weight, 2,534 lbs.
- 1912 Maximum body width, 69 inches
- 1913 Fuel mileage minimum, 11.8 mpg; minimum weight, 1,760 lbs.
- 1914 Max. displacement, 4½ litres (274 cu. in.); min. wt., 2,425 lbs.
- 1921 Max. displacement, 3 litres (183 cu. in.); min. wt., 1,760 lbs.
- 1922-1925 Max. displacement, 2 litres (122 cu. in.); min. wt., 1,433 lbs.; in all years up to 1925, two people had to be carried; in 1925 and after, only the driver rode, but body had to be 2-seater
- 1926 Maximum displacement, 1½ litres (91½ cu. in.); minimum weight, 1,322 lbs.; minimum body width, 31½ inches
- 1927 Maximum displacement, 1½ litres; minimum wt., 1,543 lbs.; minimum body width, 33½ in.; one seat allowed
- 1928 Weight limits, 1,212 to 1,653 lbs.; no engine rules
- 1929 Minimum weight, 1,980 lbs.; minimum body width, 39 in.; fuel had to be stock filling-station or "pump" fuel
- 1930 As above, except 30 per cent benzol allowed in fuel
- 1931 Minimum race duration, 10 hours; any type car
- 1932 Race duration, 5 to 10 hours
- 1933 Race length at least 300 miles
- 1934-1937 Maximum wt., 1,653 lbs.; minimum body width, 33½ in.
- 1938-1939 Maximum displacement, 3 litres (183 cu. in.) supercharged, 4½ litres (274 cu. in.) unsupercharged; sliding scale relationship between weight and displacement, but minimum weight for all types, 1,873 lbs.

(In all the above, weight is without water, fuel and tires, except after 1934, when weight did not include wheels.)

The Grand Prix races were run over a motley array of road circuits that varied literally from downtown city



DRAWINGS BY ALBERT H. ISAACS

streets and suburban boulevards to narrow, treacherous mountain trails. Lap lengths ranged usually from two to 25 miles. Road surfaces on the circuits varied from rough dirt to macadam and concrete. This, coupled with a lot of hills, fast and slow turns, bumps, narrow bridges, and ditches presented the driver with every conceivable feature of regular road travel.

The circuits were closed to traffic for specified pre-race periods, usually in the early morning, to allow the drivers to practice and become familiar with the course. On race day, crowds of sometimes over 200,000 lined vantage points to watch the cars hurtle down the straights at 150 mph or slide through the hairpin turns.

After 1920, several "artificial" circuits were constructed on large tracts of non-commercial property (parks, etc.). These proved to be the most popular with drivers and spectators alike, yet they demanded the utmost in driving skill. A list of some of the major circuits used during the 1930's is shown in the accompanying table.

All the lap records shown, except the Monza and Montlhery records, are held by 1937-1939 German cars with power ranging from 480 to 650 hp; the other two circuits were not used after 1934, their records being held by 200 hp Alfa-Romeos.

Usually eight or ten Grand Prix races were run each summer, and teams would travel by truck caravan. Most of the drivers were professionals drawing large salaries from their sponsoring companies. In fact, this trend toward extremely powerful and delicate-handling cars reached a point where only *one man* in the world, Berndt Rosemeyer, could actually drive a 1937 Auto-Union to its maximum potential lap speed! Nuvolari was equally as masterful with the slower Alfa-Romeo, and he could consistently lap three

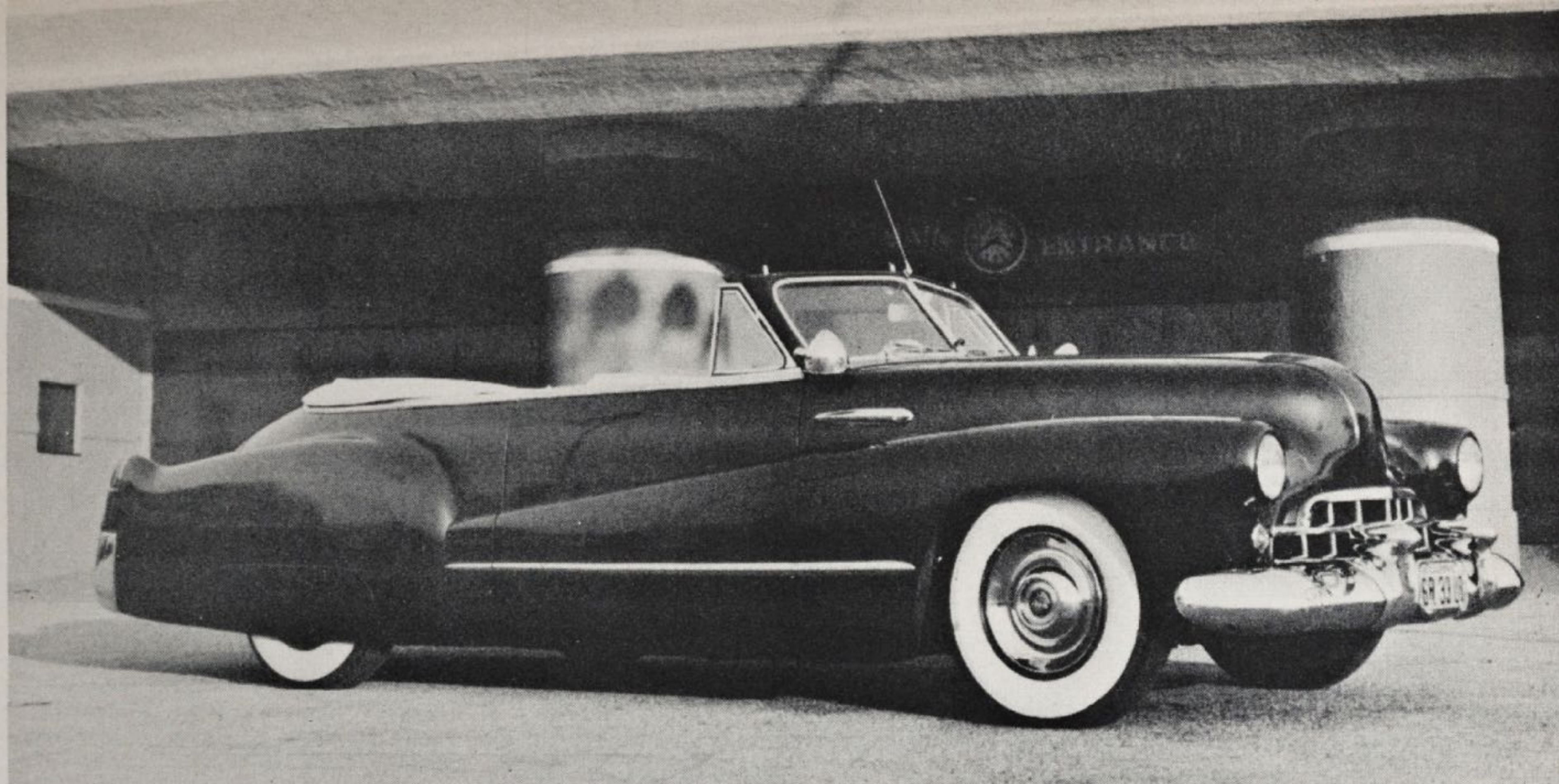
per cent faster than his teammates in the same car.

Circuit	Place	Lap Lgth. Miles	Lap Record M.P.H.	Remarks
Monaco	Monte Carlo, Monaco	2.0	67.0	City streets
Donington*	Birmingham, Eng.	3.1	85.6	
Bremgarten	Berne, Switzerland	4.5	107.1	
Rheims	Rheims, France	5.0	117.5	
Monza*	Milan, Italy	6.2	115.8	
Montlhery*	Paris, France	7.6	91.4	
Mellaha	Tripoli, Libya	8.1	142.4	Series of fast bends
Spa	Liege, Belgium	9.3	108.8	Straights, hairpins
Avus	Berlin, Germany	12.2	172.8	Blvd., end-loops
Nurburg Ring*	Eifel Mts., Germany	14.2	86.0	
Pescara	Pescara, Italy	16.1	92.0	Mountain circuit

*Denotes artificial course

Before we go into details of the technical developments of the most successful cars of the last twelve years before World War II, it would be well to take a brief look at the G.P. car as it evolved up until 1926. First of all, we must understand that the very nature of road racing makes much greater demands on the chassis than does track racing. Suspension, brakes, clutches, gearboxes, and frames all must be tailored to meet the violent requirements of continual slowing, cornering, and accelerating. (Indeed, on the average road circuit with the fastest prewar cars, the brakes were applied no less than 30 per cent of the time!)

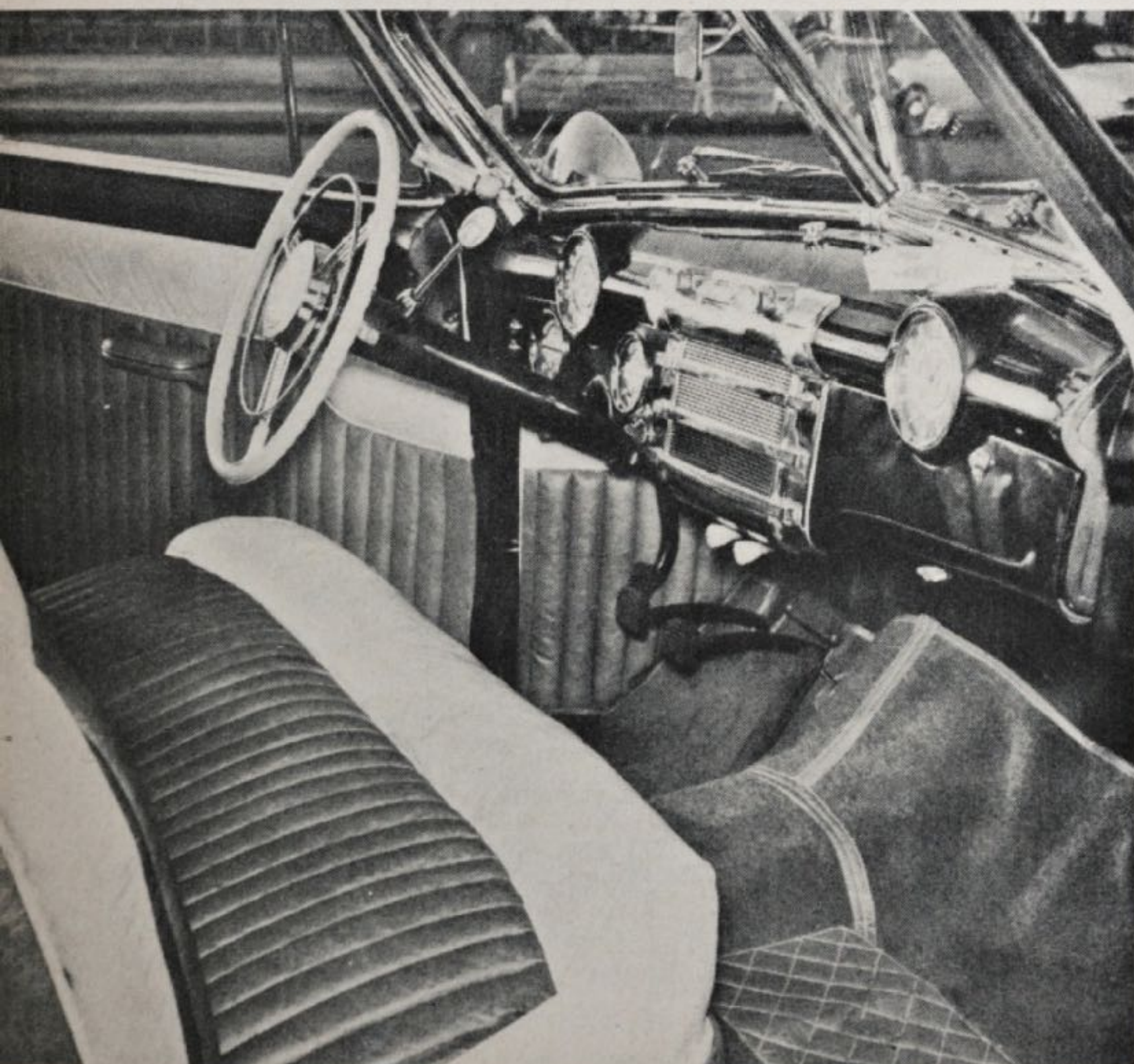
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PHOTOGRAPHS BY THOMAS J. MEDLEY

STYLED for a STYLIST

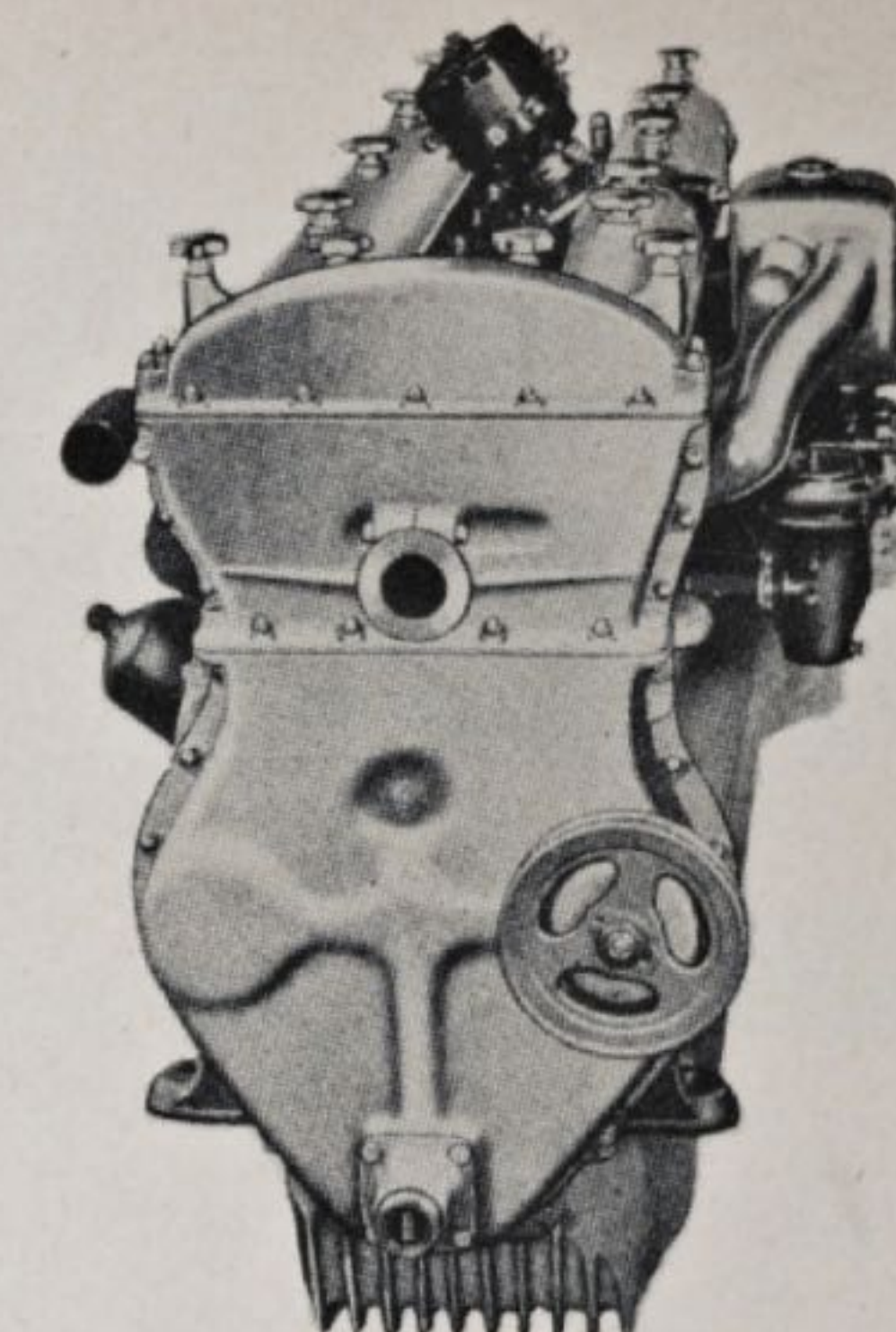
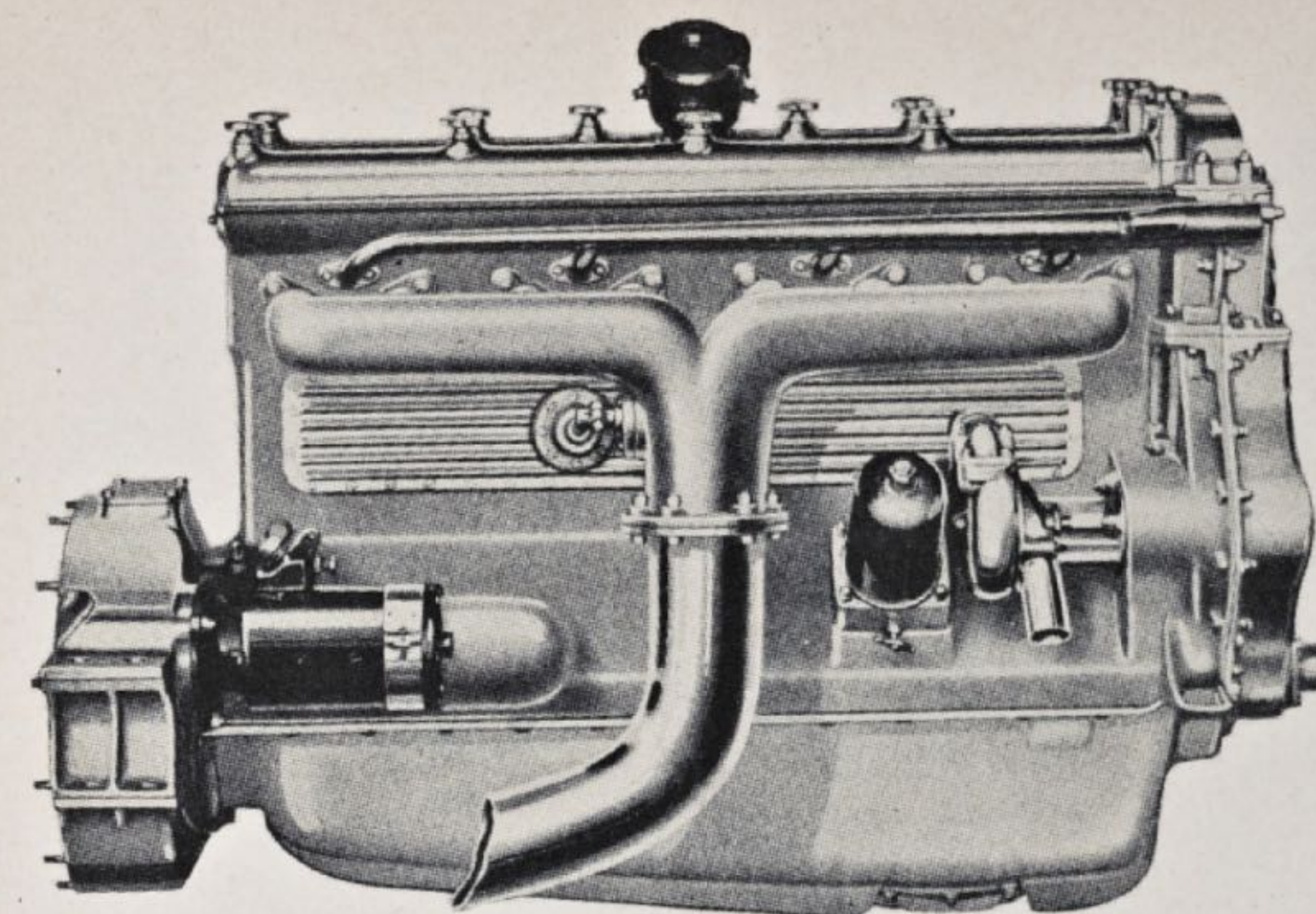
STYLED for a stylist, the 1947 Buick Super convertible in the accompanying photographs is a Barris Kustom Shop creation, created for Mario, a custom upholsterer of Los Angeles, California. Along with being completely dechromed (top, sides, nose, and deck), the body has been dropped considerably and '48 Cadillac Fleetwood fenders have been sealed into the body panel. The '48 Cadillac grille has been pushed rearward two inches, necessitating



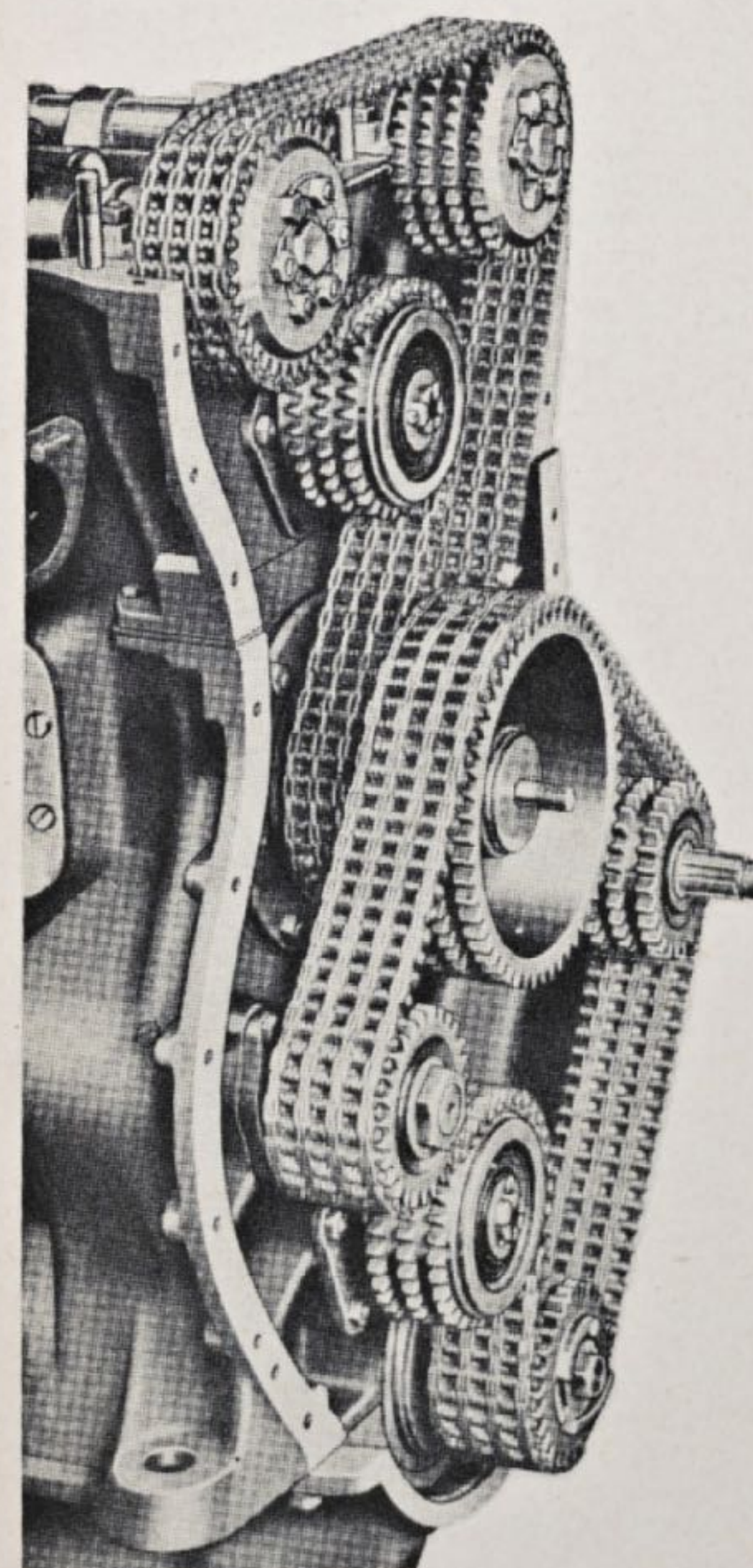
cutting of the hood. The grille height has also been reduced three inches. To complete the Cadillac motif, the front and rear bumpers are both from a '48 Cadillac.

Push button door handles are used for the hood, the doors and the deck lid. The turtledeck has been smoothed off and is operated by an electrical screwjack for raising and lowering. The car has been dropped six inches in the rear through a C'd frame, channeled floor, and Z'd cross members. The frame has been lowered 3½ inches, by means of chopped coil springs and chopped 'A' frames. The rear fenders were shifted four inches into the quarter panel, were raised about 1½ inches with the fadeaways being cut and fitted to the fender. The skirts were power hammered out of sheet metal stock. The windshield was chopped 2½ inches.

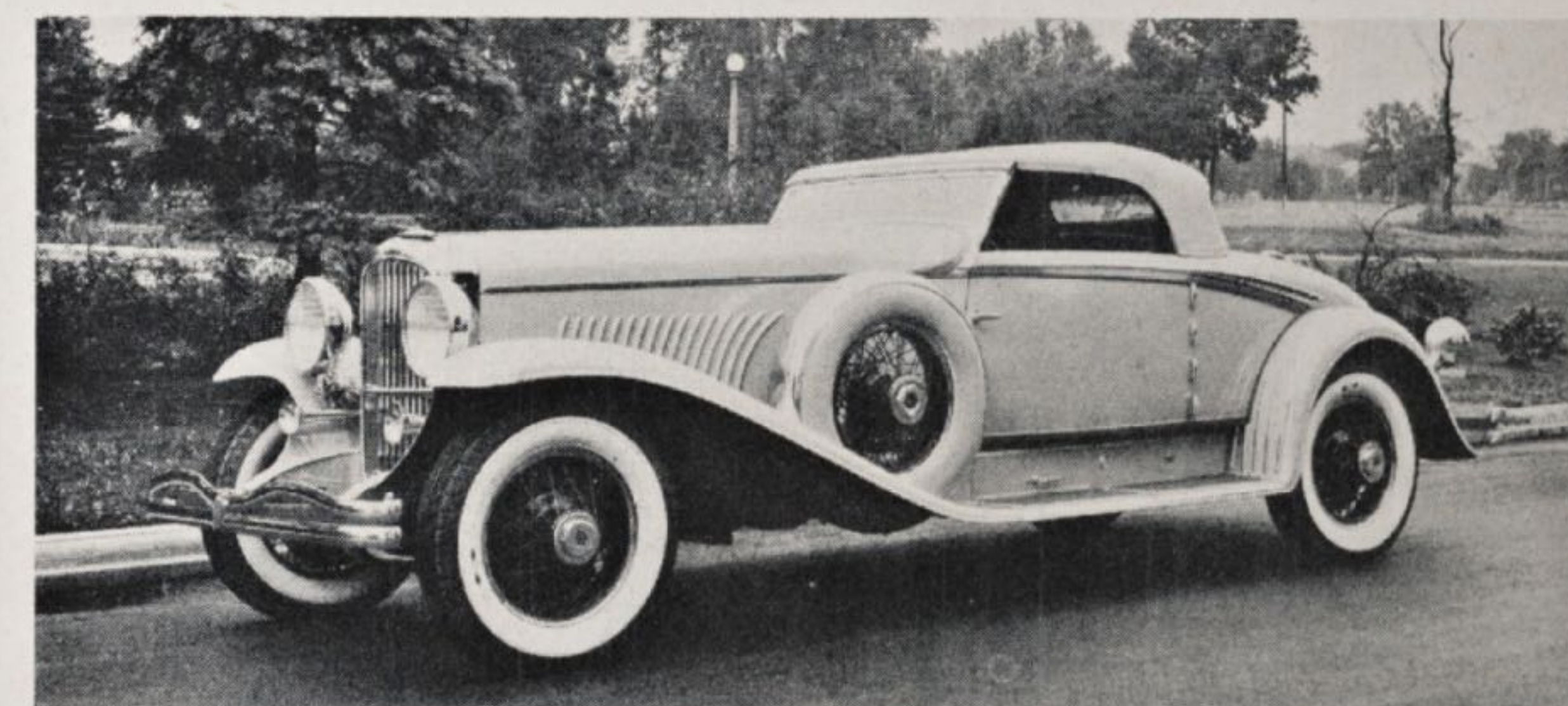
The interior of the car was done by Gaylord Kustom Shop in a neutral gray antique and white genuine leather. All pleats are canvas backed. A lounge-type seat is used in the rear. The floor mat is a diamond-padded custom rug. Until the Gaylord Kustom padded top was placed on the car, a small boot was used for rain purposes. This boot can be raised and fastened to the windshield to provide protection against inclement weather. The exterior paint is done in a new color, a highly polished purple syphochromatic.



POWER WITH LUXURY



TWO FIVE-BEARING camshafts are driven by a silent chain from a transfer gear, which in turn is driven by another silent chain running to a sprocket on crankshaft



M. R. BOHMAN

Technical Details of the Duesenberg Series J

by George Finneran

NOTE: In the following article, staff writer George Finneran continues his discussion of the Duesenberg Series J. In the first part of this article (Jan. '50, MOTOR TREND), he covered "the body beautiful."—Editor.

RATHER than snow you under with a mass of facts and figures about the technical aspects of the Duesenberg, let's take some of its more remarkable features and look them over. For instance, the cylinder block and head contain one per cent nickel and chrome in the iron castings because "it resists the hammering-down action of the valves, and reduces cylinder wall wear to a minimum." Intake valves (driven off the left camshaft) are 1½ inch in diameter, while exhaust valves are 1⅞-inch diameter, both with a shim-adjusted clearance of .025 inch. Compression ratio listed in 1928 was 5.2 to 1 minimum. Valves enter the chamber at 30 degrees for better scavenging.

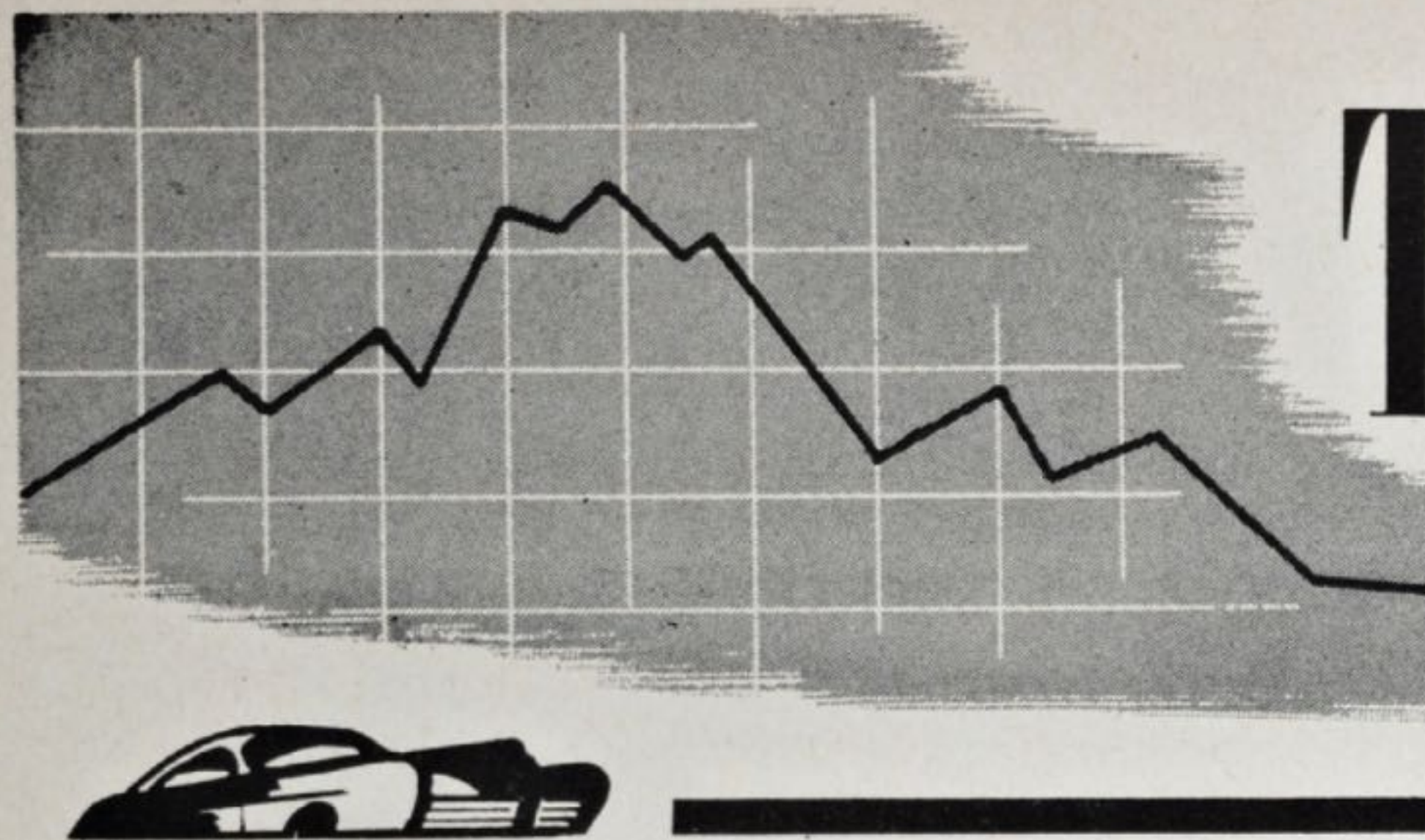
The Ray-Day piston is used, with

three compression, one oil ring, all above the pin; this is the piston with the skirt entirely separate from the head except for the two bosses which drop from the head down and inside of the pin holes. Con rods are aluminum alloy I-section, spun babbitt-bearing.

The crankshaft is a double-headed, chrome-nickel steel forging, with five mains, and contains the famous mercury vibration damper consisting of two tightly sealed cartridges bolted to opposite sides of the crank cheek between No. 1 and 2 cylinders. Each cartridge is 94 per cent filled with mercury, which sloshes over two baffles inside the cartridges, dampening any vibration set up in the shaft.

The super-doooper gadget of them all was the so-called "timing box," mounted next to the fuel pump, and driven off the fuel pump shaft. Consisting of four sets of small planetary gears arranged in series, each with a ratio of

(Continued on page twenty-one)



TRENDS

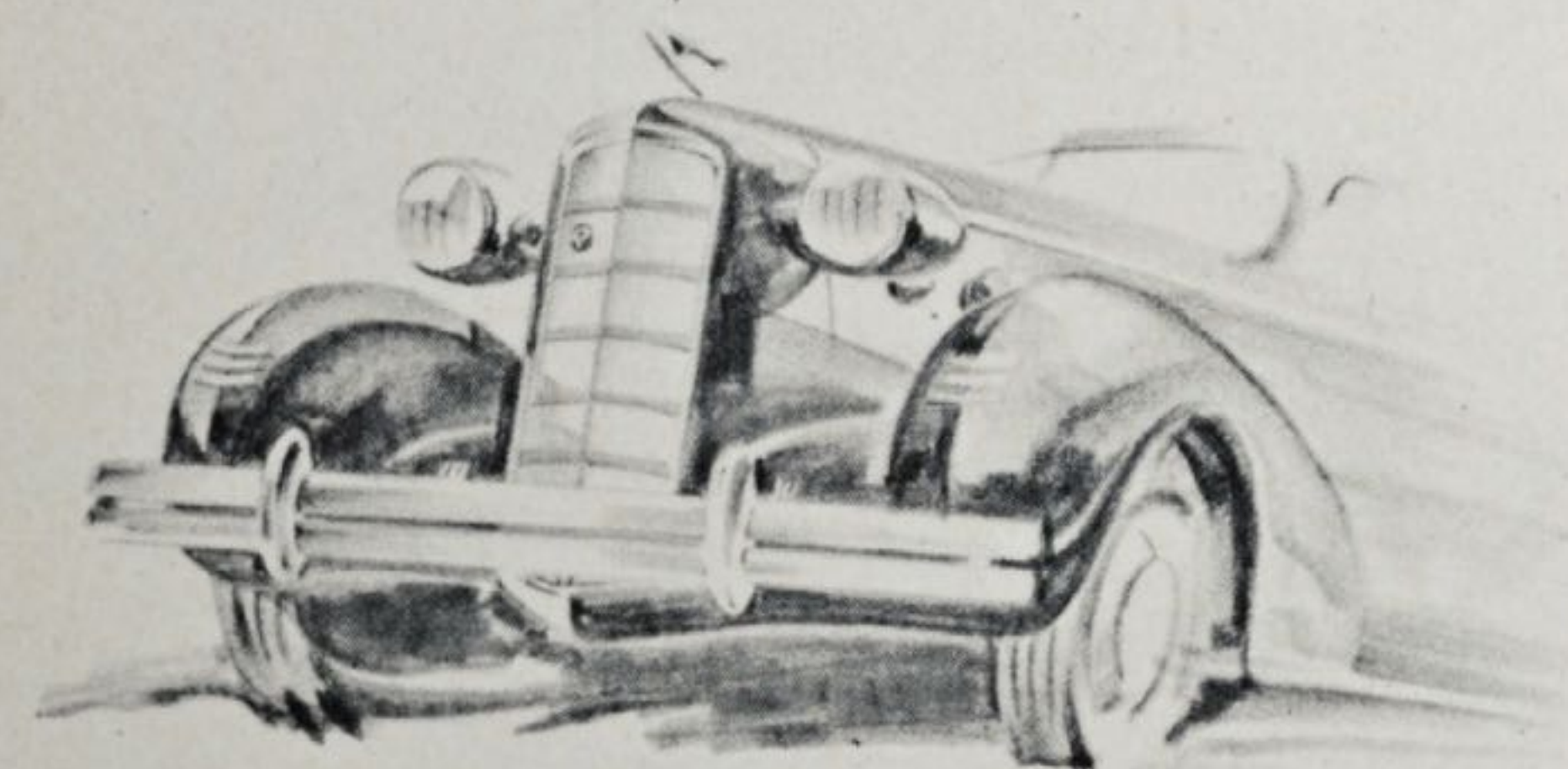
IN DESIGN • GRILLES

Text and Drawings by George Jergenson, Automotive Designer

IT WOULD be as futile for me as an automotive designer to predict automobile design trends for 1960 as it would be for a clothing connoisseur to predict what kind of clothes women will be wearing 10 years from today. However, all automobile designers, just as fashion experts, are naturally "future style" conscious.

Two things an automotive designer has to bear in mind at all times are current trends and public acceptability. For example, Chrysler designed their first Airflow in 1934. This car was a variation of the tear drop design (which many automobile designers had predicted was the coming trend) with a narrow nose and airflow shaped fenders. Chrysler, however, made the mistake of ignoring the current trends in automobile design for that year. When they did realize their mistake, they tried, but too late, to modify the Airflow by adding a narrow nose to the bulky front end. This particular model was produced for three years but Chrysler finally had to discard the style in 1937 because the public considered it a freak. It was just too far ahead of the car styles of the time.

Many cars have always had individuality in design. Pierce Arrow's headlights in the fenders lasted during the duration of the manufacture of this car. Packard's crease in the hood lasted until the postwar model. Now this crease exists only in the shape of the grille. Cadillac's engine carried a crest grille, Chrysler's wrap-around front grille to the wheel opening and Buick's plateau (until 1937) are a few

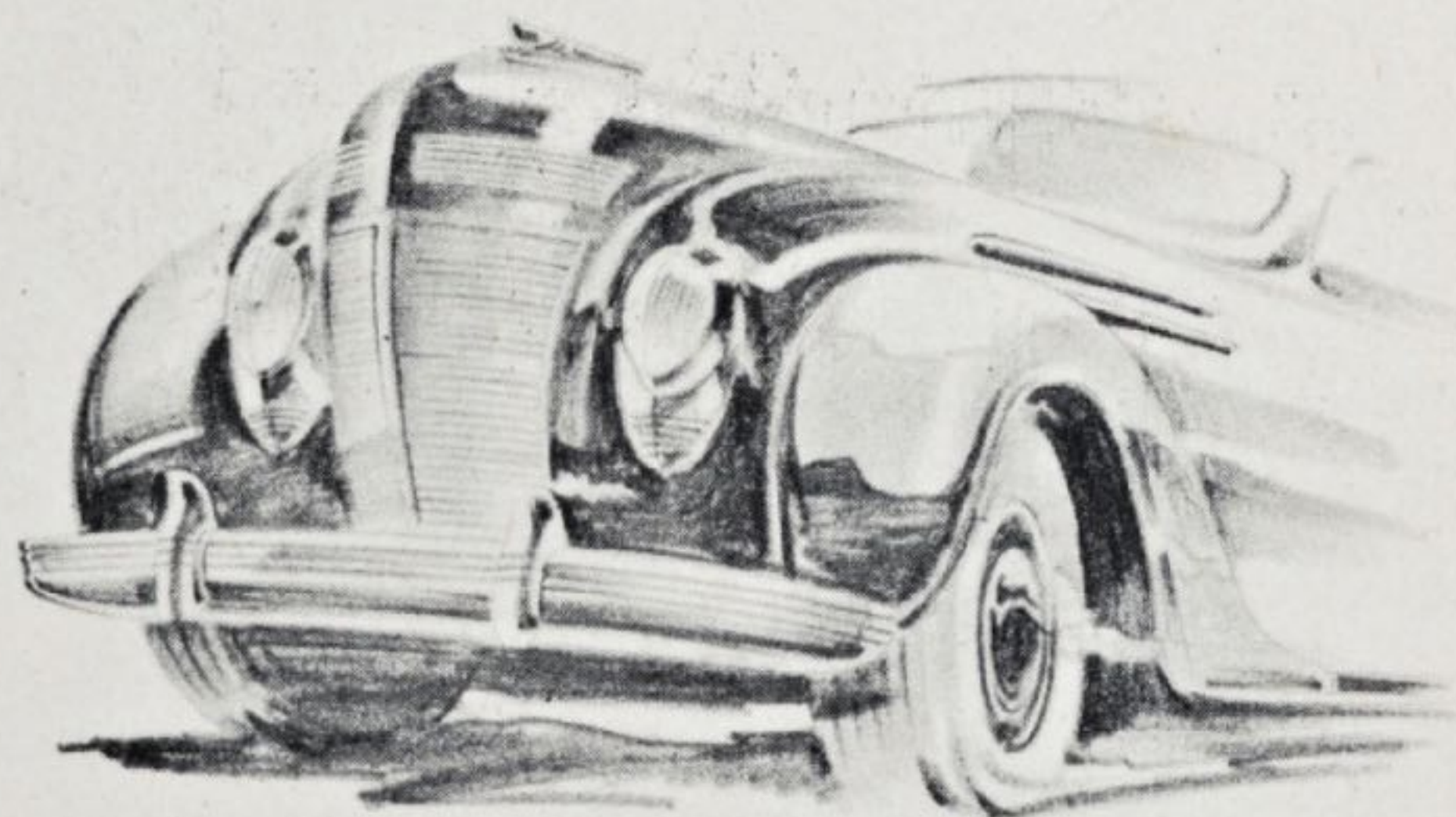


of the distinguishing features which have endured on certain cars. These identifying features were not designed as individual identification, but as the importance of this identification became recognized by the individual manufacturers, the features were retained.

Automobile designers in 1929-30 began to break away from old styles. Instead of having the radiator exposed, they began to put a grille over the radiator core.

Then, in 1933, designers began to slope the radiators more and added more contour. The grilles did not necessarily follow the shape of the core, becoming 'V' shaped. Usually the grille bars were quite thin and fine, sometimes chromed, and ran either vertically or horizontally.

One of the important developments of 1934 was the Chrysler Airflow, which had a simple round front and was more or less flat-sided. The front end looked like the side of a barrel, with the grille wrapped vertically around it.

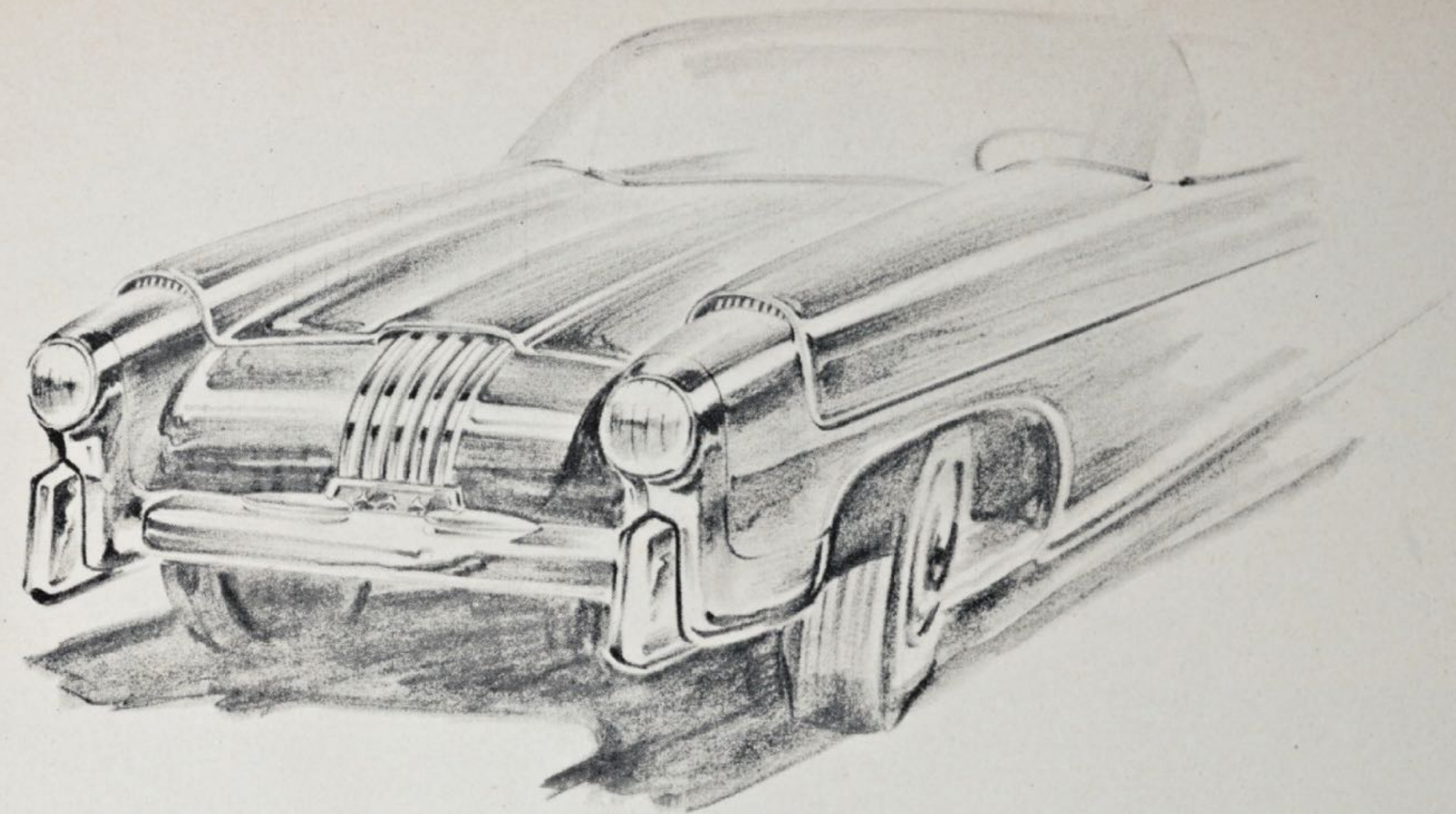


LaSalle came out with a narrow-nose job in 1935. Other cars were getting narrow-nosed and designers were pushing the radiator grille forward. That was the year Chrysler added a narrower grille to the Airflow to obtain the style feeling of the other cars, since this model was not too popular with the public. In the case of LaSalle, there were two streamlined bars open in the middle. Designers began to get away from a piece of flat metal around a curve. Then, in 1936, designers moved the grille forward toward the end of the fenders.

In 1937, grilles began to take on a variety of shapes. Hudson had a 'V' shaped center grille in chrome. On either side there were stamped openings for better air intake. All cars were getting away from the radiator core shape. Chevrolet and Pontiac tied the grille onto louvers running back along the hood. The big difference in grille bars was in the Oldsmobile 6, which had 3/4-inch width bars. A very bold fluted section was used, which was the forerunner of today's design.

The Cadillac 60-Special, which came out in 1938, had heavy grille bars wrapped around the front of the hood. This design proved very popular.

In 1935, General Motors and other manufacturers were using wider grille bars. In most cases, after the radiators were moved forward, they were almost straight up and



down, instead of sloping, except for Graham, which came out with one leaning forward.

All cars began to come out with some type of catwalk cooling in 1939, but as a combination of the grille. The most important part of the cooling system is right in front of the fan, so it was necessary to open that up in some way. Therefore, designers incorporated the center treatment with the catwalk. Grilles began to be a horizontal feature. The bullet shape was applied to the top of the fender—the catwalk was raised higher, from the fender into the body.

In 1940 the outline of grilles became definite and gave cars more character, so that they could be identified from a long distance. More care was being given to each section in the matter of reflecting light.

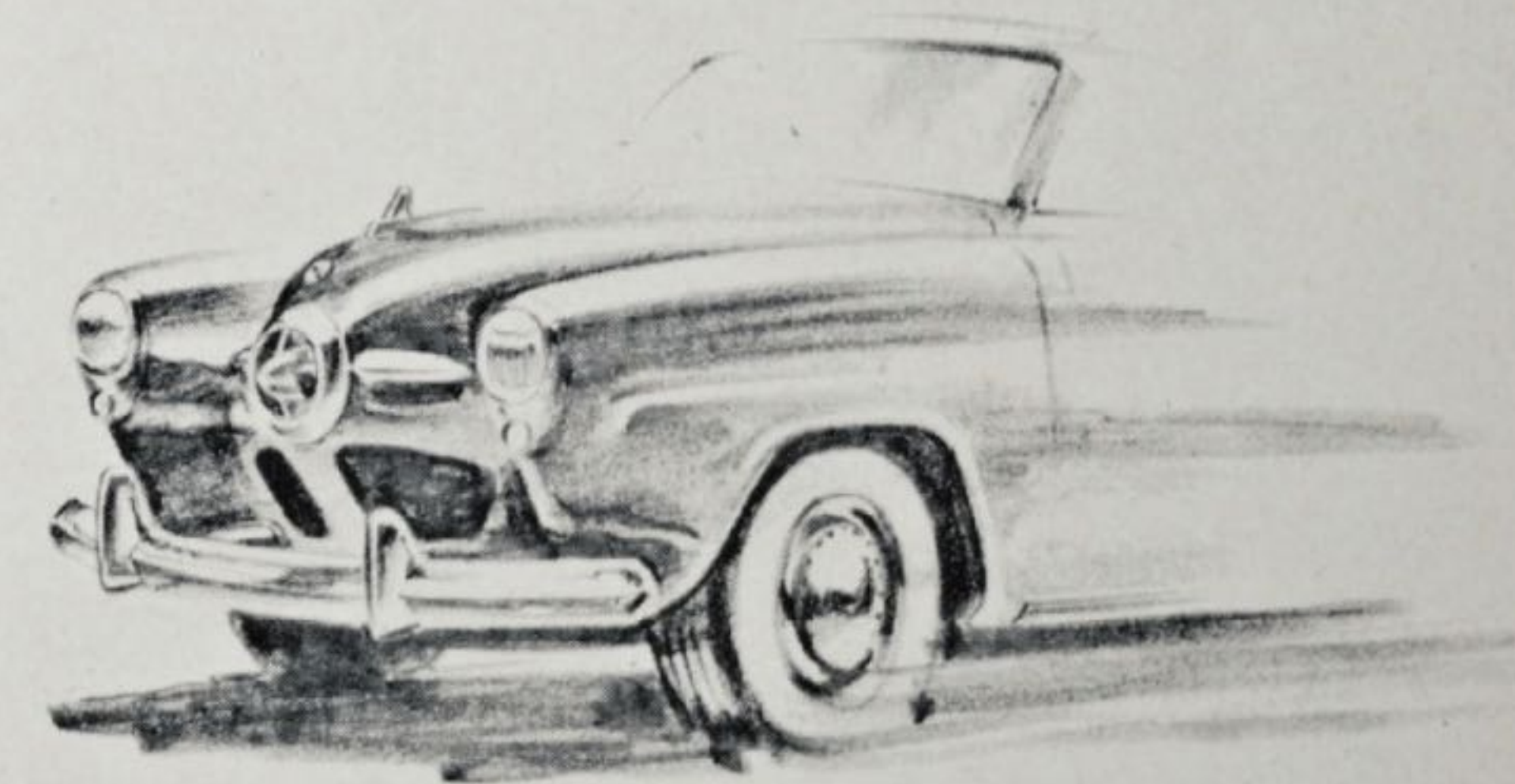
Grilles began to get lower in 1941. Cadillac dropped the grille to almost the position it occupies today. All cars began to get a more horizontal pattern. There were various treatments of the grilles, which had all been lowered by this time. All major cars had built-in headlights. Grille bars were made heavier for identification purposes, and the stone guard between front bumper and fenders and grille was added for the built-in effect. In 1942 when the first wrap-around was used, grille treatments became bolder.

There had been little change in postwar grille designs until Studebaker came out with the new aero-type nose.



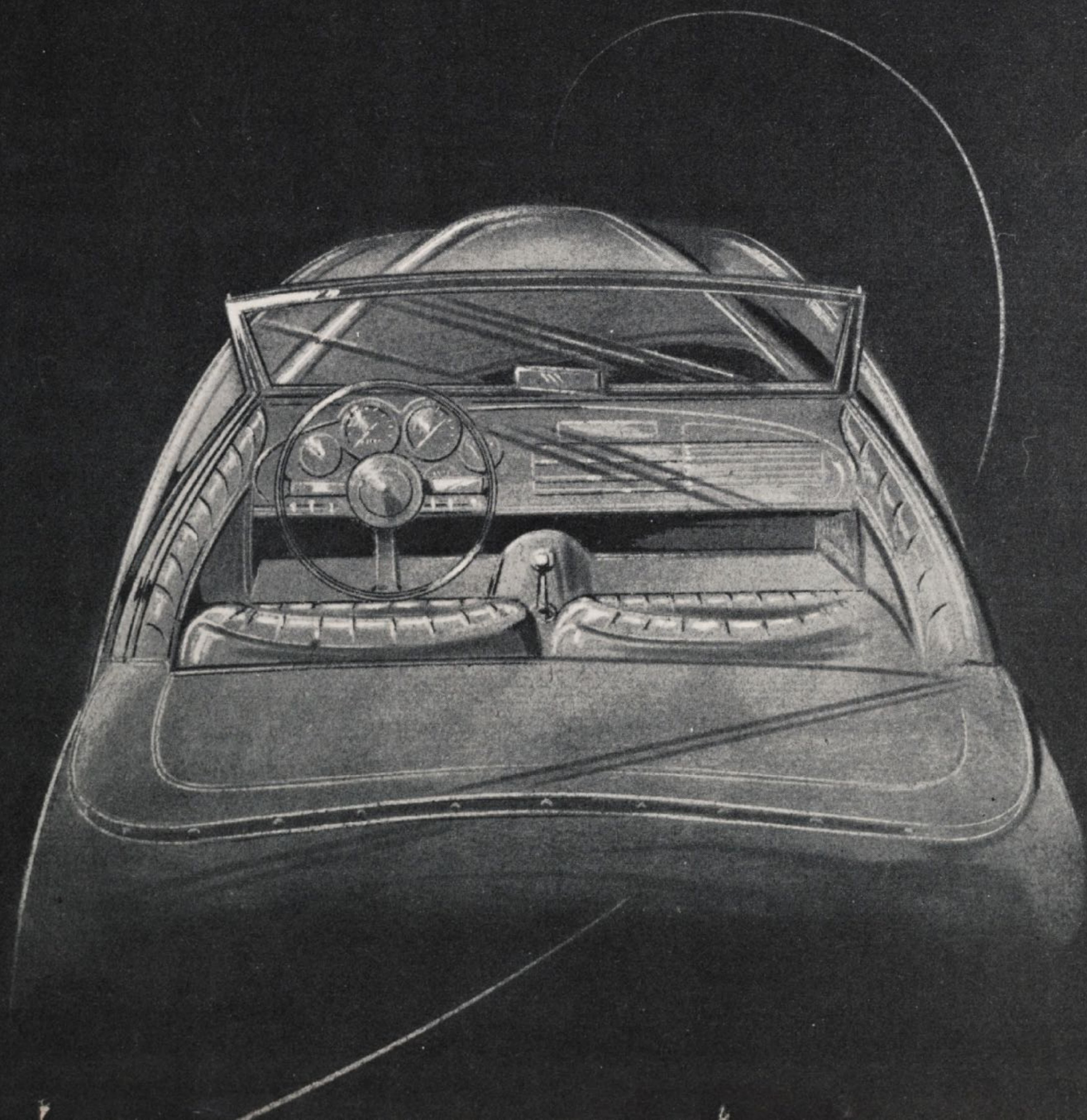
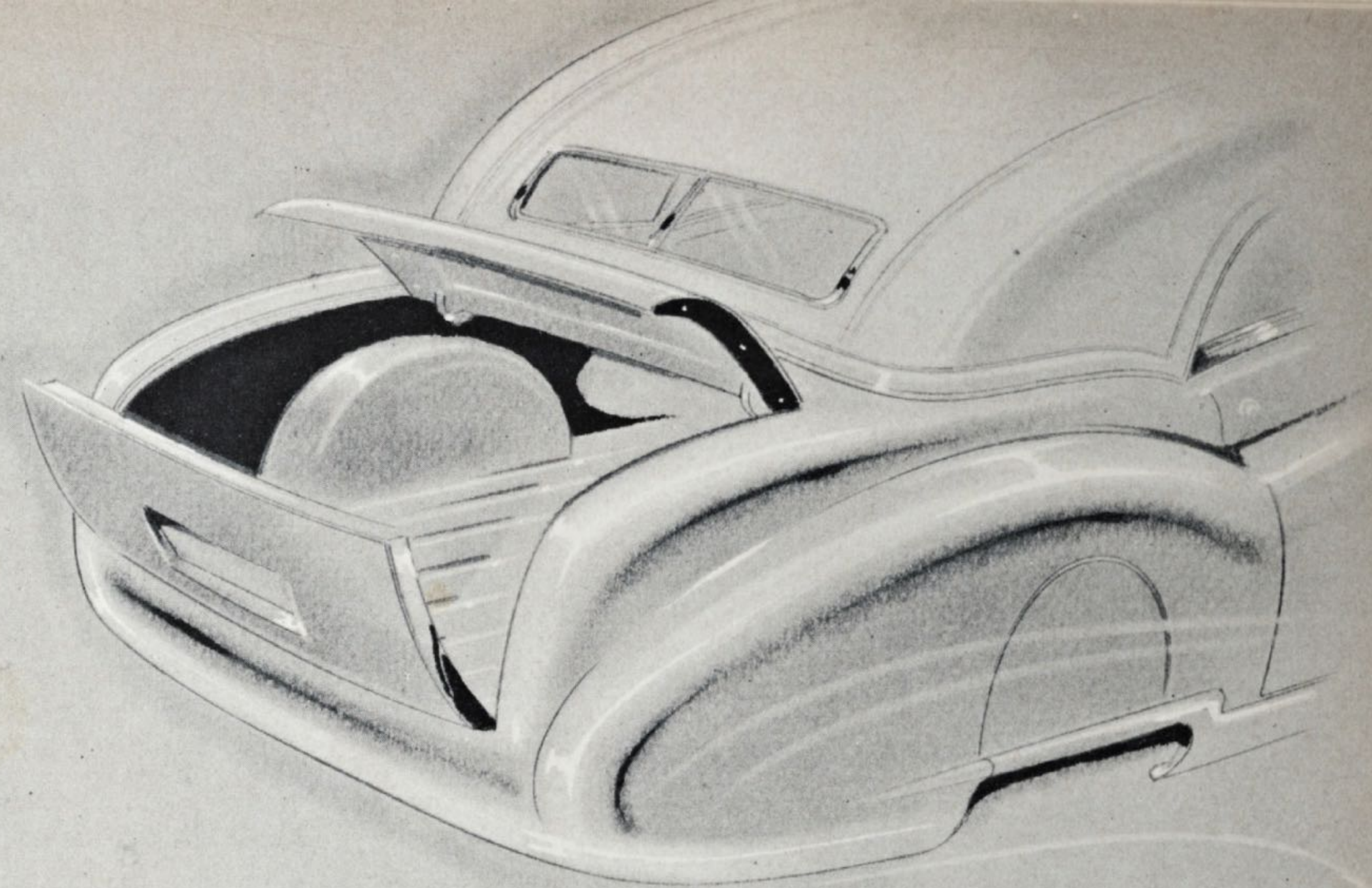
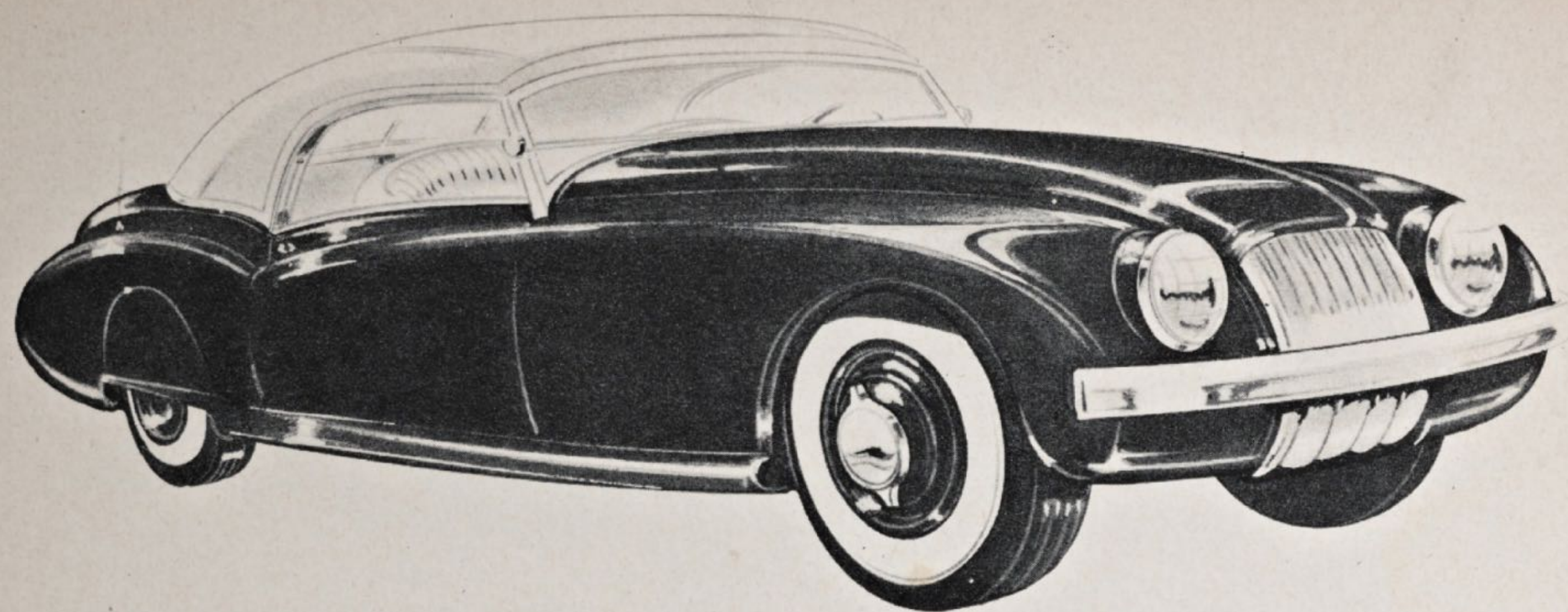
Bumpers have become more of an integral part of the grille, while grille treatments are much bolder.

In the future, I believe, there will be more variety, both in front end treatments and overall design. The grilles will continue to have individually bold treatments, for this is one of the ways the cars are identified. Grilles cannot be lowered much more than they are now. In the



future, we may not see a grille, for designers may play up fenders, or the grille may be a part of the front bumper guards. Designers will change the location of various components to give the car a "new look," especially if manufacturers continue to use the engine in the front end.

If the engine goes to the rear, designers may find a new location for the grille. It may be back of the front fender, along the side panel which would give an entirely different pattern to the look of the car, or the grille may be treated very simply. Designers may use just enough grille to cool the interior of the car, but I do not think they will design a very plain front end. The car of the future will have to have a front end that is different, for most cars are gradually progressing to the point where they are very similar in body design, leaving only the grille for the distinguishing feature.



This visualization by Colonel Alexis de Sakhnoffsky presents the outline and details of a fairly small sport car. It is built on a short wheelbase chassis, in which most of the space is occupied by the engine. The driver sits close to the rear axle, but general disposition of the seats, etc., allows for a generous amount of space for luggage.

Trend of the future

The left hand sketch shows individual bucket seats (essential for safety at high speeds), short gear shift lever (placed directly over the box), and a large tachometer and speedometer dominating the dashboard. The top is removable rather than convertible. The windshield can be folded flat.

The upper sketch shows the storage space, accessible from inside or outside, recessed plates and large rear window.

A Sports Car . . . Defined

(Continued from page nine)

despair at the very suggestion, still it is a legitimate question. We may as well face the fact that, within the framework of our definition, several closed models qualify as sports cars. Healy, Bristol, B.M.W., Fiat, Alfa-Romeo, Aston Martin, and Ferrari, to name a few, have produced closed cars for Le Mans, Spa-Francorchamps, the Mille-Miglia and other well-known international events.

America has never been known for its sports cars. We don't make them; we import them. The total annual production of the MG would hardly be considered a decent week's work by Detroit standards; however, several interesting prototypes have been created, notably on the west coast, and the great American sports car may be yet forthcoming. Certainly we have suitable powerplants, as evidenced by the use of American engines in production sports cars abroad. In addition, there is a great variety of very effective speed equipment which is readily obtainable for many American engines.

Occasionally American cars have been entered in sport car competitions. About the year 1926 or 1927, Stutz competed at LeMans, and ran well, as I recall, but failed to stay the whole twenty-four hours. One titled European actually competed at LeMans with a Model J Duesenberg, although a "J-berg" hardly rates serious consideration as a sports car. Another courageous soul entered an Auburn Speedster, but I believe it was withdrawn due to its stupendous appetite for oil "at speed."

Just because America produces no sports cars, and Europe does, let's not jump to the conclusion that all European open models are sports jobs. Not even all MG's or Bugattis are sports cars. Almost every firm making sports cars also produces tamer passenger models, and some of the European passenger cars have handling qualities just as bad, if not worse, than their obese American counterparts. And the pseudo-sports models of Europe are usually less desirable than their American cousins because they are underpowered.

Drawing a line between two cars and stating that one is a sports car and the other isn't is very difficult. A car can *look* like a sports car, yet if it fails to *perform* like one—the truest test—it cannot be classified as a sports car.

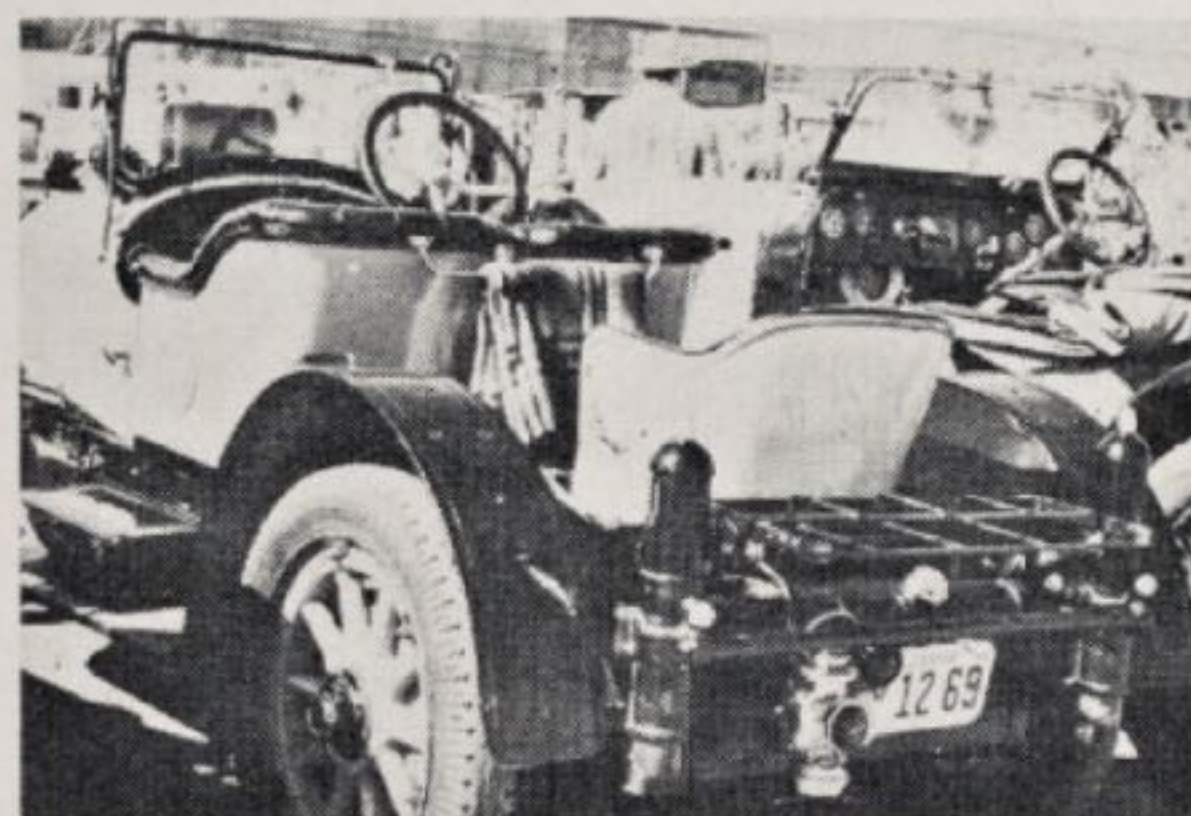
ANTIQUE FIELD MEET

Text and Photographs by Fred W. Fisher

THE DAYS of dusters and goggles became a reality once more when the Horseless Carriage Club held their 12th Annual Field Meet at the General Motors Plant in South Gate, California. Seventy-one old cars, most of them in flawless condition, provided spectators with memories of days gone by.

At 10 AM, the cars were arriving in groups of twos and threes, some driven many miles by their owners, while others arrived on trailers. This meet was attended by more spectators than any previous meet staged in this area, proving that interest in old cars is not only holding its own, but is increasing.

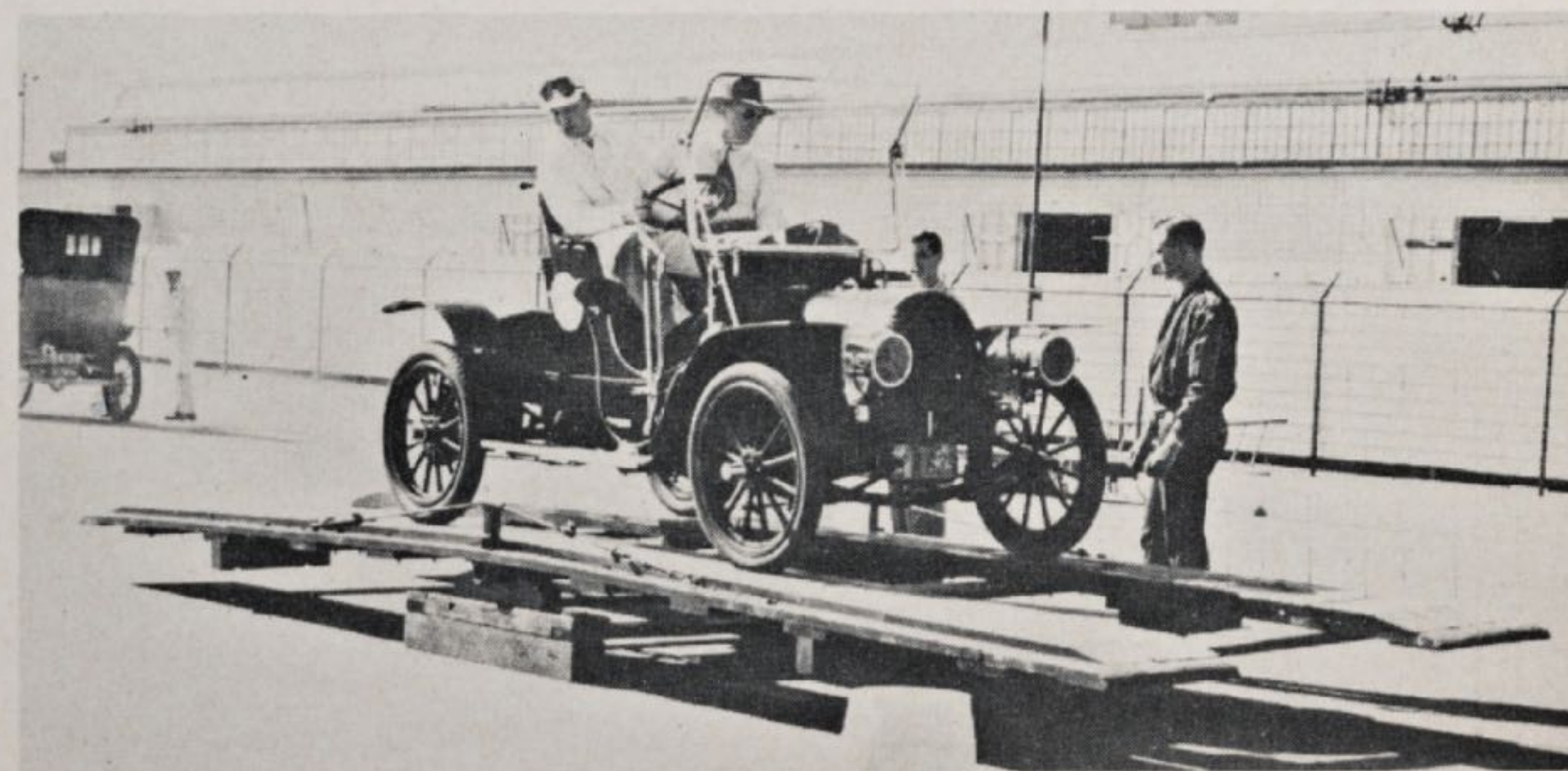
The cars were parked in orderly rows



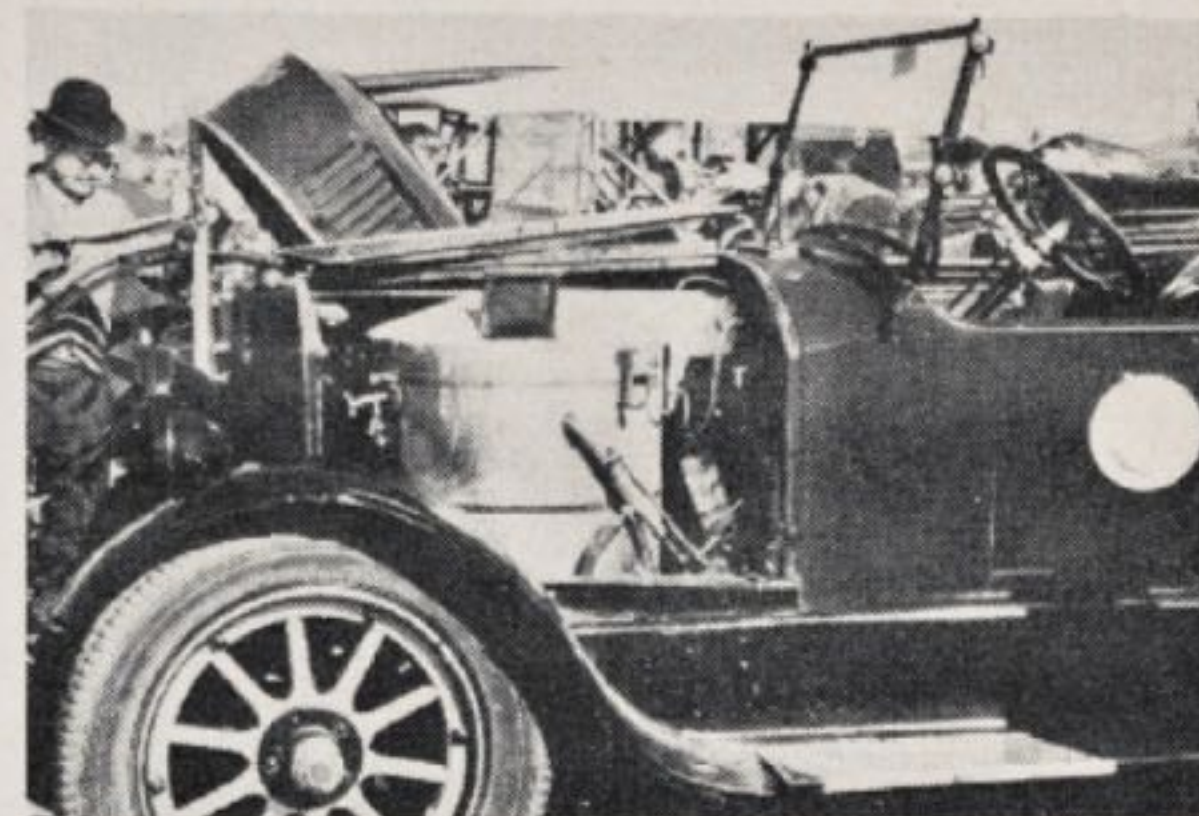
WILLIAM MILLER'S S.G.V. 1914 with seat in rear for passenger. Note tubular shocks

for the benefit of spectators' examination. Whenever a member opened the hood of his old car, he was immediately surrounded by interested onlookers, eager for information concerning that particular model, its characteristics, and past history. Many of these models were found in almost unrecognizable condition in out-of-the-way places. They were then restored to original (or better) condition at great expenditure.

At 11 AM, the first event was begun



AIR-COOLED Franklin 1906 roadster, owned by Walter Fife of Los Angeles, Calif.



1921 STANLEY STEAMER in fine operating condition, owned by Bob Jones of LA

—teeter-totter balancing trials. This is always a laugh-provoker, as the drivers of old cars attempt to balance their machines on a large teeter-totter by gingerly using the brakes and skillfully manipulating the forward and reverse gears. This event was won by Louis Roehrig in his 1914 Model T Ford mail truck.

Model T fans and cars were very much in evidence. The Model T race was won by Mr. Mahoney in his 1914 Model T touring car. In the short distance allotted to them for winding up, the T's attained some amazing speeds. In doing so, however, they swayed and leaned rather precariously. Of course, the old-time driver will remember that the extreme height of these cars was largely to give good ground clearance for traversing rutty roads.

After lunch, a Grand Parade was staged for the benefit of the KTSL television audience. The parade was led by a 1902 Pierce-Motorette, owned by John Carra. This was the oldest car at the meet and features a passenger seat in front of the driver, so that anyone who drives this car automatically becomes a "back-seat driver!"

Power with Luxury

(Continued from page fifteen)

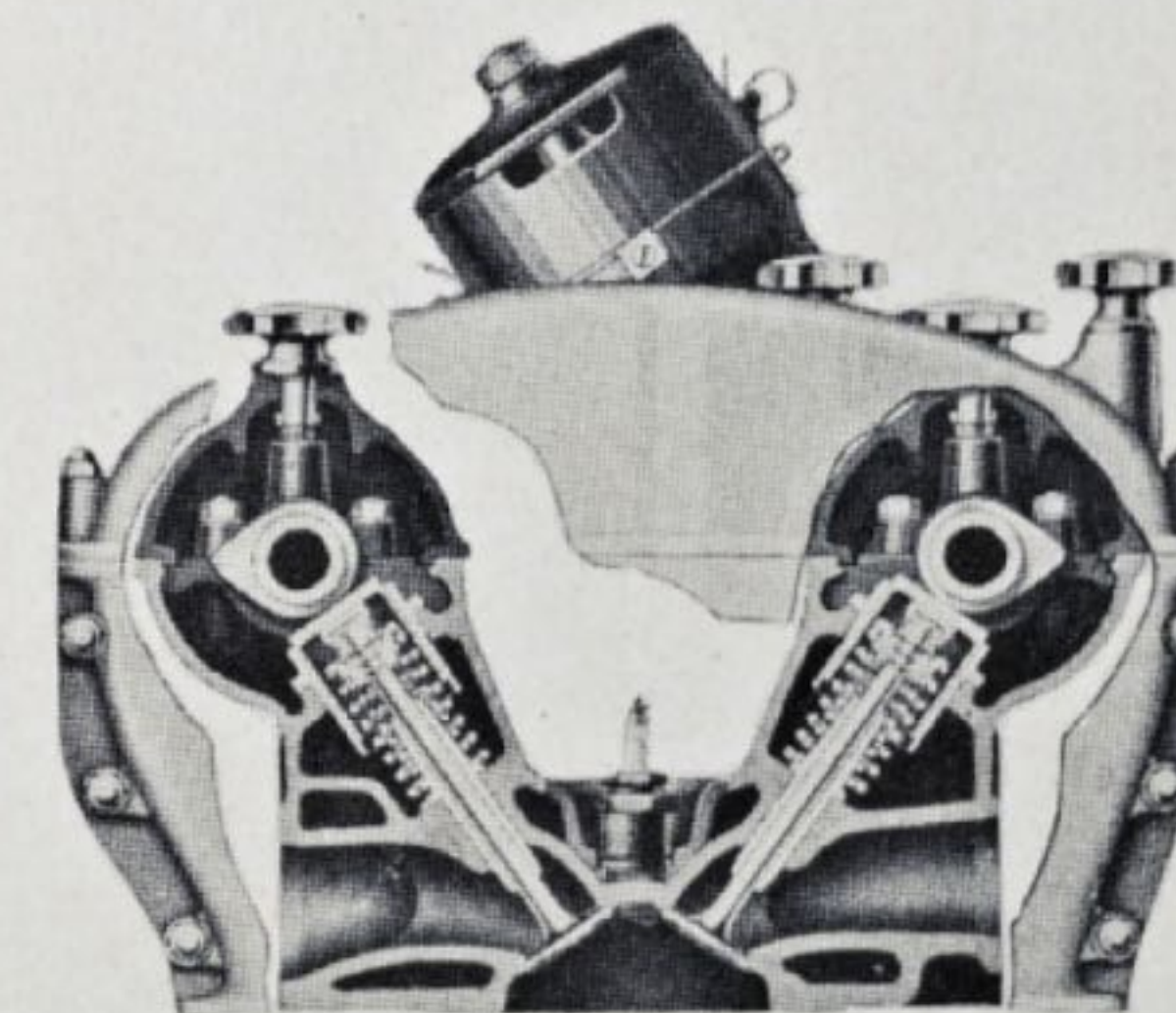
4.8 to 1, this awesome little gimmick contained (this is according to a pet theory of mine) twenty-two tiny little men who, every 700 miles, flashed a red light on the dash to tell the driver to change the oil; every 1400 miles, flashed a red light at ditto which meant, "Add water to the battery!"; every 75 miles, flashed another red light signifying that the shock-absorber connections, clutch throwout bearing, shackles, and all chassis lubricating points were being oiled from a Bijur oil reservoir mounted on the firewall; and flashed *another* green light on the dash immediately after the last-named red one if the reservoir contained oil. If the green light didn't come on after the red, that meant there was no oil in the jar, and you, you careless swine, had better get some right away or all twenty-two little men would strip every gear in the timing box. Some technically minded people will reject this theory of mine about the little men, but anyway, that's what the gadget does.

And as long as we've mentioned those lights, let's go into a description of the dashboard right now. As you slide behind the big black, three-spoke wheel, your heart will jump for joy at the sight of all the pretty round dials and gadgety-looking control handles. I've always stoutly maintained that the effect of sitting behind the wheel of a Duese—especially at night—is similar to the feeling you'd get driving a pin-ball machine down the street. The only thing missing is a big round red light to flash "TILT!" when you scream around corners. The way the Duese is sprung, however, the light wouldn't be on very often.

Back to the dash; on your right, two of the little men's lights, the top one red (change oil), the bottom, red (add battery water). Coming towards you, along the top row, first the altimeter, next oil pressure gauge, next chronograph (combined clock and split-second stop watch), next brake pressure gauge, ignition lock. Then, on later models, the brake pressure selector switch, and finally, the shock control switch. On the bottom row, heat indicator farthest over, then speedometer, starter, gas gauge, choke, tachometer, dash light, ammeter, and on your left, top, is the red light (chassis lubricator operating) and below it, the green (lubricator pressure and oil reservoir signal).

On the wheel, the bottom button is the light switch (one position left is parking, one right, passing, two right, high beam), the button directly over it on top is the throttle and moves down the right quadrant, and the button on the left side is the spark advance and retard (up for retard, down for advance). The aluminum dashboard is surfaced in brass and finished in engine-turned, oxidized, chromium-plated strip.

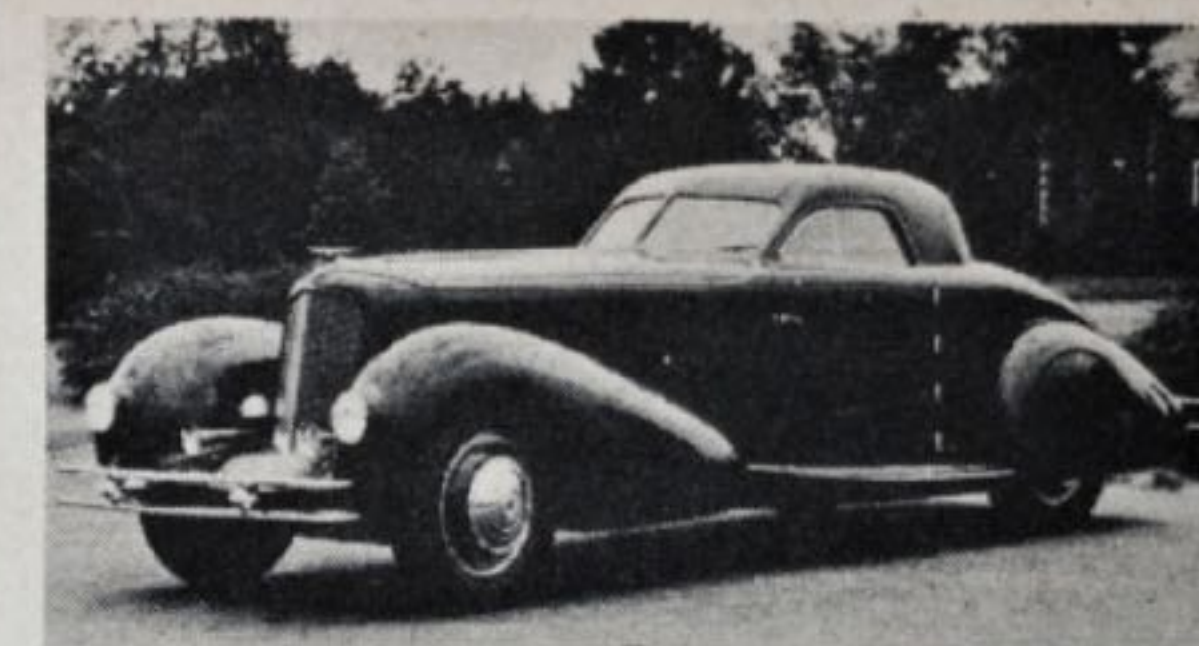
The gear shift is standard, with a rather low-speed first and a very fast second gear which is as quiet as a dignified, wealthy mouse—which is the only kind you'll find in a Duese. The emergency brake is directly to the right of the gear shift and it's a monster. Clutch action is smooth and easy, and the vacuum-hydraulic brakes are such that a dainty wisp of a five-foot female can stand a Duese on its nose without straining her nylons. An emergency stop will push the needle on the brake pressure gauge to about 500 pounds; a normal stop shows approximately 160 pounds. The tach will usually read 1500 at 35 miles per, the oil pressure 60 at 60, engine temp between 160-200 depending on climate, the ammeter 10-12 at 30 mph, and the speedometer *can* point to 150 mph—but check your tires and glance into your rear-view



CUTAWAY of Duesenberg combustion chamber shows centrally located spark plug, overhead valves and porting arrangement. Ray-Day pistons are used

mirror before trying this.

The total price of a Duesenberg car was at least \$15,000 and went as high as \$57,000—although there may have been a car or two that went either under or over this bracket. There were about 700 made during the period 1928-1937, according to the fans, and there are probably a good 300 of these still on the road, in, no doubt, pretty good shape. Duesenberg fans are probably the most avid car fans alive today; the fan who dished up a majority of



DUESE: Walker streamlined coupe body

the facts and figures used here showed me his magnificent 1934 convertible sedan Berline (a supercharged job without the supercharger, but equipped with dual Winfield carbs) then opened up the door of his garage. Inside was a complete machine shop. "You have to have this if you're going in for big cars," he said depreciatively. Stockpiled in the back yard, and hither and yon about his property, were enough spare parts to build another Duese—this is one of the prices one has to pay for the privilege of keeping an expensive mistress like a Duesenberg. The Imperial Manufacturing Company, Indianapolis 5, Indiana, is supposed to be able to supply practically any Duesenberg part you need, as they are reported to have bought the Duese plant.

Used Dueses occasionally come on the open market, but when they do, you can be assured of the fact that every enthusiast has known of the sale long before anyone else. Bids may come from all over the country on a car in excellent shape, and even the doggiest of the dogs may bring as high as \$1000 if it's got a smart body, and if it's anywhere near rebuildable shape. A clean LeBaron phaeton built in 1930 recently sold for \$3000, and I have seen disappearing-top Murphy convertible coupes switch ownership at \$2000.

Ever since the end of the war, there have been rumors of a new Duese. A cryptic report from Indianapolis a few months ago stated that a new Duesenberg would soon be available for a few select inhabitants of the world at a special, one-to-a-customer price of \$28,000 and up. The model which you may order at this price is a four-door sedan, "streamlined" in the latest tradition, unsupercharged, but equipped with a dual intake manifold using four Riley (or any other racing type you want) pots. Most of the publicity releases from Indianapolis seem to have been written under water without a ball-point pen they're so hazy and blurred in their detail, so if you're interested (you capitalist dog) write the Chamber of Commerce for the name of a well-informed new Duesenberg man.

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SPORTS CAR GYMKHANA

PHOTOGRAPHS BY E. ALAN MOSS

RECENT activity by the Foreign Car Group of California included a gymkhana, held on November 6th at Oxnard Airport, near Santa Barbara. In all, there were 20 entries, with the course laid out similarly to that described on page 14 of the September '49 issue of MOTOR TREND.

The purpose of the gymkhana is to test a person's driving skill. The driver to finish with the fastest time, without



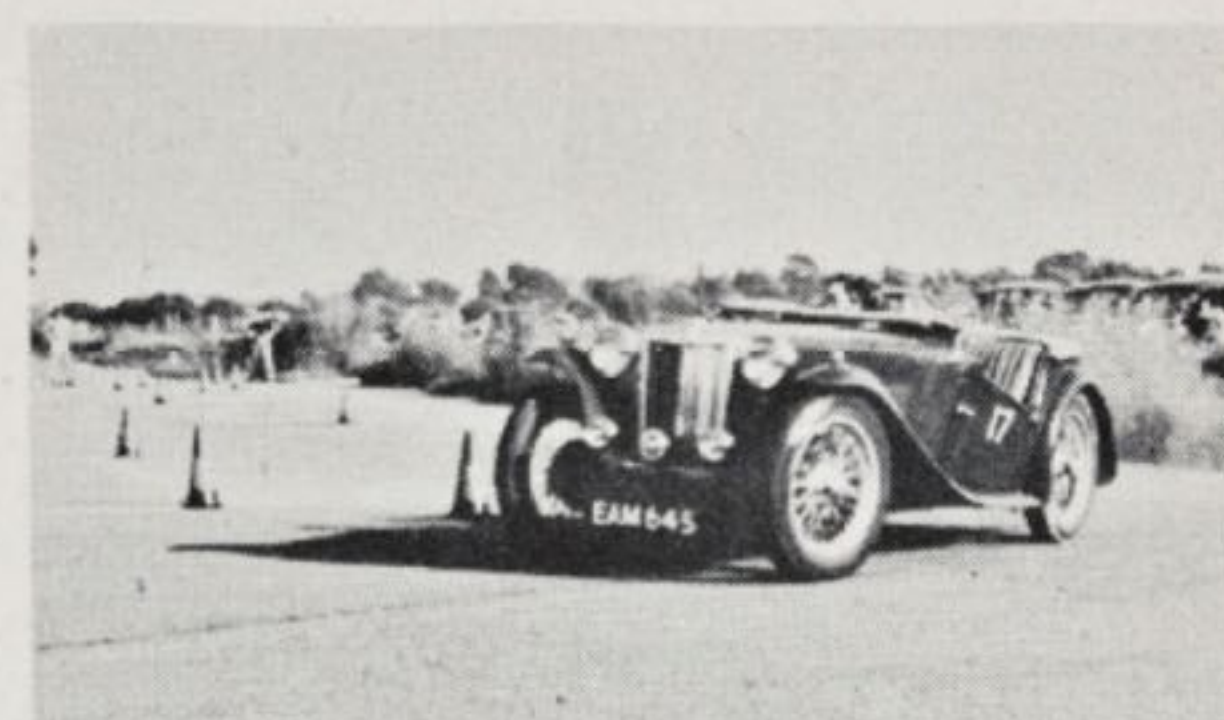
TOM FRISBEY jumps into MG at start of gymkhana run in men's division event

knocking over traffic cones systematically placed around the course, is the winner.

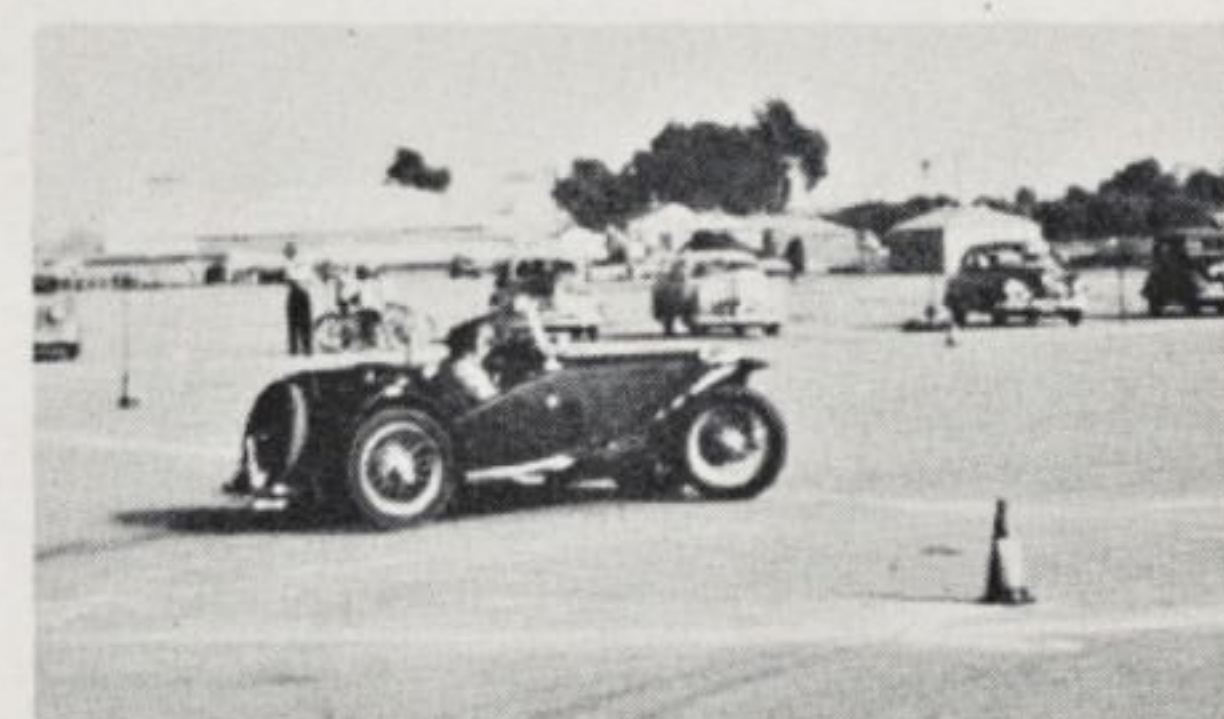
Fastest time turned in the men's division was by E. Alan Moss in an MG. Second, third and fourth, respectively, went to Gordon Speck, Jack Fancher, and Dan Dickinson, who all drove MG's.

First place in the women's division was annexed by Joan Moss, driving her husband's MG, with second place being taken by Marilyn Speck.

Further activity planned by the Foreign



JOAN MOSS completes zig-zag and starts into figure eight of gymkhana at speed



ELLIOT FISHER at the center of the figure eight of gymkhana negotiates fast turn

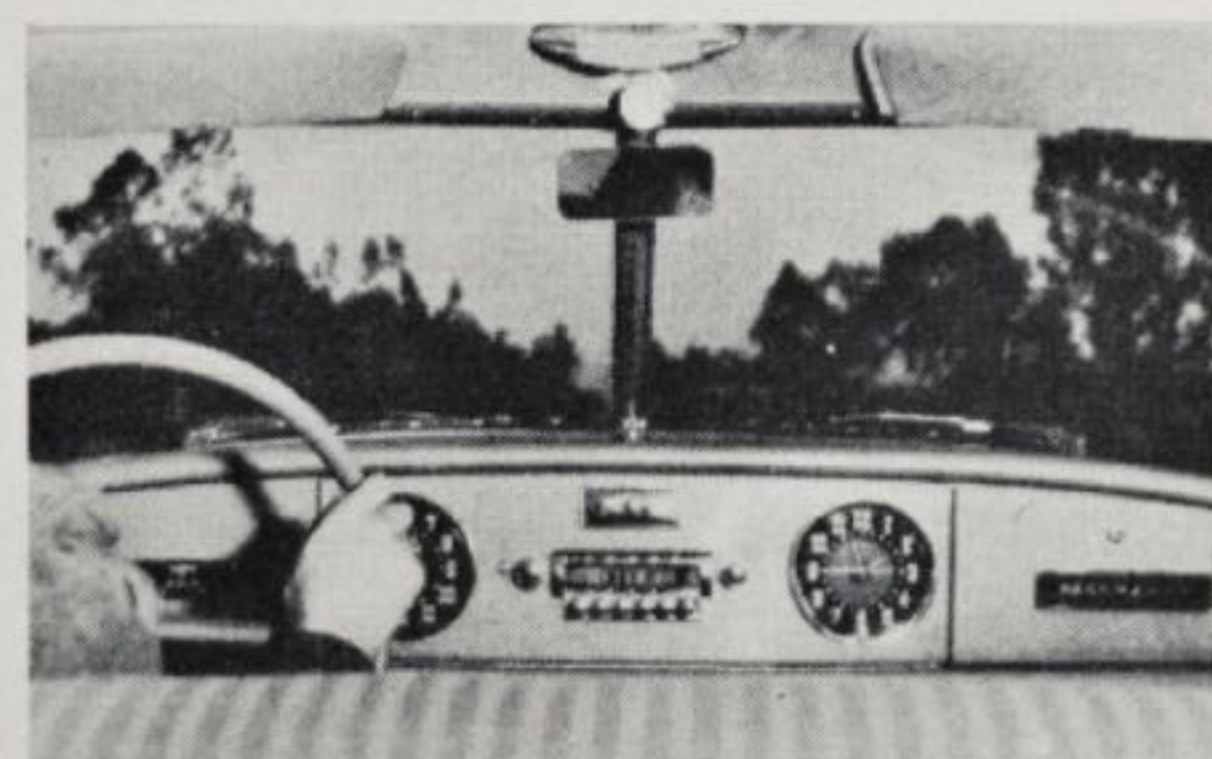


RICHARD VEO makes controlled slide into parking area, after completing his run

eign Car Group includes an extended reliability run, which is to take place on January 8th.

MOTOR TRIALS . . . the Hudson Pacemaker

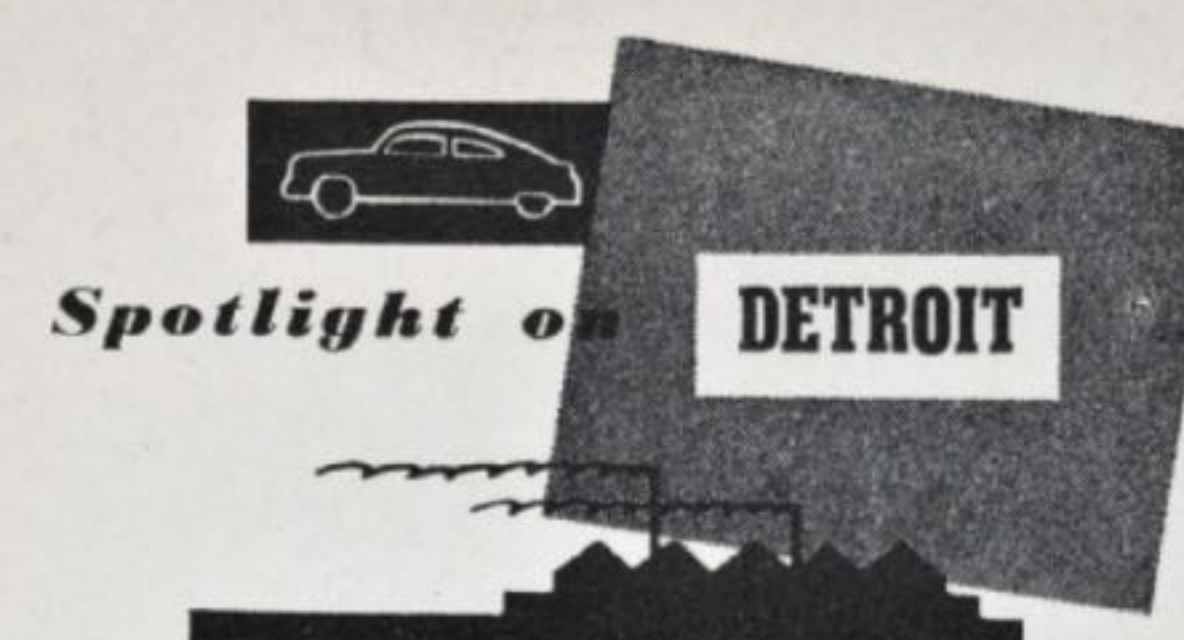
(Continued from page seven)



The powerplant of the Pacemaker is a 112-horsepower, six-cylinder engine that is pressure lubricated, unlike earlier Hudson engines. This engine is actually the late '48 Super engine, with the same bore (3⁹/₁₆ inches) and a shorter stroke (3⁷/₈ inches), bringing it close to a "square" engine. The en-

gine has a displacement of 232 cubic inches, and has a standard compression ratio of 6.7:1 that can be increased to 7.2:1 with an aluminum head. All component parts of Hudson engines are dynamically balanced, including the crankshaft, the clutch, the flywheel, the connecting rods, and the pistons.

Moving into the low medium-priced field with the Pacemaker seems to have been a wise move by the Hudson Motor Car Company, for according to its performance figures, the car should provide healthy competition in that field. And for a person who is willing to pay slightly more than the price of a low-priced car for additional comfort, the Hudson should make a very satisfactory buy.



NEW CARS which have appeared on the market recently include the Pontiac, the Hudson Pacemaker, the Ford and the Mercury. Due to appear on January 7 is the 1950 Chevrolet, which will feature an automatic transmission of the torque converter type. A new model, following the pattern of other GM products, is included in the Chevrolet line and will be known as the Bel-Air. It is a pseudo-convertible of the hard-top type.

The major mechanical changes by Pontiac are in the 8-cylinder engine, which has a 1/8-inch larger bore, giving it a displacement of 268 cubic inches and a rating of 108 bhp at 3800 rpm. Wheelbase and body styles of all lines remain basically the same.

The Mercury has generalized improvements throughout, including a changed grille, different interiors and mechanical changes similar to those made in the 1950 Ford.

★ ★ ★

Prediction Department: We predict that in the very near future one of the major independent automotive manufacturers (not Kaiser-Frazer) will build a car comparable to the Ford Model A. This car will have a short wheelbase, exceptional economy, a good top speed, all-around performance and yet will be a full-size automobile.

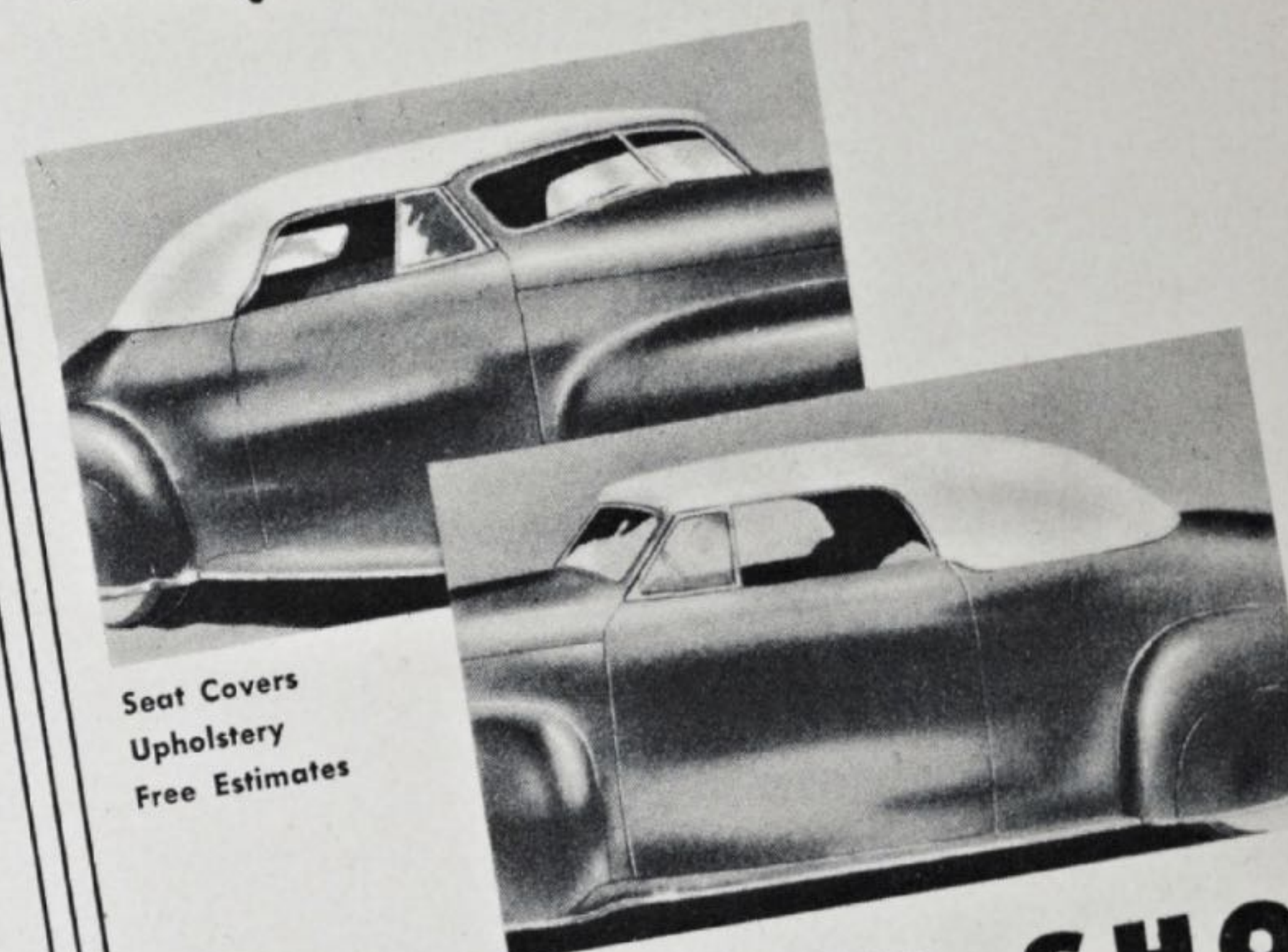
★ ★ ★

ALL LINES of General Motors' new 1950 automobiles will be shown to the public for the first time in one big show at the Waldorf-Astoria in New York January 19-27. Thirty-eight new models in the Chevrolet, Pontiac, Oldsmobile, Buick and Cadillac lines will be displayed.

★ ★ ★

IN LINE with the current trend of producing smaller cars is the announcement by the Kaiser-Frazer Corporation that they are going to produce a new, low-priced model. The model is expected to appear sometime this year and will compete in the Chevrolet-Plymouth-Ford class.

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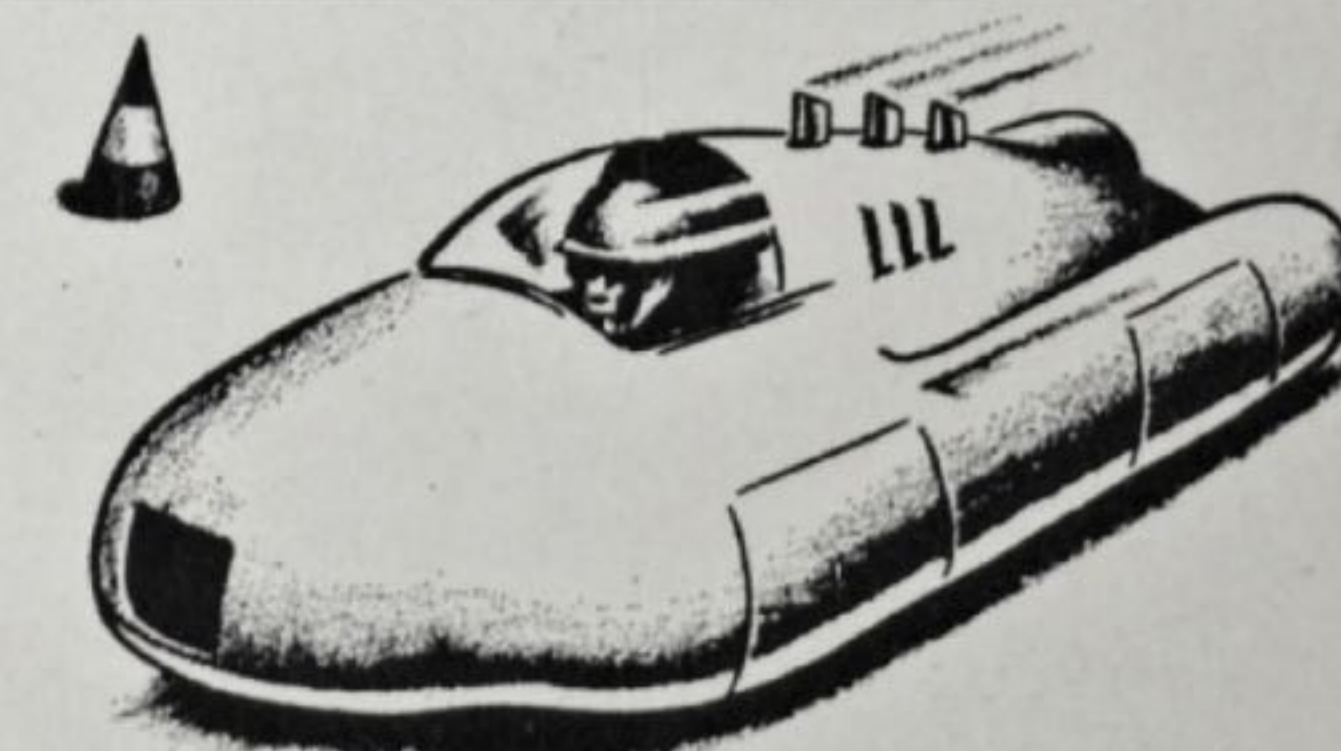
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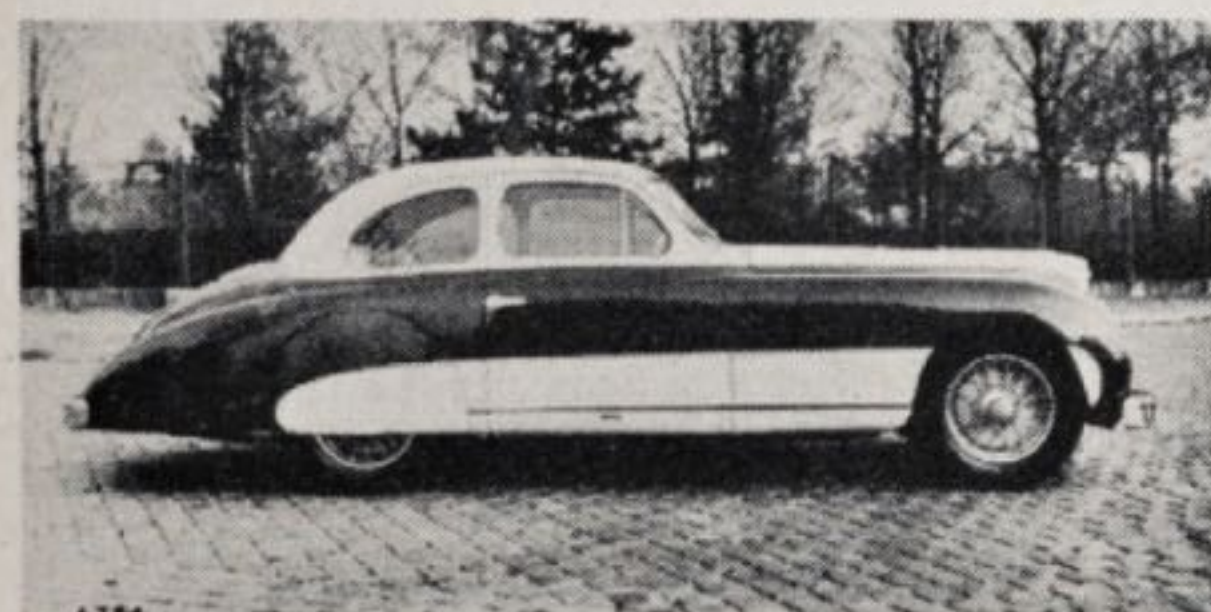
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tendence continente

TRANSATLANTIC

ITALY: Better late than not at all, the answer to Mercedes-Auto-Union prewar supremacy seems to have arrived in the new Cisitalia 1500 cc (91.5 cu. in.) Grand Prix competition job recently added to its famous 1100 cc (67.1 cu. in.) line. Eleven months on the drawing-board, thirteen months in construction, the Porsche-designed racer will, by conservative estimate, reach 220 mph plus . . . there's quiet talk about 250. Technically: Rear-mounted engine is a



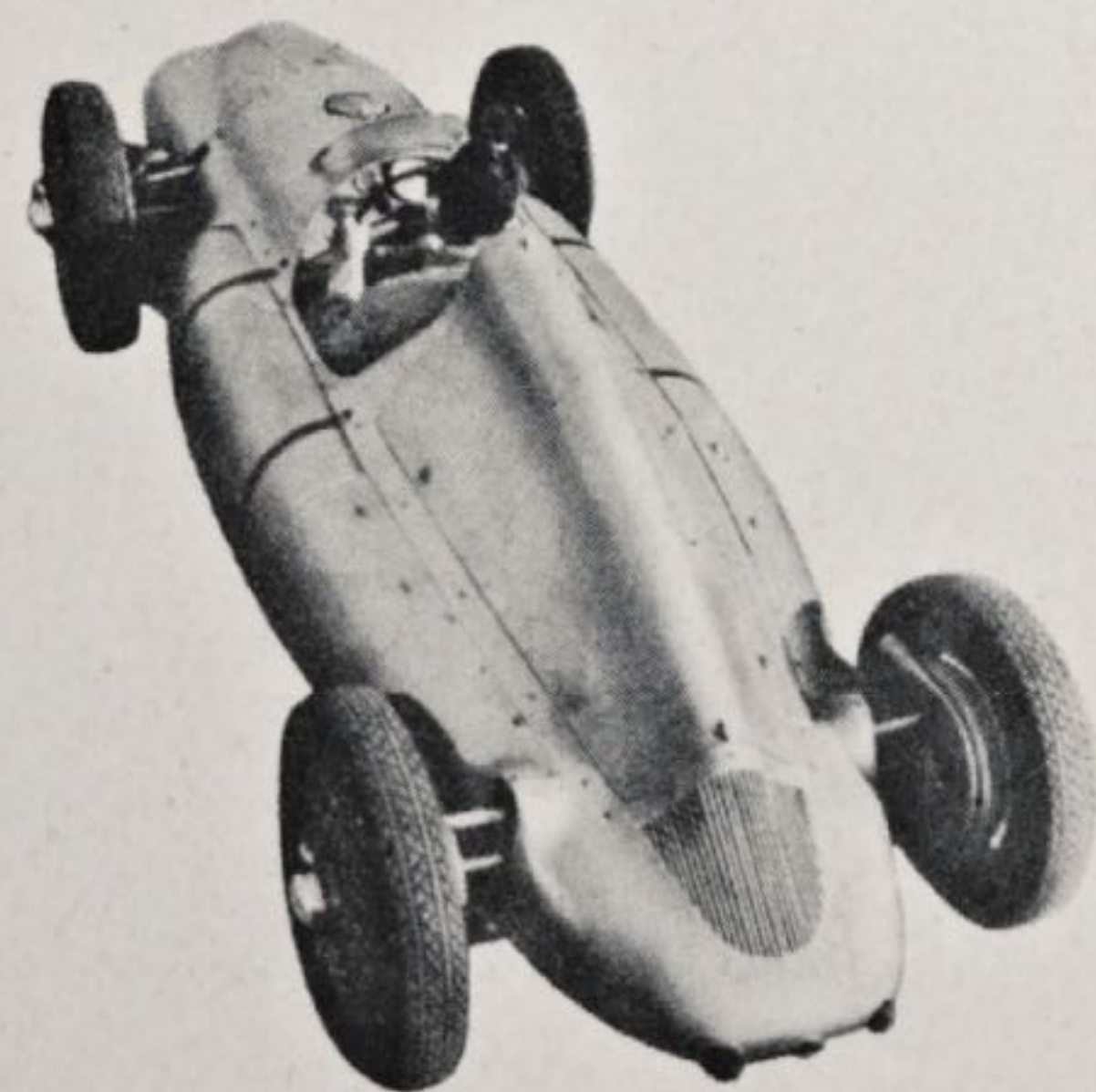
COACHWORK by Guillore on genuinely fast Delahaye Type 175 sedan chassis

twelve-barrel flat opposed with two camshafts and two carburetors per block, two valves per cylinder. Each block has its own blower, and the mill develops 300 bhp at 8500 rpm, but will peak at around 10,000! A five-speed gear box is used and, in addition to the normal rear drive, there's a front drive which can be engaged or disengaged at any speed, giving an optional four-wheel drive . . . Or is it the answer? We hear that as far back as '46, Mercedes-Benz engineers were burrowing away in an abandoned chocolate factory . . . project: a fast postwar racer . . . Not all the venerable names (like Isotta-Fraschini) are following the bankrupt trail. Onward and upward: FIAT, taking over the Austrian Steyr-Daimler-Puch factory, plus another plant in Yugoslavia.

ENGLAND: The British Auto Racing Club has a standing offer of £1000 for a practical gas-turbine propelled car. Rules available from this writer . . . With the rest of Europe concentrating on little cars for the "little" men, England's big men are beginning to

by A. Devereux

fret about their country's failure to compete on this level—much smaller cars were produced before the war, when they weren't so much needed. Safe prediction: new, really small models in '51 . . . While the little man (see above) rides a bicycle—if he can get one—more luxury cars hit the market. Latest is the J.A.G., another Allard-type, Ford-V8-based aluminum-bodied sports roadster—coachwork in the Jaguar-Alvis class . . . Just out: a gadget of utility for a fuel-starved country—a gas consumption indicator for dashboards made by Dixon-Bate, Ltd. Connected to the gas line between pump and carburetor, it translates flow into gallons per hour . . . Shaft drive is at last coming in on British bikes—will probably follow on midget racers . . . J. A. Prestwitch, maker of the famous J.A.P. racing bikes, has come up with a 1100 cc. (67.1 cu. in.) 'V' twin mill for racing car use. The new job has two inclined, pushrod-operated valves per cylinder, mag ignition, fork and blade rods. Compression ratio: 14:1. Running on alcohol, the 125-lb.



CISITALIA, newest contender for Grand Prix honors, has 300 hp, 12-cylinder engine

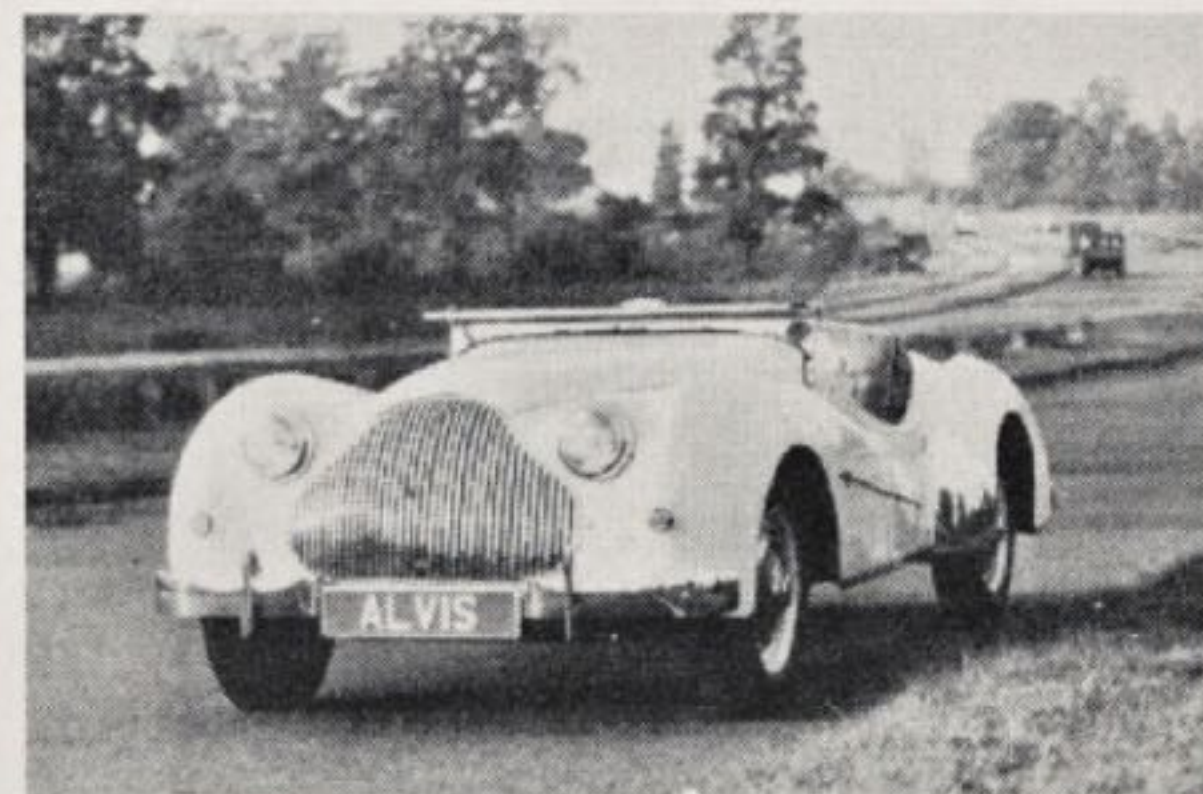
NEWSLETTER

engine pulls 95 bhp at 6000 rpm. Bhp to weight: 1:1.265.

NEW CONTINENTAL passenger cars keep popping up with startling regularity . . . **SWEDEN'S "SAAB,"** the aircraft firm, has produced a car of the same name, a sleek-appearing sedan with a vertical two-cylinder, two-cycle 764 cc (47 cu. in.) engine. It has front drive, will do 50 mph and 40 mpg . . .

RUSSIA has released some figures on the Pobieba (Victory) car. Power comes from a simple L-head four, capable of 25 mpg and a top speed of 65. Styling? Borrowed lock, stock, and barrel from the "decadent" West . . .

SPAIN is meeting its own needs with the new Eucort—not another Hiss, but practical transportation. Like the SAAB, its German DKW inspiration is apparent. A front drive gets its power



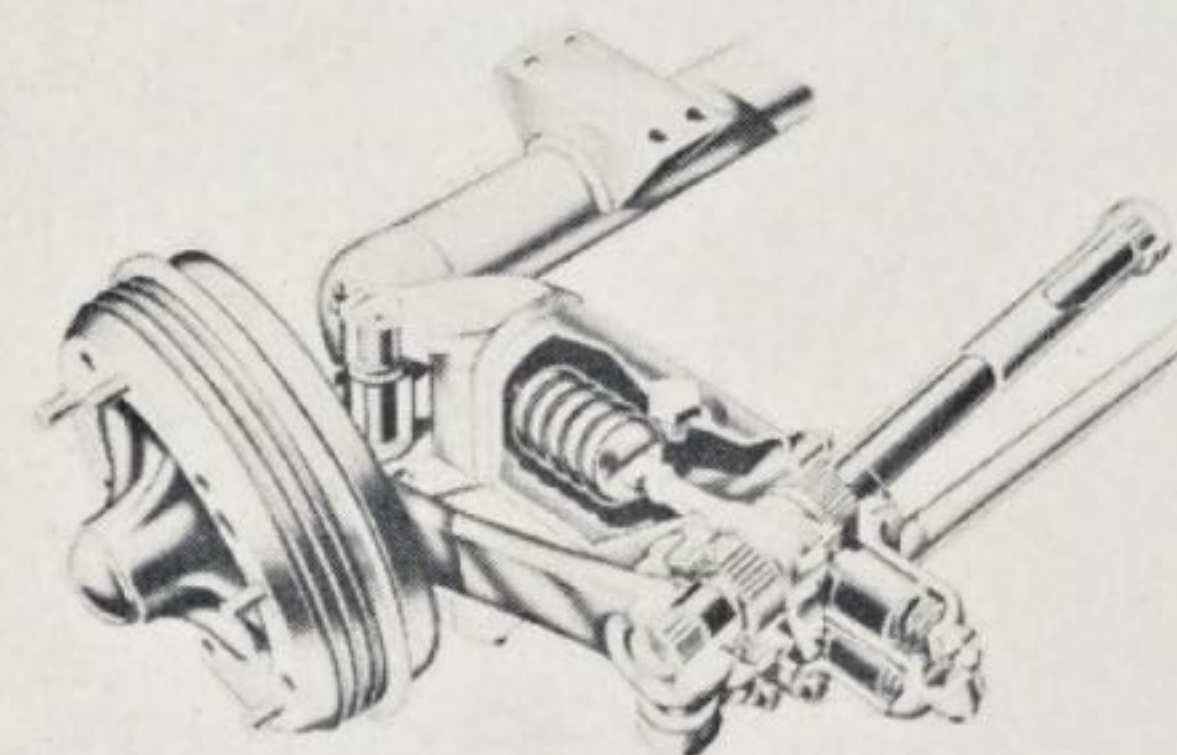
ALVIS FOURTEEN sports model, newest addition to Alvis line, for export only

from a two-cycle, in-line, three-cylinder motor. The body is spacious, the springing advanced, economy in price and performance excellent.

SPORT: As this issue reaches the stands, the 230 contestants in the 20th Monte Carlo Rally are getting set to start their 2000-mile cross-Europe run to Monaco. Starting from seven scattered continental points, immediately upon arrival they will submit to acceleration and braking tests and then tackle the final shakedown in the mountains behind the city. Eligible: stock cars. First prize: 400,000 francs and

a fine cup . . . One of the weirder British institutions is the "Emancipation Run," an annual "race" restricted to cars of pre-'06 vintage, commemorating official gov't recognition 53 years ago of the existence of horseless carriages. (The resourceful Britons manage to keep the autos-are-here-to-stay issue alive by claiming that the anti-motoring mentality is an ever-present menace.) This year 125 doughty veterans started, with 113 completing the 52-mile course within the required 3½ hours. Oldest cars finishing were a Benz and two Leon Bolleés, all pre-'97. No speed laws were broken.

CITROEN OWNERS NOTE: Cotal, makers of fine electro-magnetic transmissions, have brought out a four-speed box especially for your car.

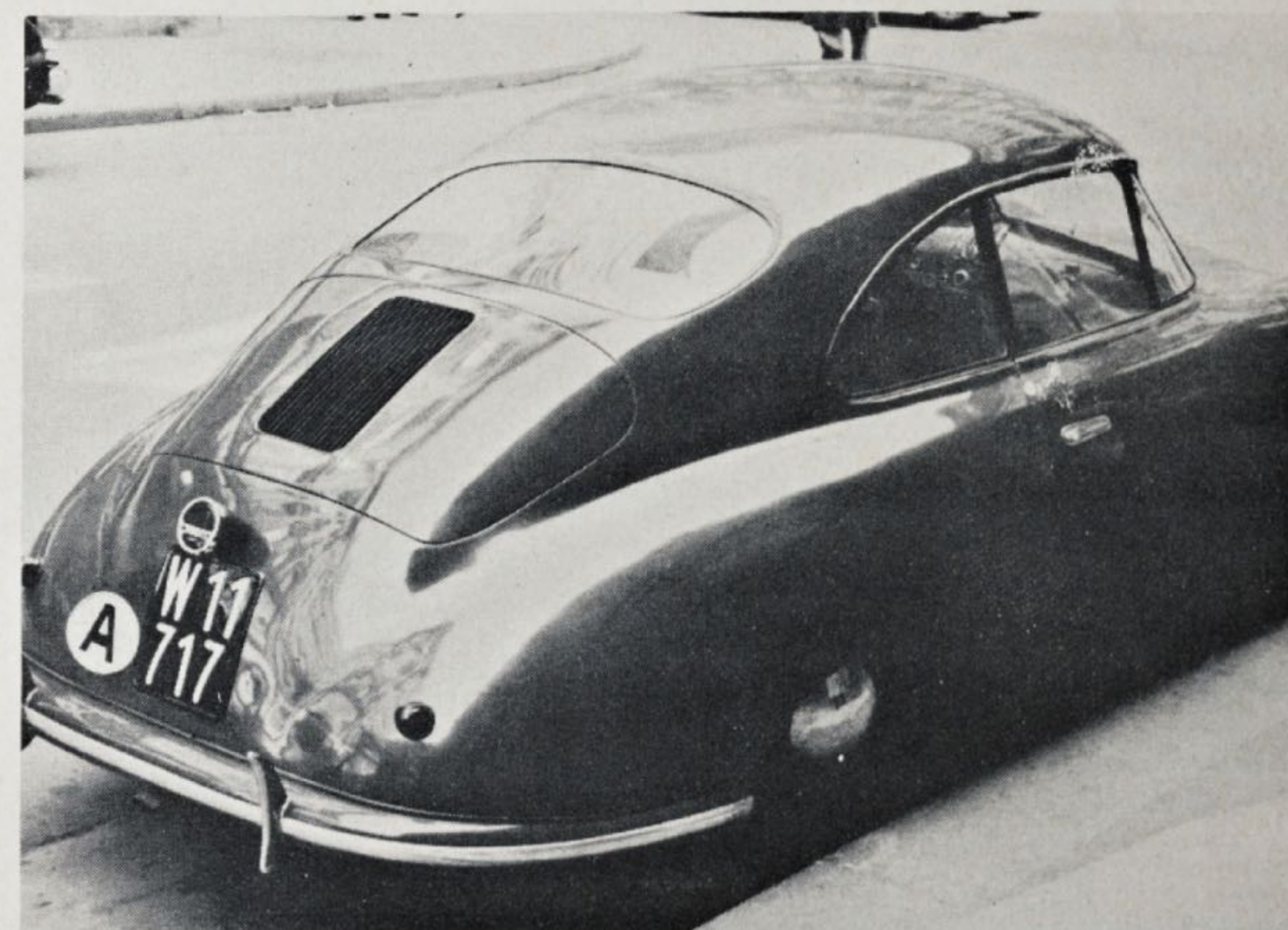


NEWLY designed steering gear on 1950 Vauxhalls uses Burman worm and ball-bearing-mounted peg-follower type. To improve handling, single ball thrust bearings are provided in the steering yokes

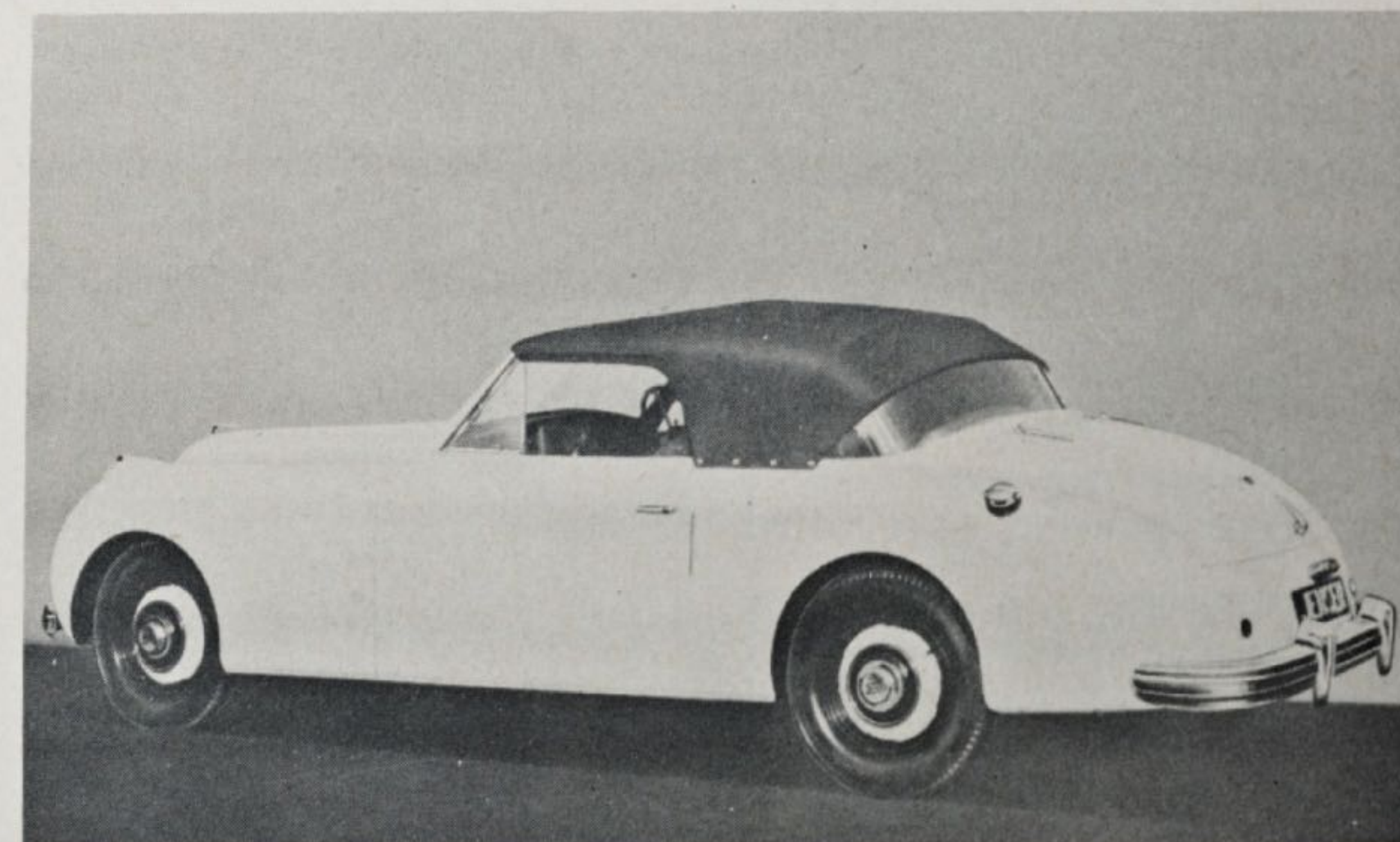
GENERAL: Isotta-Fraschini is down, and according to a Reuters dispatch, out; the firm has liquidated. Germany's Auto Union (of fabulous Grand Prix associations) is up; motorcycles and trucks are in production now, with passenger cars planned for the near future. . . . Roland Bugatti has squashed a recent international rumor to the effect that BMW had bought the Bugatti firm. The company will remain, he said, as totally independent as his totally independent father had always wished. . . . Rolls-Royce is cutting costs by making its own bodies (for the first time in its history) for the handsome Silver Dawn model, an export-only job. . . .

NEW ALLARD PRICES

NOTE: We have been informed by the Allard Motor Company, Ltd., that the Allard prices quoted in "Tendence Continente" of December 1949 MOTOR TREND are incorrect. Base price (c.i.f. New York—minus duty, freight and sales tax) range from a low of \$1876 for the chassis (not applicable to the J-2) to a high of \$2870 for the coupe and saloon. For the J-type, the base price is \$2797 or \$2306 minus engine. This will bring the delivered New York price of the J-type (latest type shown) to \$3414 or \$2834, minus engine. —Editor.



THE PORSCHE, Austria's version of ultra-modern styling, is manufactured by Ferdinand Porsche, famed designer of the Volkswagen and Auto-Union. All basic parts, including the four-cylinder engine mounted in rear of car, are of Volkswagen origin



JENSEN four-litre (269 cu. in.) Interceptor two-door cabriolet, introduced at Earls Court Exhibition in London, has aluminum body, six-cylinder, overhead-valve engine, speed in third gear of 92 mph, and top of around 100 mph. Note GM type of rear window

SEEN ANY FLYING SAUCERS LATELY?



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but who knows, maybe they're
the trend, in aviation, that is.

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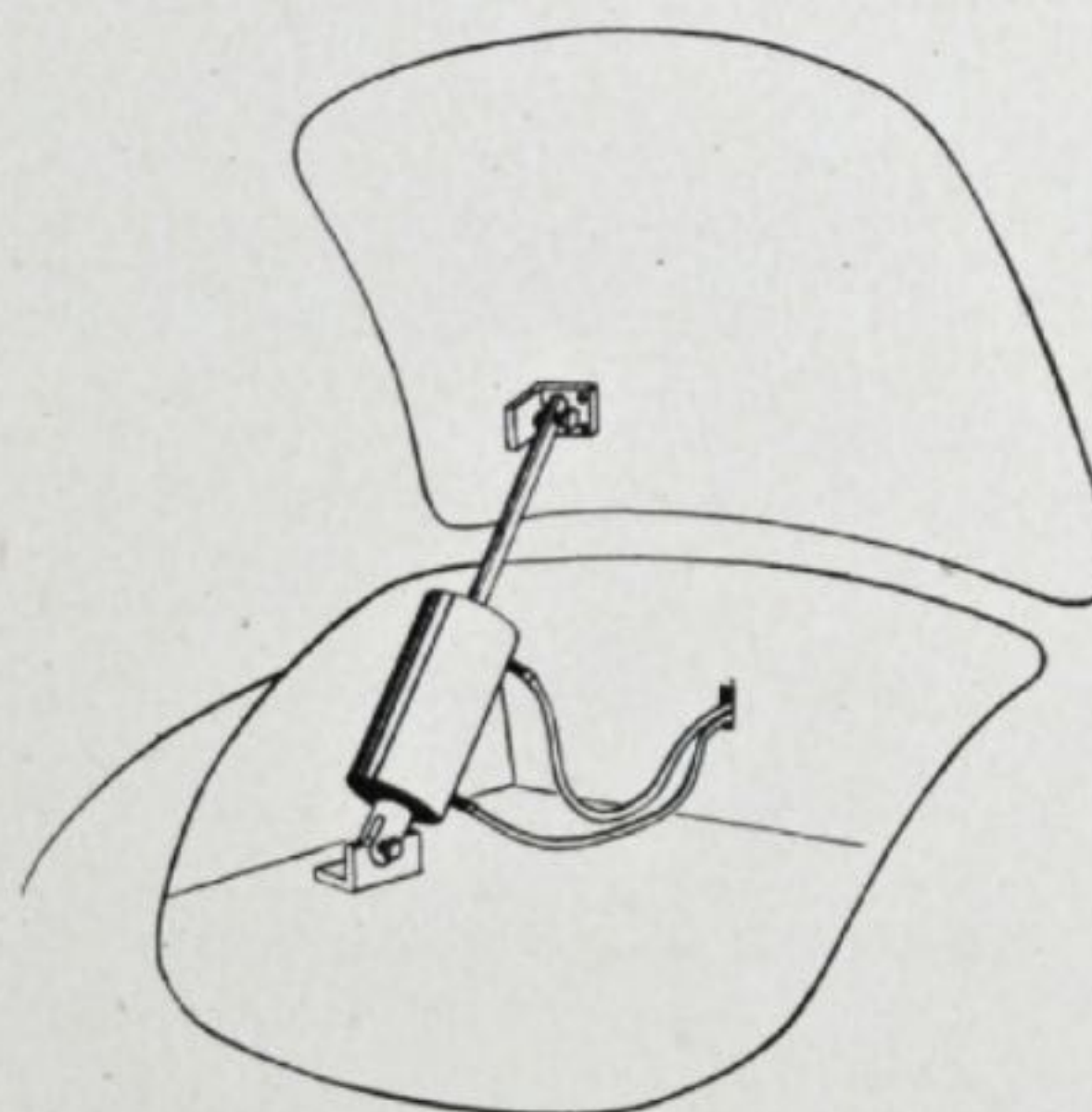
Styling Hints

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.

DRAWINGS BY THOMAS J. MEDLEY

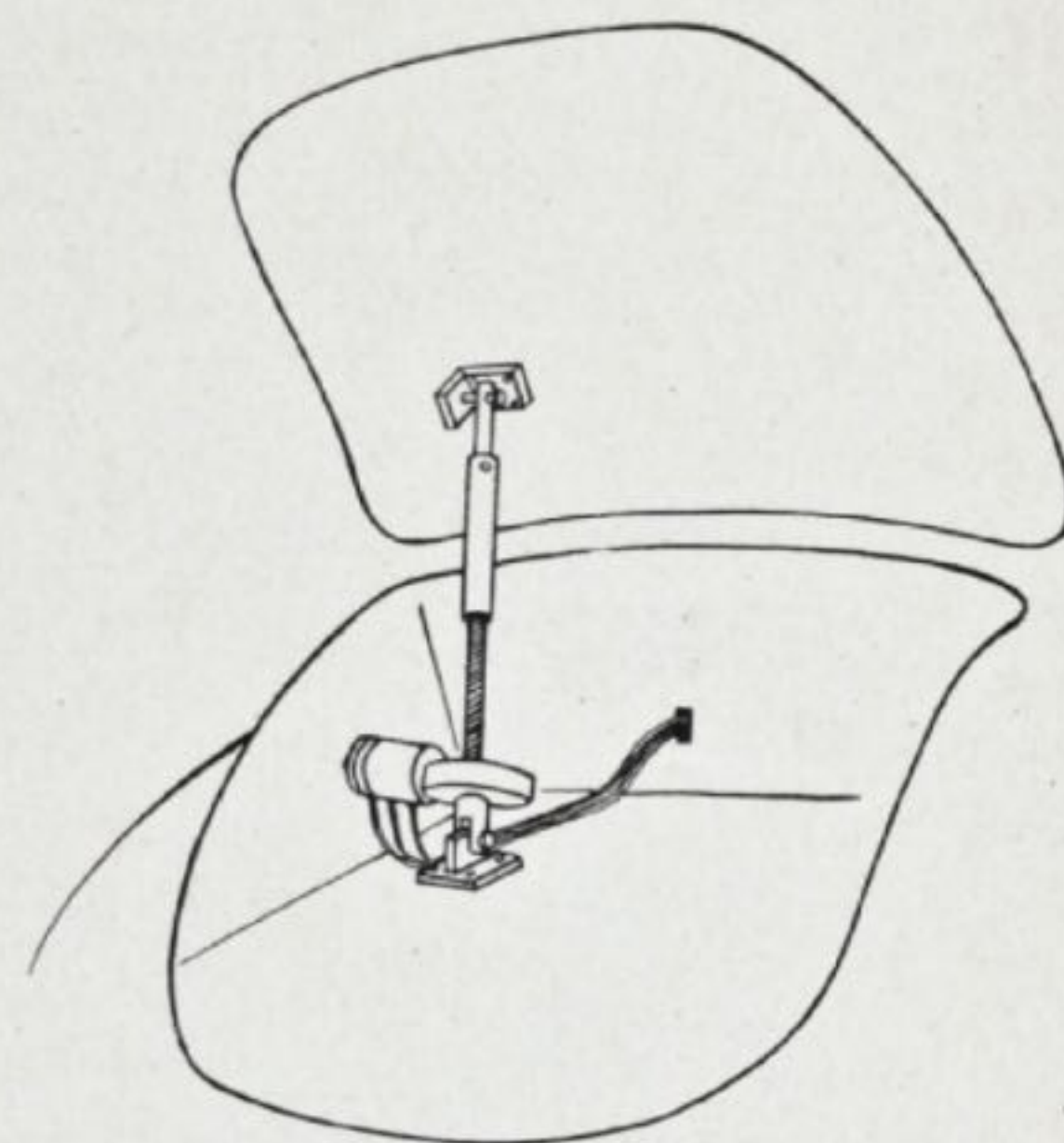
THE FOUR MOST common types of hidden latches, particularly for the turtle deck lid, include the electric screw jack, the vacuum cylinder, the choke latch, and the combination choke latch and electric solenoid controls.

For the electric screw jack, the parts required are a screw jack, a two-way electric motor, a couple of swivel brackets, a three-way electrical switch and the necessary wiring. One swivel bracket is welded to the deck floor. Fastened to the bracket with a swivel joint is the electric motor gear train. The top side of the screw jack is attached with a swivel joint to a bracket welded to the deck lid. For the electrical hook-up of the system, use three wires, one for each position, with another wire from the switch to the hot connection and a wire from the motor to ground.



For the vacuum cylinder system, use a sealed cylinder mounted in the turtle deck. Fasten the lower end with a swivel joint to a bracket welded to the deck floor. The top of the piston arm is attached to a bracket welded to the deck lid. Two vacuum lines are used, which should be routed forward to a two-way valve and switch on the dash, with one line leading to the intake manifold.

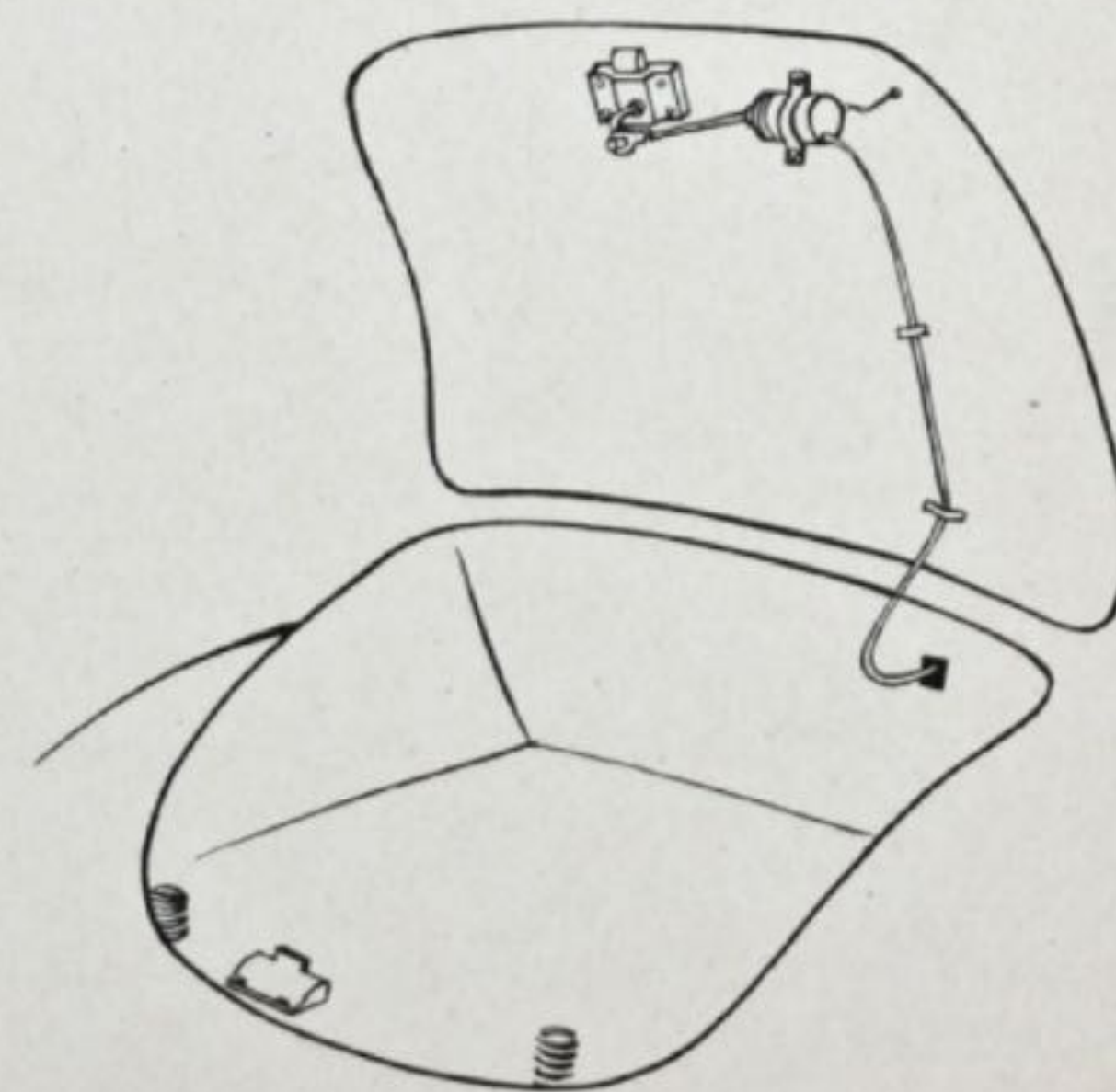
For the choke latch installation, make up an 'L' arm and fasten it to the inside of the latch. Rig up a cable



from the arm along the deck lid and forward to the inside of the cab where a pull handle can be installed. A pull on this handle will then release the latch.

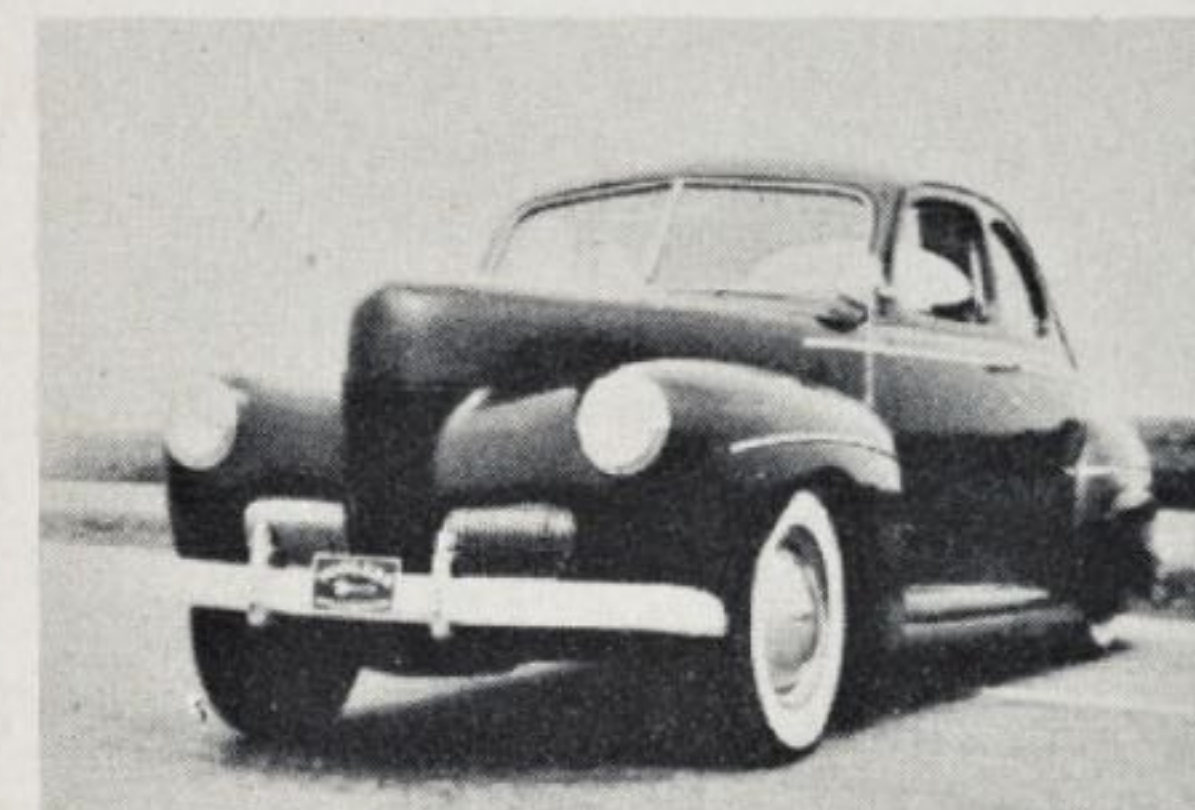
The fourth installation is a version of the above type except that only a short section of cable is used with a solenoid being installed on the deck lid to actuate the latch. The same type of wiring system can be used from this solenoid forward to the three-way switch, as described for the electrical screw jack.

With all four systems, heavy springs can be installed to both the left and right of the latch fastened to the deck floor. When the latch is released, these springs will exert enough pressure to slightly open the lid.

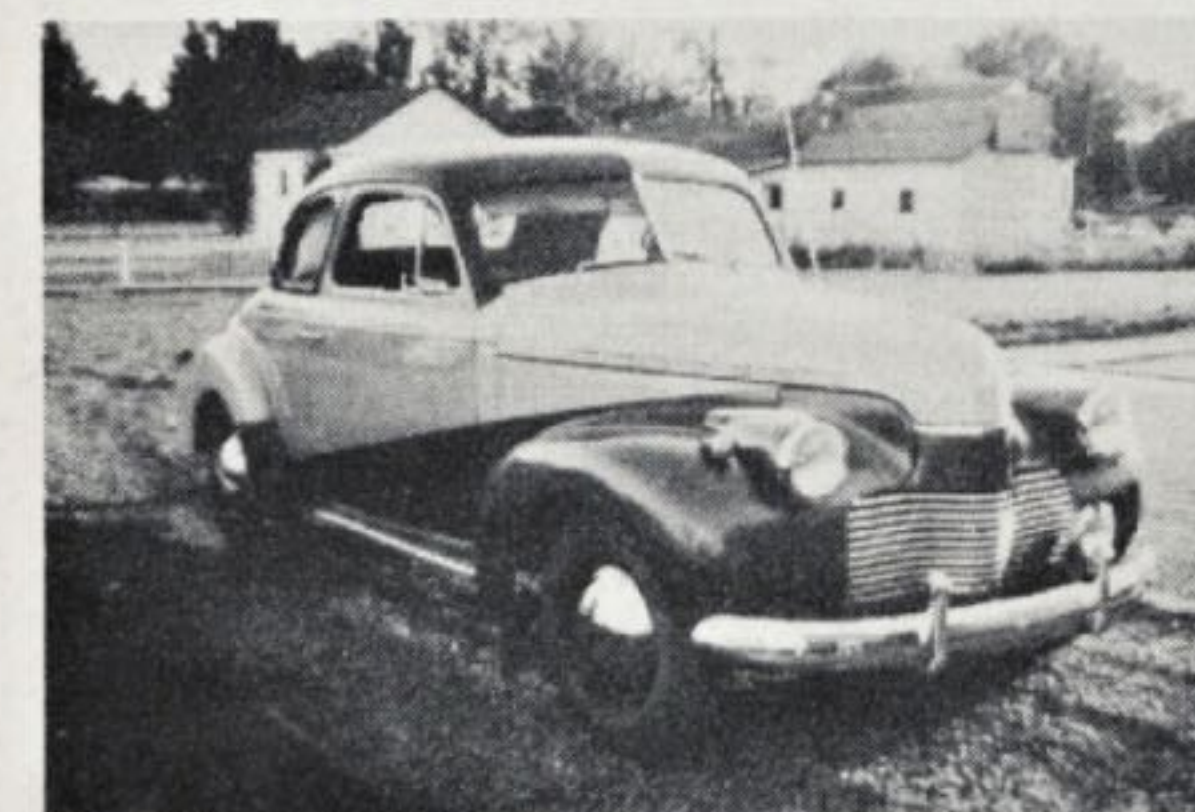


CUSTOM CREATIONS

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DECHROMED '41 FORD, belonging to Cille Reallon of Bellflower, California, uses Buick back-up lights with red lenses for the tail lights. The license plate is set down on the bumper splashguard. The middle section of the grille has been filled in with a solid panel and the hood has been shaved. The color is maroon, while the interior upholstery is red and white. The head liner is white leather, and the floor mat is made of maroon carpeting



BROWN AND TAN is the color of this two-tone '40 Chevy club coupe, belonging to Woody Woodworth of Toppenish, Washington. The body and hood have been dechromed and leaded in. Grille has been chopped and the body filled. Bumpers are '48 Chevy. Running boards have been cut down six inches. Rear license plate is sunken in. Rear was dropped 1 1/2 inches



DIFFERENT VERSION of a '40 Chevy club coupe is this one, using a '42 Chevy grille with the chrome moldings removed. In dechroming and filling, only 30 pounds of lead were used on the car. Other changes include '41 Pontiac parking lights, '37 DeSoto bumpers and head-lights that were formed into the fenders

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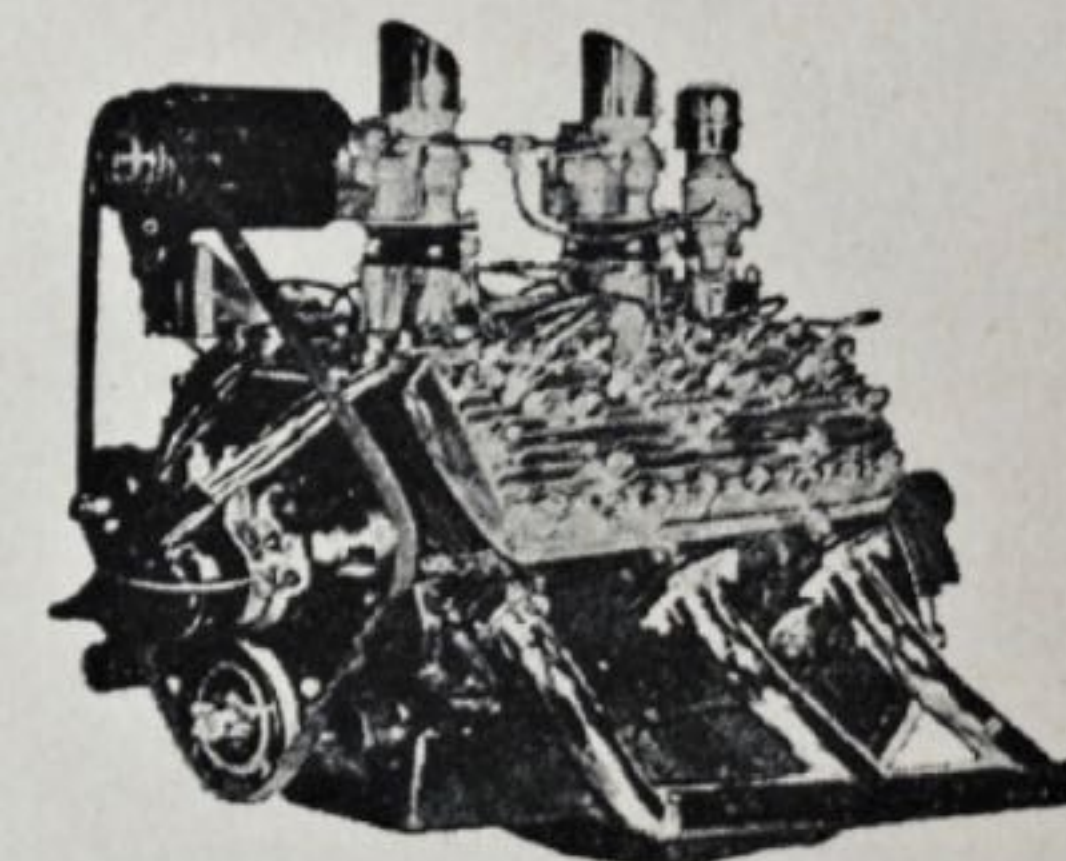
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DUSTER DATA

Text and Photographs by Tracy Gilpin

DOUBTLESS, the most colorfully named car of 1905 was the Rigs-That-Run, manufactured by the St. Louis Motor Carriage Company. But for sheer picturesque appearance the Model "F" Ford surrey (with fringe on top) was it. The Ford of 1905 was neither cheaper nor more expensive than most, nor more nor less efficient. It was merely another model car, one



THE 1905 Ford Model "F" Surrey, a two-cylinder ten horsepower high fringed-roof affair typifies the light-car "falsies" of the 1900 era which housed their engine in a horizontal position under the front seat of many.

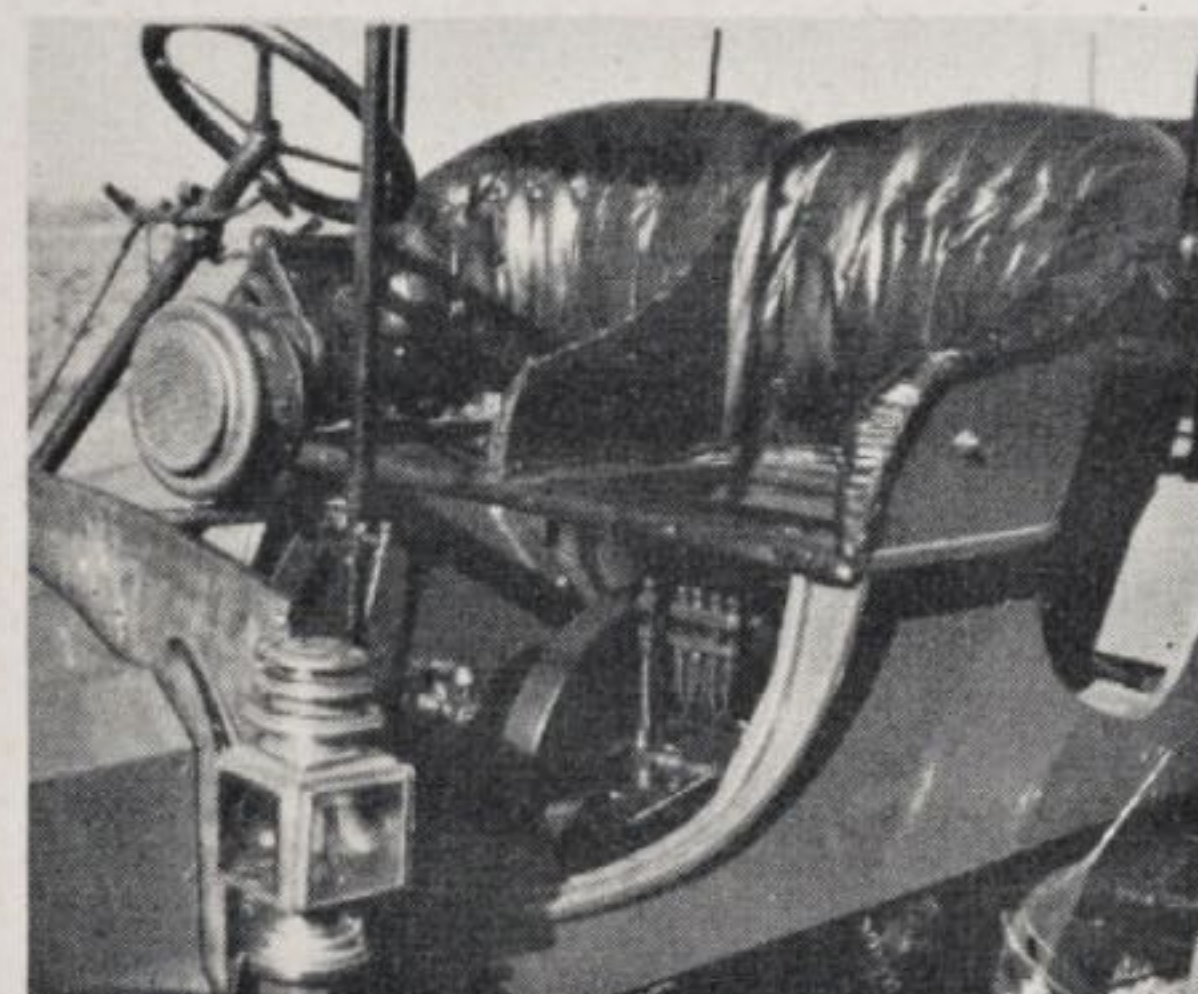
Ford had made his first car in 1893. But the first American-built gasoline automobile was not sold until five years later when Robert Allison of Port Carbon, Pa., bought one of Alexander Winton's vapor cars. The Ford Motor Company wasn't organized until the summer of 1903, ten years after Ford proved he, too, could build an operable vehicle. And through 1905, the strip-model, two-cylinder Model "A" runabout, that cost \$850 to \$900 depending upon equipment added, sold less than 2,000 models.

1905 marked Ford's big push for recognition. He launched three models, the "B," "C" and "F." The "B" was a four-cylinder water-cooled job with the motor under the hood. Like other light cars on the market, the Ford models "C" and "F" wore "falsies," the motors being located under the front seats with the hood providing storage tank space for water.

The model "F" Ford pictured here is in perfect running condition and was a recent prize-winner at the Hatboro, Pa., combination ox-roast, carnival and

Halloween parade participated in by many members of the Antique Automobile Club of America. The car was purchased new for \$1200 in 1905 by Harry McMullen, Bristol, Pa., a plumber by trade, who used the surrey jointly for business and pleasure. Later it was bought by the Bristol Fire Company No. 3 and served as the chief's car (note the siren mounted on the dash). In the late twenties the fire company scrapped the car. By 1945 it had degenerated to a beaten, faded red wreck. Its present owner, James Clark of Bristol, Pa., paid \$12 for it and literally carried most of its rusted engine parts home in two peach baskets.

The car today is rebuilt to the exact manufacturer's parts specifications. The body has been restored to its original factory flimsy condition other



WITH SEATS and heel board removed the drip-type oiler can be seen at right under left seat. Note the vertically acting throttle and gas levers on steering column

than the paint job, which is fire-engine red. The twenty-year-old brass fire siren, souvenir of more exciting days, has been retained.

The hood, as previously mentioned, serves as storage for two ten-gallon water reserve tanks. The two-cylinder horizontally mounted 10 horsepower engine is located under the front seats. Lubrication is effected by a sectional drip-feed oiler. Two pipes supply lubrication to the two connecting rods and the other two feed the two main bearings. An oil reservoir holds two quarts of oil, enough for about 100 miles.

The crank is located on the right-hand side below the driver's seat. The

outstanding feature of the model "F" is its ease in starting. Ignition is of the jump-spark type with spark coil and a high tension commutator.

A planetary transmission operated by a hand lever to the right and outside of the driver's seat gives two choices, high or low. High speed is geared direct to the single chain-drive rear and encased live axle. The top speed of the car is 35 miles an hour.

The chassis, topped by four full elliptical springs, is flimsy, pressed channel steel. The right-hand steering operates on a pinion and bevel gear and gives only a slightly more secure wheel feeling than the steering floppiness offered by a tiller.

There is no clutch. Three pedals are located on the floor to the right of the steering arm. On the right is the foot brake. In the center is the reverse pedal and at the left is a boobytrap-designed throw-out pedal to disengage the transmission. The joker of this set-up is that the "F" is in high gear with the hand shift lever forward. The unsuspecting amateur who attempts to drive the "F" is in for a shattered elbow or a bad bruise if he uses the throw-out pedal without taking the precaution to withdraw his arm from the arm rest.



THE FORD "F" model had plenty of punch in low gear. Its owner, James Clark, Bristol, Pa., demonstrates to his duster-clad passenger how readily the forty-four year old relic can pull itself out of a ditch

Motor Trend

On a hot, dry day, the foot brakes have a slight slowing quality, far less, however, than that achieved by backing off on the hand gas lever located on the steering wheel. In wet weather the brakes are totally useless. The brakes, which original owner-plumber McMullen doubtless could have improved upon, are located on both rear wheels and consist of liningless brass on brass, shoes and drum.

The under-seat fuel tank holds eight gallons and mileage average ranges between 15 and 20 miles to the gallon. Wheels are wooden spoked, artillery type, taking 30 by 3 1/2-inch, 60-pound pressure clinchers.

Considered opinions of former owners are that the "F" surrey was more picturesque than it was suitable for all-weather driving. Heavy snows are reported to have caved in more than one surrey top, but it did offer the die-hards a less shocking transition from old to new and helped carry over the surrey with the fringe on top to its present-day lyrical fame.

First Electric Car in 1891

Eighty-eight years after Oliver Evans demonstrated his steam boat-wagon on the streets of Philadelphia to a disinterested group of spectators, William Morrison of Des Moines, Iowa, showed the first electric automobile on the streets of Chicago. The public's interest in the car was so great that police had to escort Morrison and his storage-battery filled wagon through the jammed streets.

World's First Auto Race

In the first recorded auto race, one sponsored by the Petit-Journal of Paris over a Paris to Rouen course eighty miles in length, forty-six entries lined up for the start. Twelve of the entrants were steam driven, but the first three winning cars were powered by Daimler gas motors. The steam and electric backers put the July, 1894 race down as a fluke and continued to figure gasoline as a freak means of power.

On Thanksgiving Day, 1895, the United States had its first auto road race, a 52 1/2 mile grind from Chicago to Waukegan. Charles Duryea, at the tiller of his gas-fueled Buggyaut, won that two-car affair at an average speed of 6.7 mph.

Perhaps that was when horse lovers started their cry of "buy a horse" because earlier that same year three-year-old Halmar had won the Kentucky Derby in 2:37.5 for the mile and a half distance, which was considerably better than 35 mph.

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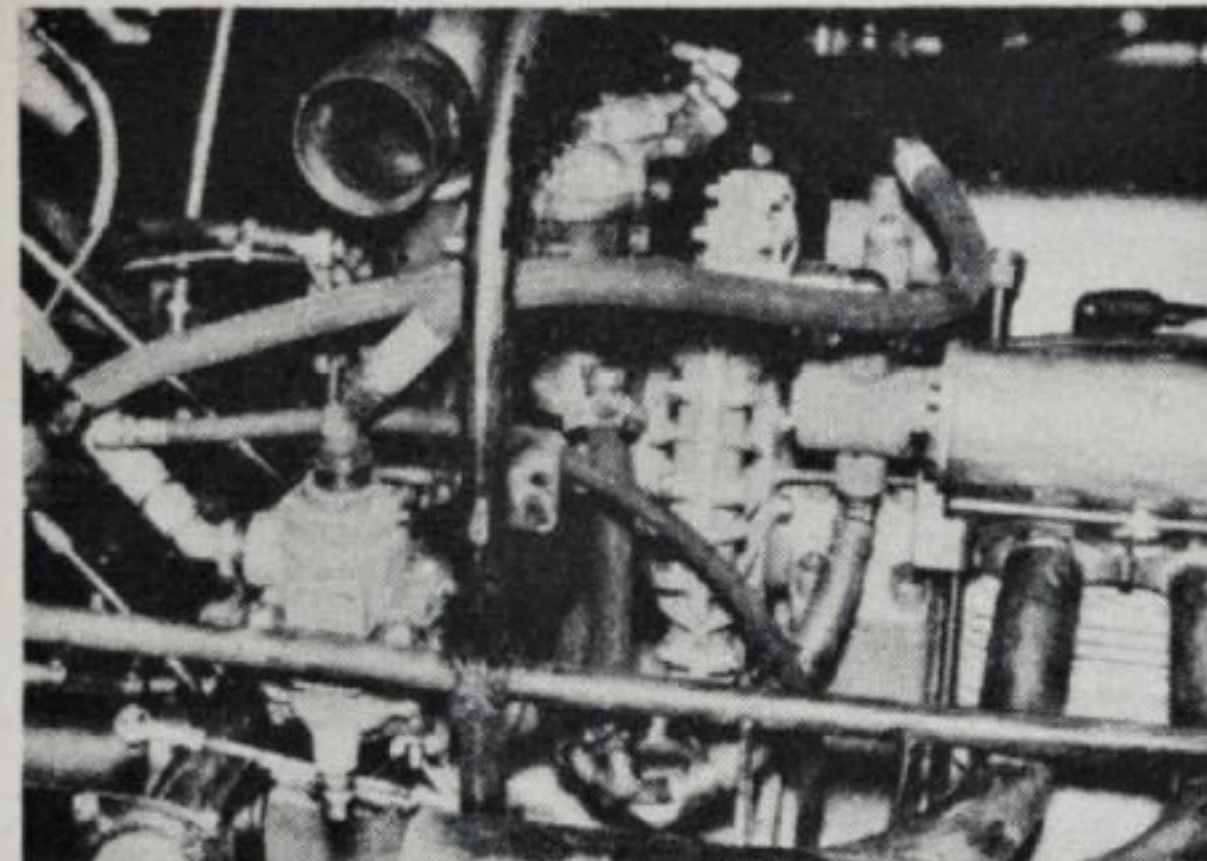
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THE MIGHTY MITE Meyer-Drake Supercharged Special

(Continued from page eleven)



RIGHT-HAND view of blown Offenhauser midget installation on Belanger Special

of the aeration effect of the float caused by vibration in the car.

Question: And what changes have been made in the car in which the blower has been used?

Answer: Well, we're using a 98-inch wheelbase car, weighing 1400 pounds, with several new features in it. For one thing, we're using a two-speed forward and reverse transmission, a new clutch of our own design, and a new front and rear suspension featur-

ing dual English shocks on each wheel, a very satisfactory product made by Universal Dampers, Ltd., called Roto Flo. It's our stock rear end on the car. The car is now owned by Murrell Belanger of Crown Point, Indiana, and has been driven by Tony Bettenhausen in the East and Duane Carter here in California.

Question: Have you encountered any particular problems since the car has been put on the tracks?

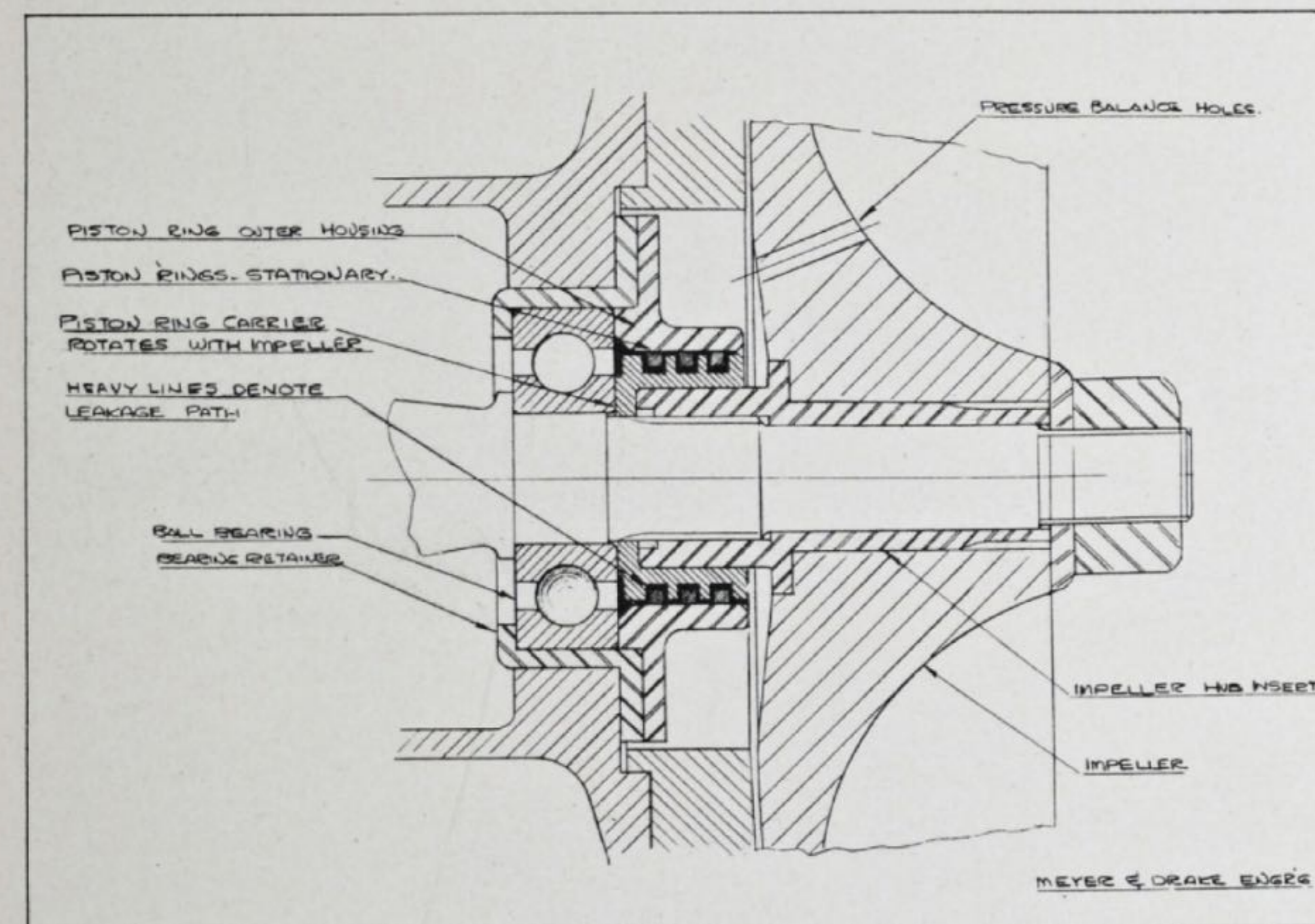
Answer: Only the same one that plagues all supercharged cars—they act like vacuum cleaners on a track and pick up too much dust and dirt. Right now, we're working on an adaptation of aircraft air cleaners which were used by planes stationed in Africa during the war—they used a spun-glass and wire material which we think might do the trick. Dirt suction has always been a tremendous problem with supercharged cars on dirt tracks.

Question: And of course, the usual question, how fast has it gone?

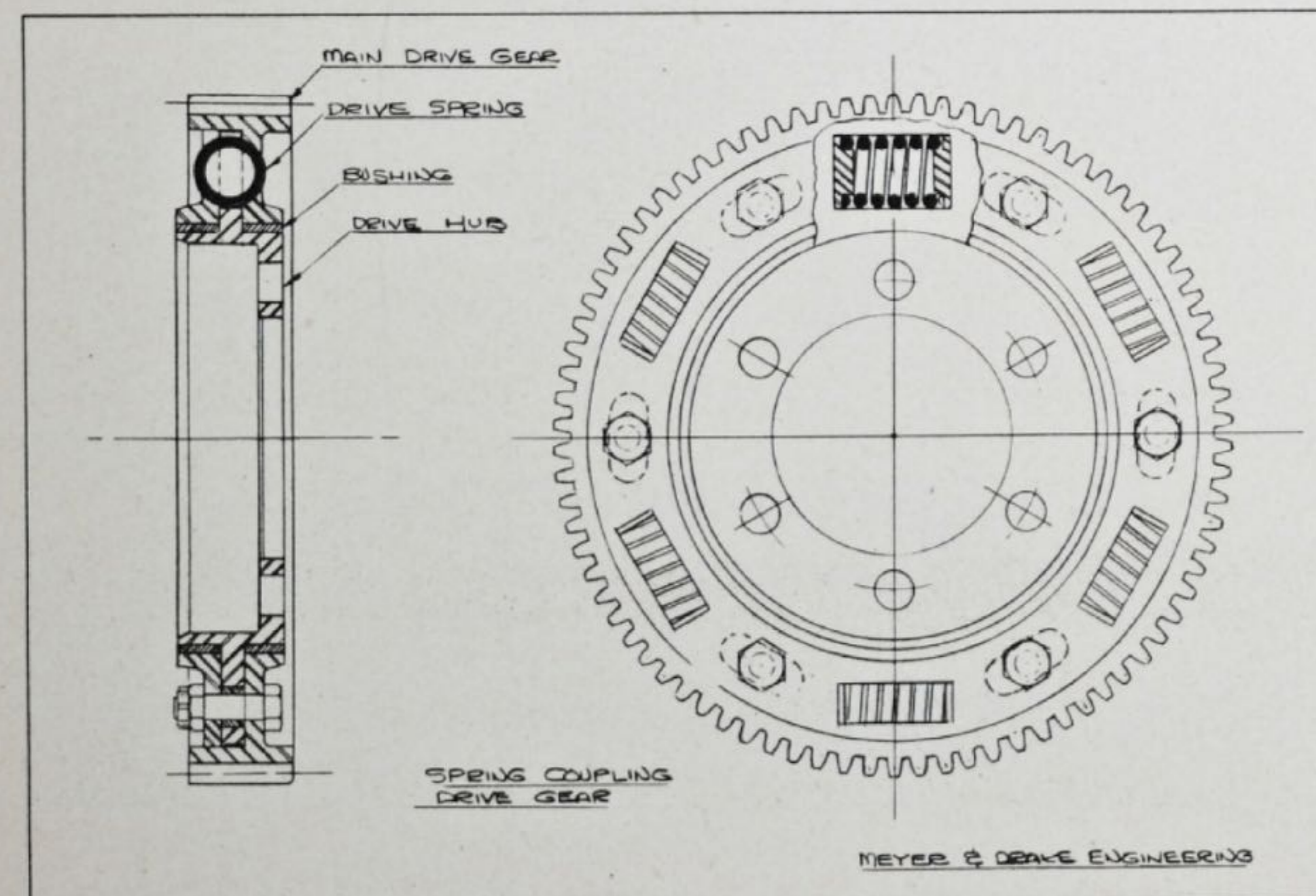
Answer: At DuQuoin, Illinois, we set the new world's record for a dual-purpose track—:35.92 seconds for a mile. As soon as we've finished with the air cleaner problem—well, just watch out!

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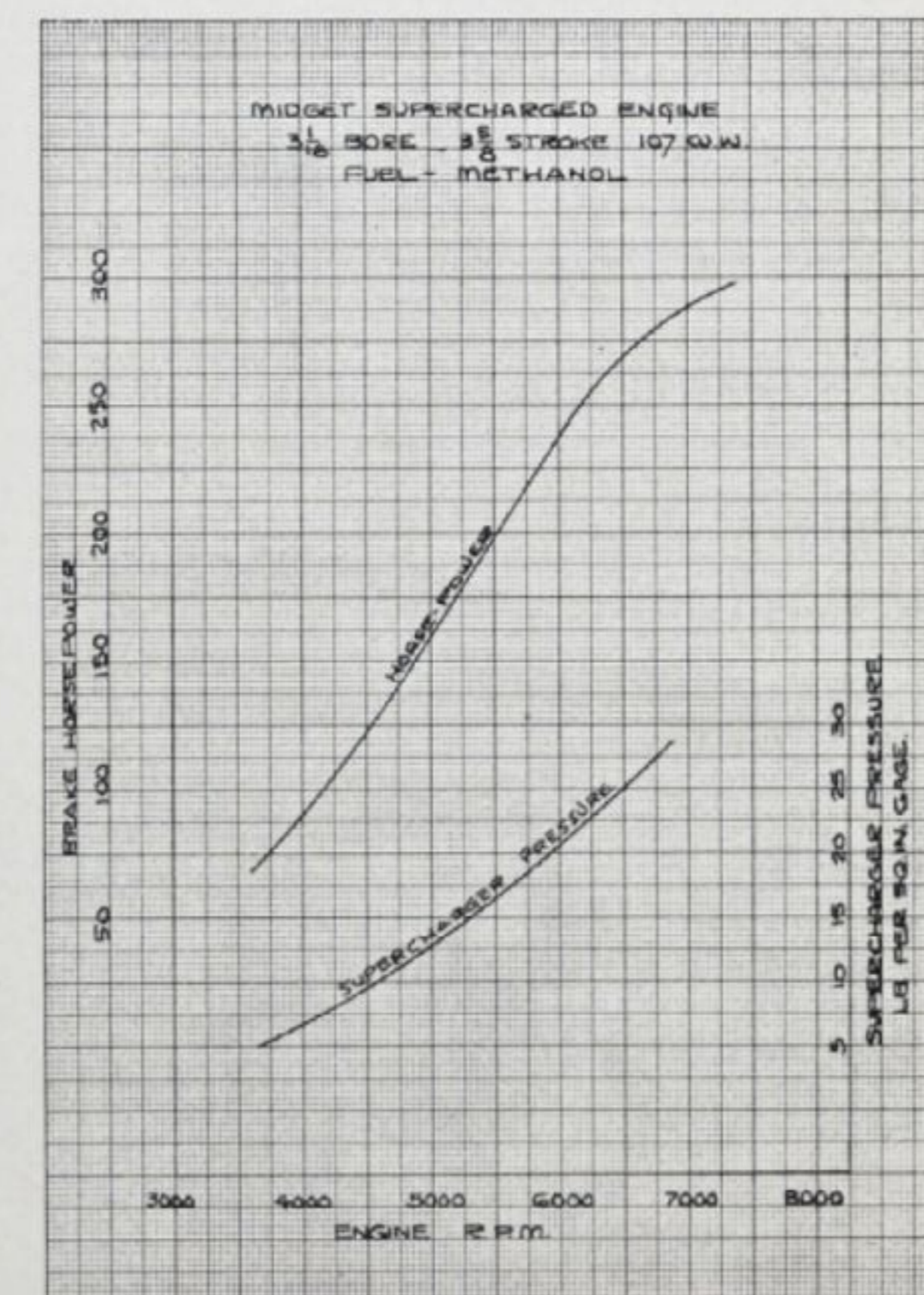
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POWER curve of supercharged engine

Identifying Custom Bodies

by George Finneran

NOTE: In answer to many requests from readers asking for additional details in identifying custom bodies, staff writer George Finneran presents the following article.

—Editor

EVEN experts have a tough time telling one year Packard, Lincoln, or Cadillac from another, especially in the very confusing early 1930's. However, if you keep in mind some of these identification marks you'll be able to call your shots well enough to earn the respect of the un-hep, and the admiration of your offspring and/or little woman:

The 1931 Packard—flat grille, usually painted black, chrome shell, huge headlights chromed, parking lights on fenders, flat windshield, small hub caps with red hexagonal center, oval speedometer and clock, other instruments on dash segment-shaped, triple-lens oval tail light mounted on 'S' bracket, wire wheels. (The '31 quite often had a false grille made of wire wickerwork, slightly V'd, mounted in front of flat grille.)

The 1932—'V' grille, sometimes chromed, larger hub caps, front fenders have more flare, front bumper has huge knobs on ends, instruments are round and set in black panel in between two glove compartments, twin tail lights chromed, rear bumper without knobs.

The 1933—this is the tough one, three 8's and the 12. Big 8's had small skirts on front and rear fenders, first model 12's did not, later model V-12's did. Early 12's had "Twin Six" on small hub caps, later model had "Packard Twelve" on larger cap, most 12's had 'V' windshield, 8's flat, 12's had 'V' lens on big chrome headlights, 8's are flat, dash is chrome-trimmed shield, round instruments, front doors open forward, tail lights unchanged, 17-inch tires instead of 19-inch.

The 1934—more 'V' in grille, front fenders wrap down and over in front, more slantback in windshields, same dash, dials round but more ornate, hub caps slightly larger, bumpers same as 1933, tail lights same, very hard car to spot correctly.

The 1935—major change-over for Packard. Very broad, long, chrome grille, streamline, unchromed headlights, full-skirted fenders, running boards swoop up to front fenders, horizontal louvers on hood, narrow

(Continued on page thirty-three)

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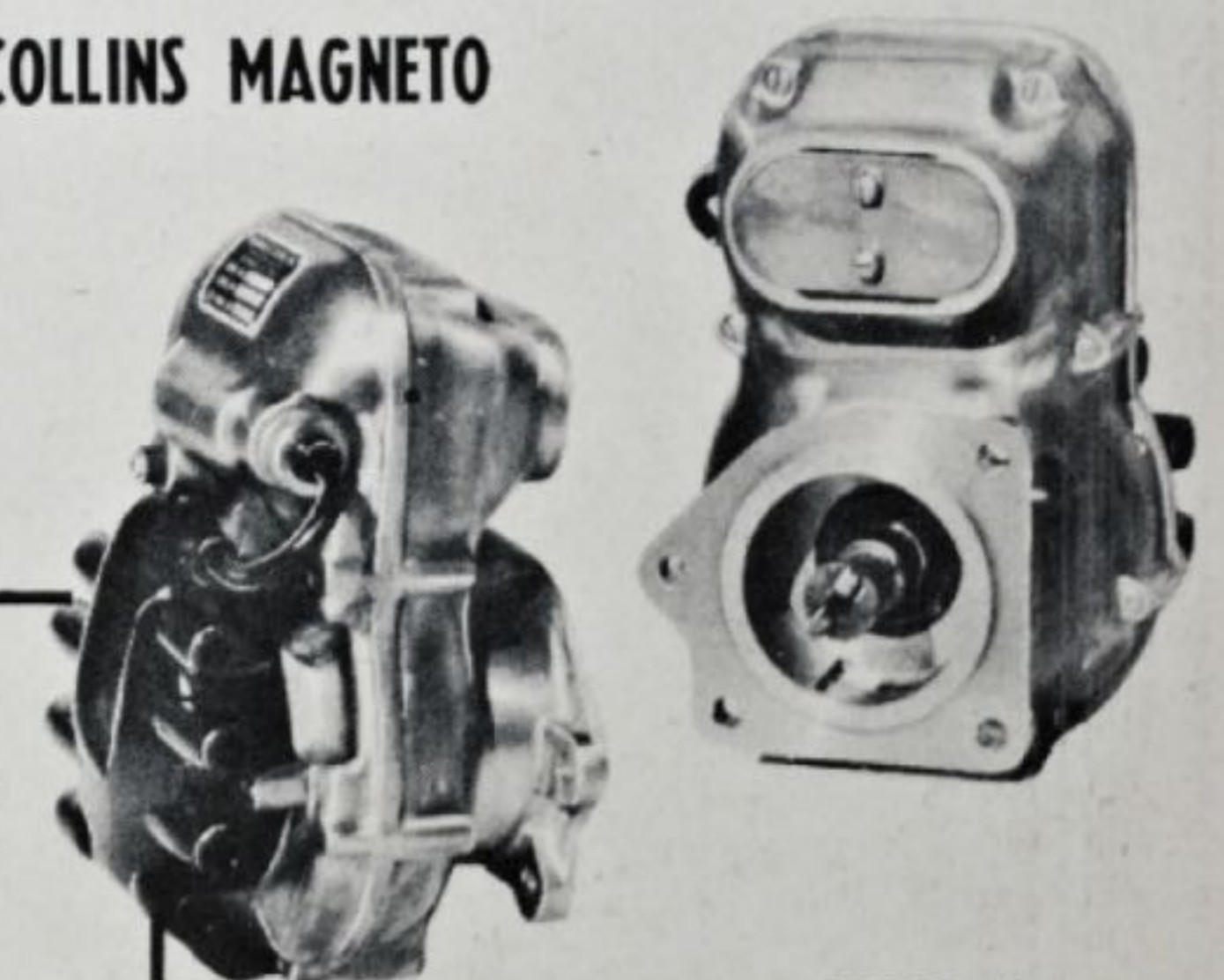
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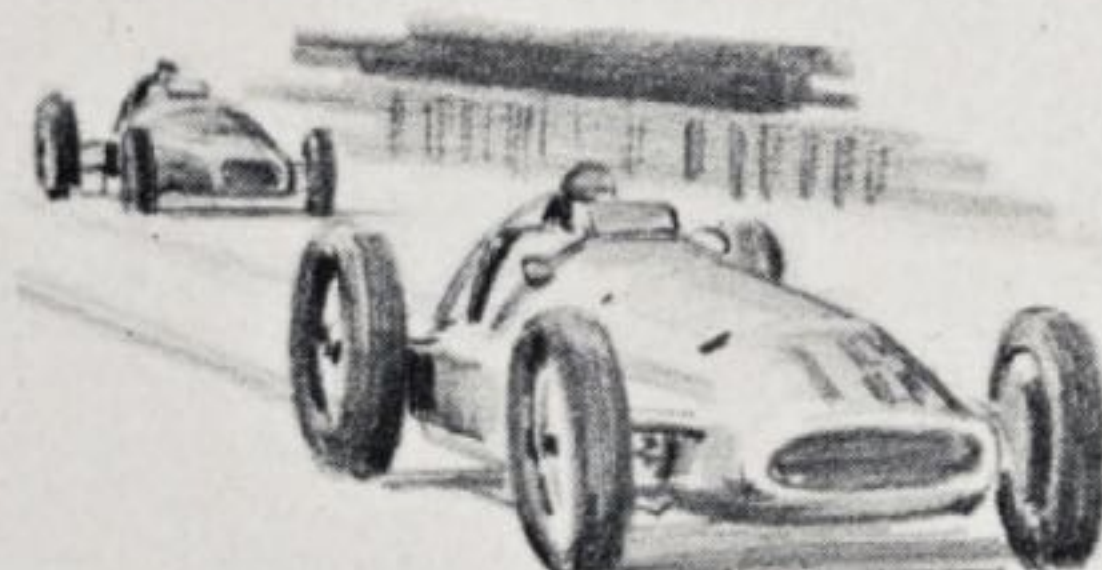
(Continued from page thirteen)



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In the nine racing years prior to World War I (1906-1914), the classic European race car was a four-cylinder with open bodywork, bucket seats, with the gas tank and spare tire slung on the back of the frame. The early engines ran up to 1100 cu. in. piston displacement and developed around 120 hp at 1200 rpm. Chain drive was the rule, gross weight ran about 3,100 lbs., and top speed got to 98 mph. The most successful makes at first were Fiat and De Dietrich.

Subsequent restrictions on fuel consumption, piston area, and displacement resulted in smaller, long-stroke engines. The 1941 engines, with only 274 cu. in., therefore gave about the same 120 hp, but at around 2800 rpm. Peugeot brought out the first double-



overhead camshaft job with four valves per cylinder in 1912, to set a style that persists even today. Conventional rear axles were widely adopted and car weight dropped to around 2,500 lbs. With the advent of four-wheel brakes and with top speeds reaching 116 mph, lap speeds jumped 12 per cent. Most successful makes during this time were Peugeot and Mercedes.

World War I stopped all racing activity in Europe. The Grand Prix series was not officially revived until 1921, under the 183-cu. in. limit. Once again a displacement restriction was effective in holding engine power down. Even though the faster-turning straight-eight was almost exclusive, peak outputs still held around 120 hp at 4000 rpm—and lap speeds were up only five per cent over the old prewar jobs.

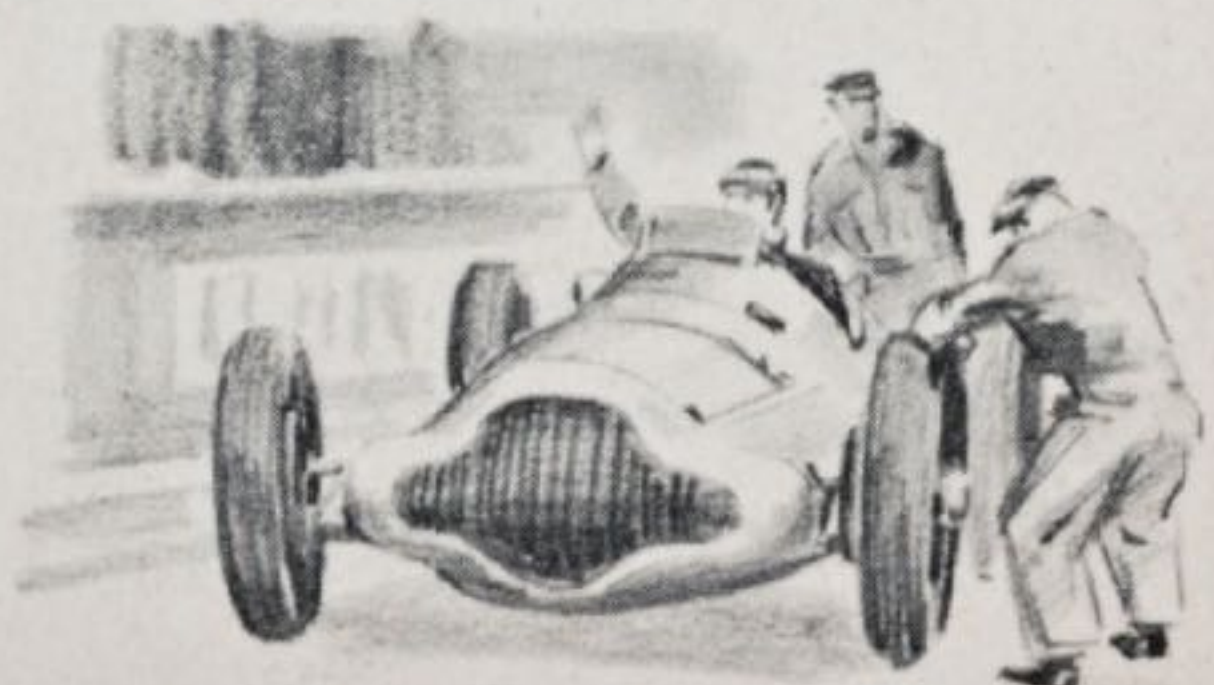
In 1922, displacement was further cut to 122 cu. in. and for the first time

since G.P. racing started in 1906, road performance declined. The little two-litre jobs gave 80-90 hp at 4500-5000 rpm and car weight dropped to around 1,700 lbs. The double-overhead-cam engine was almost exclusive and there was a general use of roller and ball bearings for the crankshaft and rods. By then, the classic body shape with full, tapering tail section was in vogue, and the racing car was beginning to look a lot like it does today. But top speed dropped to around 105 mph and lap speeds were on a par with 1914 cars. Fiat dominated the winner's circle.

By 1923, designers were clutching at every straw in an effort to boost engine power. Supercharging and alcohol-base fuels proved to be the answer to their prayers. Performance soared almost overnight and Grand Prix racing got a "shot in the arm." Bugatti and Alfa-Romeo began grabbing honors from Fiat, and the peak of two-litre development was reached in 1925 with the magnificent 12-cylinder Delage (French). This supercharged job developed 190 hp at 7000 rpm, and could make a consistent top speed of 134 mph on the road.

It was here that the rules makers stepped in once again and cut the displacement to 11½ litres (91½ cu. in.). This promised lower speeds and safer competition for the 1926 season.

NOTE: This is the first of a series of articles on Grand Prix race cars by author Roger Huntington. The next article will cover the most successful car of the 1926 season—the Delage.—Editor.



Identifying Custom Bodies

(Continued from page thirty-one)

dash has five big circular dials mounted in a row, front and rear bumper alike, streamlined tail lights (dual).

The 1936—grille same, only slightly slanted forward, no chrome trim—strip on top of headlights, more slant to windshield, bumpers without big knobs, everything else identical.

The 1937—larger hub caps, more V in grille, more back slant to grille and windshield, slight changes in dash and tail lights, nothing greatly changed.

The 1938-1939—back to the 'V' windshield, but no back slant, almost vertical. Fenders very bulky with high crown, chopped off short on running boards, larger dials done in gold on rolled dash. Twelve has alternate black and chrome vanes on grille, gearshift on steering post (1939), smaller tail lights.

Cadillacs are not quite so hard to tell apart because in 1934 they went along with the crowd and streamlined their cars in the General Motors, Fisher Body fashion—fenders were ballooned, bodies rounded and broadened. From 1930 to 1934 the major changes were:

1931—Flat grille, fine mesh, almost vertical windshield (V'd on Fleetwoods), high bodies, number of cylinders behind a big V in plaque in front of grille on cross bar, also on hub caps, same general features as Packard. In '32 and '33, first 'V' grille, lower bodies, 17-inch wheels, round instruments grouped in front of driver, wire wheels, parking lights on front fenders as with Packard, dual tail lights, etc. From '34 on, the big Cads were almost identical in design to the smaller, except everything was blown up proportionately. You can spot the '34 from the '35 by the bumpers: the '34 has two airplane-wing-shaped horizontal vanes separated by two bullet-shaped guards in between; the '35 has a conventional bumper.

The Lincoln is even more difficult to spot by years. In general, the '31-'32 grille had vertical, very narrow vanes set close together, was V'd and slanted slightly back, fenders were unskirted until 1933. Bodies became bulkier then, grille was tiny checkerboarded mesh, dash stayed the same—two big round dials—until 1936. Major change in '36 was headlights flared into front fenders, 'V' windshield in 1937; no change after that.

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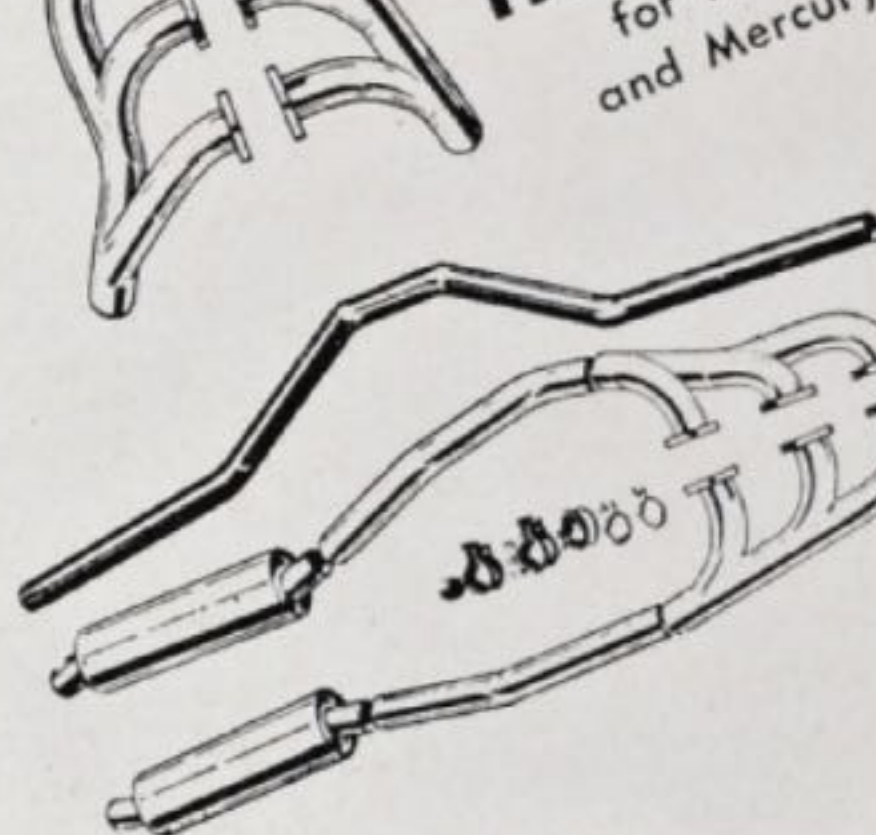
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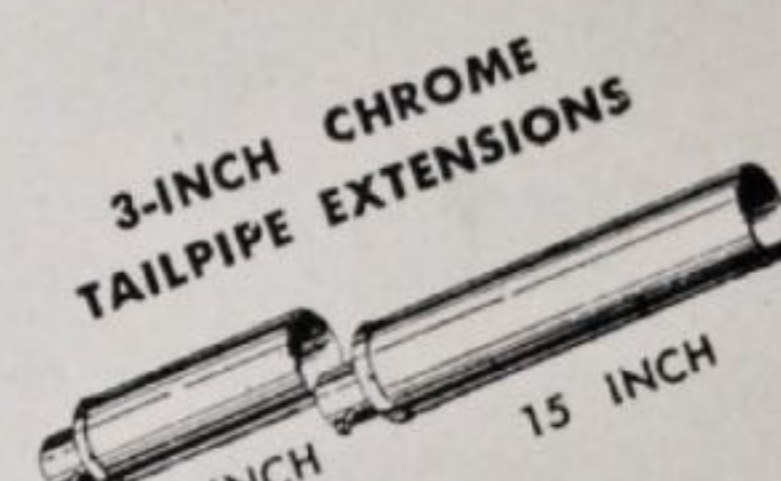
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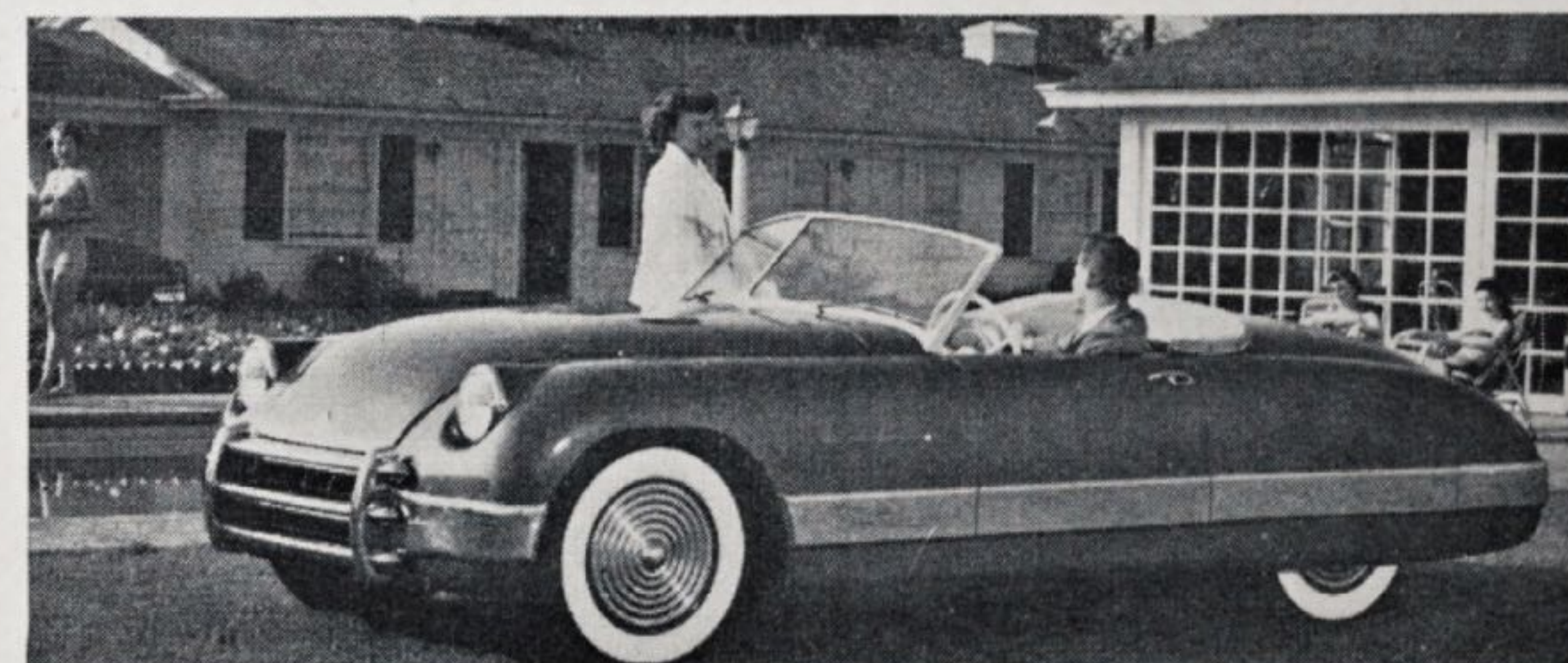
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LETTERS...

FROM OUR READERS...

Letters published in this department are the opinions of the writers and are not to be construed as those of the editors. Address correspondence to: Letters From Our Readers, MOTOR TREND, 548 South San Vicente Boulevard, Los Angeles 48, California.

CUSTOMIZED TRIUMPH

... I am enclosing a couple of pictures of my somewhat custom '48 Triumph. "The guys on the curb" really think it's great.

Ed Gaylord
Winnetka, Illinois



AND FAR INTO THE NIGHT

In reference to the letter from Sam Hunter, in the December 1949 issue of your magazine, concerning the \$10,000 "gas-eating iron crates of yesterday," I would like to state that I strongly disagree with the opinion expressed in this letter.

Mr. Hunter stated that a customized hopped-up Mercury would make a nice showing compared with the cars gone by. It seems to me that you have to customize our modern cars to get any real performance out of them, while the old Lincoln or Duesenberg, etc., is still running stock.

It is my belief that those "gas-eating crates gone by" will one day proudly roll past the best hopped-up '40 Merc you can buy.

Pete Lakson
Portland, Oregon

In regards to Messrs. Kelsey and Selan's letters: They might find something of interest in the Smithsonian Institution in Washington, D.C. It has an excellent collection of old cars more advanced than those expensive, imported piles of scrap iron.

I have a (quote) zero visibility customized Ford, which is an "obese version of an originally ugly car"—a first class blister box, which cost \$3500 and is operating more smoothly than a friend's \$15,000 imported job.

Please keep on having the pictures and stories about other fellows' cars. You can also eliminate the pictures of the (quote) fantastically advanced cars which can be well mistaken for copies of the first automobile.

Joe Straughan, Jr.
Dickerson, Maryland

In reference to your request for constructive criticism... here's hoping for more room so as to have more how, why, when and where... Please don't confuse me with one Dave Kelsey, who, by his blind concepts, condemns others and modern cars. He could simplify things by saying he was sorry for making a rash statement and a lot of readers would feel better. How about it, Dave?

Dorman S. Kelsey
San Francisco, California

TORQUE VS. RPM

... On the subject of Rocket engines; I have heard opinions and possibly facts that the Cadillac overhead valve V8 will develop more torque but not as high rpm as the Oldsmobile ohv V8. I would like to know if this is true or not.

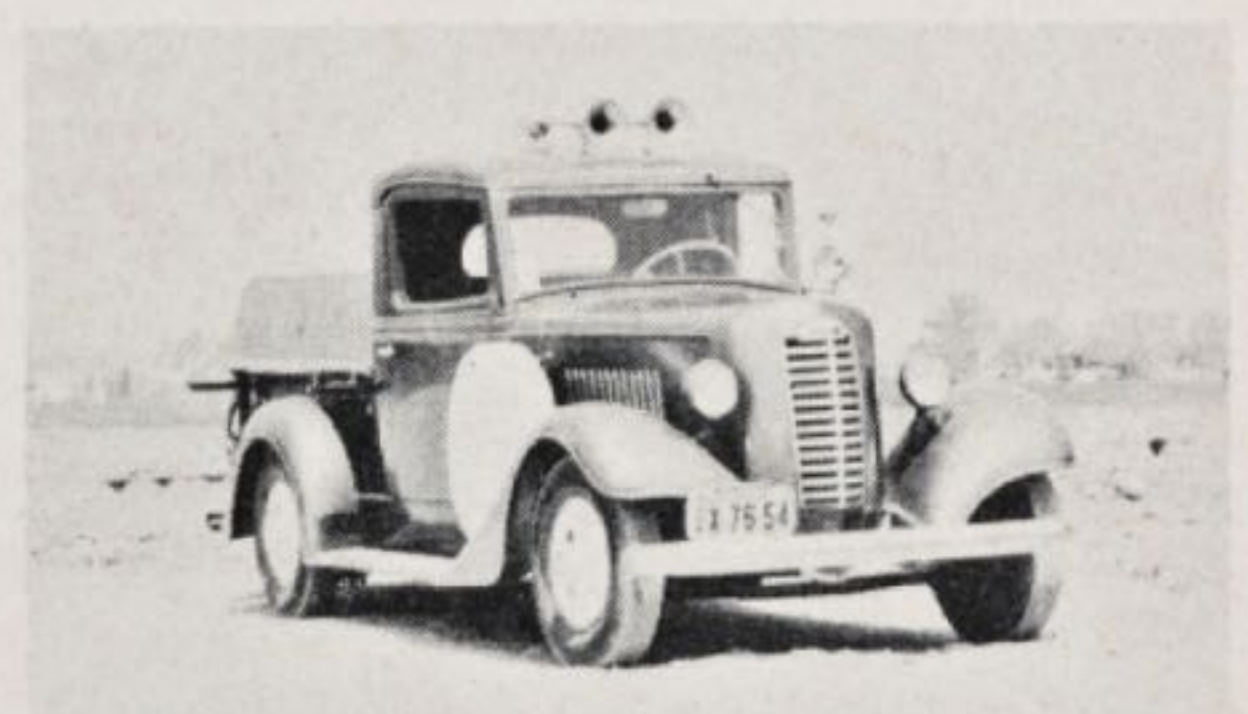
Jack Enos
Danville, Illinois

—The maximum brake torque and brake horsepower of the Cadillac engine, "as installed," are 268 and 133 at 3800 rpm. For the Oldsmobile 88, these two figures are 240 and 122 at 3600 rpm, respectively.—Editor.

CUSTOMIZING INVADES THE TRUCK FIELD

As a very enthusiastic subscriber of your magazine... I am enclosing a... snapshot of my pick-up, which is more or less "customized"... And it has caused quite a bit of controversy... it was a 1937 International to begin with... It has a 1946 Packard grille and the inside of the cab is all upholstered in green and brown. It also has custom-built skirts.

Ralph A. Dennison
Chula Vista, California



SPORTS CAR OF THE YEAR

... This is a suggestion but why not a "Sports Car of the Year" like "Car of the Year" in your November issue?

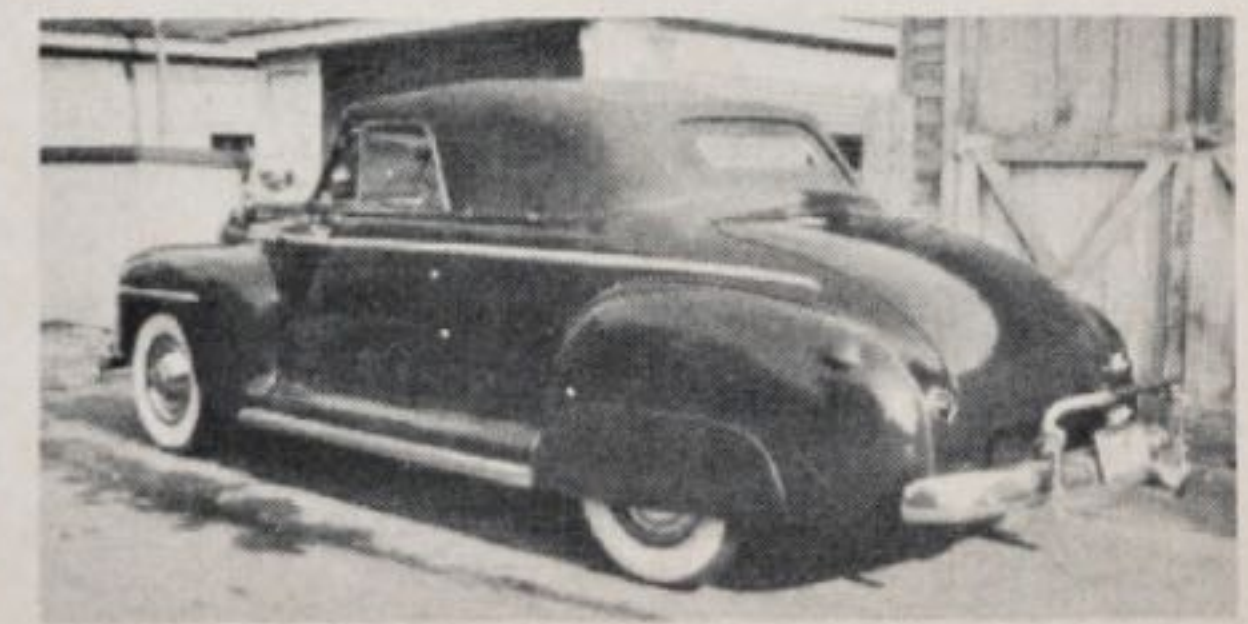
Dave Briggs
McMinnville, Oregon

—It's coming.—Editor.

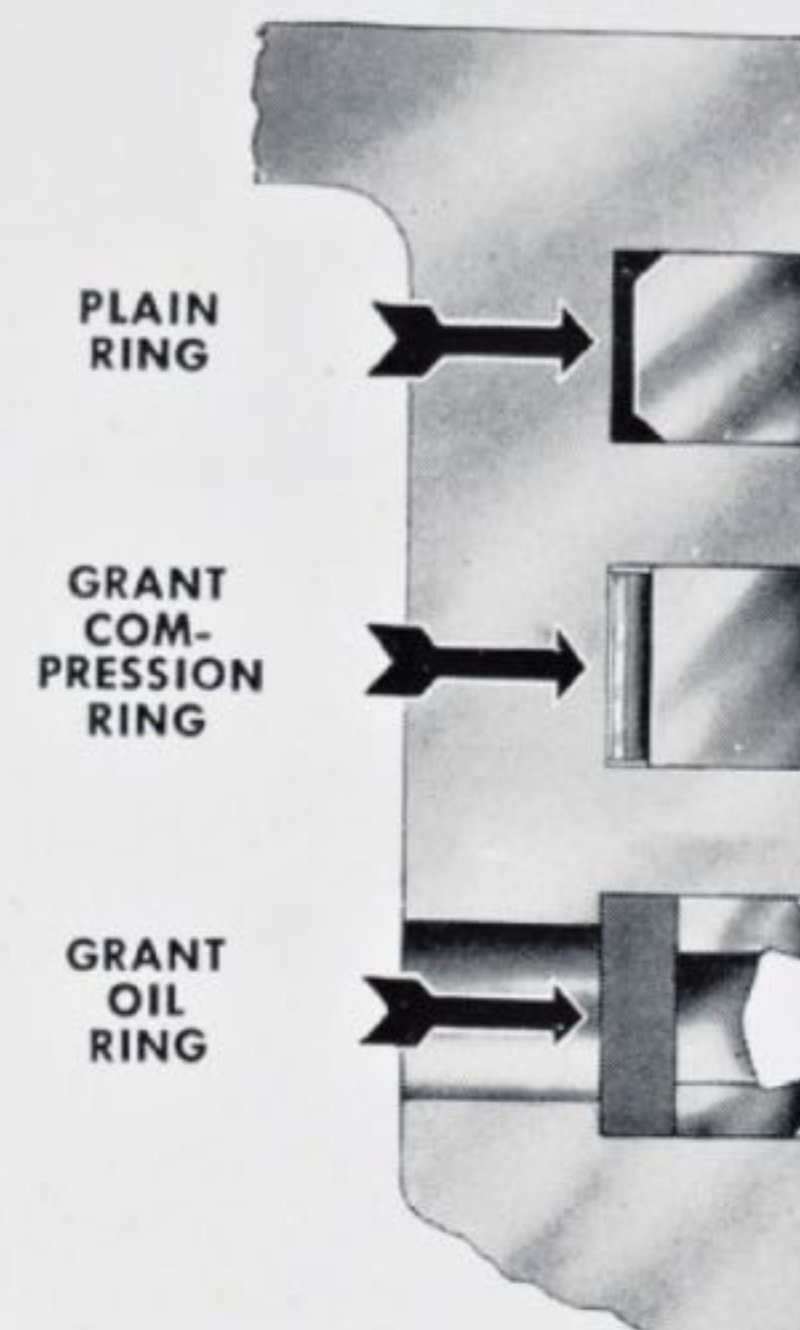
ILLINI PLYMOUTH

I would like to contribute these pictures of my 1948 Plymouth convertible coupe. The trunk has been leaded in and tail lights have been replaced by 1949 Pontiac. The license plates have been placed on the bumper.

Albert Schmarfe, Jr.
Chicago, Illinois



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Grant Piston Rings played a major part in helping me to win the Pacific Coast AAA Midget Championship this year.

Sincerely yours,
PERRY GRIMM

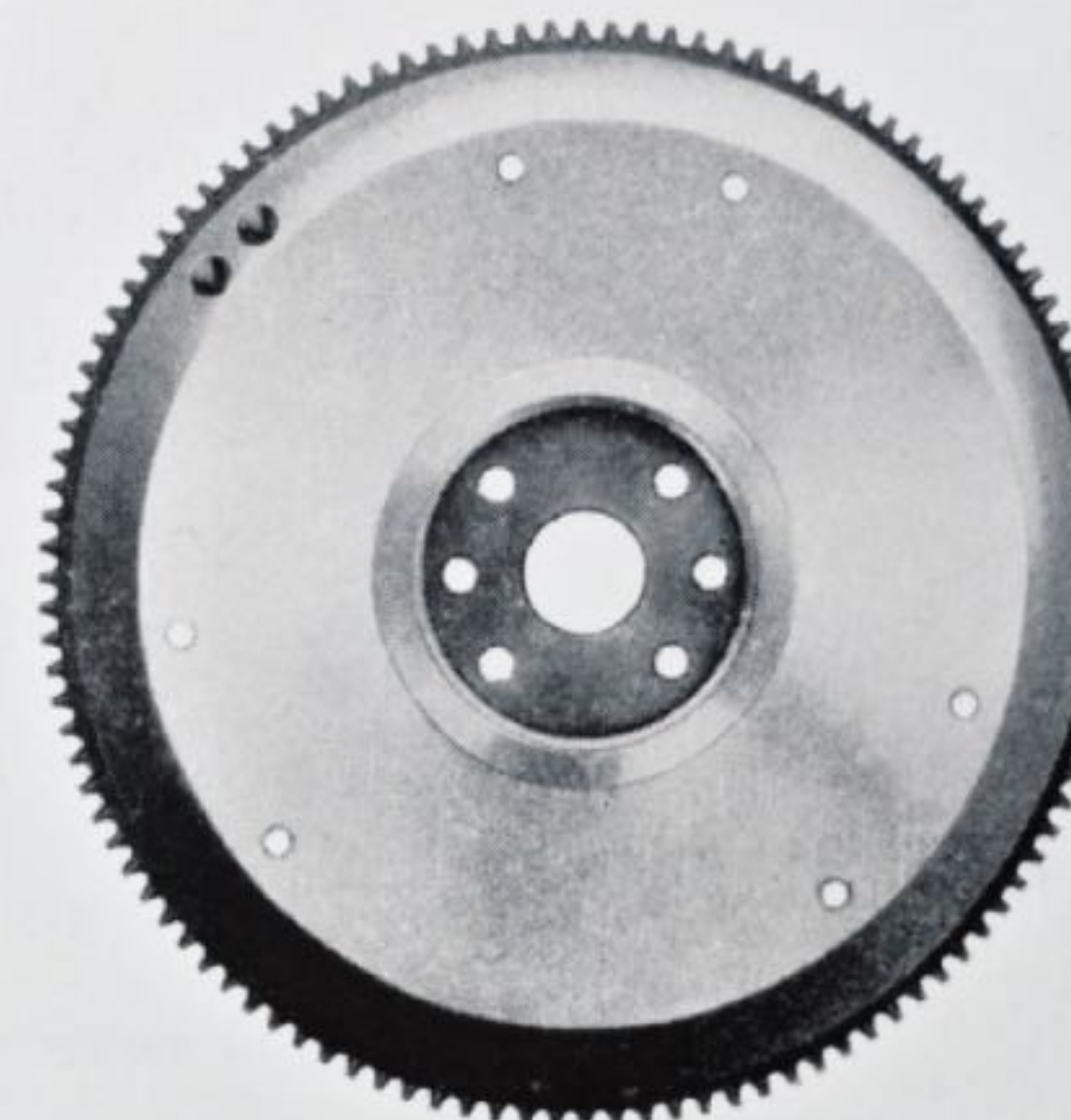


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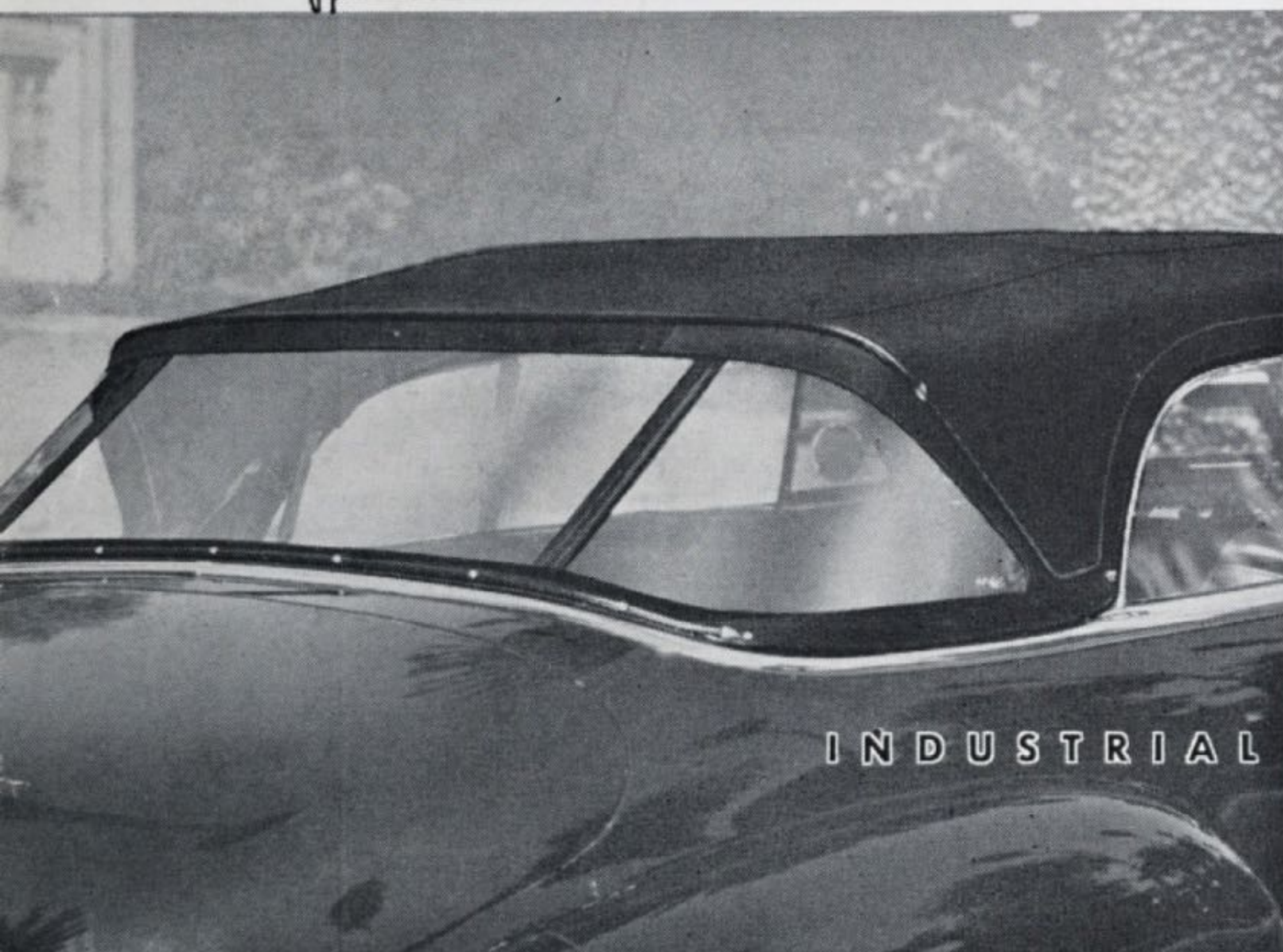
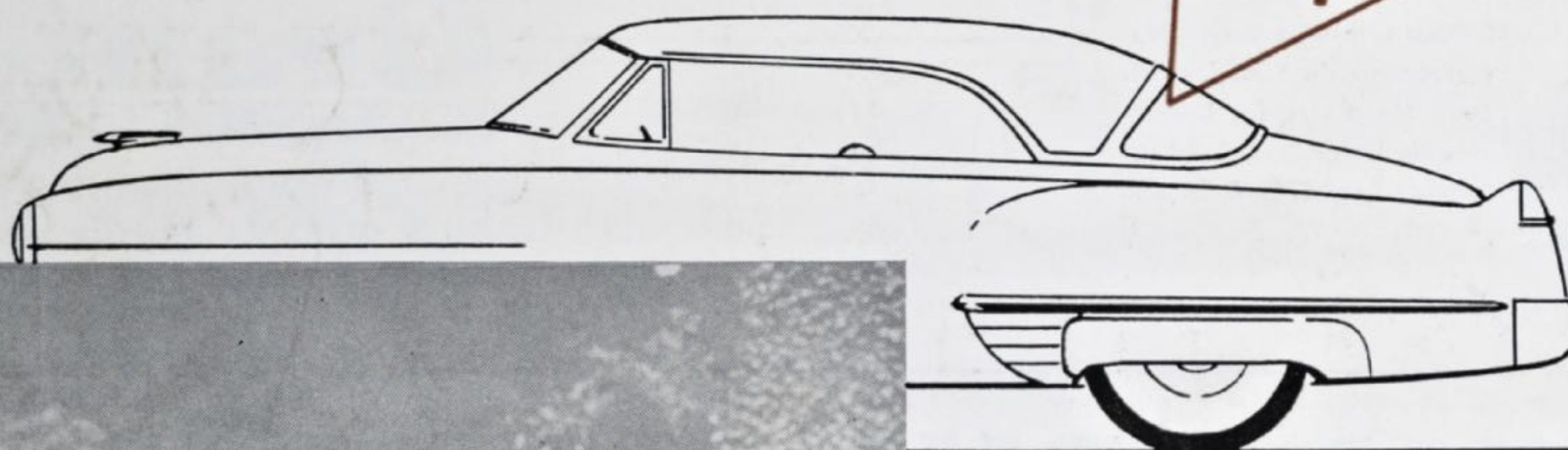
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