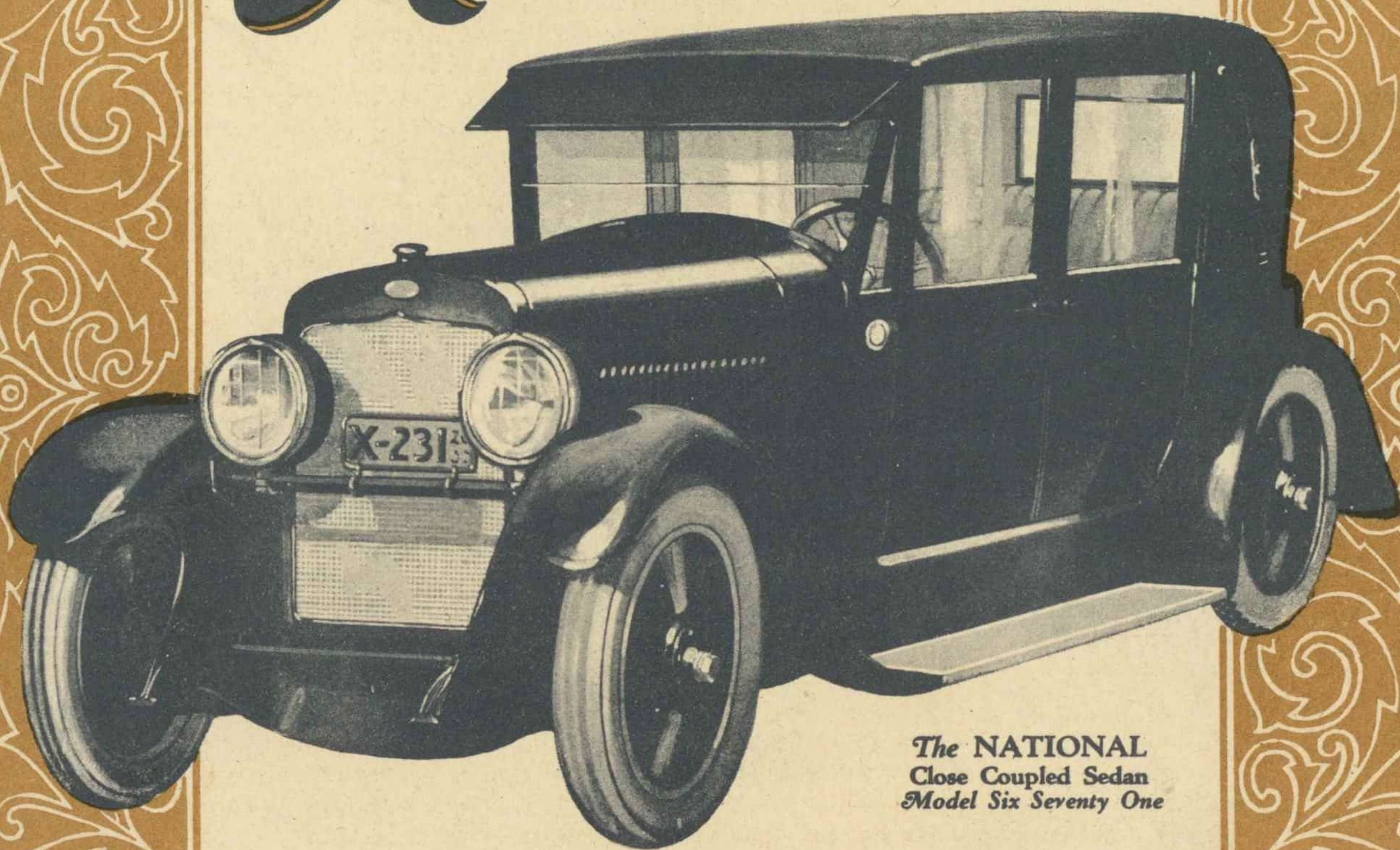


THE

# National



The NATIONAL  
Close Coupled Sedan  
Model Six Seventy One

## SIX SEVENTY ONE

PHILA. NATIONAL MOTORS CO.  
660-62 NORTH BROAD ST.  
PHILADELPHIA, PA.



# The NATIONAL Six Seventy One

**T**HE high, narrow radiator and long sweep of body lines of the National six seventy one emphasize the impressive look of power of the National chassis. Every National car now has a body specially designed by H. F. Holbrook and built under his personal supervision. What this means in individuality and distinction a glance at the new cars pictured in the following pages will show.

The refinements in the interior of the Holbrook bodies include specially woven upholstery fabrics, special moldings and fittings of great reserve and dignity and new touches of luxury in the adjuncts that add so much to comfort. The lines of the open models are of the best foreign type. The enclosed models are roomy inside and imposing in their appearance of bulk and solidity, while scientific designing keeps them from being of excessive weight.

The National six seventy one engine has been made for years on lines too correct to call for any radical change. This magnificent power plant was developed after the experience of many years' racing success, during which trophy after trophy in annual classic races, including the coveted American speedway championship, was won by the National. A number of refinements have been added to this year's motor but they are rather in the order of minor details to enable the economical use of low grade gasoline. They include a perfected oil gauge, extra size valves, some improvements in the water pump, etc. The National engine is the heart of the National car and its splendid performance, power, flexibility and dependability need no recommendation to any one who knows automobiles.

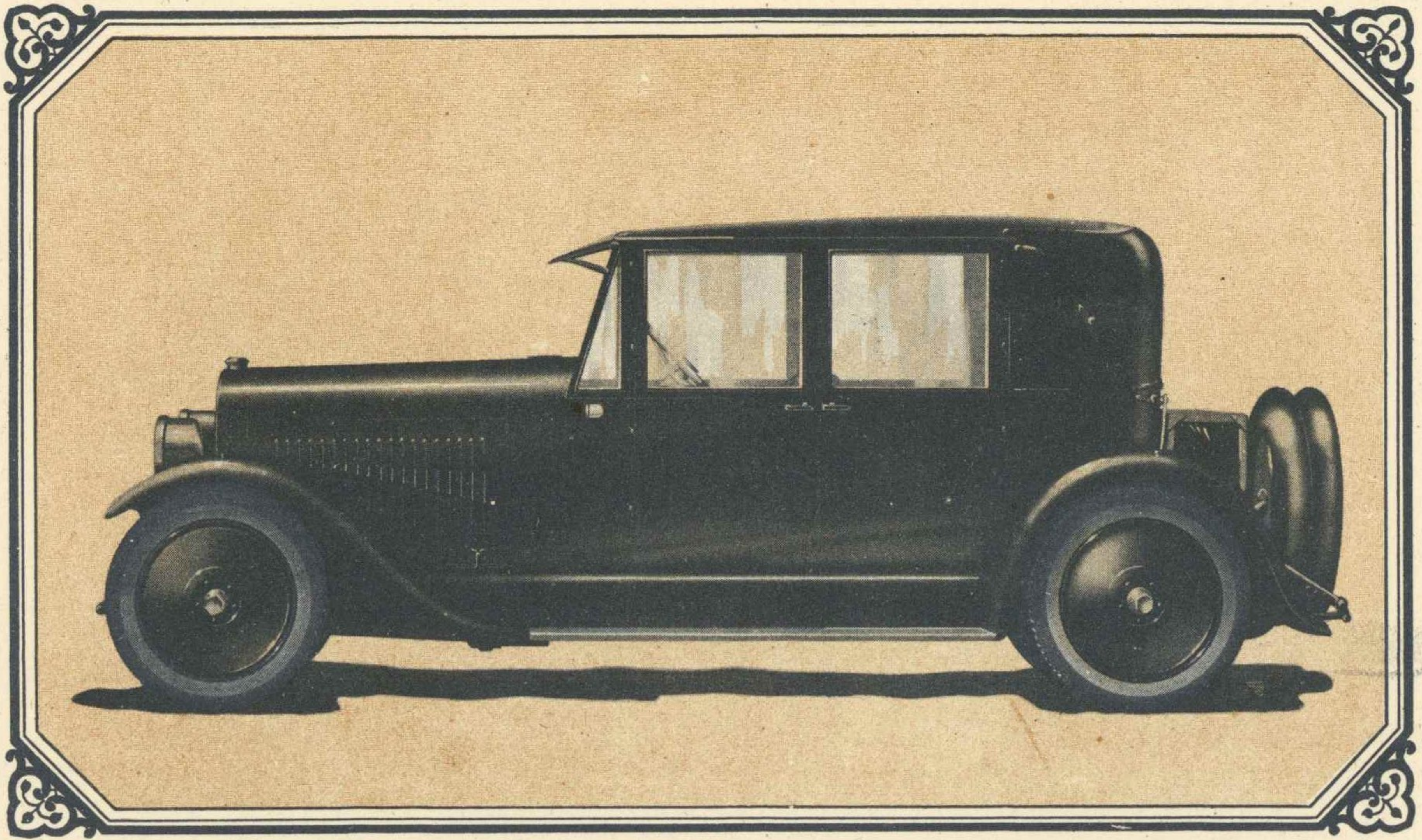
The National automobile is made and serviced by National Motors Corporation, which, by a consolidation, now owns manufacturing plants in seven different states. The National thus unites twenty years of reputation in the fine car class with a manufacturing and service organization that is one of the most important advances ever made in the automobile industry.

The National six seventy one still is built by the same group of engineers who have always built it and who designed for the National the first six cylinder engine made in America. With every mechanical detail perfected, with the added attraction of specially designed bodies by H. F. Holbrook, and with the great advantage of the expanded service of National Motors Corporation this fine car is ready, as in the past twenty years, to supply the motoring pride and satisfaction of discriminating owners.

The National automobile has always been in the fine car class. It has always been a hand made car wherever hand work makes for service and personality without extravagance. It is a car the character of which has been a known and standard quantity since automobiles first were driven in America. The National six seventy one maintains this unbroken and undeviating standard of excellence.

## NATIONAL MOTORS CORPORATION

*National Motors Corporation has eight manufacturing plants in seven states, with assets of more than twenty million dollars.*



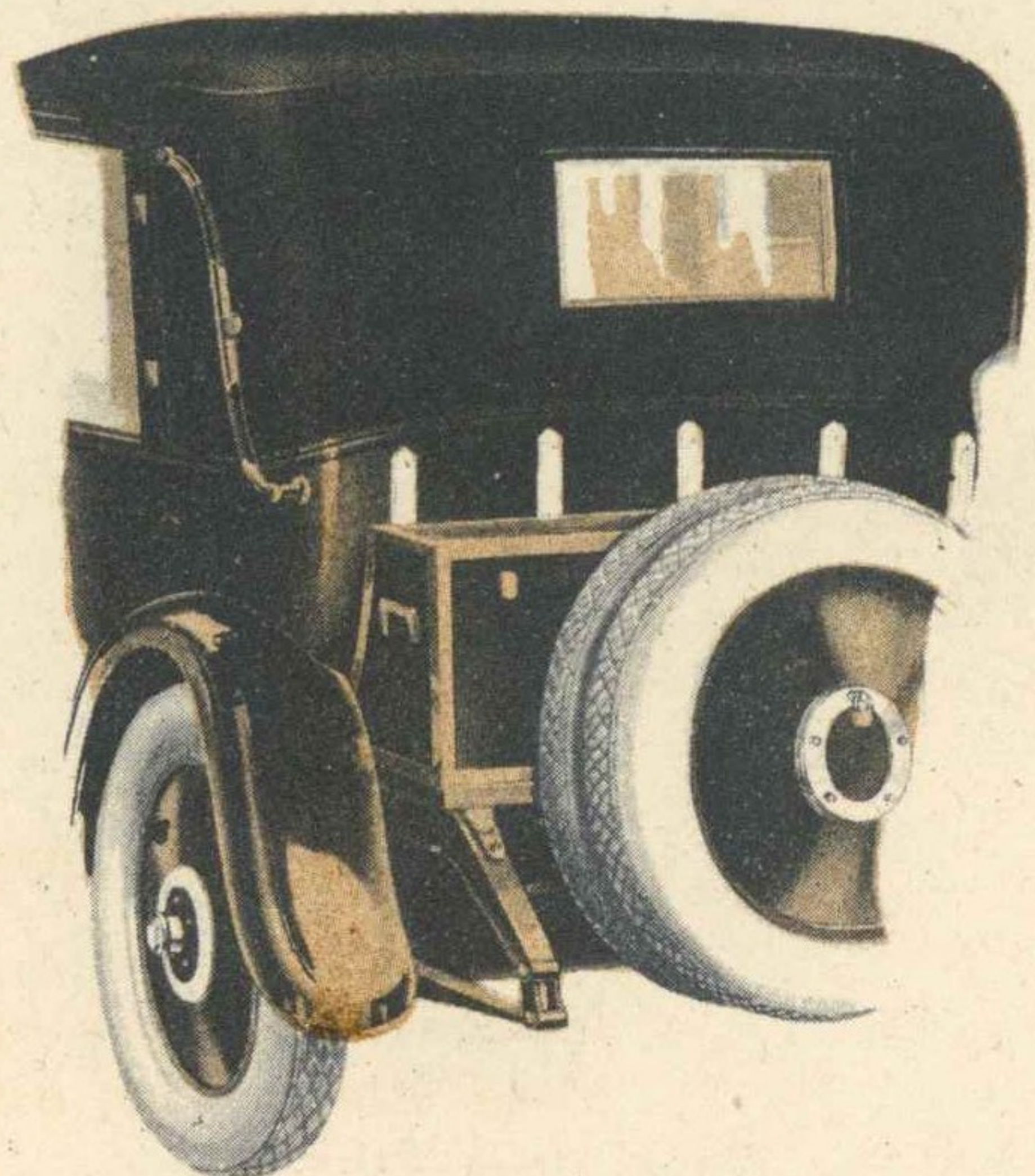
*The*  
**NATIONAL CLOSE COUPLED SEDAN**  
*Model Six Seventy One*

**T**HIS custom body designed by H. F. Holbrook is one of the most impressive ever placed on a stock chassis. It has one third more than the usual room for four passengers. The commodious interior is an ideal of snugness and intimate luxuriousness. The seats are wide and deep and all the fittings are unusually complete. The upholstery fabrics are all wool, specially woven for this car. Dome light, heater, ventilator, and windows are controlled by fittings charmingly designed and in the most convenient position to be operated from any of the seats.

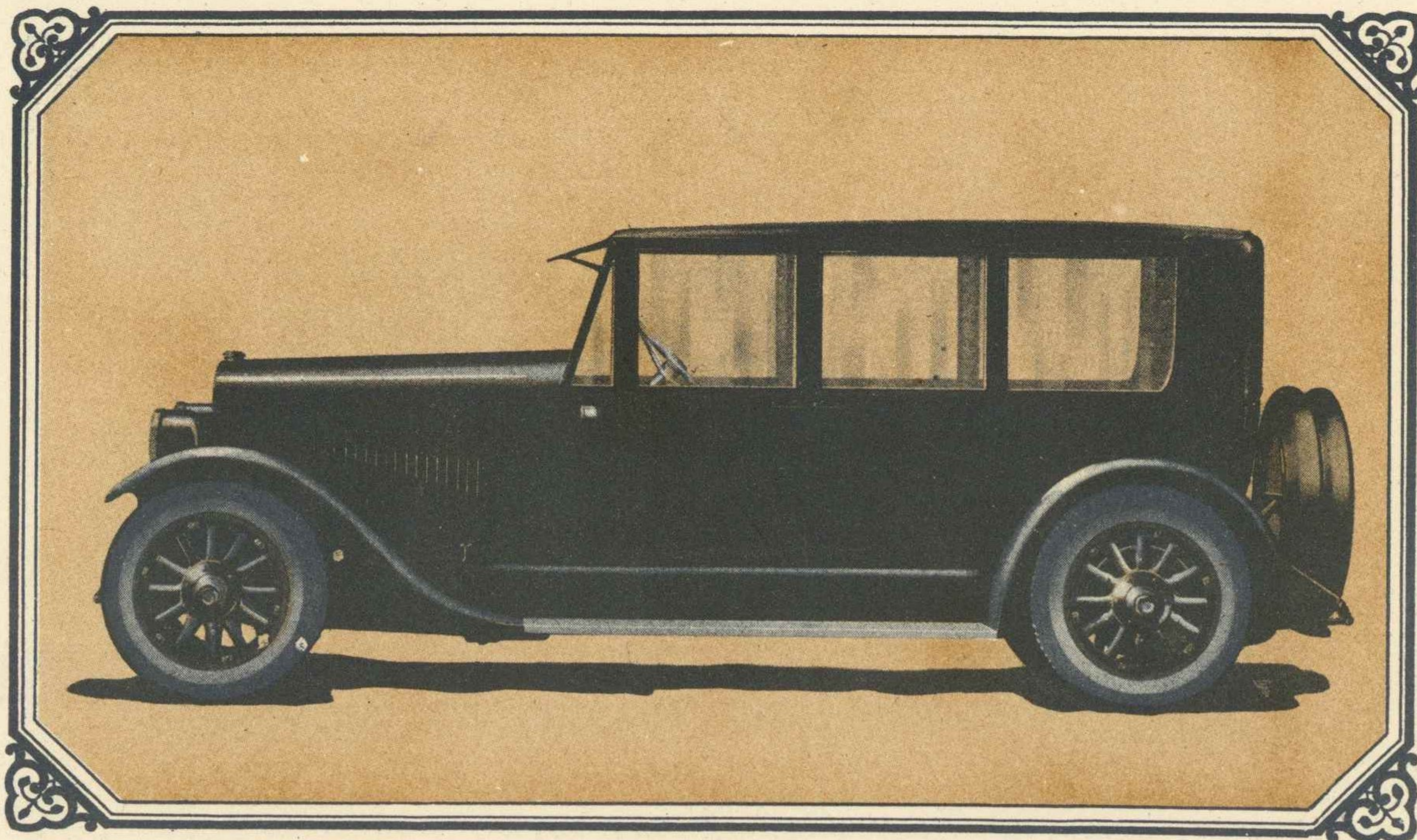
The National close coupled sedan is both a powerful automobile and the last word in chic. Wherever seen this beautiful car will command admiration. In appearance and performance it is the peer of any automobile made in America or abroad.

In all weathers, in all conditions of driving, the National close coupled sedan fills the motorist's ideal of what an automobile should be. The National six seventy one engine is a reservoir of power responsive to the touch of a finger. The driver, at ease in his big, comfortable seat, does not have to change position to reach any of the controls. The six seventy one engine is so refined and flexible that the National is a perfect car for a woman to handle in city or country. In spite of its length the National six seventy one has a comparatively short turning radius. It maneuvers easily, slows to a crawl, and picks up instantly, all with the minimum of effort by the driver.

Besides being an admirably correct car for social use in city or country the close coupled sedan is ideal for touring. The body is light in weight. A handsome, weatherproof luggage trunk at the rear has space for two large suit cases.

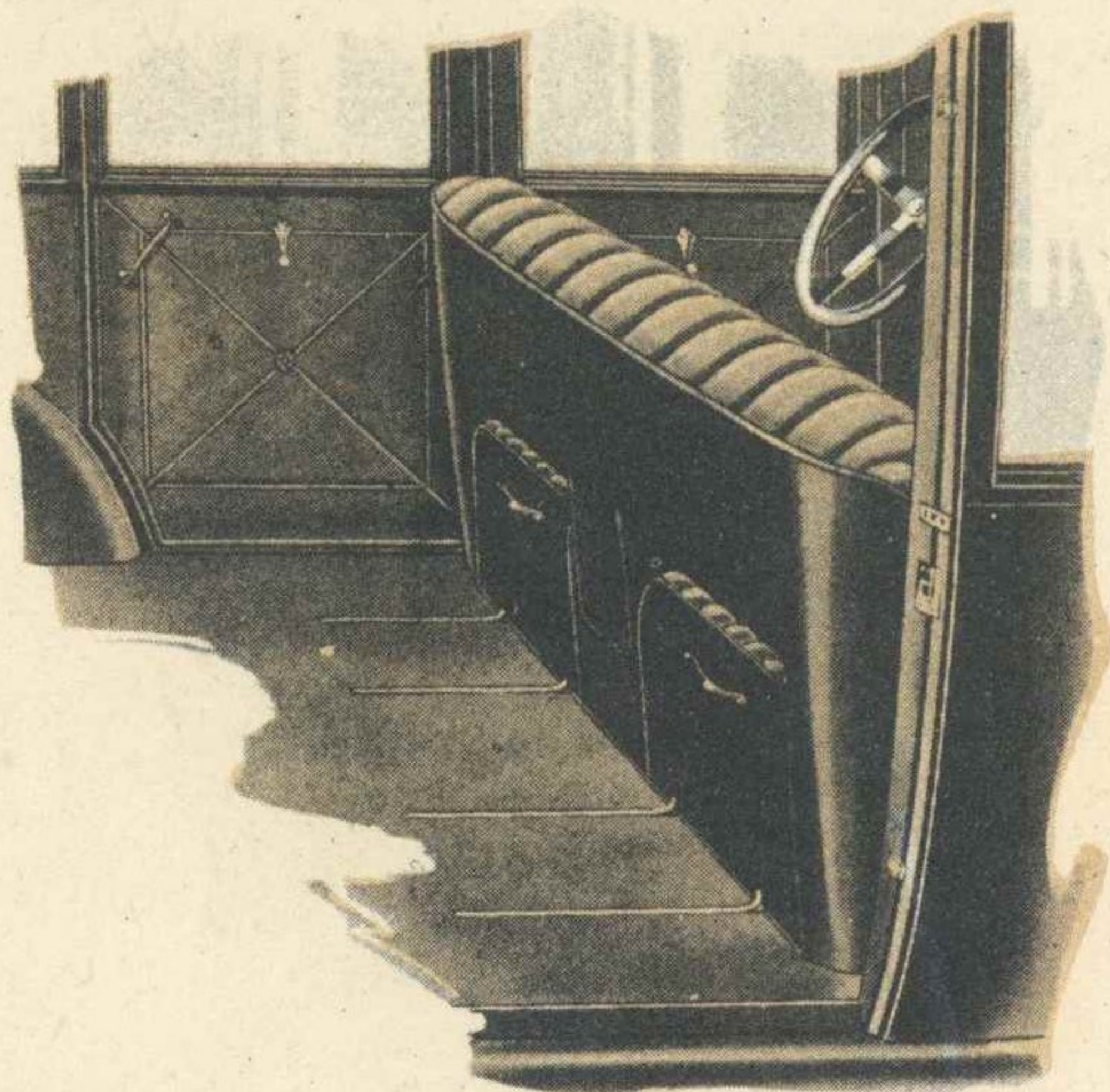


*The rear of the close coupled sedan shows its roominess.*



*The*  
**NATIONAL SEVEN PASSENGER SEDAN**  
*Model Six Seventy One*

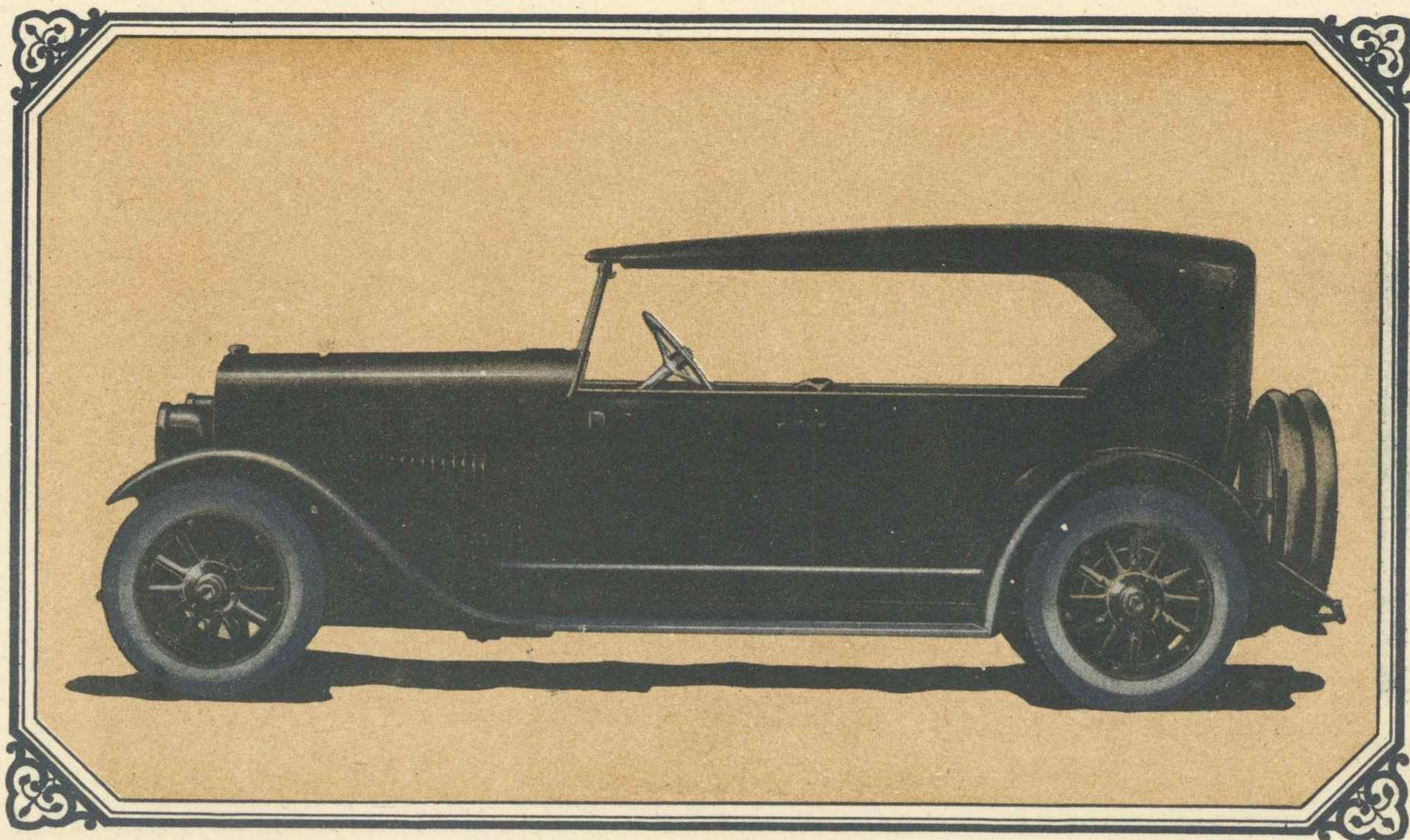
**I**N the National seven passenger sedan the first impression is of power, of a luxurious interior and of unusual roominess and imposing size and bulk without unwieldiness. The interior is spacious. Six large side windows, large rear window, and triangular side lights that are part of the raking windshield give clear view in every direction. At the same time any desired degree of quiet or seclusion may be attained by silk roller curtains, while the complete heating, ventilating and lighting system makes the occupants independent of the weather, or of daylight or darkness. Women will appreciate the extra size of the doors which give far more than the usual room for passage without the slightest projection to catch wraps or gowns.



*Extra seats of the six seventy one sedan are large and comfortable.*

The National six seventy one sedan is designed on custom lines by H. F. Holbrook and is built under his personal supervision. It is a car of dominating appearance, its size and length being in accord with the powerful and impressive effect of the National six seventy one chassis. Luxurious transportation can go no further than in this magnificent automobile, either for city or for country use or for touring.

Details of construction and finish of this splendid car are characterized by the perfection of quiet good taste and by fine workmanship. The upholstery work in the sedan is of fine execution, adding the final touch of charm to the interior. There is so much room in the sedan that there is ample space for easy positions and general conversation when every seat is occupied.



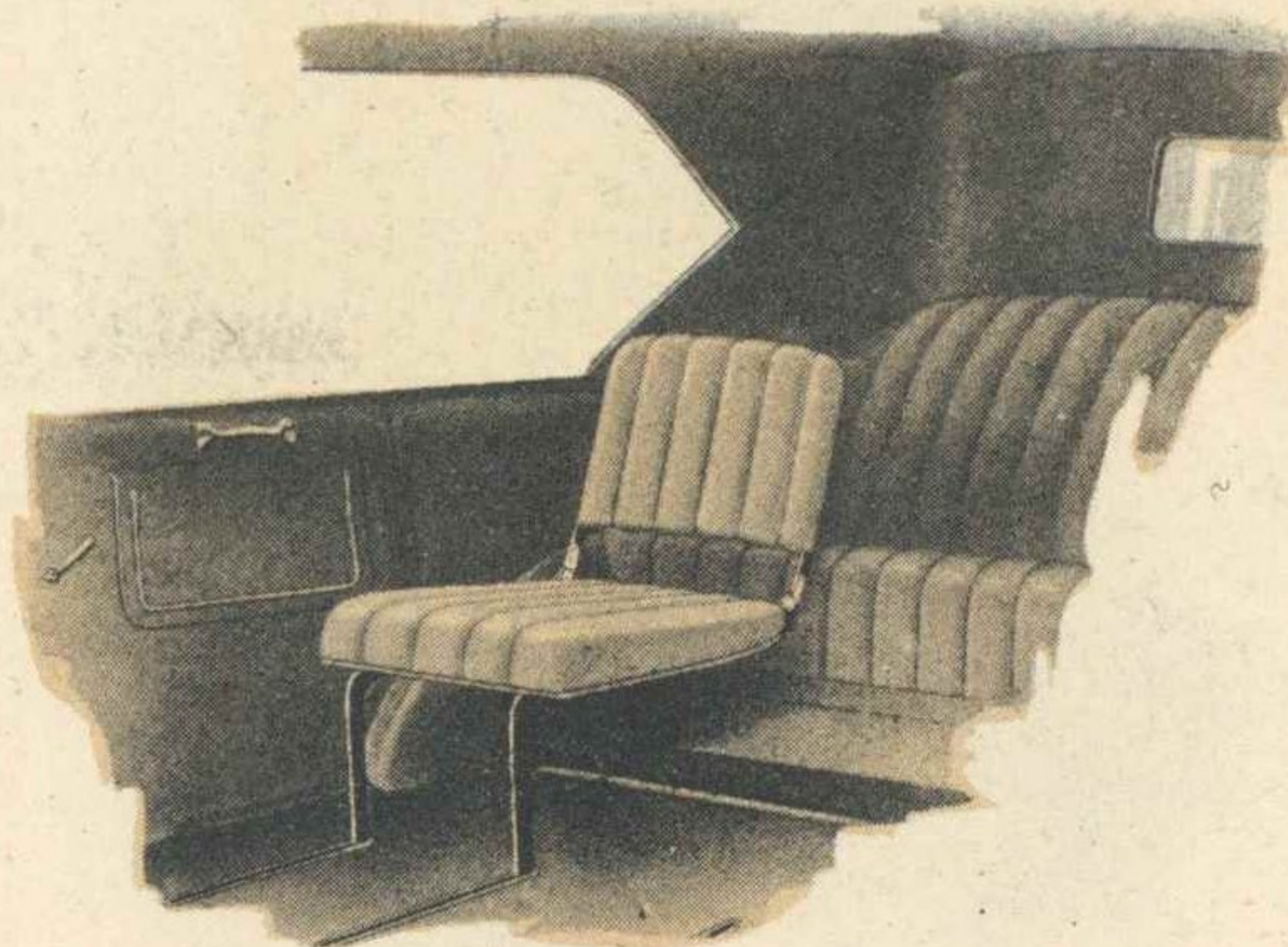
*The*  
**NATIONAL SEVEN PASSENGER PHAETON**  
*Model Six Seventy One*

**T**HE seven passenger phaeton mounted on the National six seventy one chassis is a masterpiece of design by H. F. Holbrook. It has the racy lines, the deep body sides, and the low hung, road hugging appearance of the great European cars. There is nothing to mar the clear sides of the panels. The slanting windshield is built integral with the body. From the radiator all the way to the rear the lines are a continuous, graceful sweep. The deep, hair cushioned, long grain leather seats are set well down inside the deep body sides. The tonneau has luxurious amplitude of room for comfort even when the easy extra seats are in service. Top is of the permanent type, hand fitted, with inside lining of specially woven all wool cloth. The floor is heavily carpeted. Fittings and conveniences for short rides or for touring are complete in every detail.

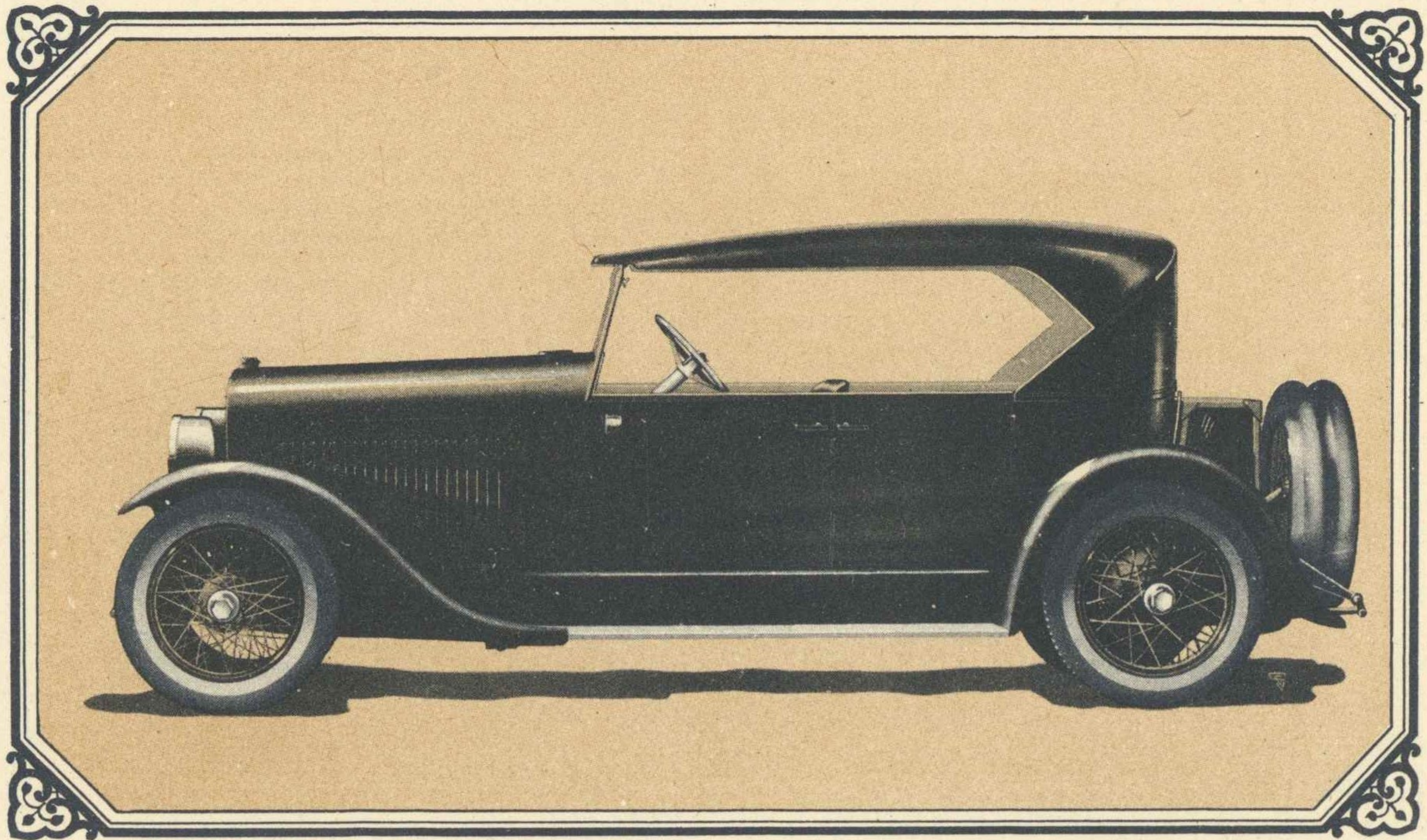
Body construction is on frames of selected hardwood, glued, screwed, braced, reinforced throughout with drop forged body irons so as to withstand the severest usage.

The National six seventy-one, though it may never be subjected to a harder test than being driven out to a country club, is the descendant of twenty generations of great racers. The test of a National touring body is to withstand being driven by its powerful engine at high speeds in any kind of weather over any kind of American roads, and this test the National bodies have always been made to stand.

It is the height of motoring enjoyment to ride in an National six seventy-one. Nothing is more delightful for the driver than to feel the power and responsiveness of the engine and the facility of the handling of the perfectly balanced car.



*Showing the spaciousness of the six seventy one seven passenger phaeton.*

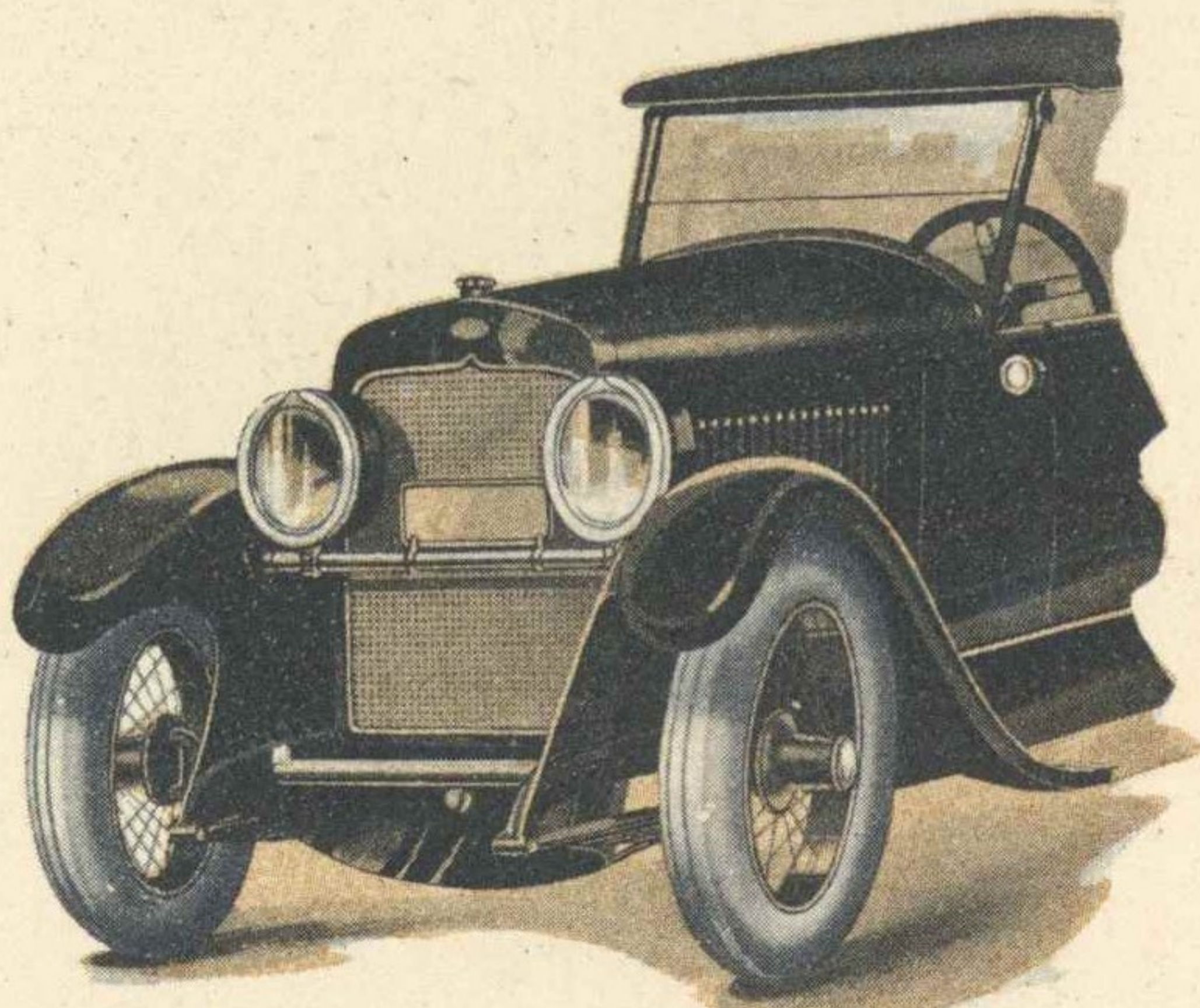


*The*  
**NATIONAL FOUR PASSENGER PHAETON**  
*Model Six Seventy One*

**T**HE four passenger phaeton designed by H. F. Holbrook for the National six seventy one chassis has a distance devouring effect of raciness and power, due to the cowl and bonnet occupying nearly half of the entire body length. This is one of the most attractive cars that have appeared in America. The body is distinctively custom style, with those individual touches of distinction which appeal to the connoisseur of fine automobiles.

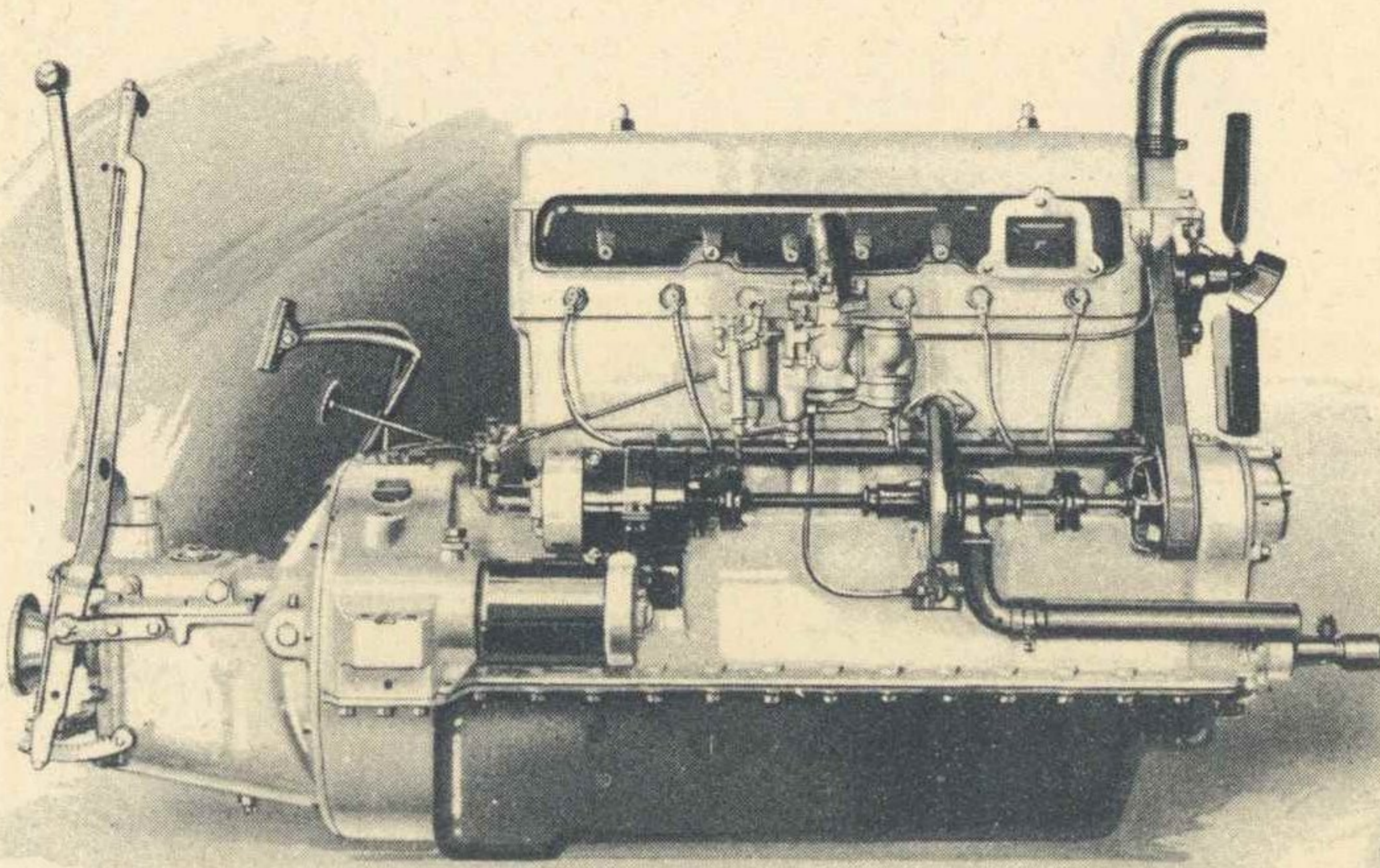
For the owner who does not require seats for more than four passengers this is the ideal type of open car, giving the maximum of individual accommodation with the minimum of body weight.

The four passenger phaeton has four extra large doors, a feature always greatly appreciated by women. The luxurious seats are placed well down inside the deep sides. The car hangs low, seeming to hug the ground, a result of the special National method of mounting the body to achieve a low center of gravity, at the same time retaining ample road clearance. The hand tailored top, handsome upholstery and convenient fittings of the interior give the car its completeness and personality. The luggage trunk holds two extra large traveling cases.



*Fleetness and power are expressed by the four passenger phaeton.*

The long, high powered four passenger phaeton is a type of car that is extremely impressive when it is mounted on a high class chassis. The National six seventy one four passenger phaeton is this ideal smart car, and wherever it is seen it will claim admiration.



*The left hand side of the National six seventy one motor is clean.*

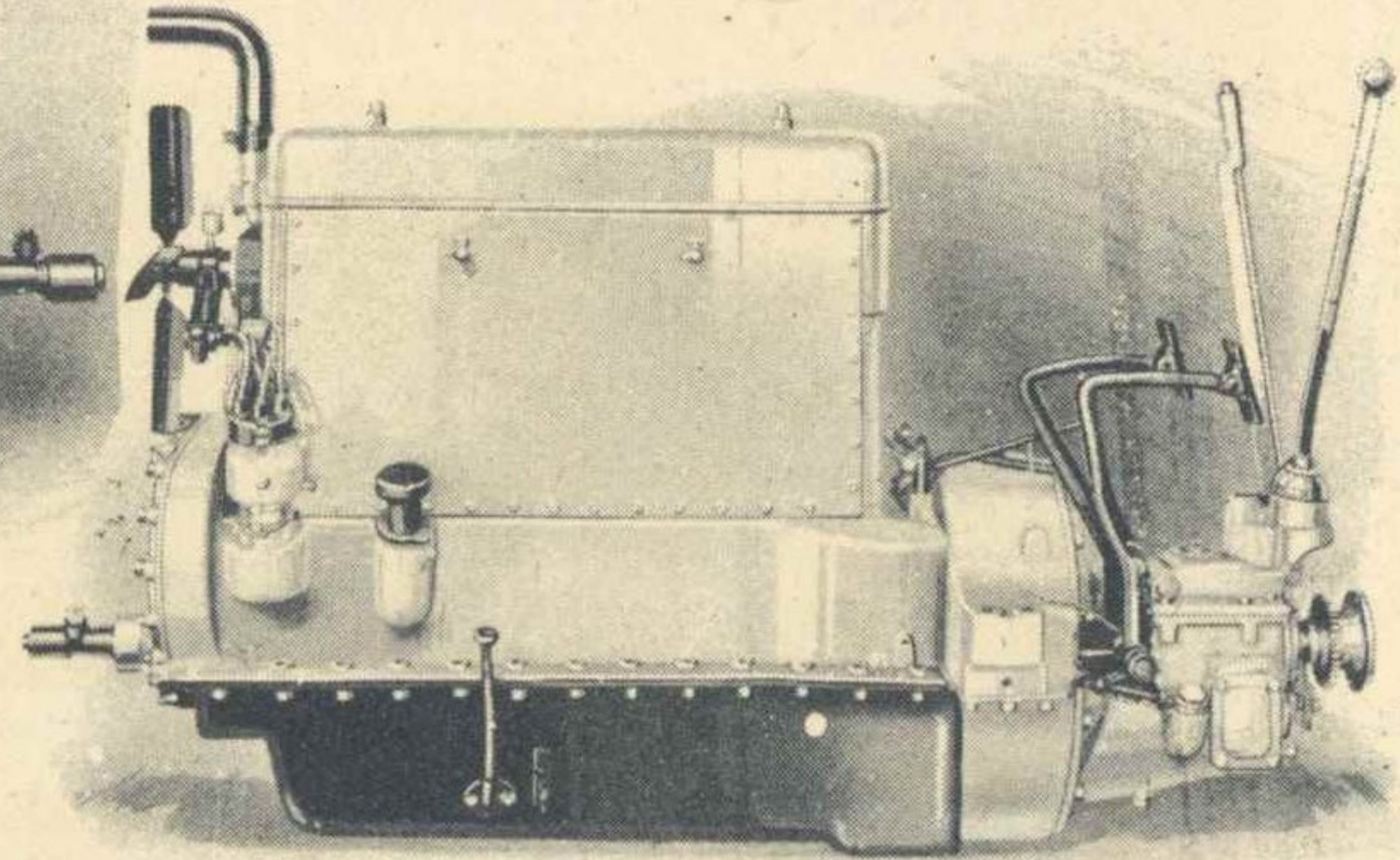
**T**HE National six seventy one engine is built complete in the National factory. It is the product of the same organization which built for the National automobile the first six cylinder engine made in America. Refined, perfected in every detail, it is one of the finest power plants in any automobile in the world. It is a high efficiency, improved overhead valve engine. A highly developed pre-heating system is designed especially for handling low grade fuel. With a bore and stroke of  $3\frac{1}{2}$  by  $5\frac{1}{4}$  inches the engine develops 71 horse power at 2600 revolutions a minute. Inertia loss has been overcome by the use of light weight reciprocating parts of the finest materials. Friction has been minimized by extreme accuracy in alignment and by an improved lubricating system that reaches every vital part of wear.

Among the refinements of the National six seventy one engine are extra large valves of warp proof alloy steel, insuring fresh clean charges and complete expulsion of burned gases; positive rocker arm lubrication eliminates wear and noise; push rods automatically lubricated and removable without use of tools or disturbing other parts of valve mechanism; extra large cam shaft bearings, insuring positive alignment and exact timing at all speeds.

The lubricating system of the National six seventy one engine provides constant flow of oil under pressure to every vital point. The oil is forced through the hollow crank shaft not only to

### *The NATIONAL Six Seventy One Engine*

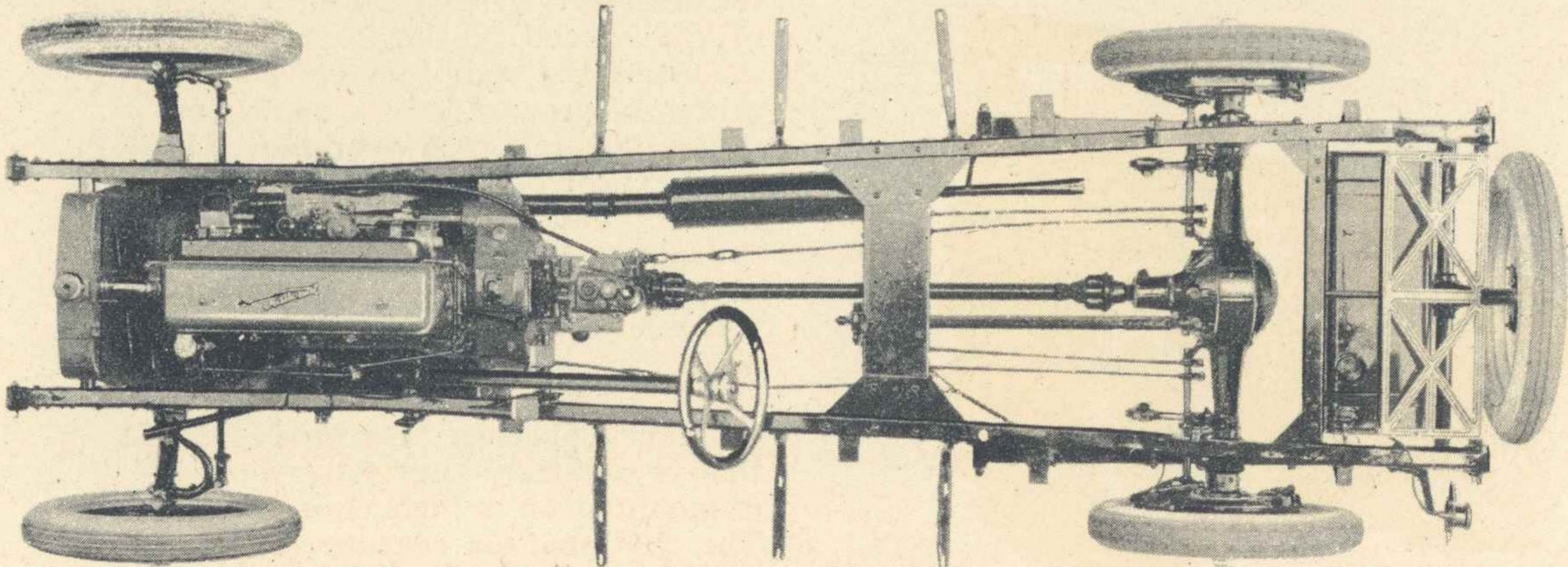
*All operating accessories are on the right hand side on the six seventy one motor. A motor light under the hood illuminates all working parts. In use the valve mechanism is protected by removable covers.*



all main and connecting rod bearings, to the cam shaft and to the accessory drive shaft but to the overhead rocker arm shafts as well. Channels in the crank shaft are large and carry such a large volume of oil that it assists in the dissipation of bearing heat as well as insuring efficient lubrication. The cylinders and minor parts of the valve mechanism are lubricated by the oil mist thrown off by the spinning crankshaft held in by oil tight housings.

The National motor, as a result of extreme care in design and of certain lessons learned from racing, is practically free from period of vibration at any usable engine speed. Perfection of finish of the National motor and the fineness of the materials used make possible the preservation of its original high efficiency over a long period of years.

The frame of the National six seventy one is cold pressed steel of deep channel section, extra strong, tapering at the front to give a short turning radius. Coincident with the designing of the special Holbrook bodies the frame has been strengthened by the addition of tubular cross members, front and rear, which give torsional rigidity and also provide support for new gasoline tank and tire rack. A heavy inverted channel is used for both torque arm and brake shaft support. The National chassis frame and driving mechanism are the result of more than twenty years of unbroken development. Their strength is far in excess of any call that may be made upon it.



## SUMMARIZED SPECIFICATIONS

of the

# NATIONAL SIX SEVENTY ONE

Bodies of all models designed by H. F. Holbrook and built under his personal supervision. Hood and radiator design is of the high, narrow type in a modern, distinctive style. The body lines are stream line with smooth, unbroken side panels. The cars are hung low, with spirited, road hugging effect but with ample road clearance for American driving conditions.

### ENGINE

National six seventy one, built complete in National factory, six cylinder, high efficiency, improved overhead valve construction, designed especially for handling low grade fuel. Bore and stroke  $3\frac{1}{2}$ " by  $5\frac{1}{4}$ ", develops 71 actual horsepower at 2600 R. P. M., due to advanced method of handling fuel, use of light weight reciprocating parts of highest grade material reducing inertia losses, extreme accuracy in alignment of parts and improved lubricating system. S. A. E. rating, 29.4 H. P.

### CYLINDERS

Semi-steel, cast en bloc with detachable head.

### VALVES

Special warp proof steel alloy with extra large opening. Valve mechanism completely enclosed by dust tight and sound proof aluminum dome, readily removed.

### LUBRICATION

Improved system. Gear oil pump in crank case forces oil through hollow crankshaft to every vital part.

### COOLING

Positive pressure system with centrifugal pump and hexagon cellular radiator, individual tubes of which are easily removable.

### IGNITION

Delco system, driven from cam shaft by spiral gear.

### CARBURETION

Rayfield, with water jacketed bowl and electrically heated primer.

### INTAKE MANIFOLD

Integral with cylinder head, water jacketed so as to be entirely surrounded by heat. External elbow connecting with carburetor combined with exhaust so as to give hot spot at point of entry of gas into intake system.

### FUEL FEED

Stewart vacuum system, largest size tank mounted on reverse side of dash under hood

### STARTING AND LIGHTING

Westinghouse system, with separate generator and starting motor.

### CLUTCH

Single plate dry disk type, 12-inch diameter, soft and positive engagement.

### WHEELBASE

130 inches.

### TRANSMISSION

Unit with engine, selective type, three speeds forward and one reverse. Nickel steel gears running in oil. Main shaft mounted on Timken roller bearings; countershaft on large ball bearings.

### REAR AXLE

Full floating with one piece pressed steel housing, reducing unsprung weight and materially improving riding qualities. Noiseless spiral bevel gears run in oil on taper roller bearings. Axle shafts splined, strongest construction known.

### LAMPS

Specially designed, combination of drum type and conventional pattern, fitted with non-glare lenses and securely bracketed to cross bar by new clamp giving easy adjustment in all directions. Separate auxiliary lamps mounted on body sides for city driving.

### TIRE CARRIER

Built integral with the chassis frame to carry one extra tire. Additional tire bracket easily attached to carry a second tire.

### BRAKES

Mounted on rear wheels with extra large drums, insuring unusual factor of safety. Equalizer on brake shaft provides for equal brake pressure on each side with the internal brakes.

### GASOLINE TANK

Mounted at rear of frame with filler opening at right. Emergency reservoir gives  $1\frac{1}{2}$  extra gallons when main tank is empty.

### COWL VENTILATOR

Extra large, lever type.

### UPHOLSTERY

Non-sag cushion springs of finely tempered steel with cushions of genuine curled hair. Open models upholstered with long grain black leather. Closed models upholstered with specially woven all wool fine upholstery fabrics.

### CONTROLS

Transmission levers and emergency brake lever extra long, centrally located and easily reached without change of posture.

### FRONT AXLE

One piece I beam drop forging with taper roller bearings and nickel steel steering knuckles fitted with ball thrust bearings of hardened steel.

### DRIVE SHAFT

Tubular construction with two large, internally lubricated, universal joints. Drive through springs, with triangular torsion member to take up twisting strain, a distinctive National feature.

## NATIONAL MOTORS CORPORATION

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PHILADELPHIA, PA.

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