Federal Aid Possible For Road Through El Paso---Westgard

Believes Government Will Assist Borderland Route

Thinks Aid Will Be Given Southern National Highway to This City and Borderland Route West of Here. Gathers Data For the Government—Moving Pictures of the Route to Be Shown.

FEDERAL aid for the building of an interstate trunk highway system that will link all of the larger cities and states of the union in a vast network of good roads is a part of the plan for which W. O. L. Westgard, field representative of the American Automobile association and United States government office of public roads, gathered his data on the fifth official trip from coast to coast, according to announcement just made at American Automobile association headquarters.

Mr. Westgard, who made the actual survey of the proposed Lincoln highway route across the continent and is a brother of A. L. Westgard, who was here last week, asserts that federal aid is sure to come soon and predicts that the assistance from the government will be of such a nature as to insure a national system of highways that will place the United States far ahead of every other country in good roads. The route he has just surveyed passes through El Paso.

"A plan is now in process that will give the United States a system of rock highways extending all the way across every state in the union from north to south and from east to west, connecting with corresponding roads in every adjoining states," said Mr. Westgard.

"The bulk of the good roads data I have gathered, including the survey of three transcontinental routes made last summer by my brother, will be the basis for the efforts of the American Automobile association in securing the coveted intercommunicating state highway system. Our campaign this summer is of more moment on account of the interest that has been generated in transcontinental touring by the Indiana-Pacific tour and its immediate association with the Lincoln highway movement.

"At the completion of the Indiana makers' tour, we immediately started back to New York.

"The Indiana makers' tour did more to concentrate national attention on the good roads movement than any other similar enterprise and good roads boosters everywhere are indebted to the Hoosier manufacturers for having the originality and push to put over so big a proposition. The tour has been conducted under ideal conditions and will state as the biggest of its kind ever held by an organization of manufacturers or private individuals.

"The officials of the A. A. A. have been thoroughly alive to the situation as shown by the interest manifested in the tour by president Laurens Enos and A. G. Batchelder, chairman of the executive committee of the A. A. A., both of whom accompanied the tourists on a part of their journey across the continent.

"Immediately on the completion of the national reliability run in Montana these men joined the Hoosiers and continued with them to Los Angeles. They are deeply interested in the Lincoln highway plan originated by Carl G. Fisher, of Indianapolis.

"We enjoyed a pleasant trip through the south. We believe this will be one of the pleasantest of all the routes that have yet been surveyed, a route that will be of more interest commercially to the people of the south than the northern routes.

Motion Pictures of Route.

Motion pictures of the route covered by Westgard were taken. The picture outfit was picked up at Los Angeles and was in charge of Charles A. Taylor, who made reels of all the historic places encountered along the southern route.

Particular attention was paid to road construction and the methods used in different sections of the country will be portrayed on the films.

Unusually attractive scenery was recorded from the tonneau of the car while it was in motion. All of the large cities on the route were photographed to show the commercial development of the south.

Automobile clubs and commercial organizations displayed a decided interest in the motion picture feature of the A. A. A. trip and tendered the car and its crew receptions along the route that rivaled the turnouts that greeted the Indiana-Pacific tourists on their trip in July.

Hospitality and enthusiasm never had a better illustration than during the trip through Arizona, New Mexico and Texas.

While the veteran pathfinder was rolling across the hot sands of Arizona and New Mexico, automobile clubs and municipal organizations along the proposed route were showing more genuine interest in the project than was shown on any of the four previous trails surveyed by the A. A. A.

An average of five to ten telegrams a day passed between enthusiastic motorists along the route and the A. A. A. headquarters at New York city and every effort was made to arrange big receptions for the dry land explorer.

One reason for the added interest in the route is that this will be practically the only transcontinental trail that will be open to automobile tourists all the year round.

Part of the western end of the route selected by pathfinder Westgard is identical with the Ocean to Ocean highway which is being boosted by the association bearing that name and which was surveyed last summer.

After a number of detours in Texas for the purpose of connecting up several well known transcontinental roads that tourists will have plenty of agreeable options, the pathfinder headed east through Little Rock, Memphis, Nashville, Knoxville, Roanoke and Washington, D. C.

Spirited Contests.

The most spirited competition ever encountered by the American Automobile association in laying out and developing five different transcontinental routes was in Texas, the entire length of which has just been traversed from west to east by Mr. Westgard. Great importance is lent to this particular trip—the longest of all and the only one that can be traveled throughout the year—because the largest share of road improvement throughout that territory is likely to be along the line carefully selected by this routing and mapping expedition.

From El Paso on the Rio Grande the route finally chosen passes through Alamogordo, Roswell, Sweetwater, Abilene, Mineral Wells, Fort Worth, Dallas and Paris to Texarkana on the Arkansas river, the Texas-Arkansas border. Surprisingly good natural roads were found for hundreds of miles, while other long stretches were seen to need considerable improvement to fit them for the large amount of travel certain to come by 1915. Along the entire line the people of the Lone Star state were enthusiastic over the new through route, and pledged their support toward its building and maintenance.

It is significant of the statewide interest aroused that before Westeard had entered western Texas, the people along the lower route from El Paso through Sierra Blanca, Alpine, Fort Stockton and San Angelo had started a vigorous movement to popularize their route, and asked the American Automobile association to log that also. A similar application was received from the cities and towns along the line from Roswell through Midland to Fort Worth and Dallas. Gradually these and the other important through roads will be charted with the result that Texas will not only be placed on one of the great trunk lines between the Atlantic and Pacific, but that the data necessary for traveling the principal routes within the state will be really available for the visiting motorist.

MOTORISTS' PROBLEMS ARE SOLVED HERE

By WILLIAM H. STEWART, Jr.

Who as President of the Stewart Automobile Academy of New York City, is regarded as the leading authority in Motor Car Education in this country.

Let us solve your motoring problems and discuss your comments. Tell us of your experiences for the benefit of the other fellow. Correspondence invited for publication every Week-End.

Motoring Department, The Herald—I had an offer of a second hand car, in good order, or so claimed, and two years old. As I do not feel competent to judge a used car, I would consider it a favor if you would give me some information as to where weak spots in such a car should be looked for, where to look particularly for loose fittings and where worn parts can do the most harm. Also if a car is two or three years old, how much should each year reduce the price from the original one? I thank you in advance for the information.—H. A. W.

All cars, whether of one make or another, wear most at certain points. It is admitted that some cars stand up much better than others, but in justice to dealers the columns of this paper cannot set forth the weak points of any particular make of car. It must be admitted also that used cars can be repaired temporarily to deceive the most experienced. If you are contemplating the purchase of a used car, which has been in use for several years, would suggest that you purchase same from a known responsible company. On the other hand if the price is sufficiently attractive to warrant the risk of purchasing on your own judgment, inspect the car as follows:

Start the motor running and note carefully the action and sound both at slow engine speed and high engine speed. The transmission should be uncovered and carefully inspected for worn gears, loose bearings, worn out shifting forks, etc. The clutch unit and universals between motor and transmission should be examined carefully for misalignment, back lash or sag. Each rear wheel should be jacked up in turn and the differential carefully tested. It is best to uncover the differential gears for inspection, if convenient.

By jacking one rear wheel and placing a transmission gear in mesh you can determine the amount of back lash through the wheel, up through the differential and various universal joints to the motor. On new cars the amount of play allowed is approximately one inch, measured on the tire. On cars worn considerably this play amounts to nearly a quarter turn on the wheel, measured on the tire, which of course, is entirely too much. This indicates that the differential system, the propeller shaft, universal joints, etc., are excessively worn. When both rear wheels are stationary, you can determine the amount of back lash in the propeller shaft joints by turning with the hand; likewise with the clutch shaft.

The steering gear also should be inspected. While a slight amount of play is allowed in the steering wheel before the wheels begin to turn, nevertheless, on an ordinary used car this lost motion should not exceed more than an eighth turn of the wheel. It is hardly possible to go into detail further but one's judgment can best guide him as to what parts are excessively worn. Of course, no one should purchase a used car without a reasonable demonstration.

This should determine the power of the car and general condition. If the motor has a tendency to overheat or knock due to excessive carbonization of cylinders, or worn parts, this can readily be noticed, likewise the condition of clutch as to dragging and also the condition of the transmission gears when various shifts are made.

Both sets of brakes can also be tested. On a try out of this kind the demonstrator should be asked to go up hills, to stop and start on a hill, etc. As said previously, used cars can be repaired to last temporarily, and when demonstrated by experienced operators will mislead an average purchaser. If you desire a particular make of car you can always obtain same at the office of the dealer of that car. If they do not have on hand the particular model you wish, they can most always obtain same for you. No responsible dealer will misrepresent the make of car he is handling. When you purchase from him you become his customer and prospect for a new car. His business foresight will, or at least should, induce him to consider you a future prospect for a new car and extend fair treatment accordingly.

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Motoring Department, The Herald—How can one prevent too much oil getting into the two forward cylinders? The crank case has a circulating pump that pumps oil from the subcase to the front end of the crank case, where it flows back into the rest of the case.—M. R. H.

If you have described your trouble correctly, the design seems rather poor. Usually in such a lubricating system the oil is not pumped directly into the front of the crank case, but rather into each cylinder compartment separately; that is to say, there would be four points of delivery to the pump, instead of only one. If the construction will permit, perhaps you can arrange to have the oil delivered in this manner. Usually there are partitions separating the oil level compartments, and which will serve the purpose of keeping the oil more evenly distributed in climbing hills, etc. The simplest way of remedying your trouble would be to cut a groove in the top of the partition between the forward cylinders, thereby lowering the oil level of the two compartments. The lowering of the oil level in the upper wells is common, especially where motors have a tendency to smoke.

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Motoring Department, The Herald—Two months ago I put my car up for the winter. Since then the gasoline which had been left has evaporated. When new gasoline was put in I tried to start the motor. First, I poured gasoline in the petcocks to start it. It did start, but in a few minutes it sputtered and died out. I repeated this till I became disgusted. Then I disconnected pipe leading from exhaust to carburetor through which the warm oil was admitted to it and held my hand over the hole. This did not help. Next I poured boiling water in radiator and started the motor again, but again it died. A chauffeur maneuvered the air valve over carburetor up and down, and kept the motor going, but of course I could not do this and drive the car. A mechanic told me later that the contact points in magneto did not meet all the time. Could this be possible after it was kept going by moving the air valve?—F. McAlpine.

It is evident that your trouble was due to a poor mixture. If the contact points in the magneto did not make and break regularly this would be indicated by irregular firing. You state that when the carburetor air valve was adjusted properly the motor ran well. This is plain evidence that the trouble was in the carburetor. Not knowing the particular make of carburetor you are using it is not possible to outline the adjustments. It should not be a difficult matter, however, to adjust the carburetor. You state that when the cylinders were primed the motor ran well until this gas supply was exhausted. This plainly indicates that the magneto was all right and reverts the trouble to the carburetor. Very often, however, such troubles are caused by a combination of poor ignition and poor carburetion.

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Motoring Department, The Herald—Will you please advise me what the compression in pounds per square inch is on the average car? Does the compression increase as the speed of the engine increases? Has the use of fiber for timing gears proved satisfactory?—S. J. D.

The average compression is about 65 pounds per square inch. The compression increases slightly with the speed, due mostly to greater heat efficiency. If properly constructed fiber and bronze gears will work well. The tendency of late designs, however is to eliminate fiber altogether.

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Motoring Department, The Herald—The other day while coming from a neighboring city to here I was obliged to put my car in a garage en route over night. I gave instructions to have the car washed, as there was considerable mud on it. When I put the car up at night the motor was running finely; but when I went to get the car the next morning I could not get the motor started. After a while it managed to start, but ran irregularly for a long time. Then all of a sudden the trouble disappeared. A mechanic at the garage said that some water got in the engine and caused this trouble. I am anxious to know if such could be the case.—Owner.

The trouble you speak of very often happens when the car is washed by careless men. The hood on the side of the engine is usually slotted and sometimes the washer will let the water force itself through these points when going aronud the car with the hose. A small amount of water in the magneto will cause a short circuit and give considerable trouble. As soon as this dries out, however, the trouble disappears. This usually happens after a motor has been run for a while and becomes heated. The water then evaporates and the short circuit disappears.

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Motoring Department, The Herald—Through the columns of your paper will you advise how often the joints of the drive shaft should be lubricated? There is also a pair of these joints between the flywheel and gear box and a little information about these working parts will also be appreciated.—S. T. Dunn.

The universal joints in the propeller shaft and clutch shaft should be inspected and lubricated about every 500 miles. Some universals do not need such close attention. There is usually a grease retainer to prevent the lubricant from working out, but if these leak the joints need close attention.

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Motoring Department, The Herald—Have a storage battery upon which there is no maker's name. When first charged it is good, but will exhaust itself in a couple of days. Have filled it with sulphuric acid, but this does not help. I have had the battery two years.—R Lyons.

When a battery has been idle for a long time the voltage, when charging, will rise rapidly, and likewise when in use will fall rapidly. This may be due to a number of causes, chief among which is over sulphation of the plates. Sometimes a good overcharge will reduce the sulphate on the surfaces of the plates and increase the capacity considerably. If the plates are not sulphated, it is possible that some of the active material has fallen off the grids and deposited at the bottom of the cell. In such cases the plates should be removed and the battery thoroughly cleaned. Undoubtedly the battery has been neglected and the plates not kept covered with electrolyte. If the plates are not kept covered the capacity of the battery is considerably reduced. After this has been allowed to take place for some time it is not possible to bring the battery back into condition by a single charge. Several charges will be necessary. Would suggest that the battery be placed in the hands of an experienced repair man for a thorough overhauling. If you are not familiar with battery construction and repairs it would not be advisable for you to attempt to bring same back into condition.

HELPFUL HINTS TO MOTOR CAR OWNERS

When a motor is turned over slowly with the crank it may appear that all the valves are working properly and seating as they should; but it sometimes happens that the stems are gummed, dry, or fouled with dust and dirt, so that they cannot move fast enough to keep pace with the motor when it is running. This is a good point to watch, for it may easily cause misfiring and other apparently causeless troubles.

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Although dry cells seldom are used as a source of energy for electric lights, it should be remembered that when they are used the voltage of each cell is a little more than one. Where six are connected in series to feed six volt tungsten lamps the filaments are likely to be illuminated too brightly to permit of normal life. Consequently, only five of the cells should be used at first until the lamps show symptoms of dimming, when the sixth should be added.

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Excessive sparking at the brushes of a lighting or starting dynamo can arise from a variety of causes and in some cases it is chronic, so to speak. Before abandoning all hope of effecting a cure, however, it is well to try a set of graphite brushes, which, because of their self lubricating qualities and the fact that the lubricant itself is a conductor of electricity, make for more perfect coumutation.

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There are a number of motors in which the lower edges of the pistons dip into grooves in the crankcase, just stopping short of touching. In others there are projections which do not permit the pistons to descend much below the normal stroke limit. It sometimes happens that in taking up wear in the bushings, or in fitting new bushings, a piston is brought a trifle lower than its orginal limit, and the edge touches, causing a knock. While this is a rare cause of knocking, and is confined chiefly to motors of older types, it is all the more likely to be mysterious and difficult to locate. A very small amount of metal removed from the edge of the piston or from the interfering part, whichever can be done best, will remedy the trouble. It should be remembeerd, however, that the lowered piston means lowered compression, and probably loss of power that may be fully as mysterious as the knock.

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A deep cut in a tire, which partly severs a piece of rubber and allows it to flap, should receive immediate attention, because the loose piece is apt to tear off more rubber and so make the damage worse than at first. This is particularly true of solid tires.

FIVE DEGREES ABOVE ZERO IS MINIMUM

Lowest Temperature at Which Ordinary Gasoline Vaporizes In Cold Storage—Hot Rag Will Help.

Motorists living in the northern and central states are looking forward with some anxiety to the advent of cold weather and its effect on the manner in which the present grades of gasoline will vaporize when the crank is applied to a cold motor.

Some up to date information on cold-weather starting has been developed during the past summer, by experiments made in cold storage. These experiments were based on the ordinary commercial grade of gasoline, and, while some allowance must necessarily be made for the dead air incident to refrigeration, the tests will, it is believed, come close to the actual condition which will prevail this winter.

It was ascertained that the lowest temperature at which gasoline would vaporize from a piece of waste, soaked in the fluid and dropped on the floor, was five degrees above zero. Below this temperature the gasoline in the carburetor refused to vaporize. Naturally, no explosion could be secured from the motor.

For the advantage of the motorist who occasionally finds himself in a temperature around zero, several tests were made, the gasoline readily responding to any external application of warmth. The most effective, as well as the most simple plan was to place a rag, soaked in hot water, over the intake. The car had been left over night in the cold storage apartment, with the temperature at twelve below zero. In the morning the rag was applied and the motor started promptly on the first turn of the cranking apparatus.

This test also calls attention to the fact that, by improved carburetion, supplemented by starting systems, engineers have fully kept pace with the steadily lowering grades of gasoline, generally on sale. The motorists of former times, even with his advantage of high-test gasoline, found winter starting more or less trouble. On the other hand, the modern improvements have reduced cold weather to absolute simplicity, despite the vastly lower vaporizing point of the fuel.

OLDFIELD STILL A RACING HERO

(Continued from previous page.)

Phoenix-Los Angeles race, although he broke all records for time between Los Angeles and San Diego. This demonstrated, many argue, that Barney is a track driver and nothing more, for the Los Angeles-San Diego road is a veritable race track, while the rest of the road is bad and Barney was lost when it came to the bad roads. Barney is still a king to the people, however, which was demonstrated at the fair Thursday when the big, gawky, careless looking fellow, with the cigar butt in his face, received thunders of applause every time he came into view.

Barney "Some Driver."

When he drove for a track record in his big 200-horsepower front-drive Christie, he gave them thrills that few things on earth could equal. When he went down the stretch in front of the grandstand each time, his car fairly leaped from the ground and at times it seemed that for 40 feet he was in the air, flying instead of rolling on wheels. When a man is covering a mile in 48 seconds flat on a circular track, he has to be "going some" on the straightaways. It was estimated that he was going 100 miles an hour in front of the grandstand each time.

Private Cars Coming.

Besides the racing cars that will come in from Phoenix this week, Clyde Holmes in his Hup, with his wife and Mr. and Mrs. T. J. Stafford as passengers, will arrive.

Mr. and Mrs. Fred Woodworth will also come in some time this week in their Reo. They expect to arrive Monday. Mr. Holmes and party are expected Tuesday.

Holmes left Phoenix Saturday morning by way of Globe and Roosevelt. Mr. and Mrs. Woodworth left Douglas Saturday morning in their Reo runnabout, which they left at Douglas on the way over. They came back to Douglas by train Friday evening.