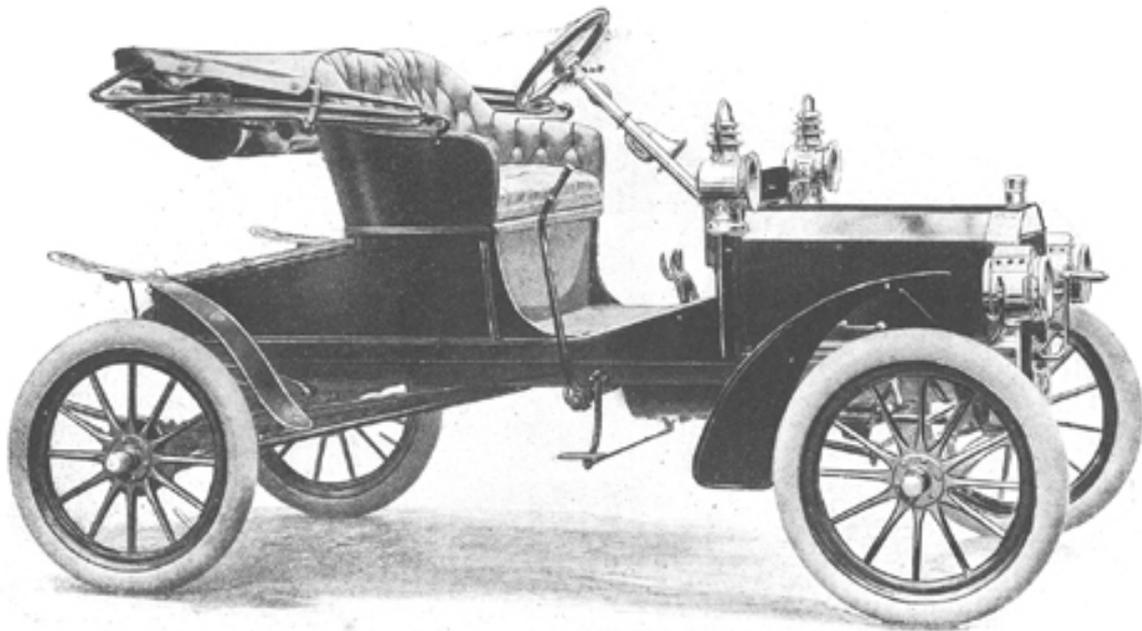


# THE FORDS FOR 1908, MODELS K, N, AND S

The 1908 line continued from the 1907 with but minor changes. The Model S, introduced about August 1907, replaced the Model R. Added to the line was a roadster version of the Model K, called the "6-40 Gentleman's Roadster."

During production the use of Vanadium steel began, making for a much more substantial automobile.



Ford 4-cylinder 15-18 H.P. Runabout---Model "N"

## **Ford Model "N"**

It is a little over two years since the Ford four-cylinder, 15 horse-power runabout (Model "N") was first announced. We have made automobile history rapidly since. Then, a mere conjecture in the minds of many-now, the most potent influence in the industry. Then, a promise---now, the most notable fulfillment of all Ford promises, every one of which has been fulfilled to the letter. Then, a butt for jest or ridicule by competitors-now, the one car to duplicate, or copy, or to compete with which other makers are most concerned.

We had learned no less from the mistakes we had seen others make than from the uniform success of all former Ford models, that the most delusive thing in the building of motor cars is the seeming cheapness of cheap materials. A car made from such shows a big gross profit. But the replacement of defective parts, the repairs that must be made gratis if the maker would have customers recommend his car, cuts the big gross down to a small net---or a deficit by the end of the year.

To a man who buys a \$600 car the amount invested is as great as \$6,000 is to the wealthier man who pays the higher figure for his equipage.

The Ford triumph has been so complete we no longer feel any desire to gloat over the chagrin of our rivals. It is not even necessary for us to waste words to assert that this car stands without a rival or an equal today.

And all the disparaging remarks---"it will be too light for its power;" "it cannot be well made at the price;" "when it arrives you will see it is cheap in workmanship and materials as well as in price"---of these and other guesses the sole foundation of which was "the wish that was father to the thought" we need not treat at this time. All have been so thoroughly disproven it were now a poor satisfaction to "rub it in."

"Eliminate the guess; let certainty, accuracy, take the place of perhaps. See that the quality of work and materials are such that there shall be no culls---no seconds---no loss of materials or time in assembling the complete car." These were Mr. Ford's axioms in working out his plans. The result is a system, an organization, and a car of such quality and ability---such powers of performance and endurance---as has commanded the admiration of our strongest competitors. And, now that nearly 10,000 of this model are on the road---we can say there have been less troubles, less repairs and less replacements of defective parts for these 10,000 cars than for any 500 cars ever built before. In other words, Mr. Ford has attained his ambition and if this Ford model is "more hated by competitors than any other car ever built," it is also true that it is more prized by its owners than any other of any make.

We used adjectives lavishly to describe the car-but that was when they were not to be seen, as now, flitting about, silently and speedily, everywhere. Now we say to the enquiring buyer, "ask any Ford owner or,---better still,---ask a competitor-and read between the lines of the answer."

In a word, the Ford Model "N" runabout is built to withstand the roughest usage over the roughest roads. There is not a weak place in it.

And no matter what the price, the man who buys an automobile from a responsible house, taking the word of the concern for the quality of its product, has a right to expect a practical motor car and one which with ordinary usage will withstand the hardest work over rough American roads.

All these things Henry Ford had in mind during the two years he was working out the designs and the plans for his cherished scheme-a car that would combine all that was best in an automobile and built in such numbers and at a price that would place it within the reach of that great class of business and professional men to whom a motor car is a necessity rather than a luxury---and who can pay accordingly.

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## **Motor DETAILED DESCRIPTION**

Model "N"---four-cylinder, vertical; located longitudinally under hood at the front. Cylinders cast in pairs. Bore, 3-3/4 inch; stroke, 3-3/8 inch; rated horse power at normal speed, 15. (Under series of tests connected with and driving dynamo develops 18.4 h. p.) Aluminum crank base. Crank shaft bearings, highest grade babbitt metal; exceptionally long. Cam shaft bearings, bronze.

**CRANK SHAFT**---Drop-forged from Ford special steel, especially heat-treated by our own process. All bearing surfaces ground to a half-a-thousandth of an inch accuracy.

**CAM-SHAFT**---Drop-forged in one piece with all cams integral; cam surfaces case-hardened and all bearing surfaces ground.

**VALVES**---Drop-forged; head integral; seats and stems ground to micrometrical accuracy.

**CONNECTING RODS**---Drop-forged from Vanadium steel in "H" section. Lower bearing cap hinged. Provision for adjustment is made by the insertion of fiber shims which can be removed and filed down for that purpose. Piston pin bearings, bronze; split bushing adjustable by tightening set screw. Large hand

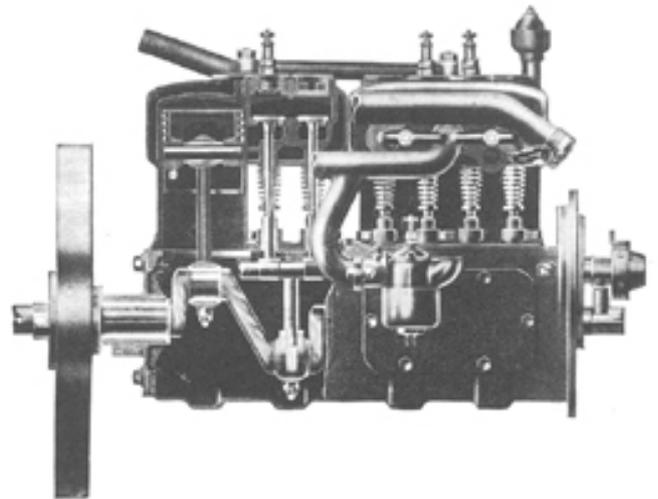
We have to apologize for no part of it. Better materials never were put into a car. Its lightness is its greatest strength because that lightness has been obtained only by the use of the best materials procurable---pressed steel, steel forgings, stampings and other high grade metals instead of castings of greater weight, bulk and uncertainty as to strength. Rated at 15 horse power, it delivers that at the wheels. Any car of the 10,000 will make forty miles an hour on a level road and will climb anything the wheels can hold on the high gear. It is silent, sweet-running and flexible. Tire consumption is less than on any other car in the world, bar none. In short, it represents the very highest degree of attainment in automobile building. It is cheap only in price. The almost limitless market made it possible to plan for theretofore unheard-of quantities---to buy material on a large scale, to equip a factory with special automatic machinery useful only for building this one model. And this quantity production, this perfect standardization, this volume of business made it possible to produce the car at the price. The plan was as simple as it was clever---and now all the world concedes it was a master stroke on the part of Ford, though but a few months ago none could understand his motive or his philosophy.

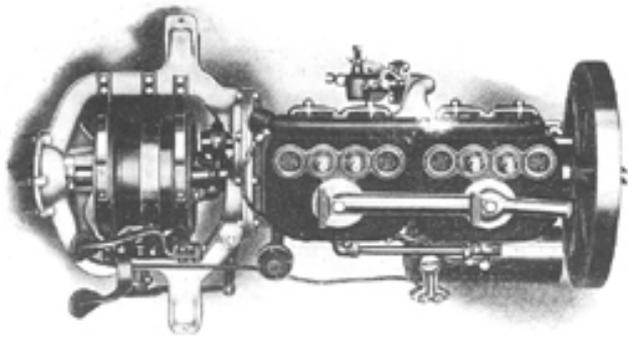
holes at the left side of motor, covered by removable plates, permit of easy inspection and adjustment of crank and piston pin bearings without otherwise disturbing the engine.

**PISTONS**---Cast from fine grain gray iron, our own formula. First rough turned, then turned to within a few thousandths of size; are then annealed to relieve strains in the metal and effect such distortion as will result from heat. After cooling, are finished by grinding. Each piston provided with four rings of the eccentric type, split diagonally. Rings are ground on both sides and on the outer surface.

**CYLINDERS**---Cast from the finest quality gray iron. After first boring operation, cylinders are annealed to relieve strains, after which they are rebored and finally reamed so as to secure an absolutely straight and round cylinder.

**PISTON PINS**---Steel, hardened and ground.

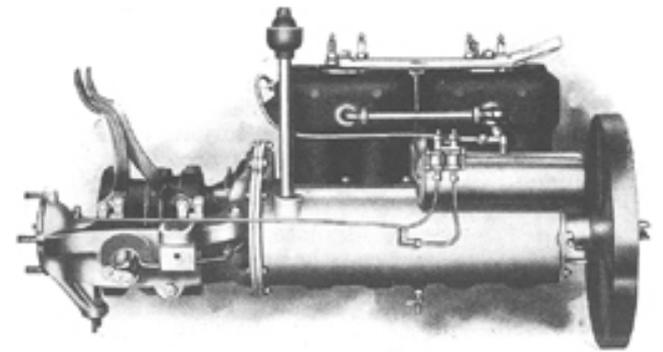
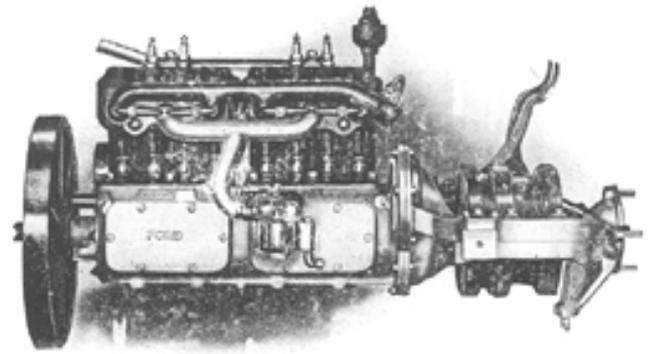




## Lubrication

**FORCE FEED OILER**---A faultless lubrication system is afforded by a force feed oiler with sight feeds for regulating the flow. One tube serves to maintain a uniform level in the engine base and the other leads to the ball housing which encloses the universal joint in the cardon shaft. All engine parts---crank shaft and connecting-rod bearings, piston pins, cylinders, cams, and valve lifters, are lubricated by the "splash" system. Owing to the fact that the stroke in this engine is shorter than the bore and that the pistons project into the base at the end of each stroke the splash system of lubrication leaves nothing to be desired. It is certain and simple. The oil begins to flow when the engine starts and while it is running the supply is in direct proportion to speed of the motor---in other words, to exactly meet its requirements. When the motor stops the oil ceases to run so that once the feed is regulated a constant level can be maintained in the engine base regardless of variation of speeds. A partition mid-way between front and rear of the engine base prevents the oil flooding the rear cylinders when climbing steep grades and keeps the two pairs equally lubricated. Oil cups are provided at every bearing point throughout the car---even at the spring connections. Provision is made both in the transmission gear and in the differential and bevel gear housing of the rear axle, to pack these parts with heavy grease, one supply of which will last for several weeks.

**IGNITION**---By jump spark; current supplied by batteries---standard equipment (Model "N") two sets of six Columbia dry cells. Quadruple coil in handsome case located on the

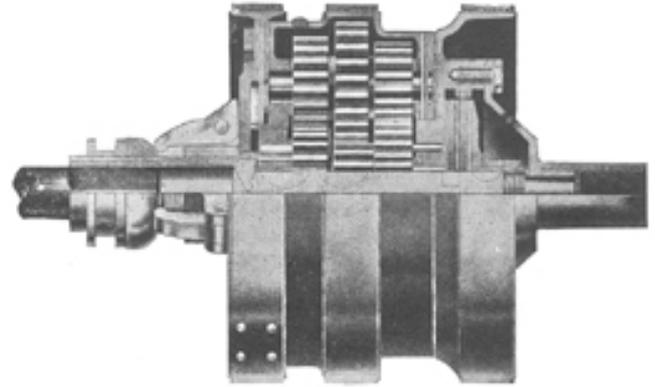


## Transmission

The transmission is of the Ford spur-planetary type, nearly ten thousand of which are now in use and which have proven so wonderfully efficient and durable. Low speed and reverse clutches are of the fiber-lined, steel band type, which take hold smoothly and which spring away from the drums when disengaged so as to prevent "dragging" and the consequent waste of power. The high-speed clutch is of the multiple disc type with fiber discs interposed between smooth cast iron discs. A transmission gear is almost unnecessary on this Model "N" car as the excessive power of the engine enables the car to climb almost any hill or negotiate the muddiest or sandiest roads on the high gear---and at a slow speed if the driver so desires. The low gear is seldom or never used except for the first twenty or thirty feet when starting from a stand-still. It will be seen, therefore, that this transmission should outwear almost any other part of the car.

dash. Switch on front of case. Each coil unit is separate and complete in itself and any unit may be removed or replaced without disturbing the others. High tension wires well insulated and carried in fiber brackets so that disarrangement or short-circuiting is impossible.

**CARBURETOR**---Float feed; automatic, specially designed for this car. Gasoline tank located under the seat with gravity feed to carburetor.



## Cooling

Perfect cooling under all conditions is afforded by a most efficient vertical tube radiator which forms the front of the hood and in which the centrifugal pump is incorporated. The circulation system has been carefully worked out so that the water is constantly in motion and it is impossible for the engine to overheat no matter how hot the weather or how long it may run idle or on the low gear.

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## Final Drive

The Ford triangular drive system is patented in every country in the world. It is the only system in which all driving shafts, universal joints, gears and other moving parts are enclosed in a dust proof and oil tight housing from transmission gear to the hub caps of the wheels. The drive is direct to the center of the chassis regardless of whether the car is running straight or turning corners; and only one universal joint is necessary. A ball-and-socket connection between the tubular torsion member of the transmission frame allows the axle to oscillate in any direction and thereby relieves the passengers of all strains and shocks due to unevenness of the road. It also permits of the use of full elliptic springs, flexibly connected to the frame brackets instead of the rigid connection necessary when the driving strain must be transmitted through the medium of the springs. This system is broadly covered by letters patent in all countries. The universal joint comprises four members---

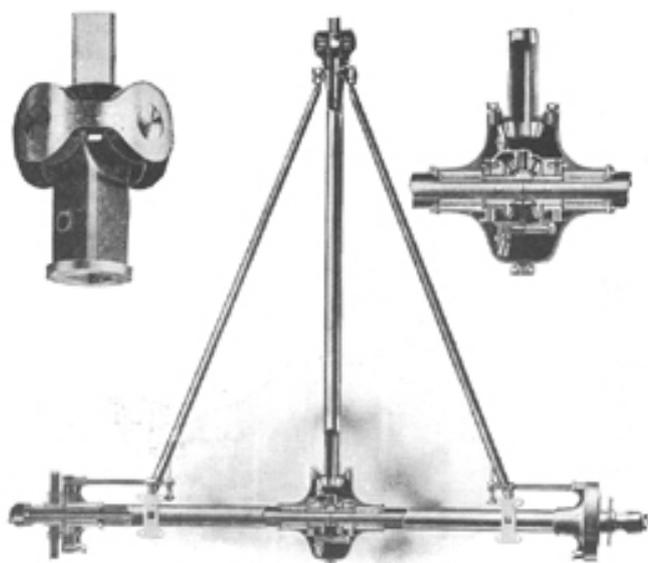
## Front Axle

The front axle of the Model "N" is a marvel of the drop-forging art. The entire axle is drop forged in one piece from Vanadium-chrome steel and is specially treated after forging. It is in "I"-beam section-the form which gives the maximum of strength with the minimum of weight. The worst that can happen to this axle, even in a collision with a telegraph pole, is to bend it; and even if bent double, it can be heated in a blacksmith's forge and straightened or straightened cold without having suffered any actual injury. Steering knuckles and spindles, are drop-forged from special steel, in one piece. Front wheels are carried on large ball-bearings-balls being more suitable for supporting the end-thrusts occasioned by steering.

## Steering Gear

The Ford Reduction-Gear is the only really

the two drop-forged steel sections and the halves of the split bronze retaining ring. It is, at the same time, the simplest, most efficient and most durable universal joint ever devised, and as it is automatically lubricated at all times, the owner "never knows it is in the car." The drive shaft bearings are of babbitt, carefully reamed and fitted and the oil from the universal joint flows constantly down through these bearings and into the differential housing.



**Rear Axle**

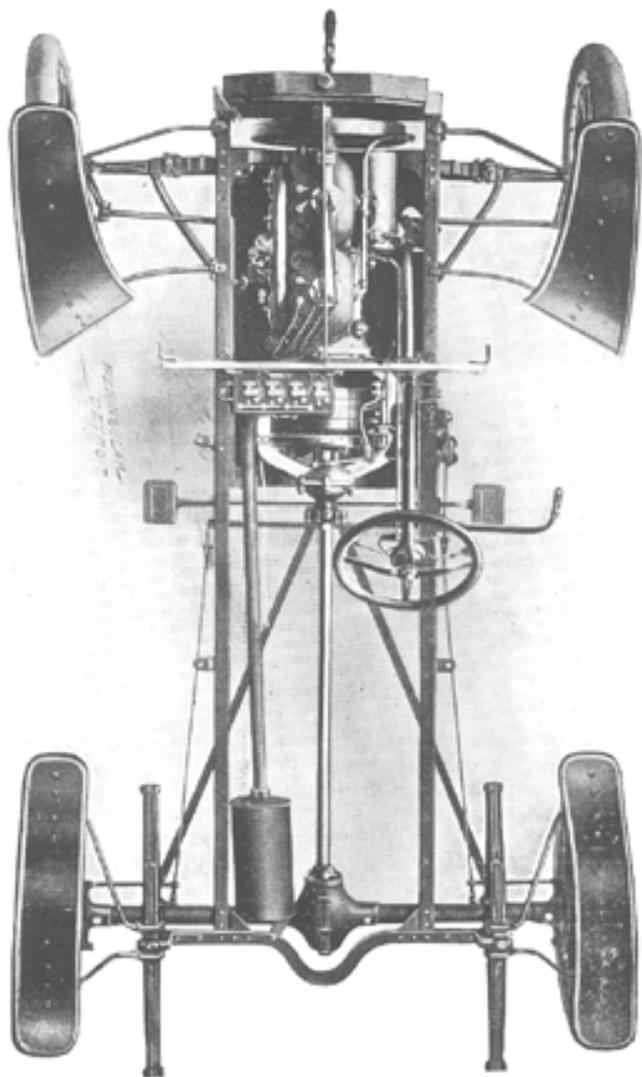
The rear axle proper is the well known Ford design, the driving members being enclosed in a tubular steel housing, press-fitted and riveted to the cast steel sections of the differential case. Hyatt roller bearings of the indestructible type are fitted at both ends of the live members. The differential gear is of the three driving pinion and main bevel gear are drop-forged from Ford special Vanadium steel, teeth accurately planed and case hardened. The axle may be taken apart in a few minutes, differential gear and other parts removed and examined.

new thing has been developed in several years. Like the rear axle, it is being patented in all countries and we believe it is the most satisfactory solution of the steering problem that has yet appeared. It is just sufficiently irreversible to relieve the driver of all road worries and at the same time yields enough to irregularity of the ruts to save the car from the many shocks and twists from which it would otherwise suffer. The gears, instead of being located below the frame where they become clogged with mud and cut by grit and dust, are placed at the top of the post and just within the hub of the steering wheel. Ball joints connect the steering arm with the transverse steering rod.

## Springs

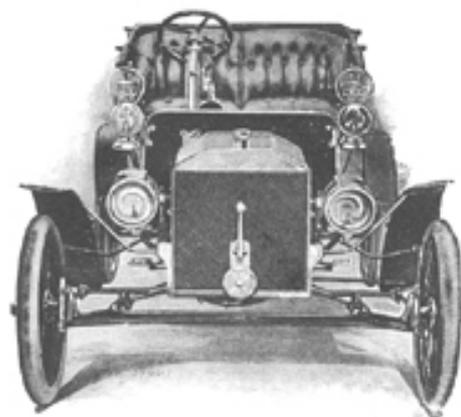
Full elliptic springs are the only satisfactory type for rough American roads and the imperfect block pavements of our cities--- and Ford cars are built for hard service over such roads.

The lightness of the frame and body and the disposition of the load---engine over front axle, passengers between front and rear--- permits the use of very light, flexible rear springs---the result is the most perfect riding runabout ever built. Instead of the stiff side springs at the front, there is a single transverse spring shackled to forged integral bosses on the front axle. The front cross-frame member rests upon the center of this spring and there is, therefore, provided a three point suspension for the frame as well as for the motor and transmission gear. (For the enlightenment of those who believe side springs would be superior to the single transverse spring might say we tried this out thoroughly before deciding to adopt the one we have. The difference in steering was not noticeable while in riding qualities the transverse spring proved to be incomparably superior. In all the thousands of cars now on the road no weakness has ever developed in the spring construction so we can assert that for a light car, constructed as this one is, this spring suspension has no equal.)



### **Three Point Suspension**

While we are on the subject, it might be well to note that the "three-point suspension" idea has been carried to what might be termed, its "logical conclusion" in this car. The driving forces are transmitted through tubular radius members from the outer ends of the rear axle, at a point just below the spring blocks, to a common center at the ball joint previously described; then, from a point almost directly below this ball joint is another from which diagonal tubular radius members convey the driving forces again to the ends of the front axle; the engine and transmission are supported at three points; and the frame also has a three-point suspension on the two rear springs and the single transverse front spring as previously outlined. The wonderment which everyone after his first ride in a Ford runabout expresses, is induced by the constructional factors above outlined.

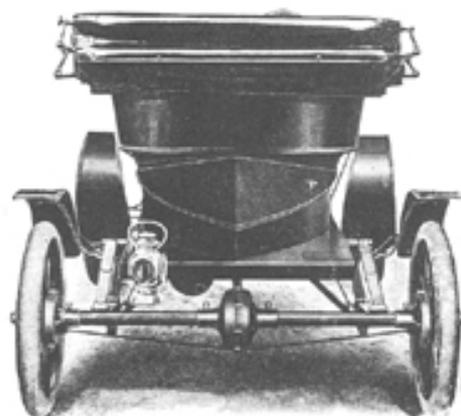


### **Frame**

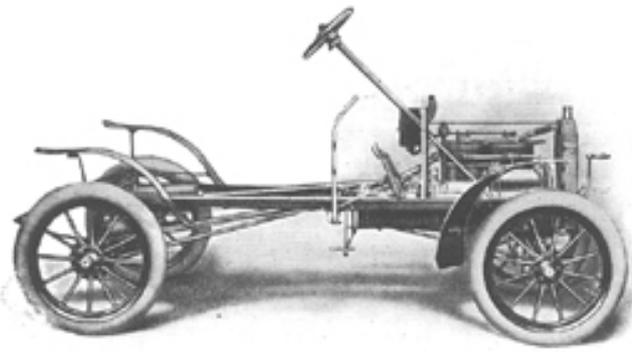
The frame is of the approved steel type, in channel section, and is made from the highest grade of material procurable. It is cold-pressed and tapered toward the front and rear. The frame has a factor of safety many times the load which it will ever be called upon to sustain. This is also true of the axles and every other part.

### **Body**

The neatly designed Model "N" runabout is such a familiar sight on the streets of every city in America---and even in Europe now---it seems almost unnecessary to describe it. Briefly, then: two semi-individual seats, standard width and height, handsomely upholstered in dark green M. B. Leather and curled hair. "Torpedo-back" for carrying tools, rain coats, rugs and extra tires. Highly finished, neatly striped and trimmed.



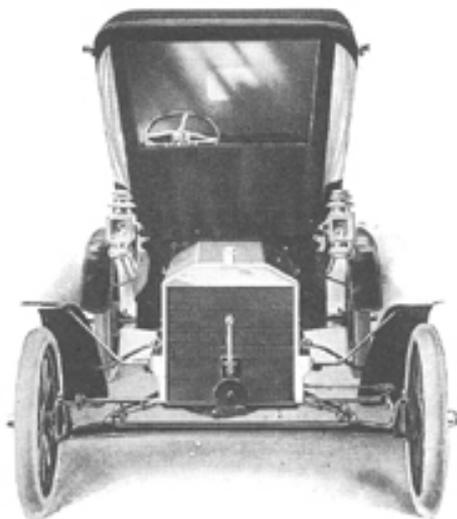
### **Brakes**



The Model "N" car is splendidly equipped with brakes. For service use, there is a contracting fiber-lined band brake operating on a special drum on the transmission shaft. For emergency use there are a pair of internal expanding, bronze rings contained within dust proof, pressed steel drums attached to the rear hubs. Then the reverse clutch band, operated as it is by a foot lever, may be used as a brake if desired. The service and emergency brakes, being also operated by foot levers, there are three foot levers, any one of which will slide the wheels on any kind of road surface.

## **Tires**

The Model "N" is equipped with 28x3 inch clincher tires. Owing to the fact that no one tire concern can supply us with our full requirements, it is impossible for us to give customers an option on make of tire---we must equip each day's output with whatever tires we have in stock. It is sufficient to say we buy the best there is and since the tire pool went to pieces, we have no difficulty in getting any brand we desire---in fact the scramble for the Ford tire business today is in sharp contrast to the attitude of some tire concerns a year ago when a concerted effort was made to prevent Ford carrying out his plans for a four-cylinder runabout at a reasonable price.



## **Fuel Capacity**

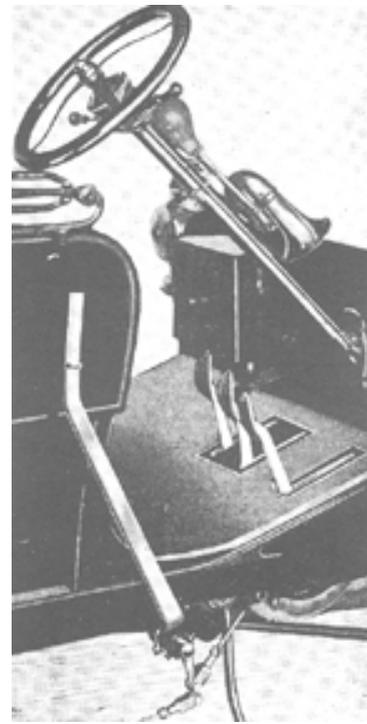
The gasoline tank is located under the seats and has a capacity of eight gallons. As this car averages about twenty-five miles per gallon of gasoline, this is sufficient for about two hundred miles of running over ordinary roads.

### **Equipment**

Consists of tools and tire repair kit only-lamps, tops, etc., extra. Catalogue and prices on request.

### **Operation and Control**

We believe we are justified in saying no other car in the world is so simple to master and easy to control as are the Ford Runabouts, Models "N", "R" and "S". Hundreds of these cars are driven constantly by ladies and misses, not to mention the youths of fourteen to eighteen years of age who use them. So far as we know there has never been an accident which was in any way due to the inexperience of the driver or to any other cause, even remotely associated with the control of the machine. A single lever at the side operates the low speed and the high, the movement being the simple backward and forward one with neutral position midway. The reverse is operated by a foot lever as before indicated. Spark and throttle levers are located at the right and left side, respectively, of the steering post just below the wheel, so that both can be operated by the index fingers without removing the hands from the steering wheel or releasing the hold on it even for a second. Having excess of power to meet all conditions the car may be driven at any speed from four miles per hour to its maximum speed of about forty miles per hour by simple throttle and spark control alone. Even for driving in congested city streets it is seldom necessary to use the brake or to disengage the clutch. The spark lever may be "slowed down" to a point beyond center and the throttle to the last notch, at which position the car will travel at a very slow pace and yet with plenty of power so that the engine will not labor nor jerk. The motor is easy to start, so that a lady has no difficulty in this regard, whereas to start a



### **PRICE**

Model "N"-\$600 F.O.B. Detroit.  
IRONING FOR TOP-\$5.00 EXTRA

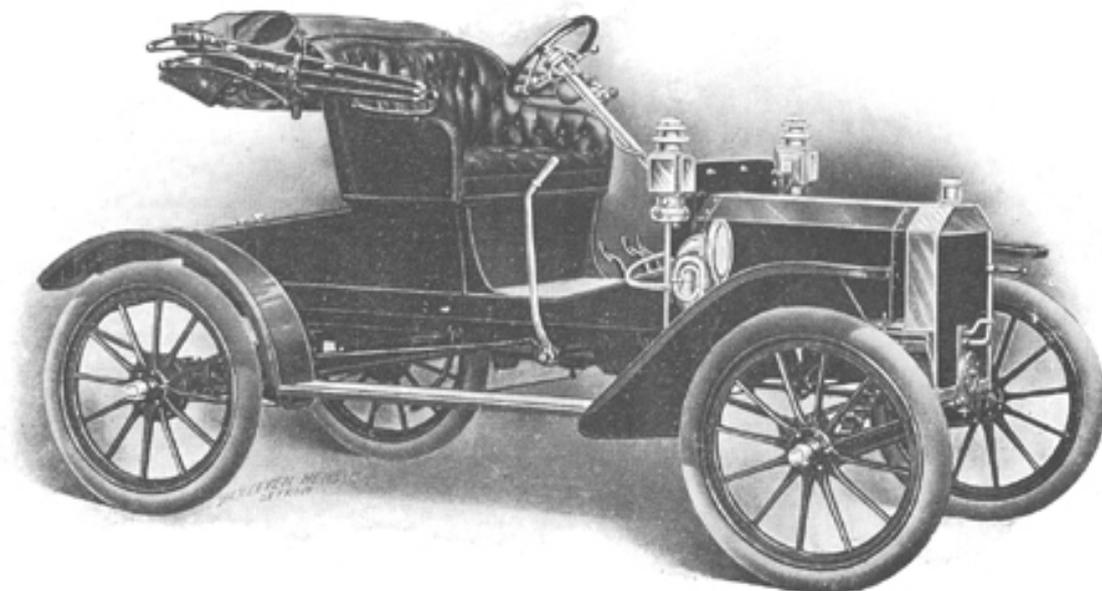
As 95 per cent of all customers order tops fitted and as all owners want to attach them sooner or later; and as to iron finished body for top is expensive, we have adopted a plan of working all "N" seats for top, for which an extra charge of \$5.00 is made. When top is ordered with car, cost of ironing is included in price of top.

single or even a two-cylinder motor of anything like the same horse power would be an almost impossible task for a woman.

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## **RUNABOUT "DE LUXE"**

**Model "S" \$700 f.o.b. Detroit**



Mr. Ford's original aim in designing his now world-famous four-cylinder runabout was to build a stock model two passenger car that should combine the qualities of strength, lightness, power, speed and hill-climbing ability with those of endurance and economy of up-keep, and to clothe it in a body that should be "neat but not gaudy" and one which should meet as nearly as that is possible, the tastes of average buyers.

In the matter of body design it might be said no two persons fully agree, so the designer must use his own judgment and compromise between what his broad experience teaches him the buyer should have, and those features which the buyer himself thinks he needs.

The Model N was Mr. Ford's conception of a runabout that was "all automobile"---in other words, all efficiency with none of the frills or fussings so dear to the hearts of some motorists.

The tremendous popularity of that model

It seemed as if 2500 of these would be ample for this season's needs, but we fell short of the mark. Every Model R has now left the factory and the only ones to be had are those which may be found here and there in the hands of agents and branches. It is too late to build more---we cannot make and finish bodies and wheels in time.

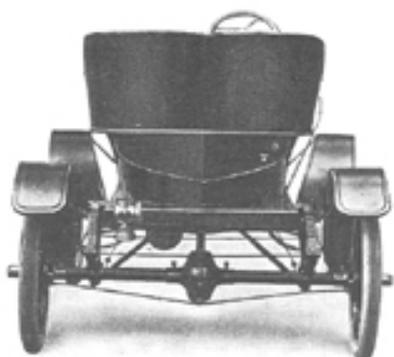
What to do in this crisis was the problem, and as usual Mr. Ford solved it in a way that will be a delight to customers and enable us to take care of another demand which we have long felt but thought to ignore.

The chassis of Models N and R are identical, as are engine and all other parts except body, fenders and equipment. (N at \$600 carries no equipment, it is "just automobile---all automobile.")

So we now announce an intermediate model, a composite of the two former ones, at an intermediate price---\$700 F.O.B. Detroit.

has proven Mr. Ford's judgment to have been correct, and to date he has found no reason to discontinue Model N---the \$600 car.

A demand soon manifested itself, however, for a car of more pretentious appearance, and the class of customers who. wanted this were willing to pay the difference; so model R with broad fenders, running board, larger wheels, (30"x3") and somewhat larger body, was designed and the price fixed at \$750. F.O.B. Detroit.



This we call Model "S." Chassis standard 15 h. p. 4-cylinder Ford runabout; wheels 28" shod with 3" clincher tires; broad steel fenders connected by running board, same as Model R; improved three feed mechanical oiler; lamps, horn and storage battery equipment same as Model "R."

The Body is a standard "N," but the seats have been raised, made larger and set farther back from the dash than in the earlier ones. The pointed deck of the Model "N" has been much in favor among buyers and many liked it better than the round one which characterized the Model "R."

So the "S" may be said to combine the choicest features of those two wonderfully popular models, at a cost of \$50 less than Model "R."

To distinguish them from the other two, model "S" cars are painted Brewster Green as to body with cream running gear.

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## Model "S" Specifications

**MOTOR**---4 cylinder, vertical, 4 cycle.

**HORSE POWER**---15; **BORE**-3-3/4";

**STROKE**-3-3/8".

**CYLINDERS**---Cast in pairs. Water jackets integral.

**VALVES**---Inlet and exhaust offset; all on left side.

**CAM SHAFT**---One piece steel forging. Eight cams integral. All bearing surfaces hardened and ground.

**CRANK SHAFT**---Set at 180 degrees. Drop forging from steel specially heat treated after forging; no welds. Bearing surfaces ground.

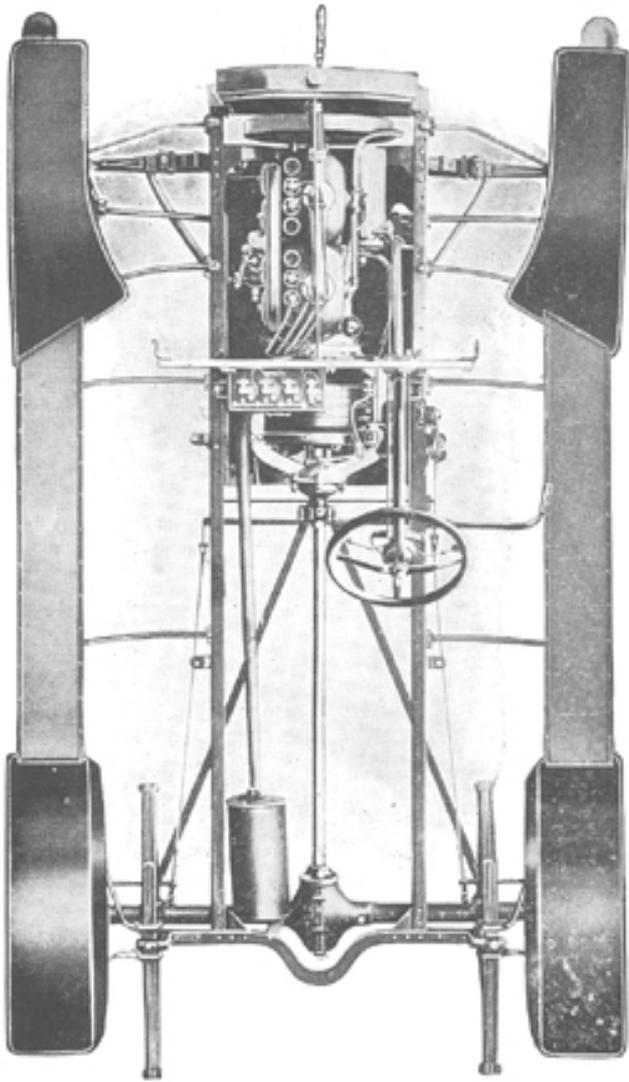
**CRANK CASE**---Aluminum; side plates removable for inspection or adjustment of bearings.

**COOLING**---Water; centrifugal pump, gear driven.

**IGNITION**---Jump spark-Storage and Dry Batteries.

**FAN**---cast in fly wheel.

**CARBURETOR**---Ford design-float feed,



Model S Chassis

automatic.

**LUBRICATION**---Mechanical oiler. Also splash system in engine base.

**CLUTCH**---Multiple disc.

**TRANSMISSION**---Ford planetary system; all spurs.

**FINAL DRIVE**---By cardon shaft with single universal joint to bevel drive gears in live rear axle. Ford three point system (patented in all countries) with all moving parts enclosed in dust proof casing, running in oil.

**FRONT AXLE**---One piece steel drop forging in I-beam section specially treated.

**FRAME**---Pressed steel.

**STEERING**---By Ford reduction gear system; irreversible gears at top of column away from dust and grit.

**BRAKES**---2 sets. (a) Service band brake on transmission. (b) Internal expanding brakes in rear hub drums.

**OPERATION AND CONTROL**---High and low speeds by hand lever at right of driver; reverse by foot lever; service and emergency brakes by foot lever, ratchet lock.

**SPARK AND THROTTLE**---Give all speeds from 4 to 45 miles per hour on high gear.

**TIRES**---Pneumatic; standard equipment 28"x3".

**SPRINGS**---Front: Semi-elliptic, transverse spring. Rear: Full elliptic.

**DUST PAN**---Protects all machinery from mud and grit.

**WEIGHT WITH TANKS FULL**---1100 pounds.

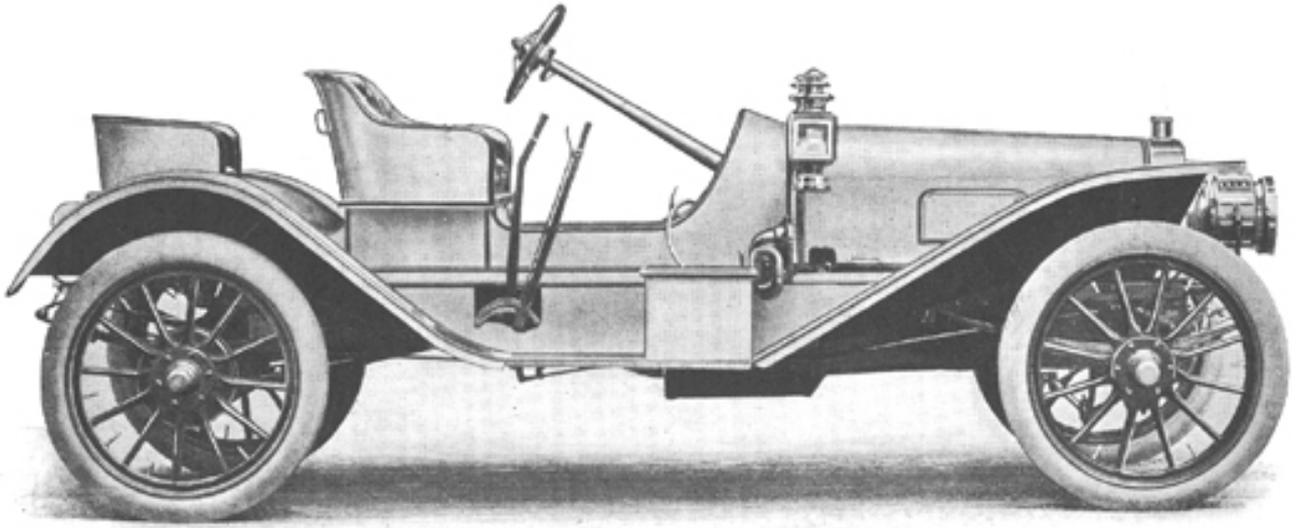
**WHEEL BASE**---84". Tread 56".

**BEARINGS**---Phosphor bronze and babbitt in motor. Hyatt roller in rear axle. Large balls in front hubs.

**GASOLINE CAPACITY**---8 gallons.

**PRICE**---28x3" tires, 2-side oil lamps, tail tamp, tube horn, storage battery and ironed for top \$700, F.O.B., Detroit, Mich.

**CATALOG** of tops, lamps and other accessories for the asking.



Model K 6-40 Gentleman's Roadster "The Silver Cyclone, 6 cylinders, 70 miles per hour---\$2800

## Vanadium Steel

For the past two years American motor cars have led the world in originality of design, simplicity of construction and control; and Ford cars have always led the American contingent.

There was one place, however, where we had to admit, in all candor, we were weak. That was in the matter of metals-particularly steels capable of meeting the severe conditions.

The motor car industry, while of considerable importance, still was insignificant as compared with other steel working industries and its demands for special steel were at the same time so exacting and so small, our steel mills, occupied turning out million-ton lots of commercial carbon steels, did not care to bother with it.

The first problem of the American manufacturer who aspired to build motor cars from the ground up---from the ore to the perfected machine---was to attain a position in quantity production where his needs would be of sufficient magnitude to constitute a factor, so that steel makers would gladly take his contract for special alloy steels, or he could afford to install his own plant and make it himself.

That was the Ford plan from the first. That it has taken less than four years to work it out, to realize this part of Ford's ambition, is one of the romances of the trade.

So, while we used nickel alloys for want of something more adequate to our special needs we were diligently searching for the ideal. At the same time we were widening our market by means of prices that appealed to reasoning men. By thus enlarging our market---increasing the demand for Ford cars---we made possible our plans for theretofore undreamed-of quantity production of motor cars. Our steel consumption grew until now our requirements amount to 280 tons per month. This placed us in a position to manufacture our own steel and to make it from such formulae as will best meet the requirements in each particular part---springs, axles, crank-shafts, gears, frames, etc.

By a happy coincidence, just at a time when we were searching for an element that would impart higher dynamic properties to steel, a large deposit of Vanadiferous ore was opened up in South America. This placed the wonder-working element, Vanadium, within our reach on a commercial basis. In other words we are now able to make and incorporate in Ford cars a special steel, the cost of which has heretofore been so great as to make it "commercially impossible." Until within a year the entire world's output of pure Vanadium has been less than 200 pounds per month. In consequence its value has been many times that of pure gold. Now, it is produced for about half the price of silver. And, since it is used only in

Vanadium being, heretofore, unobtainable, motor car makers have used such other alloys as most nearly met their requirements among these being nickel and nickel-chrome steels.

In common with other high-class concerns, we have used nickel-chrome alloys for the last two years---more particularly in the 1907 six-cylinder models.

But while showing well in static tests---high tensile strength, power to carry a heavy load or to withstand a slow, even, bending stress---nickel-steel has been found woefully deficient in dynamic qualities---in ability to withstand sudden shock, alternating stresses, torsional strains and (most important of all in a motor car), vibration, which, in a few months sets up fatigue, the outward and visible sign of which is crystallization.

"homeopathic doses," in steel making, Vanadium-steel can be made for about the same cost as the best grades of nickel-steel and other expensive alloys, to all of which it is incomparably superior.

Unlike nickel, Vanadium steel machines as easily and uniformly as low carbon steels, and works beautifully under the forging hammer and dies. A higher percentage of Chromium may also be used than is safe when Vanadium is absent.

Vanadium steel is now being put in all Ford models. We already use it in axles and gears, and as rapidly as possible it will take the place of other carbon or nickel steel parts in all Ford models, regardless of price. Let others follow as soon as they can---we reckon they are about a year and a half behind at present writing.

We'll be glad to send interested persons a treatise on Vanadium.

### **1908 Ford Models**

**Model "N"**---world famous four-cylinder runabout---\$600

**Model "S"**---"edition de luxe of Ford runabout"---\$700

**Model "K"**---six-cylinder, 40 h. p. touring car---\$2,800

**Model "K"**---"Six forty" runabout---\$2,800

Prices F.O.B. Detroit