

GOOD CARE OF AUTO GIVES MORE MILEAGE

Owners Should Give Systematic Attention to Cars.

THREE THINGS IMPORTANT

Lubrication, Adjustment and Careful Vital Factors in Upkeep of Machine.

Motorists all appreciate the fact that their automobiles are shorter lived than they ought to be and that during the comparative short life they spend too much money for keeping them running. As the average man says, "It isn't the first cost, but the upkeep that bothers me." Upkeep on a fairly good car is directly proportional to the attention one gives to three vital factors—lubrication, adjustment and careful driving. Unless all three are followed out, motorizing is costing more than it might. There are a great many owners driving medium priced cars who cut their cost mile down to less than railroad mileage for one person and there are owners of the same make and model whose cost runs to ten cents a mile and more. If one owner can run at three cents a mile with full load any owner can—if he will try.

The automobile represents a valuable investment and one that should be protected by an occasional visit to a service station or a little oiling here and there whenever one happens to think of it. The instruction book tells the owner to do certain things at certain times and if he doesn't do these things he must be satisfied with a high cost per mile of travel. In many cases it is pure laziness on the part of the owner that keeps him from doing some work on the car every week; or in other cases it is ignorance; in still other cases lack of time. If he hasn't time he must pay someone else to do the work at the proper time. If he doesn't know anything about the mechanism of the car he is his business to learn to be satisfied with high depreciation and high mileage cost.

If the motorist had \$1500 or \$2000 invested in a number of cows or horses he wouldn't feel the same about it. It happened to him, or clean them when he was reminded by some sympathetic lover of animals. Machinery talks pretty loudly sometimes and when it talks it drags gold out of the pocketbook. Machinery, like an animal, gets weak and sick and then dies. When the animal gets sick the owner gets a veterinarian and pays him to help get the animal well, which he could have done in the first place by proper feeding and cleaning. The veterinary costs money—so does the repair man.

Every owner of an automobile, whether it costs \$500 or \$5000, ought to know where and when to lubricate and he should understand the fundamentals of lubrication. This is the first step, to be taken up in detail in another article. Without an understanding and without carrying out the complete instructions to the letter, the car will not run at its lowest cost per mile and one will also not prevent his car from depreciating rapidly.

Unless the motorist knows every point of adjustment on his car how can he expect to know when certain parts need adjustment? Even when he discovers something is wrong somewhere how does he expect to save money by telling a repair man to "fix it up?"

Bear in mind this one fundamental—an owner can save a lot of money if he can tell a repair man just what to do, even when the owner doesn't feel that he wants to tackle the job himself. If one can come to the conclusion that all the engine needs is a new cylinder or piston, isn't that better than having a repair man tell him the engine needs new pistons and rings, carbon removed and valves ground?

There are dozens of owners who constantly talk about how much it costs them to keep their cars running. They "knock" the car as a piece of junk and advise friends to buy something else. These owners in nine out of ten cases expect automobiles to run forever without attention—without change of crankcase oil, without adjustment, without parts replaced at the proper time. In order to be able to interpret properly noises at certain actions of the engine, transmission, clutch and rear axle, one must understand something about the construction and operation of these units. If he doesn't, if he does not want to, then he must be satisfied with paying dearly for motorizing or else take the car to a service station at regular intervals for complete inspection and pay for the inability or lack of desire at the rate of \$10 or \$15 per hour. Even then if one does this regularly one will save money over the method usually employed of letting things go until something serious happens.

A mechanic who lives on an important thoroughfare recently took notes on the cars that passed. Ten per cent of those driven past had noisy rear axles, due to any one of many causes, he reported. Differential bearings may be worn, the axle may be out of adjustment, housing out of true, insufficient or no oil, gears badly worn, etc. The owners drive along as if the noise is perfectly normal. For such noises spell rapid wear, and though, let us say, the differential bearings cause the whole differential to run untrue, it means not only the additional bearing wear but slow destruction of the gears as well. Gears should run for the life of the car, but they cannot unless the bearings supporting them hold the unit in proper position.

Sometimes the bearings are slowly being "chewed" to pieces while this noise is going on, but an owner who doesn't know what the noise really means keeps right on driving until the whole rear end falls to pieces. Perhaps the differential housing simply needs oil, but apparently many owners don't even know that.

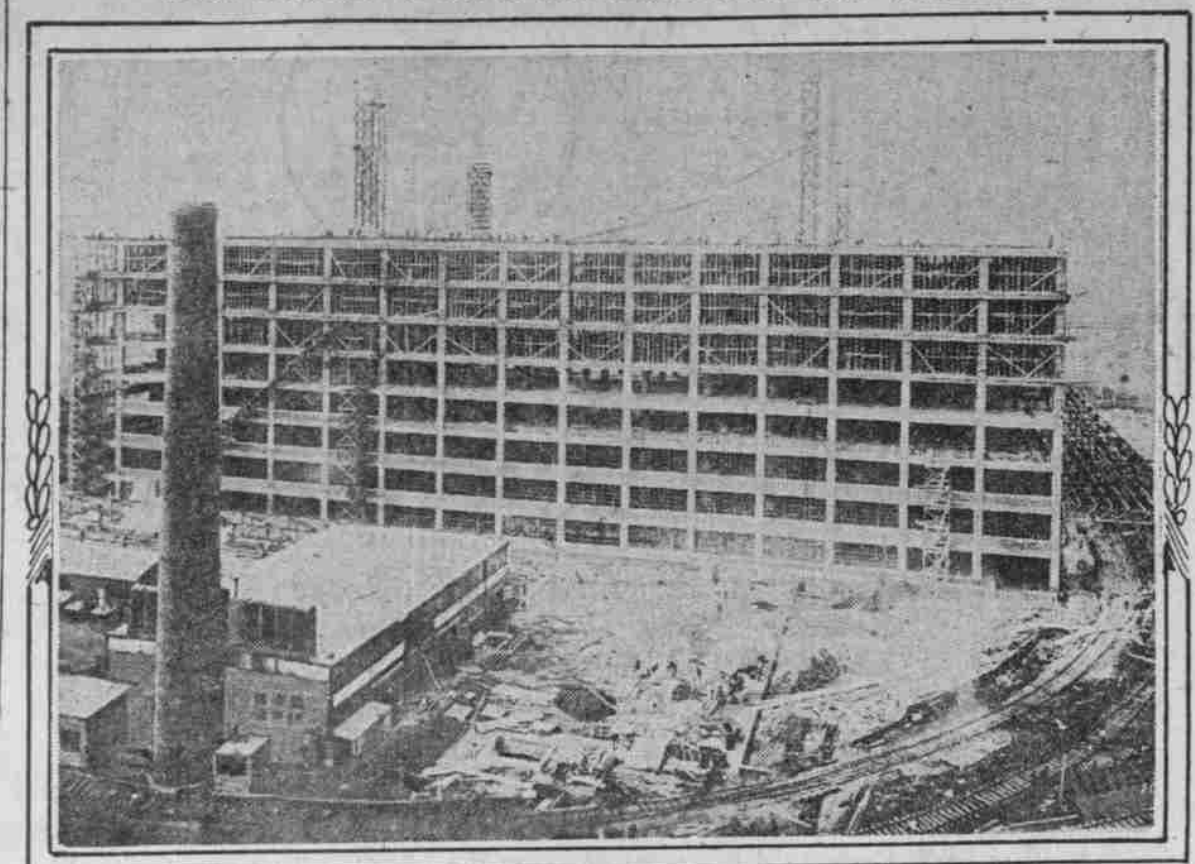
How many cars does one see with wheels wobbling? In many cases the wobbling can be quickly and easily cured by adjustment, if not by bearing replacement, which ought to be done immediately.

Follow the maintenance series closely, study your car, your instruction book and find out that motorizing is a lot cheaper than you think it is and that your car can be made to have twice the life or twice the trade-in value you set upon it. It is the advice of a competent automotive engineer.

Winther Official Here.

W. A. Beardsley, district sales manager for the Winther Motor Truck company, Kenosha, Wis., was a Portland visitor last week, spending some time conferring with officials of the local Winther Motor agency. Beardsley is on a tour of the Pacific coast making a study of business conditions.

GIANT ADDITION TO DODGE BROTHERS FACTORY NOW UNDER WAY.



EIGHT-STORY STRUCTURE WHICH IS PRINCIPAL UNIT IN CONSTRUCTION PROGRAMME OF DODGE BROS., INVOLVING BETWEEN \$6,000,000 AND \$8,000,000 OF EXPENSE THIS YEAR.

FAMOUS RACE MAY REVIVE

VANDERBILT PRIZE MAY BE HUNG UP AGAIN.

New York, Without Motor Events, Now Proposes That Historic Courses Be Used.

NEW YORK, March 12.—Revival of the famous Vanderbilt and grand prize automobile races over the historic courses of Westchester or Long Island is proposed by the New York Automobile Dealers' association.

Since the dismantling of the Sheepshead Bay speedway, New York has been without motor racing of any kind. Recently, vigorous interest in a revival of racing made itself manifest, culminating in the appointment of E. S. Partridge by the directors of the New York dealers' association as chairman of an executive committee to take charge of a racing program.

Prospect of success is especially favorable, it is believed, because of the fact that the dealers' association is headed by W. C. Poertner, a racing enthusiast of first water. In the old days Poertner was closely identified with the national racing teams that captured the road racing championship of the world in 1911 and swept the speedways in 1912. Though he has since not actively engaged in the sport, Poertner has always followed it with keenest interest, and done everything he could for its advancement.

In the event that the programme to revive the Vanderbilt cup and grand prize races meets with success, it is believed that Poertner will make every effort to bring national racing teams back into competition. The return of National would unquestionably bring many others of the old-time American manufacturers into the fold as well, restoring the sport to the universal plane of interest that it occupied in the historic days when Simplicity, National, Marmon, Mercer, Stutz, Mercedes and Fiat were waging their classic engagements for the world's racing championship.

ROLLS-ROYCE MADE HERE

SPRINGFIELD, MASS., FACTORY TURNS OUT TWO PER WEEK.

British Concern Getting Firmly Established for Invasion of This Country.

SPRINGFIELD, Mass., March 12.—Six hundred workmen are engaged in work in the Rolls-Royce factory in this city, where the Rolls-Royce car is being completely manufactured on the same standard of excellence as in the home at Derby, England. The factory has a capacity of a car a day, but at present the company has not gotten into production higher than two cars a week. Practically everything entering into the car is manufactured in the plant with the exception of electrical equipment imported from England, possibly one or two special machines imported from England, one of which is a cam-grinding machine.

Of the 600 workers all are American with the exception of 25 depart-

ment heads brought from the home factory in Derby. The company has a series of evening classes for educating the workers up to the Rolls-Royce principles of manufacture.

There has been brought from the home factory a complete set of pieces used in the car and where one piece, such as shaft in the gearbox, for example, has several different operations, these have been brought as many shafts as there are operations, so that the workman performing each operation has a piece from the home factory just as it is in the operation he is working on.

Auto Salesmen Thick.

WALLA WALLA, Wash., March 12.—(Special.)—City commissioners who announced that they were in the market for a truck found 11 auto salesmen camped before the council chamber doors the next morning, each with bids on one or more trucks. The commissioners threw up their hands and ordered the city clerk to tabulate the bids.

STEWARTS WILL EXPAND

NEW ORGANIZATION FORMED TO HANDLE "SALIENT SIX."

C. D. McPhail, Formerly of Auto Rest, to Have Charge of Sales and Service.

Plans for bringing the attention of the Oregon motoring public more than ever to the fine points of the Stephens "salient six" are being made by the Automotive Sales company, Sixth and Everett streets, which took over the distribution of the Stephens from the Hamilton Auto company shortly after the first of the year. The new company has retained the same location and much of the same working force as the former Stephens distributor.

F. S. Belcher, formerly head of the Peninsula Motor Sales company, Chevrolet dealers in the Peninsula district, and also president of the Belcher Hardware company, is president of the new Stephens organization. E. Bailey Jr., who has been with the Stephens here for the past two years, is vice-president. C. D. McPhail, formerly interested in the Auto Rest garage and the Auto Rest Motor Sales company, has joined the new organization and will have charge of sales and service. Much the same plan of service as was worked out for patrons of the Auto Rest garage will be arranged at the Stephens "salient six" headquarters, McPhail states.

RETURN TO NORMAL FAST

NATION CAN STAGE COMEBACK FASTER THAN SLUMP.

Packard Officer Reports East Has Shown Marked Improvement in Past Month.

"There's just one thing more remarkable than the rapidity with which the American automobile market can take a slump, and that is the still greater rapidity with which the said market can come back again when the great American public makes up its mind that it is time to buy automobiles again. The Eastern automobile market has suddenly revived, and as a consequence the Packard factory is today swamped with orders. The whole history of the automobile business has been a succession of pendulum swings from overproduction to underproduction, and back again. Since the slowing down of sales last summer, the automobile industry has been under-producing. The consequence is that there will be an inevitable shortage of the standard makes of cars this spring and summer.

This is the message received by the Portland Motor Car company, Packard distributors here, from George R. Bury, sales manager of the Packard Motor Car company. According to the Packard executive, the new wave of automobile buying started in New York something more than a month ago.

"It was in New York that we first felt the tightening of the automobile market last year," Mr. Bury writes. "Our truck sales there were the first to feel the slump. About a month ago our New York truck sales took a sudden spurt. Passenger car sales followed suit. The buying wave is spreading westward, as it always does. New York for some reason sets our national fashions in buying or not buying as the case may be. Your Oregon automobile market was active for some time after it was quiet in the extreme east. Early summer will in all probability see delivery on popular cars a matter of weeks of waiting."

CALIFORNIA HAS MANY AUTOS

Registration Shows Cars in State Number Over Half Million.

SACRAMENTO, March 12.—Los Angeles county was far in the lead in the number of motor vehicles registered in California in 1920, according to a report just issued by Charles J. Chen, superintendent of the state motor vehicle department.

The county's registration for the year was 161,736 automobiles, 15,888 trucks and 6441 motorcycles. San Francisco was second with a registration of 47,969 autos, 4594 trucks and 1618 motorcycles. The registration for the entire state showed a total of 541,934 automobiles, 41,639 trucks and 20,564 motorcycles.

The figures show that since 1914 the number of automobiles in the state has increased 418,415, while motorcycles decreased from 30,417 to 20,564.

NEW STUTZ CAR MAKES DEBUT

William C. Jacklin Has Attractive Display at New Quarters.

The 1921 Stutz made its debut in Portland last week, shipment of the new cars having been received and unloaded by William C. Jacklin, new Oregon distributor. The new Stutz home is located at the corner of Twenty-first and Washington streets, and has just been attractively

decorated for the showing of the new cars.

The new models more than lived up to expectations in the opinion of Jacklin, who has been looking forward with interest to the arrival of the shipment. Particularly is the new coupe, one of which was included in the first shipment received. This is the first year that the Stutz company has made this car available up to Stutz quality throughout.

BUICK CHASSIS TO PENDLETON

Handsome "Cut-Out" Exhibited at Eastern Oregon Show.

The handsome Buick cut-out chassis, prepared by the Portland branch of the Howard Auto company and one of the features of the Portland auto show, was taken to Pendleton last week and proved one of the interesting exhibits of the annual auto show held during the week at the eastern Oregon metropolis.

The chassis was taken to Pendleton by W. R. Fenton, service manager for the Buick organization here, who gave lectures upon the mechanism of the car to the visitors at the show. Mr. Fenton gave similar lectures at the Portland show and also at the Astoria auto show, where

Thousands Know the Cleveland

As "The Better Car"

The Cleveland Six gives all, in every-day, year-around performance, that you could ever hope for from the car you choose, and gives it in full measure. It combines so many good qualities that it has earned a wide preference among discriminating purchasers. These qualities have established the Cleveland's position as "the better car" in the field of light sixes and fours.

Alive With Power

The exclusive Cleveland motor, designed by the Cleveland company's own experienced engineers and built in the company's own works, is the most highly refined of the overhead valve type. It is alive with power. Quiet, pliant power which answers promptly to your every request.

Cord Tires Standard Equipment

Touring Car (Five Passengers) \$1465
Sedan (Five Passengers) \$2475
Roadster (Three Passengers) \$1465
Coupe (Four Passengers) \$2375
Price F. O. B. Cleveland

Twin States Motor Car Co.

OREGON DISTRIBUTORS.

601-603-605-607 Washington Street, Corner Nineteenth.

CLEVELAND AUTOMOBILE COMPANY, CLEVELAND, OHIO

Make Your Own Truck Cheaply

See this attachment tomorrow in our store.

The regular factory price on these truck attachments was \$350 f. o. b. factory. We are making this big reduction to \$187.50 in order to move our large stock of MAXFER and other truck-makers, which we bought to good advantage. You save \$162.50 plus freight.

The MAXFER is a heavy-duty truck frame with truck springs, axle, wheels, chain and sprocket, which telescope to the frame of any make car. When properly bolted to the auto frame it makes of the car a reliable truck—90 per cent of the dead load being carried on the MAXFER attachment, leaving but 10 per cent load for the auto front wheels. Capacity 2000 pounds, with allowance of 50% for overload. This method of making an efficient truck cheaply is

Indorsed by All Engineers

Accessories and Repair Parts for All Cars

Garage Men Note:—Gears, Axles, Springs

Broadway at Couch

HOME OF A MILLION PARTS

DAVID HODES & CO.

At Chanslor & Lyon's Old Location

Note This Sign on Our Roof

BROADWAY AT COUCH STREET

One of a chain of stores

MALCOM TIRE CO.

BROADWAY AND EVERETT ST., PORTLAND, OREGON

One of a chain of stores

Mail Orders Given Prompt Attention. Let Us Serve You.

Well-Known Cords

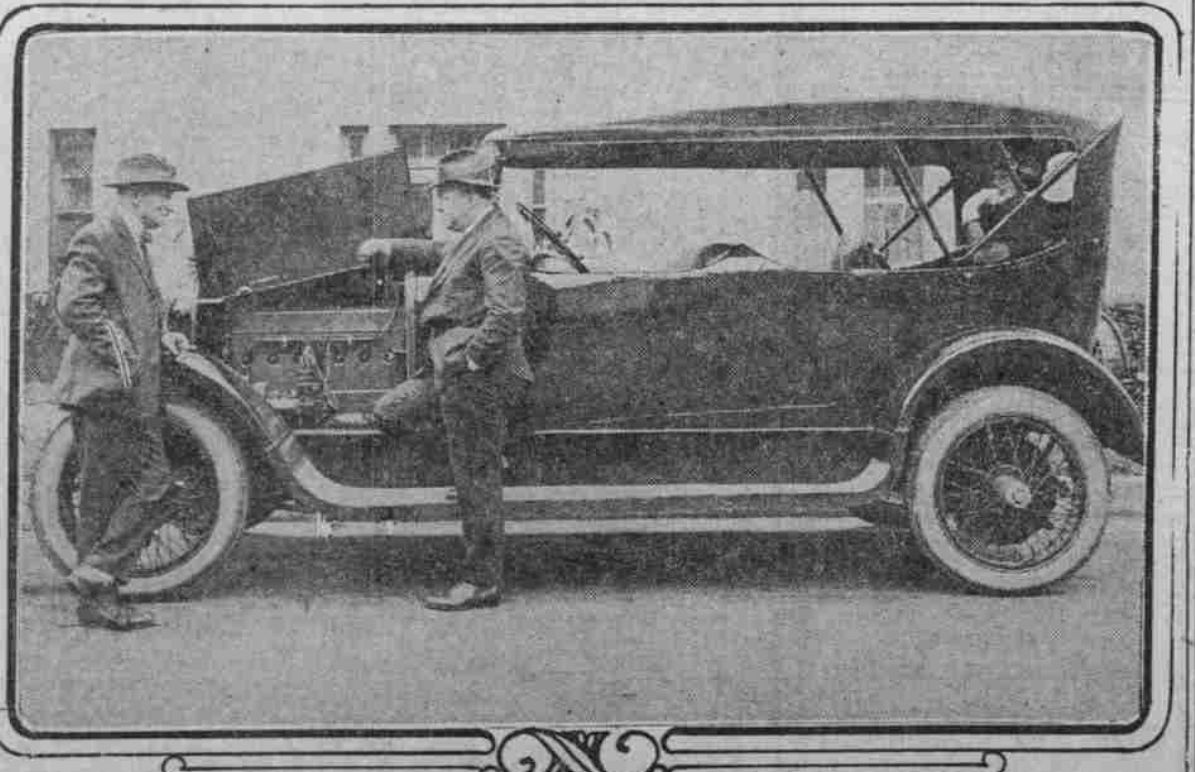
5000-Mile Factory Guarantee

30x3 1/2 Nonskid.....\$24.75
30x3 1/2 Nonskid.....\$22.50
30x3 1/2 Nonskid.....\$22.50
30x4 Nonskid.....\$28.00
30x4 Nonskid.....\$28.00
30x4 1/2 Nonskid.....\$37.40
30x4 1/2 Nonskid.....\$37.40
30x5 Nonskid.....\$55.75
No war tax.

Well-Known Standard Make 6000-Mile Factory Guarantee

30x3 1/2 Nonskid.....\$10.50
30x3 1/2 Nonskid.....\$10.50
30x3 1/2 Nonskid.....\$16.00
30x4 Nonskid.....\$18.25
30x4 Nonskid.....\$18.25
30x4 1/2 Nonskid.....\$21.00
30x4 1/2 Nonskid.....\$21.75
30x5 Nonskid.....\$19.90
Other sizes in proportion. No war tax.

TAKING A PEEP AT THE INSIDE OF A MARMON TO SEE WHAT MAKES IT GO.



F. W. Vogler (left), president of the Northwest Auto company, distributors of the Marmon, and F. E. Moskovic (right), vice-president of the Nordyke & Marmon company, Indianapolis, who was a recent visitor here, giving the popular Marmon model 34 the "once over."