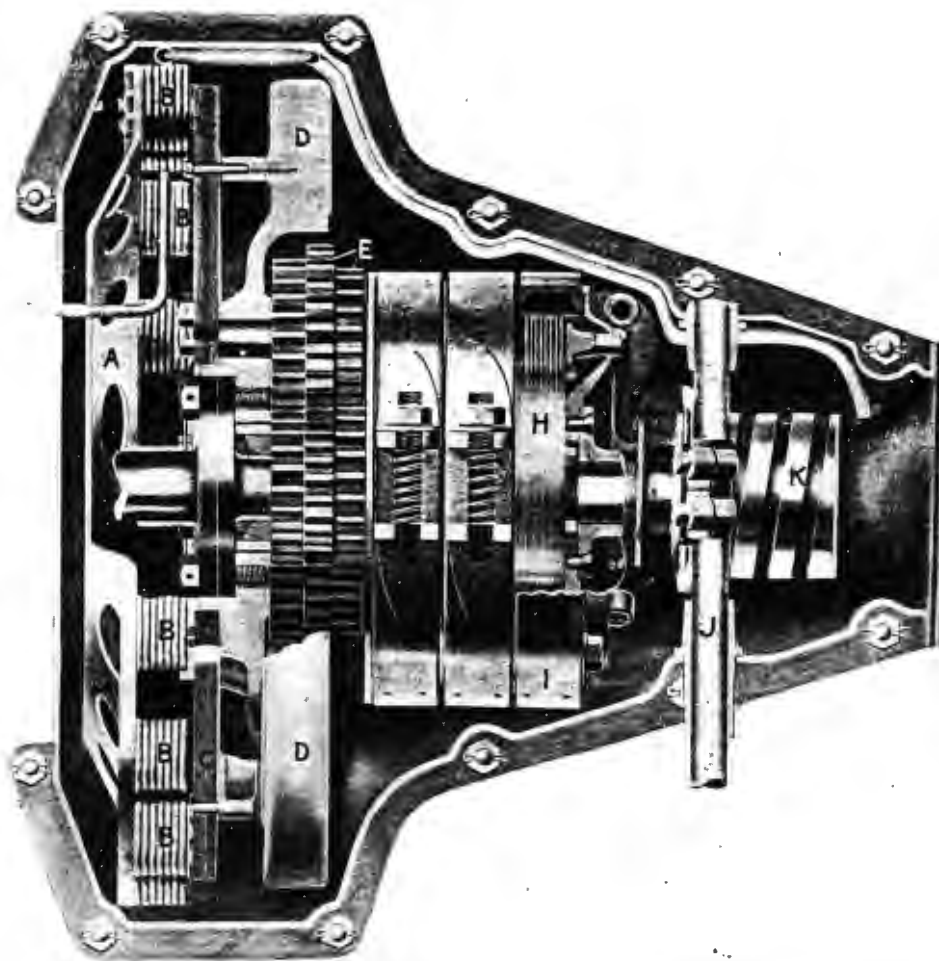


Permanent magnets, substantially U shaped, are bolted to the forward face of the flywheel. Close in front of their outer ends is a series of insulated coils, mounted in a circle of practically full flywheel diameter with their axes parallel with that of the crank shaft. They are supported upon a stationary spider. As the flywheel revolves this magnet and coil combination, which is similar to that used upon some types of large alternating current generators, produces a current which is used through a four unit coil and timer to cause the ignition spark.

To the rear side of the flywheel are attached the planet pinion sets of the two speed and reverse charge gear. The drive comes from these to pinions on the central shaft, thus reversing the usual order. This arrangement permits the use of large diameter gears without additional weight or encasing, and, it is claimed, eliminates the noise usual in spur planetary gears. The low speed and reverse clutches are ring steel bands, fibre faced. The high speed clutch is composed of a number of steel discs. All these parts are fully enclosed in the oil-tight, pressed steel case. The rotation of the flywheel supplies oil for the engine, change gear, universal joint, drive shaft, etc. This oil is fed through a stem of channels to the bearings and compartments. After the required level is reached the excess returns to the flywheel case.

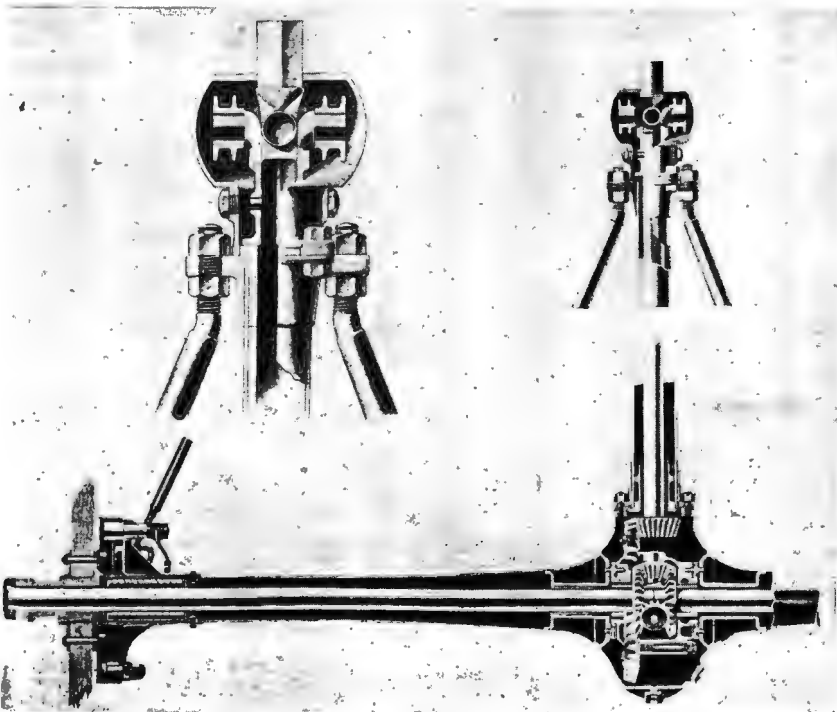
The rear axle casing is made of pressed steel, in two halves, joined in the vertical centre plane of the gear housing. As in previous Ford models, angular braces connect the outer ends of the axle housing to the forward end of the propeller shaft casing near the spherical joint. The spring suspension is unique. It



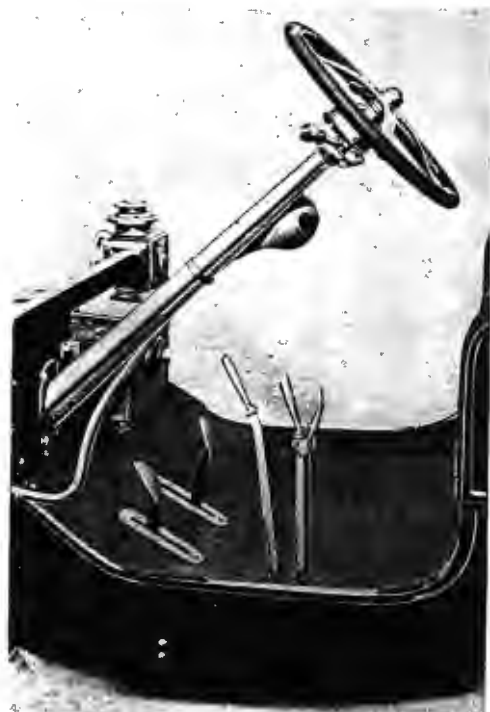
A, support for magneto coils; B B B, magneto coils; C C, permanent horseshoe magnet; D D, flywheel; E, planetary pinions; F G, low speed and reverse brake bands; H, disc clutch for high speed; I, transmission brake; J, clutch rocker shaft; K, high speed clutch spring.

consists of two semi-elliptic springs mounted crosswise of the car directly above the axles. These springs are linked to the axles, and their centres are firmly held in

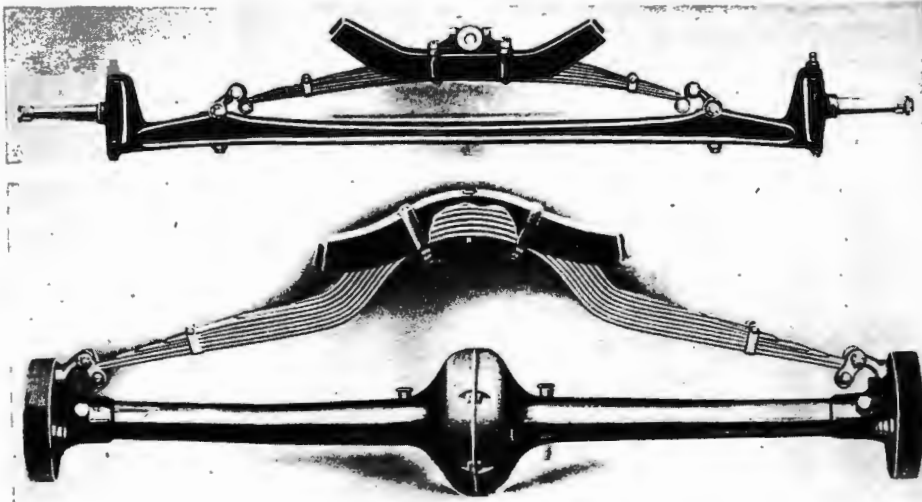
and clipped to the inverted U shaped front and rear cross members of the frame, which are curved to fit the spring arch. The axle alignment is maintained by diagonal



UNIVERSAL JOINT AND FINAL DRIVE.



CONTROL.



FRONT AXLE AND SPRING.
REAR AXLE AND SPRING.

braces from front and rear axles, which are ball jointed to the flywheel casing. This arrangement gives an exceptionally flexible running gear, and the weight of the car is carried so near the wheels that the stresses in the axles are very low. The frame is a typical pressed steel construction.

The two forward speeds are controlled by one pedal, while the transmission brake is operated by the other. Expanding brakes acting on the rear wheel drums are operated by a hand lever, while a second hand lever controls the reverse. Spark and throttle levers are under the steering wheel rim within easy reach. The steering gear is of the Ford planetary type, and its shaft is enclosed in a pressed steel case which also covers the spark and throttle control shafts. The carburetor is adjustable by a handle on the dash.

Thirty by $3\frac{1}{4}$ inch tires are used in the rear, and 30x3 inch in front. The wheel base is 100 inches, while the thread is 56 inches. Owing to the use of heat treated vanadium steel in every forged part, and to the special constructions employed, the

weight of this car is only about 1,200 pounds, with five passenger touring body.

This car is an even better manufacturing proposition than the smaller model, and the writer who has seen the cars in process of construction can easily see that there will be a good margin of profit even at the low price quoted, for all parts of the machine are well adapted to production in large quantities.

The American Locomotive Close Coupled Car.

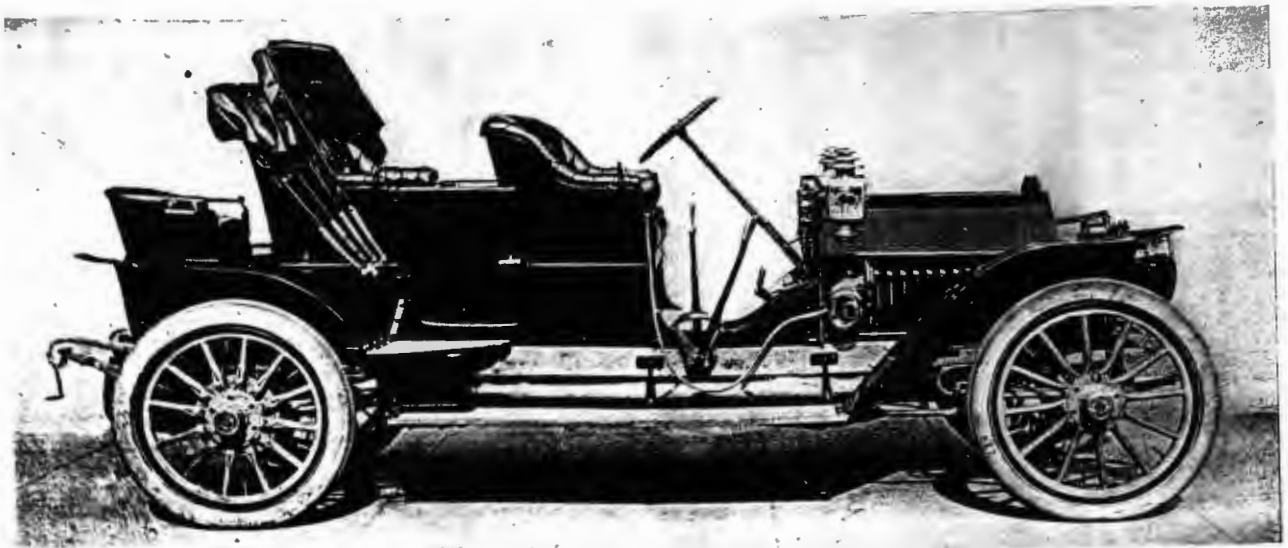
Following the demand for a four-passenger car on which, if the owner desires to drive himself, the mechanic may be carried on a "dinkey" seat at the rear, the American Locomotive Automobile Company, of Providence, R. I., has brought out a special close coupled body, shown in the illustration on a 40 horse power chassis. The car thus fitted is said to provide the advantages of a runabout with a carrying capacity of four, which the runabout does not give. The passengers in the rear seats are placed between the axles, thus distri-

buting the weight between the front and rear springs and eliminating any "buck-board" effects, as when the rear seats are over or in the rear of the rear axle. The consequence is that a variation of one or more passengers in the load does not affect the riding qualities of the car appreciably. The space aft of the rear seats is provided with longitudinal walls, so that parcels, etc., may be put there without being spilled. The "dinkey" is entered from the rear and its support forms a convenient box for sundries, etc.

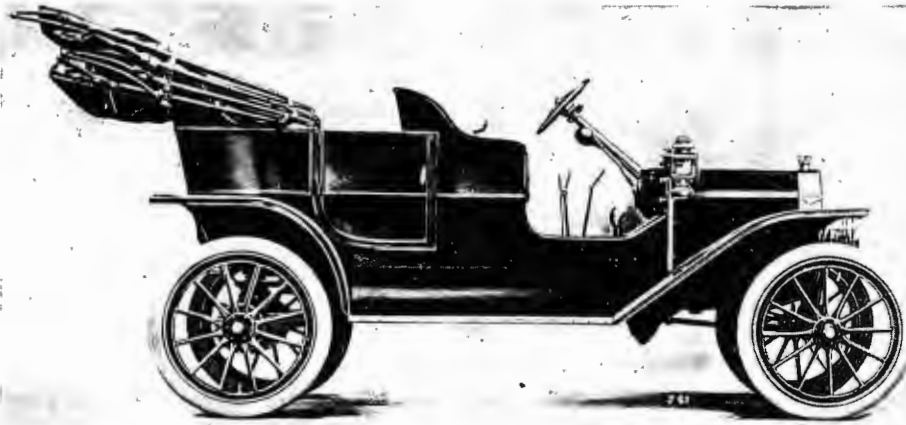
The only changes in the 1909 American Locomotive car are in the rearrangement of the oiling system on the 22 horse power, this being now the same as on the 40 horse power model. The oil tank is carried at the left side of the crank case, just under the horizontal web connecting the case with the frame, the filler cap projecting up through the case. The oil is forced from the tank to sight feeds on the dash by means of a small gear pump driven from the cam shaft by special gears. The two sight feeds have micrometer adjustment, the oil flowing by gravity to the crank case. In other respects the four models marketed for 1909, viz., a 16 horse power taxicab chassis, 22 horse power town car chassis, and 40 horse power and 60 horse power touring chassis, are exactly the same as those built in 1908.

The Schacht Runabout.

The Schacht Manufacturing Company, of Cincinnati, Ohio, manufacture a high wheel type of automobile, a description of which was inadvertently omitted from our Runabout Number. The motor is of the four cycle, two cylinder, opposed, water cooled type, set crosswise in the body at the rear. It has a bore and stroke of 4 inches and is rated at 16 horse power. The cylinders are cast with integral heads and water jackets, with the mechanically operated inlet and exhaust valves in a pocket in the upper side of the combustion chamber. The



AMERICAN LOCOMOTIVE 1000 MODEL WITH CLOSE COUPLED BODY



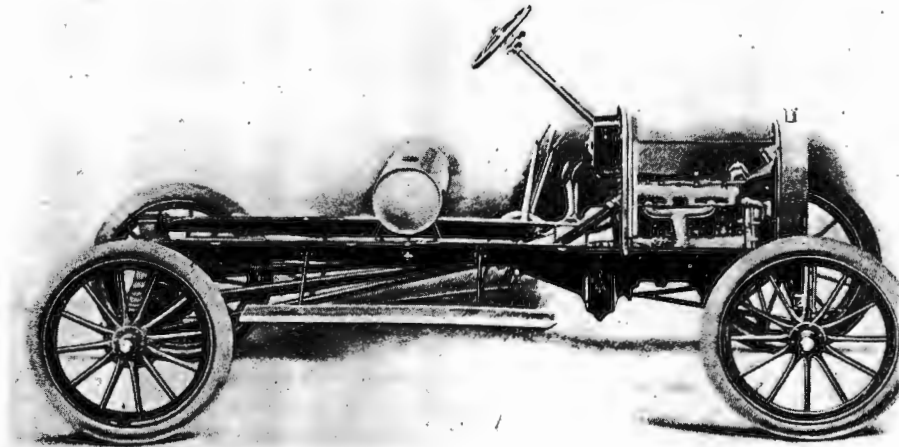
FORD MODEL T, WITH TOURING BODY.

4½ inch bore and 4 inch stroke. The Elmore Company uses its own make of float feed, automatic carburetor. The engine is lubricated by feeding oil into the intake pipe.

The brakes are of the same general arrangement, but of increased power. There is no change in the axles and wheels, except that the front axle is so formed as to lower the frame about 2 inches. On the propeller shaft a double annular ball bearing is now used. The rear platform spring is retained, but a new design with more and thinner leaves is used, giving improved riding qualities. No change has been made in the change speed gear and the universal joints, both of which are of stock pattern.

The body of Model 33, the three cylinder car, remains of the straight back type with round corners. The tonneaus of both the three and four cylinder models have been lengthened, the former 1 inch and the latter 2 inches. Special attention has been given to the upholstering of both models. The dash and trimming on the three cylinder model are of mahogany, and the four cylinder model of Circassian walnut. The height of the radiator has been increased 1½ inches, with the object of making the outline of the bonnet more symmetrical with the other lines of the car. A new model added to the line of 1909 is a landaulet on a three cylinder chassis, which is claimed to very satisfactorily take the place of a limousine. Considerable changes

have been made in the roadster body, which will be furnished the coming season with interchangeable rumble seats, a single rumble and a double rumble seat, which enables the car to be used either as a two-passenger car with flat deck behind, as a three-passenger car with single rumble



FORD MODEL T CHASSIS.

seat and luggage box, or with double rumble seat and luggage box.

The Ford Model T.

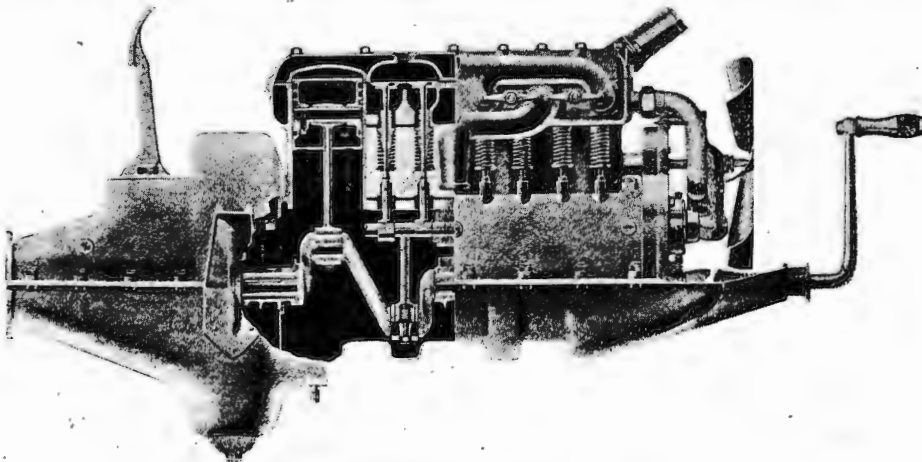
In addition to their well known low priced four cylinder runabouts, which are continued unchanged, the Ford Motor Com-

pany, of Detroit, Mich., have placed larger four cylinder car upon the market. This new machine, which is known as Model T, is primarily a touring car, but also furnished with runabout body for customers as may wish a larger runabout than the earlier model. It is a new departure all the way through and departs widely from standard practice in many details. These departures are made with three objects in view: to render the parts more accessible, to make the car lighter and to reduce the manufacturing cost and hence the price. The motor is a four cylinder vertical with 3¾ inch bore and 4 inch stroke. All four cylinders and the upper half of the crank case are cast together. The water jacketed cylinder heads are a separate casting, however, being screwed to the main casting by twelve bolts. The valves are in pockets on the right side, so by removing this head casting, which covers cylinders and valve chambers, all the valves and tappets are exposed to view. The valves are of the plain, non-adjustable

mushroom type, similar to those used on the smaller car. The cam shaft and crank shaft are one piece forgings, each with three ample bearings. The only unique feature of these parts of the engine is that the upper half of the crank shaft bearings are formed in the cast iron of the crank case, while the caps are babbitt bushings. The pistons are 4 inches long and have four rings. The connecting rods are light I-beam forgings.

The cooling water is circulated by a belt driven centrifugal pump; the water enters the cylinders at the front end of the valve pockets, passes to the head casting at the back side of the rear cylinder, and returns to the radiator from the front of the head casting.

The lower half of the crank case is formed of pressed steel, and it extends forward to enclose the bottom of the flywheel and the movable spherical casing which surrounds the universal joint. Another pressed steel piece, bolted to the top of this, completes the enclosure of the wheel, change gear and spherical joint.

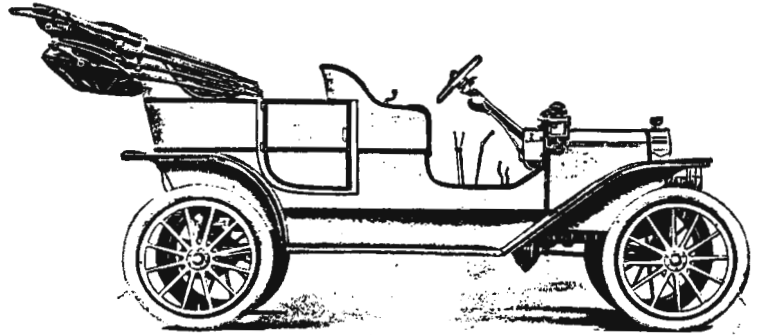


POWER PLANT OF FORD MODEL T.

FORD FOUR-CYLINDER TOURING CAR

\$850 00

When you can couple the Ford guarantee—the guarantee of the best known automobile manufacturer in the world, whose imprint is already on more good cars than any other concern has made or promised—with the lowest price ever announced for a Touring Car, it's a mighty safe buy.



Model T Touring Car, \$850.00
High Priced Quality in a Low Priced Car.

Here is the first and only chance ever offered to secure a touring car at a reasonable price, a price any man can afford to pay. It is a big, roomy, powerful car, of handsome appearance and finish, at a price lower than you are asked to pay for any four cylinder runabout, excepting the "FAMOUS FORD." This car sounds the death knell of high prices and big profits.

When this now famous FORD runabout was announced other manufacturers, despairing of being able to compete, knocked—"A good car could not be built at the price, much less sold." Every knock was a boost. With 20,000 cars Ford proved the car was right. Ford's financial standing today proves the price was right. And the knocking that will be done on this new car will be silenced in the same fashion.

Henry Ford promised three years ago to build a high grade touring car, and sell it at a heretofore unheard of price, and now just as surely as every claim made for the small car was made good, just so surely has Ford made good this promise.

The Model T is that car, the car that was promised, a four cylinder, 20 horse power touring car—a roomy, commodious, comfortable family car, that looks good, and is as good as it looks.

This is no imitation car. Henry Ford has never found the need to copy, and the fact that he has never designed a failure is your security that in the Model T touring car Ford continues to be two years ahead of any car manufactured today.

We have no high sounding name with which to charm sales. It's the same old name, "plain as any name could be"; it's just "FORD," but it has the advantage of being already on 20,000 cars (real automobiles) that have "delivered the goods."

You know that Henry Ford can build a better car for less money than any other manufacturer on the face of the earth. You know it because he has always done it, and that is your guarantee of his ability, and your security in dealing with him.

Our organization is made up of that same force of men that you have learned to know as being connected with the manufacture and sale of an honest product. It's the same old Company that has been doing business right along; the same old successful organization and plant.

Not having anything new but the car, and because it is unnecessary for us to spend money to solicit confidence in our company (that being already secured by past performances) we can devote all our time and money to taking care of the orders for the car that people have actually been waiting for—a family car at an honest price.

The Model T is a four cylinder, 20 horse power car of graceful design, powerful in appearance and reality, and of sturdy construction. It is not a new car in the sense that it has been conceived, designed and built all in a few weeks. Mr. Ford started on the car three years ago. Two years were spent in designing, experimenting and research. A year ago the first cars were shown, and for twelve months have been in constant service.

These experimental cars have been run under every conceivable condition. All last winter they were tried on the snow and slush covered country roads—all summer they have worked on the hills, on the sand and mud roads in good and bad weather.

It is a new car, however, in the sense that it is not an old chassis with a new body or an old engine in a new chassis, but it is a new car built throughout to meet the requirements of a family car. The engine is new (20 horse power), cylinders cast in one block with top removable so that the cylinders, pistons, valves, etc., are get-at-able.

FORD—THE CAR THAT LASTS LONGEST

We want some more dealers—live, wide-awake not now a dealer in automobiles, there's a chance own home town. Write today for full particulars,

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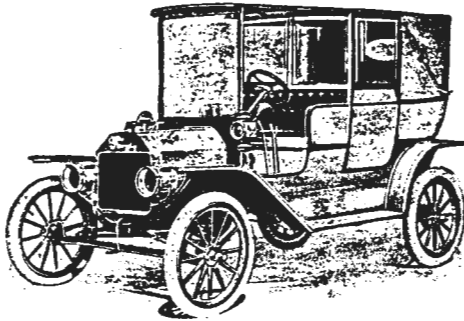
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20 HORSE POWER FIVE PASSENGER FORD

f. o. b. Detroit



Model T Town Car, \$1,000.00
High Priced Quality in a Low Priced Car.

Any car now selling up to several hundred dollars more could, if built in the Ford factory from Ford designs, by Ford methods and in Ford quantities, be sold at the Ford price if the makers would be satisfied with the Ford profit per car.

SPECIFICATIONS.

MOTOR—Four cylinder, four cycle, vertical, 20 horse power; cylinders cast in single block, with water jackets and upper half of crank case integral. Water jacketed cylinder head removable, offering easy access to all interior parts of engine. Pressed steel lower half of crank case extends to form lower oil tight housing for flywheel, transmission, magneto and universal joint.

TRANSMISSION—New design Ford spur planetary; no internal gears. Silent at all speeds. The quietest, easiest transmission ever manufactured.

IGNITION—By Ford low tension magneto generator, an integral part of the engine direct driven by engine shaft; no gears, belts, brushes or contact points. Simplest and most positive system of ignition.

CONTROL AND DRIVE—All forward speeds by foot lever, reverse by hand lever, transmission brake by second pedal, emergency brake on rear hubs by second hand lever. Drive on left side, throttle and spark control under steering wheel.

WHEELS—Thirty inch artillery wood type, pneumatic tires, 3 inch front, 3½ inch rear; tread, 56 inches; wheel base, 100 inches; weight, 1,200 pounds.

GASOLINE CAPACITY—Ten gallons, enough for 225 miles.

EQUIPMENT—Three oil lamps and tube horn. With body ironed for top.

BODIES—Touring car as shown and now ready for delivery; also supplied in landaulet, taximeter cab, coupé and town car style. Runabout and roadster.

PRICE—On touring car, \$850.00; landaulet or taximeter, \$950.00; coupé, \$950.00; town car, \$1,000.00 F. O. B. Detroit.

DELIVERY—Beginning October 1 on touring cars; November 1 on other styles; runabout and roadster for spring delivery.

The chassis is new, a hundred inch wheel base and 30 inch wheels. The transmission is of new design (planetary, of course), and altogether silent; \$150,000 worth of new machinery and tools were added before we could start to build.

Vanadium steel, the strongest, toughest and most enduring steel ever manufactured, is used throughout the entire car. The only reason every automobile manufacturer is not using Vanadium steel is either that they cannot afford to or do not know how. To use it in Fords required two years of experimenting, and an expenditure of \$200,000, plus the increased price of steel.

We could have announced the car last year; we wanted to prove it in actual service; held it a year when we knew people were anxious to buy. Now we know the car is right. It's built for the sort of use the average buyer gives a car, and no car made, no matter what the price, can excel this Model T in practicability and service.

Announcing this car at this time we are not taking time by the forelock—we are not announcing with the intention of waiting for orders before commencing to build. October 1 will find us delivering cars, not promises. Not a line of advertising appeared, not an order accepted until we had the completed car and knew exactly when we could start to fill orders. Our dealers have guaranteed us an enormous demand, however, so that an immediate order is advisable. While we do not know how many of these cars we will build in the next twelve months, the price per car is based on building 25,000 cars. We will not build any less—we may build more. We have manufacturing facilities for 100 complete cars per day. A careful study of conditions and of reports from our selling force indicates that even this large capacity will be insufficient. So wire your order—now is the proper time to buy.

AND COSTS LEAST WHILE IT LASTS

hustlers. If you are that kind of a man, even tho to make money with the Ford line right in your for we are ready to make contracts for 1909.

Ford Motor Company

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