WOOD FOR WHEELS BECOMING SCARCE

Hickory Rapidly Being Used Up, Wire Coming In.

BOTH- HAVE GOOD POINTS

wheels of his favorite vehicle are conwheels of his favorite vehicle at concerned. Most owners would probably
assume that the present predominating
type of hickory wheels have demonstrated their value and are here to

For that matter, they are satisfac-tory enough, and if that were the only factor involved the present wooden wheels might never be superseded. but there are other considerations that make it likely that before many years have passed cars will be equipped with a radically different

In the very early days of the motor car there was a tendency to follow bi-cycle practice and use wheels of wire. These parts were not properly de-signed to perform the work required of them in automobile service and then

pieces under some excessive strain or Mr. Specht's territory includes Oregon, heavy impact. The common failing of California, Washington and part of

wheels. These bolts pass through the wheel and retain the hub plate in position. In the case of the rear wheels the hub bolts hold the brake drum also. If these bolts are permitted to become

loss, the condition will very probably throw the wheel out of alignment and cause difficulty in driving, not to mention excessive tire wear.

The real reason why the wooden wheel is likely to be superseded is simply the increasing difficulty of securing an adequate amount of second-growth hickory, the particular grade of wood that gives the best results. At the present rate it will not be many years before this grade of hickory will be more expensive than other wheel-buildbefore this grade of hickory will be more expensive than other wheel-build-ing materials, when no real reason for retaining the wooden wheels will re-

At the present time the closest rival of the hickory wheel in passenger car design is the wire wheel. This part is a radical advance over the original operation than formerly and are learnwire wheel, which was adopted almost ing all the time."

Scientific design has produced. Scientific design has produced a wheel with wire spokes, having all the strength and then some, of the best hickory. In addition other character-istics of superiority are claimed for the wire wheel by its adherents, which at

any rate entitle it to a careful hearing in the final court of motordom. In the first place it is claimed that by reason of the many points at which the rim of the wire wheel is supported, as against the 10 or 12 such points in the hickory wheel, that the former is more tenacious in keeping its shape. The argument is that the wooden wheel gradually assumes more or less of a polygon shape, which accentuates tire wear. Further it is claimed that the metal better radiates the heat inevita-bly generated by the tire in running than does wood, which is a poor heat conductor, acting in fact rather as an insulator. In the wire wheel there is

However, it is necessary to keep wire wheels in proper order, not to permit the enamel to crack off at the nipples, as rust is likely to form in such a case and trouble will probably ensue. There is little question that wire wheels en-hance the appearance of a car, but they must be kept clean, caked mud must be removed from between the spokes after a run in the rain or instead of an improvement they will be an eyesore. It may be noted that with the special brushes that are now available for cleaning wire wheels the task is not onerous. In the final analysis, the real reason why wire wheels have not beauties of nature manifest on every security of the Cascade Mountains into the gorge below, has been transformed into myriads of icycles, and their glittering beauty reminds one of a diamond palace.

The ride over this beautiful highway in a Maxwell car, and the wonderful beauties of nature manifest on every special brushes that are now available for cleaning wire wheels the task is not onerous. In the final analysis, the real reason why wire wheels have not ousted the wooden type from its position of supremacy is simply the question of supremacy is

Hickory wheels are still cheaper than the wire and the difference in service rendered by the two is not great snough to permit the latter to force its BRITON PLANTS CHANGE BACK

general employment.

Owners of care fitted with wire wheels should give them a careful inspection every three weeks, if not oftener, to see that no spokes are loose or bent and that no rust has forced or bent and that no rust has forced around the nipples. One type of wire munition factories to manufacture of wheel has a serrated drive and the serrations must be kept perfectly clean. If one of these should be badly nicked, there will be trouble in mounting the according to a statement of F. G. Kelwheel. If rust starts to form on the driving surface, kerosene or oil should Ministry of Munitions. Several plants around the according to a statement of F. G. Kelwheel. If rust starts to form on the driving surface, kerosene or oil should Ministry of Munitions. Several plants

Cast Steel Wheels Tried. Pressed and cast steel wheels have achieved a real vogue in England, not only for trucks, but for passenger cars as well. In appearance these wheels are just the same as our wooden artil-lery wheels. In the designs of today these steel wheels are just as light as our wooden ones, they are stronger, their heat-radiating qualities are superior and many competent authorities hold that they are to be the ulti-mate type of wheel. There is certainly every reason to give this opinion a re-

spectful hearing.

In the matter of the care common to

or the rim may become distorted and the same trouble will follow. When this happens, place a jack against the hub and rim, which very quickly forces the

and rim, which very quickly forces the rim into place.

Sometimes the rims creep a little, so that the valve stem is bent or even broken off. This may be due to loose lugs or by a distorted rim on a rim with worn shoulders. It is well to keep an eye on the valve stems, for by this it may be known whether the rim is creeping.

HUDSON OWNER ENTHUSIASTIC

F. A. Tauscher Pleased With 13,000-Mile Record of His Car.

After two years of service during which it had traveled over 13,000 miles, a Hudson super-six autom bile, owned by F. A. Tauscher, of the Doernbecher Wooden Wheels at Present Cheaper
Than Wire Ones, but Cost of
Wood Is Soaring.

Wood Is Soaring.

Wood Is Soaring.

by F. A. Tauscher, of the Doernbecher Manufacturing Company, has made its possessor a thorough Hudson fan. Mr. Tauscher says that during all the time that he has owned the car he has not been obliged to spend a single cent on the car for repairs other than \$7.80 on his batteries, a new set of tires and a spark plug wrench. Mr. Tauscher is so enthusiastic over his car that he says he will pit it against any other car on the market for power, speed and durability and that he would not trade it with its 13,000 mile record for any new car.

MANY SATISFIED OWNERS ARE FOUND IN PORTLAND.

Drivers Well Informed About Construction and Operation of Cars, Says Visitor.

E. H. Specht, mechanical department of them in automobile service and then factory representative for the Velic the industry awang toward carriage practice and adopted hickory as its standard wheel material.

There is a standard wheel material. standard wheel material.

There is little serious complaint to be made against wooden wheels when they are made of the proper grade of hickory. In rare cases wooden wheels do disintegrate and literally fall to pieces under some excessive strain or literature.

Mr. Specht's territory includes Oregon, Callfornia, Washington and part of Callfornia, Washington and part of

heavy impact. The common failing of wooden wheels is to develop an exceedingly annoying squeak and this may be cured by driving in wedges where the spokes have loosened near the hub.

Hickory No Longer Plentiful.

Most owners neglect to give any attention to the hub boits of their wooden wheels. These boits pass through the wheels. These boits pass through the wheels of the bost friends of the car are the mechanics who work on them. No other class of men is better fitted to No other class of men is better fitted to pass on the worth of an automobile and when they say a car is all right you may be sure that know what they are talk-

2500 three-quarter ton trucks, which it is understood will be used in the postal service, were ordered. The factory is now at work on the fleet of 2500.

"In my dealings with car owners I find that they are much better informed about the mechanical contraction and

about the mechanical enstruction and

OFFICER PRAISES HIGHWAY

LIEUTENANT IMPRESSED WITH RIVER ROUTE.

Texas Man Enthuses Over Multnomah Falls Dressed in Its Winter Garb of Icc.

Lieutenant George E. Moore, of Waco, Tex., who has been stationed at Cor-vallis for some time past, spent a few days in Portland during the past week as a guest of Clement and Douglas Powell. Lieutenant Moore had often never any annoyance from squeaking induced by loosened spokes.

Careful Inspection Necessary.

However, it is necessary to keep wire wheels in proper order, not to permit the enamel to crack off at the nipples.

travels. One of the most wonderful scenes which greeted the vision of Lieutenant Moore was Multnomah Falls garbed in its Winter coat of ice. The spray which is continually cast from the sum-mit of the Cascade Mountains into the

Airplane Motor Factories Will Make Automobile Engines.

The problem of turning over British MANY STATES TO BUILD ROADS driving surface, kerosene or oil should be applied at once to stop it. Within the past year or two there has been a noticeable tendency to cover the outsides of wire wheels with metal discs. This gives an additional attractive appearance and prevents the formation of mud deposits between the spokes. In European countries the problem of securing satisfactory grades of wood for use in wooden wheels has been more difficult than our own. As a consequence engineers over there have long experimented with other types of wheels. Today wire wheels are the problem of wheels. Today wire wheels are the problem of wheels. Today wire wheels are the spokes.

WAR BOARD TO BE DISSOLVED

Having \$25,000,000 Available for 1919 Building.

Having \$25,000,000 Available for 1919 Building.

From the reports constantly being received from the various states, going to seem sevident that there is going to see a resumption of road building on a scale even greater than those in closest touch with the situation had dared to hope, reads an editorial in Good Roads. This is as it should be, of course, for tion Roads in Sight.

KLAMATH FALLS, Or., Jan. 4.—

(Special.)—That a great improvement may be made in the roads on the Klamath Reservation, and that can be had only if the highway systems of the great need of the country today is transportation, and that can be had only if the highway systems of the states and the Nation are developed to their maximum capacity.

WAR BOARD TO BE DISSOLVED

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In two states, Illinois and Pennsylvania large bond issues have been an of the state of the country bond issues and the Nation are developed to their maximum capacity.

In two states, Illinois and Pennsylvania large bond issues have been an opposite to next of the country being the various states, and the Nation are developed to the providence of the country today is transportation, and that can be had only if the highway systems of the great need of the country today is transportation, and that can be had only if the highway syste

Makes Recommendation With His Resignation.

In a letter to the President, in which he tenders his resignation as chairman, Bernard M. Baruch recommended that the War Industries Board be discon-tinued after January 1, 1919, and in ac-knowledging receipt of the letter and accepting the resignation the President concurred in the suggestion for discontinuing the board. The activities of the drawn up, and in most instances the drawn up, and in most instances the board which have a lasting value are being transferred to permanent de-partments of the Government. The De-

AN IMPORTANT MESSAGE TO AUTOMOBILE OWNERS

We are pleased to announce the appointment of PACIFIC STATES RUBBER CO. as distributors of our entire line, which includes:

Republic Pneumatic Fabric Tires

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Republic Pneumatic Truck Tires

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New location,

229 PINE STREET

(Across From Pine-Street Coffee House)

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Republic Belting -Rubber and Balata

Republic Hose-All kinds in rubber and cotton

Republic Packing-for all purposes Republic Molded Goods-of every description

At 51 FIRST STREET

With our NEW representation we can safely assure our customers the fair and courteous treatment which has always been extended by us. SERVICE and a SQUARE DEAL will be the policy of our new distributors.

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PACIFIC STATES RUBBER CO.

229 Pine Street 51 First Street Phone Broadway 1088



REPUBLIC

With STAGGARD Studs

HIGHWAY PROGRAMME BIG

ON BIG SCALE.

Bond Issues Provide Funds, Texas Having \$25,000,000 Available

apparently has the backing of influen-tial interests. There is also consider-able sentiment in favor of a bond issue in Minnesota and in Michigan. In many counties, too, the issuing of bonds for extensive road building operations seems likely.

In the matter of the care common to all types of wheels it must be rememing, which must be kept well packed with grease all the time. At intervals each wheel should be jacked up and turned to see whether it is turning freety. While the wheel is jacked up take it firmly by spoke and rim and pull and push to see if there is excessive play. Wear in bearing or hub may cause this latter condition.

In the case of wooden wheels sometimes the wheel gets out of shape, so that it is difficult to mount the rim.

board which have a lasting value are being transferred to permanent department. The Department of the Government. The Department of the Interior, through the bureau of mines, has assumed control of the activities of the board relating to war minerals; the department of Commerce probably will undertake the considerably larger. The projected expenditures in Texas will amount to about \$25,000,000, while the proposed expenditures are at least as irreg as those of previous years when war did not interfere with internal improvements. In some cases they are considerably larger. The projected expenditure in Texas will amount to about \$25,000,000, while the proposed expenditures are at least as irreg as those of previous years when war did not interfere with internal improvements. In some cases they are considerably larger. The projected expenditure in Minnesota is about \$6,000,000. In Louisiana, according to a fecent report, more than \$4,500,000. In Louisiana, according to a fecent report, more than \$4,500,000 will be spent, and in Ohio plans have been made for what is described as the "biggest good roads year" in that state's history. Work under the superiories of the Government.

Women should not be permitted to divice alone until they have become expenditures are at least as irreg as those of previous years when in great with internal improvements. In some cases they are considerably larger. The projected expenditure in Minnesota is about \$6,000,000. In Louisiana, according to the Government.

Women should not be perm proposed expenditures are at least as

In two states, Illinois and Pennsylvania, large bond issues have been authorized by the voters. In other states, notably South Dakota and Iowa, the issuance of bonds is being agitated, and apparently has the backing of influence. main road north and south, past the Klamath agency, was in such deplor-able shape during most of the tourist

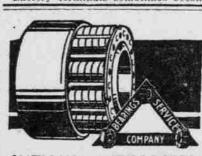
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SALESMAN WITH CAR TO HANDLE A WESTERN ELECTRIC LINE. NEED NOT HAVE THOROUGH ELECTRICAL KNOWLEDGE. Call Our Office,

WESTERN ELECTRIC COMPANY. E. Ash St. and Union Avc. Telephone E. 8250,

Less definite plans have been announced for many other states. Road
work has been held up everywhere for
a long time and there is a very general
disposition to make up next year for
the time lost this year and last. While
the conclusion of the armistice on the
other side has not removed all of the
links was allowed to remain as in the
so that it was nearly impossible
set so tightly in their sockets that it is
difficult to remove them. A pair of
tongs which will make this task easy,
however, may be made readily from an
old pair of wide-faced pliers. After the
faces have been hammered flat, if not
already so, a slot is cut in one of them
other side has not removed all of the
links was allowed to remain as in the
so that it can be placed stride the can
much longer. the conclusion of the armistice on the other side has not removed all of the obstacles in the way of renewed activity in American road work, the way of the road builder has been made much easier, and there is every reason to be optimistic in looking forward to next optimistic in looking forward to next of the control of for this work

Tongs for Battery Terminals.



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of Anderson & Gray, later O. H. Anderson, located at Sixth and Burnside, at his trade of coach and wagon building, remaining with them for over 12 years. For a year and a half Mr. Tucker was in charge of the bentstock and wheel department of the Waterhouse & Lester Company. In 1906 Mr. Tucker bought the business of A. M. Westram on Union avenue and Yamhill street, where he continued in the coach and wagon trade for 11 years. In September, 1917, Mr. Tucker moved to his present location, 429 Belmont, where he has enlarged his plant to meet the steady increase in his business until he was in a position to handle the order represented in this picture for the United States Government in the manufacture of seven bodies on Ford trucks for the postal service. These seven bodies were completed, ready for

E. M. TUCKER AUTO AND WAGON WORKS, 429 BELMONT ST.

Thirty years ago E. M. Tucker, then a young man of 22, came to Port-

land from Toronto, Canada, securing employment with the old firm

service, six weeks from the time the order was placed. Mr. Tucker makes a specialty of auto body building and is equipped

to manufacture any style of auto body.