A Frenchman named Etienne Lenoir patented the first practical gas engine in Paris in 1860 and drove a car based on the design from Paris to Joinville in 1862.

In 1862, Alphonse Bear de Rochas figured out how to compress the gas in the same cylinder in which it was to burn. This process of bringing the gas into the cylinder, compressing it, combusting the compressed mixture, then exhausting it is known as the Otto cycle, or four cycle engine.

Siegfried Marcus, of Mecklenburg, Germany, built a car in 1868 and showed one at the Vienna Exhibition of 1873.

In 1876, Nokolaus Otto patented the Otto cycle engine which de Rochas had neglected to do.

In August, 1888, William Steinway, owner of Steinway & Sons piano factory, talked to Gottlieb Daimler about U.S. manufacturing right and by September had a deal. By 1891 the Daimler Motor Company, owned by Steinway, was producing petrol engines for tramway cars, carriages, quadricycles, fire engines and boats in a plant in Hartford, Connecticut.
In 1871, Dr. J.W. Carhart, professor of physics at Wisconsin State University, and the J.I. Case Company built a working steam car. It was practical enough to inspire the State of Wisconsin to offer a $10,000 prize to the winner of a 200 mile race in 1878. Of the seven entries, only two showed up for the race – one sponsored by the city of Green Bay and the other by the city of Oshkosh. The Green Bay car was fastest, but broke down, and the Oshkosh car finished with an average speed of 6 miles per hour.

Running by February, 1893, and ready for road trials by September, 1893, the car built by Charles and Frank Duryea, brothers, was the first gasoline powered car in America. The first run on public roads was made September 21, 1892, in Springfield, Massachusetts.

Thirteen Duryeas of the same design were produced in 1896, making it the first production car. In 1898 the brothers went their separate ways and the Duryea Motor Wagon Company was closed.
Ransom Eli Olds had his first petrol powered car running by 1896 but production of the Olds Motor Vehicle Company did not begin until 1899. After an early failure with luxury vehicles, they established the first really successful production with the classic Curved Dash Oldsmobile which had a single-cylinder engine, tiller steering and chain drive. It sold for $650. In 1901, 600 were sold and the next years were 1902, 2,500; 1903, 4,000; 1904, 5,000. In August 1904 Ransom Olds left the company to form Reo (Ransom Eli Olds). Ransom E. Olds was the first mass producer of gasoline powered automobiles in the United States, even though Duryea was the first auto manufacturer with their thirteen cars.
Henry Ford had an engine running by 1893, but it was 1896 before he built his first car. By the end of that year Ford had sold his first car which he called a Quadricycle for $200, using the money to build another one. With the financial backing of William C. Maybury, the mayor of Detroit, and other wealthy Detroiter, Ford formed the Detroit Automobile Company in 1899. A few prototypes were built, but no production cars were ever made by this company which was dissolved in January 1901. Ford would not offer a car for sale until 1903.
Henry Ford had an early interest in racing cars, having built and driven in 1901 a 26 horsepower model that won a race against Alexander Winton and other challengers. It was from the proceeds of this race that Ford created the Henry Ford Company. In March 1902, Ford left this original company over disputes with his stockholders and Henry Leland, taking with him $900 and schematics for a planned racer. In Ford's absence, Leland took over the company, and made it into the Cadillac Motor Company later in 1902.

Henry Ford collaborated with bicycle racer Tom Cooper and a team of several assistants to create two similar racing cars that were as yet unnamed. They were painted red and yellow, respectively. The result was a huge engine with a bare chassis attached to it, with no bodywork whatsoever. Both of the cars were extremely heavily engineered, with an 18.8 L inline-4 engine, 230-pound flywheel, a bore of 7.25 inches and a stroke of 7.0 inches. Power was quoted anywhere from 70 to 100 horsepower. There was no rear suspension, no differential, and steering was controlled by a crude pivoting metal bar, similar to a straight handlebar on a mountain bicycle. The total cost of the project was $5,000.
BRIEF CHRONOLOGY OF THE EVOLUTION OF THE MODERN AUTOMOBILE – 6

- Though Ford's name was attached to the cars and the ensuing legend, he had ironically sold his stake in them for $800 to Barney Oldfield and Cooper when the cars had refused to start during a test drive two weeks before the first race. Ultimately, Ford would abandon his share of the racing money, but would reserve the right to promotions and publicity of the cars, which secured his image behind their eventual successes. He meanwhile built up Ford Motor Company, which surpassed Winton in terms of production by the end of 1903.

- In summer of 1902, Cooper and Oldfield carried out further work and got the red one working. The red one was named 999 for the Empire State Express No. 999. No. 999 was a type 4-4-0 American steam locomotive which had famously set a world speed record of 112.5 miles per hour on May 10, 1893, making it the first man-made vehicle to exceed 100 miles per hour under its own propulsion. The yellow one was named Arrow for the connotations of a sleek arrow flying through the air.
Oldfield, despite having absolutely no driving experience, learned how to race the 999. In his October 1902 debut, a five-mile race called the Manufacturers' Challenge Cup, despite a strong challenge from Winton once again (which was the rematch for which Ford had originally planned), Oldfield easily won. The 999 set a course speed record at the track at Grosse Pointe, and went on to tour America and score many other victories. Cooper retained ownership of the car for its racing career, while Oldfield ultimately pursued a racing career with Winton, against whom he had raced at the outset.

After seeing the 999 for the first time, Oldfield told Ford, “But I've never driven a car.” Inexperienced as he was, Oldfield is rumored to have learned the controls of the car the morning of his first race, and by the end of the day he had defeated what was thought to be the world's fastest car, the Winton bullet. He defeated all the competitors by at least half a mile in a five mile race. This photograph shows Barney Oldfield preparing for the 1914 Vanderbilt Cup Race.
The 999 was named after a New York Central Railway train that set records in 1893. On October 25, 1902, Barney Oldfield drove the 999 wide open and defeated Alexander Winton, W.C. Bucknam and Charles Shanks at the Grosse Pointe racetrack in Michigan. Henry Ford is standing at the right. The spectators went wild at his time of 5 minutes, 28 seconds – an American record. [From the Collections of the Henry Ford Museum]
BRIEF CHRONOLOGY OF THE EVOLUTION OF THE MODERN AUTOMOBILE – 9

- Arrow also had a successful racing career, but her most famous instance was to come. She was crashed in September 1903 during a race, killing the driver Frank Day. However, Henry Ford bought back the broken car and repaired it with the intent of performing a speed run on a frozen lake. He renamed it 999, as the original red car had been retired already, and the press referred to it as the "new 999," "Red Devil," or a combination of the two.

- On January 12, 1904, Henry Ford personally drove the rechristened 999 to a speed of 91.37 miles per hour on Lake St. Clair, a land speed record. It stood for only a month, but this was ample time to bring more good publicity for Ford's new company.
A Century of Progress International Exposition was the name of a World's Fair held in Chicago from 1933 to 1934 to celebrate the city's centennial. The theme of the fair was technological innovation. The fair's motto was “Science Finds, Industry Applies, Man Conforms.” This postcard was a part of a set of views available at the Ford Exposition Building. Labeled Henry Ford’s Famous Racing Car “999,” a caption on the reverse read: This famous old racing car played an important part in the early growth of the Ford Motor Co. Built in 1902 by Henry Ford, the car broke existing records for the mile, and in 1904 set a sensational mark of 39 2/5 seconds on the ice of Lake St. Claire, Detroit. Its performance carried the name and fame of Henry Ford into every part of the nation, and helped to enlist financial aid for his company. [WJC Photo]
The original "999" is on display at the Henry Ford Museum in Dearborn, Michigan. An exact replica, commissioned by the Ford Motor Company for the 1964 World's Fair in New York City, is displayed at the Motorsports Hall of Fame at America Museum in Novi, Michigan.
Dating between 1908 and 1920, this unused postcard view shows an early electric Victoria Phaeton-style automobile driven by a woman. It might be a Fritchle Electric Model “A” Victoria Phaeton, which was advertised as “The Only Electric Guaranteed to Go 100 Miles on One Charge.” There also was a 1908 Studebaker Electric Victoria Phaeton, the Bailey Electric Victoria Phaeton and the Columbus Electric, advertised as “Noiseless – Clean – Simple – Odorless, Seventy-five miles on One Charge; Any Speed Up to 20 Miles an Hour; Weight 1400 Pounds; Double Chain Drive; Solid Rear Axle.” Note the use of a tiller instead of a steering wheel. [WJC Photo]
This cabinet photograph, produced by the Kosciuszko Photo Art Company, 730 Milwaukee Avenue, Chicago, Illinois, shows an older couple in their early, unidentified automobile which was probably an electric car. A notation on the back notes the photograph was taken in Grant Park. Note the tiller steering mechanism, wire wheels and fold-down carriage-type top. [WJC Photo]
A New Car.

A.J. Rundle has received direct from the factory a 1906 Pope-Toledo automobile. It is a four-cylinder, the first on the range [Menominee Iron Range], and is guaranteed to develop a speed of over fifty miles an hour. It is beautifully finished. His old model Toledo has been returned to the factory.
THE FORD MODEL K AND THE FORD MODEL N

- Henry Ford and his engineers used the first 19 letters of the alphabet to designate their automobiles, although some of the cars were experimental and never reached the public.

- The most successful of the early production cars was the Model N – a small, light, four-cylinder machine which went on the market at $500. A $2,500 six-cylinder luxury car, the Model K, sold poorly.

- Ford started naming his early cars with the Model A, and this letter code was later reused on the successor to the Model T.

- This 1906 Ford Motor Company advertisement shows the Ford 4-Cylinder Runabout, the Model N, and the larger, more luxurious Ford Model K. [Internet]
PERSONEL PARAGRAPHS.

Edw. G. Kingsford is now the possessor of a Ford automobile.
Postmarked March 13, 1909, at New Orleans, Louisiana, this postcard view may be a Ford Model K. Note the younger woman driving with the steering wheel on the right, the American flags affixed to the outside of each large brass headlight and the three pairs of smokestacks from steamboats in the background. [WJC Photo]
The 1907 Ford Model N, the precursor to the famed Ford Model T, is shown here being cranked preparatory to going for a ride. A notation on the back of the postcard reads Hamilton, Ohio. Note the convertible, buggy-type top which is held to the frame by leather straps. The steering column is on the right, and the radiator appears to be brass. Note the two headlights mounted on the dashboard. [WJC Photo]
Dating from 1907 to 1918, this unused postcard view “Made By A.H. Bengert, Cedar Falls, IA,” shows an early touring car with the steering wheel on the right side parked in front of an unidentified store advertising boots and shoes. Note the large brass headlights, a pair of brass dashboard lanterns and a small brass lantern hanging from the left rear fender as a tail light. [WJC Photo]
PERSONAL PARAGRAPHS.

John Marsch arrived here from Cleveland last Monday evening in his handsome Pierce-Arrow touring car. The actual running time from Cleveland to Iron Mountain was less than thirty-six hours. The car is the largest ever seen here. It has a fifty horsepower motor, can carry nine passengers and run a mile a minute on ordinary roads.

1907 Pierce Arrow Touring Car
AUTOMOBILE CONTESTS.

Splendid Time Made by the Davidson and Crowell Machines.

The first annual hill climbing contests of the Menominee Range automobile club were held on Pewabic hill last Monday afternoon. The races were exciting and were viewed by several thousand people.

Machines were here from Escanaba, Green Bay, Menominee, Marinette, Norway, Vulcan and Sagola.

The first contest, for runabouts, was won by Armstrong, of Vulcan, Rauer, of Norway, second. The time of the winner was three minutes an one and a half seconds. Rauer’s time was three minutes and thirty-nine seconds.

In the two-cylinder car contest, there were seven entries, and [it] was won by Hellberg, of Norway. The time of the several machines follows:
The line of early automobiles processing east on the 100 block of Iron Mountain’s West B Street in this postcard view may have been en route to the **first annual hill climbing contest sponsored by the Menominee Range Automobile Club on September 2, 1907**. The course was up East B Street from Stephenson Avenue to Superintendent Elwin F. Brown’s house at the Pewabic Mine. Buildings visible on the south side of the street from left to right included the Chicago, Milwaukee & St. Paul Depot, the Commercial Hotel, operated by Claude H. and Frank M. Milliman, and the residences of Andrew Swanson (115), Fred C. Parmelee (119) and J.T. Mason (126). [WJC Photo]
Bjorkman – 1 m. 58 seconds.
Janson – 3 m. 33.2 seconds.
John Flanagan – 2 m. 16.4 seconds.
Eisele – 2 m. 24.5 seconds.
Dr. B.W. Jones – 2 m. 33 seconds.
Hellberg – 1 m. 56.7 seconds.
Dr. Lockart – 2 m. 40.6 seconds.

In the four cylinder car contest there were three entries, and it was won by Bonnie Crowell. The time follows:

Crowell – 1 m. 49.7 seconds.
Davidson – 1 m. 56.4 seconds.
Fish – 2 m. 38 seconds.

The free-for-all was the most exciting of all the contests and was won by the car captained by Ward Davidson by the fraction of a second, Bonnie Crowell being second. Following we give entries and time:
This postcard view documents the **first annual hill climbing contest sponsored by the Menominee Range Automobile Club on September 2, 1907.** The course was up East B Street from Stephenson Avenue to Superintendent Elwin F. Brown’s house at the Pewabic Mine. Buildings visible on the east side of South Stephenson Avenue east of the B Street intersection, Iron Mountain, included **601.** John Niklas, merchant tailor; **603.** Moy A. Lon, laundry; **615.** George Hoyle, painter and paper hanger (occupying the former shop of A. Richter, cigar manufacturer, and A. Swanson); and **619.** Charles Gunnarson, furniture dealer. [WJC Photo]
Davidson – 1 m. 43 seconds.
Crowell – 1 m. 43.4 seconds.
Bjorkman – 1 m. 58 seconds.
Lockart – 2 m. 40.2 seconds.
Hellberg – 2 m. 6.4 seconds.
Oliver – 2 m. 34 seconds.

The course was from Stephenson avenue to the home of E.F. Brown. The distance is approximately 5,000 feet and the raise [sic] of the hill 257 feet. When we consider these figures it will be seen that the speed of the Crowell and Davidson machines was remarkable. Both machines were operated by boys less than seventeen years of age.
Postmarked Chicago, Illinois, July 28, 1908, this studio postcard view, sent to Dick Heard, of Ontonagon, Michigan, shows Alex and Anna Moses seated in an unidentified early touring car. The steering column was on the right side, the leather upholstery was tufted and brass headlights were located on either side of the hood. [WJC Photo]
A “flivver” is an American slang term used during the early part of the Twentieth Century to refer to any small car that gave a rough ride, especially one that is small, inexpensive and old. Another contemporary term was a “Tin Lizzy” which was usually in reference to a Ford Model T. The term “flivver” started to go out of style by the late 1930’s or early 1940’s, replaced by the use of “jalopy.”
The Model T set 1908 as the historic year that the automobile became popular. The first production Model T was produced on August 12, 1908, and left the factory on September 27, 1908, at the Piquette Plant in Detroit, Michigan. On May 26, 1927, Henry Ford watched the 15 millionth Model T Ford roll off the assembly line at his factory in Highland Park, Michigan.
Henry Ford, manufacturer [sic – manufacturer] of the automobile bearing that name, arrived in the city from Detroit last Saturday [September 26, 1908]. The trip from Detroit to Iron Mountain was made in one of the latest 1909 machines. Mr. Ford was accompanied by two of his experts and the run was made for the purpose of giving the machine a thorough test. He spent the week in the Witch Lake district with E.G. Kingsford.

Iron Mountain Press, Iron Mountain, Dickinson County, Michigan, Volume 13, Number 19 [Thursday, October 1, 1908], page 8, column 2

Ford Times, Volume II, Number 2, October 15, 1908, page 16
This photograph of the 1909 Ford Model T was probably taken on October 2, 1908, when Henry Ford and B.W. Scott, one of his old racing men, returned to Detroit from a 1,357-mile 10-day trip to Iron Mountain, Michigan, via Chicago and Milwaukee to test out the new vehicle. Jim Nichols, a tester for the Ford Motor Company, also left with Ford and Scott on about September 22. The Model T was first made available to the public on October 1, just a day before their return to Detroit from Iron Mountain. The rugged automobile used 67 gallons of gasoline.
This unusual Model T is one of the first 1908 models with two hand levers which were only used on the first one thousand Model T’s produced. One lever operated the emergency brake and the other lever engaged high gear. There were only two foot pedals in this model. The basic design of the Model T remained with few changes for some nineteen years.
According to the article about the trip, published in the *Ford Times*, Volume II, Number 2 (October 15, 1908), “The car behaved admirably, requiring not even a single adjustment in the entire ten days. A punctured tire sums up the difficulties encountered en route.” The article also noted: “The roads going were six inches deep in dust – returning after the rains the roads were wet and muddy, and the car when it arrived in Detroit looked as if it had been taking a mud bath.” The building in the background is probably the Ford Motor Company’s plant on Piquette Avenue in Detroit.
FORD’S FABULOUS FLIVVER

Model T History Timeline

- 1908 – October 1: The first production Model T was made available to dealers. The 1909 Model T got 20 miles per gallon and had a top speed of 45 miles per hour. The 1909 Model T retailed for $845, while the 1927 Model T cost about $290.
- 1910 – Ford Motor Company moved into the “Crystal Palace” Plant in Highland, Michigan, from the Piquette Avenue Plant.
- 1913 – October 7: The first rudimentary moving assembly line production began.
- 1914 – January 14: Henry Ford implemented the $5.00 per day pay plan.
- 1914 – One Model T rolled off the assembly line every 93 minutes.
- 1918 – Half the cars in America were Model T’s.
- 1924 – The Ten Millionth Ford Model T was built.
- 1927 – May 26: The 15 Millionth Model T Ford rolled off the assembly line and shortly thereafter production ended.
- 1927 – October 20: The first Model A Ford rolled off the assembly line, but the Model A was not released to the public until December 2 of that year.
- 1941 – August 4: The last of the almost 170,000 post-production Model T engines was built.
The above diagram shows the components of the Ford Model T. Note that the gasoline tank was located under the front seat. Also note the starting crank at the front of the car. – Illustration from *Henry’s Wonderful Model T 1908-1927* by Floyd Clymer
The Model T Ford measured seven feet tall from top to pavement.

On the touring car there was no left-front door – only the outline of one stamped into the metal.

When Model T’s were first produced, they weighed in at roughly 1,200 pounds, with the bare chassis weighing about 900 pounds. Over the years, especially in 1926 and 1927 production, the bodies were all-steel, as opposed to the steel sheets over wood construction of earlier years. As a result, the weight went up to over 1,500 pounds, making Henry’s lady rather hefty indeed.

The wheelbase was 100.5 inches, and the front/rear track width was 56 inches, or 60 inches if ordered in the wide-track, or "Southern Roads" configuration. Depending on the model the fenders could extend several feet in the front and rear of the wheel hub centers.

There was no gas gauge. To find out how much fuel you had, you got out of the car, removed the front seat, unscrewed the gas cap beneath it and thrust in a stick or a ruler.

Up until 1926 Model T engines were about 22 horse power. For 1926/27 the horsepower was reduced by lowering the compression to compensate for lower octane fuels available at that time. This really slowed the newer cars down since they were also putting on weight due to the all steel body construction for these model years.

There was no water pump. When the engine over-heated, you lifted the sides of the hood and folded them under.

Model T tires were inflated to about 75 pounds pressure.
The Model T’s steering wheel included the steering wheel proper, the steering gear wheel nut, the steering gear spider, the steering gear case, the quadrant, the spark lever and the throttle lever. – Illustration from Henry’s Wonderful Model T 1908-1927 by Floyd Clymer

The Model T’s control system included the steering wheel, spark lever, throttle or gas lever, a gasoline adjustment lever, the emergency brake and clutch release, the high and low speed clutch, the reverse pedal and the foot brake. Note that the steering column in this diagram has been placed on the left side. Earlier Model T automobiles had the steering column on the right side. – Illustration from Henry’s Wonderful Model T 1908-1927 by Floyd Clymer
Before starting a Model T with the hand crank, the spark had to be manually retarded or the engine might “kick back”. The crank handle was cupped in the palm, rather than grabbed with the thumb under the top of the handle, so that if the engine did kick back, the rapid reverse motion of the crank would throw the hand away from the handle, rather than violently twisting the wrist or breaking the thumb.

Starting a flivver was a massive test of patience, timing and strength. You turned the ignition switch, jerked the spark down, shoved the accelerator up (in early models both were levers under the steering wheel), set the emergency brake and walked resolutely to the front of the car. Pulling the choke wire which extended through the radiator, you grabbed the crank and gave it a hearty spin. If the engine caught, you raced back and jerked the accelerator down again before your snorting, quivering mount shook itself to pieces.

The Model T Ford retained its same strange, three-pedal floor-board with the clutch pedal on the left, the reverse pedal in the center and the brake on the right throughout its production.

The marvel of the Model T was its planetary transmission. There was no gearshift to be jiggled until, with grinding and snarling, you slipped into gear. All you did was push the clutch pedal nearly to the floor, which put you in low gear, and gave her the gas. When you were hurtling along at 20 miles an hour, you released the clutch to go into high. For reverse, you depressed the center pedal. A youngster could do it.
This modern postcard view shows a restored, red **1909 Ford Model T Tonneau Touring Car 980** shows the brass radiator, headlights, horn with bulb and brass cylinder on the driver’s side running board which is the acetylene or carbide generator for fueling the car’s headlights, similar to the carbide lamps used by miners. *WJC Photo*
The Model T was the first automobile mass produced on moving assembly lines with completely interchangeable parts, marketed to the middle class. Henry Ford said of the vehicle: “I will build a car for the great multitude. It will be large enough for the family, but small enough for the individual to run and care for. It will be constructed of the best materials, by the best men to be hired, after the simplest designs that modern engineering can devise. But it will be so low in price that no man making a good salary will be unable to own one – and enjoy with his family the blessing of hours of pleasure in God's great open spaces.”

Standardized parts, mass-produced, were a prime reason for the cheapness of the Model T. You could buy a muffler for $2, a front fender for $6, a carburetor for $6. Model T parts were available almost everywhere – including five- and-ten-cent stores.

A production Model T could reach more than 30 miles per hour on an good road. Enclosed cars were much heavier and couldn't go quite as fast as an open runabout. In the early twenties Ford was racing cars based on the Model T at Indianapolis at over 100 miles per hour – a scary thought for anyone that has ever driven a Model T.

Attracted by their simplicity as well as their economy, people bought flivvers in droves. For a long time Henry Ford couldn't make enough of them to supply the demand. From 1918 to 1923, although local Ford dealers advertised, Henry Ford disdained to do so. He didn't have to.
From 1908 to 1927 Ford produced more than 15 million Model T automobiles. The cars produced in 1908 follow what is now standard industry practice in naming them after their model year. As a result, those cars produced in 1908 are really 1909 production year cars. – Illustrations from Henry’s Wonderful Model T 1908-1927 by Floyd Clyme
The lights of the Model T operated, not on a battery, but on a magneto (introduced after 1914), and glowed or faded according to the speed of the engine. If you became lost at night and stopped to get your bearings, you had to race your engine for enough light to read a sign or peer up the road ahead.

In addition to selling bare chassis, Model T Fords came in the following body styles: Touring, Runabout, Coupe, Town, Tourster, Torpedo, Sedan, Couplet, Tudor Sedan and Fordor Sedan.

No one really knows if Henry Ford ever said that the buying public could have Model T Fords “in any color, so long as it’s black,” but it is commonly attributed to him. While this saying is true for the model years after 1913, earlier cars were available in Brewster Green, Red, Blue and Gray. In fact, in the first year, Model T Fords were not available in Black at all, but only in Gray, Red and Brewster Green.

It is often quoted that Ford chose black because the paint dried faster than other colored paints available at the time, and a faster drying paint would allow him to build cars faster, as he would not have to wait for the paint to dry. This theory is not supported by fact however.

The fact is that over 30 different types of black paint were used to paint various parts of the Model T. The different paints were formulated to satisfy the different means of applying the paint to the different parts, and had different drying times, depending on the paint and the drying method used for a particular part. Ford engineering documents suggest that the color black was chosen because it was cheap and it was durable.
New Automobiles.

A shipment of three Ford automobiles were [sic – was] received here last Tuesday from the factory in Detroit. Messrs. O.C. Davidson, Fred E. Parmelee and Edward G. Kingsford are the owners of the new machines. They are four-passenger cars. Mr. Davidson has also purchased a large and powerful Pierce-Arrow touring car. George Eisele has also received a Royal Tourist, one of the handsomest cars in the peninsula. Dr. Crowell is also negotiating [sic – negotiating] for a new machine and we hear of others that intend purchasing.
Some top reasons why the Model T was a great car for its time:

- **Price** – The Model T was not the first car to be the most affordable, but it was priced in the same ballpark as its closest contemporary, the horse. By continually driving down the price of his cars, using optimization techniques like the application of the assembly line in 1913, Ford made more cars than anyone else in his day. When he instituted the five dollar a day wage for his workers he was not only an instant folk hero, but he gave every worker the financial means to buy his cars.

- **Reliability** – Easier to get out of the barn and get going than hooking up the team to the wagon, and the planetary transmission with a flywheel magneto and Ford’s use of vanadium steel for strength made the car reliable and easy to operate. When it did need repair, the revolutionary separate head and block design pioneered by Ford and the simplicity of the overall design made maintenance simpler, faster and ultimately more affordable. A few simple tools could keep a Ford Model T running for years.

- **Perpetual Integration** – The Ford Model T was easy to modify and whole industries of after market modifications were introduced to transform them into race cars, utility vehicles, sawmills and even snowmobiles. Modifications to Model T cars are still commonplace today, making it an icon of the last century and of the modern era.

*The Ford Model T was named the world's most influential car of the twentieth century in an international poll.*
The Moline-Knight was an American automobile manufactured by the Moline Automobile Company located at 74 Keokuk Street in East Moline, Illinois, from 1904 to 1919. The car used a Knight engine. In 1911, the Moline 35 was a two-seat roadster with a 4×6-inch gasoline engine and self starter, still a rarity then. It came complete with folding top, windshield, and Prest-O-Lite acetylene tank for the headlights, all for $1,700. By contrast, a Brush Runabout was $485, and the Gale Model A Roadster was $500. The high-volume Oldsmobile Runabout sold for $650, while a Colt Runabout was priced at $1,500, an Enger 40 at $2,000, and American’s base model was $4,250. This 1909 advertisement from the Cycle and Automobile Trade Journal shows three models available from the Moline Automobile Company of East Moline, Illinois. The Model “M” was sold for $1,500, while the Model “K” with Baby Tonneau was priced at $2,500, as was the Model “K” equipped with the Touring Body, 4-cylinder, 35-40 horse power, and 116-inch wheel base. [Internet]
This postcard view shows the 1909 Moline Model K Nineteen Niner Touring Car with a group of five well-dressed women wearing large hats tied on with scarves. Note the lake in the background. [WJC Photo]
A country woman and her small son were driving to town when a clanking flivver bore down upon them. Their horse was badly frightened and began to prance. Whereupon the old lady leaped down and waved wildly to the flivver driver, screaming at the top of her voice.

The driver stopped his Ford and offered to help get the horse past.

“That’s all right,” said the boy, who remained composedly in the carriage, “I can manage the horse. You just lead Maw past.”

This was an endearing and rib-tickling kind of humor that infected vaudeville jokes, the master of ceremonies’ speech at dinner parties and wherever citizens and fellow townsmen got together. They couldn’t resist including a joke about Ford or the “Tin Lizzie” in their kit of humor or their stage act or their after-dinner conversation over cigars and brandy. – *Henry’s Wonderful Model T 1908-1927* by Floyd Clymer
Postmarked Chicago, Illinois, June 19, 1909, this studio postcard view of an unidentified automobile was sent to Mrs. William Heard by her son. Note that the steering column was on the right side, the leather upholstery was tufted and brass headlights were located on either side of the hood. A tool box was attached to the running board and the left rear fender. [WJC Photo]
Thousands of witticisms, too, were printed on postcards and valentines. But the jokes about the Model T amused no one more than Henry Ford himself. He often said that every Ford joke sold a car.

Indeed, one of the advantages of the man with a Ford over the buggy rider with a horse in 1908 – the year the first T was offered – was that he could modify his car to plow the fields with it on weekdays and still go country-riding in it on Sundays. Legions of owners used their Fords to saw wood, pump water, store grain, run stock shears, generate electricity, and in ways and for jobs that the most imaginative had never dreamed of. A Ford gave the owner transportation along with a utility power unit that was excitingly versatile in the hands of the man who liked to invent new rigs.

– *Henry’s Wonderful Model T 1908-1927* by Floyd Clymer
Dating between 1907 and 1910, this postcard view shows an early touring car, taken at an unusual angle in a barnyard which provides a good view of the interior of the vehicle. Note the large brass headlights, the two side lanterns and the frame and supports around the windshield. The steering column is on the right, and the driver is wearing a duster-like coat. The woman in the back seat has tied her hat down with a scarf. The inscription on the reverse reads: “To the Whole Family. Reeves Chisler and family and Eddy boy.” [WJC Photo]
Dating between 1907 and 1918, this unused postcard view shows an unidentified early automobile, possibly a Model T Ford, with a brass radiator and the steering wheel on the right side. Heavily decorated with dark paper “honeycomb” bells hanging from the edges of the leather roof, the vehicle is festooned strips of dark cloth adorning the sides and front, decorated wheels and wreaths around headlights. Two small girls standing on running board in dark dresses were holding wreaths, possibly for a wedding, or maybe a funeral. [WJC Photo]
“What shock absorbers do you use on your Ford?” “The passengers.”

It was a pleasant day, and on a good road the little Ford bowled merrily along. Suddenly it gave a wheezy cough and stopped dead. Investigation showed that the engine had dropped out a dozen miles back. The little Ford had run twelve miles on its reputation.

“I hear they are going to magnetize the rear axle of the Ford.” “What's the idea?” “So it will pick up the parts that drop off.”
Dating between 1910 and 1915, this unused postcard view shows an unidentified touring car with the steering wheel on the right identified on the back in pencil as “Cramer family and Perrys in Auto” and “Hartford, WA.” The driver, wearing a bowler hat and a younger man are seated in the front and an older couple are seated in the back seat. An older couple stood behind the car. Note the large brass headlights and ornate lanterns on either side of the dashboard. The large hats worn by the women suggest an early date. [WJC Photo]
Dating between 1907 and 1918, this touring car, decorated for a parade, was driven by a costumed black Uncle Sam chauffeur with four women in white dresses. Paper flowers adorned the festive automobile. Note the large headlights and the tool box on the running board. [WJC Photo]
For the Ford, besides guaranteeing a ride through snow and rain, a means for the “go-getter” to increase his sales and the doctor to do his calling, contributed more than any other car to the welding together of the towns and cities of this country. The Model T, although it was to share the American market with approximately 2,200 other makes of cars, from the earliest Duryea to Ford’s new Continental, was an automobile that helped to revolutionize a people’s way of life. Ford’s jalopy, as the “common man’s car,” was a unique contributor to the history of transportation in America.

What sort of contraption was this car? First of all, it was a car of contradictions. It was imperfect, and its imperfections were a part of its fascination. – Henry’s Wonderful Model T 1908-1927 by Floyd Clymer
The 1911 Ford Models included the 5-passenger Touring Car, 3-passenger Roadster, 2-passenger Open Runabout, 2-passenger Coupe, 2-passenger Torpedo Runabout and 6 passenger Town Car.
Dating between 1907 and 1918, this unused postcard of a touring car, probably decorated for a Fourth of July parade, boasts a swan on the hood and flags. Paper flowers adorned the spoked wheels. Note the large headlights and the horse droppings in front of the vehicle. [WJC Photo]
Sometimes she wouldn’t start on cold mornings, or she burned too much oil, or she got poor mileage over the muddy roads, or she wouldn’t outrun a jack rabbit. And once started, would the Ford engine keep running?

The blamed thing was always a subject of complaints. These became the fertile soil for the accessory manufacturers who, over the twenty years of Model T life, were to turn out some 5,000 gadgets to dress up and cause to run “with the surest ease and invincible power” that rattling T that stood out in the woodshed.

For many years, the Model T came equipped with only the barest necessities – no speedometer or starter, no temperature gauge or bumpers. And even though Ford was one of the first car manufacturers to place the steering wheel on the left side, steering the T was a whole lot like driving a truck – or at least so said many complaining owners of the flivver. – *Henry’s Wonderful Model T 1908-1927* by Floyd Clymer
A new city ordinance in one city provides that Fords be allowed to run on the sidewalks so automobiles won't hit them.

“Can I sell you a speedometer?” “I don't use one. When my Ford is running five miles an hour, the fender rattles; twelve miles an hour, my teeth rattle; and fifteen miles an hour, the transmission drops out.”

A thrifty housewife saved all of her empty cans and, after a quantity had accumulated, shipped them to Detroit. After a few weeks she was delighted to receive the following letter: “Dear Madam: In accordance with your instructions we have made up and are shipping you today one Ford. We are also returning eight cans which were left over.”
The T, however, was supposed to be the latest word in automotive engineering. It took you where you wanted to go. Parts were cheap and available in almost any small town or farmer’s barn, and if you could drive it you could fix it yourself. That was real design. And with his use of vanadium steel, Henry Ford succeeded in building a quality and dependability into his car which many other higher-priced cars did not possess.

The greater part of Ford owners at one time or another tinkered on their cars, removed a transmission band here, cleaned the spark plugs there, greased, hammered, wiped and pampered. They were a high-spirited, interested bunch and forever talking about their T’s. They learned of necessity how to repair their own cars. They represented the mechanical America that was on its way. – Henry’s Wonderful Model T 1908-1927 by Floyd Clymer
Postmarked **January __, 1909**, in Daytona, Florida, and again on **January 25, 1909**, in McKinley, Pennsylvania, this postcard view shows a gentleman cranking the family’s Model T Ford. Note the steering wheel on the right side, the brass radiator, headlights and lights flanking the dashboard. The date palm trees verify the Florida location, and the collie-type dog appears unperturbed about the whole affair. [WJC Photo]
• “Why does the average man think more of his automobile than he does of his wife?” “Because he can get an improved model every year.”

• Then there is the story of the farmer who had his tin roof blown off and torn and twisted by a cyclone. It is said that he shipped the roof to Detroit and was advised by the Ford people that it was beyond repair and they would have to send a new car. But we take this story with a grain of salt.

• “Why is it called a runabout?” “Because it will run about a mile without stopping.”
Dating between 1909 and 1914, this unused postcard view shows the **John Anderson family** in their first **Model T Ford**. **Mr. and Mrs. John Anderson** are seated in the front, with children **George, Esther, Edna, Gilbert, Arthur** and **Clemens**. The cylinder on the driver’s side running board of 1909 to 1914 cars is the **acetylene or carbide generator**. The generator was used to supply acetylene gas to the car’s headlights prior to the introduction of magneto powered electric lighting in 1915. The generator consists of a cannister which contains an upper compartment, filled with water, and a lower wire basket which contained calcium carbide. A valve on the top of the unit (controlled by the driver) released a drip of water from the upper compartment onto the carbide. This created acetylene gas which was then piped to the head lamps. **[WJC Photo]**
Local Garage.

Charles Rauer, an expert machinist, has removed to the city from Norway and opened a garage in the building known as the Princess Store, direct [sic – directly] north of the office of the Oliver Iron Mining company. Mr. R. has had much experience in the repairing of various makes of automobiles and he promises prompt services and reasonable prices. He also intends keeping in stock a line of supplies for such cars as are owned on the range. Give him your patronage.
Postmarked Norway, Mich., June 12, 1909, this halftone postcard view, looking north, shows the intersection of Norway Street and Eighth Avenue where the early automobile can be seen, and the Norwegian Lutheran Church on the right at 313 Norway Street. [WJC Photo]
Postmarked September 29, 1910, in Belle Center, Ohio, this postcard view of an early, unidentified touring car, possibly a Ford Model T, has the steering wheel mounted on the right side and the spare tire protected by a covering. Note the large, brass headlights and the side lights on each side of the dashboard. [WJC Photo]
PERSONAL MENTION.

O.C. Davidson and son Harold, E.G. Kingsford and son Teddy and Henry J. Ford, the Detroit automobile manufacturer, left last Tuesday morning for Sylvania Lodge, where they will hunt deer for a week or ten days.

PERSONAL MENTION.

Henry J. Ford, the manufacturer of the famous Ford automobile, arrived in the city last Sunday and is the guest of Edward G. Kingsford. Mr. Ford is an enthusiastic nimrod and expects to spend a week or ten days hunting deer in the vicinity.
This modern postcard shows a restored black **1910 Ford Model T Touring Car**. Note the brass radiator, headlights and lamps on either side of the dashboard, as well as the steering wheel on the left side and the red-painted spokes on the wheels. *[WJC Photo]*
NORWAY NEWS NUGGETS.

John E. Anderson is building a garage 24 by 100 feet in size, one story high, with barn in the rear 24 by 52 feet in size, two stories high, the walls to be made of concrete. He is also building two new cottages on Norway street.

John E. Anderson, Gust Anderson, Jacob Soderberg, Henry Ebelind [sic – Ebeling] and Carl A. Lindahl, have entered into a partnership under the firm name of John E. Anderson & Co. to conduct a general grocery and meat business. Mr. Lindahl was a former resident of Norway and his family, now residing at Kenosha, Wis., will return to Norway soon.
This unused postcard, dating from about **1910**, shows an automobile decorated for a parade, possibly the Fourth of July, going south on **South Stephenson Avenue in Iron Mountain**. Note the Iron Mountain pennant across the spare tire and the decorations through the spokes of the wheels. The **City Lumber Yard** in the background was located at 114 East Fleshiem Street and was owned by **Festus C. Cole**. The railroad crossing would have been at the Chicago & Northwestern Railway tracks. Note the other early automobile in the background at the far right. The smokestack left of center in the background and the tramway to the right of the telephone pole were probably located at C Ludington Shaft of the Chapin Mine, where the Cornish Pumping Engine is located. [WJC Photo]
Postmarked Foster City, August 1, 1910, this view includes an early automobile which has just crossed the bridge over the Sturgeon River in Foster City. A portion of Boarding House Hill in the background shows the superintendent’s house at the upper left and the boarding house in the upper center of the photograph. Note the logs floating in the millpond at the left of the bridge. The Morgan Lumber & Cedar Company Mill was to the left. A corner of the company store is visible at the far left above the piles of lumber stacked for drying. [WJC Photo]
Dated October, 1910, Dalton, New York, in pencil on the reverse, this unused postcard view shows an early touring car with a New York license plate. The children are identified as follows: Harold Baker, Cecil Jackson, Edith Jones, Vivian Kelley, Elsworth Baker, Buelah Kelley and Frida Kelley. [WJC Photo]
SAGOLA NEWS GOSSIP.

Edw. Ryan’s automobile burned last Wednesday night near Randville. Mr. Ryan was about ready to start for Sagola and had left the engine running. Fire was first discovered under the hood of the engine, but with the gasolene [sic – gasoline] tank feeding the flames, the fire could not be extinguished and in a short time nothing but the frame was left. The loss was partially covered [by] an insurance of $800.
Iron Mountain’s northeast corner of Carpenter Avenue and West B Street was the site of numerous transportation-related businesses during the early 1900’s. In 1902 Martin Harvey’s blacksmith and wagon shop was located in this building. By 1907 Josiah Beard had taken over, specializing in blacksmithing, horseshoeing and wagon-making. [Menominee Range Historical Museum]
New Business Firm.

A new business firm – known as Freeland Corning & Co. – closed a deal last Saturday for the purchase of the Beard blacksmith and wagon shops at the corner of West B street and Carpenter avenue. The business will be enlarged so as to include a first-class garage with automobiles for sale and hire. Josiah Beard, who is a first-class worker in iron and wood, will remain in the service of the firm. Mr. Corning is a machinist and has had experience in the best shops hereabouts as well as in the construction of automobiles.
This postcard view shows the Swedish Evangelical Lutheran (Zion Lutheran) Church and parsonage near Metropolitan in about 1910. The first church built in 1900 was a very simple structure which cost $425 and soon became too small. It was replaced in 1907 by a new church on the present site of Zion. The first building was pulled up to the new site and became a wing of the new church – that wing now referred to as “The Annex.” The cost of the new church, exclusive of donated labor, was $3,578. In 1909 the first parsonage, a large spacious house on the hill north of the church, just across the road, was built at a cost of $2,610 to house the first resident pastor, the Rev. J.M. Holmberg. Note the early automobile in the foreground. [Beatrice Blomquist]
Probably taken around 1910, this photograph shows old and new modes of transportation in front of the homestead of Mr. and Mrs. Jake Johnson, located one mile north of Foster City on the Northway Road (now Harry Peterson Road). Jake Johnson is seated in the automobile and his wife is standing next to it. Their son Emil is seated in the buggy and Olaf, another son, holds the bridle of the unhitched horse. Another son, Hjalmer, born in Felch on June 30, 1898, related that when a new house was built the house in the photograph was used for a barn for some time and then torn down. [Beatrice Blomquist]
New Automobiles.

Oliver Evans, cashier of the Commercial Bank, and Henry Levy, of the M. Levy company, received new automobiles of the Ford brand during the week and A.E. Brauns has placed his new Chalmers touring car in commission. According to the last count, there are now sixty-five machines owned in Iron Mountain with more coming. Fully twenty new machines have been received during the past two months. There are between eighty and ninety automobiles owned in the county.
This unused postcard view, dating between 1910 and 1915, shows Dr. Gustav W. Moll driving his automobile in Foster City with his wife seated to his left. Note that the steering column is on the right. The two women in the back seat are unidentified. Dr. Moll practiced in the Foster City area in the early 1900’s. His brother, Dr. Theodore Moll, practiced in the Felch area. Dr. Gustav W. Moll later moved to Escanaba, Delta County, Michigan. Note the railroad bridge crossing the Sturgeon River in the upper right. [WJC Photo]
SAGOLA NEWS GOSSIP.

John and Clarence O’Callaghan and Dr. J.W. Dougherty came down from Witch Lake in their auto last Thursday afternoon. When near Sagola, Dr. Dougherty attempted to unload a rifle and a jolt of the car caused the gun to be discharged. The bullet went through the floor of the car, the exhaust pipe and the transmission case[,] disabling the car so that it had to be left at Sagola until new parts could be obtained from Iron Mountain, which were received Saturday and the car repaired.
This unused postcard view shows a Model T Ford dating between 1912 and 1914, according to Guy Forstrom, a local Model T Ford enthusiast. Note the brass radiator, headlights and lamps on either side of the dashboard, and the steering wheel on the left side. Penciled on the reverse is Trumbull, Connecticut. Note that the woman next to the driver is using a scarf to keep her hat in place. [WJC Photo]
Albert Pierce and Kenneth LaPine drove to Iron Mountain last Sunday in Mr. LaPine’s auto to meet their fathers. When near Randville the auto turned turtle over a steep embankment, with Kenneth LaPine at the wheel, and plunged about ten feet down the bluff among large and rugged boulders. Albert Pierce was thrown forward out of the car, about twenty feet, when he recovered unhurt, he went to the machine and found Kenneth LaPine under the driver’s seat and helped him out, also unhurt. As luck would have it, the car turned over on the rocks at such a place that Kenneth LaPine was in a depression between the rocks, which prevented the car from resting on him. The young men were very badly frightened over their experience, as was [sic – were] also their fathers when they came from Iron Mountain in another car and saw what a narrow escape their boys had. The car was badly damaged and was towed to Iron Mountain for repairs after it had been raised up the bluff with block and tackle.

Note: The term “turned turtle” meant the automobile flipped over and was upside down.
This modern postcard shows a restored green 1913 Ford Model T Runabout. Note the brass radiator, headlights, lamps flanking the dashboard and the horn. The steering column is on the left side. Note the cylinder for the lights. [WJC Photo]
Dating between 1910 and 1915, this postcard view of Superior Avenue looks west up the main thoroughfare in Crystal Falls. Note the early automobiles at the left and coming down the center of the street. Horse-drawn transportation is still prevalent. [WJC Photo]
The 1913 license plates date this unused but messaged postcard view showing two Model T Ford Touring Cars parked on the lawn in front of an unidentified residence. From 1909 through 1912 there were no driver or passenger doors on touring cars. The message was written to her “Cousins” by “Lena.” [WJC Photo]
The 1913 license plate dates this postcard view of a Ford Model T Touring Car. Note the brass radiator, large brass headlights, side lights and the cannister on the running board for fueling the lights. From 1909 through 1912 there were no driver or passenger doors on touring cars. [WJC Photo]
This unused postcard view shows two Model T Ford Touring Cars and an unidentified automobile at the left. The license plate on the middle car shows “New York” and the year “1913” which dates the photograph to that year. Note the brass radiators, headlights and lamps on either side of the dashboard on the Ford automobiles, as well as the steering wheels on the left side and the brass cannister behind the boy standing on the running board at the far right. [WJC Photo]
This unused postcard view shows a **Ford Model T Touring Car** from about **1913 or 1914** crossing a plank bridge. The five young men in the vehicle, exhibiting a pennant reading “**Houghton**”, were possibly students at the **Michigan College of Mines**. Note the crank in front of the car. Brass radiators were used from 1909 to 1915, although the 1915 Model T used electric headlights and turned down rear fenders. The cannister on the running board is a carbide gas generator for the headlights which worked on the same principal as the miners’ carbide lamps. The license plate is an early “homemade” plate. **Michigan’s first issued license plate was produced in 1910, and was covered in porcelain enamel. Before that you were issued a number, but had to make your own plate, usually out of leather with metal numbers.**  

[WJC Photo]
Dating between 1908 and 1920, this unused postcard view shows an early **Model T Ford Touring Car**. Note the brass radiator (dating the vehicle to 1915 or earlier), large brass headlights and lanterns on either side of the dashboard, as well as the toolbox on the running board. The steering column is on the left side. [WJC Photo]
Dating between 1908 and 1920, this unused postcard shows an early Ford Model T Touring Car with an Indiana license plate. Note the brass radiator (dating the vehicle to 1915 or earlier), the large brass headlights, the lanterns on each side of the dashboard and that the steering column is on the left side. [WJC Photo]
Dating between 1910 and 1911, this unused postcard view shows a Model T Ford Torpedo Runabout, the sportiest of the early Model T’s, which had a gasoline tank located at the rear, behind the seat, instead of under the seat, allowing the seat itself to be lowered, thus giving the car a “racy” appearance. Note the brass radiator. [WJC Photo]
NORWAY NEWS NUGGETS.

Frank H. Armstrong, of the Penn company, has purchased one of the Stanley automobiles. The motive power is steam and it is the first so operated on the range.
Continues with Part 2
FORD’S FABULOUS FLIVVER

The NEW FORD "TUDOR" SEDAN

HE Five-Passenger Ford "Tudor" Sedan is suitable for all occasions. It is a car in which one would feel proud to conduct one's friends to social functions or to take one's family on a tour. Comfort and style are the predominant characteristics of this all-season enclosed car. The Ford "Tudor" Sedan is a dignified car, justly appreciated for the perfect finish of its paint work and general refinement. The large plate-glass windows, with mechanical lifts, ensure delightful airiness.

On New Lowered Chassis Fully equipped with Starter and Lighting Set. Ask your Authorized Dealer for a demonstration run.

McKenna Duties Ford Passenger Cars will be reduced in price when these Duties are discontinued. Refund of the whole difference will be made through the Authorized Dealer supplying.

You Can End Ford Thefts With a Fox-Proof Lock

1920

Your Ford isn't securely locked if it can be towed, pushed or driven out of sight around a corner.

There is one way to prevent Ford thefts—lock your steering wheel, steering column and front wheels rigidly. Literally "tie your Ford to the curb" so that a thief cannot look a one-man-lover to it and make a quick get-away. The rigid lock that does this is the Fox-Proof—

The "phantom view" at the left shows the sturdy, simple construction of the Fox-Proof. It is rigid and immovable—left straight ahead or cranked either way, thus complying with police or fire regulations.

Standard Ford size (black): $7.00; 14" nickel $8.00; 17" nickel with walnut rim $12.00. Underwriters' approval earns theft premium reduction.

There is no fear that the Fox locked Ford will be stolen.

Rigid—Noiseless—Thief-Proof Carrier for 2 Tires

"Sure it's the best carrier I've ever seen," said a Ford owner. It locks two tires, with or without demountable rims, rigidly vertical and to the rear. Attaches by means of two strong iron angles between frame and body—and locks tires with two heavy patent clamps that do away with stanchions, chains or weak metal bands. Not only those tires, but Liberty Rear Tire Carrier with rim installation prevents tire carrier, bumpers, support, license bracket and tail light bracket. The Fox-Proof Liberty holds tires so they can't be stolen. It's thief-proof—noiseless—can't rattle or shake loose—can't wear out. The destroyed Ford owners won't have anything but a Fox-Proof Liberty because it does away with all bag-head make-shifts. Price anywhere in the U.S. $13.00.
FORD’S FABULOUS FLIVVER