DETROIT FORD PLANT INSTALLING STARTERS

New Equipment Used on Sedan and Coupelet Models.

SEVERE TESTS WITHSTOOD

Only Enclosed Cars Have New System Which Is Described as Light, Compact, Efficient,

The Ford electric lighting and starting system is here! It is now being installed on coupelet and sedan models assembled at the Detroit plant. Other assembly plants will install the systems fust as rapidly as production will per-mit, says the Ford Owner of Milwaukee,

This starting and lighting system has stood the test of the Ford Motor company. The system must be right or it never could have received the stamp of approval of Ford engineers, the state-

approval of Ford engineers, the statement continues.
Only the inclosed models, the coupelet
and sedan, will be equipped with the
starting and lighting system. The
starter will be furnished on these two
models at an added cost of \$75.
It will be impracticable to install
the starter on old Ford cars, because
such a change would necessitate replacing the front cylinder cover, transmission cover, fly wheel and timer
gears.

Starter of Two-Unit Type.

Starier of Two-Unit Type.

The starter is of the two-unit type, consisting of a generator, starting motor and storage battery. It is extremely compact, light, efficient and accessible. The generator is driven by a small spiral gear off of the large timer gear. No chains or belts are required.

The starting motor engages with the fly wheel through a Bendix drive and teeth cut on the rim of the fly wheel. All inclosed cars supplied with starters will hereafter also be equipped with an instrument board on which will be placed the coil switch, ammeter, primer, and light switch. Side and tail oil lamps will be discarded. In place of the side lamps a combination head lamp will be provided. This head light contains two bulbs for furnishing bright and dim light.

Battery is Furnished.

Battery In Furnished.

A six-volt, 80-ampere, three cell, bat-tery of siandard construction will be furnished, the battery to be housed in a metal box carried on the left run-ning board. Because the number of bat-teries required is so great it is probable that several well-known manufacturers, naintaining service stations throughou the country, will supply this demand.

When one considers that the Ford
Motor company will produce more
closed cars in the next year than most of the largest manufacturers have ever produced of all models in any one year, then one can appreciate what a tre-mendous problem has been handed to the Ford production managers. Under such circumstances the start-ter and lighting equipment will of ing and lighting equipment will of

necessity be confined to the closed cars for sometime at least. Those contemplating the purchase starters which are now manufactured

by independent companies.

A Ford inclosed car equipped with
the new Ford starter will be exhibited
as one of the features of Scattle's auto
show in the armory this week.

HARBOR MAPS OUT GRAYS

The programme, an amplification of the proposal to bond the county in order to render available federal funds for the paving of the Olympic highway in this county was outlined to the county commissioners at Olympia by Rate Highway Commissioner James Al-

Visite Highway Commissioner James Allen and was presented in its entirety for discussion at the Montesano meeting. As the complete programme met with instant approval of the meeting, the commissioners will call a special bond election at an early date.

The programme calls for the improvement of the North river, Westport, C. D. Hansen, Pacific beach and Quinault roads by hard gravel surfacing and the concrete paving of the Olympic highway from a point three miles west of Hequiain east to the Thurston county line. The cost of these improvements Inc. The cost of these improvements

ty line. The cost of these improvements has been estimated as follows:
North river road, 11 miles, \$160,000; Westport road, South Aberdeen to Cohasset beach, 15 miles, \$150,000; Pacific beach road, Copalis crossing to Aloha, 8 miles, \$60,000; Quinault road, from Lake Quinault to the Jefferson escenty line, 27 miles, \$550,000; Olympic Webway, 28 miles, concrete paying. highway, 26 miles, concrete paving.

Funds available for these projects are: State and federal and, \$600,000; permanent highway fund, \$250,000; road permanent highway fund, \$250,000; road and bridge fund, \$250,000, and from six county district road funds, \$140,000.

NASH SEES BIG AUTO DEMAND

The Firestone company is launched on the 'ship by truck' campaign," said by the 'specific states.

Demand Will Exceed Supply in

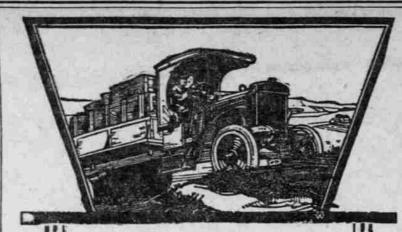
1919, Manufacturer Declares. "There will not be cars enough to begin to supply the demand of the 1919

W. Nash, president of the Nash Motors men new, unsuspected uses of trucks, company, is based upon first-hand study in every part of the country one finds of the country's industrial outlook as affecting the automobile market. Mr. obstacles to transportation brought pash has just returned to the factory upon us not only by war, but by nation from Chicago and New York to.

"The motor truck has come to the

the south, where the selling seaof the big production schedule of the viously can now be sent by this motor Nash factory, practically all dealers will be unable at any time during the 1919 season to get cars enough.

"Our factory not being satisfied with the development of the Giant solid tire,



Service

When you buy a motor truck, you might as well buy real service.

We mean the kind of service that is built into a truck.

You get that kind with an Atterbury Truck-and it's backed by 14 years of successful truck-building experience.

Compare the specifications and mechanical engineering with any other Truck of its price,

ATTERBURY TRUCK SALES CO. 343 Oak, Near Broadway "Truck Specialists"



PORTLAND MEN SEE SHOW

DEALERS VISIT AUTO EXHIBI-TION IN SEATTLE.

Number of Oregonians Spend Entire Week on Sound, While Others Leave Here Thursday.

A number of prominent Oregon automobile dealers and motorists were in Seattle last week to attend the sound try and I firmly believe that a great future is in store for the automobile the Oregonians left here early in the Seattle last week to attend the sound city's automobile show. A number of of open passenger cars, who feel that city's automobile show. A number of they must have a starter, need not turn the Oregonians left here early in the from their first choice, for they can week and spent several days at the equip their Ford cars with electric show. The largest delegation left The largest delegation left Thursday night, most of them expecting to return yesjerday and today.

M. O. Wilkins, manager of Portland's late show, spent the entire week in Seattle, Fred W. Vogler, president of the Northwest Auto company, also went up early in the week as did David A. Pepp of the Daniels Sales agency, which has established a branch in Seattle and was one of the exhibitors at the show. J. M. Krog, manager of the Fortland Motor Car company, was in the Washington city several days. One of his customers, J. B. Monette, drove his new Nash up from Portland. W. R. De Lay of the D. C. Warren Motor Car company, who went the story of the record-breaking run The story of the record-breaking run Thursday night, most of them ex-

FIVE - YEAR PROGRAMME.

Issuance of \$400,000 in Bonds Are Planned by County to Cover Its, Share of Improvement Costs.

Share of Improvement Costs.

ABERDEEN, Wash, March 15.—(Special.)—A programme for the improvement of Grays Harbor county roads covering a period of five years and callfug for an expenditure of \$1.540,000 in for bonding the county for \$400,000 in company; W. C. Stevens; H. J. Care company; M. C. Stevens; H. J. Care c

"SHIP BY TRUCK," SLOGAN

FIRESTONE COMPANY BEHIND FREIGHT CAMPAIGN.

J. D. Hess, Jr., District Manager Here From Akron, O., to Study Business Conditions.

J. D. Hess Jr., Akron, O., district nanager of the Firestone Tire & Rubher company, is in Portland studying local trade conditions.

Under the new plan of the Firestone factory the district managers will spend almost their entire time in the field. This will give coast automobils and truck tire users a closer touch with the factory organization. In this way the Firestone factory will be able to work out more carefully all the dif-

Mr. Hess, yesterday. This is one of the many new ideas of value to the entire nation that have been promulgated by the Firestone organization within the There will not be cars enough to egin to supply the demand of the 1919 to supply the demand of the 1919 to some to us the importance of the motor truck. The foregoing statement by Charles R. Nagh, president of the Nash Motors men new, unsuspected uses of trucks.

at Kenosha after a trip which took him from Chicago and New York to Florida.

At practically every point in his finerary, through the Carolinas, Georgia, Florida, Tennessee, Kentucky and Ohio, Mr. Nash found reflected the same conditions that prevailed at the Chicago and New York automobile shows.

In the south where the selling sea-In the south, where the selling sea-son is now at its height, Mr. Nash spent his products hauled at less expense, several weeks. Nash dealers on every Small shipments that could not be hand are pressed for cars, and, in spite hauled to market by the producer preto meet the requirements of the new conditions has finally perfected the Firestone Giant pneumatic cord tire to meet the demand for a tire equipment that will give the resiliency and speed of small pneumatic tires and yet with-stand the heavy weight of the motor truck.

"Back of the actual service of Fire-Firestone truck tire service stations, one in every trucking center, each an example of the highest efficiency that has been reached in this field.
"I certainly look forward to many frequent visits in Fortland. I have studied the trade conditions pretty

MOTOR BEATS FRENCH TRAIN

knew that he was traveling rather fast in the government Cadillac.

But he probably did not knew that the Cadillac was easily trimming the fastest train in France, the Bordeaux
TO MOTORING PUBLIC.

could not possibly have left for an hour after the train did and must have ar-rived considerably ahead, it is a cer-tainty that the Cadillac beat this fast

rain by over an hour."

Waddell was enthusiastic over the work the Cadillac has done in France. work the Cadillac has done in France. The cars used by the army were painted office drab and those under navy supervision were painted white. These were the most conspicuous models seen overseas. It will be recalled that the Cadillac has repeatedly beaten the time of crack trains on fast runs in America.

Other mand, the cadillac is performance. In this it exteristic is p

failed."

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REPUBLIC TRUCKS

Will Not Be Orphaned!

"During the last five years more than six

Republic Trucks are made by the largest

We are the largest exclusive truck dealers

in the northwest. Buy your truck here-you

ROBERTS MOTOR CAR CO., INC.

71-75 NORTH PARK STREET

Portland, Oregon

can count on our SERVICE if you need it.

truck manufacturers in the world.

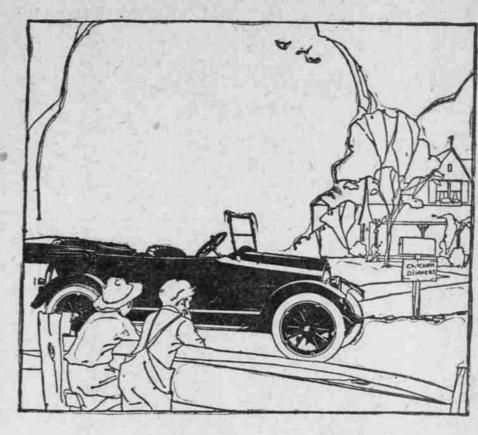
hundred motor vehicle manufacturers have

With Which Competitors Will

the Essex is the way in which it has sprung into popularity without a word

ments.
"'Mechanically it is built along lines of safety in the sense that there is nothing experimental about it. On the other hand, its great winning charac-teristic is performance. In this it ex-

Grerlan



"Approved"

The circle of friends the Overland car makes is continually widening. These friends have spread the good news of the comfort, performance and economy of the Model 90 car, until owners now number more than 115,000. These owners are safer guides for you to follow than mere specifications.

Willys-Overland Pacific Co.

Broadway at Davis Street, Portland

Overland Model Ninety Five Passenger Touring Car \$985; Sedan \$1495; f. c. b. Toledo

Automobile Topics Terms in Produc Have to Reckon.

"One of the most notable things about lowing. They dined at the Case de Bordeaux and as they left to go to the train Colonel Mullally was just starting his dinner. They boarded the express and reached Paris on time, going I to the University Union, where the officers registered.

"Imagine my surprise." said Waddell, "when I arrived, to find Colonel Mullally there and George Ede, a well-known San Francisco driver, sitting in the colonel's Cadillac outside. The only way the colonel could have gotten to Paris was in the Cadillac, and as he could not possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour after the train did and possibly have left for an hour and the popularity without a word being said in its praise by the makers, "said C. L. Boss of the C. L. Boss of the

cording to the purchaser's require-

There are 4000 automobiles in Japan, the country has no good roads. monly bright.

is not one of these. Add to this the fact that its appearance is enough to pull a good share of attention on the prospective buyer's part, and enough has been said to indicate that for a newcomer its prospects are uncommonly bright.

"In fact, having nothing in the way of reputation to live down, but much in its favor, it seems to be a product that competitors will have to reckon with seriously."

There are 4000 automobiles in Japan.



All-Aluminum Custom Body

The finest custom-made bodies in the world are built entirely of aluminum.

And in the Jordan Suburban Seven this practice has reduced the weight a full one hundred pounds.

It gives that smooth, velvety finish, so desirable.

It does not ripple, rumble or rust like sheet metal.

The Suburban Seven is the first seven-passenger car without the old bulge in the rear of the Every Jordan owner is entitled to receive the "Jordan Arrow"

body. The sides run straight, with sharply beveled edges.

Beautiful upholstery is developed, over Marshall cushion springs, into seats that conform to the natural position of the body.

There is a real tailored top with beveled edge plate glass in the rear panel. Curtains open with the doors. Slightly smaller wheels and fatter tires. Rim wind clock. Tonneau light. Macbeth lenses. Moto-Meter.

Optional colors, Briarcliff green, Liberty blue, Burgundy OldWine.



Mitchell, Lewis & Staver Co. FORDAY



JORDAN MOTOR CAR COMPANY, Cleveland, Ohio