

HORSEBACK TRIP FROM MOUNT HOOD LODGE REVEALS NEW BEAUTIES OF OREGON'S MOUNTAIN.



1—Nearing the mountain from the east side, a short distance from Elk meadows. 2—On the "Skyline" trail, where the trail crosses Sand Creek canyon. 3—Climbing up an ice "canyon" on Newton Clark glacier. 4—Nearing the top of Cooper's spur, 8500 feet altitude and the highest point on Mount Hood reached by horseback.

MOTORCAR STEERING VISIBLY DEFECTIVE

Average Owner Overlooks Details of Driving.

MECHANISM NOT KNOWN

Care Needed to Insure Reliable Operation and Guard Against Deterioration and Accidents.

The average motor car owner probably will be surprised to find that he doesn't know what really good steering means. The reason is that so many factors contribute to helping or hindering the easy guidance of the modern car that many of them are entirely overlooked by most owners, and the result is that they consider satisfactory steering what is in reality very far from perfect.

All modern automobiles use essentially the same steering system, comprising the wheels, fastened to a fixed and connected by linkage to a movable knuckle attached to the side of the front axle, and the steering knuckle being connected by a further linkage. By turning the steering wheel the post moves the linkage to one or the other side, and because of the connection to the other this also moves in unison. The steering gear, properly speaking, is the mechanism at the lower end of the steering post, and the different types take their names from the forms of gears used in them. There is the worm and wheel type, the worm and sector, screw and nut, bevel gear and rack and pinion. All these gears are merely different ways of accomplishing the same end. They are nothing more than a reduction gearing for reducing the motion of the steering wheel. The worm and wheel and the screw and nut types are those commonly in use today.

Alignment Is Important.

To begin with, it is important that the front wheels shall be properly aligned if the car is to steer with maximum ease. Now all wheels are cambered and tend to a certain extent. The amount of this varies with different cars, but the owner should take pains at least twice a season to see that his wheels are properly aligned. There are certain methods of making this test, which is simple enough if the operator knows how, but if he is not familiar with the proper procedure he should take the car to his service station and have the test made, the cost being nominal. Incidentally, if the owner makes the test himself he should ascertain from the service station what is the proper amount of camber and toe-in for the wheels of his vehicle. Any time that the car is in collision with anything of any kind, even if it is with the curb, the wheel alignment should be checked up. Improper alignment results not only in hindering the steering of the car, but in excessive tire wear.

If the alignment of the wheels is found to be incorrect it may be altered by manipulating the tie rod. This latter is the rod which runs from one steering knuckle to the other and which has a movable portion at either end. Hand steering is often caused by misalignment of the front wheels through an error in the toe-in or gather and a correction of this fault will bring a marked improvement in the guidance of the vehicle.

Tilt Aid to Steering.

In addition to the toe-in and tilt given to the wheels, many manufacturers of motor vehicles tilt the front axle or the ends of the axle known as the knuckles. This not only makes for easier steering, but also puts the greatest part of the load on the strongest part of the axle. It is frequently possible in a car the steering system of which is deficient in this respect to improve the steering to a marked degree by tilting the knuckles backward. This may be accomplished in a rough-and-ready fashion by setting the front springs on specially made wooden or metal spacers which instead of the seats that are made integrally with the front axle. This tilting backward of the knuckles not only makes for easier steering, but it will be noticeable that after a turn has been made the wheels will return to the straight position almost of their own accord.

Though the ordinary owner does not realize it, practically every part of the steering system is in motion whenever the car is running. Even roads that appear to be as smooth as a billiard table in reality are full of more or less accentuated inequalities which impart a jounce to the car. Every such jolt causes wear and consequent wear in the flexible parts of the steering system. For this reason all steering systems are provided with some method of taking up slack that inevitably develops through use. Of course, this wear means abrasion, which is aggravated unless the various joints are kept properly lubricated.

Slack May Be Taken Up.

In most steering systems the slack which develops may be taken up in two or three different places. The car owner should find out to begin with where the wear is greatest, whether in the gears at the bottom of the ports, in the ball joints or in other parts. A good beginning may be made by gripping the tie rod and moving it back and forth, thereby detecting play in this part if it exists. Perform the same operation with the drag link or rod connecting the steering arm with the front axle. The ball joints may be adjusted by means of a nut which is located in back of the spring. To do this remove the cotter pin, turn down the nut, insert the pin again and the job is done. If the play is in the gears there is usually provided an adjustment placed above the case in which the gears are housed. As a general thing it takes the form of a serrated nut, which is held in place by a slotted pin. The pin must be removed with a screwdriver, the nut being turned slightly after which the pin is replaced. Each time the nut is turned it is well to try the steering to see that the adjustment is having the desired effect.

Pin Should Be Lubricated.

Steering knuckles are held in place by a pin, on which the knuckle turns. If lubrication of this pin is neglected excessive wear will result. There are a number of different types of steering knuckles in common use. All of these have bearings and most of them employ bearing bushings, though a minority use ball bearings. Replacement of these bearings is frequently necessary when excess play develops in this part. It is not too much to say that daily lubrication is essential to the continued life of the bearing. From all this it will be seen that the care needed by the steering system is not onerous. If it is regularly carried out, it becomes a matter of minor detail and the returns for the care are an ease and flexibility in the steering function of the car that cannot be exaggerated.

GARBE STARTS CONTEST

UNUSUAL SALES RACE BEGUN BY STUDEBAKER DEALER.

Public Asked to Guess Winner and Total Sales; \$50 Prize Is Offered.

Sales races between members of the retail force of automobile sales organizations are an old story, but F. M. Leaton-Smith, vice-president of W. C. Garbe, Inc., Studebaker dealer, has hung a new angle on the matter in the form of public participation and recently begun a contest among his salesmen which promises to be one of the most interesting of the kind ever held in the city.

On the first day of August the seven retail salesmen of the organization were lined up for a two months' sales contest. The contest was held, first, to determine the winner of a \$50 prize, and second, to determine the total amount of the winner's net sales during the two months. To the person choosing the winning salesman and hitting nearest the net sales mark for that salesman a prize in the shape of a \$50 negotiable cash credit on any new or used automobile in the Garbe establishment will be given. The contest is being handled entirely without "strings," and the public is asked to participate. Cards may be kept on hand or mailed to the Garbe company and address of the sender, the name of the salesman whom he guesses will win the contest and the figure in dollars and cents which the sender estimates will be the total amount of the salesman's net sales, during the two months.

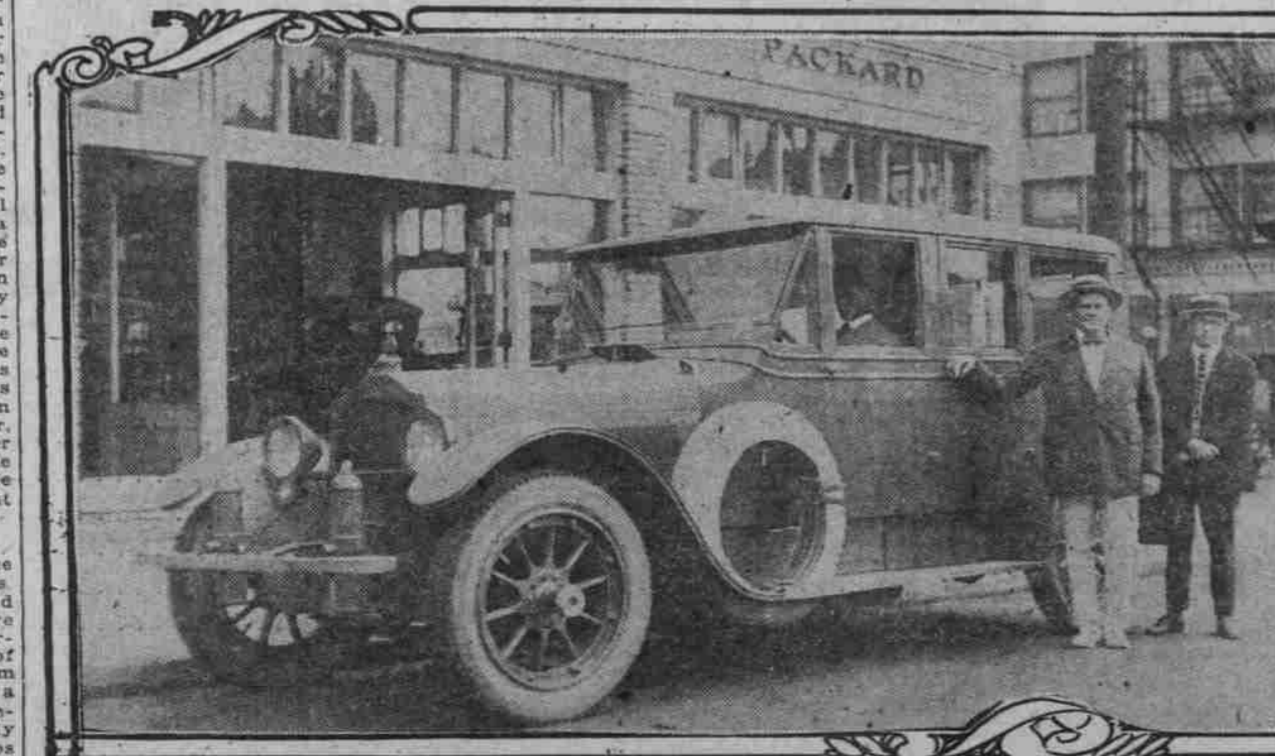
The retail force of the W. C. Garbe organization, lined up in the race, are: B. H. Howe, Ray Martin, D. C. Fleming, B. H. Mather, A. M. Bennett, D. Lawson and C. E. Couch. In addition to the \$50 prize to the best guesser special prizes will be given to the salesman making the first and second best records. A race track has been rigged up in the Garbe window and upon it the progress of the contestants is shown daily.

NEW WHITE OFFICERS NAMED

Vice-Presidents to Supervise Sales Throughout the Country.

Robert W. Woodruff and Mason B. McLaughlin were elected vice-presidents of the White company, Cleveland, O., at a recent meeting of the board of directors at Cleveland, according to word received here.

FORMER PORTLANDER NOW COAST MANAGER FOR NATIONAL CARBON COMPANY.



R. F. OAKES AND PACKARD TWIN-SIX LIMOUSINE IN WHICH HE RECENTLY MOTORED TO THIS CITY FROM SAN FRANCISCO.

Portland men are constantly clinching positions in the world of big business, and here is the latest in the automobile line above—R. F. Oakes, who is now Pacific coast manager for the National Carbon Company. This big organization makes a large number of the batteries and dry cells used on this coast, as well as the famous Thermoid tires and brake lining. Oakes was formerly a traveling salesman for a local firm. Mr. Oakes and his wife were driven by their chauffeur in the Packard from San Francisco to Portland and reported a pleasant trip, despite a number of detours on the Pacific highway. They spent a week in Portland, taking advantage of the time to take in the Columbia highway and other points of interest. At the extreme right in the photo above is shown A. R. Miller, Portland manager for the National Carbon company.

FAST RAGERS TO ENTER

FOREIGN CARS TO COMPETE AT LOS ANGELES.

Speedway Management to Offer Purse Large Enough to Attract Men of Wealth.

LOS ANGELES, CAL., Aug. 20.—Twenty-five racing drivers, known wherever automobiles are a feature of life, will await the starter's flag at the Los Angeles speedway on Thanksgiving day if the plans of the speedway management can put them there.

A representative of the speedway left Los Angeles early in August to visit, first the eastern cities where racing cars are built and where racing drivers foregather, and second, the racing car builders of France, England and possibly Italy. While abroad the speedway man will endeavor to obtain entries from the manufacturers who have in the past mounted such drivers as De Palma, Guyot, Bollot and Casagrande. Dario Resta is also to be urged to enter and numerous wealthy sportsmen of England will be interviewed in the hope that they can arrange to compete.

Nazario, Lancia and Massini, Italian drivers, are to be seen and sought and Rene Thomas, Jules Goux and Durey are to be interviewed, the first two in France and the latter in Belgium. Should any of these drivers be in America, they will be interviewed before the trip is made, and aid will be extended them in getting cars from abroad if they so desire. Most of those named have usually driven foreign-made cars in their American and other races.

American cars are not to be slighted. The makers of the racers that have stood past tests will be interviewed and their assurance of entries obtained.

The purse for the event has not yet been announced. It will be ample large to attract even men of wealth. The speedway has stood the test of long and short races and drivers and spectators alike have given it their approval. The drivers have always expressed satisfaction both with the track and the racing arrangements, while the spectators have found that they can see all parts of the track and that even the largest crowds can be handled without congestion. At a recent speedway event more than 20,000 cars were parked and they all cleared the inclosure within 45 minutes after the races.

Clean Plugs.

Many car owners do not realize the importance of keeping the spark plugs clean. The points of the plug

seldom need cleaning, but grease and mineral dirt do accumulate on the exterior and interior of the porcelain, so that the current passes that way instead of jumping the gap as is intended. The plugs should be kept clean or ignition troubles will result.

CRATER LAKE TRIP INTERESTS

West Oregon Lumber Company Official Makes Trip With Family.

H. A. Wiencke of the West Oregon Lumber company, with his wife and two children, returned last week from a trip to Crater lake, going by way of Bend and The Dalles-California highway and returning via Medford and the Pacific highway. They made the trip in a Ford which Mr. Wiencke has used in business for several years and which he had already driven about 80,000 miles. At the entrance to the Crater Lake National Park "Linnie" feeding she decided to be good and gave no further trouble throughout the entire trip of nearly 1000 miles. Mr. Wiencke said. Although they had been warned against rattlers and coyotes in central Oregon they did not encounter any and the only prowler during the entire trip was of the human variety. One night near Crescent lake some individual opened a suit case and made way with a pair of field glasses.

PUEBLO RELIEF IS AIDED

ST. LOUIS MOTORCAR DEALERS CONTRIBUTE LIBERALLY.

Money Goes Toward Rehabilitating Business of Auto Concerns Destroyed by Flood.

ST. LOUIS, Mo., Aug. 20.—Seventeen hundred and twenty-five dollars has been contributed by local automobile dealers' associations to the National Automobile Dealers' association fund for Pueblo relief. This money has been forwarded to a committee, which Tom Botterill of Denver is chairman, for relief of dealers and accessory men in Pueblo. The purpose of this fund is to help carry these men over until they can get their business establishments back on their feet. Botterill is the National Automobile Dealers' association director for the Rocky mountain territory and is known as one of the most substantial business men in the country.

When the national association sent out its call some local and state associations responded. Immediately others did not hold board meetings for several days and consequently their donations were delayed. The fund is still some associations yet to be heard from.

"While some time has passed since the flood, and we are prone to forget about the havoc wrought in that district," said a statement sent out by Harry G. Mook, general manager of the national association, "nevertheless there still remains much to be done in Pueblo to rehabilitate members of our own industry, as well as other industries who are receiving aid to assist them in getting started again. "Honors are provided by the Red Cross for those who were made homeless. Dealers having contracts with factories have received assistance, in many cases, from their factories, but there are a number of garagemen and accessory dealers whose entire assets were wiped out by the flood and who are depending absolutely upon the brotherly love of those within the industry to aid them in getting back on their feet. So, if you have not held a meeting to decide what your association will do in the way of assistance for those unfortunate in Pueblo, please call a meeting at once, if board action is necessary to authorize a donation."

Ford Cylinder Head Plate.

Ford owners should be very careful in removing the cylinder head not to dent or otherwise injure the large gasket. After this gasket has been removed both sides should be carefully cleaned and then painted with a solution of gum shellac dissolved in alcohol just before it is returned to its place. In replacing the cylinder head the bolts should be firmly tightened and the engine should be run until the metal is thoroughly warmed up and then the bolts can be given another tightening all around.

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In any weather it is a dependable, ever-ready, worry-free car.

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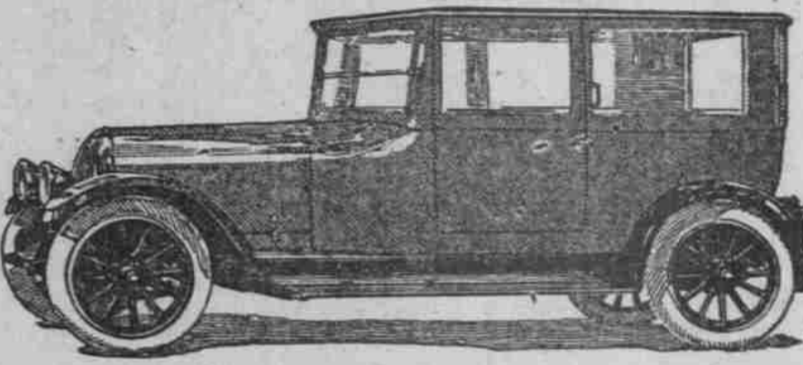
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(National Averages)

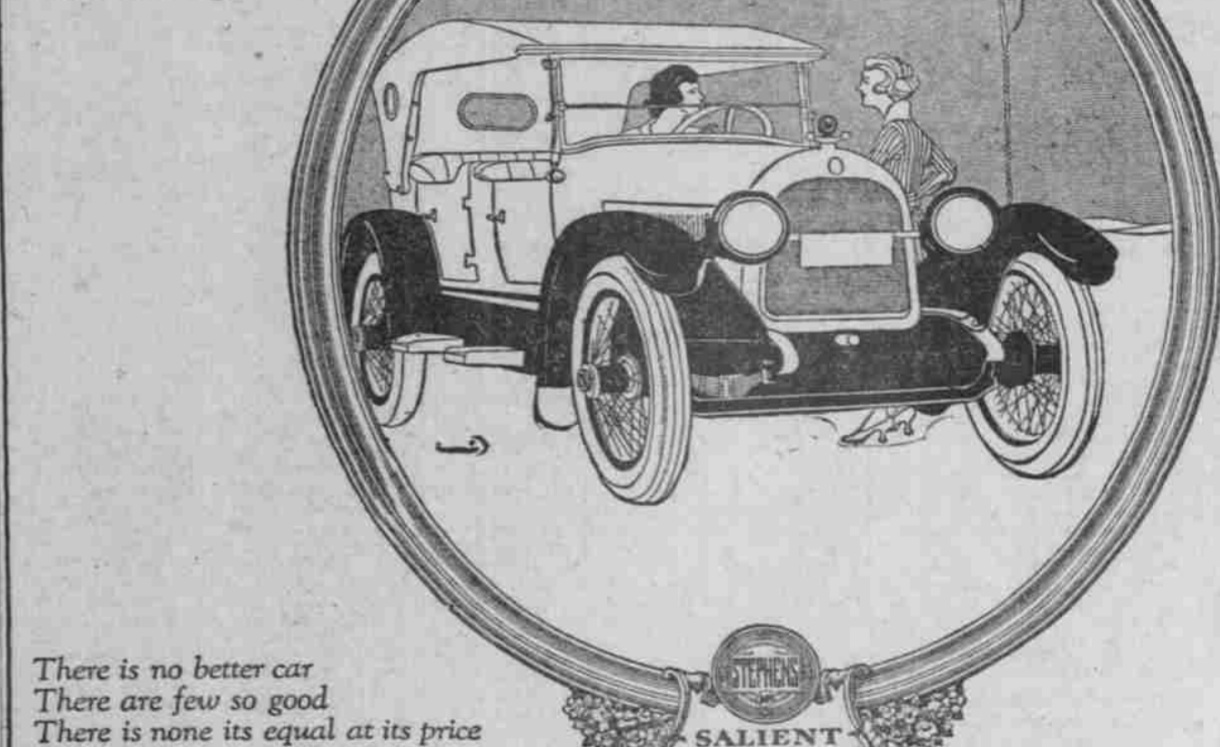
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