

ROADS BUILT NOW TO SUIT MOTOR CARS

BY ISRAEL KLEIN Science Editor, NEA Service

Highway engineering has reached the point of building roads to suit automobiles, in addition to traffic.

Not only are they being made wider with enough room left for additional widening with the increase of traffic, but they are being built to make driving easier and more economical.

Thus the higher taxes we pay for our roads will bring us savings in the operation of our motor cars.

This point is brought out by Prof. T. R. Agg of the highway engineering division of Iowa State College at a meeting of the Society of Automotive Engineers.

Prof. Agg points out that highway road surfaces cause much less wear on tires than the low or intermediate types, and that surfaces of the loose angular stone are particularly harmful to tires.

He figures that the most economical road grade is one that will permit the vehicle to ascend in high gear at the most efficient engine speed and to descend without the use of brakes or attaining excessive speed.

Leveling Roads Pays Therefore, the idea is modern highway engineering is to cut down or encircle steep land, rather than build over it. It costs more, but it comes back in the form of revenue from increased travel.

Every foot of distance saved, in the construction of a heavy traffic road, justifies the expenditure of \$60 at least, says Prof. Agg, so that heavy grading or other expenses are permissible where the traffic the road will bear repays it.

When it comes to traffic in large cities, the movement now is toward diverting through tourists rather than directing them straight through town. Whatever business or property the city might get by the old method is canceled by the overwhelming congestion ensuing from additional tourist traffic.

Los Angeles Plan One of the first cities to contemplate this new system is Los Angeles. This city is planning the construction of what is termed a "distributor boulevard" encircling the metropolitan district, permitting through traffic to avoid the congested streets and providing at the same time more adequate entrance to the business area from all directions.

The circular highway will be about 90 miles long and will cost about \$5,000,000. But the city believes the project well worth the cost.

Judged by every standard of performance, the brakes on the new Dodge Brothers six cylinder four-door sedan more than measure up to the best practice of the day, according to J. O. Newland, local Dodge Brothers dealer.

"Brakes are one of the most important features of any car," Mr. Newland says, "and Dodge Brothers, Inc., recognized this fact in building the new six cylinder cars. The first six cylinder car introduced, the four-door sedan, is equipped with the latest type of Lockheed hydraulic internal expanding brakes which have been especially adapted to it. They are so powerful that they stop the car quickly and smoothly, no matter what the driving speed. They work so easily that the lightest touch of a woman's foot is sufficient.

"Next to their ability to stop the car is the infrequency with which they require adjustment. An automatic supply tank is directly incorporated into the unit containing the master cylinder and the system is automatically kept full of liquid at all times. This construction makes it unnecessary for the user to pay any attention to the amount of oil in the brake system except when the tank may need replenishment, which is about once a season.

"The hand brake lever mechanically operates the rear wheel brake shoes so that a positive mechanical wheel locking brake is provided for use when the car is parked.

"The brake system throughout is very rugged and highly simplified. It is expected that once properly set up the system should almost never require further attention."

J. O. NEWLAND & SON Roseburg, Oregon

A USED CAR IS ONLY AS DEPENDABLE AS THE DEALER WHO SELLS IT

GOOD ROADS THROUGH THE BLACK HILLS

Section Where Coolidge Is On Vacation Has Many Attractions for Auto Tourists

(By NEA Service.)

RAPID CITY, S. D., June 22.—Nature has set up one of its most magnificent collections of mountains and valleys, of canyons and gorges in the Black Hills country of South Dakota, where President Coolidge has decided to establish his summer White House.

Tourists and vacationists have been coming to this area year after year, filled with so many attractions that one visit isn't enough. This year an even greater caravan of tourists is expected than ever before, led by the president himself.

Rapid City is the gateway to this wonderful region. This is reached most directly by the Custer Battlefield highway, or U. S. highway No. 16.

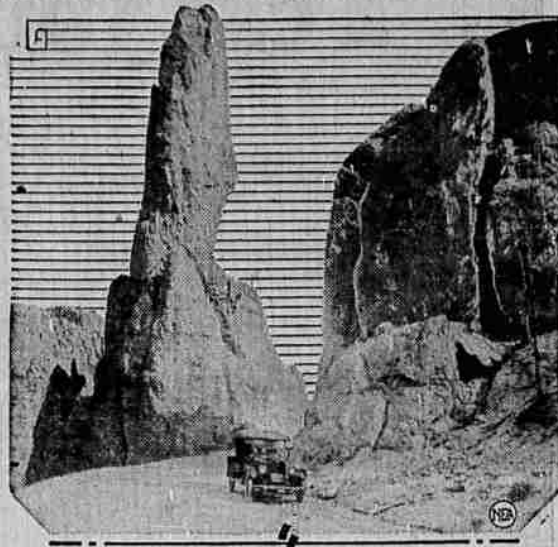
There are several other openings into the Black Hills district. The Victory highway, the Lincoln highway, the Yellowstone Trail, and any of the other northern cross-country routes take the motorist across to U. S. highway No. 85, going north and south through Denver and Cheyenne and into the heart of the Black Hills.

Good Roads Throughout

In the vacation area itself, there are many improved roads that take tourists through pine-laden forests, along deep canyons or sparkling streams, past picturesque lakes and awesome caves.

Here the wild deer and buffalo still roam. Fishing is plentiful and entrancing. Hiking is given its full test over the precipitous trails laid down by the Dakota Indians.

Custer State Park is in this region, the largest state park in America. It covers 100,000 acres, replete with thrills for the stranger.



Towering spires like this greet the tourist everywhere in his drives through the Black Hills. This is in Custer State Park.

Here also are "The Needles" or "Cathedral Spires," which jut up into the sky like the towers of Westminster. Then there is Sylvan lake, quiet and restful, located in a big dip, more than a mile above sea level, while Harney Peak stands 7254 feet high as a great guard to all this rugged area.

There is a game preserve comprising several thousand acres, where roam buffalo, elk, deer, antelope, mountain sheep and goats.

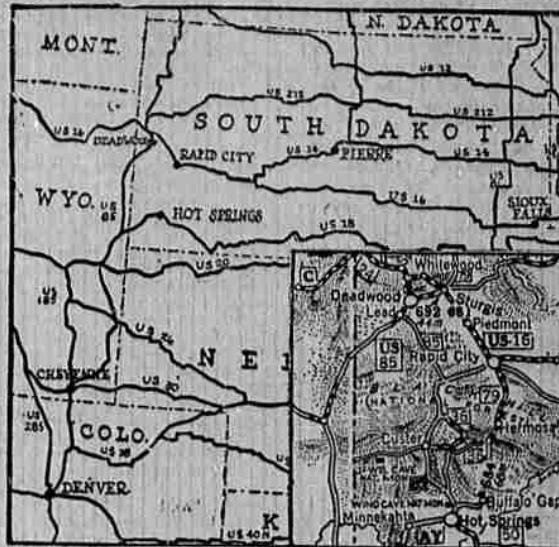
Free For Campers The completed highways in the Black Hills are marvels of engineering skill and models for mountain roads. Camping privileges are free to tourists near the State Lodge, where the president is staying, and at Sylvan Lake. Throughout the park, there are convenient, inviting spots for camping.

Just outside Custer Park is Wind Cave. This cave comprises more than 200 miles of explored passages and about 3000 rooms. A trip of several hours takes the



As a diversion from mountainous roads, we get this through a forest of pine and spruce.

traveler through a succession of new beauties and attractions. At Lead, in the northern part of the Black Hills, is the Homestake mine, the largest gold mine in the United States. Since its discovery in 1876, it has produced \$206,000,000 in gold. Enough ore is blocked out to furnish the rails with 4350 tons a day for nine more years. During tourist season, guides take travelers over the grounds.



This map shows the main highway leading to the Black Hills of South Dakota, while inset is an enlarged map of the area itself.

As a result of this precious lode, and others in the district, this has been called the "richest hundred mile-square" in America. Where President Stays The game lodge, where President Coolidge is staying, is reached from Rapid City by a good road south to Heron and then south to Custer. Sylvan Lake is only a short distance north of this, not far from the Needles and guarded by Harney Peak and Mt. Rushmore to the northeast.

For a straight cut through the greater part of the Black Hills the best route is northward from Hot Springs to Belle Fourche. Hot Springs may be reached by U. S. highway No. 18, which runs across the southern part of South Dakota. From here, the route winds in and out, up and down, past Wind Cave, the Blue Bell Lodge and the Game Lodge, up through the Needles and Sylvan Lake and on along winding mountain sides to Deadwood, not far from Lead. Here the road turns northwest to Spearfish and meets U. S. highway No. 85 going north to Belle Fourche.

WHIPPET SIX IS IN GREAT DEMAND

Although the Whippet Six met with wide approval at the time of its initial appearance early in January of this year and early season sales showed an unusual acceptance for a new product, the continuous growing sale of this car has been such that today it ranks with leaders in the light six price field. This is pointed out by Willys-Overland officials as a mark of tribute to the Whippet Six whose performance is setting new standards in its classification.

Numerous factors have entered into the success of this model, it is said, among them being its generally smart lines of construction; four-wheel brake equipment; speed and power of engine; stability; roominess and smooth riding qualities.

Many Willys-Overland dealers declare that the unusual success of the Whippet four-cylinder car paved the way for a similar type car in the light field and that when the new Whippet Six was introduced with its performance worthy of a higher priced car, its success in the automobile market was assured.

Another factor which has played an important part in the success of the Whippet Six is its price leadership in the light six group. This line of Whippet cars is cited by company officials as the lowest priced light six with four-wheel brake equipment.

With the demand of the public for cars equipped with four-wheel brakes growing daily, the Whippet Six finds itself in that group which has a notably wide acceptance with buyers. This trend was anticipated by Willys-Overland engineers and hence the adoption of four-wheel brakes for all products of the company.

Fish at Idlewild Park.

ROUND TRIP DEMONSTRATION RUN



Completing an unprecedented Franco to New York and return business man, has established a new Company officials upon his arrival.

round trip trans-continental safety demonstration run from San Francisco to Los Angeles in less than seven days, L. B. Miller, California business man, has established a new record. Above photo shows him being greeted by Western Auto Supply Company officials upon his arrival.

building the new six cylinder cars. The first six cylinder car introduced, the four-door sedan, is equipped with the latest type of Lockheed hydraulic internal expanding brakes which have been especially adapted to it. They are so powerful that they stop the car quickly and smoothly, no matter what the driving speed. They work so easily that the lightest touch of a woman's foot is sufficient.

RAILROADS PROFIT

Rather than cutting the business of railroads, automobiles have expanded it. For instance, last year saw 3,280,000 carloads of automobiles and auto equipment shipped by rail.

ENGINE VOLUME TAX

Now a tax is designed on the basis of engine volume, rather than horsepower. It is proposed by German auto manufacturers. It would be more equitable, they say, and yet the income from it would not be decreased.

VETERANS' AUXILIARY OF OREGON NAMES OFFICERS

(Associated Press Leased Wire.)

SALEM, Ore., June 22.—Mrs. Louise M. King of Salem was re-elected president of the Sons of Veterans Auxiliary at the final session of that organization during the Grand Army encampment here this week.

Other officers elected were Belle Crawford, Portland, vice-president; Mrs. Helen Olin, Portland; and Mrs. Norma Terwilliger, Salem; council members; Gertrude Remington, Salem, treasurer; Marion L. McKay, Portland, patriotic instructor; Helen LaMar, Portland, chaplain; Alta Hohenschalt, Oregon City, inspector; Alva Tichenor, Portland, instituting officer, and Alma Henderson, Chemawa, press correspondent.

The first actual session of the G. A. R. opened this afternoon with credentials and a short business discussion.

CHRYSLER "50" ALONE

Gives Such Performance—Beauty—Comfort

\$750 to \$830 f. o. b. Detroit

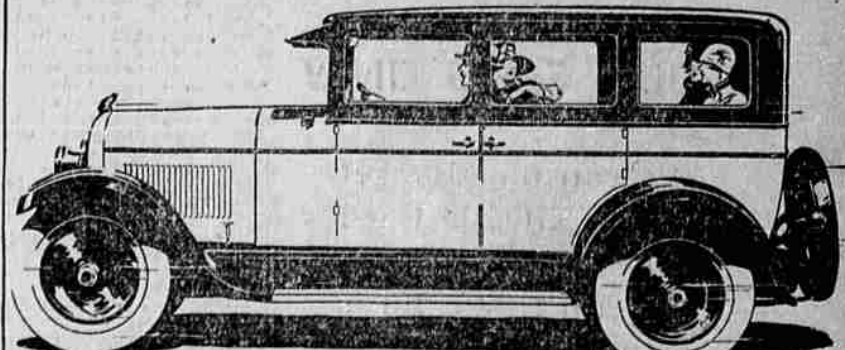
Chrysler "50" superiorities in appearance are apparent at a glance—truly full size, mohair plush upholstery, smartness of line, beauty of color and trimness of appointment which make you proud to own and drive it.

Chrysler "50" superiorities in performance are easily recognizable in a real trial over any route you select, yourself at the wheel—50 and more smooth miles an hour, 5 to 25 miles in 8 seconds, 25 miles to the gallon, riding and handling ease beyond all previous experience in a car of this price, combined with the lasting dependability born of the engineering genius and manufacturing precision embodied in Chrysler Standardized Quality.

We are eager to have you see the Chrysler "50", ride in it and drive it, fully confident that its outstanding superiorities over any and all cars of its price will inevitably sway your decision in its favor.

Coupe \$750; Coach \$780; Roadster (with rumble seat) \$795; Sedan \$830; f. o. b. Detroit, subject to current Federal excise tax. Chrysler dealers are in a position to extend the convenience of time payments. Ask about Chrysler's attractive plan. All Chrysler cars have the additional protection against theft of the Fedco System of numbering.

Chrysler "50" Features 50 miles and more an hour; 5 to 25 miles in 8 seconds; 25 miles to the gallon; Full-sized, with ample seating capacity for adult passengers; Mohair plush upholstery.



H. L. CONNELLY MOTOR CO. 527 N. Jackson St. Roseburg, Oregon Phone 350

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