

ENGINEERS GOVERN FUTURE OF MOTORS

None May Say What Will Be Final Developments.

BIG CHANGES ARE LIKELY

Society of Automotive Engineers Will Dictate Trend of Auto Construction.

BY COCKER F. CLARKSON, General Manager of the Society of Automotive Engineers, New York. President Jackson rode horseback in his presidential inaugural parade. All the other presidents used carriages in their corresponding trips from the capitol to the White House. President-elect Harding smashed tradition; his conveyance was an automobile. This seems like a last echo of the relegation of the horse to the land of the do-no in city highway passenger traffic.

It is hard to appreciate fully the part automotive vehicles have in our national life, not to mention the development that is to come in passenger cars, motor trucks, farm, military and industrial tractors, motor boats, aircraft, semi-portable engines and farm lighting units. It is clear that the form and extent of use of these are in their infancy.

Future Holds Surprises. One's mind can grasp only in a general way what will be the manner and effect of the economical design, production, use and servicing of tens of millions of automobiles. The case is like the sage advice: Pay your debts; look cheerful and be kind. Then, if immortality exists you will participate. The intellect of Justice Verne or an H. G. Wells is not adequate for the visualization of what the automobile will be and do.

The people of this country have been spending for motor cars and their parts perhaps \$2,000,000,000 annually. It is in the automobile industry that is expended for tobacco, and about half as much for candy; \$50,000,000 for chewing gum, \$750,000 for perfume and cosmetics, \$400,000,000 for toilet soaps. These are pertinent data in luxury and utility studies.

The effort to restore that proper economic balance which is essential to national prosperity the automotive engineers will play their full part. The achievements with which they are to be credited are a good indication of this. It is said that most men have a conviction, that some have courage, and that the names of those who have both illuminate the pages of history.

It is thought typifies the forward-looking engineer. He deals with facts and proceeds according to them. He has to solve the problem of the "necessity" of material knowledge of operating conditions in manufacture and of the policies that should be pursued in connection therewith. He stands between capital and labor, and probably no one can be of greater assistance in the solution of industrial relations problems than he.

Engineers Do Original Work. The national organization of the motor engineers, the Society of Automotive Engineers, which is now entering upon its second year of aggressive work on a large scale. It is work that is really done that counts. The man who is entitled to the greatest credit is the man who completes his work.

The Society of Automotive Engineers has done its original construction work that is permanent. The fellowship and loyalty of its members have effected for many years a co-operation that has resulted in great benefits to makers and users of automobiles and other self-propelled machines. It has been stated by an authority that efficiency is a straight view of a strong character. That is the sort of thing that has actuated the Society of Automotive Engineers as an organization.

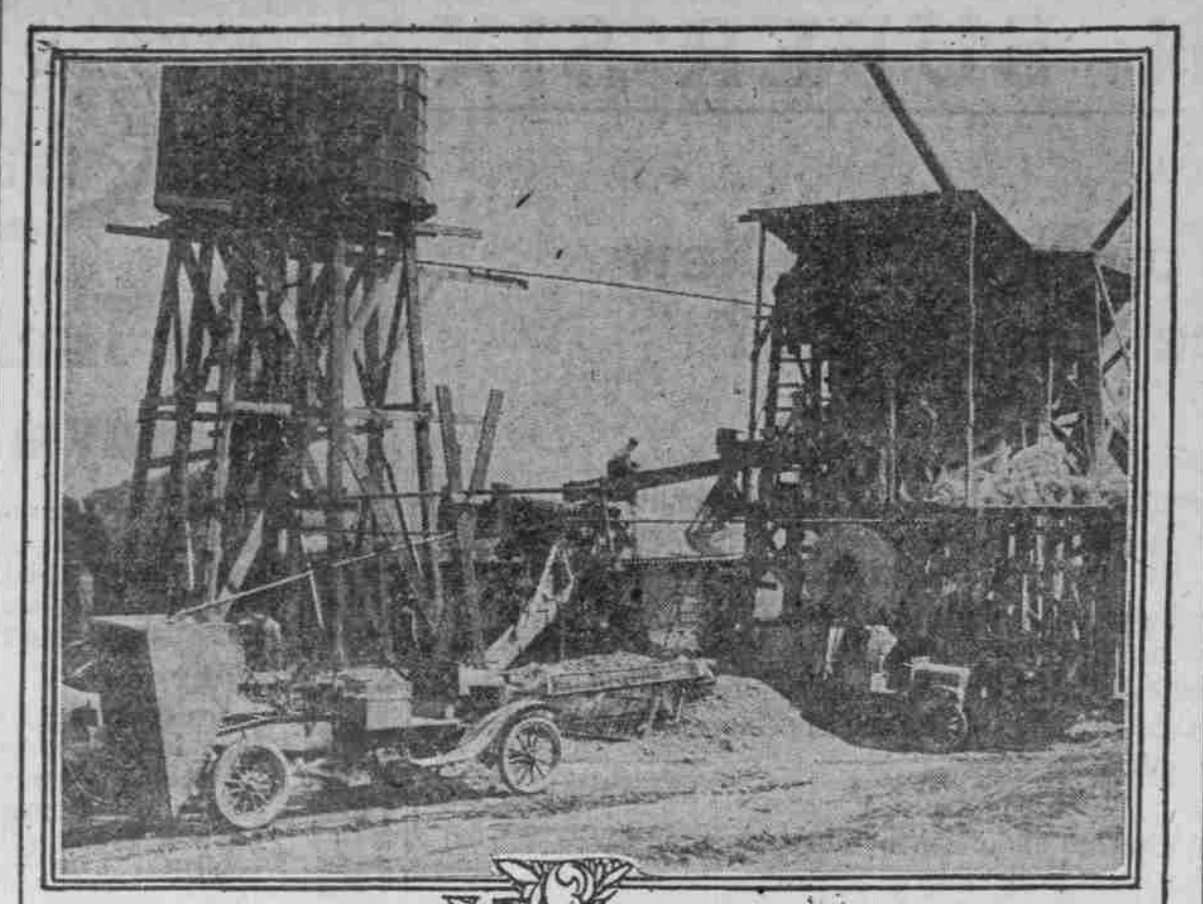
Its reputation is justly second to none in standardization activities. It has sustained consistently and most helpfully for ten years; in its work, and in the furtherance of the arts and sciences connected with automotive engineering it has been essentially a democratic body, giving full scope for the best and most apt to work toward the good of the whole. It has been ever a resourceful organization. It has had, in the words of Dr. Eaton, the spirit of real men working together at a real man's job as friends dedicated to a worthy task.

Membership Reaches Thousands. The society has over 4,000 members resident throughout the world and local organizations that hold frequent meetings in Detroit, Cleveland, Chicago, Indianapolis, Butte, Boston, Washington, Philadelphia, Minneapolis and New York. The members assemble in national sessions several times each year and take a most important part at all the national automotive shows. A staff of 50 persons is maintained in New York. The annual financial turnover is in excess of \$300,000.

The Society of Automotive Engineers has established over 300 separate and distinct standards relating to materials and mounting dimensions involved in the construction of automotive apparatus. It has a large amount of standard matters in process of formulation. The real value of the establishment and observance of standards is just beginning to be realized in a degree commensurate with their usefulness to the many millions of people concerned. The society is co-operating with other organizations interested in the standardization of elements such as ball bearings. Practically all of these standards were promulgated by the Society of Automotive Engineers for use in the automobile field. Now, with this work as a basis, the standard will be developed for use in connection with many kinds of machinery in this country and abroad. The same thing applies to screw threads, nut and bolt, nut and rivet proportions, with relation to which the present standards developed by the government, the A. S. E. and the A. S. M. E. will be much refined and extended.

Aircraft Regulations Pend. One of the important considerations before the engineering and industrial world is the creation and maintenance of regulation for the use of aircraft. The S. A. E. is working on this subject with the army and navy, the postoffice department, the manufacturers' aircraft association, the bureau of standards, the underwriters' laboratories and other bodies. A great deal of attention has of course been given to the so-called automotive fuel problem. The S. A. E. has had very capable committees at work on this for some years and has issued many reports and papers in connection with it.

FORD TRUCKS EQUIPPED WITH LEE TRAILERS USED WITH SUCCESS ON ROAD PAVING JOB.



TRAILERS USED ON ROAD

FORD EQUIPMENT PUT TO GOOD USE IN WASHINGTON.

Concrete for Pavement Mixed at Central Plant and Hauled to the Grade.

An interesting innovation in road construction whereby Ford trucks with Lee trailers were employed to haul concrete from a central mixing plant to the road where the pavement was being laid is described in the Concrete Highway magazine, a copy of which has been received by the Portland branch of the William L. Hutchison company, Ford dealers and agents for Lee trailers and bodies. The work was done on a stretch of the Inland Empire highway in Washington just northeast of Walla Walla, and the laying of the concrete was completed late last fall.

Eugene R. Hoffman, federal aid engineer for the Washington state highway department, is the author of the article appearing in the magazine and describes the part which the Ford trucks and Lee trailers played in the enterprise as follows:

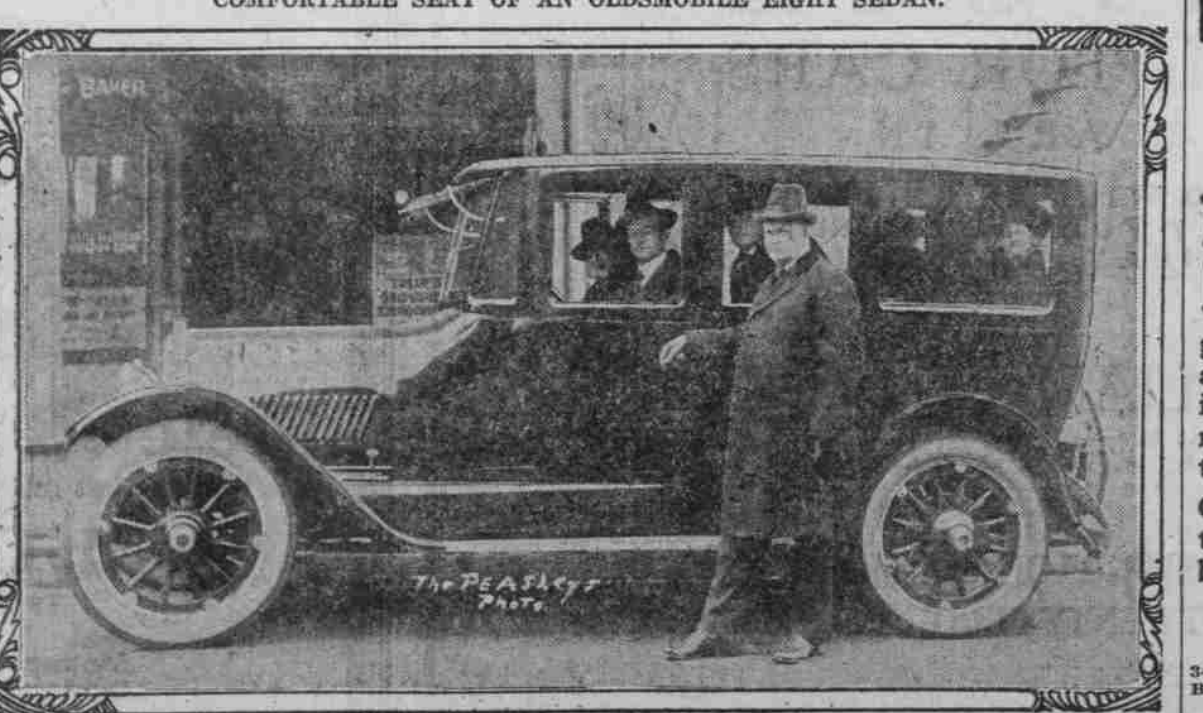
Ford trucks, equipped with Lee dump bodies, were used for hauling the mixed concrete. Trucks backed up under the mixer discharge spout and were filled by a gravity discharge. Each truck hauled 16.25 cubic feet of concrete. The concrete was mixed as dry as finishing conditions would permit; that is, as dry as possible, but not so dry that it could not be finished with hand-operated float and roller. It was found that such a mix did not separate while being transported over the subgrade nor did it adhere to the bottom of the trucks as badly as did a wetter mix. All stalling in the trucks, however, was eliminated by the use of a sheet of canvas fastened at the forward end of the Lee body. When in a dumping position the canvas hung from the top of the body and offered no difficulty in its use. Before receiving a new load, each truck body was washed with water from a hose.

Accurate records were kept of the length of time each batch was on the road. The inspector at the road where the time was again noted. On the longest haul (8300 feet) the average time consumed from the time the truck left the mixer till the concrete was dumped on the subgrade was 12 minutes. The round trip on this haul required about 20 minutes.

The contractor's organization with this equipment was reduced to a minimum. Aggregate was rehandled but once; that is, when they were loaded from the stock pile into the bunkers. The force operating the aggregate-handling plant and mixer was as follows: One foreman, two engineers, one fireman, one mixer man, one man on cement, one man on sand and pebbles, two trucking cement. Eight trucks were used on the maximum haul and some of these were released as the haul shortened.

Dayton Road Completed. WALLA WALLA, Wash., March 12. (Special.)—The macadam road from Dayton to Delaney has been completed, according to G. L. Strickler, contractor, who was here yesterday checking over figures with the state engineer. The road has been improved from Delaney to Pomeroy. The grading to Central ferry is also completed but the road has not been graded.

NATIONAL CHIEFTAIN OF MASONIC GROTTO SEES COLUMBIA RIVER HIGHWAY FROM THE COMFORTABLE SEAT OF AN OLDSMOBILE EIGHT SEDAN.



—Photo by The Pealays. When Dr. Dwight E. Cone, grand monarch of the Mystic Order of Veiled Prophets of the Enchanted Realm, otherwise known as the Grotto, was in Portland recently, he and Mrs. Cone were driven up the Columbia river highway by William L. Hay, monarch of Gul Renzee grotto of Portland. Both Dr. and Mrs. Cone were enchanted with the highway and said so. The car from which they viewed it was an Oldsmobile eight sedan, placed at their disposal by Edward E. and Arnold Cohen of the Oldsmobile company of Oregon. In the picture Dr. Cone is the large man standing outside the car. Mr. Hay, monarch of Gul Renzee grotto, is at wheel. Others in the car are Mrs. Cone, Mrs. Hay, Dr. and Mrs. Minsinger and W. H. Galvan.

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OUTLOOK IS ANALYZED

STATEMENT IS NOT ROUTINE OPTIMISTIC SURVEY.

All Manufacturers Declared to Be Looking Forward to Distinct Revival of Business.

NEW YORK, March 12.—The Motor and Accessory Manufacturers' association has made public a statement by G. W. Yeoman, vice-president and treasurer of the Continental Motors corporation, Detroit, Mich., analyzing the present conditions in the automobile industry and the immediate outlook.

This statement is not a routine optimistic survey based on generalities, but rather a frank summary of the salient facts as seen by the executive official of one of the "barometer" companies of the industry. The analysis was presented in the form of a personal letter from Mr. Yeoman to S. S. Meyers, general counsel of the Motor and Accessory Manufacturers' association, who directs the affairs of the association's credit service committee and is, therefore, in particularly close touch with the day-to-day financial developments and the general industrial trends in the automotive field.

Under-inflation Is Cause of Much Damage, Says Miller Dealer. Gyp tire methods have boomeranged. The passing of the "kame" is the outstanding fact in the reconstruction period. It is a business now. Today car owners realize that to buy standard makes is the first principle of tire economy. Service in the full meaning of the word is coming into its own. Vulcanization is being scientifically taught and found profitable. The new slogan is "get out of the game and into the business."

It is fast becoming popular to take care of tires—to give them a square deal in the mileage demanded of them. The attitude of "what do I care, the tire is guaranteed for blank thousand miles, and if I don't get it the company will have to make it right" is being forgotten in the onward sweep of the conservative movement of the reconstruction.

"Use the valve and spare the tire" is one of the most popular of the new slogans, according to W. J. McCallum, manager of the Northwest Auto company, distributors for Miller tires. It is popularly recognized that fully 75 per cent of the motorists' tire trouble is due to underinflation. Every motorist has a part and every dealer a part in the program to enable this most important accessory to give uniform, long distance, low-cost mileage.

ROAD WORK IS TOMORROW Grading of White Salmon Snow-ditch Stretch Is to Be Started. WHITE SALMON, Wash., March 12. (Special.)—Construction work on the grading of the White Salmon-Snowditch road, will begin Monday.

The contractor, Mr. Leide, has established a camp near the foot of Indian Creek hill, about a mile north of White Salmon, where a new grade averaging 5 to 7 per cent will be laid. Work further up the mountain will be started as soon as road and weather conditions warrant. This road will be a part of the North Bank highway, used when going to Goldendale, Yakima, Spokane and inland points.

for cars being near the saturation point, but, as you well know, if the automobile manufacturers are called upon to build in 1921 only the cars for replacement, it will give them a good business.

"The business of the Continental Motors corporation is a good barometer upon which to base your judgment. At the present time the gasoline engine stocks at the car manufacturers' plants are very low, and we are no doubt receiving the first indications of the automobile industry's comeback.

"Sixty to 80 days from now the automobile business, through the possibilities of liquidating large stocks of inventory, should be in a very advantageous position to again establish itself on a cash basis.

"The sale of trucks has not yet started in any volume, although we have orders in hand from about 50 per cent of our customers for shipments the latter part of February and the months of March and April. As you probably know, all motor equipment used by industrial firms have been greatly reduced and therefore the minute other lines of business improve there will be a steady demand for truck transportation.

"Our motor organization is of a firm belief that the automobile and truck industry is built on a strong foundation and that the products are as necessary to the upbuilding of this country as the raising of foodstuffs and other so-called staple articles.

"The automobile industry is again on the way to several years of prosperity."

NEW BRISCOE OFFICER NAMED Former Chalmers Man Appointed as Purchasing Agent. H. F. Wardwell, president of the Briscoe Motor corporation, has announced the appointment of C. A. Woodruff as purchasing agent, according to word received here.

Mr. Woodruff was previously director and purchasing agent of the Chalmers Motor corporation and later general manager of the Saxon Motor Car company.

"This condition is further evidenced by the fact that we have been compelled to put on nearly 1,000 men in our Detroit plant, where we build automobile motors only, to meet this month's demand. It is safe to say that our orders for delivery in the month of March will be from 30 to 40 per cent greater than the February demand.

"If anyone tells you this is only a little spurt and that the demand will decrease, tell them that they are crazy. It is the writer's belief that the present demand for automobiles will steadily increase each month up to June 1. Statistics of the industry show that each year the sales slow up to a certain extent about June 1. This is caused by manufacturers introducing new models at that time of the year. Next June may be an exception to the rule, but if there is any slowing up it will only last for a short period. There has been too much written by people who are not posted as to the world's demand

PROSPERITY HELD NEAR

INDUSTRY, INTEGRITY AND FAITH ARE NEEDS.

Message From Associated Advertising Clubs of World Is Sent Out by Haynes Company.

Here's a message from the Associated Advertising Clubs of the World for 1921. This message struck such a responsive chord with the Haynes Automobile company of Kokomo, Ind., that it was adopted by the company as its annual message and sent to all dealers throughout the country, with due credit to the advertising club. The message, a copy of which was received here by A. C. Stevens, local Haynes and Winton distributor, is considered well worth passing on to the rest of the automobile fraternity.

"Prosperity is within our reach in America. All we need to have it and to hold it is a sane, sure grasp of its simple elements. They are industry, integrity and faith.

"These are the cardinal virtues of human relations. They are the underpinning of healthy, natural business life and the foundation of a wholesome social system. They are the fountainhead from which progress springs. A well-known business economist has called them the 'fundamentals of prosperity.' They are the foundation upon which progress springs. A well-known business economist has called them the 'fundamentals of prosperity.' They are the foundation upon which progress springs.

"Your purchases are an expression of faith. They are evidence of your confidence in the business institutions of integrity. Buying is the backbone of prosperity. An active market means more employment, steadier earnings, benefits are passed around.

"Wise spending gives stability to earning and for that reason is far-sighted thrift and sound economy. The call of today is for cheerful

thinking, willing and constructive action by you, everybody, now. "Tomorrow's change for the better will come about through the combined efforts of each and every one. By sheer force of numbers and co-operation, by the high power of heart and mind, we can put business on a firm, stable basis. We can do this because all of the material factors making for better business are right. Let us link our faith with industry, our vision with courage, and forge ahead. Let's make an uncommon effort toward a common end, good times."

NO GOOD ROADS FOR ALABAMA Bond Issue of \$25,000,000 Held to Be Unconstitutional. ATLANTA, Ga., March 12.—Good roads advocates who have worked for months, and even years, to obtain better road appropriations in Alabama and a system of permanent highways throughout the state, saw their dreams fade and their efforts of years come to naught, when the Alabama supreme court declared an unconstitutional the measure that submitted to the voters of the state last February an amendment to the constitution permitting the issuance of \$25,000,000 of good roads bonds, the money to have been used this year and next in constructing a permanent system over the entire state. The decision automatically invalidates the bond issue.

Sierra Paving to Be Completed. VISALIA, Cal., March 7.—Paving of three remaining units of the Sierra-to-the-sea highway lateral from Giant Forest to the coast will start about May 1 and will be completed about September 1, according to state highway commission estimates. The highway runs through Visalia, Hanford, Coalinga and King City. The unpaved section is a 20-mile stretch across the Coalinga "desert."

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