

SAMPLES OF AUTO GAS AND OILS ARE TESTED FOR STATE

Reed College Will Test Samples of Gas and Oils Collected by Weights and Measure Inspector

William A. Dalziel, state inspector of weights and measures, was a visitor at Reed college Thursday in the interests of Oregon automobile owners. Dalziel left with Dr. A. A. Knowlton of the Reed physics department, samples of standard gasolines from Washington and Oregon dealers, and tests are to be devised and applied to them by William Grout and Thad Vreeland, Reed sophomores. The state weights and measures department wants the "dope" on gasoline density, so that if the state legislature needs information for further autolite legislation, it will have the latest scientific data.

SYSTEMATIC TESTS
Grout and Vreeland have just completed a number of tests and demonstrations of "viscosity," the quality of oils which determines their efficiency, and they began systematic tests on the gas samples with standard apparatus recently installed in the Reed laboratory. Grout carried the Reed oil tests to Goldendale, Wash., where he addressed a state tractor convention last month and Tuesday and Wednesday of last week he was demonstrating motor oils and the flash, flame and viscosity tests, before a convention held at Corvallis under the supervision of the agricultural college.

INDUSTRIES INTERESTED
The tests being conducted at Reed are being watched with interest by Portland firms, and the success of the oil tests, which were verified by practice after the laboratory results had been announced, promise a new field for the Reed physics department, and a new source of valuable information for Portland industrial organizations.

Norway Orders Use Of Pneumatic Tires

Norway is the first country in the world to propose national legislation that will specify that motor trucks up to two tons capacity must be equipped with pneumatic tires so as to prevent damage to roads and to cut down the excessive cost of highway repairs due to the use of solid tires. The new legislation will affect motor truck manufacturers particularly, but in some cases the equipment will be greater tire width on front wheels—the rear wheels already complying with the provision of the new law. It is expected that this legislation will be effective from the summer of 1920.

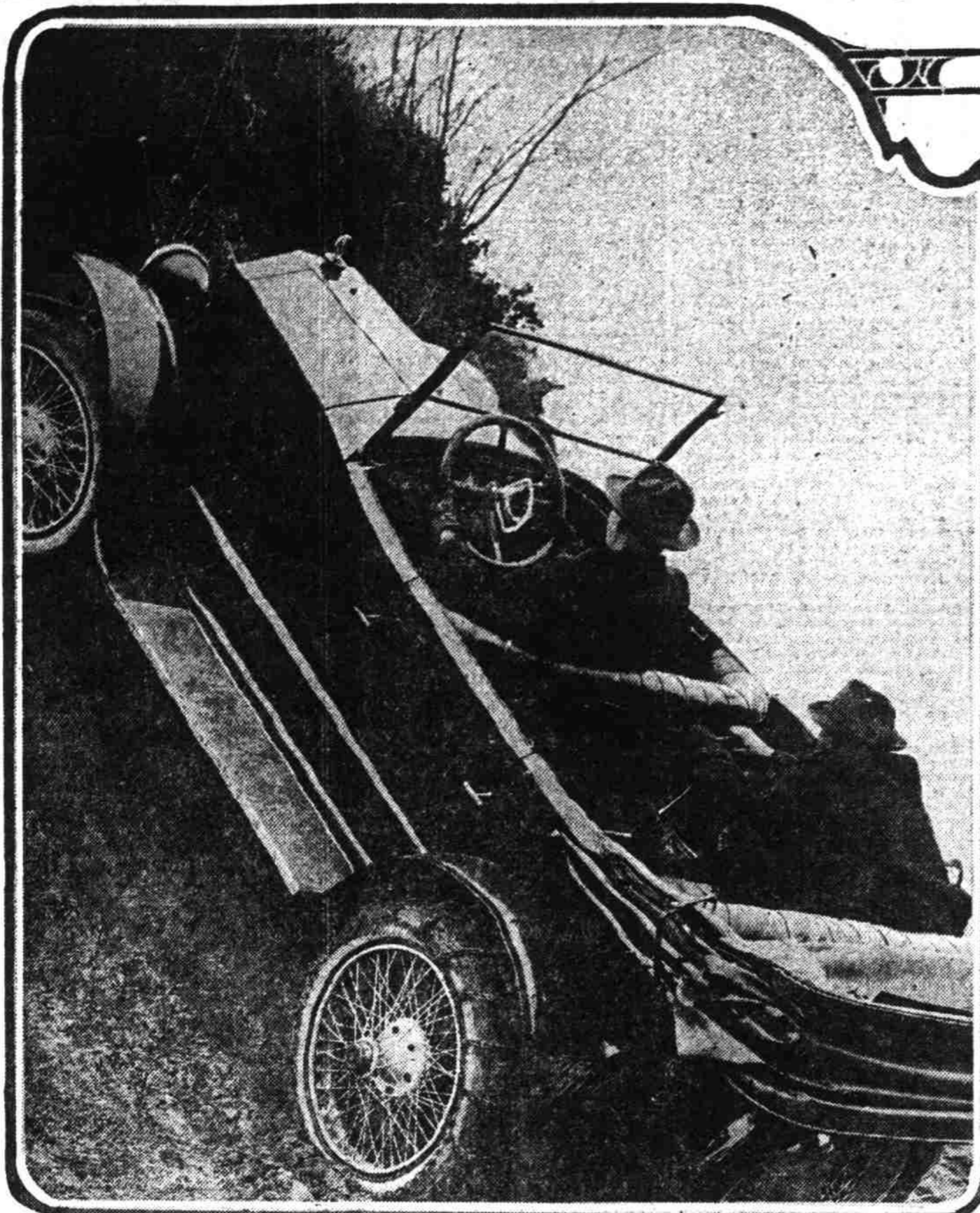
Steinmetz Perfects New Electric Auto

Dr. Charles P. Steinmetz, for many years consulting engineer for the General Electric company, announces the commercial perfection of an electric delivery vehicle on which he has been at work for the last 15 years. The new car is remarkable for its light weight and simplicity of design. It requires 20 per cent less storage battery than other cars of the same load-carrying capacity. Dr. Steinmetz has also developed a regenerative system under which his car generates electric current on down grades and recharges the storage batteries, thus materially adding to the mileage of the car.

Bench Light
A very convenient bench light may be made from an old piston by using the piston as a base and the connecting rod as an upright arm. Another arm of brass stock is attached to the end of the connecting rod by means of a wing nut, so that the light may be manipulated in any desired direction.

The United Motors company is now in its new quarters at 351 Burnside street, where the headquarters for the distribution of Elgin and Westcott automobiles will be handled in the future. Jay Moltaner is the manager of the company and came in for most of the grief usually attendant on moving day.

MACHINE TAKES FLYER AT WESTOYER



Over the Top—A Dixie Flyer takes a flyer at the famous crest on Westover, and nearly stands the passenger in the rear seat on his car.

AUTOPERFORMANCE MOVIES TO REMAIN

Films Showing Performances of Maxwell, Chalmers, Essex Cars to Be Shown One More Week.

C. L. Boss, president of the C. L. Boss Automobile company, announce that owing to the great interest displayed in the series of moving pictures depicting the performances of Maxwell, Chalmers, and Essex cars, the films that have been reeled off at the salesroom of the company during the past week will be kept here for another period of the same length, arrangements having been completed for holding over the thrillers.

Crowds have been filling the salesrooms of the company every night for the past six days, eager to see something out of the ordinary; thrilling automobile stunts, in fact, such as are seldom seen in the real movies themselves. The young women who risk their lives to show a merchant just how well they can drive and win some of that mere man's hard-earned shekels for performing the feat, have become favorites in the eyes of the local fans, many of whom have had occasion to believe that women will never make very daring, and at the same time careful, drivers. The films have dispelled all doubts and instilled a new respect for the skittered motorists.

The plan of admission for the coming week will be the same followed heretofore, no charges being made to view the films and reserved seats being in the hands of the salesmen of the company. Each night at 8 o'clock the machine will start clicking off the spirited skid-dings, slippings, and siddings of Dorothy the Daring Driver and Mary the Marvellous Mechanic for the beguilement and education, not to mention exhilaration, of the members of the local fraternity.

Autos Made in U. S. Prominent in Chili

The department of commerce has issued a report indicating a striking increase in the American motor cars in use in Chile. In 1913 the report states that America's share of the automobile import business into that country amounted to a little more than 8 per cent, being exceeded by Germany, France, Great Britain and Italy. In 1917 America's share of the business was 95 per cent. Where only 78 American passenger cars were imported into Chile during 1913 the imports during 1918 were 3239.

First Auto Made Is Located in France

What is said to be the first automobile in the world was discovered by the officers of the A. E. F. near Le Mans, France, in the magnificent stables of the estate of the Marquis de Broc, says Leslie's Magazine. The authentic record of this self-propelled road car is that it was built (at enormous expense) in 1785. It was used on long road trips and had a speed of about 28 miles an hour, but the marquis stopped using it,

MOTORISTS SHOULD UNDERSTAND AUTOS

Instruction Book Given at Time Car Is Purchased of Valuable Aid to Owners.

Instruction books are really a part of the sale of the car that they go with, because the instruction book, if read and followed, will greatly increase the appreciation of the owner of the car and, from an otherwise indifferent owner, make of him a booster.

It does not follow that everyone who buys an automobile is personally going to keep his car in running shape. Especially in this time among the high-priced cars. But among cars of medium-price, the owner will take it upon himself to attend to the small adjustments necessary and he will take pride in understanding the mechanical features of his car.

That is where the instruction book plays an important part, says Waring Sherwood, advertising manager of the Hriscoo Motor Corporation, Jackson, Mich.

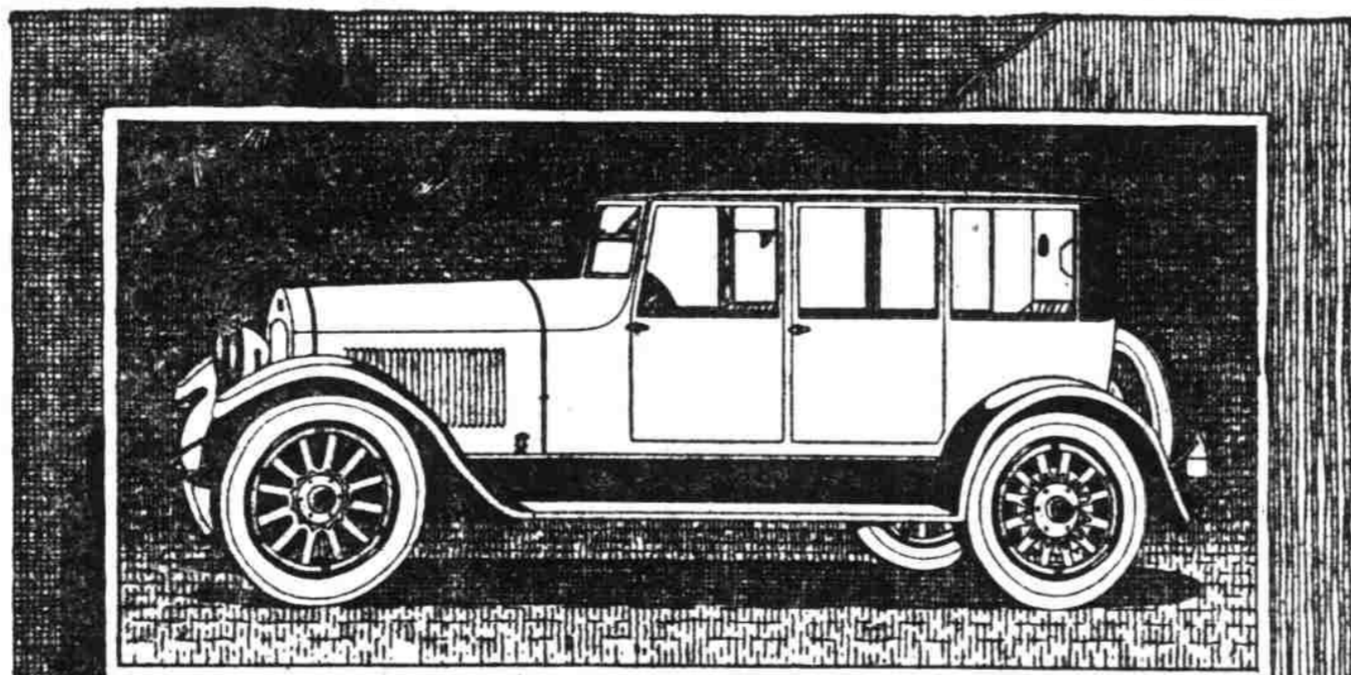
Take oiling, for instance. Once a month the average car owner takes his car to the garage man for a thorough oiling. He would rather trust this matter to a competent mechanic than undertake the unpleasant task himself. But there are bearings in his car which need attention every 250 miles running. By reference to his instruction book these are easily located, and these

rease cups are, in most cases, readily accessible. The oiling chart will show also the cups that need a twist or two every 500 miles, and so on.

If the oiling instructions alone were followed the instruction book would well pay for itself in saving the owner repair bills caused from dry bearings. That is, in effect, the importance of the instruction book to the automobile manufacturer and dealer. If Mr. Brown finds by reading his instruction book that the fan bearing should have grease every 500 miles, and simple though it appears, the bearing will run hot if the matter is neglected and serious damage

will result. And Mr. Brown in ignorance will blame it on to the car rather than his own neglect.

Batteries and ignition also require constant attention and the complete instruction books treat on these items so that the novice can understand. Then, if he fails to have his battery examined according to instructions and the gravity is too low, he cannot reasonably blame anyone but himself. In conclusion, Mr. Sherwood remarked, the automobile is a highly complex piece of machinery requiring care and thoughtful attention from its owner.



Cole Aero-EIGHT

BALANCED TO ZERO

What enables the Aero-EIGHT to be so light and yet possess such strength, endurance and stamina?

Aerotype engineering has solved the problem of obtaining strength without relying on bulky weight. The tenuous frame work of the aeroplane is able to support almost unbelievable burdens and to withstand the rigors of the most violent strains. Absolute co-ordination of all supporting members is required so that each will share in maintaining the load applied at any point. The entire mechanism is balanced to zero.

These principles of perfect balance are applied in the design and construction of the Aero-EIGHT and vest its mere 3,600 pounds with strapping vigor.

NORTHWEST AUTO CO.
Alder at 18th St.

COLE MOTOR CAR COMPANY, INDIANAPOLIS, U.S.A.

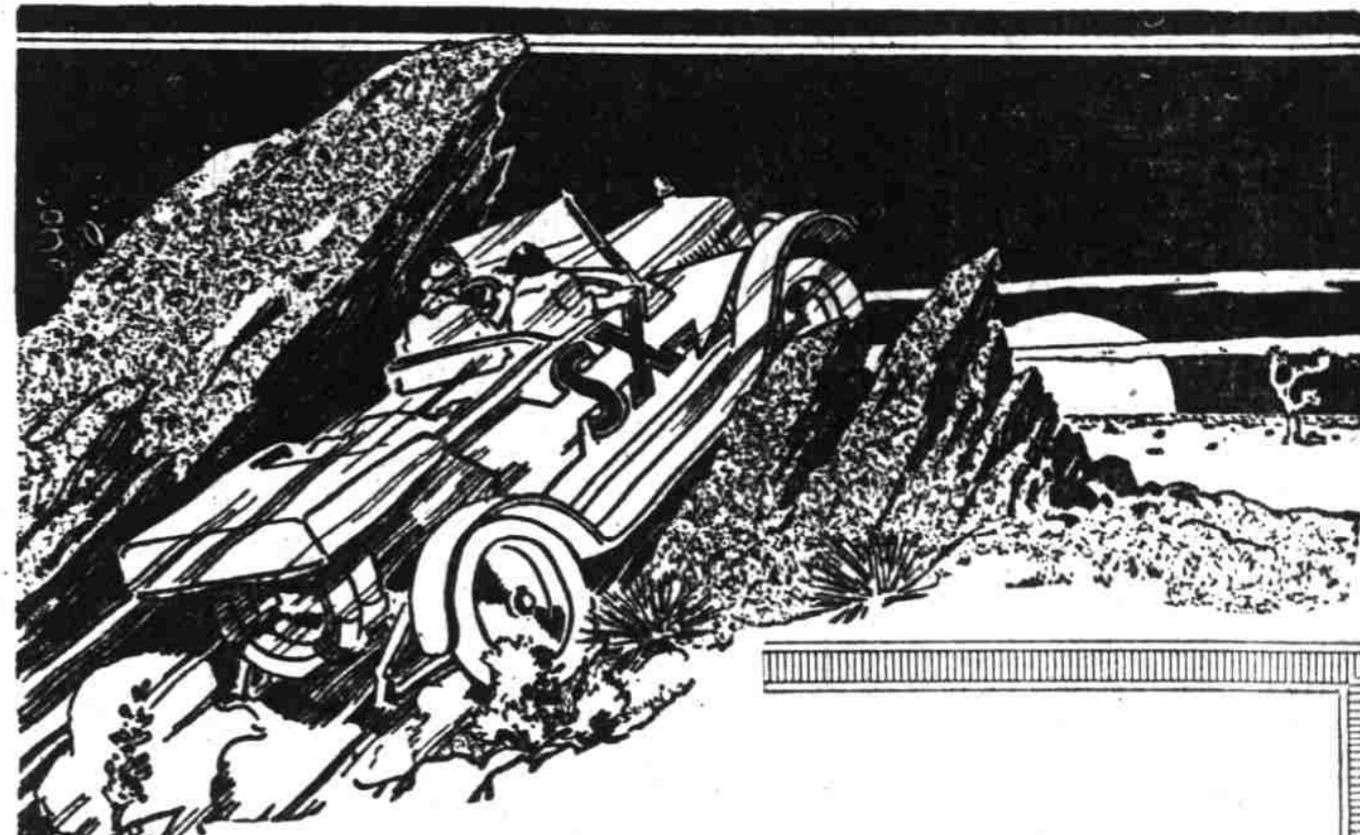
THERE'S A TOUCH OF TOMORROW IN ALL COLE DOES TODAY

as it frightened the neighbor's horses! The car was discovered by officers who were invited to the castle by the marquis. It somewhat resembles a stage-coach in design—having a powerful engine in the front and a chimney in the rear. It was propelled by steam, much as our steam rollers are today. The small wire railing at the top was intended

to hold baggage, while traveling; and it is evident that the car was fitted up with every convenience which could be contrived at the time. The car is now stored in the marquis' garage.

A boat trip down the Columbia on his new yacht Wisdom was provided by F. W. Vogler, president of the North-

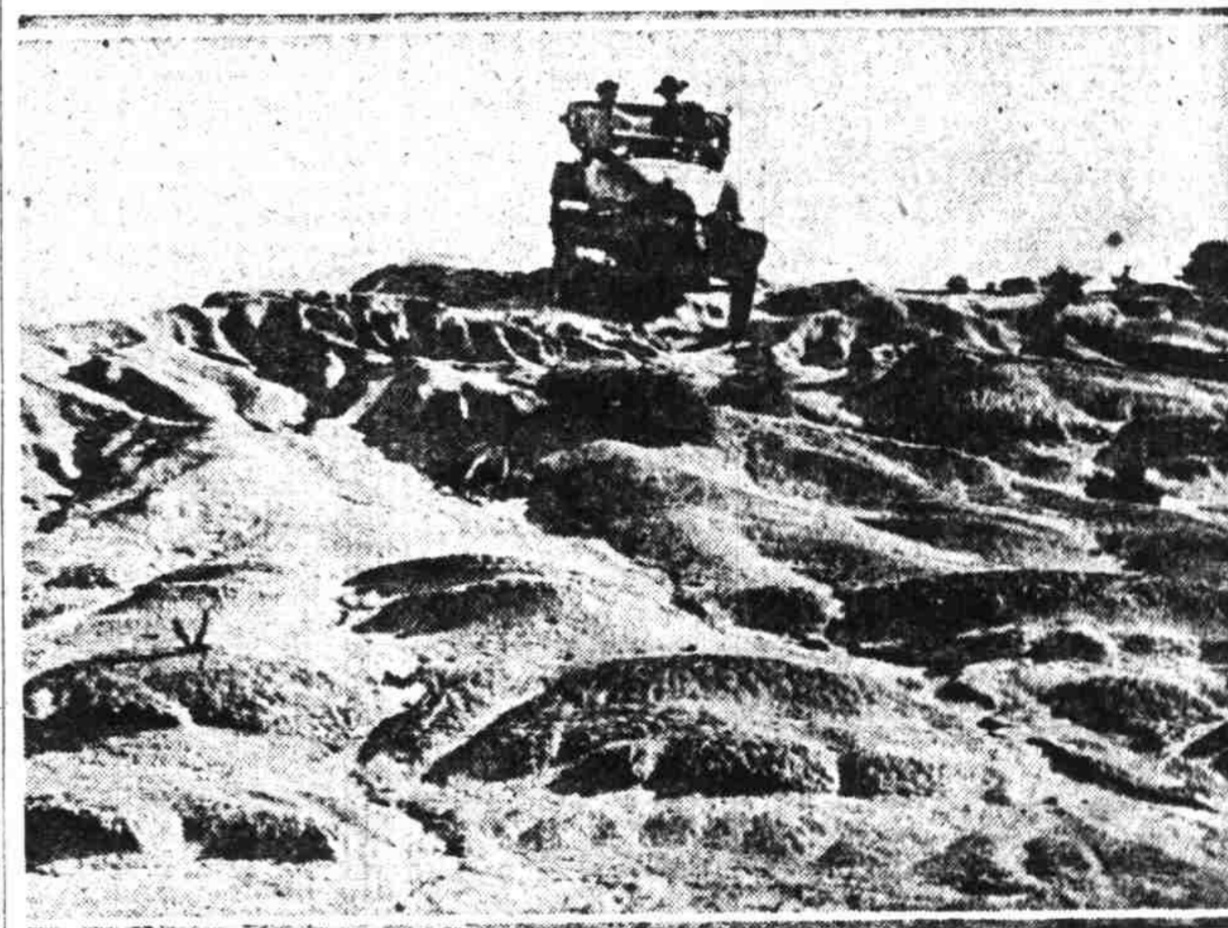
west Auto company, to the Marmon factory representatives who conducted the motor demonstration here. The party included Bert Dingley, manager of the maintenance department of Nordskye & Marmon company; A. M. Colville, western sales representative; John Larkin and M. M. Madson, mechanics.



More People Every Evening

have accepted our public invitation to see the thrilling drive of two young girls on the "Trail of the Arrow" in the Essex Automobile.

Also the trip of the Maxwell Yank into the Desert—the most thrilling automobile motion picture ever filmed. Free moving picture show.



Come Tomorrow Night

Never before has there been such a daring drive as that to the bottom of the Devil's Punch Bowl. You will never forget it.

The public is invited from 7:30 to 10 p. m. all next week. Come and bring your friends.

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