MONEY USED TO BUILD ROADS HAS TAKEN BIG JUMP IN 15 YEARS

More Spent Under State Supervision Alone in 1915 Than Total in 1904.

BETTER HIGHWAYS BUILT

Development Is Attributed Largely to Immense Growth in Number of Motor Cars.

The total length of public roads in the United States outside the limits of incorporated towns and cities was about 2,452,000 miles January 1, 1916. Of this about 277,000 miles, or 11.3 per cent were improved with some form of surfacing. The mileage of surfaced roads has been increasing at the rate of about 16,000 miles a year and in 1915 approximately one half of this increase was made under the supervision of state highway department, according to Motor Age. In addition these departments supervised the maintenance of nearly 52,000 miles of main and trunk line roads.

The increase in expenditures for road and bridge work in the United States has been from approximately $80,000,000 a year in 1904 to about $252,000,000 in 1915, an increase of more than 250 per cent. The expenditure of state funds during this same period increased from about $2,550,000 to more than $53,000,000. In addition, more than $27,000,000 of local funds was spent under state supervision in 1915, bringing the total road and bridge expenditures managed by the states to $80,514,699. This amount is greater than the total expenditures for roads from all sources in 1904.

Growth Is Great.

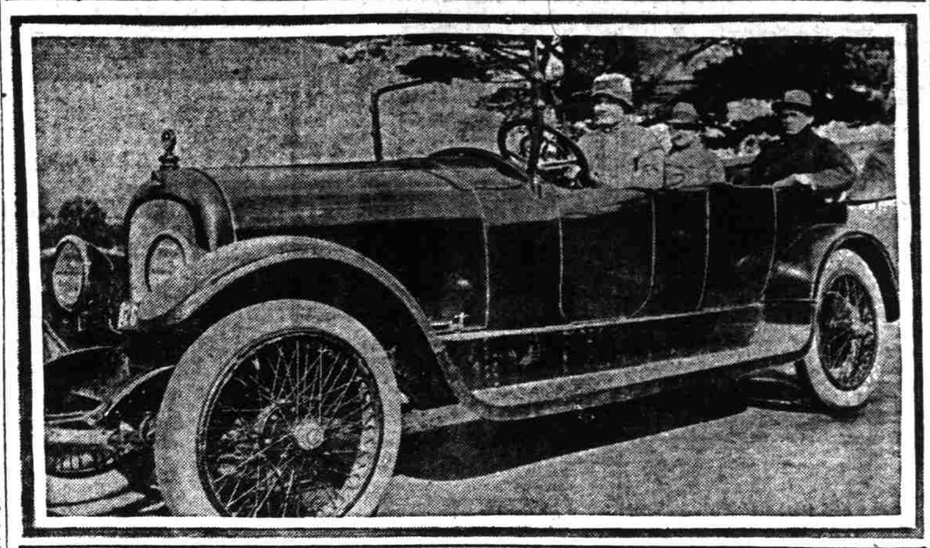
The growth in importance of the state highway departments has been rapid. The first of these agencies was created in 1891 in New Jersey and now some form of highway department exists in every state except Indiana, South Carolina and Texas. Since their inception these departments had expended up to January 1, 1916, and aggregate of $265,250,825 in state funds for road and bridge construction, maintenance and administration. They had constructed over 50,000 miles of roads in cooperation with the states. More than 40,000 miles of these roads were surfaced.

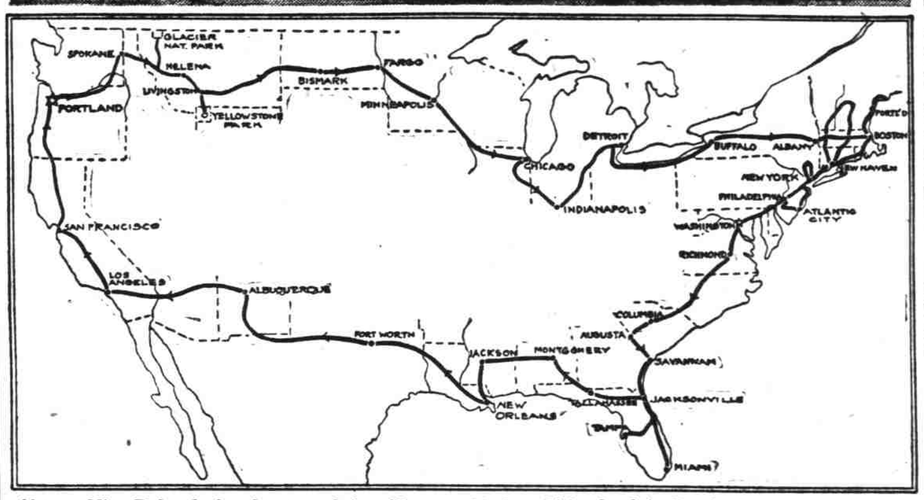
The falling off in the value of road work performed by statute and convict labor was from $20,000,000 in 1904, when the total road expenditures were $80,000,000, to about $15,000,000 in 1915 when the total expenditures had grown to $282,000,000. This was a reduction from 25 per cent of the total to 5½ per cent of the total in 1915.

Motors Bring Better Roads.

An increase in the use of better and more expensive types of roads also is shown by the recently compiled statistics. The development has been due, in large part, to the increase in motor car traffic. It is estimated that there are now approximately 2,500,000 cars in use on the roads of the country, or one car for every mile of road.

PORTLAND GIRL TOURS COUNTRY





Above—Miss Ruby Archambeau, and her Marmon 34, in which she left Portland some months ago. Below—The map of her route. She is now near Los Angeles after having circled the country.

With about 12,000 miles to her credit, Miss Ruby Archambeau, Portland girl, who last August started on a tour of the United States, is passing through the southern part of the country en route to an extensive tour of California.

Miss Archambeau is driving her Marmon 34, the big red car with wire wheels, one of the very first of the special jobs introduced by the Northwest Auto Co. This woman has been at the wheel of the car every mile and much of the distance she traveled alone.

She left here with two friends and baggage and took the Columbia river highway east to Spokane. From there she visited Glacier National park and the Yellowstone, spending a month in that country. From the parks she returned to the north trail, and went through the Dakotas and Minnesota.

She arrived in Chicago in due time and after a short visit went on to New York. There her companions left her, and with friends whom she visited, she made her map of New England look like a city plat. Miles and miles of that section were visited.

Then she started down the coast, going to Washington, D. C., this time alone. There another young woman, formerly of Portland, joined her and the two continued down to Florida, where they spent some time.

In all this distance, the plucky girl driver encountered all kinds of weather and all kinds of roads, but she never lost a minute because of trouble. The car proved an easy one to handle and so when her visit in the south was over, she started westward across the southern states. She will spend some time in and around Los Angeles before starting up the coast.

According to her present plans, she will be in Portland about April 1.

HALF-CENTURY SHOWS REMARKABLE STRIDES IN LAND CONVEYANCE

Introduction of Auto Revolutionizes Methods of Highway Traffic of Centuries.

GASOLINE ENGINE FACTOR

Important Invention Solves Problem That Affects Field of Industry and Human Expediency.

By J. N. Studebaker.

Honorary President of the Studebaker Corporation.

Time works changes in its own peculiar fashion, and perhaps nothing has had so much to do with the advance of civilization as transportation. It has affected economics in almost every branch. The feeding of nations, the growth of business, civilization itself really rest upon the fundamentals of quick and easy transportation — the kind of transportation that has been evolved within the last 50 years. Civilization rode smoothly on animal drawn wheels for several thousand years. The roads the Romans built hum beneath the traffic of the twentieth century. When it seemed that nothing farther could be developed on land, man turned to the sea. First he moved his sails to tack with the wind, then he invented instruments that brought him safe to port, although he sailed far out of sight of land.

Patient Horse Serves Its Purpose.

Wind and wave at sea, and on land the patient horse toiled onward with civilization's burdens, till little over a century ago man put steam to work. With the steamboat and the railway train perfected, the limit apparently had been reached. What was there left to do? Civilization was now traveling rapidly by steam on land and sea. Travel de luxe was demanded—and the gasoline engine was invented to satisfy the demand. The gasoline engine made possible the automobile — the latest word in democracy. The automobile is the great leveller. Practically every one can secure the same great enjoyment that comes from rapid locomotion directed whither one wills, and dependent for stops and starts only upon the whim of the car's occupants. No rushing through dinner to adhere to the iron schedule of a train.

Difficult Trip Across Plains.

I well remember what a difficult time we had of it back in 1853, when, with a party of pioneers, I made the overland trip to California. The flight of time—the passing of 64 years—has not dimmed the importance of that memorable pioneering journey which took us across the continent in quest of gold. I was the youngest man in the party and owned a wagon made by myself and ironed by my brothers, Henry and Clem. I gave this wagon and my services for the privilege of joining the party. There were many hardships endured by our little party, and many tests of courage as the caravan drew its slow length along over the sandy deserts of the far west, over the crests of the mountains and through the defiles and valleys that lay in our course. Finally, after five months and eight days of travel, we reached our destination, poor in purse, worn with the hardships of our trip, but still hopeful of accomplishing the object in view.

"Pike's Peak or Bust."

Why, in the middle of the last century it was no unusual thing to meet a lumbering prairie schooner westward bound with the startling information painted on the canvas cover that the owner was going to reach "Pike's Peak or Bust." This past year there has been another and a far different westward trek. Were there to be a paraphrase of the old words, it would be "The Pacific Coast and Back" on gay pennants decorating thousands of automobiles. Trails to the setting sun have been crowded with the machines of countless vacationists. "The Pacific Coast and Back" is a phrase coined with all the confidence in the world. The science of transportation has been mastered, and today there is no fear at all of "busting." The continuous hardships endured by the prairie schooner trail makers are not suffered by the continental travelers today. Even the desert stretches are not dangerous now, unless the motorist is foolish in the extreme.

The automobile has had as much to do with the advance of modern civilization as has any form of transportation. The automobile has brought the city and country closer together. It has brought comfort and contentment to the farmer, who, before the day of automobiles, was isolated on his distant farm. It has even advanced the cause of education. Today, in the middle west, fine schools are built at central points and automobiles are used to carry children from surrounding districts to school. Yet 25 years ago roads in Indiana were situated everywhere without regard to lines. Now, due to the advent of the automobile, the farmer is one of the nation's most enthusiastic of good roads boosters. The automobile has mitigated the horrors of war. Think how impossible it would be to feed the millions of fighting men in Europe if it were not for motor trucks and lorries that operate on the edge of the far flung battle lines.

Land Transportation Revolutionized.

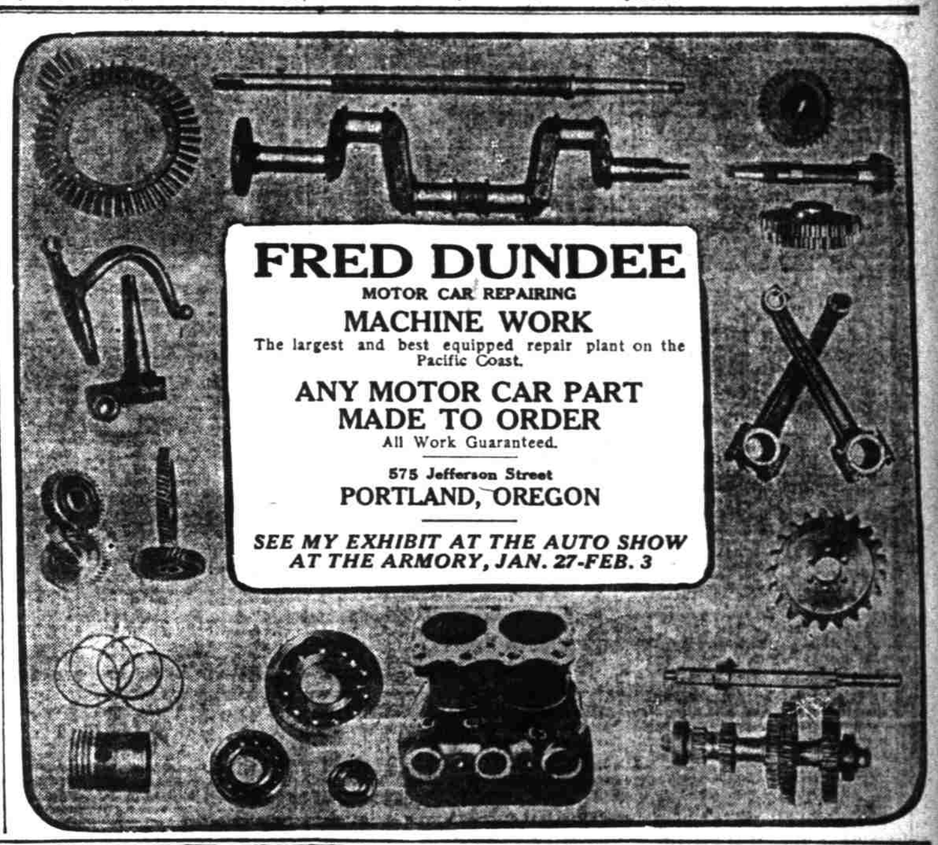
And all this tremendous impetus toward transportation and consequent civilization has been the outcome of less than two decades. Twenty years ago the automobile industry in this country amounted to nothing. Today the automobile industry represents a business investment of over $500,000,000 a year. And even this immense sum does not tell the whole story, because it does not cover the millions used in the manufacture of automobile parts and accessories. I am naturally proud of the part Studebaker has played in the evolution of transportation and the development of the automobile industry.

Judge Is Cited to Go Before Himself

City Marshal Haughton, of the Salem, Mass., police department, has evolved a novel method of getting after violators of traffic regulations who let their cars stay too long on streets. He has furnished his policemen with stickers, and when they find a car breaking the law and the owner is not in it a sticker is placed on the windshield requesting the person to appear at police headquarters and explain why he did it. One of the first owners who found a sticker on his car was Judge Sears, who passes on motor cases. His car was outside the court house unattended when Marshal Haughton came along. The eagle eye of the chief saw it and he placed a sticker on it before he realized that the judge would be summoned to appear in court before himself, if that were possible.

First Government Aid.

California will have the distinction of being the first state in which actual work will be started in road building under the federal aid act. Plans for construction in co-operation with the national government on a 50 per cent basis have gone forward to the secretary of agriculture for approval.



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