

GRANT SIX TRAVELS 1200 MILES BETWEEN PORTLAND AND SOUND

Sturdy Car Behaves Well on Midwinter Endurance Run Over Pacific Highway.

TRAVEL PROVES DIFFICULT

Certain Portions of the Road Try the Skill of the Driver and Impose Extra Burdens on the Car.

With all but 200 miles of the 1200 reeled off, the Grant Six which traveled that many miles without a motor stop over the roads between Portland and Seattle, left here Thursday morning on the last leg of endurance run, still sporting and snorting just as willing to take more punishment as it was the day it left Seattle for the first trip to Portland.

Edward Campbell, Seattle Grant dealer, was at the wheel when she left and with him was E. A. Church, sales manager of the firm, both of whom had made the first trip down. The second round trip was made with A. I. Scornard and Charley Hocking alternating at the wheel.

Tires ripped to ribbons and chains all torn, link from link, gave evidence of what the car had been through on the last trip to Portland. Part of the time the car was driven through sleet or else was breaking through the crust on the road to pick up and shove water, which froze the minute it was splashed against the parts of the car.

Time and again the drivers had to stop, put a coat over the radiator and bundle it up like a sick pup, then, by raising the engine, heat the radiator enough to thaw the ice, which threatened each moment to stop the circulation in the tubes.

The car was, indeed, a queer sight as it came in Tuesday night. So much ice and mud had frozen on the steering members that it could hardly be turned around a corner with as wide a curve as the ordinary street.

The motor has not had a tool near it and, in spite of the heavy work, is still running on the original gallon of oil that was put into it when the car left Seattle for the first time. The gasoline mileage has not been kept accurately on the entire run, because the motor has been allowed to run so many hours without doing any work.

The car may come down again the first of the week if anyone will drive it, but it has worn out four men and, unless a new crew appears, the motor will be stopped.

The bugbear on all the trips has been the stretch known as Ostrander Hill, near Kelso. Each time, the watchers at either end have waited patiently for the telegram which told them that the car had again negotiated that stretch, through which getting worse each time that the car went through. The mud there is just about bottomless and a week ago the M. C. truck, which has been completing the last leg of its transcontinental trip, was floundering through this with Pilot Warwick literally towing the big truck through by snaking her up with the power of the truck.

On the last trip, two chains were lost in this place of mud, tires went through on the occasional rocks that they found imbedded in the mud. Mr. Campbell said that the road

GRANT SIX ON LAST LEG OF 1200 MILE NON-STOP RUN



Archer and Wiggins To Handle Diamond

Coincident with the activity in automobile circles at the show time, the Archer & Wiggins Co. has announced that it will in the future be the Portland distributor of Diamond tires.

The Diamond features a safety tread consisting of bars and cross-bars, which give it good traction on Oregon roads. It is considered one of the makes well adapted to the needs of Oregon and the northwest.

from Portland to Goble is in pretty fair shape and, while a little rough, offers good traction at all points. He never had a minute's trouble from Goble up.

When the car reached Seattle it had to its credit 1337 miles, all but the 37 of which were rolled off on the worst roads in Washington. The car itself was brand new when put to the test, or practically so, having been run less than 100 miles and never off the pavement.

The test was staged under the auspices of the Manley Auto company of Portland and the Campbell company of Seattle. The time of the car on each trip was always in the neighborhood of 18 hours, which is good, even in summer.

Five Millions Spent On State Highways

According to a recent bulletin issued by the United States office of public roads, there was a total mileage of 2,445,761 miles of road in the United States in 1914, or 49.5 miles for every 1000 of rural population. Only 10.5 per cent of the roads were surfaced with various materials, including gravel.

The total revenue applied to roads and bridges in Oregon in 1914 was \$5,310,466.76, an increase of 566.84 per cent over 1904.

This was a per capita expenditure of \$7.89. This was exceeded only by California, whose per capita was \$8.06. Washington came third with a per capita of \$6.98.

Local road bonds outstanding in Oregon were \$1,618,000. The total road mileage of the state is given as 36,819, or 33 per cent per square mile of area.

The types of surfaced road were as follows: macadam, 1006.73 miles; bituminous macadam, 137.25 miles; gravel, 3069.15 miles; sand clay, 206 miles; concrete, 28.41 miles; miscellaneous, 199.87 miles. The total surfaced was 4736.40.

Above, left to right—E. C. Habel and his snow white Grant, which acted as escort to the car at this end; E. M. Cox, factory representative, who observed the Seattle-Portland run. Below—Peter Marhall, E. C. Habel, E. P. Church and George Campbell with the Grant Six that made the run; the Portland escort dropping their protege on the road near Goble.

WOULD CORRECT TWO OPINIONS HELD AS TO VALUE OF MOTOR FUEL

Proper Test of Value of Gasoline for Motor Cars Still in Doubt.

In a statement recently given out by the United States bureau of standards effort is made to correct two erroneous opinions generally held by the public regarding motor fuel. According to the report, specific gravity is practically worthless as a check on gasoline when it is desired to gauge its value for use in motor cars. Just what is the proper test is still a matter of some doubt, and in this regard the report states:

"It seems most probable that the definition of gasoline will have to be based on the percentage that distills over between specified temperatures, when the distillation is carried out under specified conditions. This distillation test, speaking in non-technical terms, is a measure of the freedom with which the gasoline will vaporize. The gasoline must not vaporize too freely for two reasons—one that it would not be safe, and secondly, its loss in storage by evaporation would be too great. Hence, the specification may have to contain limitations of the percentage distilling over below a certain temperature, coupled, perhaps, with a proviso that certain percentages shall distill over below other fixed temperatures, in order that requisite amounts of low-boiling constituents shall be present to insure easy starting of an engine. Likewise the specification must contain a provision that all must distill over below a certain maximum temperature in order to exclude from the gasoline the heavier petroleum distillates, such as kerosene."

WOMAN'S WORTH IN AUTO FACTORIES IS THOROUGHLY PROVED

Fair Sex Has Shown It Is Equal in Every Respect in Many Departments.

While it has remained for the war-time of Europe to develop a new industrial sphere for women, it took but a short time for the Chalmers Motor company of Detroit to adapt their services in the big plant of that concern. Officials of the company state that they are more painstaking and efficient wherever they are employed.

"At the Chalmers plant in Detroit many women are employed at tasks that have heretofore been delegated to male employees," states a communication just received by H. L. Keats of this city. "They have proved to the satisfaction of the factory heads, that they are fully equal in every respect to the men, and in many ways far superior."

STATE ENGINEER, IN REPORT, ARGUES FOR BETTER ROAD LAWS

Present Laws, He Says, Are Entirely Unsuitable to Needs; Inadequacies Set Forth.

ESTIMATES THE EXPENSE

Total Cost of Road and Bridge Work in 1916 Was \$14,369,322 as Against \$16,600,266 in 1914.

The annual report of State Engineer Lewis covering the work of the highway department contains an extended argument for better road laws and more definite plans of construction by the state and counties. The present laws, he says, are entirely unsuitable to present day requirements. There is a lack of continuity of law, and no plan or road policy and lack of proper bookkeeping records. A practical suggestion is that the state should confine itself for a number of years to the improvement of its grades before entering upon extensive paving projects.

The general control of state highway work, he says, should be in a single executive officer, a state engineer or a single state highway commissioner.

He also advocates that the present satisfactory method of selecting such officer under our direct primary system," he adds, "would be to prescribe qualifications and elect such officer."

His plan advocates that the present law making the state engineer appointive by the governor two years hence be changed back to an elective office, as it was formerly.

County and district roads, he says, should be under the general control of the county court, who select the county engineers from a civil service list to be furnished by the state highway department.

Statement of Expense Made. A comparative statement of the general expense of the department for the years 1914, 1915 and 1916 is given.

For 1914 the expense was \$16,600.26. For 1915 the total given is \$10,474.85. There is not included, however, the cost of the bridge department.

\$189,477. Adding this makes the total \$14,369.32, or only about \$2000 less than 1914, when a large amount of construction was done.

During 1916-1917 an inspector was kept on all the bridges at the present expense was added to the cost of the bridge department. During the past two years there has been no inspector on the job from the state department and the only state inspection "was" when the bridge was completed.

During the 1913-1914 period the total value of bridges designed was \$498,923 and contracts to the amount of \$283,923 awarded. During the past two years the total value of bridges designed was \$389,207 and the contracts awarded totaled \$60,192.

The most important bridge constructed during 1916 was the 360-foot concrete bridge at McMinnville by Yamhill county.

The bridge is copied after the design of the Moffett creek bridge, on the Columbia river highway, which was designed under the administration of State Highway Engineer Burt.

Cost of Concrete Pavement. In giving the cost of the asphaltic concrete pavement near Independence the state engineer says that the cost per square yard of finished pavement, 2 1/2 feet in width, is \$1.37 per square yard. An analysis of his figures, however, does not bear out this statement. The figures show that the cost of the pavement was 98 cents a yard. To the above is added the cost of the base, which was 13 1/2 cents per square yard. This would make the total cost of the pavement, which is 16 feet wide, \$1.11 1/2 per square yard. If the cost of the shoulders is added the total is brought up to \$1.37 1/2 per square yard.

To get the figure 81 cents per square yard the state engineer adds the five feet of shoulder to the 16 feet of pavement and calls it a pavement. The total cost of the job was, according to the report, \$12,857.44, or \$11,322.70 per mile.

In the exhibits of the cost of grading job unit costs are given except in the case of work near Glendale, on which \$19,210.95 was expended. In this work the excavation of different material is lumped together.

Inspecting Brakes Will Save Money

In Case One Tire Wears Faster Than Other, Very Likely Reason Is Unequal Brake Pressure.

It is often that the motorist upon inspecting his tires finds that one rear tire is wearing very much faster than the tire on the opposite side. Very likely both tires were put on at the same time and had the same mileage. The right rear may wear out a little faster than the tire on the opposite side because of the fact that while the motorist pulls out to the side of the road in passing other vehicles, subjects this right rear tire to the unimproved road. But there is another reason, according to A. R. Walker, manager of the local branch of the Fire Rubber company, which is usually the cause for one of the rear tires to wear faster than the other and this is due directly to the brakes not being equalized. By this is meant that one brake-drum does not take hold in exactly the same time and with as much force as the brake-drum on the other wheel.

An occasional inspection of your brakes should be made in order to reduce your tire cost per mile and to make your brakes dependable.

"Pleasure Car" Is Declared Misnomer

Tire Manufacturer Says That Motors Are Now Either in One of Two Classes, Passenger or Commercial.

of the words "pleasure car" even among automobile manufacturers, and declared that a motor car is no longer a vehicle that is bought or operated solely in the pursuit of pleasure. Continuing he said: "In the early days of the industry the motor car was a novelty and its use was confined to those seeking recreation or some form of pleasure. But with our economic development the automobile has ceased to be a plaything. It fills a utilitarian purpose almost exclusively. It is used as a time saver for business, for shopping, in short, for easier and quicker transportation. And instead of being a luxury it is in many cases an absolute necessity."

"A motor vehicle is either a passenger car or a commercial car and it should be so styled. It is a far cry from pleasure to the real functions of a passenger car. And the association of the two, long since out-lived, should not be perpetuated."

To Employ Federal Convicts on Road

Washington, Feb. 3.—Senator Shafroth, of Colorado, in a bill just introduced, proposes a plan for use of federal convicts on state roads. The

bill provides that upon request of the governor of a state, the warden of the nearest federal penitentiary shall supply men for road work. The state to pay for transportation and for guards.

Writer Finds Border Girls Lack Romance

Springfield, Ill., Feb. 3.—(I. N. S.) Mexican señoritas are not beautiful, black-haired sirens and Texas ranch girls are not dashing. That is the information brought back from the Texas border by Frank Dasey, scenario writer, who went there with the National Guard in search of local color. Dasey lives in Quincy, Ill., when he isn't in New York. Asked if he would be the attractive baroness, he replied that he had much better have stayed away and kept his illusions. "No," he said, "it's too real to take life, besides, after seeing those girls down there, I wouldn't have the heart to wish them or anybody—not even in picture form."

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We Beg Your Pardon

In spite of the fact that we had eighteen representatives at the Auto Show last week, we were unable to answer all questions adequately. Perhaps you were among those not fully served. If so, this apparent neglect was unintentional, we assure you.

Naturally, the interest of everyone centered around the exhibits of the Line Complete—the largest of the show—including as it did a car for every purpose at the price you want to pay. Now we are back to normal—ready and willing to answer your questions—to go into any detail about the kind of a car you need—be it for your business or for your pleasure.

Northwest Auto Co. Broadway at Couch, Portland, Oregon.

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Dealers in Unoccupied Territory Are Invited to Correspond.

We have just secured the building adjoining ours on Broadway, which will be used for the truck department.

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