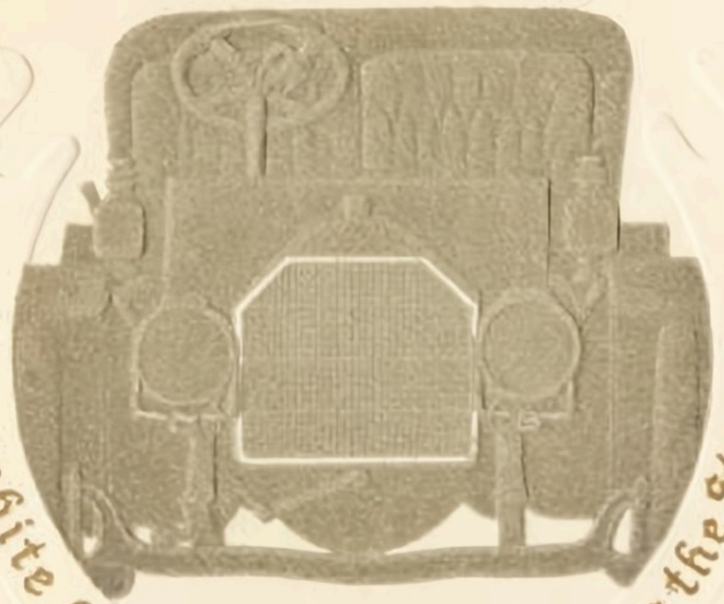
# Stearns




## MOTOR CARS

THE F. B. STEARNS CO.

Licensed under Selden Patent

CLEVELAND, OHIO

# STEARNS MOTOR CARS

## THE F. B. STEARNS COMPANY

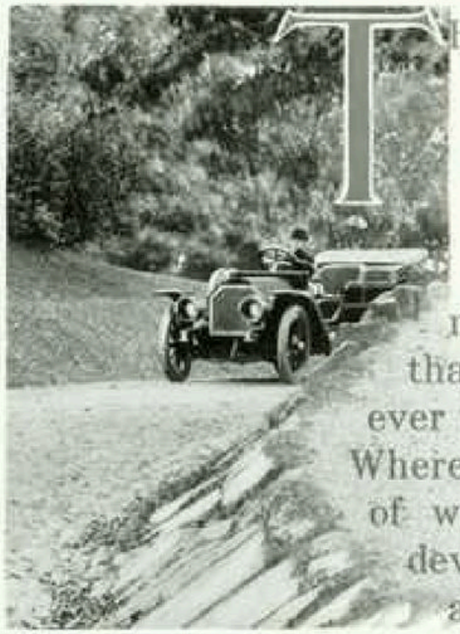
CLEVELAND, OHIO, U. S. A.

Member Association of Licensed Automobile Manufacturers
Licensed under Selden Patent

## THREE CHASSIS TYPES

15-30 H. P. . . . . Shaft Drive
30-60 H. P., Shaft or Chain Drive
45-90 H. P. . . . . Chain Drive

# THE ULTIMATE CAR—THE STEARNS



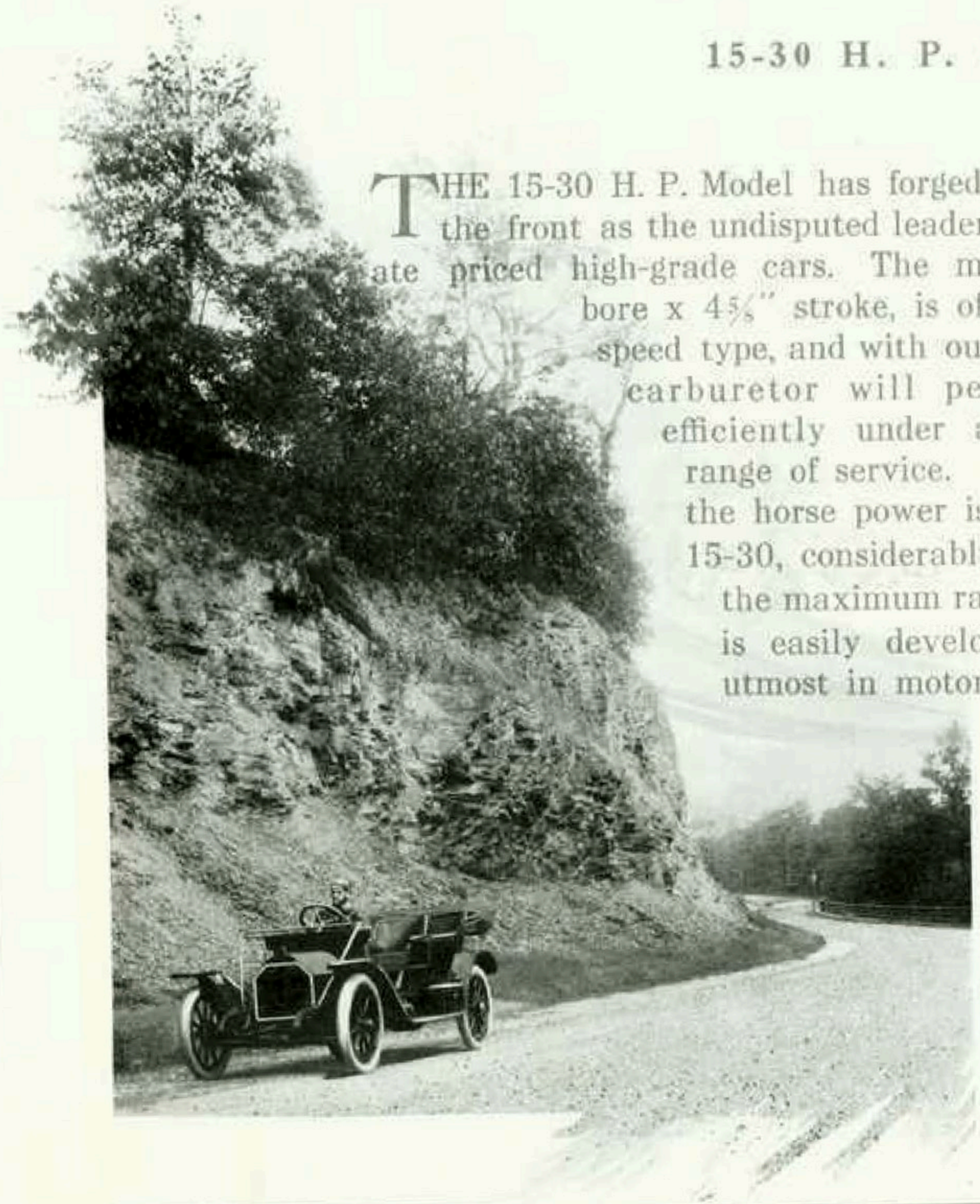
THE Stearns Motor Car has been built and marketed since 1896. It has been developed only along the lines of the accepted type of Motor Car design. Temptations to bring out experiments at the expense of the buying public have always been disregarded. By thus concentrating our efforts we have produced a car which has led all automobile practice.

Although $40,000 a year is spent by our experimental department, the main object is to ascertain what *not* to incorporate in the car. The result is that no Stearns model has ever been withdrawn from the market, nor has it ever been necessary to change any essential part of the design.

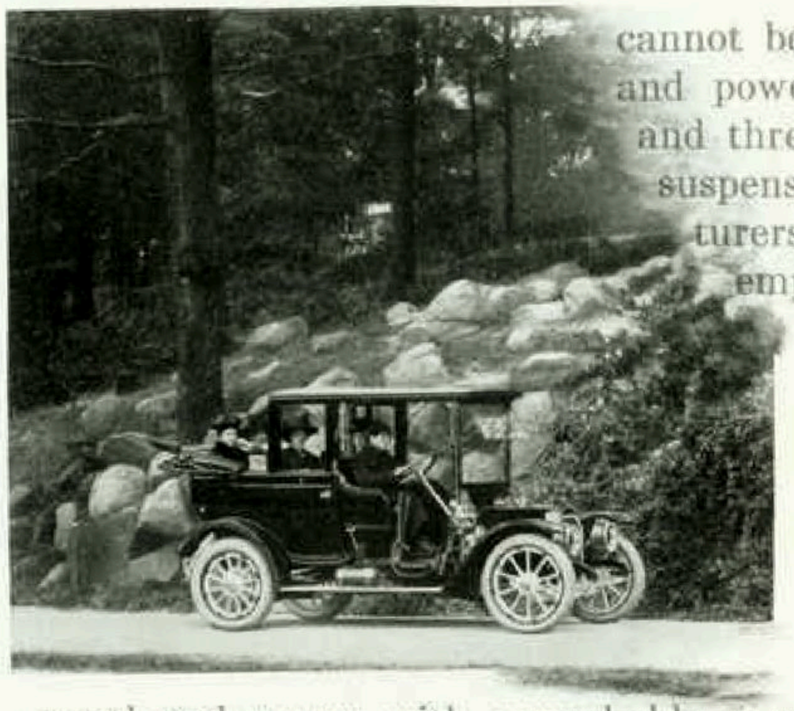
Wherever possible, unnecessary parts have been eliminated, providing a minimum of weight commensurate with the power developed. The finest materials obtainable, combined with correct design, have enabled our engineers to produce a car as near perfection as possible. Proper mechanical balance and an even distribution of weight have resulted in a car easy on tires, yet possessing that stamina so necessary to the ideal motor car.

There is little need to dwell upon the speed and power of the Stearns. So proverbial are they among discerning buyers that the very name is a guarantee. Sturdy as a car can be made, a surpassing hill-climber, accomplishing its work silently and easily, with long life and reliability foremost—these qualities have made possible *the ultimate car—the Stearns.*

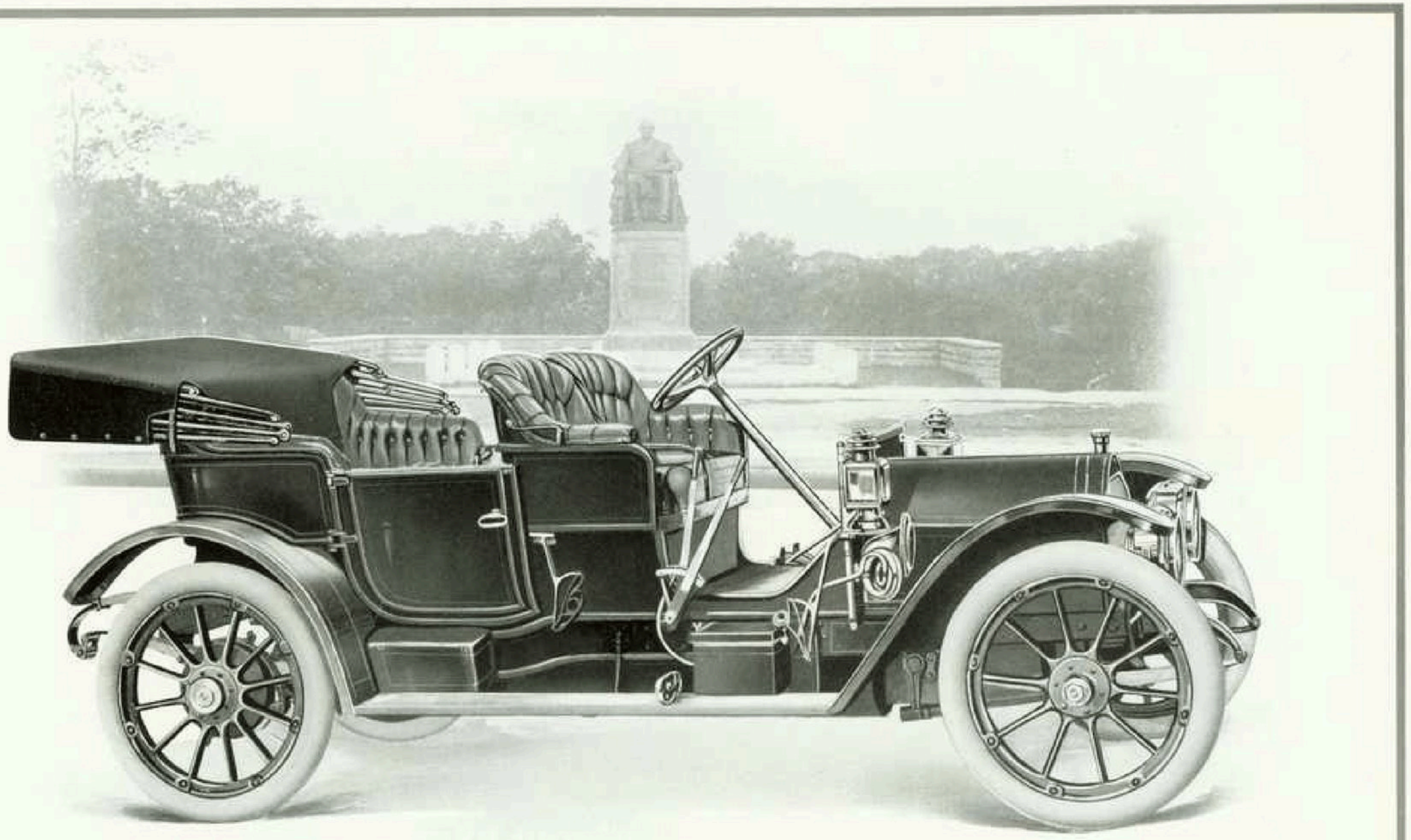
## 15-30 H. P. MODEL



THE 15-30 H. P. Model has forged rapidly to the front as the undisputed leader of moderate priced high-grade cars. The motor, 4½" bore x 4⅝" stroke, is of the high-speed type, and with our double carburetor will perform efficiently under a wide range of service. Although the horse power is given as 15-30, considerably more than the maximum rated power is easily developed. Many owners, intent upon securing the utmost in motor car construction, yet not desiring the wonderful power of our larger car, have gladly turned to the 15-30 model. In every quality—power, speed, silence, flexibility and ease of control, this car is the proportionate equal of our larger models. Capable of extreme speed, yet throttling down on high gear until barely moving, the car is found willing and able to meet every demand. Its worth as a hill climber, and ability to negotiate rough and tortuous roads

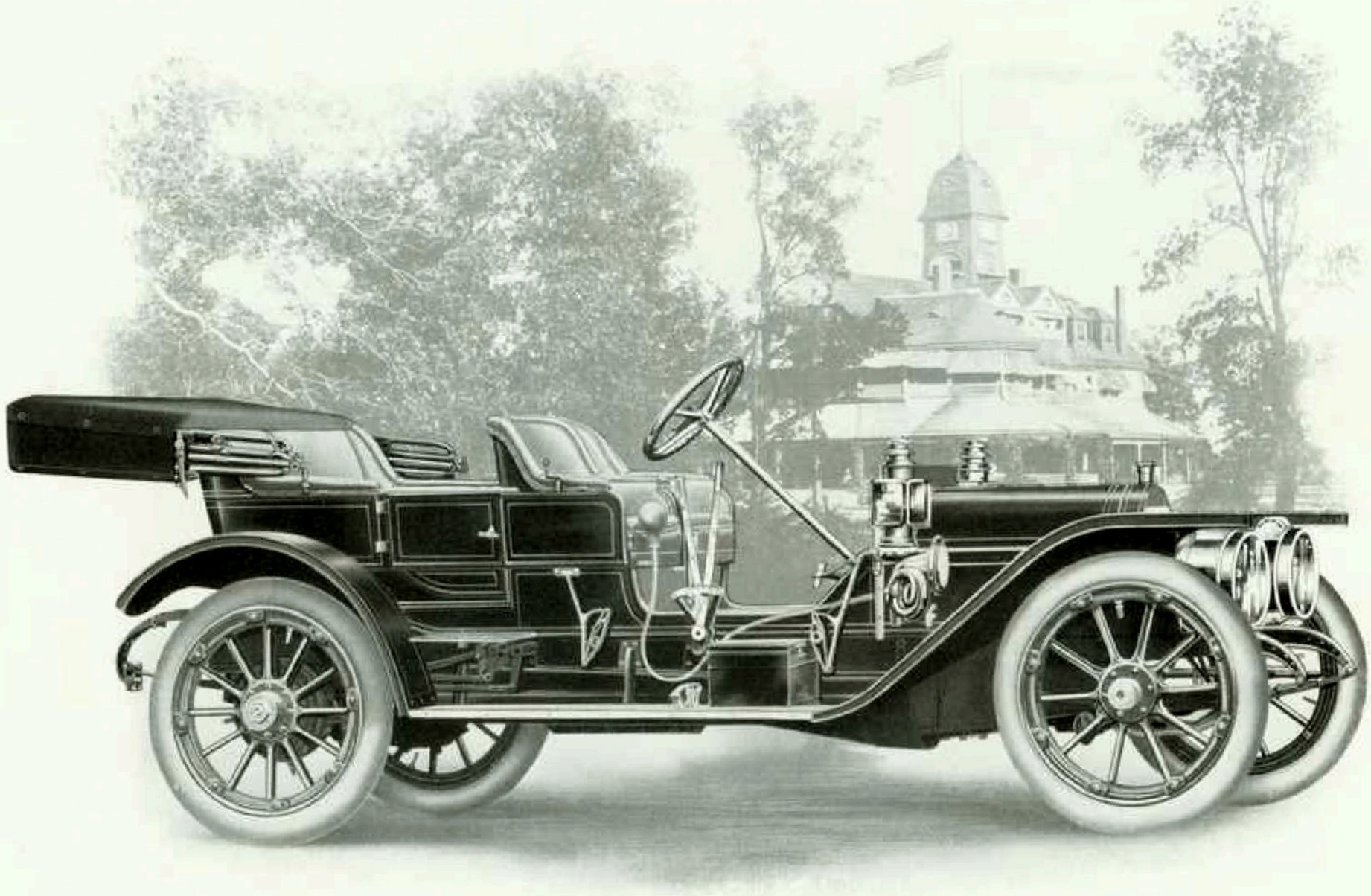


cannot be bettered. These qualities prove the correct balance of weight and power. The spring suspension is of the semi-elliptic type in front and three-quarter elliptic in the rear. The success of this type of rear suspension is rapidly leading to its adoption by many other manufacturers. It is particularly well adapted to the drop frame construction employed on this model. The design of the rear end of the car, together with the dropped frame, permits mounting bodies of ample size with exceedingly low hung doors. The advantage of the latter feature is particularly noticeable in service where one gets in and out frequently. The frame design is altered slightly in the Toy Tonneau model, other bodies not fitting this chassis. So well suited is the 15-30 to all purposes that it is built as a five-passenger Touring Car, two or four-passenger Toy Tonneau Runabout and Limousine and Landaulet. Its speed and power, with remarkably easy riding qualities, make it ideal for country work either as a standard touring car or in the runabout type. With closed bodies it presents all the comforts, ease and luxury that can be furnished by the most modern body builders, yet at considerable lesser cost than the high powered closed cars. The small distance necessary to turn this car permits an ease of handling in city traffic heretofore unknown in cars of this size. Combined with the wonderful flexibility of the motor and ease in operation of the multiple disc clutch, manoeuvering in crowded streets is rendered exceedingly simple. These qualities are also used advantageously in touring. A car of this type—quick to respond—enables one to cover the bad stretches of road at a faster pace than is ordinarily advisable with a machine of great power.



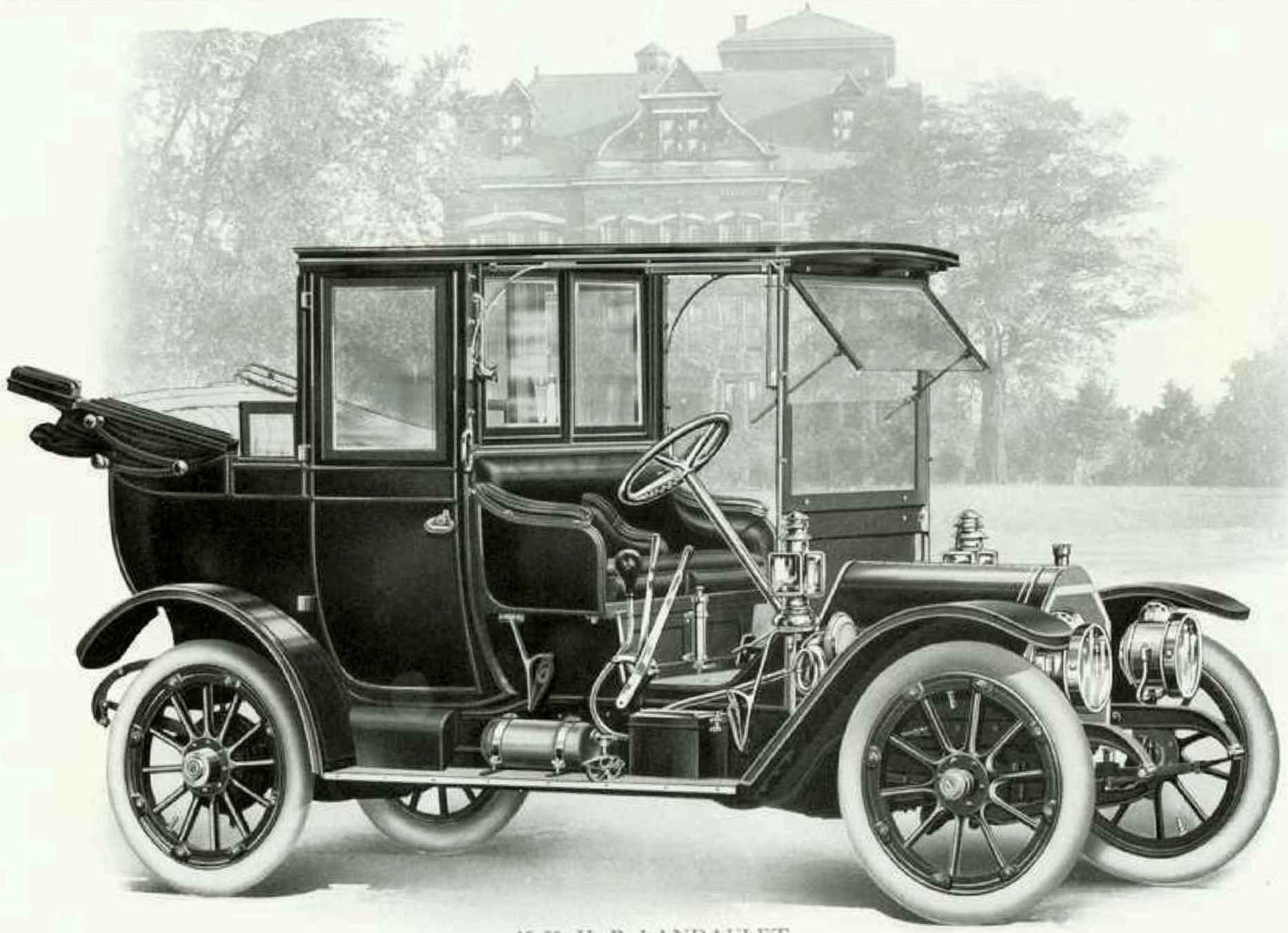
15-30 H. P. FIVE-PASSENGER TOURING CAR

A roomy, stylish model with graceful and pleasing lines.
Easily accommodates five people.



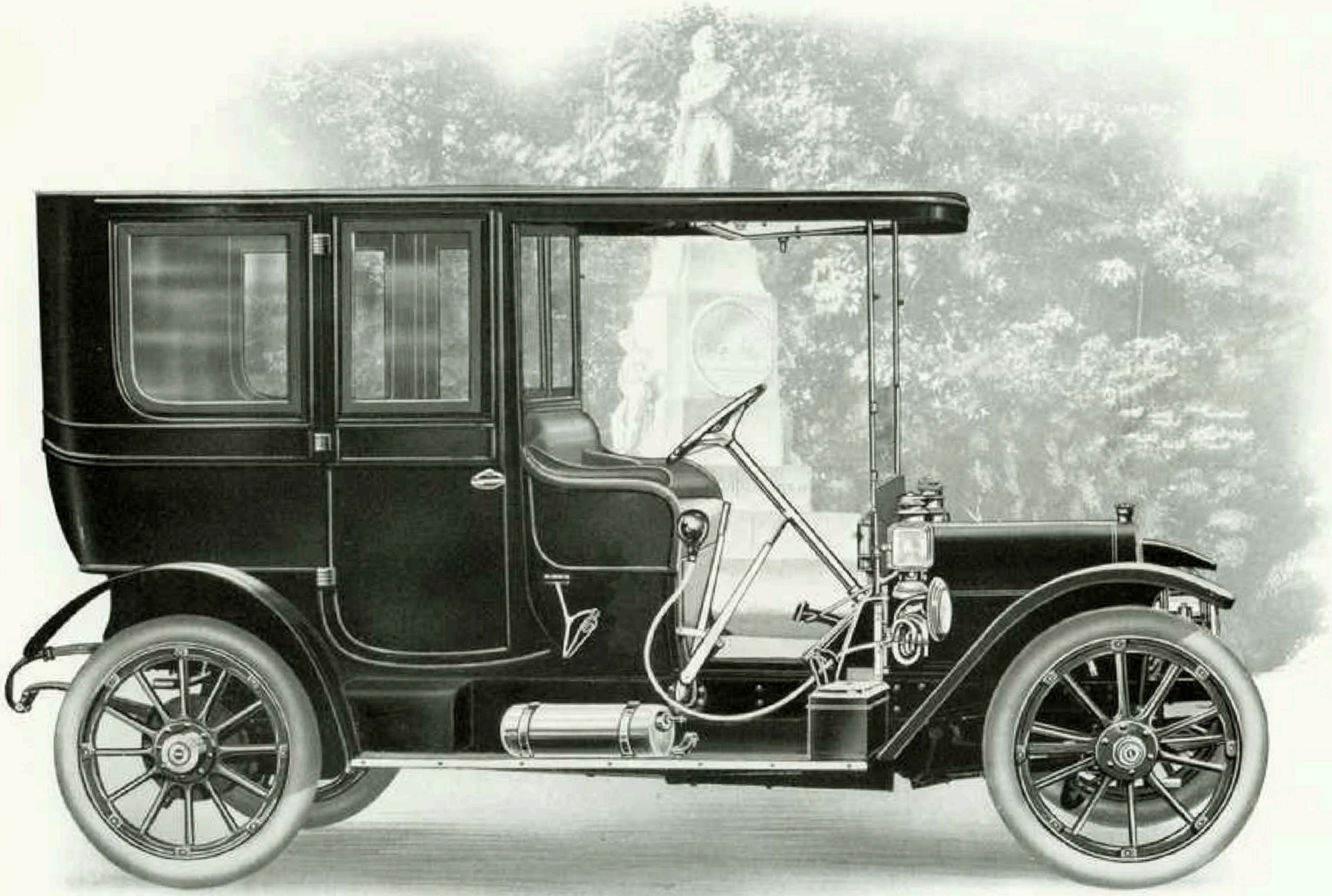
15-30 H. P. FOUR-PASSENGER TOY TONNEAU

A very popular car for light touring or runabout use.
Tonneau easily detachable.



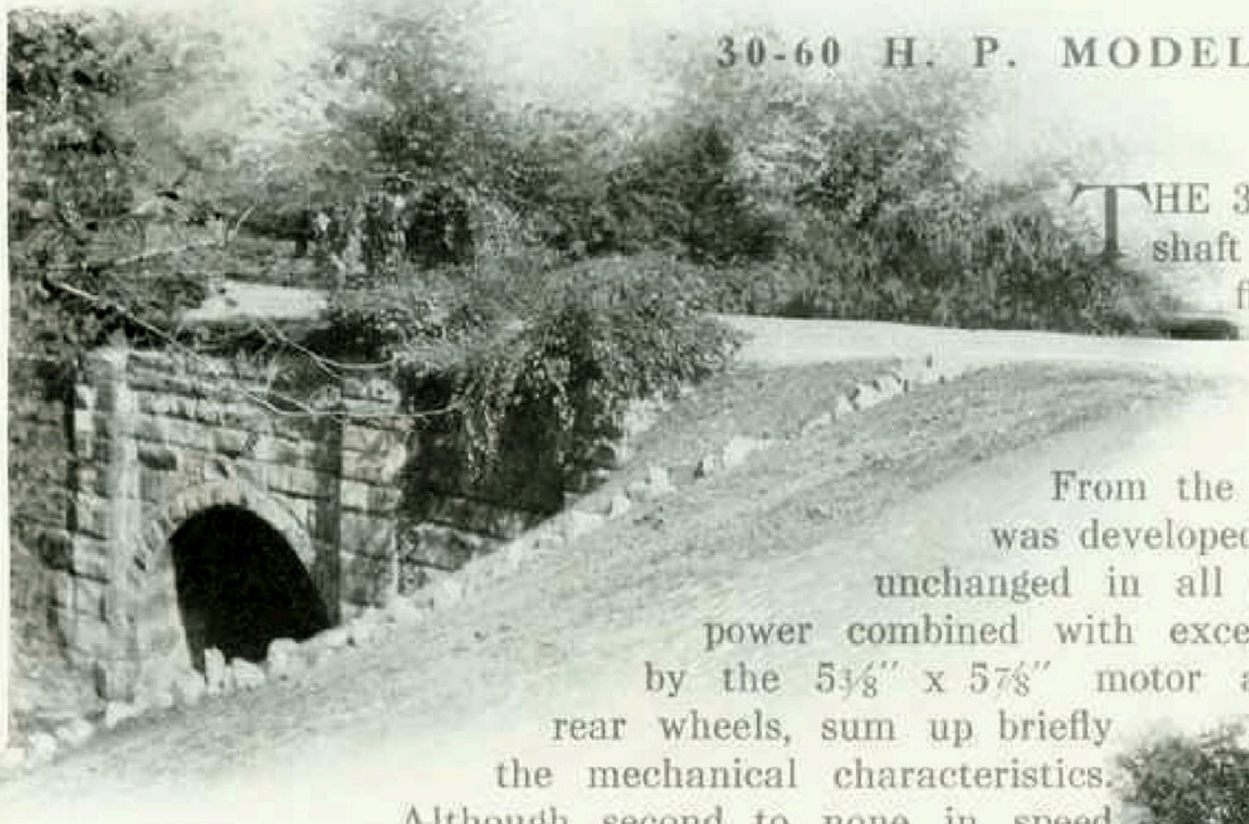
15-30 H. P. LANDAULET

Suitable for fair and stormy weather. Richly finished in Broadcloth or Whipcord.



**15-30 H. P. LIMOUSINE**

Luxuriously appointed throughout, providing every convenience. Finished in Broadcloth or Whipcord.



## 30-60 H. P. MODEL

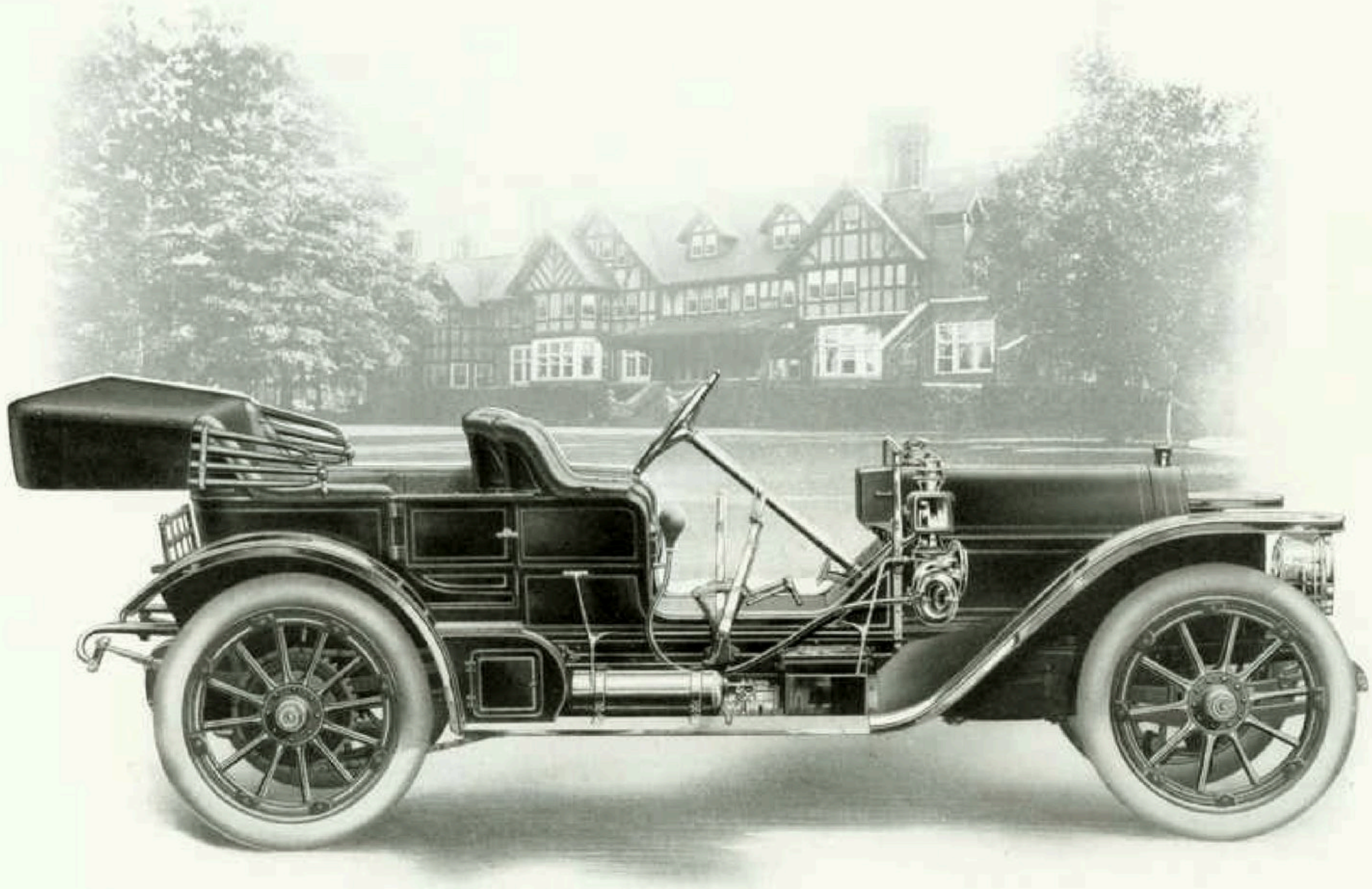
THE 30-60 H. P. models, furnished in either shaft or side chain drive, have become so firmly intrenched in public favor that a few words suffice for a complete description of their sterling qualities. Our cars are consistent. From the time the standard four-cylinder type was developed, the 30-60 has remained practically unchanged in all essential details. An abundance of power combined with exceptional flexibility, quietly developed by the 5⅜″ x 5⅞″ motor and as silently transmitted to the rear wheels, sum up briefly the mechanical characteristics. Although second to none in speed and hill-climbing ability—attested by the triumphs of owners in all parts of the country—many other excellent qualities appreciated by the discriminating are noticeable. The smooth-running motor and four-speed transmission, with the dry multiple disc clutch, render operation extremely simple. Correct suspension, and springs sufficiently long and flexible to smooth out the road, give pronounced easy riding qualities, rendering

country touring as great a pleasure as boulevard driving. All springs are of the semi-elliptic type of a special grade of Vanadium steel, and practically unbreakable. This spring design permits a minimum amount of side-sway without sacrifice of flexibility, and in a car capable of extremely high speed is absolutely essential.

Thirty-six-inch wheels, with four-inch tires in front and either four and one-half or five in the rear are provided, Continental Demountable Rims being standard equipment. When two sizes of tires are specified, two extra rims are furnished.

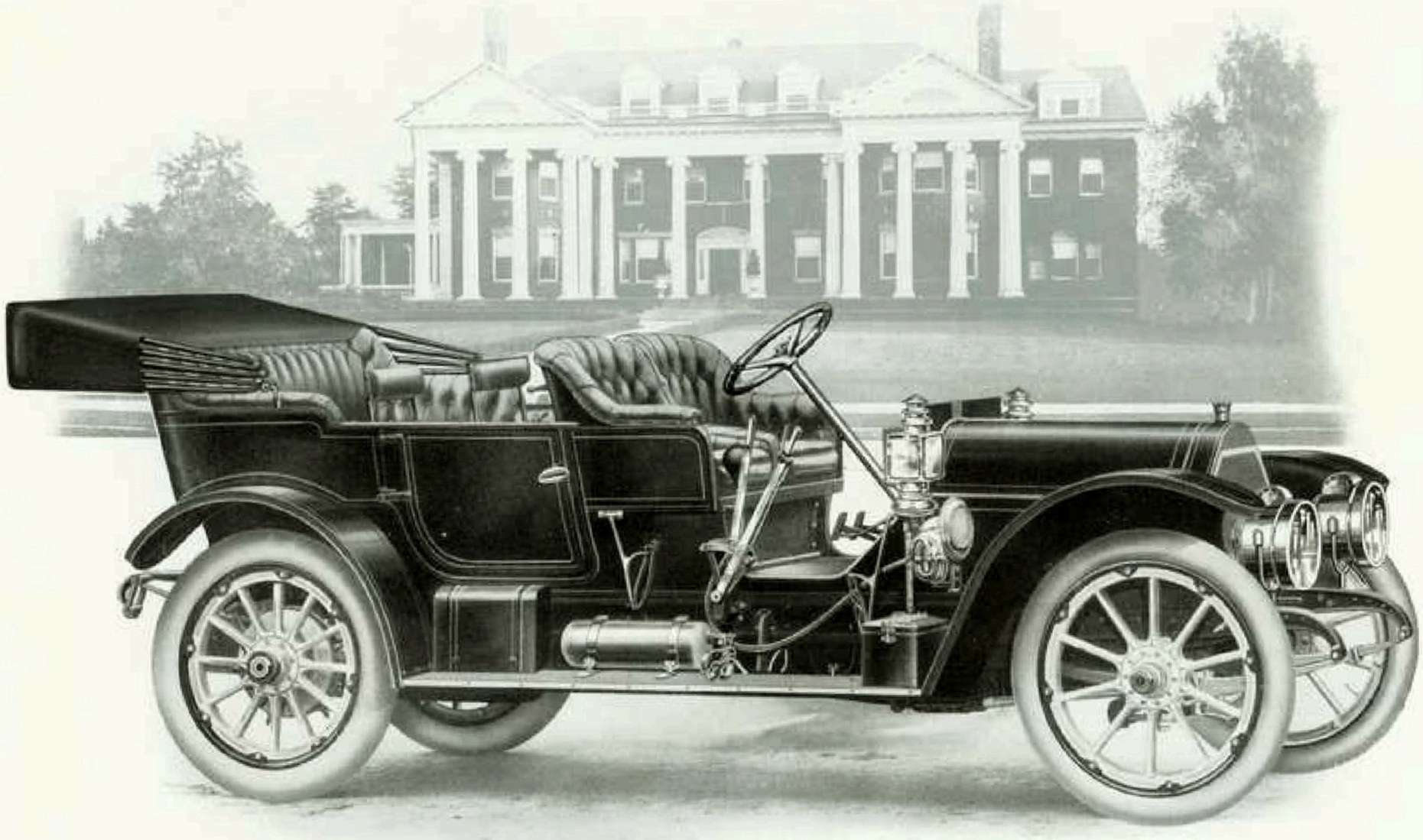
All body types—seven-passenger Touring, two or four-seated Toy Tonneau Runabout, and Limousine and Landaulet—are mounted on the 30-60 H. P. chassis, either shaft or chain drive being furnished. In every case the entire car is in pleasing harmony with the mechanical perfection of the chassis.

The four-passenger Toy Tonneau Runabout may be easily and quickly converted into a two-passenger Roadster by the removal of the tonneau. A chauffeur's seat may also be placed on the left running board of either the 15-30 or 30-60, thus providing a two, three, four or five-passenger car on a few moments' notice. This feature is one that has become very popular because of its convenience and adaptability.



30-60 H. P. FOUR-PASSENGER TOY TONNEAU

Comfort combined with high speed ability. Design original with us. Shaft or chain drive.

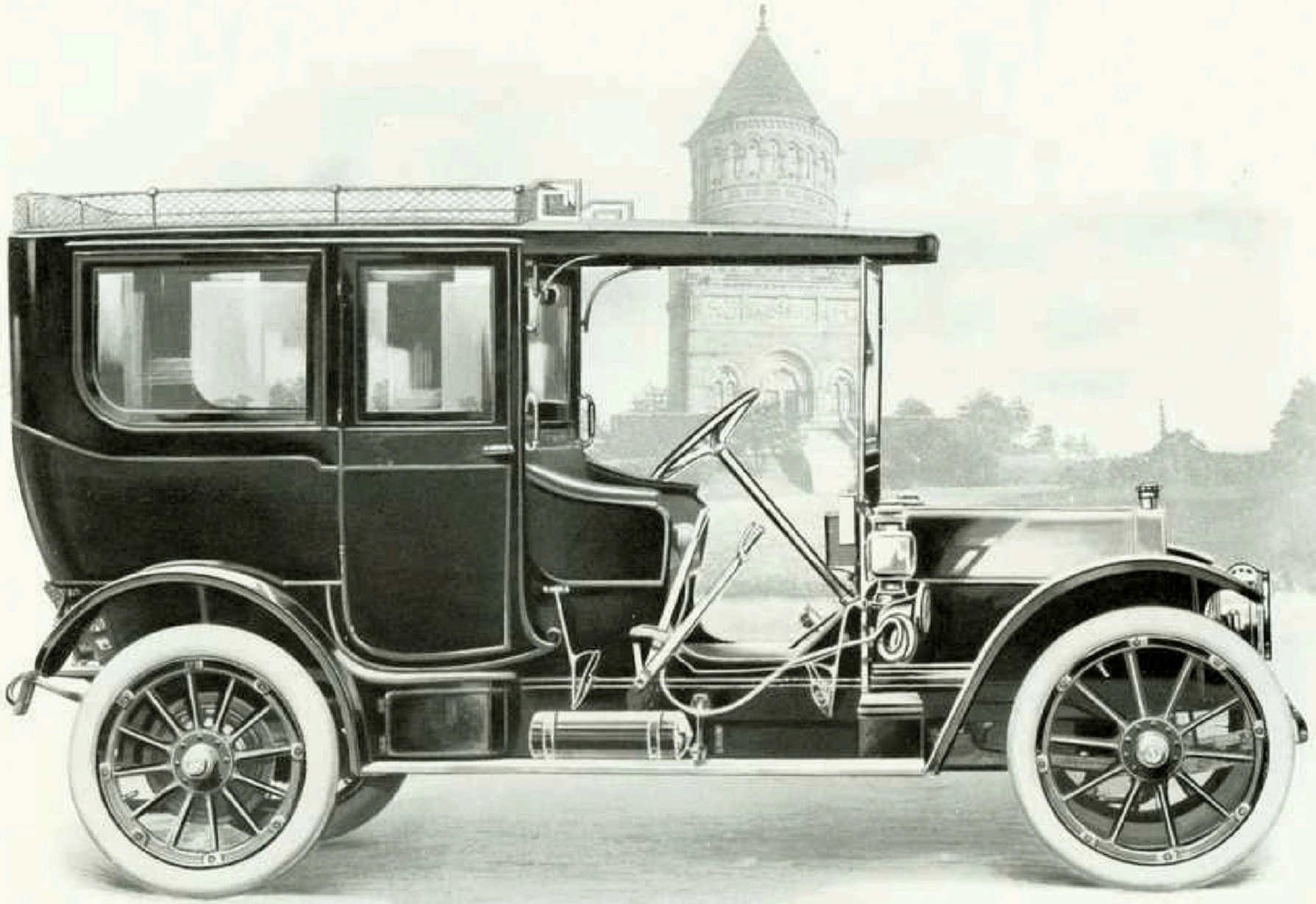


30-60 H. P. SEVEN-PASSENGER TOURING CAR

Standard type of touring car. Removable tonneau seats.
Either shaft or chain drive.

**30-60 H. P. LANDAULET**

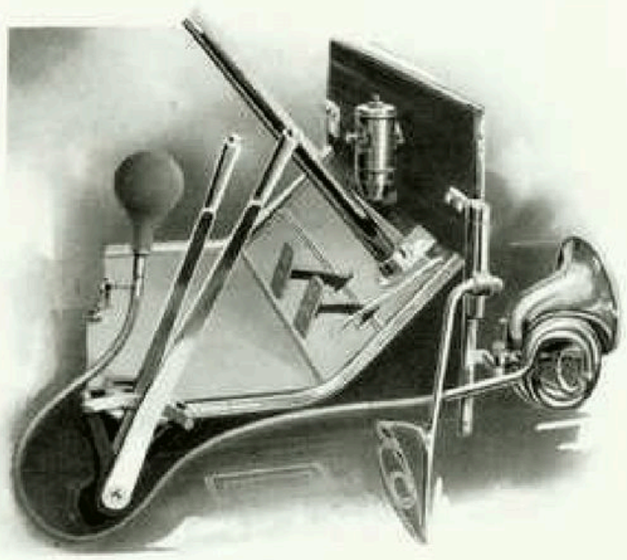
Suitable for all kinds of weather. Refined to the minutest detail. Shaft or chain drive.



30-60 H. P. LIMOUSINE

Luxuriously comfortable. Richly appointed in Broadcloth or Whipcord. Shaft or chain drive.

# MECHANICAL DESCRIPTION 15-30 H. P. MODEL



Dash of 15-30

THE same mechanical perfection that has placed the Stearns where it stands today is noticeable in the production of our 15-30 H. P. model, now in its second year before the public. The small car is of the same design and construction as the larger Stearns, with two noticeable exceptions, viz., the *bloc* construction of the cylinders and the location of the transmission at the rear axle. Casting cylinders *en bloc* for motors of this power has long been recognized the best possible design, the Stearns being one of the first American cars to adopt this construction, now commonly employed by many manufacturers both here and abroad. Among many distinct advantages gained are maximum water jacketing and simplification of the water, carburetor and exhaust piping of the engine. The increased compactness of the power plant noticeably shortens the hood, and without excessive wheel base permits ample room on the chassis for the most comfortable body design.

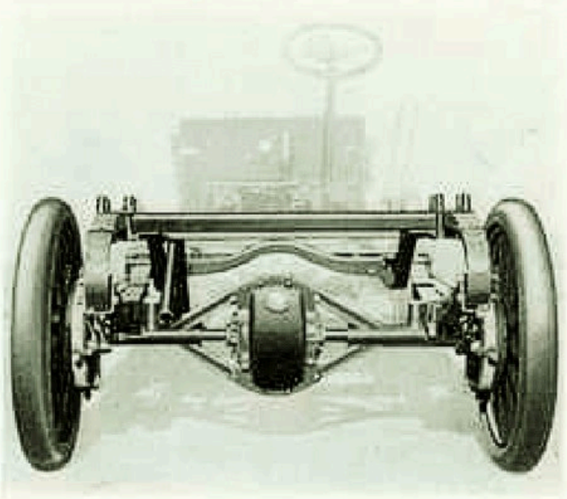
*Rear Axle Design.* The transmission has been placed at the rear axle, and illustrates again the manner in which simplified construction has developed correct design for this type of car. The design employed combines a cast case for enclosing the transmission and differential gears with a solid one-piece forged steel axle having an open truss-like center portion, spanning and supporting this case. The ends of the forging are bored through the center to take the driving shafts, and are turned to mount the wheel bearings. The wheels are driven by floating shafts extending from jaw clutches on the outer ends of the hubs through the axle, to squared connections in the differential gears. The axle forging takes all strains from the wheels and permits no road shocks to affect the driving mechanism.

A torsion tube extends from the forward end of the transmission case to a pivoted yoke mounted on a cross member of the frame. This encloses the propeller shaft and its one universal joint and serves both as a torsion and radius rod.

Turns in a 35-foot Circle

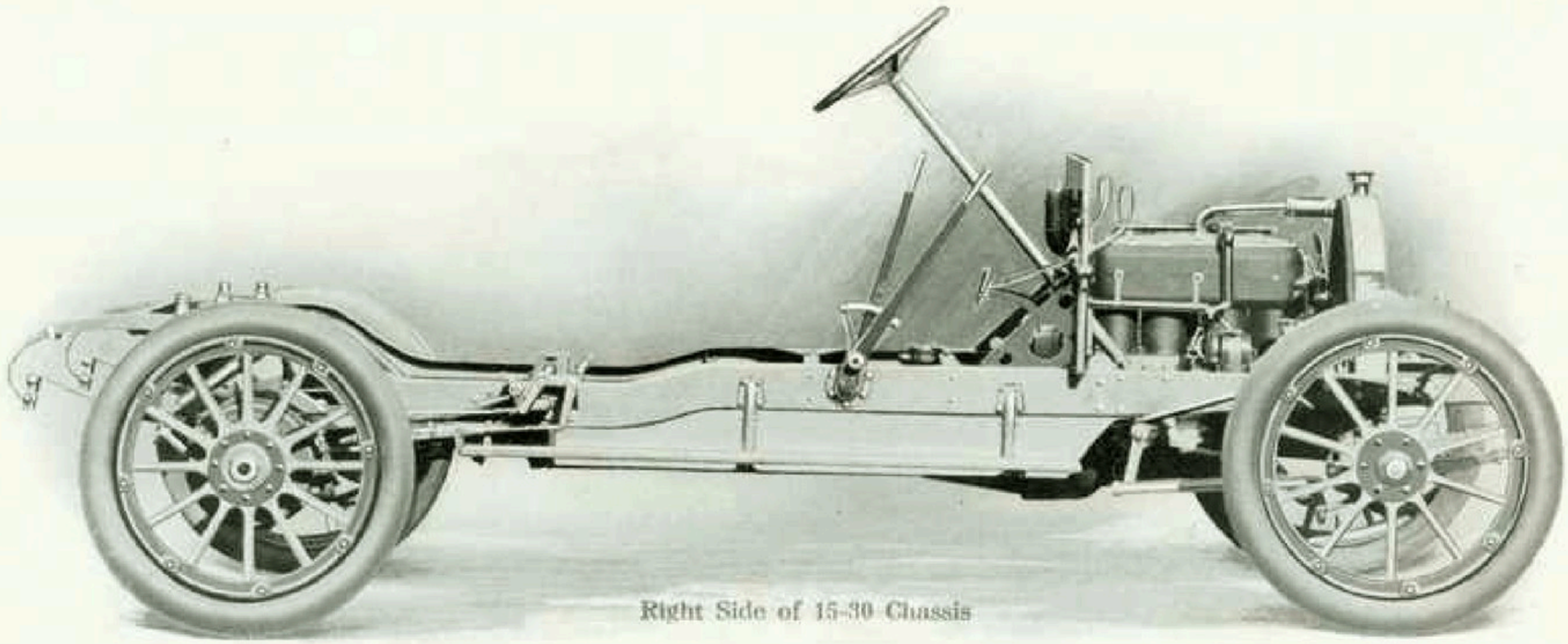
This original design gives a solidity that cannot be bettered, and should not be confused with the *combined* transmission and axle construction found in many cars of this size, where a number of castings and steel tubes are assembled, and dependence for strength placed in riveted, brazed or welded joints. Our construction is equaled for strength and rigidity only by the solid axles of chain driven cars.

*Motor.* The motor is 4½" bore x 4⅝" stroke, ball bearing throughout, valves all on the left side, and differs from the larger Stearns motor only in relative size of parts and in the method of casting the cylinders. Lubrication is by the constant circulation system now in general use, the reservoir on the bottom of the crank case supplying oil to a gear-driven pump. The pump discharges the oil on the connecting rods and it is drained through screens back into the reservoir and again passes to the pump; the system is simple but highly effective.

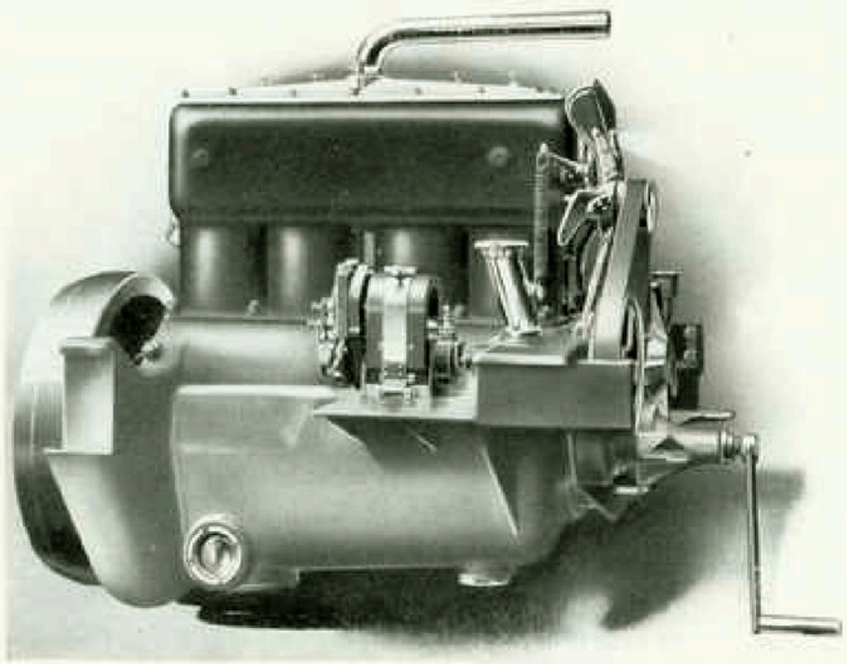


Rear Axle Construction of 15-30

*Carburetor.* The carburetor is of the same type which has been so successful in previous years. It consists of practically two carburetors fed from the same float chamber and actuated by the same throttle lever. The relative sizes of air and gasoline passages in these two parts permit a correct and economical proportioning of the mixture for the power required, developing up to fifteen horse power on the smaller and up to the maximum on the larger. This carburetor accounts in part for the noted smooth running, flexibility and power of the motor. Gasoline is carried in an eighteen-gallon tank under the seat.



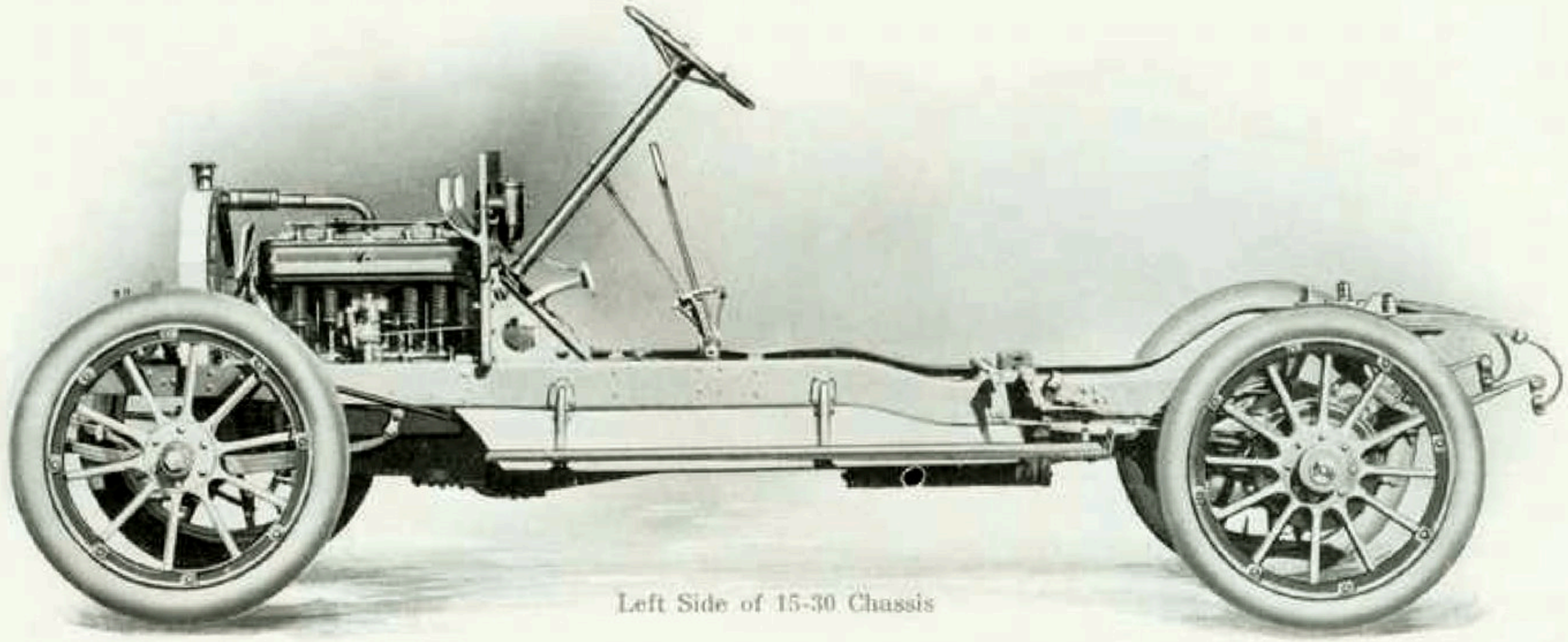
Right Side of 15-30 Chassis



*Ignition.* The ignition is by the Bosch-Dual system, consisting of an arrangement of high tension magneto and single vibrator coil, whereby with a single set of spark plugs a double system of ignition is obtained.

*Clutch.* The clutch is of the well-known multiple disc type. Its characteristics, namely, smoothness of operation, reliability and simplicity, which have made for the adoption of this type by the best automobile builders, are here assured by correct design and workmanship.

*Transmission.* A propeller shaft through one universal joint transmits the power from the clutch to the transmission. This is of the selective type, giving three speeds forward and

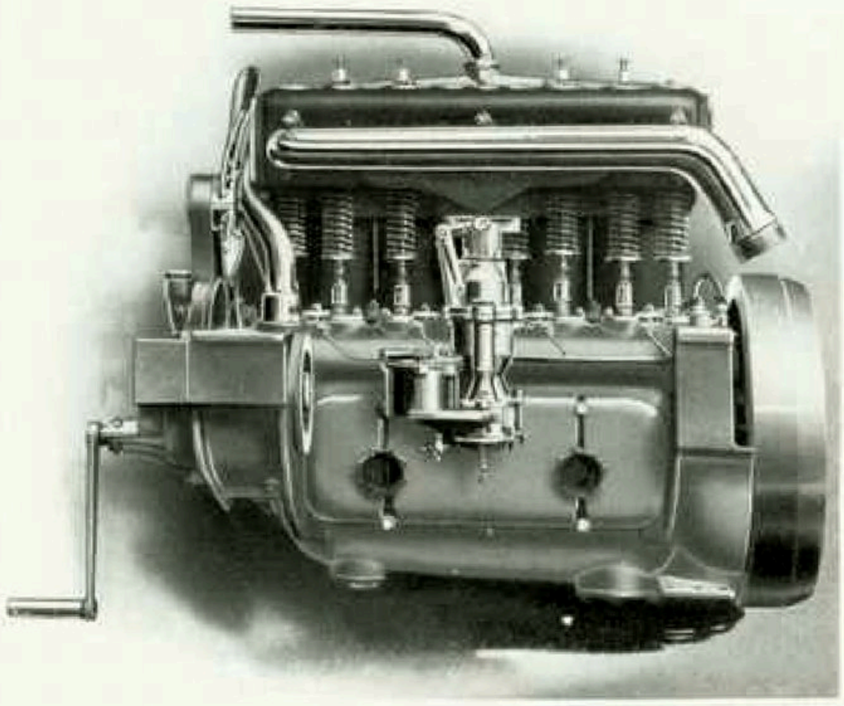


Left Side of 15-30 Chassis

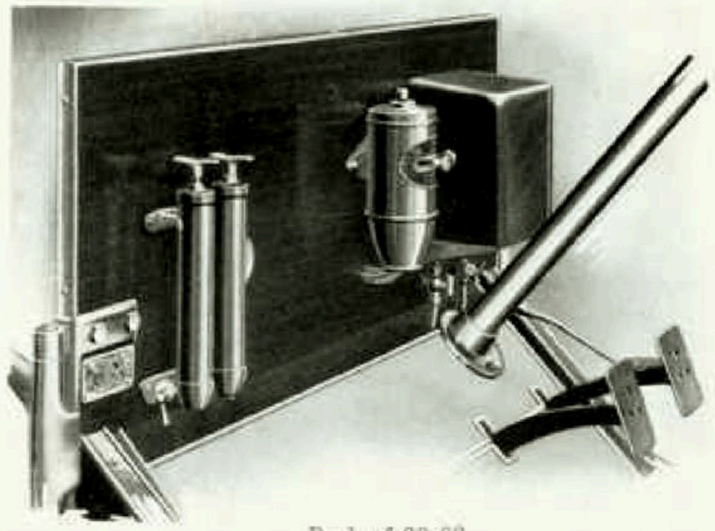
reverse. The gears are of chrome nickel steel, properly heat-treated and of liberal dimensions. The shafts are also of this steel, mounted on imported ball bearings.

*Wheels.* The wheels, front and rear, are thirty-four inches in diameter and are mounted on adjustable roller bearings of ample size. Continental Demountable Rims are now regularly supplied as standard equipment, the Stearns being the first car so equipped at the list price.

*Brakes.* The brakes act directly on the rear hub drums. The foot brake is a contracting band on the outside of the drum, while the emergency is an internal expanding shoe, operated by a hand lever. Both are fabric lined and easily adjustable.



# MECHANICAL DESCRIPTION 30-60 H. P. MODEL



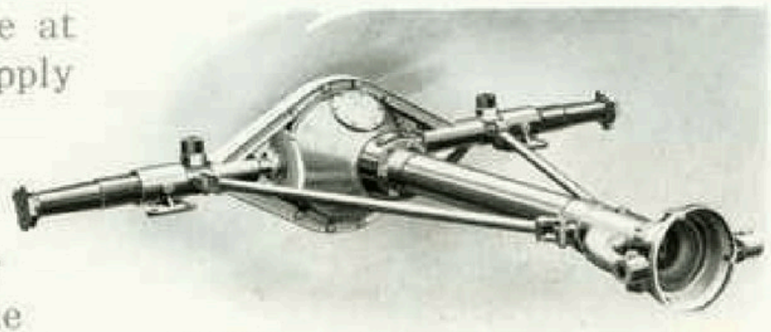
Dash of 30-60

CONSISTENTLY developed along the same conservative lines, built with either shaft or side chain drive, the 30-60 H. P. model has placed itself at the top of the list of high-powered American cars. From start to finish nothing but the finest materials and most expert workmanship enter into Stearns construction. For the actual manufacture of the complete car, our facilities are ample for the quantity produced, and a visitor to the factory will find that all operations—forging, machining, gear-cutting, fitting, assembling, etc.—are performed in our own plant. From start to finish the car is built, not merely assembled, under our own roof. Each department has its inspection system, so rigid that defective materials or faulty workmanship never find their way into the car. No wonder then, that our product is justly accepted as 100 per cent perfect.

*Motor.* The motor, 5⅜" bore x 5⅞" stroke, although giving more than sixty actual horse power when called upon, performs its work silently and easily. Cylinders are cast in pairs, all valves being on the left side, and operated from one cam shaft. Special mechanism on this shaft, controlled by a small lever at the front of the radiator, provides relief for the compression in starting. The main shafts, as usual in Stearns motors, are mounted on ball bearings; the consistent use of the latter is typical of Stearns construction. Although high powered and with liberal cylinder dimensions, no trouble is experienced in driving at extremely low motor speeds, this being due in part to the double jet carburetor. Gasoline is supplied from a twenty-five gallon tank swung from the frame behind the rear axle, and from this tank is fed by automatically supplied pressure to an auxiliary tank on the dash, from which it flows by gravity to the carburetor. The auxiliary tank is equipped with a float

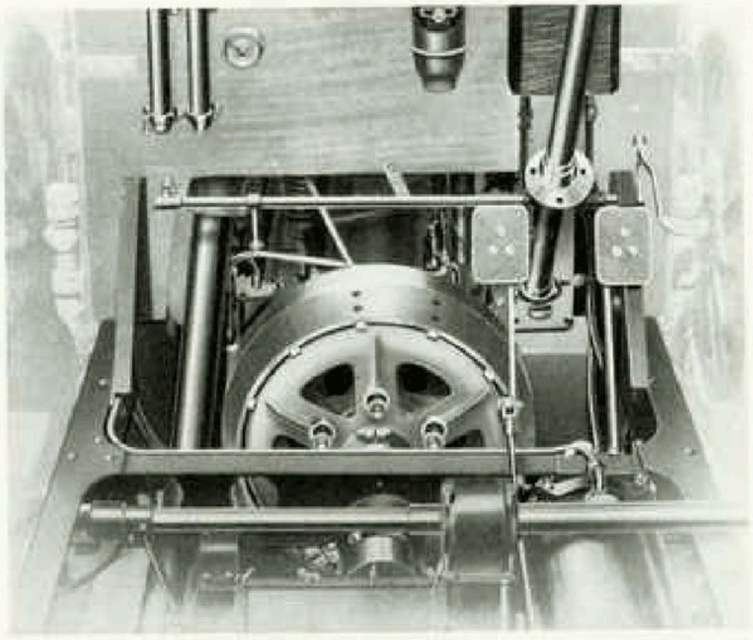
valve and strainer, insuring a constant feed of clean gasoline at all times. A cut-off valve between this tank and the main supply is easily accessible from the driver's seat.

*Ignition.* The Bosch-Dual ignition system, employed on the 15-30 model, is used on the 30-60, but one set of plugs being required to obtain maximum efficiency. Another striking similarity between the two models is noticeable in the oiling devices, these being identical. The system is described in detail on page 19.



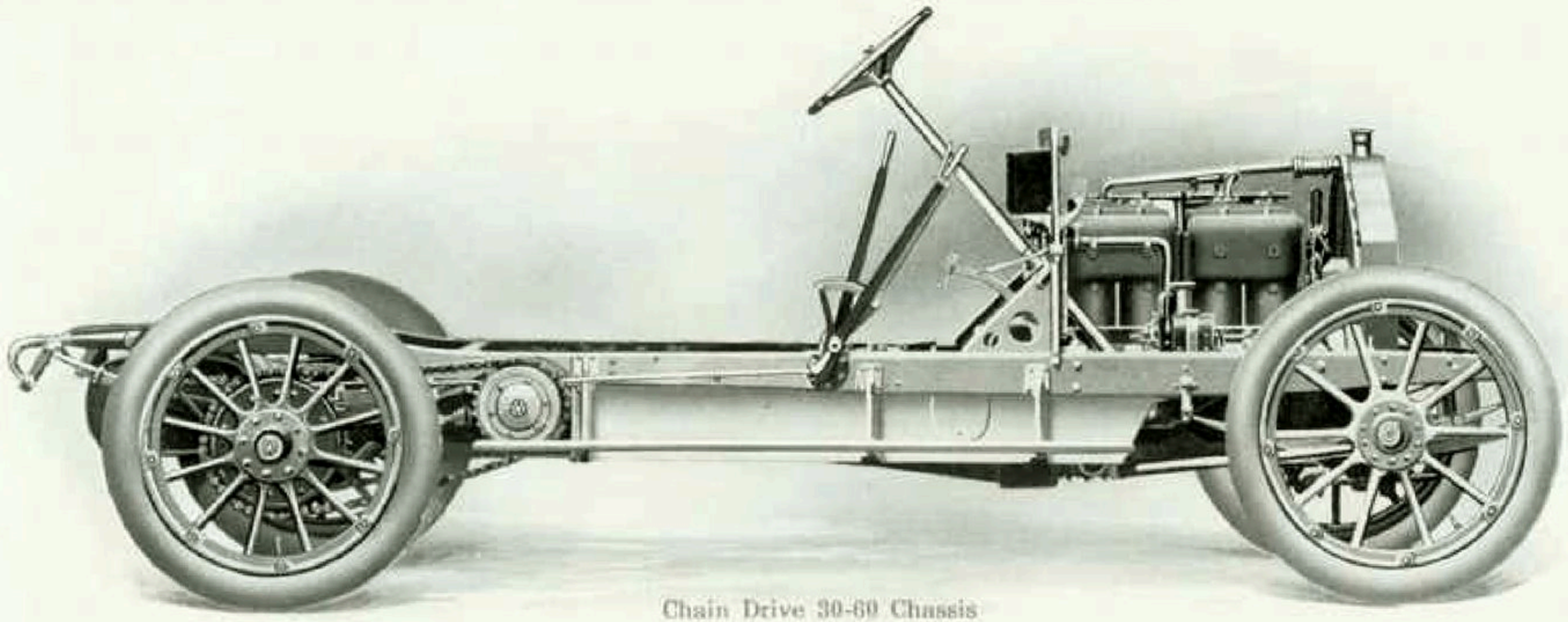
Rear Axle Forging with Differential Gear and Propeller Shaft Housings in Place

*Clutch.* The dry multiple disc clutch used on the 30-60 models has attracted considerable attention from mechanical engineers and automobile designers, because of the ideal application of the multiple disc principle. In cars of high power the ordinary type of disc clutch running in oil is at a disadvantage, its lubricant often causing it to slip when the power load approaches the maximum. The dry disc type, however, combines all the advantages of the ordinary multiple disc, at the same time eliminating all disadvantages.

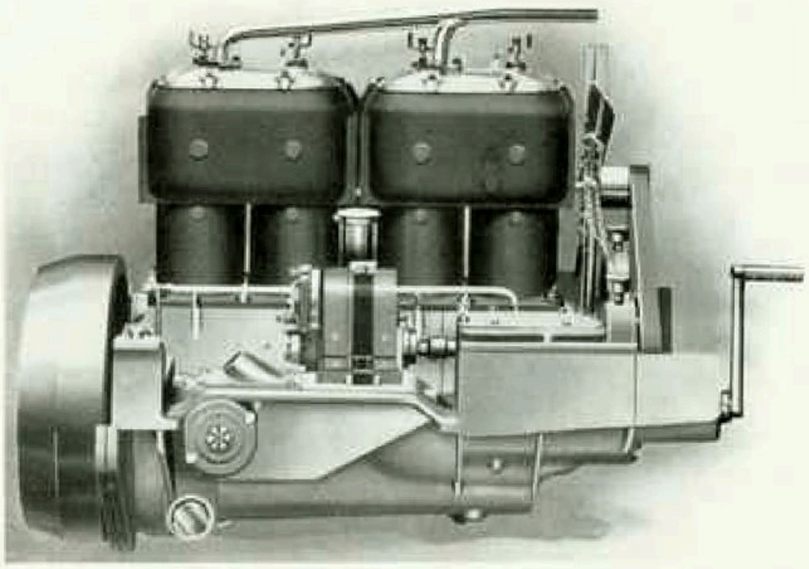


Clutch Mechanism of 30-60

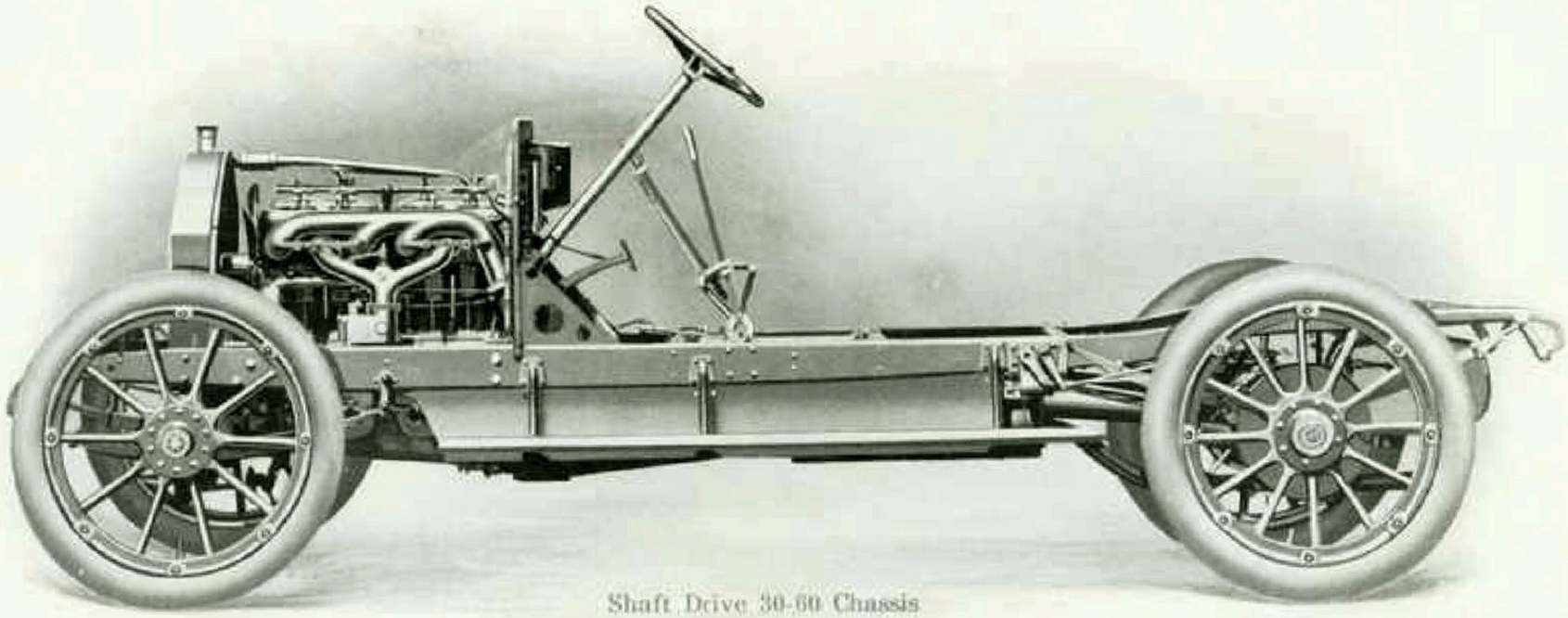
The clutch consists of a comparatively small number of steel discs of large diameter held and driven by hardened steel keys, inserted in the rim of the fly wheel. The driving discs are lined on both sides with an asbestos fabric, the alternating driven discs being of hardened and ground steel. Engagement is remarkably easy and gradual, while gear shifting is rendered extremely simple. The slight wear possible only after thousands of miles use is easily and quickly taken up without disconnecting any of the mechanism.



Chain Drive 30-60 Chassis



*Transmission.* This is optional with the purchaser, both shaft and side chain chassis mounting all bodies. In the chain drive, power is delivered to the transmission under the body of the car and thence to the rear wheels by jack shaft and side chains. In the shaft driven model, final drive is by means of a propeller shaft, encased in a tubular steel housing, to the bevel gears and driving shafts carried on and through the rear axle forging. The only difference between this construction and that of the 15-30 H. P. model, is that in the more powerful car the four-speed transmission is supported in the forward part of the frame instead of at the rear axle, and the case encloses the bevel and differential gears

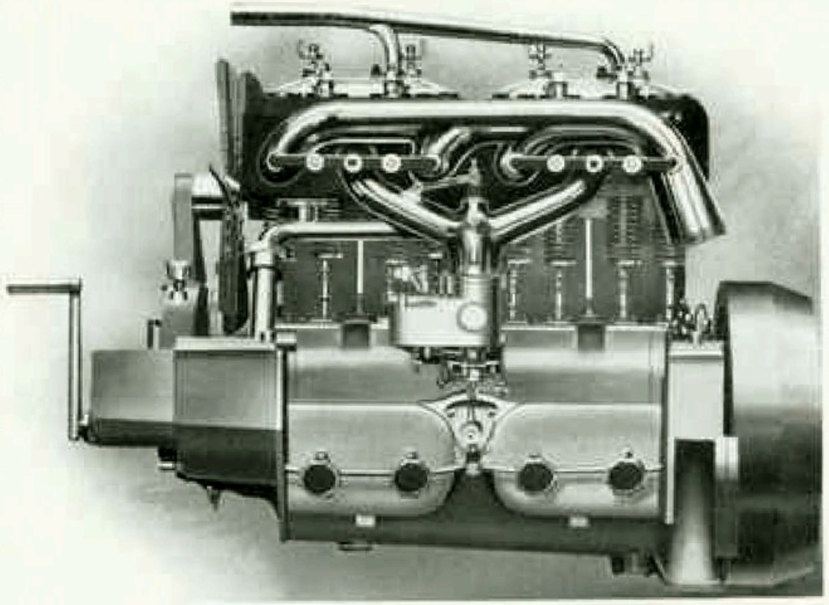


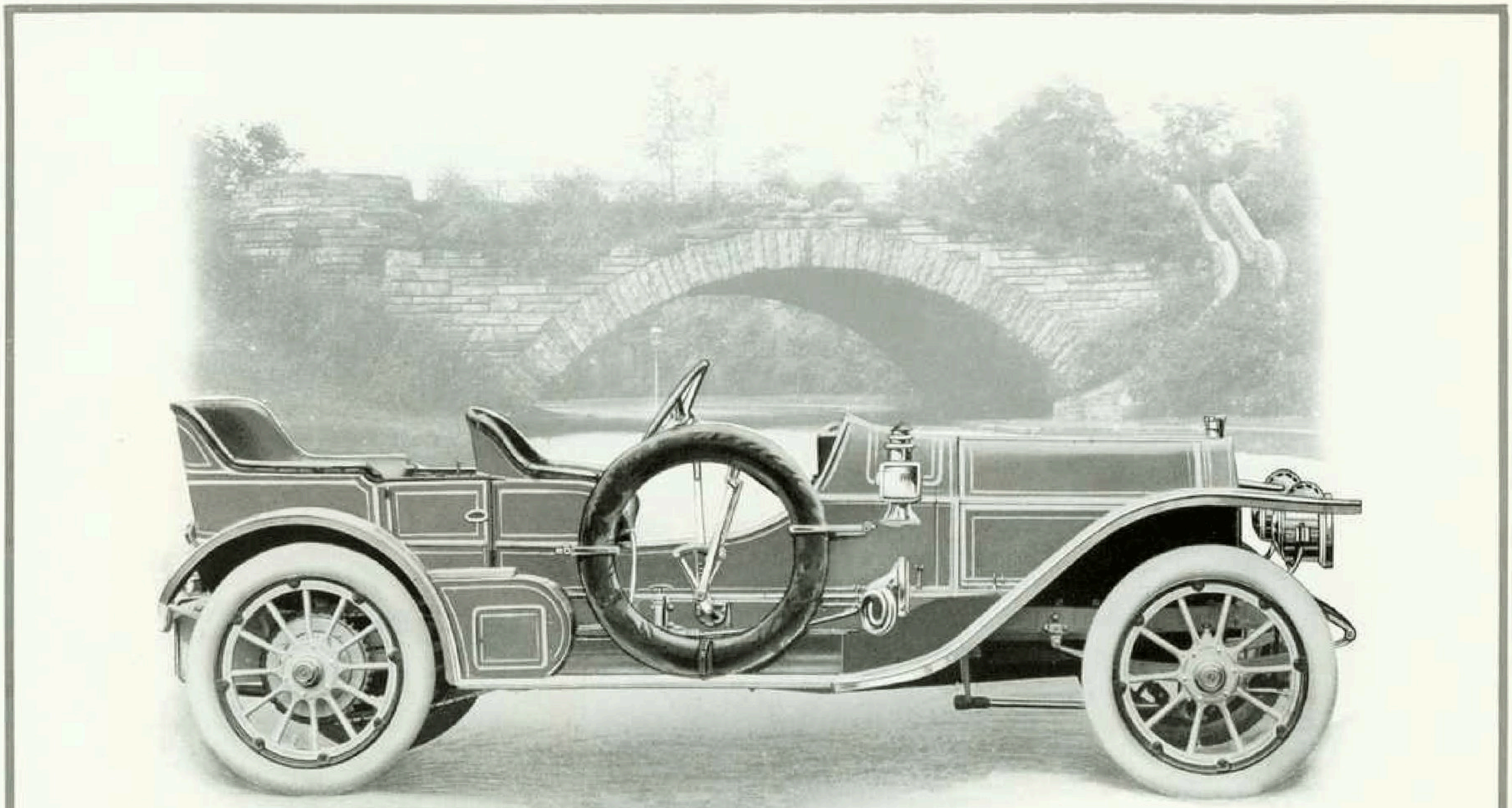
Shaft Drive 30-60 Chassis

only. The construction of the axle proper is identical with that of the smaller model. (See page 18).

Both shaft and chain driven models have the four-speed selective type transmission, giving a wide range of speeds and enabling the driver to utilize the power of the motor to the best advantage under all conditions.

*Brakes.* Ample braking surfaces are provided on both models. On the chain drive the service or foot brake contracts on the differential, the emergency expanding on the rear wheels, while on the shaft drive both brakes are at the latter location, the service contracting, the emergency expanding.





**45-90 H. P. SIX-CYLINDER TOY TONNEAU**

The maximum of speed and power, yet easily controlled.
Has mile record of 41-2/5 seconds. Chain drive only.

# BODY DESCRIPTIONS

STEARNS bodies are built with that same careful attention to detail which prevails in the mechanical construction. Apparently of small import, the finishing touches give the air of refinement and grace that instantly proclaim character in a motor car.

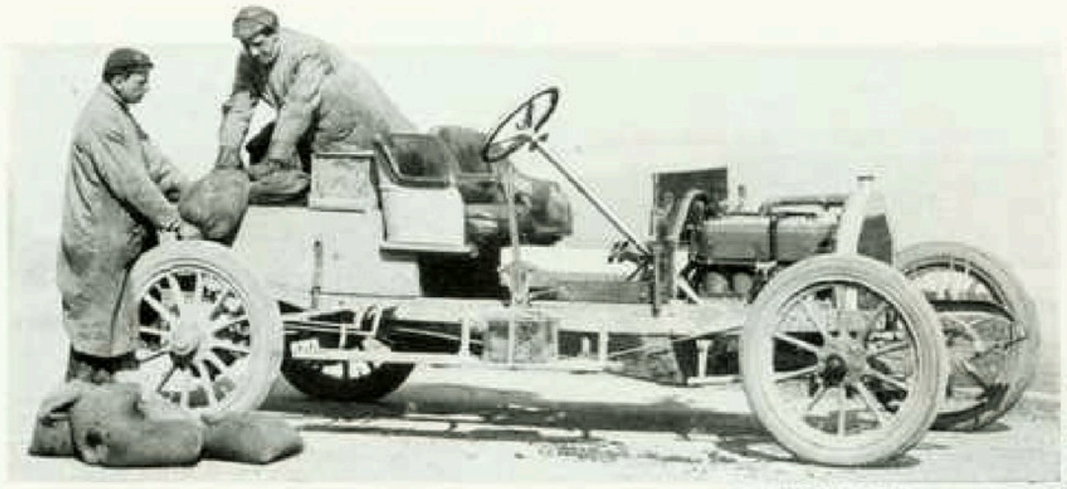
This noteworthy attention to the finished product is not confined to any particular model. Body building, upholstering, painting and varnishing are done in our own shops, under the same rigid system of inspection that characterizes the production of the chassis, and are in keeping with the Stearns standard in every respect. The excellence of our open bodies is the result of thirteen years' experience in producing high-grade automobiles. The lines are exceptionally graceful and pleasing; style and comfort are admirably combined. All models are roomy and comfortable for the maximum quota of passengers. The 15-30 and 30-60 Touring Cars easily carry five and seven passengers, their maximum quota.

Stearns Limousines and Landaulets present the utmost in closed body construction. The elegance of design and perfection of finish have never been surpassed, while the upholstery, in the finest leathers or imported cloths, provides comfort amid luxurious appointments. The bodies are weatherproof, yet ventilation is perfect. Interior electric light, cigar lighter, flower vase, card case, umbrella holder and many other conveniences unite in harmoniously finishing the finest products of the coach-builders' art.

# TESTING THE STEARNS.

DRIVEN more than one hundred and fifty miles over the roughest roads in northern Ohio under a dead load of half a ton of sand, is the severe test given all Stearns cars. Subjected to treatment no owner would give his car, the machines, from the time they first leave the doors of the road test room until they pass to the final inspectors, are subjected to the most rigorous tests that can be devised. They are tried out with but one end in view—that nothing less than 100 per cent perfect may leave the factory.

Possible weaknesses cannot be detected by work on smooth roads, and for that reason we do not use a track. Testing an empty car is productive of little good, hence our machines carry a load of sand during every mile of the road test. Every car passed by the road test inspectors has gone through an endurance test unequalled in severity by so-called "contests." Certain hills must be taken on the high gear—the gasoline consumption must not exceed a certain figure—a stated amount of speed must be developed. And so on down the list.

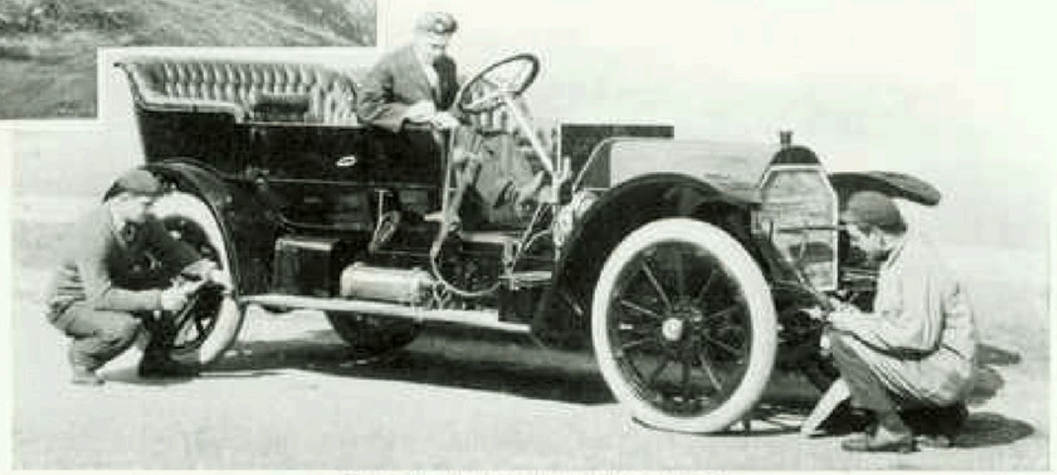


Loading Chassis with Sand

The inspection system is no less rigid than the road test, while the "final test" absolutely insures the car being "O. K." A corps of competent inspectors checks every machine—checks every piece of mechanism—checks every performance of the chassis. When finally passed, the chassis goes into the painting department, then receives its body and passes to the "finished test." Here the completed car is again tested and inspected, tried out on the road and passed to the final inspectors, who stand absolutely responsible for the cars going through their hands. Before leaving the factory, the car is examined and checked in detail. The report cards of all inspectors are compared, and all points noted by them are gone over on the final inspection.

The experienced motorist appreciates the meaning of this—appreciates the fact that such a system of testing and inspection is "car insurance" for him. It means that the car delivered to him is absolutely trustworthy—ready to start on a cross-country tour with no "tuning up"—ready to run day in and day out. It means above all else that there are no hidden weaknesses, for such will never appear in a Stearns.

In the Hills with the 15-30



Final Inspection 30-60 Touring Car

# REFERENCES FOR ALL MODELS

| | 15-30 H. P. | 30-60 H. P. | 45-90 H. P. |
|---|---|---|---|
| *AXLES* | | | |
| Front | One piece, I-beam, forged from alloy steel. | One piece, I-beam, forged from alloy steel. | One piece, I-beam, forged from alloy steel. |
| Rear | Solid one-piece forging drilled for floating drive shafts. | Chain drive, same style as 45-90. Shaft drive, same style as 15-30. | One piece, I-beam, forged from alloy steel. |
| *BODIES* | Toy Tonneau.<br>Five-passenger touring.<br>Limousine.<br>Landaulet. | Toy Tonneau.<br>Standard seven-passenger touring.<br>Limousine.<br>Landaulet. | Same body equipment as 30-60 model. |
| *BRAKES* | | | |
| Service | External contracting on rear wheels. | Shaft drive like 15-30. | External contracting on differential. |
| Emergency | Internal expanding on rear wheels. | Chain drive like 45-90. | Internal expanding on rear wheels. |
| *CARBURETOR* | Stearns float feed automatic double jet. | Stearns float feed automatic double jet. | Stearns float feed automatic double jet. |
| *COOLING SYSTEM* | | | |
| Radiator | Stearns cellular with white line. | Stearns cellular with white line. | Stearns cellular with white line. |
| Pump | Gear driven centrifugal. | Gear driven centrifugal. | Gear driven centrifugal. |
| *DRIVE* | Shaft. | Shaft or chain. | Chain. |
| *FRAME* | Pressed steel. | Pressed steel. | Pressed steel. |
| *GASOLINE* | Capacity, 18 gallons. | Capacity, 25 gallons. | Capacity, 25 gallons. |
| *GEAR RATIO* | 3.5 to 1. | Shaft drive, 2.7 to 1.<br>Chain drive, optional, 2.7 to 1, standard equipment. | Optional. |
| *SPEED RATIO* | At 1000 R. P. M. engine speed. | At 1000 R. P. M. engine speed. | |
| 1st Speed | 94 R. P. M. of rear wheels= 9.5 miles per hour. | 89 R. P. M. of rear wheels= 9.5 miles per hour. | |
| 2nd Speed | 208 R. P. M. of rear wheels=21. miles per hour. | 182 R. P. M. of rear wheels=19.5 miles per hour. | |
| 3rd Speed | 286 R. P. M. of rear wheels=28.9 miles per hour. | 265 R. P. M. of rear wheels=28.4 miles per hour. | |
| 4th Speed | | 360 R. P. M. of rear wheels=38.5 miles per hour. | |
| *HORSE POWER* | A. L. A. M. rating 32.4 H. P. | A. L. A. M. rating 46.2 H. P. | A. L. A. M. rating 69.3 H. P. |

## REFERENCES FOR ALL MODELS—Continued

| | 15-30 H. P. | 30-60 H. P. | 45-90 H. P. |
|---|---|---|---|
| *IGNITION* | Bosch-Dual system. | Bosch-Dual system. | Bosch-Dual system. |
| Magneto | Bosch high tension. | Bosch high tension. | Bosch high tension. |
| Coil | Bosch single coil. | Bosch single coil. | Bosch single coil. |
| Batteries | Dry cells. | Dry cells. | Dry cells. |
| *LUBRICATION* | Positive force feed and splash system with constant level. | Positive force feed and splash system with constant level. | Positive force feed and splash system with constant level. |
| *MOTOR* | | | |
| Cylinders | Four, 4⅛" x 4½", cast en bloc. | Four, 5⅜" x 5½", cast in pairs. | Six, 5⅛" x 5½", cast in pairs. |
| Bearings | Imported ball. | Imported ball. | Imported ball. |
| Crank Shaft | Alloy steel. | Alloy steel. | Alloy steel. |
| *SPRINGS* | | | |
| Front | Semi-elliptic. | Semi-elliptic, 52 x 2½-inch. | Semi-elliptic, 52 x 2½-inch. |
| Rear | Three-quarter-elliptic. | Semi-elliptic, 52 x 2½-inch. | Semi-elliptic, 52 x 2½-inch. |
| *STEERING GEAR* | | | |
| Type | Hardened steel worm and gear. | Hardened steel worm and gear. | Hardened steel worm and gear. |
| Wheel | 18-inch hard rubber, corrugated grip | 18-inch hard rubber, corrugated grip. | 18-inch hard rubber, corrugated grip. |
| *TIRES* | | | |
| Front | 34 x 4-inch. | 36 x 4-inch. | 36 x 4½-inch. |
| Rear | 34 x 4-inch. | Toy Tonneau, 36 x 4½-inch<br>Other Models, 36 x 5-inch. | 36 x 5-inch. |
| *TRANSMISSION* | Sliding gear, selective. | Sliding gear, selective. | Sliding gear, selective. |
| Speeds | Three forward and reverse. | Four forward and reverse. | Four forward and reverse. |
| Bearings | Imported annular ball. | Imported annular ball. | Imported annular ball. |
| Tread | 56½-inch. | 56½-inch. | 56½-inch. |
| Turning Radius | 17½-foot. | 23-foot. | 25-foot. |
| *WHEELS* | | | |
| Front | Artillery type, 10-spoke. | Artillery type, 10-spoke. | Artillery type, 12-spoke. |
| Rear | Artillery type, 12-spoke. | Artillery type, 12-spoke. | Artillery type, 12-spoke. |
| *RIMS* | Continental demountable | Continental demountable. | Continental demountable. |
| *WHEEL BASE* | 116-inch. | Toy Tonneau, 121-inch.<br>Other Models, 124-inch. | 130-inch. |

# GENERAL SPECIFICATIONS

## COLORS

**Touring Cars**

*Red*—Body and gear Stearns red, black underbody and striping, black tufted upholstery.

*Blue*—Body Stearns blue, yellow hair-line striping, running gear Stearns yellow, black striping, black tufted upholstery.

*Maroon*—Body and gear Stearns maroon with red hair-line striping, black tufted upholstery.

*Green*—Body Stearns green, red hair-line striping, running gear Stearns vermilion, black striping, black tufted upholstery.

**Toy Tonneau Runabouts**

*Gray*—Body and gear Stearns gray, gold striping, smooth polished red upholstery, no tufting.

**Landaulets and Limousines**

Same colors as touring cars, upholstered in maroon, blue and green broadcloth, and whipcord.

## TIRE EQUIPMENT

American Continental, American Michelin, Diamond, Firestone, Republic, Goodrich and Fisk, round tread clinchers optional. Front tires on all 30-60 cars, 36 x 4". Rear tires on Toy Tonneau Runabout, 36 x 4½". Rear tires on all other 30-60 models, 36 x 5". Front and rear tires on 15-30 model, 34 x 4".

## RIM EQUIPMENT

Continental Demountable Rims furnished on all models, including extra rims and lugs for each size of tire.

**Equipment 15-30 Standard Touring Cars**

Two Gray & Davis Headlights
Side and Tail Oil Lamps
Complete Tool Equipment
Tire Carriers
Prestolite Tank
Socket for Starting Crank
Steering Knuckle Covers
Complete Tire Repair Kit
Tire Pump
Jack
Continental Demountable Rim Kit
Cars Ironed for Tops

**Equipment 15-30 Toy Tonneaus**

Two Gray & Davis Headlights
Side and Tail Oil Lamps
Complete Tool Equipment
Tire Carriers
Prestolite Tank
Socket for Starting Crank
Steering Knuckle Covers
Complete Tire Repair Kit
Tire Pump
Jack
Continental Demountable Rim Kit
Cars Ironed for Tops

# GENERAL SPECIFICATIONS—Continued

**Equipment 15-30 Limousines and Landaulets**

Two Gray & Davis Headlights
Side and Tail Oil Lamps
Two Drop Seats
Complete Tool Equipment
Tire Carriers
Prestolite Tank
Socket for Starting Crank
Steering Knuckle Covers
Complete Tire Repair Kit
Tire Pump
Jack
Continental Demountable Rim Kit

**Equipment 30-60 Shaft and Chain Drive Touring Cars**

Two Gray & Davis Headlights
Side and Tail Oil Lamps
Prestolite Tank
Tire Carriers
Complete Tool Equipment
Socket for Starting Crank
Steering Knuckle Covers
Two Extra Seats
Tire Pump
Jack
Luggage Carrier
Continental Demountable Rim Kit
Cars Ironed for Tops

**Equipment 30-60 Shaft and Chain Drive Toy Tonneaus**

Two Gray & Davis Headlights
Side and Tail Oil Lamps
Prestolite Tank
Tire Carriers
Complete Tool Equipment
Socket for Starting Crank
Steering Knuckle Covers
Tire Pump
Jack
Luggage Carrier
Continental Demountable Rim Kit
Cars Ironed for Tops

**Equipment 30-60 Limousines and Landaulets**

Two Gray & Davis Headlights
Side and Tail Oil Lamps
Complete Tool Equipment
Tire Carriers
Prestolite Tank
Socket for Starting Crank
Steering Knuckle Covers
Complete Tire Repair Kit
Tire Pump
Jack
Luggage Carrier
Continental Demountable Rim Kit
Baggage Rail on Roof
Two Extra Seats

Equipment of 45-90 same as 30-60 equipments, depending upon type of body.

# PRICE LIST

| | | |
|---|---|---|
| 15-30 | Chassis | $2900.00 |
| | Chassis, with five-passenger Touring Car | 3200.00 |
| | Chassis, with Toy Tonneau body | 3200.00 |
| | Chassis, with Limousine body | $4000.00 to 4600.00 |
| | Chassis, with Landaulet body | $4000.00 to 4600.00 |

**Bodies**

| | |
|---|---|
| Touring | 500.00 |
| Toy Tonneau | 500.00 |
| Limousine | $1200.00 to 1750.00 |
| Landaulets (extension front) | $1300.00 to 1750.00 |
| Landaulet (without extension front) | 1200.00 |

| | | |
|---|---|---|
| 30-60 | Shaft or Chain Drive Chassis | 4200.00 |
| | Chassis, with Toy Tonneau body | 4600.00 |
| | Chassis, with standard seven-passenger Touring Car body | 4600.00 |
| | Chassis, with Limousine body | 5750.00 |
| | Chassis, with Landaulet body | 5850.00 |

**Bodies**

| | |
|---|---|
| Touring | 600.00 |
| Toy Tonneau | 600.00 |
| Limousine | 1750.00 |
| Landaulet | 1850.00 |

| | | |
|---|---|---|
| 45-90 | Chassis | 5800.00 |
| | Chassis, with Toy Tonneau body | 6250.00 |
| | Chassis, with Touring body | 6500.00 |
| | Chassis, with Limousine body | $7500.00 |
| | Chassis, with Landaulet body | 7600.00 |

**Bodies**

| | |
|---|---|
| Touring | 750.00 |
| Toy Tonneau | 600.00 |
| Limousine | 1750.00 |
| Landaulet | 1850.00 |

**Chauffeur's Seat**

| | |
|---|---|
| Chauffeur's Seat on left running board of all Toy Tonneau models | $50.00 |

**TOPS**

**Silk Mohair**

| | |
|---|---|
| Cape Top for Toy Tonneau | $165.00 |
| Top Slip | 20.25 |
| Storm Front | 13.70 |
| "V" Curtains | 16.30 |
| Seat Covers | 62.70 |
| Cape Top for Standard Body | 175.00 |
| Top Slip | 20.25 |
| Storm Front | 13.70 |
| "V" Curtains | 16.30 |
| Seat Covers | 62.70 |

Top prices include dust hood and all curtains except "Vs."

**Cravenette**

| | |
|---|---|
| Cape Top for Toy Tonneau | $150.00 |
| Top Slip | 18.00 |
| Storm Front | 12.70 |
| "V" Curtains | 14.30 |
| Seat Covers | $ 56.20 |
| Cape Top for Standard Body | 160.00 |
| Top Slip | 18.00 |
| Storm Front | 12.70 |
| "V" Curtains | 14.30 |
| Seat Covers | 56.20 |

Top prices include dust hood and all curtains except "Vs."

**Pantasote**

| | |
|---|---|
| Cape Top for Toy Tonneau | $140.00 |
| Top Slip | 16.85 |
| Storm Front | 12.20 |
| "V" Curtains | 13.30 |
| Cape Top for Standard Body | 150.00 |
| Top Slips | 16.85 |
| Storm Front | 12.20 |
| "V" Curtains | 13.30 |

Top prices include dust hood and all curtains except "Vs."

Both storm front and "V" curtains fitted with top, $25.00 in silk mohair or cravenette.

**Glass Fronts (Attached)**

| | |
|---|---|
| Collins, No. 400 folding | $55.00 |
| Sprague, No. 70 folding | 80.00 |
| Banker, No. 2 folding | 80.00 |
| Automatic Folding | 30.00 |
| Hydraulic Folding | 35.00 |

**Lamp Covers**

| | |
|---|---|
| Black Oil Cloth (full set) | $15.00 |

ALL PRICES F. O. B. CLEVELAND