SPORT, THRILL AND NOVEL ADVENTURE FOUND BY SPOKANE HUNTERS WHO TAKE AUTOS AND BUCK IDAHO SNOW DRIFTS

Four Eastern Washington Sportsmen Recount Experiences of Trip in Dodge and Cole Touring Cars to Priest Lake After Deer, Fish and Birds—Machines Stalled at Coolin and Liberated by Trail Blazers After Ten Hours.

An automobile hunting trip into the snow-covered Idaho mountains, says the Spokane Spokesman-Review, ended Saturday when the party returned to Spokane with two cars loaded with deer and wild fowl. The party was composed of D. R. Riegel of Riegel Brothers; Walter S. Melcher, proprietor of the Retread Shop; Phil Hinkley, salesman for Riegel Brothers, and R. W. LeDuc, manager of the Fisk Tire & Rubber company.

Driving two cars, a Dodge Brothers touring and an eight-cylinder Cole, the party left Spokane Nov. 15, the cars loaded with camping equipment. When the snow country was reached chains were placed on all four wheels and a coupler attachment was used to buck the deep snow. This coupler was the means of releasing a number of stalled hunting parties whose cars were deep in the snowdrifts. The coupler was made in the Riegel Brothers shop and was the invention of Phil Hinkley and D. R. Riegel.

GOOD START GOING

It was 1:30 in the morning when the two machines pulled out of Spokane. Heading northeast, Newport was reached at 4 o'clock. Thirty minutes later the cars pulled up in Priest River and a few moments lated headed for Coolin, on Priest lake, 25 miles.

The roads from Spokane to Priest river were fairly good. About two miles out of Priest River deep snow was encountered, which gradually grew deeper until about 10 miles toward the lake from Priest River, the cars hit 18 inches of it, with no sign of a wheel track and only the trees and telephone poles to let the party know a road was there. Up to this time the cars had worked independently, the Dodge leading the way and breaking the trail. The coupler attachment was brought out and the two cars locked together, with the Dodge car still leading. The leading car broke the trail through the deep snow and cut wheel tracks to a solid footing which permitted the rear car, which was trailing along close behind, to follow in the tracks of the pilot car. All its surplus power was then used in helping the first car buck the deep snow.

CONTINUAL SLIPPING

It was impossible for the cars to stay in the center of the road. When the leading car started skidding toward the ditch the rear car put on all its power and pushed it ahead, following in its tracks with the momentum thus gained, to push it out again. The trail left was parallel tracks crossing from the ditch on one side of the road to the ditch on the other and then back again and again for miles. At times the leading car was half buried in the snow and it was necessary to shovel a path through the drifts to get started again. At two points the rear wheels of the rear car slipped off the road to the brink of deep grades, but the leading car held it from going over and was able to drag it back to the road again.

At the half-way house three cars were encountered stalled in the snow with hopes of ever reaching the lake given up. Settlers advised the party to turn back for Spokane, urging that they could not make it to the lake.

NINE CARS GIVE UP

The other three cars stalled at the half-way house decided to follow in the tracks of the two Spokane cars and the fleet set toward the lake. One mile from Coolin six more stalled cars were deep in the snow. Time after time they tried to get out, but finally gave it up.

Each place where the inbound cars had gone into the ditch the outbound cars following the track went in also. It took these cars 10 hours to get out of the snow to where the road was level and firm. The time the Spokane party made the trip in, after bucking the snow, shoveling the trail and coupling the cars was less than six hours for the 25 miles.

"Any single car could never have made the trip," said Mr. Riegel. "Only by locking our two cars together were we able to get enough traction and momentum to carry us through. One car would pull and the other car would push. If the leading car stalled the following car would push it out and should the trailing Cole car stall the Dodge would pull it free again."

GOOD SHOOTING AND FISHING

Coolin was finally reached and the party unloaded their equipment into a launch and went up the lake to a cabin.

The deer Hinkley shot was across a deep canyon at long range. It was a beautiful specimen, with a perfect spread of horns of 26 inches and weighing 246 pounds. The head is now being mounted in Spokane. Riegel caught a brown flash through the brush over 500 yards away and taking snap aim pulled the trigger. Thinking he had missed he was just about to proceed when he looked into a deep hole and saw his deer fatally wounded.

After bagging their limit of deer the party turned their attention to ducks and wild fowl and in a short time were able to shoot the limit of both in spite of the fact they had no shotguns and did all their hunting with rifles. Fishing came next and several hundred fry-size whitefish were hooked in the small streams running into the lake.

The inbound trip from Coolin to Spokane was made in four and a half hours. Although the distance from Priest River to Coolin is only 25 miles the speedometers showed 34 miles, indicating that the rear wheels slipped nine miles in the deep snow.

GOOD DRIVER PUTS IN CLUTCH QUICKLY AND BRAKES VERY GENTLY

"Some drivers, even after years at the wheel, have not learned to shift gears without clashing. I have talked with a number of women drivers lately to learn why they cannot overcome this bad habit. I discovered that none of them knew that it could be stopped. If the engine is accelerated just slightly; that is, the pedal barely touched for an instant while the shift is being made the gears will usually mesh easily." And Frank Manning, in an article on driving in the January Motor, goes on to say that one of the few faults of the fair sex consists in so punishing their husbands' new cars while learning to drive that new ring gears and other expensive replacements are necessary.

Not only the woman is to blame, however, for it develops in Mr. Manning's interesting and instructive article on the perennially young subject of manipulating a motor car that the average male driver is careless in handling clutch, brakes and steering wheel. "Brake application is usually considered the simplest of operations; yet you no doubt have ridden in cars whose drivers have stopped so short as almost to throw you out of the car. The brakes should be applied evenly and progressively. Pressing down hard on the brake pedal will stop the car, but it is not the best thing for the mechanism. Gentle application is what is needed, but of course, if the driver is one of the careless, daredevil variety he may find himself confronted with the problem of braking hard or hitting another car. The good driver rarely drives fast; he brakes slowly and evenly, and steers when the car is running slowly so you are not thrown forcibly to one side."

TRUCK STATISTICS AS GATHERED FOR GOODRICH COMPANY

Careful Estimate Places Total Now in Use in U. S. at More Than 700,000, and Output in 1920 at 125,000.

There are 339,398 motor trucks in the 25 states which make a separate tabulation of commercial vehicles, according to statistics just gathered by the B. F. Goodrich Rubber company. The balance of the states make no distinction between passenger cars and trucks in their registration records, making a national total impossible to compile. However, it is estimated that the grand total will reach more than 700,000. This is based on average estimates for all states which keep no record of trucks. Among the states with heavy truck registry are: New York, Illinois, Iowa, Indiana, Minnesota and Missouri.

The states which record trucks separately and their registration follow:

Ohio	57,000
Massachusetts	38,149
Pennsylvania	36,619
Michigan	30,675
California	25,369
New Jersey	16,660
Connecticut	16,340
Kansas	10,000
Tennessee	10,000
Maryland	9,810
Wisconsin	9,700
Alabama	9,230
South Carolina	9,000
Kentucky	7,789
North Carolina	6,600
Rhode Island	6,300
Florida	6,175
Georgia	6,000
Maine	5,219
Utah	4,478
West Virginia	4,670
New Hampshire	3,000
Vermont	2,115
Mississippi	1,600
Total	339,398

It is estimated by American motor truck manufacturers that more than 125,000 trucks will be made during 1920.

ANOTHER WRITER HAS NO IDEA WHERE POINT OF SATURATION CAN BE

Ten million motor cars will be in use by Dec. 31, 1921, is the prediction of Dr. Paul H. Nystrom, writing in the great January show issue of Motor, the national magazine of motoring.

Taking this as his text Dr. Nystrom proceeds to discuss the much mooted question of the saturation point. "Assuming that business conditions remain favorable for automobile production and sales, what are the limits of progression in this increasing production?" he asks, "surely there is a limit. Twenty years ago people whose opinions were counted highly important predicted that there might be a possible ultimate market for as many as 100,000 cars. Ten years ago it was commonly believed that the country would probably absorb as many as 1,000,000 cars. Five years ago it was thought that there migh be room for as many as 5,000,000 cars.

"Who will come forward now and say what the saturation point in the use of automobiles will be? A business expert recently stated as his opinion about 8,500,000 cars would supply the demand of the public. As an indication of the possible use of automobiles, if the entire nation had as many cars in proportion to population as there are now in the state of Iowa, there would be 15,500,000 cars on the road today, or nearly 10,000,000 more than the present registration."

In summing up Dr. Nystrom says that "from such studies as the writer has been able to make, he believes that the registration of cars in this country will pass 10,000,000." A conservative statement, and plainly the writer is unwilling even to hint at an ultimate saturation point.

NEW HIGHWAY PLANNED FROM LEWISTON TO ENTERPRISE THROUGH RATTLESNAKE AND BEAR CREEK CANYONS TO BE COSTLY

Project Said to be Receiving Support at Both Ends Toward Building Next Year—Expert Makes Survey and Estimate—Route Would Cut Distance Into Eastern Oregon and Southern Idaho 98 Miles—Rather Expensive.

An important highway about to be launched, according to Lewiston correspondence in the Portland Oregonian is the road from Lewiston and Clarkston to Enterprise, Oregon.

At both ends of the projected highway there is much activity with a view to starting the project in 1920. C. C. Van Arsdol of Lewiston, one of the engineers, has just returned from a trip on which he investigated possible outlets from the Snake river to the Wallowa country in Oregon, of which Enterprise is the center.

Mr. Van Arsdol is the expert who laid out the wonderful Lewiston hill highway. His reports to the Chamber of Commerce of Clarkston and Lewiston state that a good all-year road, 16 feet wide, can be constructed on a route from Lewiston and Clarkston through Asotin and Anatone, Wash., then southwest down Rattlesnake canyon, thence up Bear Creek canyon to the Washington-Oregon state line. The total cost would probably be not less than $460,000 for the 17 miles of grading and surfacing.

INTERSTATE UNDERTAKING

In his report, he says; "It was difficult to find a route into Oregon which would connect up with the Washington highway, and it would be a useless piece of road building unless it was connected with a road coming out of Oregon from the south. Before the road is undertaken, a thorough understanding should be had with the Oregon highway commission.

Enterprise good roads workers are alive to the importance of this outlet from the Wallowa country. The Chamber of Commerce of Enterprise has started a campaign for "bonding to the limit" in support of new highways, and the Enterprise-Lewiston road will be the first to receive attention. Wallowa county already has voted $350,000 of road bonds, none of which money has been spent, and it plans to raise an additional $650,000 in the spring to cover completion of the Enterprise-Lewiston road as far as the state line.

The projected highway, according to Engineer Van Arsdol's survey would continue from the Washington line through Flora to Enterprise, Ore., with laterals to Grouse, Paradise and other northeastern Oregon communities. The grading of the highway is made difficult by the Grande Ronde river formation, which is a deep canyon similar to that of the Snake. Describing the route further Mr. Van Arsdol says:

GRANDE RONDE LIKE SNAKE

"It should be understood that the Grande Ronde canyon is similar to the Snake canyon. The hills to the north, sloping into Asotin county towards Anatone, are rather gentle in their incline; but the hills to the south of the river are an abrupt bluff, like the bluffs between Clarkston and Silcott on the south side of the Snake river.

"Bear creek canyon running into the Grande Ronde from the south furnishes a five per cent grade for getting out of the Grande Ronde canyon. The road I favor is from Anatone southwest down Rattlesnake canyon, which furnishes a five per cent grade at a reasonable cost, and up the Bear canyon. Two miles up the Bear canyon is the Oregon-Washington state line, and 10 miles further up the canyon from the state line is Flora. Flora is at the head of Bear creek canyon.

"The highway should be built with the idea that it is a through route and not with the view that it is a local highway. It is a through route from eastern Washington and northern Idaho into eastern Oregon and southern Idaho. It is one day's run by auto over this route, which is 98 miles shorter than any road now existing or any route proposed into southern Idaho.

HALF MILLION PROJECT

"Thirteen miles of road have been built through the forest reserve beyond Flora which forms a big connecting link in the highway and is expected to be built into Troy next year. The Anatone highway district also forms a connecting link.

"The cost of such a road can, in my view, be compared only with the Lewiston hill highway, it being the same sort of formation and the same topography. The Lewiston hill road cost $10,000 a mile for grading, bridging and drainage.

Prices are now double what they were when the Lewiston hill highway was built, which would mean that the Anatone-Oregon road would cost $20,000 per mile for grading, bridging and drainage. The distance from Anatone to the state line down Grande Ronde river, and up Bear Creek canyon is 17 miles.

"With $5,000 per mile for construction the total cost could not be computed at less than $450,000 or $500,000."

LEAN MIXTURE ON LOW

When it is necessary to employ the low gear for a considerable period it is possible to obviate the overheating that would ordinarily result by keeping the mixture in the leanest possible condition.

IMPORTANCE OF REDUCING WEIGHT OF CAR LEADS ENGINEERS AND DESIGNERS TO STUDY MERIT OF ALUMINUM ALLOY

How much does your car weigh? How often is that question asked? And what is back of that question? Six million auto owners are awakening to the fact that light weight is more important than anything else pertaining to the modern self-propelled vehicle. All cost of upkeep, riding comforts, power range and touring latitude depend absolutely on car weight. Five million tons of excess weight are carried by American motor cars. How much of this excess weight are you carrying?

The automobile designer recognizes the importance of this question and knows that all his engineering skill must be directed to achieving that most desired end—a lightweight car.

Great efforts are being made to reduce weight. Take the car piece by piece—everywhere has weight been cut, while strength has been added. Here and there heavy iron castings and channel iron have been replaced by pressed steel, dropped forgings of alloy steel, aluminum, aluminum alloy castings, wood and sheet metal.

EARTH JUST FULL OF IT

Aluminum, due to its first cost and sometimes uncertain supply, has not been used in automobile construction nearly so much as it might have been. Aluminum costs a trifle more than steel alloy—probably from $24 to $50 more than steel if the car were made entirely of aluminum. There is plenty of material from which to make aluminum, for it is estimated that about one-eighth of the earth's crust contains aluminum.

It seems this metal should answer the light-weight problem. Aluminum alloy has a tensile strength greater than that of steel of the same weight. It is more easily machined, less liable to break and gives a smoother, cleaner, more uniform job throughout the entire manufacturing operation.

Aluminum alloy stampings are easier to make—they require little or no annealing between redraws, which eliminates objectionable scaling. Scaling scores dies. In turning, the lathe can be speeded up much higher—and the surface of the grinding wheel becomes clogged more slowly. And so far as finish is concerned aluminum alloy will polish as high as silver. Paint and enamel hold better on aluminum, due to its more or less porous structure—will not chip off as easily as from iron or steel.

HOW MUCH ALUMINUM?

Considerable weight already has been eliminated from cars using aluminum alloy.

Some of the most important parts thus made are body, entire motors, bearings caps, cylinder block, cowl board, carburetor body, crankcase, clutch cone, differential carrier, fan, fenders, flywheel housing, generator brackets, hub caps, intake manifold, oil pump body, pistons, radiator shell, rear axle housing, steering wheel spider, spark and throttle levers, transmission case, timing gear case covers, etc., etc.

Since actual service has demonstrated the wearing qualities of these parts made of aluminum alloy, combined with the ease of handling during manufacturing process, we can look forward to the time when the coming automobile will be made entirely of or almost entirely of aluminum.

And then the questions will be heard frequently: "How much aluminum is there in your car?"

PROTECT BODY FINISH

Many car owners have found that the body finish needs extra protection in winter. The outward attraction of a perfectly good car may be spoiled by leaving the body finish without attention throughout the winter. At this time of year it is a good plan to give the car a thorough cleaning and then give it two coats of varnish. Varnish is simply a protecting medium and if it is allowed to wear off the paint beneath is sure to suffer in the rains and mud of the winter.

No spot in the British isles is more than 80 miles from the sea.

MAKES HIS THERMOSTAT

An ingenious motorist recently contrived a thermostat by removing the rubber hose between the top of the cylinder and the radiator and replacing it with a metal one, embodying a shut-off valve of the butterfly type, such as are used on carburetors. A rod from this valve extends through the dash, so that the driver can regulate the amount of water flow through the cooling system. In effect this is a manually controlled thermostat.

The refuse from the streets of Italian cities is sold by auction.