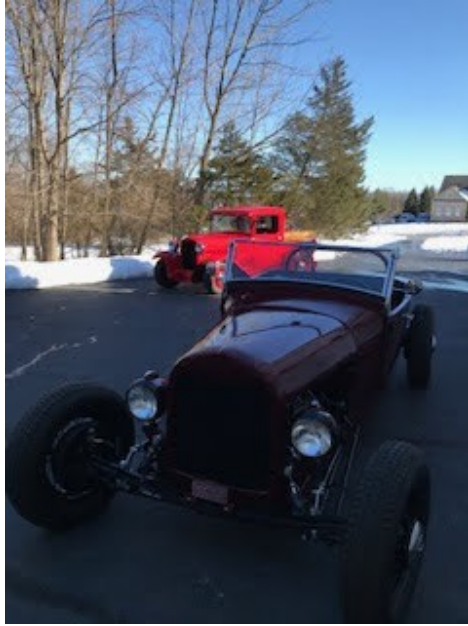


The "A"nnouncer



March, 2021

Newsletter of the Running
Board "A's"

<http://clubs.hemmings.com/runningboardas/>

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Number 3

The Running Board “A’s” Officers

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The Running Board “A’s” club is a Model “A” Ford touring club. We are a region of the Model A Restorers Club (MARC). MARC recommends that all region members become members of MARC. See <http://model-a-ford.org/> for more information.

View from Behind the Wheel

The persistent spread of the Covid virus, and the state restrictions on certain gatherings, continue to prevent us from scheduling indoor meetings, etc. Fortunately we have some members who are cautiously optimistic and realize that we can still travel in our Model A's and socially distance when we stop for a given reason. This is keeping our club very much alive. The winter months and snow has forced us inside and somewhat alone, but telephone calls and projects alleviate some of the tension.

With vaccines rolling out nationwide, the signs are that 2021 will represent a welcome return to driving our cars and more social gatherings. After all, discussions are part of the heart of learning about our cars, and how to solve problems through other's experiences. I'm really looking forward to the snow melting, and some rain to wash the streets. Getting the A out is going to be a priority.

See you in the fast lane,

Doug

The Perfectionists
“How Precision Engineers
Created the Modern World”
Simon Winchester 2018
Book Review: (Ken Nygard)

I picked up this book not knowing what to expect. I've read several of Simon Winchester's books and often find myself buried in more detail than I need or want to know. While some might find this true for this book, it kept my interest throughout. Why review this for a car club newsletter? From beginning to end the engineering advances the book expounds upon relate to almost every aspect of society. The transportation from trains to steamships to automobiles certainly are a big part of our world. It's not a big leap from boring cannon barrels to boring cylinders.

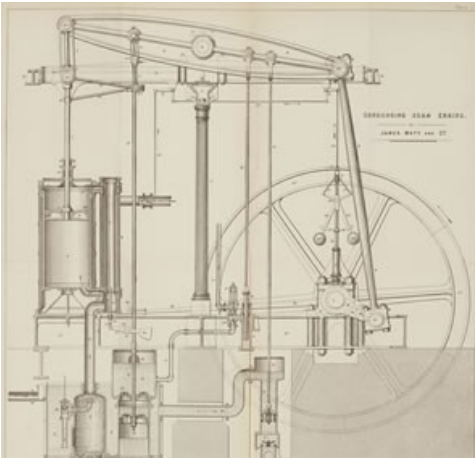
We are taken from the inaccurate and impreciseness of the 1600's (at least by today's standards) to today's near molecular level engineering measurements and manufacturing. So, about those cannon barrels....

Cannon barrels were originally cast as hollow tubes. Wall thickness varied as did the diameter. The early ironmongers did try to bore out the barrels but the results were inconsistent at best. Cannons tended to blow up and kill the soldiers and sailors instead of the enemy. Ironmaster John Wilkinson, in 1771, invented a boring machine that could bore out a solid iron casting. Problem solved and Britain went on to rule the seas.

We've actually jumped ahead a bit. The invention of the first "fire engines" by John Newcomer, which were really water pumps, powered by steam to pump out mine pits came about in the 1690's. These precursors to the steam engine were very inefficient spewing out steam and water everywhere. Then came

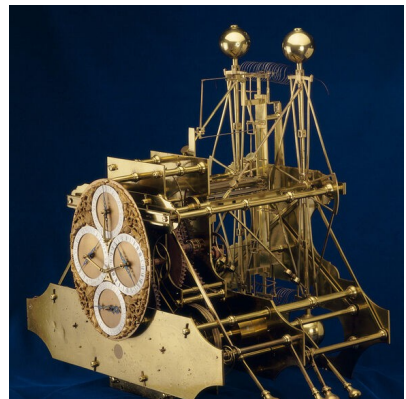
James Watt in the 1770's who figured that this immense pump's whirling parts and shafts could power other things.

These pumps and engines used iron sheets and rivets to form the cylinders. There were of course huge gaps between the cylinder walls and pistons. All kinds of things were tried to seal the gaps, like leather, rope, rope packed with manure and grease.



Wilkinson and Watt got together and the first efficient (for 1775) steam engine came into being. Watt's engine was 30 feet tall. The cylinder was bored from a solid iron casting that was 6 feet tall and 40 inches in diameter. The finished cylinder was 36 inches in diameter. It was accurate to a tolerance of 0.1 inch. The thickness of a shilling.

None of this was happening in a vacuum. The Royal Navy in addition to their cannons exploding had long had the problem as did early explorers of the "New World" of knowing where they were. The vexing problem was longitude. Accurate time keeping was needed. By 1735 accurate clocks were available so that a ship board clock could match time with the main observatory clock in Greenwich on the prime meridian. Ships could determine their positions within a few miles. This 1735 clock conceived by John Harrison is still in use and is wound daily by the curator of the Greenwich Royal Observatory. Talk about taking a licking and still



ticking! Nearly 300 years! Timekeeping today is what allows your car and your phone, not to mention airplanes, ships and spacecraft to know where they are within a few millimeters.

It is often misstated that Henry Ford “invented” the assembly line. Prior to his revolutionary method of assembling automobiles there was a lot of earlier work done in manufacturing. Once again the Royal Navy comes to the forefront! Ships were still sail powered. Lots of sails. Lots of pulley blocks. Somewhere around 1000 pulley blocks for a typical ocean going ship of the time!

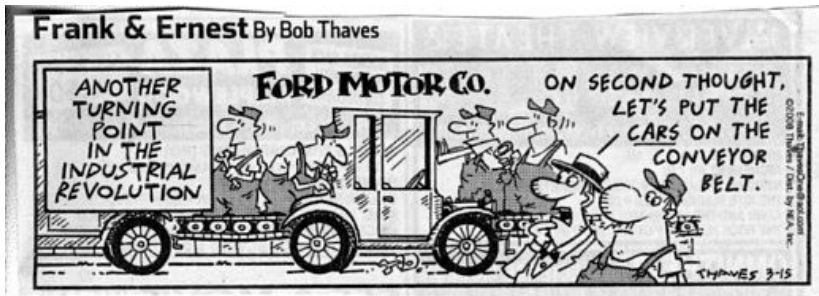
This amounted to a need of 100,000 blocks per year.

Thanks to development of the screw and slide rest for lathes, development of machine tools, advances in Watt’s steam engine and many smaller but essential advances, tools were in-



vented that could make other tools. Precision manufacturing of interchangeable parts was possible to 0.0001 inch. In 1801 a factory began to manufacture pulley blocks. It was the first factory to be totally powered by steam using Watt’s engine and a bevy of machine tools to produce the 1000’s of pulley blocks needed with very few and relatively unskilled workers. All with interchangeable and mass produced parts on an assembly line. The Portsmouth Block Mill was finally shut down in 1965. This is not a typo.

Henry Ford began producing the “first” Model A in 1903. There were also Models B, C, F, K and N commercially produced before the T in 1908. He experimented with various production methods during this time. While the parts were produced on assembly lines; the parts were then delivered to the car which was



stationary. At various times a single person assembled an entire car with others bringing the parts to him. At other times teams of 15 assembled the car with parts being delivered (dropped from above) as needed. (In the 1990's, Saturn combined the team approach with the moving assembly line.) It wasn't until 1913 that Ford adopted the moving assembly line into manufacturing of the Model T. The efficiencies allowed for the price to drop from \$850 to \$260. A Model T came off the assembly line every 40 seconds.

During this time period Ford discovered that his interchangeable parts were only interchangeable with his own parts. If for example a roller bearing was manufactured elsewhere, it would not be interchangeable because the Ford standard was not consistent with other manufacturing standards. It is to Ford's credit that he brought his standards of measurement and production into compliance with the world standards being developed at the same time.

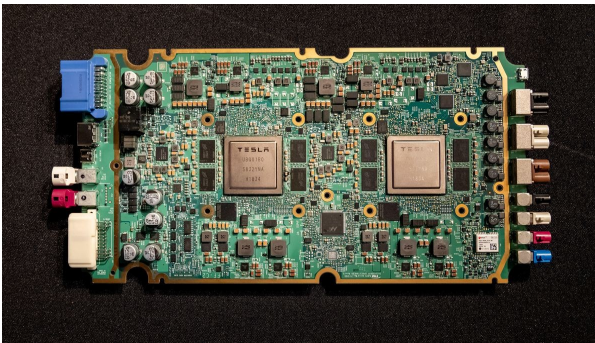
Also, beginning in 1903, the Royce Manufacturing Company (later Rolls-Royce) began building cars. The Royce company built each car individually and parts were fine fitted on the assembly line. While these cars were of the highest quality and many early models are still in use, they initially produced only about 15 cars per year.

Rolls-Royce developed engines for aircraft for WW I and today produces many of the world's jet engines. "The Perfectionists" goes on to explain the development of the jet engines in detail and the precision engineering and manufacturing needed to keep jet

powered planes in the air. You may never fly again!

The Model T had about 100 parts to be assembled into a complete automobile. Today the typical car has approximately 30,000 parts. Assembly lines were improved and manufacturing tolerances improved but until the mid 1970's the basics remained the same. We have entered the digital age.

Today's cars typically have 50 - 60 microprocessors to keep all those parts working together. Higher end cars may have 100+ microprocessors and well over 100 sensors to monitor operating functions. Auto makers today are facing shortages of computer chips.



Intel today produces chips made of transistors of 45 billionth (45 nanometers) of a meter. There may be billions of transistors in a single chip the size of your little finger nail. The

book explains the processes of manufacturing chips and possible limits due to quantum mechanics.

Shillings to Chips. Three hundred years from wood fired water pumps to artificial intelligence, space flight, autonomous vehicles and robots. It is all in this book. Well worth the read.

CALENDAR OF EVENTS



Over the River and Through the Woods Tour

11 AM-Saturday, May 1, 2021

Rain Date: May 8, 2021

We are planning on running an “Over the River and Through the Woods Tour”. We will start in Tincum Park in Erwinna, Tincum Township PA (behind the John Stover House) and enjoy a nice, leisurely drive through the countryside of Hunterdon and Warren Counties (that’s New Jersey Folks!). Our final stop will be at Jimmy’s Ice Cream, Milford, N.J.

As we still are dealing with COVID 19 restrictions, plan on a “bring your own picnic” for our lunch stop along the route. Hopefully bathroom facilities will be available by then. Please bring your chairs (the picnic spot has a limited number of picnic tables).

Please let us know if you plan to attend by calling 908.354.8236 or emailing us at bobbil70b@gmail.com .

Dick and Bobbi Bettle

Tom's Tiny Tip

As much as I love Model A's, there is one thing about them that makes using cell phones pretty difficult; Model A's just make too much noise. I can hear it now, "you shouldn't be talking on the phone while you're driving". That's true, but what do you do when you want to use your phone for directions? In the past, my answer would have been "use your GPS instead"; the GPS has a better speaker and you can actually hear it. On the other hand, if you're leading a tour with many waypoints, it isn't easy to set up all the waypoints with the GPS. In addition, there are times when you lose someone on the tour and can't reach them through CB, it may be necessary to call them. Of course, in this case, you could always pull over and call from the side of the road.

Now, there are several ways that you can improve the loudness of your phone:

- Make a passive amplifier. It's not that difficult, you are just making a simple megaphone. Old time solution that seems appropriate for use in an old car.
- Use a headset. If you don't like wearing headsets, you could add another speaker system through the headset jack.
- Use a Bluetooth speaker. Most (if not all) smart phones support Bluetooth; it's how you connect your phone to that fancy communication system in your modern car (well maybe you can, but my modern car doesn't support blue tooth).

I find a Bluetooth speaker to be the best solution and may also be the most cost effective. You can get a Bluetooth speaker for less than 10 dollars at Walmart. It's small, slightly larger than a tuna fish can (I've added a tuna can to the console I have in the Tudor). It also lets you answer incoming calls with a single button making it a lot safer than fumbling for the phone while driving. Most important, it's loud and you can hear it above all those wonderful Model A sounds.

Tom Fritz

The Evolution of Model A Passenger Vehicle Body Styles (Part 1)

In the 5 years, (1927 through 1931), that Model A's were produced, a total of 28 different body styles of passenger cars were offered by the Ford company. In addition, 11 commercial body styles were offered as well. For the purpose of this article, I'm going to stick with only body styles of passenger cars.

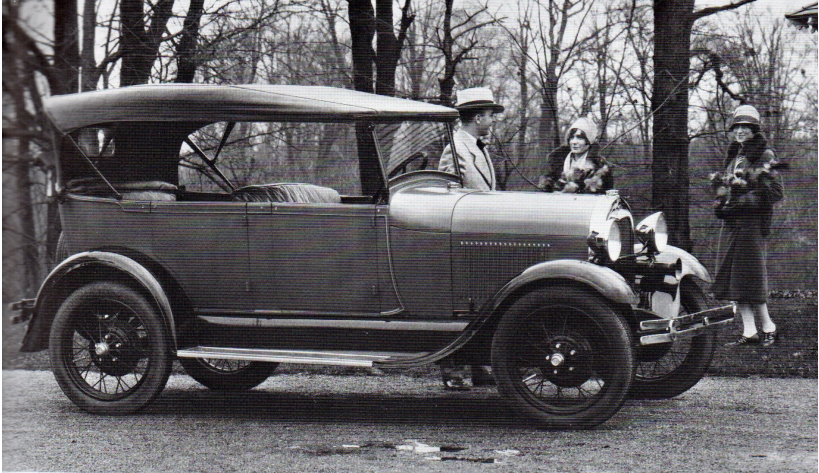
Of the 28 different styles that were produced, I was surprised to find that only 5 body styles were offered from late 1927 to early 1928. Which body styles were they? I'm glad you asked!

Early 1928 Code Numbers and Body Styles

Code Number	Body Style
35A	Standard Phaeton
40A	Standard Roadster
45 A	Standard Coupe
54 A	Sports Coupe
55A	Tudor Sedan

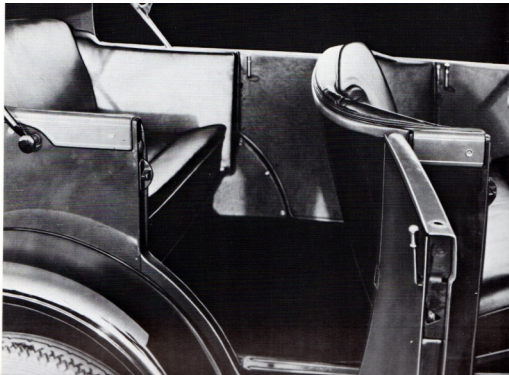
As seen in the table above, there was a very limited number of body styles when the Model A was introduced, but when you look at the code number, you

can see that Henry planned to add a lot more body



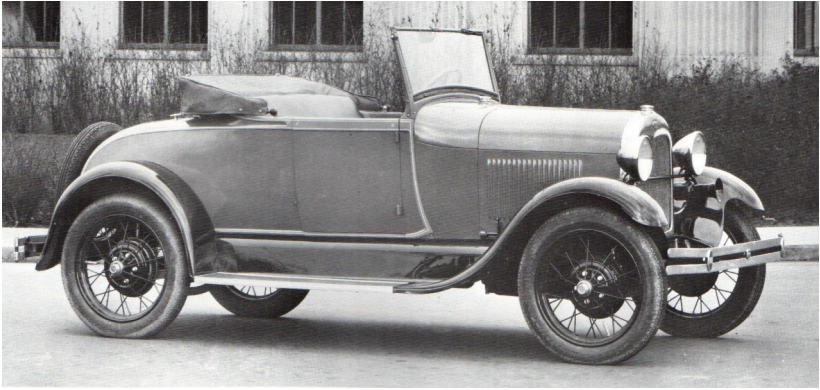
styles in the future, and add he did.

The picture above is from an early 35A standard phaeton. One of the ways to tell that this is an early '28 is the open ended bumpers. The other is the lack

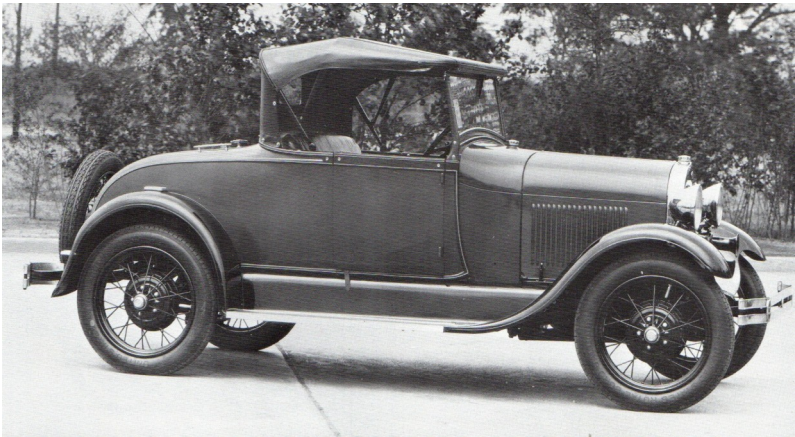


of outside door handles. In the picture below, the interior of a standard phaeton is shown with the early door handles inside. These handles were easily grasped from outside

the car and can be moved easily to open the door. The only problem is what do you do when the side curtains are on? That problem was solved by mid 1928 when door handles were put on the outside of the car. The windshield

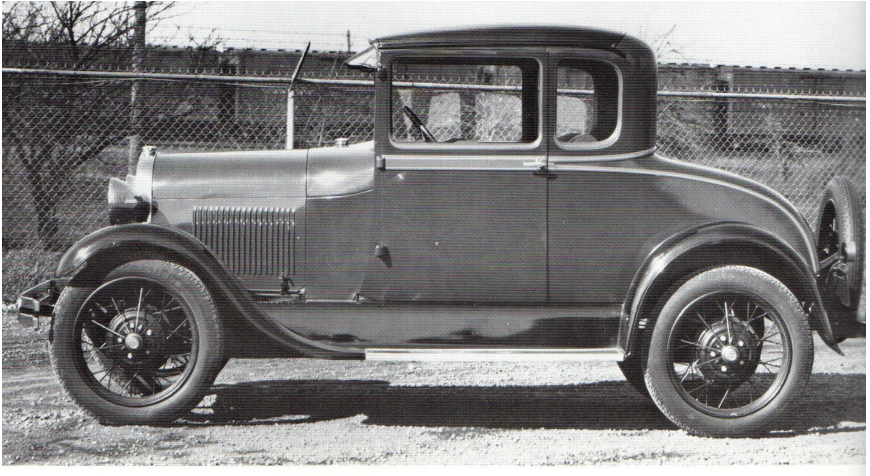


wiper was also hand operated until electric windshield wipers were introduced in May of 1928. The 1928 standard roadster (40 A) in both pictures above and below also came early on with open bumper ends in the front and no outside door handles. In the early models the rumble seat was a \$35



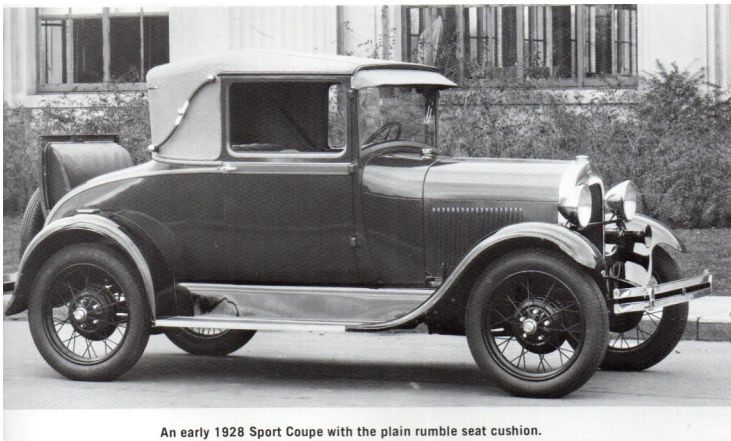
option, which is why there are no step plates on the car in the picture at the top of the page. The car above is a mid 1928 model and does have a rumble seat based on the step plates visible just above the rear bumper and on the top of the rear fender.

The standard coupe (45 A), below, sold for \$495 and was advertised for “personal use”. This early model had the open front bumper ends and the early style



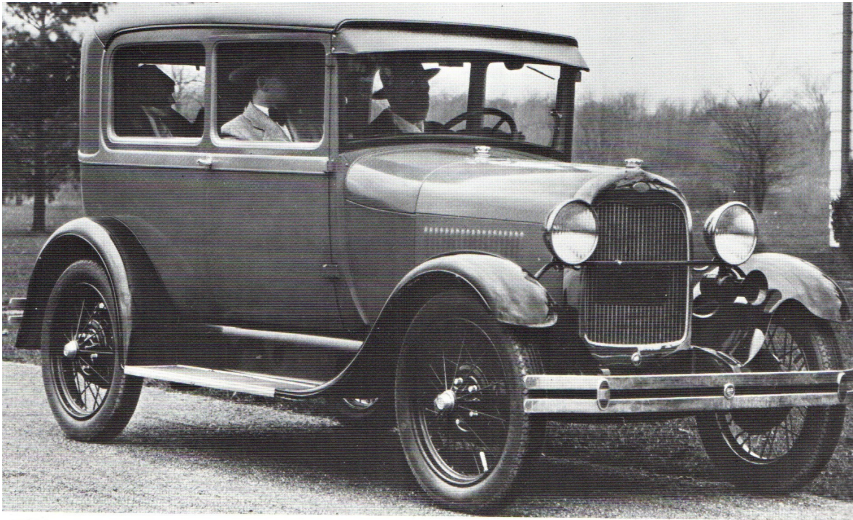
rear tail light. This example also did not have a rumble seat , but advertised the large amount of luggage space under the back deck lid.

The other coupe that was initially available was the sport coupe. The example below has a faux leather



An early 1928 Sport Coupe with the plain rumble seat cushion.

top and landau irons that were painted the color of the car body.

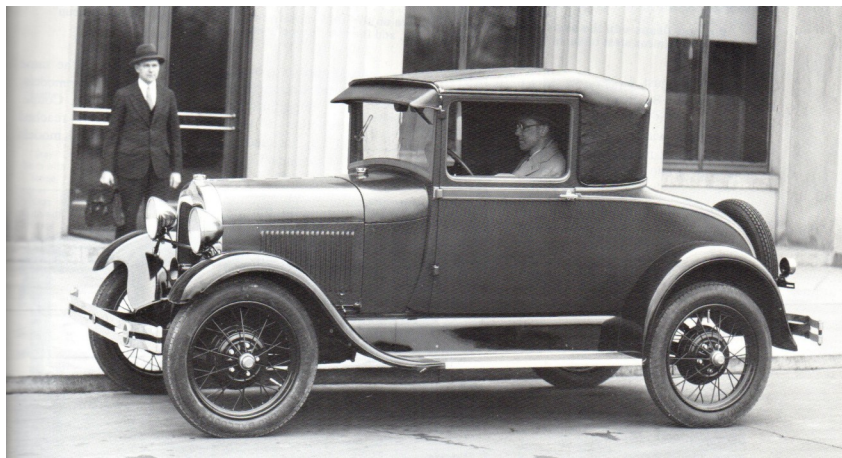


The final body style that was initially offered was the tudor sedan (55 A). This closed car body style, with seating for 5 went on to be the most popular body style for the Model A.

In mid 1928, three more body styles were added to the Model A line up. The Special Coupe (49 A) and the Business Coupe (54 A) became part of the mix. The Special Coupe was still a 5 window coupe with faux leather on the roof. The business coupe was a 3 window coupe just like the sports coupe without the landau irons.

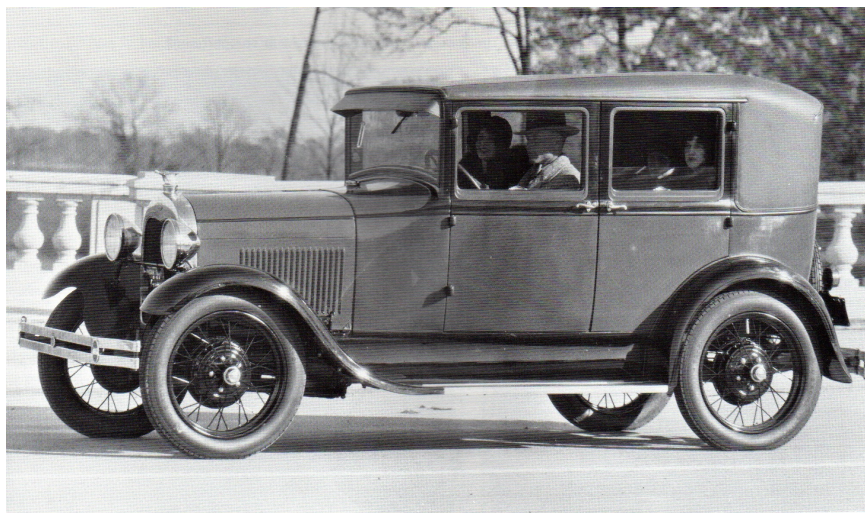


Special Coupe



Business Coupe

The Leather Back Fordor (60 A) was a four door model with a faux leather covered roof. Very early models did not have a leather covered sun visor, but later models did.



In 1929 nine new Model A body styles were added to the mix, in addition to the 8 body styles available in 1928.

Code Number	Body Style
60 B	Leather Back Fordor (Black)
60 C	Steel Back Fordor
68 A	Cabriolet
150 A	Station Wagon
155 A	Town Sedan (Murry)
155 B	Town Sedan (Briggs)
165 A	Standard Fordor (Murry)
165 B	Standard Fordor (Briggs)
170 A	Standard Fordor (2 windows)

Ford contracted two different body builders for his Town sedan and Fordor bodies. Although they fit on the same frame, the bodies could be distinguished between the manufacturers mostly by the shape of the windows and other more subtle body differences. The station wagon was made of maple and birch and could seat up to eight people. This was the first station made by an auto manufacturer. Previously, station wagon bodies were contracted out to 3rd party vendors.

Next month we will look at models produced in 1930 and 1931 and we will identify some of the early models that were dropped.



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For the Running Board "A's"**

Name _____

Address _____

Telephone Number _____

Email address _____

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