

YEAR SEES VAST AMOUNT OF WORK ON LINCOLN ROAD

Great Highway Is Rapidly Assuming Form as the Backbone of a National System.

All America is interested in the Lincoln Highway. This great road, laid out and proclaimed as a memorial to Lincoln by the Lincoln Highway association in 1913 as the first great highway of national importance, has come to be looked upon as America's "object lesson road." It has come to be, through the commanding importance of its strategic location, the main line or backbone of a gradually developing national system of highways.

Every American interested in the great constructive accomplishments of the nation will be interested to learn that the year 1919, following so closely upon the heels of war, witnessed the greatest constructive development on the Lincoln Highway ever accomplished in a single year.

As the United States office of public roads has announced, every organization in the country having any part in highway improvement can feel a large measure of satisfaction in the fact that road building was the one big public activity which got under way promptly following the war, which opened a large field for unemployed labor and which offered a market for construction material.

War Booms Road Building.
The war gave a tremendous impetus to highway construction, and it has had a highly beneficial effect upon public opinion, with the result that there was almost a universal demand for proper permanent highway improvement in every part of the country as soon as the war ended.

Moreover, during 1917 highway construction in every part of the country was greatly curtailed and came almost to a stop in 1918, with a result that road conditions had become very bad even on the most important main highways in every section of the country, while highway funds had continued to pile up in the treasuries of the various counties and states and were available for the undertaking of great construction projects early in 1919.

In many states large bond issues for highway construction had been passed during the war with the provision that the bonds should be sold and the work started after the war.

Greater Plans for 1920.
As a result of all conditions 1919 will doubtless be looked upon as the real start of what will later probably be considered as the era of American highway building. While it cannot be said that 1919 marked the climax of Lincoln Highway activity, in view of the fact that plans for 1920 indicate even greater accomplishments, nevertheless the year's developments along the Lincoln way are an excellent barometer of the highway situation in this country generally.

The actual improvement accomplished on the Lincoln Highway in 1919 bids fair to equal the combined work of the previous five years, during which the Lincoln Highway association was actively promoting the construction of the route.

The Lincoln Highway association's headquarters has completed a careful compilation of expenditures upon its improvement during the last year by the various states and counties through which the highway passes. In the majority of states federal aid has largely augmented the state and county funds, the route having been established as a federal aid road to be improved directly under the inspection of the government for more than three-quarters of its total distance between New York and San Francisco.

\$22,362,472 in Six Years.
Yearly expenditures on the Lincoln Highway have been as follows:

1914	1,200,000.00
1915	4,199,185.00
1916	2,800,378.96
1917	2,386,317.77
1918	2,386,500.31
1919	2,386,500.31
Total expenditures in six years	\$22,362,472.04

Something less than 1,000 miles of Lincoln highway still remains to be improved properly to an adequate standard, but for long sections the improvement has already been financed, or is about to be financed, and the construction is only a question of the time needed to accomplish the work. The Lincoln highway has become the best known road in the world and is becoming yearly a more and more adequate memorial to the great man whose name it bears.

Emulation of the association's tactics and principles has been undertaken by other organizations in every part of the country. Thousands of miles of other main line interstate routes have been established and are being vigorously promoted by highway organizations modeled after the Lincoln Highway association. Moreover, all these organizations combined with the other powerful groups such as the United States Chamber of Commerce, the Highway Industries association, the American Society of State Highway Officials, etc., are working to mold public opinion behind a final adequate federal measure now pending before congress which strikes at the root of all American highway difficulties and aims at presenting the nation, not in some other generation but in the immediate future, with an adequate system of federally constructed and federally maintained main line routes to which the state and county systems would connect.

Exhaust Valve Springs Must Be Looked After

If the springs of the exhaust valves become weak from use or heat the pistons will draw burnt gases into the cylinders, past the valves with the incoming gasoline charge, giving an improper mixture. The valve springs should be tested occasionally to see if they are of full strength. The average strength of a valve spring should be 30 pounds. At high engine speed the exhaust valves nearly always permit some leakage.

Thirty-six hundred commercial automobiles were exported to France last year, valued at more than \$15,000,000.

This "Fire Engine Girl" Knows Her Job; She Can Sell Her Apparatus---And Fix It



Out of Overalls, She's Dashing Debutante Of Society.

Seattle, Wash., Feb. 28.—"Tell it to 'em straight and simple; let 'em have the facts without the frills and you'll put your deal across." That, epitomized, is the selling creed of Helen Courtney, 24-year-old girl, who is one of the most successful fire apparatus "salesmen" on the Pacific coast.

It is the selling advice of a young woman who, herself, is "frilly" when it comes to dress. For Miss Courtney knows the latest—the very latest cut of frocks from Paris and New York. When she isn't dressed in her "mechanic's" overalls, crawling beneath a mighty fire engine to adjust its mechanism she is the budding debutante in an evening gown.

Knows Her Goods.
The latest thing Miss Courtney has accomplished is the sale of some \$70,000 worth of fire-fighting machinery to the City of Seattle—sold against the keenest of competition by other manufacturers and requiring not so much salesmanship as a thorough knowledge of her "goods." Two 1,000-gallon combination pumping engines and hose cars, two 800-gallon engines of the same type and an aerial ladder truck, comprised the equipment.

"Once I can get an audience with officials of a municipality I can talk my subject just as any man," Miss Courtney said. "But the hardest thing I have to encounter is the opening whimsical smile of firemen when I approach them for the first time. From then on I am treated as any man would be treated, for if



Helen Courtney the "Fire Engine Girl."

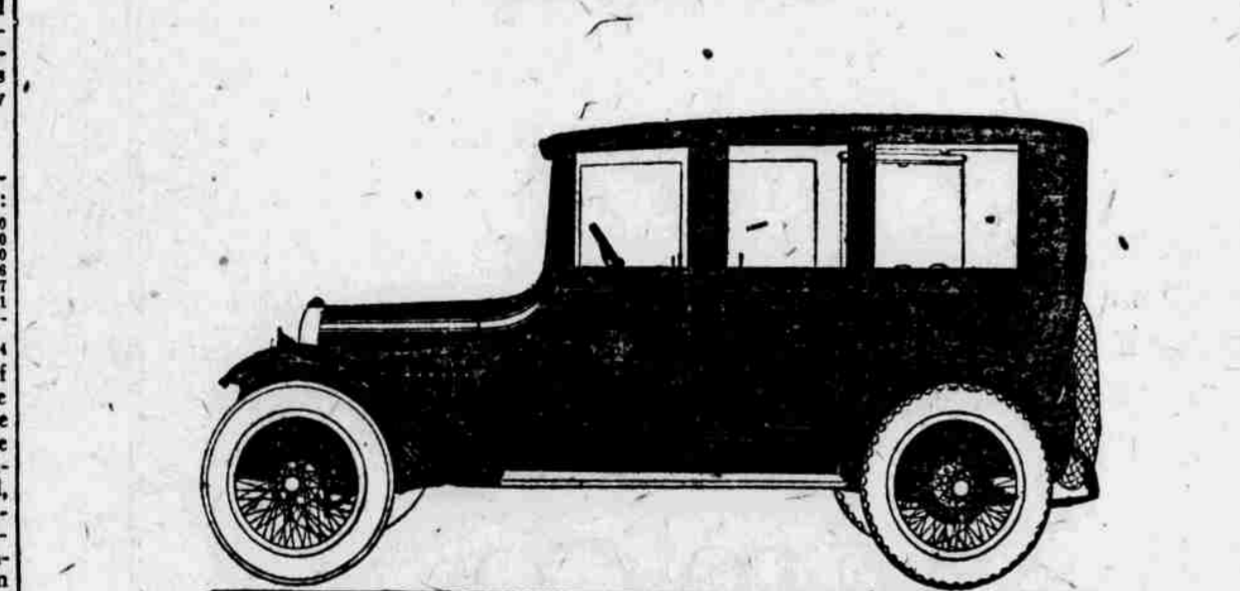
there is a single class in this country that are exacting in compelling demonstrations of claims it is the fire chiefs."

Most Men Prefer Brevity.
Miss Courtney can discuss the technical points of an automobile motor as freely as the manufacturer or engineer who designed it. She can tell all about the crankshaft, the ignition system, the transmission, the differential, the clutches, etc. And she can hold her listener's attention, with this knowledge, she has learned a secret which many would give much to absorb. That is: "Know when you have become boring and close the interview until some other time."

Most men, she says, prefer brevity. "State your facts clearly and concisely. Then excuse yourself and let 'em think it over." Then, again, she says, "If I didn't have absolute confidence that the machine I was selling was the best on the market I wouldn't be able to sell it."

She appeared here before the Board of Public Works, the city purchasing agent and the fire chief and delivered an address of minutes. In that time she took them over the combination pumping and hose car from radiator cap to tail light; from spark plugs to rear tires and along every inch of the hose that went with the apparatus. When she had finished more than one man present admitted "that girl knows her subject."

Miss Courtney has been selling fire fighting machines only since January 1, 1918. Prior to that time she had taken a stenographic position with the company for whom she is now western agent. After the third day of her employment, closing her typist desk, she walked 15 blocks to a night school for automobile mechanics and enrolled. Then she asked her "boss" for the "privilege"



THE NEW OAKLAND SENSIBLE SIX FOUR DOOR SEDAN

OAKLAND SENSIBLE SIX

WHILE the complete provisions that have been made in the new Oakland Sensible Six four-door Sedan for cold weather comfort have a most timely appeal, the car will give utmost satisfaction in the months of fair weather to come. All four door windows, for example, can be lowered by means of regulators, and the exhaust heater is disconnected when days are warm. Excess weight, too, has been scientifically eliminated so that the Sedan has quite the freedom and range of performance common to an open car. During the Automobile Show this handsome, roomy Sedan, distinguished by appointments to be found only in cars of much higher price, is on view, with other Oakland models.

Model 34-C: Touring Car, \$1165; Roadster, \$1165; Four Door Sedan, \$1825; Coupe, \$1825. F.O.B. Pontiac, Mich. Additional for Wire Wheel Equipment, \$85.

Oakland Motor Car Co. Distributors
2200 Farnam St. Tyler 2929 20th and Harney Sts. Douglas 5251

Marsh-Oakland Co. Retail Sales
Douglas 5251

RATIO OF WEIGHT TO HORSEPOWER IS HARD PROBLEM

Maibohm Engine Develops 1 Horsepower to Every 51 Pounds in The Car.

For every 51 pounds resting on the tires of the Maibohm phaeton of working three or four hours a day in the shipping department.

There, she explains, she could better learn the various parts of a fire engine. Each time an order came in for shipment she personally got it from its storeroom, examined it and packed it. And if by chance she didn't know just how it fitted in the main engine she took down her reference book and learned its purpose. Large cities are not buying fire-fighting machinery every day, so between the big orders she packs her grip and goes on the road. Smaller cities of the northwest are beginning to know the "fire-engine girl," and more than one fire chief writes in sometimes to ask her a technical question.

She works hand in hand with fire insurance companies for fire prevention. She will devote much of her time to spreading fire-prevention propaganda and she knows the details of fighting fire.

She has yet to don the fireman's uniform and actually fight a fire. "But, you never can tell," she says. "I may do that, too—for it would be mighty interesting and exciting."

the Maibohm engine develops one horse-power. These figures, along with many others, were recently given by John M. Robbins of the Robbins Motor company, Maibohm distributors here.

"This ratio of weight to horse-power," he points out, "forms one of the biggest problems which automotive engineers must face. They find themselves making an eternal compromise between lightness and strength, speed and roadability, spring suspension and weight balance, reserve power and economy. Some automobile users lean strongly to one side. Just as many lean strongly to the other."

Maibohm, since the first car was rolled out of the factory, has sought to strike a balance between these two extremes. That they have succeeded is amply testified to by the numerous orders coming in from all over the country from men who have been devotees of both types of extreme automobile design.

"Twenty-three hundred and fifty pounds, the weight to which the Maibohm has been trimmed, demonstrates how effective this engineering policy has been carried out. Of this weight the six-cylinder engine accounts for 425 pounds."

"Yet, in spite of this relative lightness the motor develops 46 horse-power. Road and dynamometer tests are being conducted continuously at the Maibohm factory in Sandusky, O., with a view to carrying out still further these engineering principles."

Japs Like Closed Cars, That Guard Women's Hair

Closed passenger automobiles are preferred in Japan, especially for private use, on account of the dust in the streets and also because the Japanese women do not wear hats. They were the first eight-cylinder cars to be incorporated generally in the conventional eight-cylinder cars of the present day.

"They were the first eight-cylinder cars to have removable cylinder heads, now recognized universally and incorporated in practically all improved

ANTICIPATING THE FUTURE BUILT UP COLE CO. BUSINESS

"A Little Touch of Tomorrow In All That Cole Does" Is Truthful Slogan.

Ability to anticipate the trend of the future is declared to be the keynote of the success of the Cole Motor Car company.

For ten years, officials say, it has devoted its energies and resources to the production of advanced motor cars. During that time its contributions to the science of automobile manufacture have been numerous and frequent.

"The original Cole four-cylinder cars established standards for speed and economy far ahead of their time, many of which still live as world's records," says L. H. Brown, of the De Brown Auto Sales company, Nebraska Cole distributor.

Later, in developing the Cole Six, the company created a precedent by dispatching the test models into the Rocky mountains and there submitting them to previously unheard of trials.

"Cole was one of the first two American manufacturers to build an eight-cylinder car and to concentrate upon this one type of chassis exclusively. The first Cole Eight, introduced in 1915, embodied features which are just coming to be incorporated generally in the conventional eight-cylinder cars of the present day.

"They were the first eight-cylinder cars to have removable cylinder heads, now recognized universally and incorporated in practically all improved

V-type engines. They were the first eight-cylinder cars to have counter-balanced crank shafts.

"Another marked stride for the early Cole Eight was the changing of the location of the spark plugs from over the center of the cylinder to the upper section of the block. This enabled the spark to occur where the purest gas collected, on the compression stroke.

"It is Cole's ability to create, which is responsible for the now familiar slogan: 'There's a touch of tomorrow in all Cole does today.'"

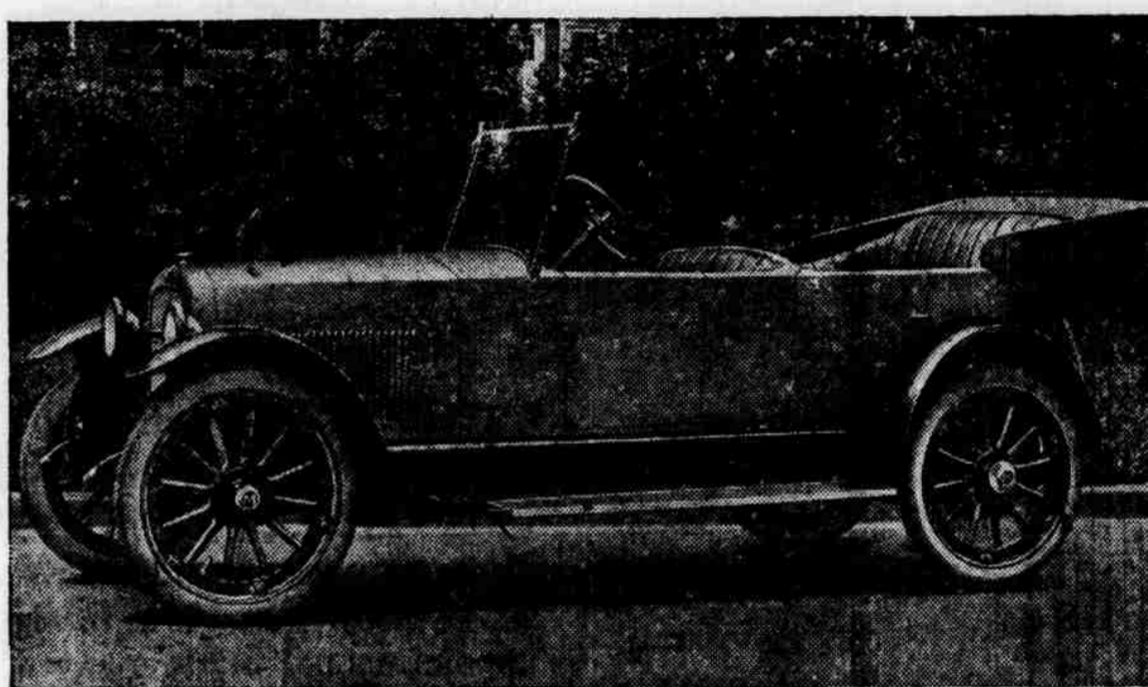
New Buildings for Franklin Co. Will Approximate 34 Acres

Ground has just been broken by the Franklin Automobile company for a new seven-story warehouse and manufacturing building with a floor space aggregating 200,000 square feet, according to advices received from the factory at Syracuse, N. Y., by H. Pelton, Omaha Franklin distributor. The structure will cost \$600,000 and the necessary machinery and equipment will represent an additional investment of \$210,000. It will be ready for occupancy it is expected September 1.

The Franklin company has just completed another seven-story building with a floor space of 150,000 square feet at a cost of \$400,000. A \$100,000 addition to another manufacturing building is being rushed to completion, as is a new heating and power plant costing \$200,000. By the end of 1920 the total floor space will aggregate more than 400 acres.

Motor tractors are successfully supplanting horses in logging operations in Ironwood, Mich.

Maibohm Six



A Rare Dealer Opportunity.

We believe the Maibohm Six presents the best dealer opportunity of any available car on the market at the present time.

The Maibohm fits into the most important niche in the automobile market. It is a medium priced light six, economical in operation, but containing all of the refinements which compel admiration of the most expensive larger cars.

The Maibohm has more speed than is usual and more than ordinary power. It holds the road perfectly, even at excessive speeds.

In appearance it is a smaller model of those huge, costly cars, after which it was patterned. The lines are low and long. The bodies are made and finished in the Maibohm factory, which has been famous for 32 years for the excellence of its coach work.

We believe the Maibohm features which appealed to us will prove interesting to you and to your customers.

As the Maibohm Franchise is much sought after, we would advise prompt action.

Phaeton, \$1,495; Sedan, \$2,395; f. o. b. Detroit.

John M. Robbins Motor Company
2054 Farnam St. Omaha, Neb. Tel. Tyler 218

Maibohm Motors Company

Sandusky, Ohio
Booth 22, Omaha Auto Show.