

2870.05.4

THOMAS "FLYER"



AUTOMOBILES

1905

2500

23 P
9 X 6

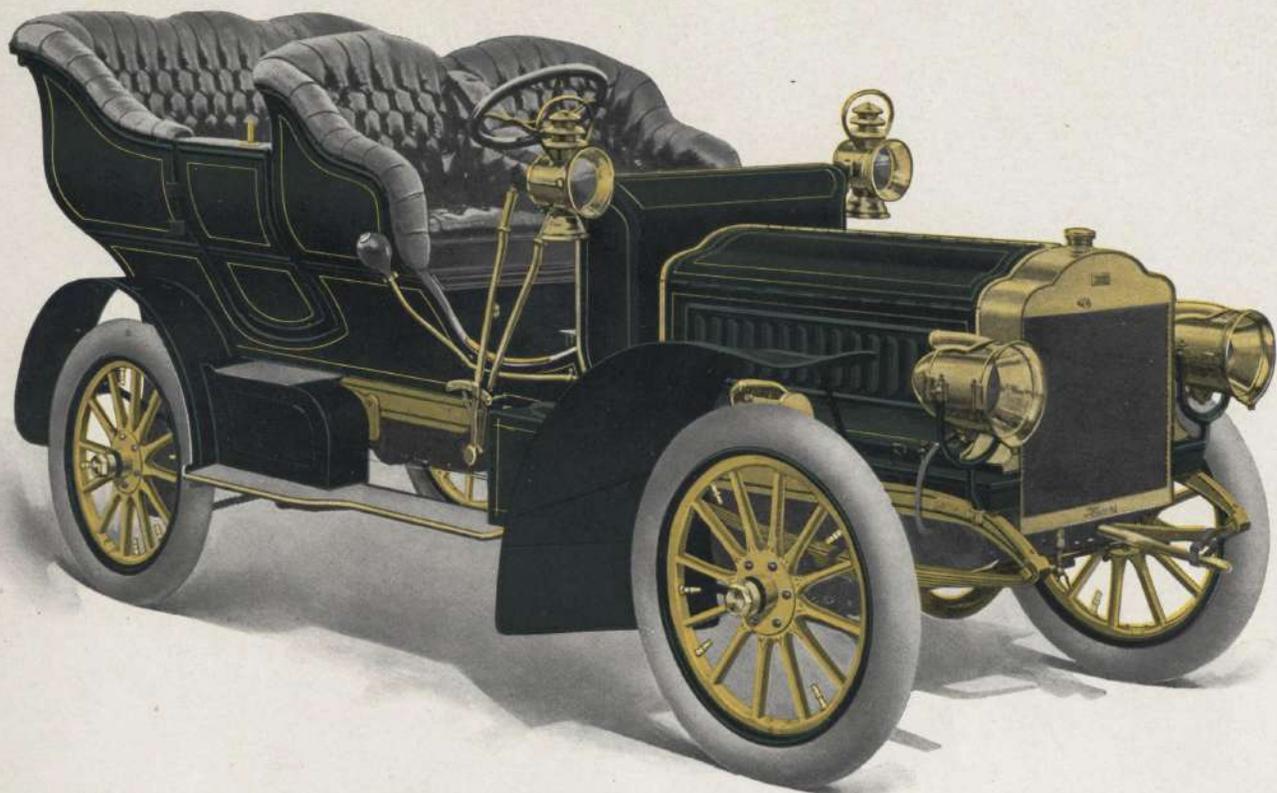
The Thomas "Flyer"

• 1905 •

HARRAH'S AUTOMOTIVE LIBRARY
RENO, NEVADA

E. R. THOMAS MOTOR CO., BUFFALO, N. Y., U. S. A.

*WE are the largest manufacturers of
40 Horse-power Cars in the world.*



MODEL 25

THOMAS "FLYER" TOURING CAR
40 Horse-power—Four Cylinders.

\$3,000.00

Introductory



QUALIFIED through years of experience, gained by the construction of the Cleveland Bicycle, one of the finest examples of accurate and interchangeable construction known to mechanical science, and through the experience gained by being one of the oldest American automobile manufacturers, and incidently the first American manufacturer of vertical automobile motors on a commercial scale (other pioneer manufacturers devoting their experiments to horizontal motors), we present the 1905 Thomas automobile as representing the most progressive exemplification of American automobile construction.

¶ We will undertake to prove that the 1904 Thomas was the nearest approach to automobile perfection, as pertaining to efficiency, reliability and freedom from repairs.

¶ In support of this claim the prospective purchaser is earnestly requested to carefully read our book of testimonials, published under separate cover, and written by men in the highest walks of commercial and professional life ; further evidence can be submitted.

¶ It has been found that high power is a necessity for touring cars. The motor is never over-taxed, hills and bad roads may be traversed without changing speed, and cars may be operated slow on high speed under conditions impossible with light power.

¶ We are the largest manufacturers of forty horse-power cars in the world, and have the finest mechanical equipment for fast and accurate construction of all mechanical parts, which, in connection with other favorable conditions, enables us to produce at a much lower price, a car that in all essential details of workmanship and material is the equal of the highest priced foreign cars, but for American roads is far superior.

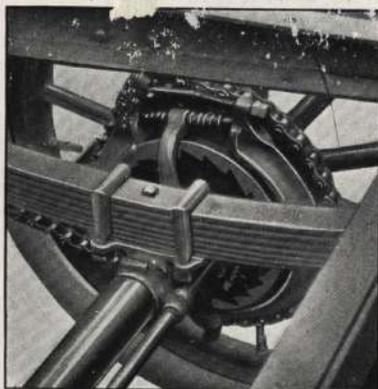
¶ Our 1905 models will be provided with motors rated at forty, fifty and sixty horse-power. The two former being equipped with four cylinders, the latter with six cylinders.

¶ We will supply touring bodies, limousines, landaulets, victorias and racing bodies.

¶ Extraordinary efforts are utilized to free the Thomas car from all complications that will wear and cause trouble, in other words, our aim is to construct a car so efficient, strong and simple, that the amateur driver will not find it necessary to be accompanied by a professional chauffeur.

Original and Special Features

The Thomas cars include more safety, lubricating, anti-friction and anti-wear devices, and more devices for comfort and convenience than any other car in the world.



THOMAS SAFETY DEVICE

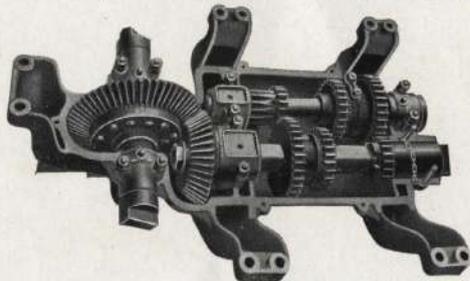
SAFETY DEVICE : Every Thomas automobile turned out is equipped with the Thomas Safety Device, a peculiar ratchet cast integral with the brake and sprocket drum on the rear hubs, the co-acting pawl being pivoted to the brake spider. It is operated by a hand lever on the right side of the dashboard to which the pawl is connected by a wire cable. This safety device positively prevents the car from backing down hill should the engine stop. It can be used in place of the brake when stopping on a hill. This makes the Thomas car particularly adapted for use in hilly sections, and renders accidents from backing an impossibility. It is one of the distinctive and exclusive features of the Thomas. (See cut.)

CHAIN OILERS : These are located in the transmission and crankshaft bearings, and are provided with large reservoirs holding a pint of oil, insuring lubrication of such bearings for 1,000 miles before requiring to be replenished. These chain oilers insure lubrication of the most important bearings without attention. (See cut of Transmission)

MECHANICAL OILERS : These consist of a plunger pump located at the side of the motor, worm and gear driven, oil tight, and positive in action, thus delivering the oil to a sight-feed manifold located on the dashboard in full view of the operator, from where it is fed to each individual cylinder in the proportion required ; all surplus oil returning to reservoir, which has a capacity of one gallon of oil and is situated on the side of the motor

opposite the oil pump, thereby insuring the lubricating oil always being warm. This permits of using a heavier oil without danger of clogging. (See cut of dash, page 12)

OTHER LUBRICATING FEATURES : The three inside bearings in the crankshaft are splash-oiled through catch holes in the top bearings, and the piston pins and crank wrists are also oiled through and by top catch holes. The clutch yoke is further provided with large ratchet grease cup, requiring only one turn daily to insure positive lubrication.



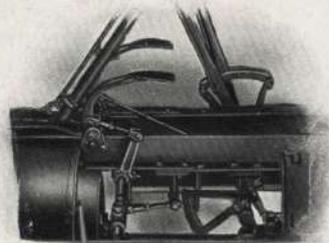
THOMAS TRANSMISSION—(patented)
Showing chain oiler and aluminum base.

NON-GEAR STRIPPING DEVICE : By this simple arrangement it becomes impossible for the motor to engage the clutch until the gears are fully enmesh. In other words the clutch is automatically locked until the teeth of the gears interlock their entire length. (See cut)

LATCHED THROTTLE CONTROL : On other cars, the foot has to be kept constantly on the throttle pedal when more than normal speed is desired. The Thomas throttle can be latched at any speed desired, and immediately released by a slight pressure of the foot pedal, thus preventing any possibility of motor racing.

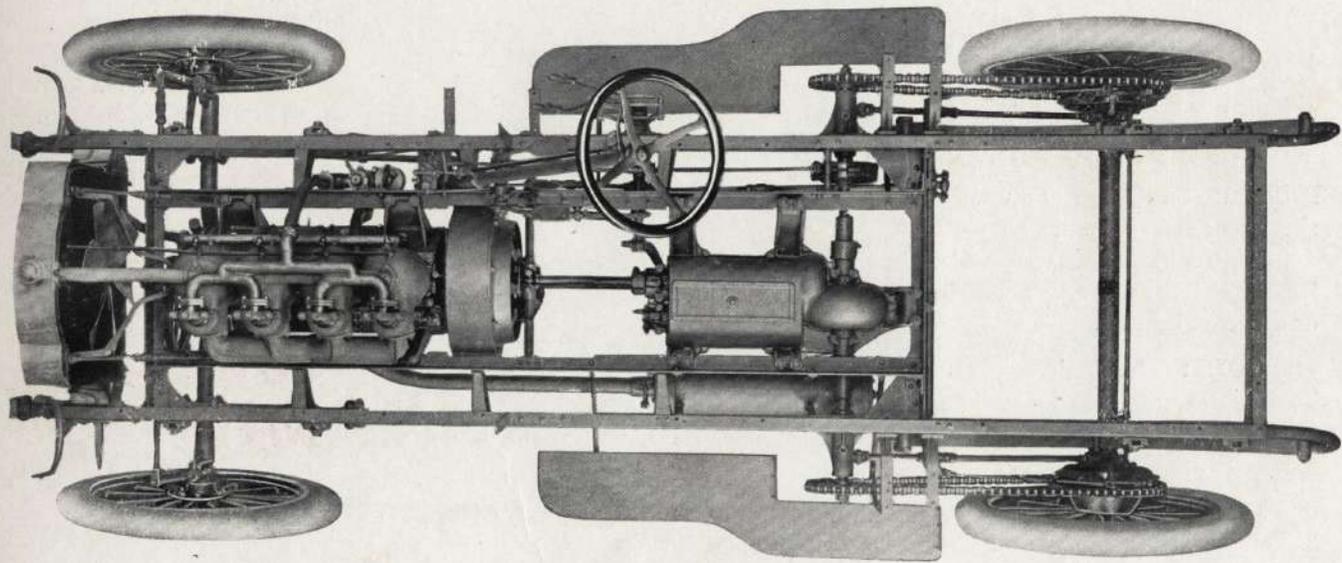
CHAIN PULL : This is between the rear roller bearings on Thomas cars, while on other makes the chain pull is on the inside of the inside bearing, which is pulled forward on a twisting strain, and bears almost the entire load ; the outside end bearing pulling backward taking up but little of the strain. (See cut, page 14)

TRANSMISSION : The Thomas Transmission (patented) is the simplest and strongest method of shifting gears known. It is not only positive, but there is not a gear in mesh when operating upon the high speed. The transmission shaft is so strong and heavy that it is impossible to bend or twist when adjusted with second speed—considered the greatest trial of strength. Our shafts are much larger than those on other cars. The transmission case is made of aluminum. (See cut)



NON-GEAR STRIPPING DEVICE
Making it impossible to strip gears.

E. R. Thomas Motor Company ☞ Buffalo, N. Y., U. S. A.

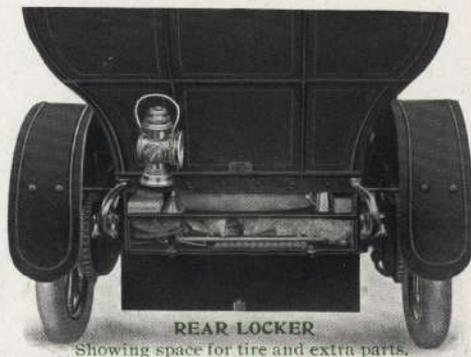


Thomas "Flyer"—Four-Cylinder—Chassis

BRAKES: One movement of the emergency brake applies a powerful brake on both rear wheels and on the differential, releases the clutch and throttles the motor—a safe and simple control unequalled. The brakes are double acting, and very strong on reverse as well as forward.

COMMUTATOR: This is located on the dashboard in plain view of the driver, and is operated by a hardened gear driven shaft. (See cut of Dash, page 12)

DUST PROOF ROLLER BEARINGS: These are used on the countershaft and all four wheels. For two years we have not been called upon to replace an axle or sprocket bearing.



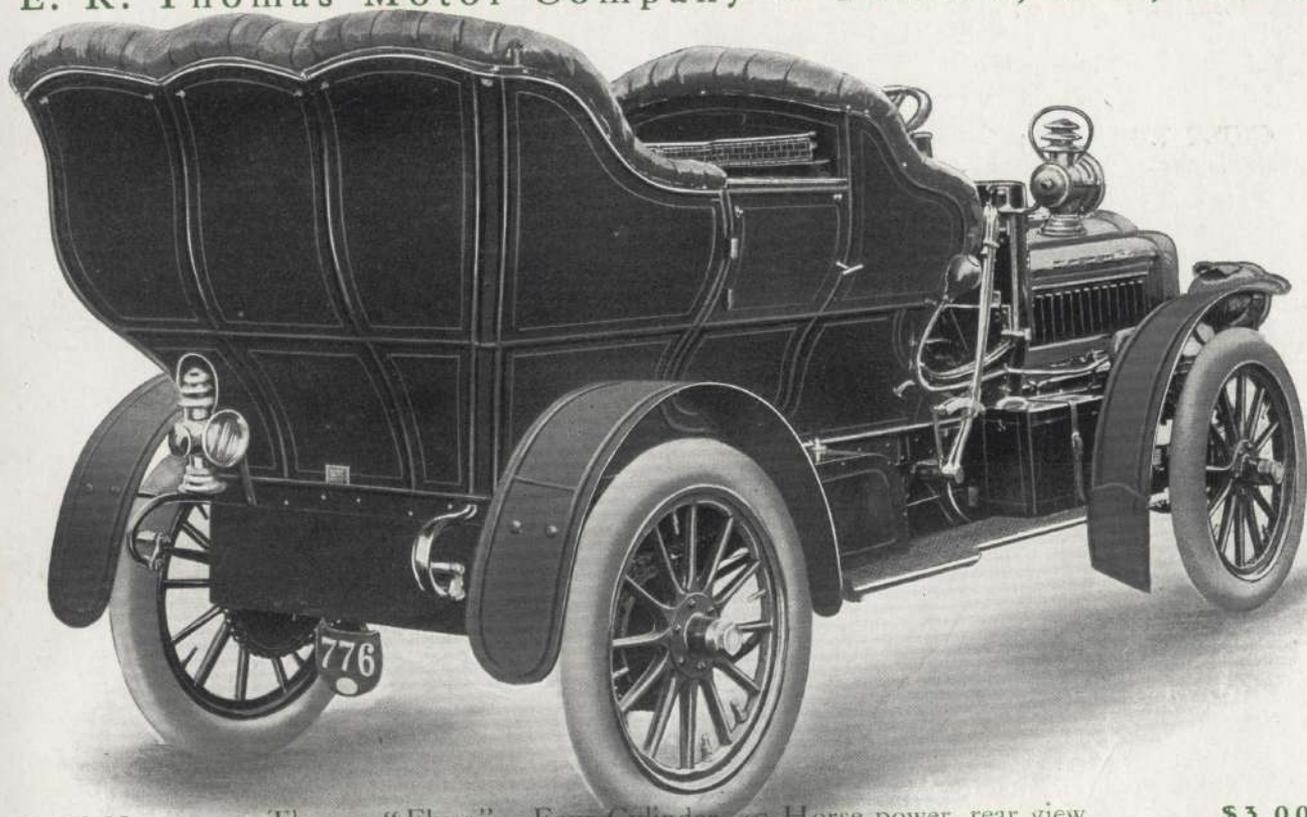
UNUSUALLY LARGE BEARINGS: These are used on the motor shaft and transmission shaft, and will be appreciated by persons versed in mechanics. We did not replace a bearing last year. Bearings on our transmission are twice the size of those used on the majority of high priced cars whether of French or American make, and the bearings throughout our car are of large size.

COIL: The single coil as used on Thomas cars, is located on the dashboard in plain sight of the driver. The Company has been rigidly testing the single coil and dashboard commutator for the past eight months, and are satisfied that the arrangement is the simplest and most perfect yet devised. (See cut of Dash, page 12)

ROLLED STEEL DASH: The Thomas dash is built of steel, with smooth outside surface and beautiful curved lines. It is 6 inches deep, and in the recess are housed the sight-feed oiler, coil box, commutator and two lockers for tools and parts. A brass drip pan underneath this board collects all oil, keeping the mat clean. (See cut, page 12)

AUXILLARY GASOLENE TANK: There are always two gallons of gasolene left in a private compartment for use when the regular supply is exhausted. This will carry you twenty-five miles, or to the nearest supply.

E. R. Thomas Motor Company ☞ Buffalo, N. Y., U. S. A.



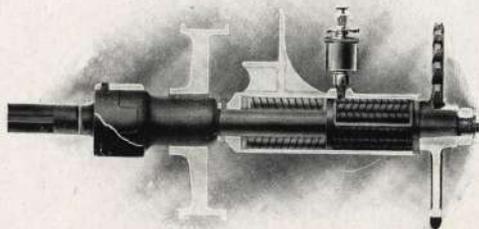
Model 25

Thomas "Flyer"—Four-Cylinder, 40 Horse-power, rear view

\$3,000

DUSTLESS BODY : The body used on the 1905 Thomas is the exclusive design of Mr. E. R. Thomas, who has been awarded a patent. The lines are not only artistic, but the tonneau is practically dust proof. It admits of much more luxurious upholstery than a straight up and down body would, and the curved sides permit the doors to open over the mud guards, the bottom of the door being full width.

QUIET RUNNING : Owing to its perfect mechanical construction and the accurate gauging of all parts the Thomas is one of the most quiet machines on the market today—running without noise.



THOMAS COUNTERSHAFT
Showing large roller bearings in use.

The cylinder bore is finished by boring, and grinding to insure perfect roundness and their being parallel. The bronze flared inlet domes are secured by studs, yokes and pressure screws, and contain the downhanging automatic admission valves, the valves dropping into the compression chamber and lifting to close. The mechanically operated exhaust valves are placed directly below the intake valves, seated in the cylinder casting, and are nickel steel. (See cut, page 13)

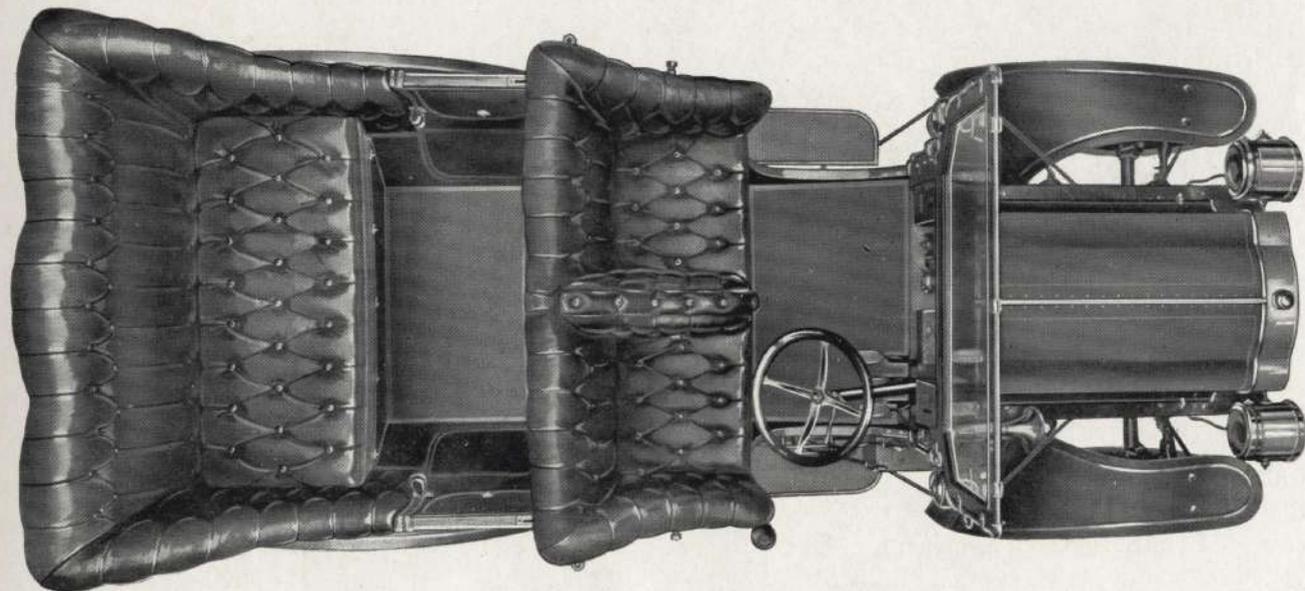
ENGINE BASE : This is an aluminum casting, same as the oil basin. The bearings are white bronze, poured directly into seats, flanged in the aluminum casting. The oil basins may be removed without disturbing anything else, and the motor assembled from underneath. The engine base is also provided with pressure relief dome, thereby avoiding oil being forced out of base,

SIMPLICITY OF CONTROL : The Thomas car is the acme of simplicity of mechanism, and the control is so simple that a lady can easily operate the most powerful model.

OTHER SPECIAL FEATURES : Strong rigid construction, large universal joints between transmission and fly wheel, and between transmission and chain sprockets, large faced gears, steel faced fibre gears, outside cam shaft easily removable, separate oil basins for each motor, and crank base ventilator.

THOMAS MOTORS : The cylinders are single units, heads and water jackets integral, the water jacket covering the piston displacement.

E. R. Thomas Motor Company ☞ Buffalo, N. Y., U. S. A.

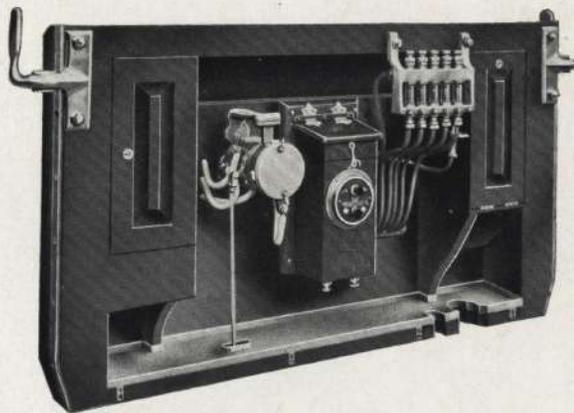


Thomas "Flyer"—Showing Luxurious Upholstering and Interior of Body

CRANK SHAFTS : The crank shafts are bent from rectangular bars, then drop forged and specially tested, turned and finished by grinding. The crank shaft has five large bearings.

BALANCE WHEEL : The balance or fly wheels on all three models is of grey iron, 18 inches diameter, by $4\frac{3}{4}$ inches face, weighing 110 pounds. It is fitted on the crank shaft end to an integral flange, and fixed by a key in the taper and six head bolts with castellated nuts and split pins.

CLUTCH : The clutch flange is bolted to the fly wheel with eight studs, containing nuts and split pins. The clutch engagement is $2\frac{1}{2}$ inches, and the flange face $3\frac{1}{8}$ inches wide, giving $\frac{5}{8}$ inch wear change. The spring thrust is internally resisted, an adjusting nut on the fly wheel hub forcing the spring against a ball thrust bearing resting against the flange of the steel hub, to which the aluminum body of the leather faced clutch is cemented and riveted. The clutch is protected from dust, dirt and oil by shield both front and rear. The clutch yoke is of improved design fitted with hardened crucible steel collar running on hardened roller bearings.



ROLLED STEEL DASH

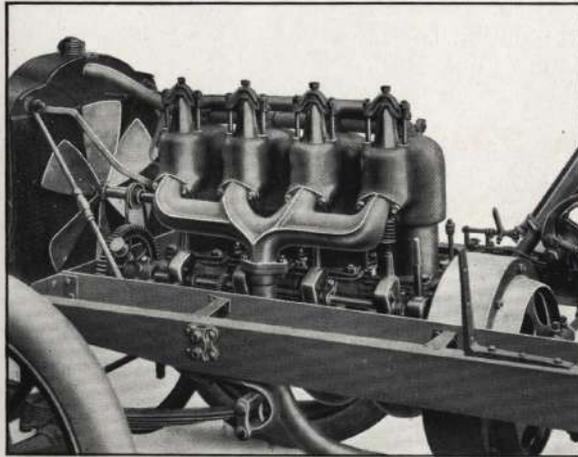
Showing housing for Commutator, Coil and Mechanical Oiler.

PISTONS: These are made of grey iron and fitted with five rings each. The rings are made eccentric, turned and ground under compression, making them perfectly cylindrical.

CONNECTING RODS : The rods are H section steel, the web standing with the crank shaft instead of across it, as is commonly the case. The top end of the rod is split and fitted with a pinch screw and split bronze bush ; the lower end is lined with white bronze.

RADIATOR : This is of the cellular type and one of the handsomest on the market. All radiators are provided with high speed fans, journaled on ball bearings.

HOOD: This is made of two similar halves connected with a heavy continuous brass hinge retained when closed by winged nuts and hinged screws. It has cold pressed ventilated sides, and is brass trimmed. It is one of the handsomest hoods yet designed.



THOMAS MOTOR
Forty horse-power, four-cylinder.

gaging the clutch and throttling the motor. The muffler cut-out is a small plug pedal worked by driver's left heel.

STEERING GEAR: The quadruple type of worm and sector are retained, the method of construction and adjusting has been vastly improved. The worm is hardened, and sector is one solid piece of steel. In order to adjust for wear it is only necessary to loosen lock nut on outside, then adjust with screw until all slack motion has been taken up, then tighten lock nut again, likewise the wear of post, to which worm is attached. A pointed and hardened screw is provided to take up end wear, post also being provided with ball bearing thrust collars, thus

WATER CIRCULATION: This is by gear pump, driven by a gear on the crank shaft. The three gears, cam shaft, pump and crank shaft are all housed by an aluminum casting in three sections outside of the crank box in front.

IGNITION: Jump spark plugs are supplied with high extension current.

FOOT BOARD PEDALS: That at the left disengages the clutch, a small one in the middle works the throttle, while the large one at the right works the ordinary brake, disen-

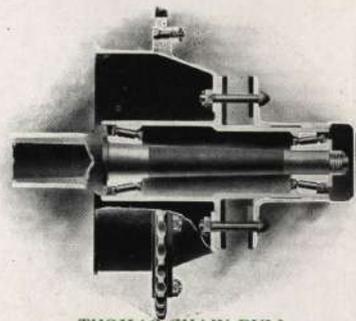


WORM AND SECTOR STEERING GEAR
Adjustable in a minute's time.

admitting of close adjustment, without undue friction. This construction enables any amateur to adjust same in a minute's time. The connecting rod crank has also been improved, using ball socket type connection, which is also easily and quickly adjusted for wear. (See cut, page 13)

MUFFLER : This is of improved design and construction, reducing back pressure to the smallest possible minimum, and is one of the most noiseless mufflers constructed.

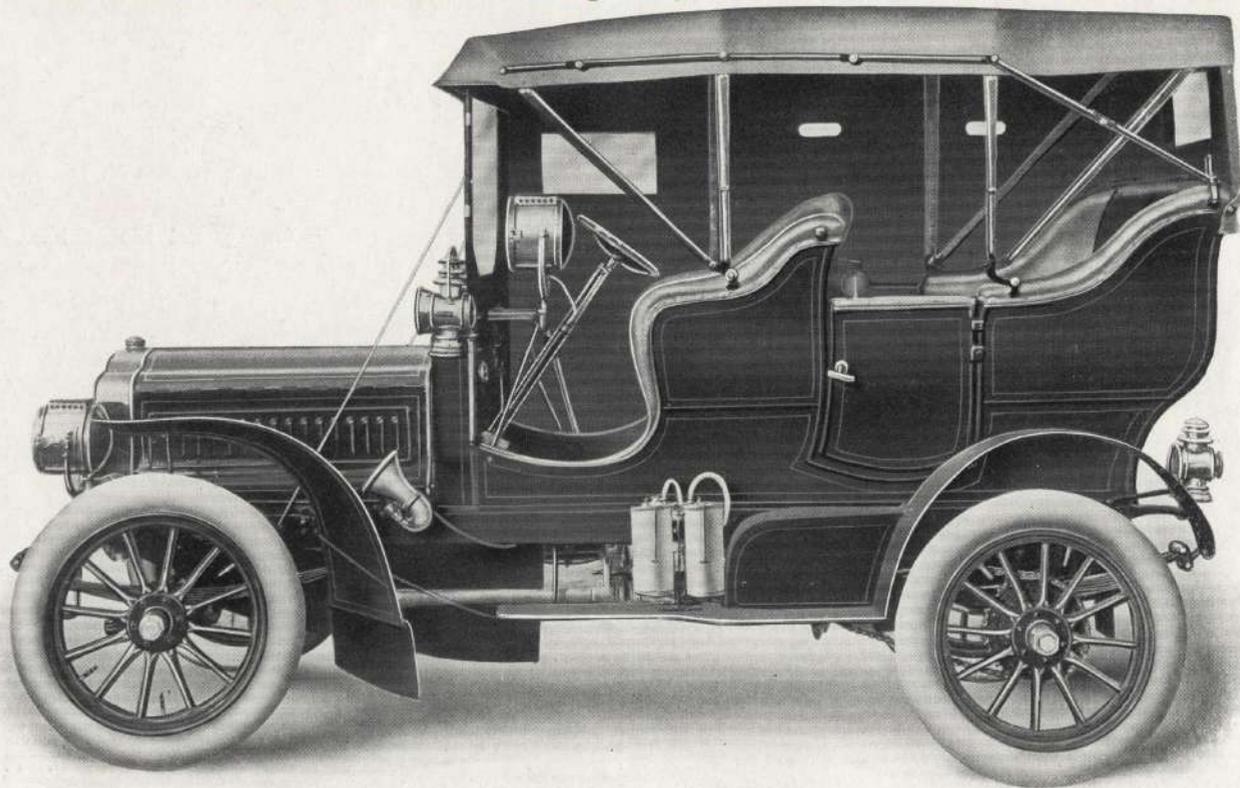
BAGGAGE ROOM : This is situated in the rear of the front seat and holds two suit cases. A locker underneath the tonneau is divided into two sections, the upper or larger section having ample room for storing an extra tire, and the lower or smaller compartment holding the pump, extra inner tubes and other essential sundries needed in touring. The space under rear tonneau seat will hold as much wearing apparel as the average steamer trunk. A special trunk can be made to fit under the seat by any trunk maker, which will prove invaluable to tourists. The entire body is constructed out of metal, and does not check or come apart when subjected to strain. (See cut rear locker, page 8)



THOMAS CHAIN PULL
Showing sprocket located between bearings.



E. R. Thomas Motor Company  Buffalo, N. Y., U. S. A.



Model 25

Thomas "Flyer"—Four-Cylinder, 40 Horse-power, with Extension Top

\$ 3,150

B R I E F D E S C R I P T I O N M O D E L 2 5

Thomas 40-Horse "Flyer"

Motor—40 Horse-power, four cylinder, vertical engine under hood; each cylinder cast separately. Chain oilers on each shaft end.

Transmission—Sliding gear type, with large wearing surfaces—three speeds, forward and reverse, driving direct on high speed. Fitted with chain oilers.

Frame—Bright steel, cold pressed, engine mounted on sub frame, drop forged spring hangers.

Speed—Four to fifty miles an hour.

Wheel-base—104 inches. Tread, standard, 56½ inches.

Tires—Standard, detachable 4 inch front, 4½ inch rear. Continental, \$25.00 extra.

Wheels—Wood artillery pattern, 34 inch front and rear.

Bearings—Roller on all wheels and on countershaft. Dust proof, easy running and adjustable.

Sprockets—Regular stock from 19 to 30 tooth and interchangeable. Rear, 40 tooth.

Drive—Double chain pulling between the outside and inside roller bearings.

Steering Device—Improved worm and sector, adjusted in a minute's time by two outside set screws.

Carburettor—Improved float feed, automatic and reliable.

Radiator—Improved, cellular pattern, with fan. Water carried, 3½ gallons.

Axles—Extra heavy forgings and reinforced seamless steel tubing.

Springs—Highest quality, long and flexible. 40 inch front, 44 inch rear.

Throttle—Foot throttle, which will stay where placed, but is instantly released when either brake or clutch lever is applied.

Safety Device—Ratchet in rear hubs, which prevents car backing down hill.

Brakes—Three—One on countershaft; two on rear wheels. One lever operates all; at same time releases clutch and closes throttle.

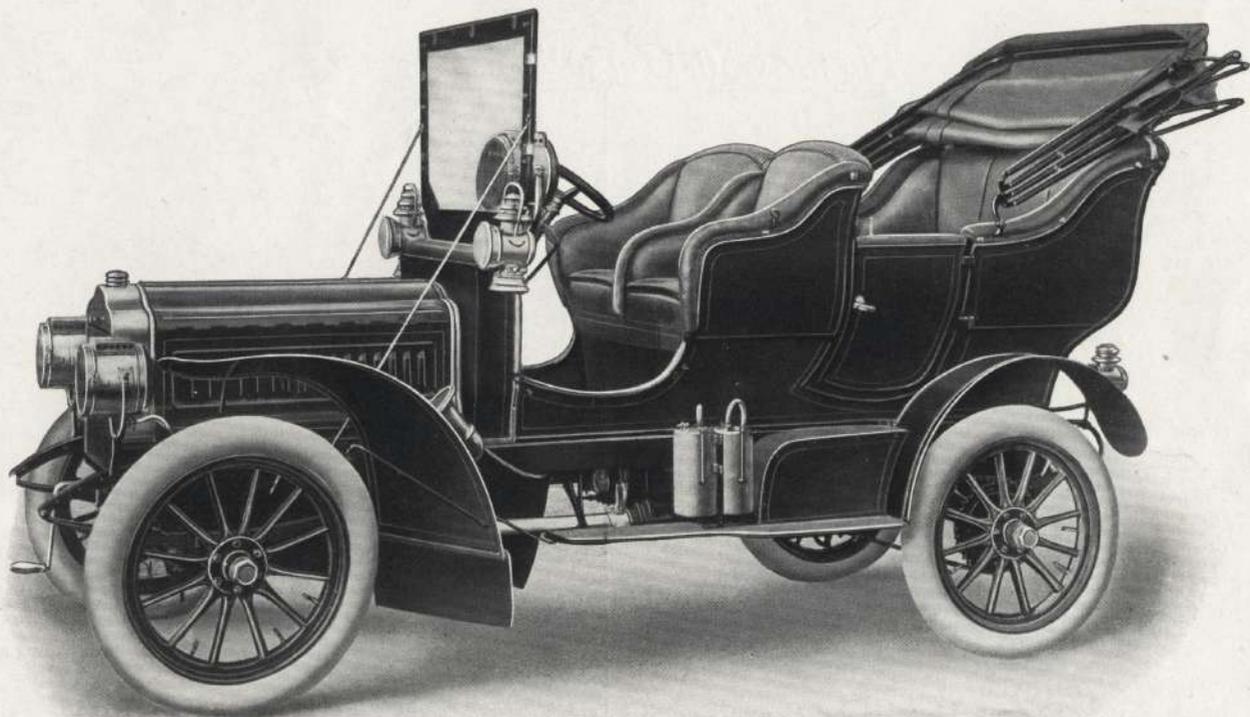
Weight—About 2,500 pounds all on.

Body—Thomas patent dustless, curved sides, curved rear.

Color—Royal green.

Price—Regular tonneau, \$3,000; with new extension top, \$3,150; with canopy top, \$3,200. F. O. B. Buffalo.

E. R. Thomas Motor Company ☞ Buffalo, N. Y., U. S. A.



Model 25

Thomas "Flyer"—Four-Cylinder, 40 Horse-power, with Extension Top

\$3,150

B R I E F D E S C R I P T I O N M O D E L 2 6

Thomas 50-Horse Touring Car

FITTED WITH
VICTORIA OR EXTENSION TOP.

Motor—50 Horse-power, four cylinder, vertical engine under hood, each cylinder cast separately. Chain oiler on each shaft end.

Transmission—Sliding gear type, with large wearing surface, three speeds forward and reverse, driving direct on high speed. Fitted with chain oilers.

Frame—Bright steel, cold pressed, engine mounted on sub frame, drop forged spring hangers.

Speed—Four to sixty miles an hour.

Wheel-base—110 inches. Tread, standard 56½ inches.

Tires—Continental, 34 x 4½ front and rear.

Wheels—Wood artillery pattern, 34 inch front and rear.

Bearings—Roller on all wheels and countershaft. Dust proof; easy running and adjustable.

Sprockets—Regular stock 19 to 32 tooth and interchangeable. Rear, 40 tooth.

Drive—Double chain pulling between outside and inside roller bearings.

Steering Device—Improved worm and sector, adjustable to wear.

Carburettor—Float feed, automatic and reliable.

Radiator—In front of engine, cellular pattern with fan. Water capacity, 4 gallons.

Axles—Extra heavy forgings, reinforced seamless steel tubing.

Springs—Highest quality flexible, 40 x 2 front and 44 x 2 rear.

Throttle—Foot throttle, which will stay where placed but is instantly released when either brake or clutch pedal is applied.

Safety Device—Ratchet in rear hub drum, which prevents car from backing down hill.

Brakes—Three—One on countershaft; two on rear wheels. One lever operates all—at same time releases clutch and closes throttle.

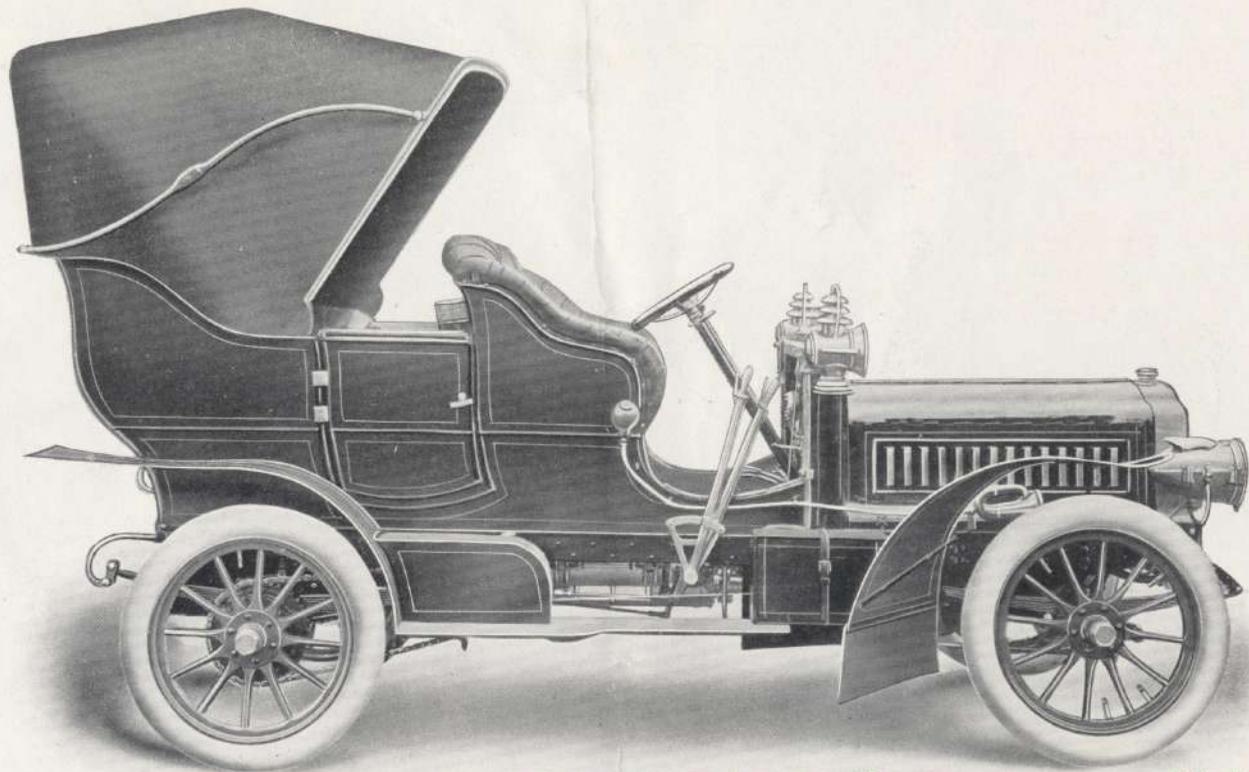
Weight—About 2,650 pounds all on.

Body—Thomas patent dustless, curved sides, curved rear; extra wide rear seats, also wider door and large locker space.

Color—French grey, with apple green trimmings.

Price—Regularly equipped with Victoria or Extension Top, \$3,500 F. O. B., Buffalo. Racing body made to order, extra.

E. R. Thomas Motor Company ☞ Buffalo, N. Y., U. S. A.



Model 26

Thomas Victoria—Four-Cylinder, 50 Horse-power

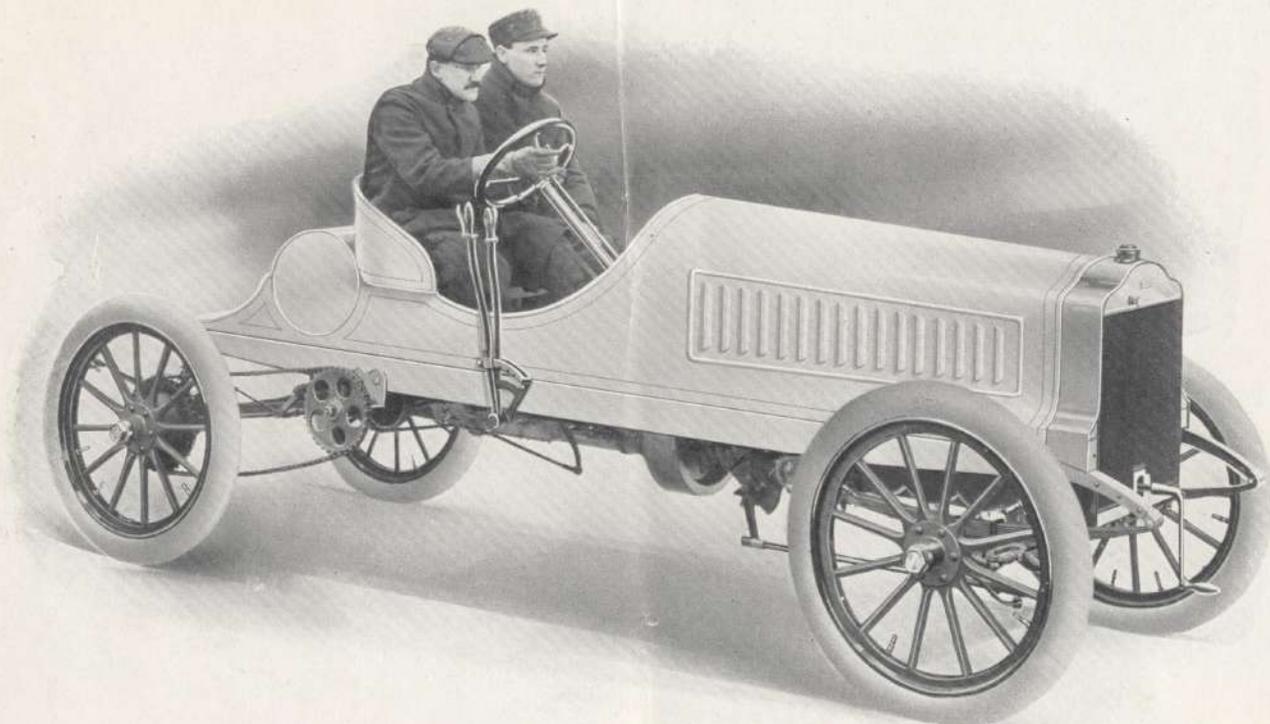
\$3,500

B R I E F D E S C R I P T I O N M O D E L 2 7

Thomas 60-Horse Touring Car

- Motor*—60 Horse-power, six cylinder, vertical engine under hood; each cylinder cast separately. Chain oilers on each shaft end.
- Transmission*—Sliding gear type with large wearing surfaces—three speeds forward and reverse, driving direct on high speed. Fitted with chain oilers.
- Frame*—Bright steel, cold pressed—engine mounted on sub frame, drop forged spring hangers.
- Speed*—Limited only by the condition of the road and wishes of the driver.
- Wheel-base*—124 inches. Tread, standard 56½ inches.
- Tires*—Continental, 34 or 36x4½ inch front and rear.
- Wheels*—Wood artillery pattern, 34 or 36 inch front and rear.
- Bearings*—Dust proof roller on all wheels and on countershaft.
- Sprockets*—25 to 40 tooth. Interchangeable.
- Drive*—Double chain. Pulling between outside and inside roller bearings.
- Steering Device*—Improved worm and sector, adjustable to wear.
- Carburettor*—Float feed, automatic and reliable.
- Radiator*—Vertical, extra large cellular pattern with fan. Water capacity, 4½ gallons.
- Axles*—Extra heavy drop forged and extra heavy reinforced seamless steel tubing.
- Springs*—Highest quality, long and flexible, 44 x 2 front, 48 x 2 rear.
- Throttle*—Foot throttle, which will stay where placed, but is instantly released when either brake is applied.
- Safety Device*—Ratchet in rear hub drum, which prevents car from backing down hill.
- Brakes*—Three—Emergency on rear hub drums, which releases clutch and closes throttle, and regular foot brake on countershaft.
- Weight*—Varied according to equipment.
- Bodies*—Heavy touring tonneau, touring phaeton or special light racing body of most improved design.
- Price*—Regularly equipped with either tonneau or racing body, \$6,000, additional body extra. Limousine body can be supplied on this model when specially requested.

E. R. Thomas Motor Company  Buffalo, N. Y., U. S. A.



Model 27

Touring Car—Six-Cylinder, 60 Horse-power

\$6,000

225/6

B R I E F D E S C R I P T I O N M O D E L 2 9

Thomas 50-Horse Limousine

Motor—50 Horse-power, four cylinder vertical engine under hood; each cylinder cast separately. Chain oilers on each shaft end.

Transmission—Sliding gear type, with large wearing surfaces; three speeds forward and reverse, driving direct on high speed. Fitted with chain oilers.

Frame—Bright steel, cold pressed; engine mounted on sub frame; drop forged spring hangers.

Speed—Four to forty-five miles an hour.

Wheel-base—110 inches. Tread, standard, 56½ inches.

Tires—Continental, 34 x 4½ front and rear.

Wheels—Wood artillery pattern, 34 inch, front and rear.

Bearings—Roller on all wheels and countershaft.

Sprockets—Regular 19 to 32 tooth and interchangeable. Rear, 40 tooth.

Drive—Double chain pulling between outside and inside roller bearings.

Steering Device—Improved worm and sector, adjustable to wear.

Carburettor—Float feed, automatic and reliable.

Radiator—Improved—cellular pattern with fan. Water carried, 4½ gallons.

Axles—Extra heavy forgings, reinforced with stainless steel tubing.

Springs—Highest quality, leaf springs, 1½ x 2 rear.

Throttle—Foot throttle, which will stay in place but is instantly released when either brake or clutch pedal is applied.

Safety Device—Ratchet in rear hub drum that prevents car from backing down hill.

Brakes—Three—One on countershaft, two on rear wheels. One lever operates all, and at same time releases clutch and closes throttle.

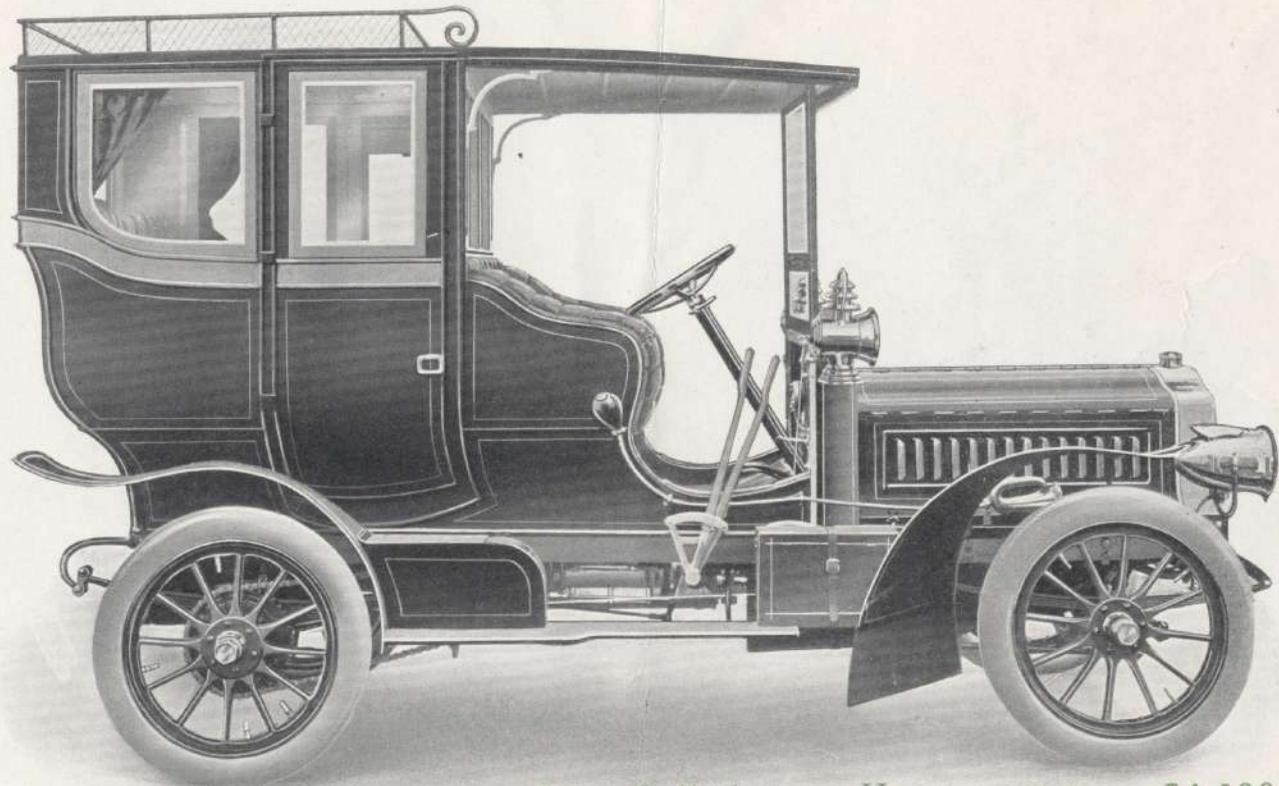
Weight—About 3,000 pounds.

Body—Thomas patent Limousine, lavishly upholstered and finished, fitted with electric lights inside, folding seat, speaking tube and all the conveniences of the most up-to-date design. Will comfortably seat five persons inside and two outside.

Color—Optional, in body and upholstery.

Price—Regularly equipped, \$4,500 F. O. B. Buffalo.

E. R. Thomas Motor Company 22 Buffalo, N. Y., U. S. A.



Model 29

Thomas Limousine—Four-Cylinder, 50 Horse-power

\$4,500

GUARANTEE

ADOPTED BY THE NATIONAL ASSOCIATION OF AUTOMOBILE MANUFACTURERS

WE GUARANTEE all goods furnished by us for sixty days following the date of their shipment, based upon the date of invoice covering the goods; this guarantee being limited to the replacement in our factory of all parts giving out under normal service in consequence of defect of material or of workmanship, without other responsibility on our part of any character. If the circumstances do not permit that the work shall be executed in our factory, the said guarantee is limited to the shipment, without charge, of the parts intended to replace those acknowledged to be defective. It is, however, understood that we make no guarantee whatever regarding pneumatic tires or the batteries. We cannot accept any responsibility in connection with any of our motor cars when they have been altered or repaired outside of our factory. Our agents are solely responsible to the purchaser of our goods for all undertakings and guarantees made by them beyond those expressed above.

E.R.THOMAS MOTOR CO.

· BUFFALO, N.Y., U.S.A. ·