

THE Packard three-ton truck is the result of five years' development. It justifies its name. A separate book devoted to this truck may be obtained by request.

# PACKARD "EIGHTEEN" 1909

THE TOWN CAR



PACKARD MOTOR CAR COMPANY  
DETROIT, MICHIGAN

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PACKARD MOTOR CAR COMPANY

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DETROIT

## PACKARD "EIGHTEEN" 1909

PACKARD "Eighteen" is a town car, of exactly the same design, construction and general excellence as the well-known Packard "Thirty," but having smaller proportions to render it an extremely convenient, easily-handled, light car for all kinds of city and suburban driving. It is built entirely in the Packard shops, which cover twelve acres of floor space, employ over 2,500 men and constitute the largest exclusive motor car factory in the world.

Like Packard "Thirty," the foundation of Packard "Eighteen" is a standard chassis, adapted to several different bodies suiting various individual requirements. It may be obtained as a limousine or landaulet, as an open car and as a runabout. Also other bodies will be supplied on special order. In each form its mechanical efficiency is equaled by the stylish appearance and elegant, luxurious appointment which a modern town car should have.

Packard "Eighteen" is proportioned throughout to provide that same relation of weight to power and of one part to another which has made Packard "Thirty" famous for its facility of operation and its reliability in continuous service. There is but one kind of Packard car. Packard "Eighteen" is that kind.

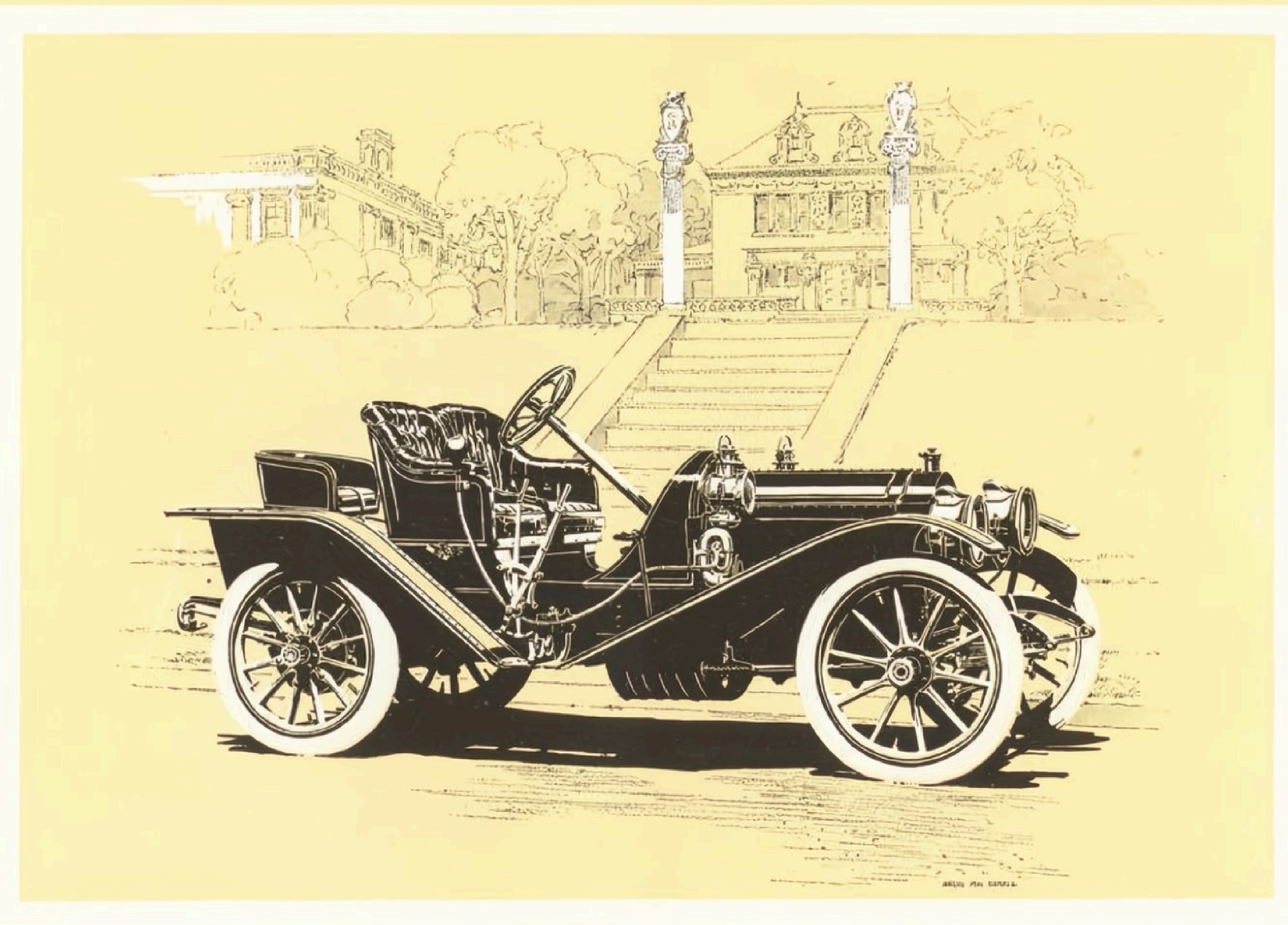
## THE PACKARD "EIGHTEEN" LIMOUSINE

This is a light limousine of moderate, convenient size, providing not only great comfort and exceptional elegance, but also the full measure of Packard efficiency. It is supplied with the full front roof illustrated or with the half roof shown on the landaulet on page eleven.



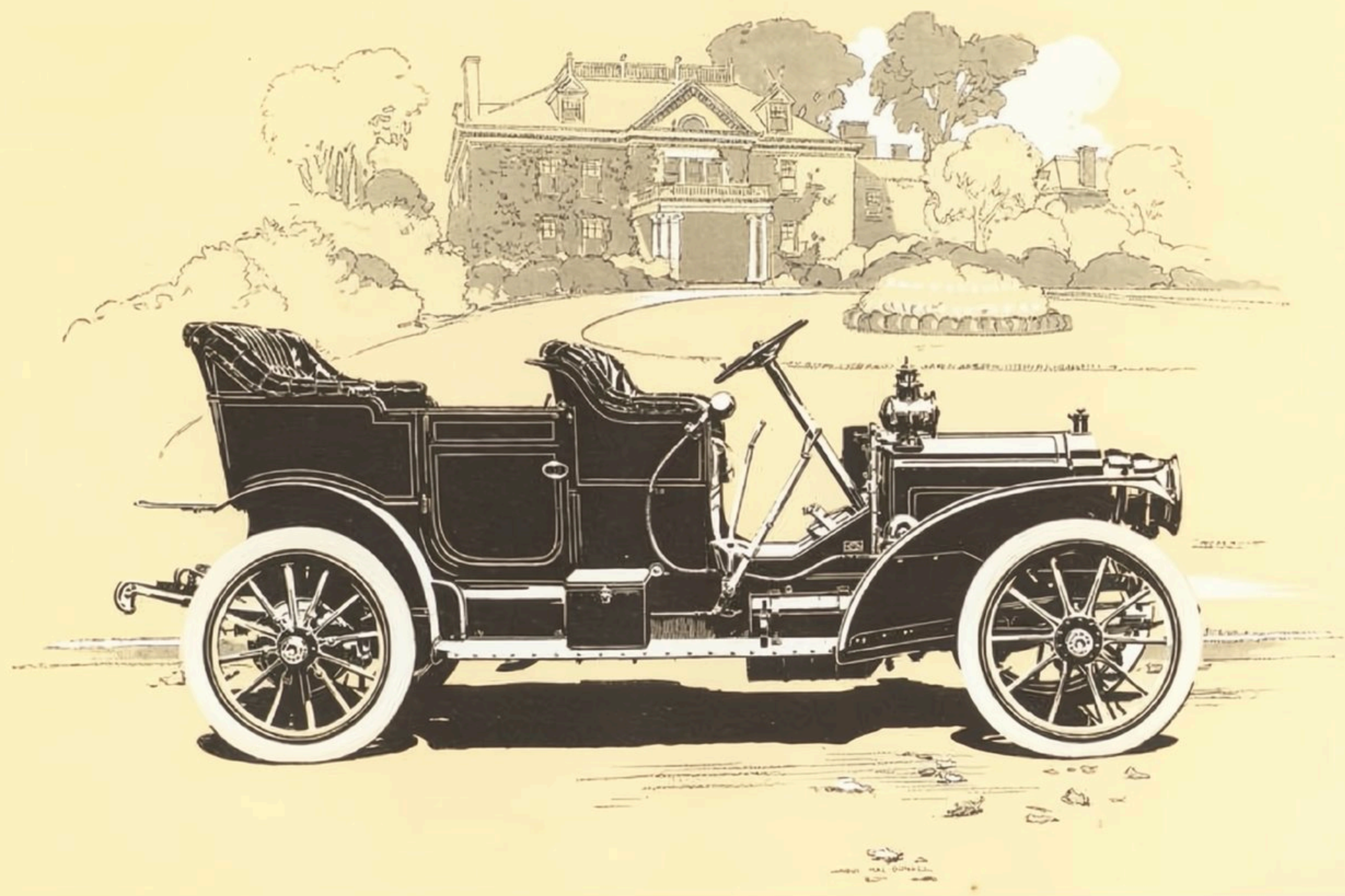
## THE PACKARD "EIGHTEEN" RUNABOUT

For either men or women to use in city or suburban driving, the Packard "Eighteen" runabout is especially desirable, not only because it is a smart, modish car, but because, being a Packard, it has Packard quality. It may be equipped with a Victoria top in any of several materials.



## THE PACKARD "EIGHTEEN" OPEN CAR

Here is a motor car whose qualities adapt it to the many requirements of general town and suburban service under varying conditions, and whose splendid appearance and refinement of design commend it to people of discriminating taste.



## THE PACKARD "EIGHTEEN" LANDAULET

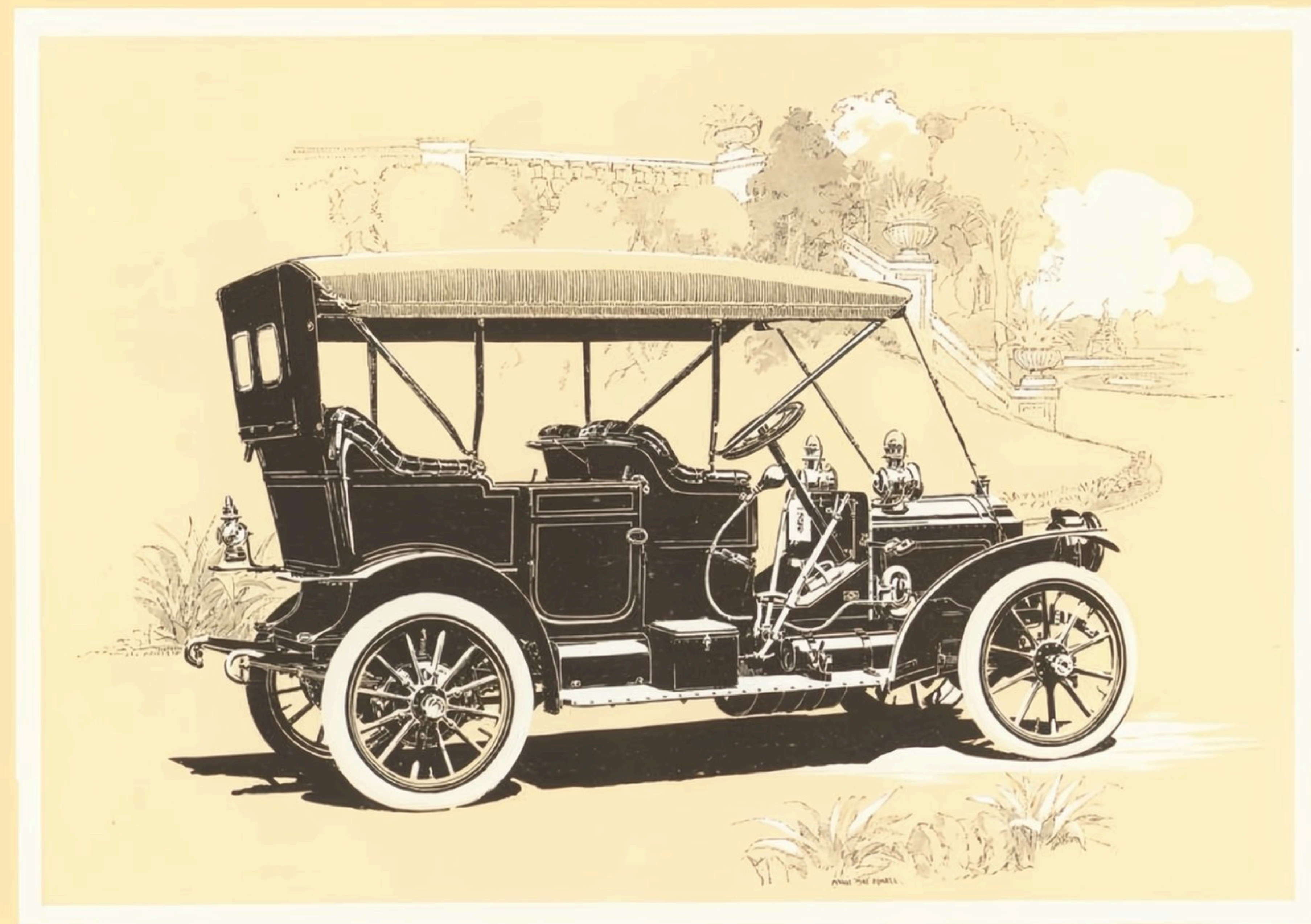
For those who wish a luxurious motor carriage of the landaulet pattern, the Packard "Eighteen," by its stylish lines and de luxe appointment, will satisfy even the most fastidious. It is made with the half front roof illustrated, or with the full roof shown on the limousine on page five.



## THE PACKARD "EIGHTEEN" OPEN CAR

### WITH EXTENSION CAPE CART TOP

The open car may be obtained with several desirable folding tops, all of standard Packard design and manufacture. These include the Packard Special extension cape cart top illustrated, the same in other materials and a leather Victoria top.





## DESCRIBING PACKARD "EIGHTEEN" 1909

**MOTOR** Four-cylinder, vertical, water cooled;  $4\frac{1}{8}$ -inch bore by  $5\frac{1}{8}$ -inch stroke; 18 horsepower by European rating.

**CYLINDERS** Cast in pairs, with water jackets and valve chambers integral. Castings for cylinders, exhaust manifolds, pistons and piston ring blanks made in France from especially adapted gray iron. Pistons ground and fitted with four ground rings. Cylinders, pistons and rings lapped together with polishing agent to obtain perfect fit.

**CRANK SHAFT** Noted for extreme accuracy due to special manufacturing and inspection methods. All bearing surfaces ground. Runs on three large bearings, bushed with Parsons White Brass. Connecting rods are drop forgings. Crank pin bearings bushed with Parsons White Brass and piston pins with Packard Special bronze.

**VALVES** Inlet and exhaust valves on opposite sides of cylinders; all mechanically operated and interchangeable. Cam shafts enclosed within motor crank case; fully protected from dirt and certain of lubrication. New system of cam shaft drive gears insures long life and silent running. All cam shaft, as well as magneto and water pump gears contained in separate but integrally-cast oil-tight extension of crank case.

**CRANK CASE** Cast of special aluminum alloy in three horizontal sections. Uppermost section forms engine base and is supported directly on side members of main frame of car. On each side between the transverse supporting arms is a horizontal, integrally-cast web entirely enclosing space between motor and frame, thus affording complete protection to motor, magneto and other parts. Crank shaft bearings held between uppermost and middle sections. Extreme rigidity of main bearings obtained by massive webs. Bottom section is an oil well, easily removable for inspection or adjustment of connecting rods, cam shafts, etc., without disturbing crank shaft bearings. The crank case is divided into front and rear compartments by central partition which supports middle crank shaft bearing.

**CARBURETOR** Special Packard design and construction; float-feed, aspirating nozzle type, with automatic auxiliary air inlet. Cylindrical and vertical mixing chamber has aspirating nozzle in lower portion and butterfly throttle above, to control quantity but not quality of mixture. Auxiliary air inlet is a poppet valve under control of adjustable coil spring and automatic

ally governs intake of air to keep mixture at correct proportion for all engine speeds. Spring tension to suit different atmospheric conditions is regulated by small lever on dashboard. Carburetor is kept at uniform temperature by warm water circulating through a jacket surrounding mixing chamber. For starting in cold weather there is provided a primary air intake shut-off.

**MOTOR COOLING** Water circulation is positive by means of gear-driven centrifugal pump. A special feature of this pump is its hydraulic pressure lubricated thrust bearing. Radiator is of cellular type, combined with tank. Forced draft to increase cooling efficiency obtained by belt-driven ball bearing fan adjustably mounted on the forward cylinder.

**IGNITION** Jump spark; current obtained from imported Eismann low-tension magneto, mounted on left side of motor bed and direct gear-driven by enclosed gears. Fulmen imported storage battery, for starting motor from seat, is always in reserve. Transformer coil for magneto current and vibrator coil for battery current arranged as unit in box on dashboard, with single hand lock-switch between. Commutator for battery primary current on vertical shaft at rear of motor and driven from cam shaft by enclosed bevel gears. The distributor, high-tension wires and spark plugs are common to both magneto and battery systems. Universally jointed knife switches.

**LUBRICATION** By splash, from crank case to cylinders and all motor bearings. Oil pumped separately to front and rear compartments of crank case, in each of which is maintained an independent level of oil. Double plunger oil pump, with adjustable strokes, accessibly located at left of motor and driven by worm on exhaust valve cam shaft. Oil is pumped from a vertical copper reservoir close to and between the pairs of cylinders, so that oil will be warm and kept in fluid, easily flowing condition even in coldest weather. Two drip sight feeds on dashboard. Crank case drain cocks have anti-clogging devices.

**MOTOR CONTROL** Motor speed regulated by an effective and easily controlled hydraulic governor incorporated in water circulating system and acting directly on butterfly throttle. A pedal cuts the governor out of action for instantaneous acceleration and high speed running. The throttle also is under control of hand lever on steering wheel. Another lever on steering wheel advances and retards spark.

**CLUTCH** Packard type internal-expanding clutch, which insures gradual engagement. Expanding ring within the fly-wheel rim actuated by adjustable screw-and-nut device.

**TRANSMISSION** Propeller shaft, connecting clutch with transmission gear, has effectively encased universal joints at each end. The speed changing set, bevel gear final drive and differential gear are contained within a rigid aluminum housing forming a rear axle unit. The housing is internally ribbed and is provided with inspection holes. The differential gear unit is supported by its own bearings so that the live rear axle may be withdrawn without disturbing the gears. Three forward speeds and reverse are obtained by sliding gears, third speed forward being direct drive. Gear shifting is easily and progressively accomplished as the actuating slide rod is annularly grooved to correspond with spring-retained spacing dogs, which determine correct positions of gear engagement. The single speed-change lever gives the reverse by a lateral movement. All gears in the transmission, final drive, differential and the rear axle, run on imported annular ball bearings.

**BRAKES** Four brakes, all acting on rear wheel brake drums. External contracting brakes operated by pedal for regular use; internal-expanding brakes operated by emergency hand lever. A drum disc entirely encloses and protects each internal brake. This system obviates brakes on the transmission.

**STEERING** Large hand wheel, with worm-and-sector gear. Worm and sector forged integrally with respective shafts. Large, rigid steering column. Steering spindles and jaw type yokes are drop forgings. Steering connecting rod between hand wheel gear and steering knuckles, is placed above front axle to minimize jar on the hands. Steering knuckles have imported ball thrust bearings. All steering connections have grease cups and steering rod universal joints are encased.

**RUNNING GEAR** Channel section, pressed steel; arched above rear axle to provide increased spring action without raising body. Top and bottom flanges of side bars have integral gussets for reception of cross members. All rivet and bolt holes are drilled in full length jigs.

**SPRINGS** Four wide, semi-elliptical; front, 40 inches long; rear, 50 inches long.

**AXLES** Front axle, steel tubing of large diameter and heavy gauge. Stationary sleeves of rear axle are steel tubes pressed into and riveted within flanged collars bolted to differential housing.

**WHEEL BASE** 112 inches; tread,  $56\frac{1}{2}$  inches.

**TIRES** Front and rear, 34 by 4 inches.

**TANKS** Copper gasoline tank under front seat; reserve gasoline supply contained in main tank and available by means of convenient gasoline valve. Total capacity 18 gallons. Capacity of water circulating system,  $4\frac{1}{2}$  gallons. Capacity of copper oil tank,  $2\frac{1}{2}$  quarts.

**BODY** Capacity of standard open body, five persons. Body made of sheet aluminum panels over wood frame work. Seats upholstered in black hand-buffed leather, over curled hair and with spiral spring support throughout. Tonneau provided with brass foot rail, coat rail and pockets for goggles, maps, etc.

**BONNET** Aluminum, opening from either side and readily removable; secured by hand latches.

**FENDERS** Aluminum. Front fenders easily detachable and provided with integral aprons preventing mud and water from splashing between fenders and car. Metal apron between frame and running board on both sides.

**STANDARD FINISH** Entire body, bonnet and frame, Packard blue, with black moldings and fine cream yellow striping. Wheels, axles, springs and other running gear parts below frame, cream yellow, striped with Packard blue.

**STANDARD EQUIPMENT** Two Packard Special gas headlights; gas tank; two side oil lamps; one rear oil lamp; horn, tube and bulb; complete set of tools; front and rear storm aprons; irons for extension cape cart top; tire repair outfit, including jack and pump; irons for carrying one extra tire.

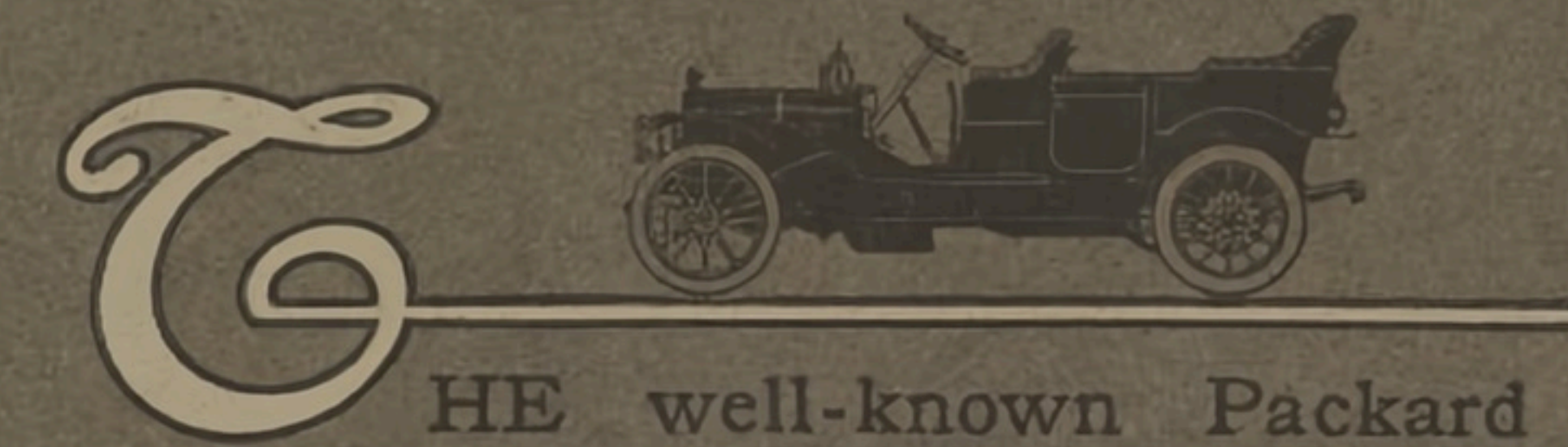
**RUNABOUT** Wheel base 102 inches, instead of 112 inches. Motor and driver's seat farther back on frame than in open car to properly distribute weight. Steering post has greater rake. Divided front seat lower. Gasoline tank is on rear of frame. Gasoline feed by simple automatic pressure system. Rumble seat above gasoline tank. Standard tire equipment, 34 by  $3\frac{1}{2}$  front and 34 by 4 rear. Irons for carrying two extra tires.

**OTHER BODIES** The limousine and landaulet bodies are fitted to the standard chassis.

## PACKARD "EIGHTEEN" 1909 PRICE LIST

	PRICE		PRICE
Packard "Eighteen" '09 Open Car, in Standard Finish and Equipment . . . . .	\$3,200.00	Packard '09 Material, Extension Cape Cart Top, with Side Curtains, Storm Front and Envelope, attached . . . . .	\$165.00
Packard "Eighteen" '09 Runabout, in Standard Finish and Equipment . . . . .	3,200.00	Pantasote Extension Cape Cart Top, with Side Curtains, Storm Front and Envelope, attached . . . . .	135.00
Packard "Eighteen" '09 Standard Chassis, in Priming Coat and Standard Equipment . . . . .	2,900.00	Packard Special Victoria Runabout Top, on Shifting Rail, with Storm Front and Envelope, attached . . . . .	150.00
Packard "Eighteen" '09 Runabout Chassis, in Priming Coat and Standard Equipment . . . . .	3,000.00	Packard '09 Material, Victoria Runabout Top, on Shifting Rail, with Storm Front and Envelope, attached . . . . .	150.00
Limousine Body, in Standard Finish and Equipment . . . . .	1,400.00	Pantasote Victoria Runabout Top, on Shifting Rail, with Storm Front and Envelope, attached . . . . .	130.00
Limousine Body, with Half Roof . . . . .	1,350.00	Packard Adjustable Wind Shield, attached . . . . .	65.00
Landaulet Body, in Standard Finish and Equipment . . . . .	1,500.00	Packard '09 Material Seat Covers, for Open Car . . . . .	67.50
Landaulet Body, with Half Roof . . . . .	1,450.00	Packard '09 Material Seat Covers, for Runabout . . . . .	32.50
Open Body, in Standard Finish and Equipment . . . . .	600.00	Painting Special Colors, Body and Gear . . . . .	50.00
Runabout Body, in Standard Finish and Equipment . . . . .	400.00	Upholstering Special Colors, Open Car . . . . .	25.00
Leather Victoria Open Car Top, on Shifting Rail, attached . . . . .	290.00	Upholstering Special Colors, Runabout . . . . .	10.00
Packard Special Extension Cape Cart Top, with Side Curtains, Storm Front and Envelope, attached . . . . .	165.00		

Packard dealers will furnish prices on all other special features and equipment.



THE well-known Packard "Thirty" as a touring car, a runabout, a limousine, a landaulet and with close-coupled and other bodies is described in a separate book which may be obtained by request.

