

LUBRICATION TESTS BY REED STUDENTS

Valuable Data Obtained as to
Various Motor Oils.

GASOLINE TESTS ARE NEXT

Garford Truck President Here to
Look Over Local Export Field.
Other Automobile Gossip.

Under the direction of Dr. A. A. Knowlton, at the request of a large Portland firm, the department of physics at Reed college has just completed a series of scientific investigations on the "viscosity" or stickiness

the Columbia river counties of Washington.

Old "999," the famous Ford racing car in which Barney Oldfield first established his reputation as an automobile racing driver, will be in Portland all this week. It will be on exhibition in the salerooms at the William L. Hughson company's Portland branch at Broadway and Davis street. Del Wright, manager of the branch, received word last week from Mr. Hughson in San Francisco that the old car had been shipped to Portland.

Old "999" is one of the most famous of all racing cars. It was built by Henry Ford and Barney Oldfield together in 1902, when neither of them had reputation or wealth, or much of anything except energy and ambition. The car they built and christened "999" had a lot to do with making them both famous.

Barney Oldfield took this car and in it competed in the first automobile race in Detroit that same year, 1902. He won the race. Shortly afterward he established the then world's record of one mile in less than one minute on a circular track. Many other races were won by Oldfield and "999" in the two years during which he drove the car. Henry Ford shared in the glory as joint builder of the speedy racer.

After two years, however, "999" belonged to fall behind the times. The motor industry was progressing tremendously and the old car could no

BAKERY KEEPS REPUBLIC TRUCK FLEET BUSY.



The Barker Bakery bought its first motor truck, a Republic, in 1917. Now it has three trucks, all Republics, the two latest being Oregon vehicles equipped with 355 Firestone pneumatic cord tires. They do the work of more horse teams, and do it much faster and at less cost.

of lubricating oils which has placed the college on the map as a place to be relied on for scientific information. William Grout, a Reed sophomore, who has handled the actual laboratory work, returned Wednesday from a two-day session at Corvallis, where he explained the Reed oil tests to the farm mechanics department. He has also made demonstrations at Pullman and Goldendale, Wash., before tractor meetings. Thad Vreeland, another sophomore, has assisted in making the tests at the Reed laboratory.

The work of the Reed department on lubrication attracted attention and the state department of weights and measures has asked for information on the comparative values of various grades of gasoline sold in the west. William A. Ditzel, deputy state sealer of weights and measures, was at the college Wednesday from Salem with gasoline samples of various specific gravities which are being sold in Oregon, Washington and California.

The investigation is in connection with the Oregon law which requires that gasoline to be sold in this state must have a specific gravity of 56. The law has resulted in a higher price of 1 1/2 cents per gallon for some Oregon motorists and in times of threatened gas famine has made a supply doubly hard to obtain.

Oil Values Determined.
Dr. Knowlton, Grout and Vreeland have started laboratory work to determine the heat value of the various samples and as a result of the experiment will be able to give the state definite facts on the practicality of the specific gravity law. The Fields Motor Car company of Portland has lent an engine to be used by the Reed men in making actual engine tests of the gasoline samples. No records have been found of the publication of similar tests in this country and the only other recorded tests took place eight years ago in France. A correlation of the laboratory and engine tests will be made and this information the Reed department expects to throw valuable light on the Oregon law, which was not acted upon at the last legislative session because of a lack of scientific facts.

The investigation by the college of lubricating oils started about six months ago when the Fields Motor Car company, to obtain exact knowledge as to the best lubricant in Chevrolet cars, made trials with many different oils. LeRoy R. Fields, general manager of the firm, decided to have a scientific study made of lubricating methods, and failing to find a suitable laboratory in the city he placed the plan before Dr. Knowlton of Reed, who agreed to undertake the work.

The Waverley Oil company became interested and furnished a laboratory with necessary testing apparatus. First the Reed investigators tested worn bearings on a car and after careful analysis found that improper lubrication was at the bottom of the trouble. Samples of all automobile oils were tested in the Reed laboratory and after several months an oil was found which possessed the qualities necessary to correct lubrication in this case.

Tests Proved Accurate.
Having reached a definite conclusion in the laboratory, the results were taken to the Chevrolet company by the Reed physicists and explained. In the practical tests which followed the results were so satisfactory that the laboratory solution was accepted without question.

The Reed college physics department is ready to make similar tests for Portland industries and will give its well-equipped laboratories and expert students to the solution of problems involving the testing of materials.

Portland may be selected as Pacific coast export headquarters for the Garford Motor Truck company, of Lima, O., one of the big concerns in the motor truck industry. E. A. Williams Jr., president of the company, was here Friday and Saturday in the course of a trip to select a coast export center from which to handle the export business the company expects soon to build up with the Orient. He is an optimist on the subject of export business, and declares that in a much shorter time than most automotive factories now realize, an enormous export trade in motor cars and trucks, particularly in trucks, will be conducted by American factories.

As a far-sighted executive he proposes to be prepared in advance for this business, and one of his first preliminaries is selection of a coast exporting center. The choice probably lies between Portland and Seattle. The matter of inducements on the part of Portland to establishment of the industry here would no doubt have considerable influence, other factors being equal.

While in Portland Mr. Williams visited with the Garford Oregon Motor Sales company, which is distributor for the Garford line in this state and

longer keep up the pace. It disappeared then for many years and was almost forgotten one day last winter when William L. Hughson unearthed it in a Los Angeles junk shop. He promptly bought it and has been displaying it in the company's branches.

W. H. Banes of 44 North Broadway, and O. C. Potter, formerly in the truck and tractor business, have formed a new company and are operating under the name of Motor Equipment company at the same address. Mr. Banes introduced the Peerless piston rings in this locality and is its authorized distributor in Oregon and Washington. The new company will handle the Peerless rings, together with a large line of ignition points and brushes, as well as garage equipment, at wholesale.

Since the introduction of the Peerless piston ring in this state and Washington the rapid growth of sales has influenced Mr. Banes to expand. The addition of Mr. Potter to the firm being the result. Both are well known in the automobile trade as hustlers.

Headquarters for factory service and distribution of parts have been opened by the United Motors Service, Inc., national distributors for Remo, Duple and Huxon equipment, at 525 Burnside street, with H. J. Garnette in charge. Mr. Garnette was formerly in charge of the San Francisco and Seattle branches of the company. By April 15 he expects to have a large stock of parts on hand. This branch will have jurisdiction over Oregon, southern Washington and northern Idaho.

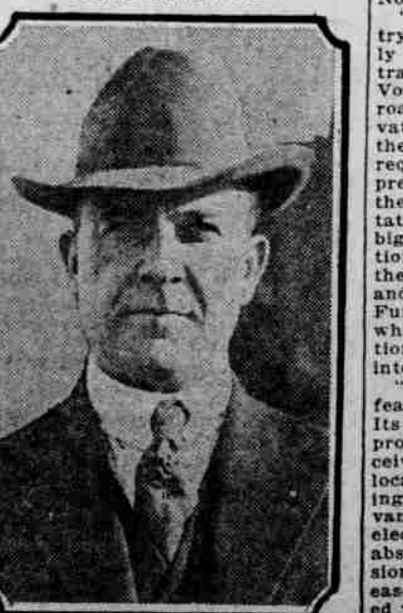
The Oregon and southwestern Washington distribution for Hewitt tires has been taken over by J. H. Anscomb of the Stinson Auto & Tire company, at 430 Burnside street. Mr. Anscomb has gone east to arrange for additional shipments of tires. This company also distributes the Kieher truck in Oregon.

D. B. Bevier of San Francisco, Pacific coast manager for the Bearings Service company, was a recent visitor in Portland, arriving here at about the same time as R. S. Lane of Detroit, national president of the United States and handles the Timken, Hyatt and New Departure bearings. Mr. Bevier visited while here with R. H. Cross, manager of the Portland branch.

C. M. Purdy, for many years field man with the Firestone Tire & Rubber company, is now connected with the Pacific Patriot Truck company, in the same capacity, covering Idaho and eastern Oregon territory, with headquarters at Boise. Mr. Purdy for the past several years has been looking after his farming interests in Douglas county, but having disposed of them has now returned to the field for which his years of experience qualify him.

Lots of Oil Needed.
The operator new to tractor work will find many differences in lubrication requirements as compared with those of other automotive vehicles. For instance, transmission bearings of the tractor will usually be fed by oil cups a good grade of engine oil being used, and they must be replenished about six times a day.

REO SPEED WAGON SALESMAN WITH THE NORTHWEST AUTO COMPANY.



William M. Burns

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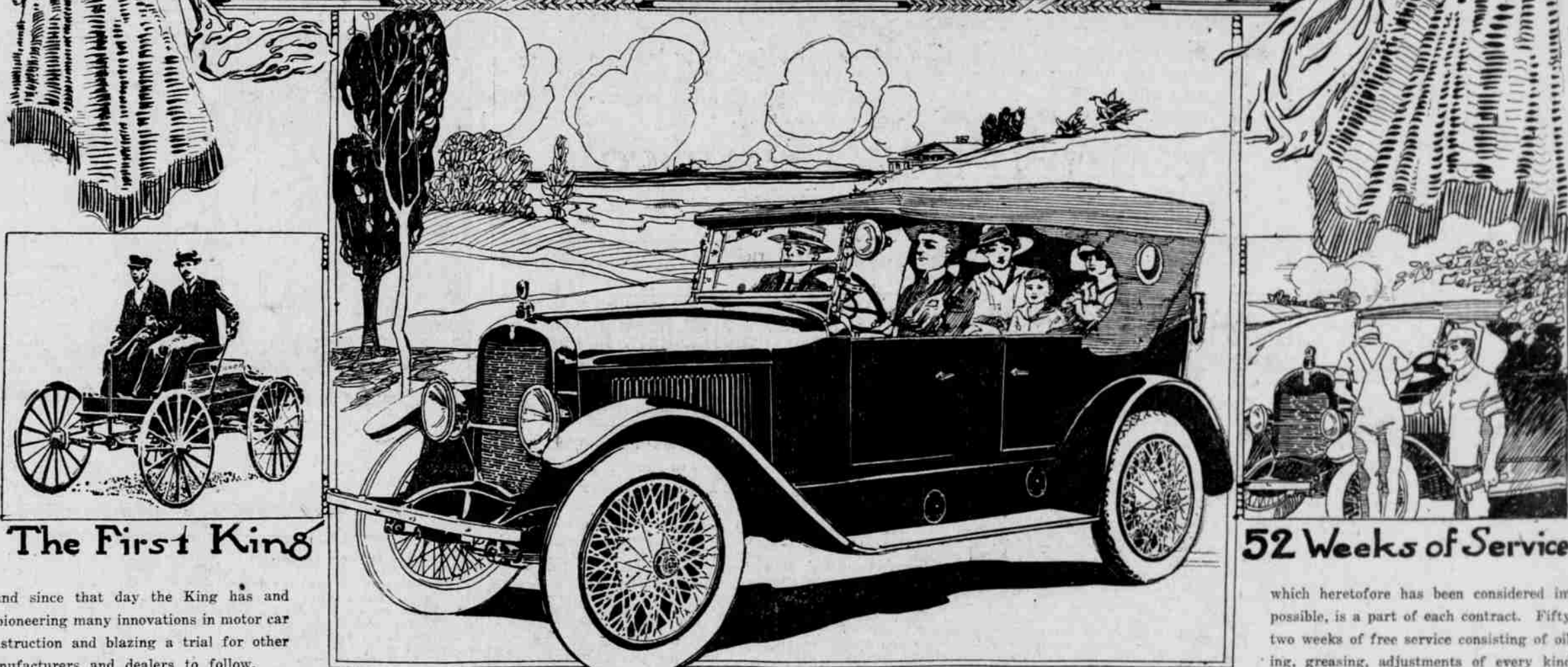
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MOTOR TRANSPORT GAINS

ITS BIG CHANCE NOW, SAYS
NORTHWEST AUTO CHIEF.

F. W. Vogler Declares Competition
by Railroads Can't Stop Its
Certain Development.

Now that the railroads are back in control of private interests will the rail magnates endeavor to combat the inroads of the automobile and truck on their passenger and freight business? If it is their intention to guard against further motor competition while rehabilitating their roadbeds, rolling stock and equipment, they have a big job on their hands, declares F. W. Vogler, president of the Northwest Auto company.

"Production in every line of industry and agriculture has been seriously handicapped by lack of adequate transportation facilities," says Mr. Vogler, "and the condition the railroads were in when returned to private ownership, the length of time, the money and labor that will be required to put them in proper shape presents a big opportunity for further development of motor transportation. But the railroads have one big advantage and that is organization. It is the one link missing in the chain of possibilities of hauling and transporting by autos and trucks. Further, it is the big item that those who are promoting motor transportation must, in the near future, take into consideration.

tensive service, weight of vehicle per passenger less than that of common electric carriers, greater efficiency for

certain kinds of traffic. "In referring to competition in freight hauling between the railroads

and motor trucks I am speaking only of the short hauls. For the long hauls I do not think the truck will ever be

a serious contender with the railroad. But for rural and interurban transportation purposes I can see a big future for motor trucks and motor buses. The public's interest in this portation purposes I can see a big future for motor trucks and motor buses. The public's interest in this

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38x3 1/2	18.20	19.20
40x3 1/2	22.25	24.25
42x3 1/2	24.50	26.50
44x3 1/2	26.45	28.45
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