

AUTOMOBILE IS NO LONGER A LUXURY

It Can Now Be Considered Only an Absolute Necessity, Says H. A. Biggs.

By H. A. BIGGS,

Vice-President of the Studebaker Corporation.

The third largest industry in America—and that means in the whole world—did not attain its place of eminence by mere accident or through any seasonal or faddish demand for the product of its great organization.

The automobile, both passenger and commercial, is an absolute necessity of a new era. It will continue as a necessity until something newer and better takes its place. However, up to the present time no one has even an inkling of something better.

The great majority of the people realize the economic value of the motor car. It would be as impossible to conceive of personal and business efficiency without the automobile to-day as it would be to conceive of handling modern business without fast express trains, fast freights, telegraph or long distance telephones. The motor car has not only become an essential part of modern life, but it has been greatly responsible for the development of the way we live and do business to-day. It has, indeed, made possible the wonderful business achievements which we accomplish in the twelve months of the year.

John G. Lonsdale, president of the National Bank of Commerce, St. Louis, is nationally known in the world of finance. His opinion, based on cold, unbiassed facts, is worthy of special note. Mr. Lonsdale has publicly set forth a financial policy which recognizes the motor vehicle as a time economy unit. He says:

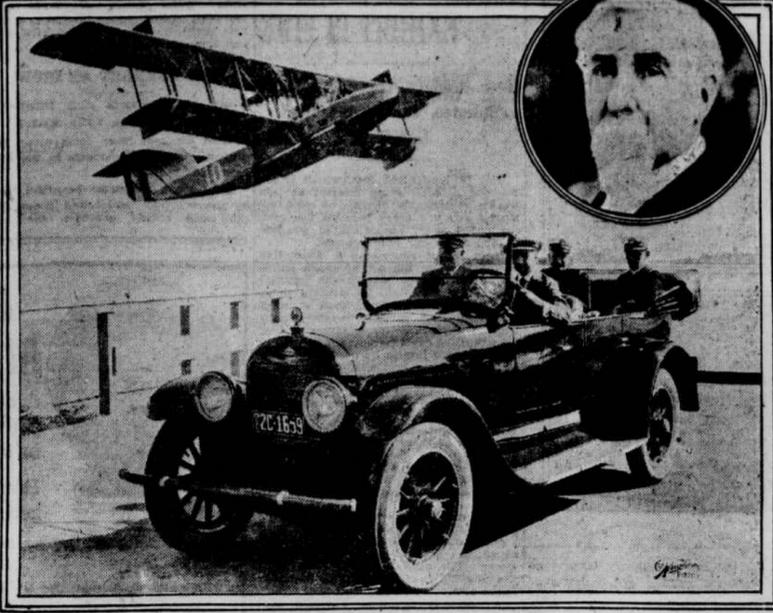
"This is an age of electricity and gasoline. Distance is annihilated by the telegraph and telephone. Business is transacted not only nationally but internationally by wire. Money is transported by telegraphic transfers of credit. If it is a question of hard surfaced roads and automobiles against the country worn road and the ox cart in the rut, nobody wants to go back to the 'old days.' If the high cost of living is a problem and a man's fixed expense is to be reckoned, we must have a time saver, whether it be the telephone, telegraph, the wireless, the automobile or gasoline propelled surface car, or the airplane. It makes no difference whether a man is a bricklayer, plumber or banker; if his time is worth anything it is economy to limit his period of transportation."

The automobile has ceased to be a luxury. It might have been called on at the start, like the airplane. But the luxury of yesterday becomes the necessity of to-day. As Mr. Lonsdale so aptly puts it: "Many years ago when our forefathers had wooden doors and sliding shutters for windows window glass was considered a luxury only for the rich, but now it is a necessity, even for the poor, letting sunshine and happiness flow from without and keeping within the warmth necessary to home comfort."

People have built their lives around the automobile, bought their homes, selected their vacation camps and their summer cottages. Businesses have been developed around the touring car and truck as the indispensable vehicle.

The Lincoln Car Flies on the Ground.

HENRY M. LELAND



LELAND BUILT LINCOLN CAR

The road performance of the new Leland-built Lincoln car has been compared to flying by reason of the smoothness and swiftness of its motion. Since the United States naval seaplane shown in the picture is equipped with Leland-built Liberty engines there appears to be some basis for the comparison. The photograph was made recently near Santa Monica, California, and United States warships are shown in the background.

And, furthermore, when you consider the motor car purely from the pleasure viewpoint you have a potential demand of great proportions. Call it a "pleasure car" if you will, you must admit that the automobile has been a great emancipator. There must be some time set aside for pleasure in the lives of all of us if we are to maintain our usefulness in our work. What is there that gives more return per dollar spent in the way of health giving pleasure than the automobile. It takes the family out of doors and literally jams fresh air down their throats, and furthermore, it enables city folks to get out into the country, where they can get pure air.

Think of the pleasure it means to the family living in a crowded city to pack a tempting lunch and motor out into the country, there to pull up alongside some wooded glen and, with appetites whetted by the invigorating ride in the clean air and sunshine, enjoy a meal that would make a spread prepared by a city restaurateur seem tasteless. And the whole trip for a family of five would probably cost less than the railroad fare to the same spot, taking into consideration the actual expense of operating the car, depreciation included. The small expense of the trip may justly be charged to health insurance for the family.

The motor car must also be considered as an important educational factor. I dare say that the motorist knows more about the territory surrounding his town or city than the man who

doesn't own a car. Anyway, why shouldn't he? The motor car takes him off the beaten path—takes him out into the open country and shows him the beauties of nature and permits him to visit interesting places that he might otherwise never see. What is more, the motorist goes and comes when he pleases. He is not dependent upon the schedules of train or trolley.

The automobile has brought the city to the country, and vice versa. From this both have profited socially and financially. While we have been talking about good roads, the automobile has forced them upon us and lessened the cost of farm produce by reducing the cost of transportation. Because of motor cars, farmers have acquired the urban habit of going after what they want as soon as they want it. No longer do they allow their wants to accumulate, as in the old days.

The utility of the automobile on the farm is demonstrated in many ways. Farmers who live fifteen to thirty miles distant from their market used to consume an entire day making the round trip, and at times, if the day proved unusually hot, it would be long into the night before the tired horses and men would reach home. To-day farmers in these same sections start for the market early in the morning and are back on their farms in a few hours, ready for a day's work at something else.

The farmer has been quick to realize that the automobile increased his effi-

ciency on the farm, affording him means of daily visits to his neighboring cities and forever dispelling the isolation of farm life. It is no uncommon occurrence now for neighbors living twenty or thirty miles apart to exchange evening and Sunday visits, whereas in the old days of the horse and buggy three or four visits a year were considered a rare treat and an occasion of more than passing interest. Children living on farms may now enjoy the advantages of the city or consolidated schools. What is more important just now, the automobile is accomplishing what about everything else has failed to do, it is keeping the boys on the farms and eliminating the desire for exodus to the city.

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NEW ACE CAR HAS NO POPPET VALVES

Instead Uses Rotating Disk Valve Invented by Fred M. Guy.

Does the remarkable new Guy disk valve motor in the Ace car, manufactured by the Apex Motor Corporation, Ypsilanti, Mich., solve the years old riddle of how to get away from the poppet valve? That is the question automotive engineers, dealers and distributors are going to try to answer in their own minds by looking under the hood of this beautiful car at the Hotel Commodore and riding in one of the demonstrators on the streets of New York.

The poppet valve type of automobile motor has held sway for many years. Outside of the sleeve valve, no one has ever invented a way to do away with the springs. Now comes the Guy disk valve motor, which, according to the Apex Company, has valves which cannot lag at any motor speed, which never need grinding, which never get out of adjustment, and which, because of their remarkable gas handling efficiency, give the motor an unusual power performance and economy.

The Ace motor is the result of ten years of experimental work on the part of Fred M. Guy, vice-president and chief engineer of the company. Eighteen months ago the first motor, a four, had been brought to a state of perfection. Since that time the entire concentration of the engineering forces has been directed on the new six, which is now perfected and ready.

The Ace valves are a series of disks, one in the combustion chamber of each cylinder. These disks are geared together in chain from a master gear driven from the crank shaft by worm. Each disk operates at one-eighth crankshaft speed and contains four slots cut in the form of a V from the periphery to the hub of the disk. These V shaped slots in the process of rotation of the disk pass over ports which enter into the intake and exhaust manifolds of the motor. On the intake stroke of the motor four slots in the disk register

with four ports in the cylinder, thus communicating with the intake manifold. On the exhaust stroke the same thing takes place. This gives a wide open manifold, opening by a perfectly mechanical movement, which means that the intake of gases and scavenging of the cylinders is accomplished perfectly at any speed.

Due to the perfect handling of gases coming into and leaving the cylinders a very high torque at low speeds is created, giving the engine unusual pulling ability.

Another feature of note is the fact that these valves never carbonize and never need grinding. The rotation of the valve gives a wiping action on an oil film, and inasmuch as there is practically no friction in this wiping action it is to be presumed that the valve will never wear out during the life of the motor. Each disk is prevented from chattering on the suction stroke by a compression spring. This spring in turn has its tension offset by a thrust bearing, thus keeping the disk on an even seat, yet reducing friction to a minimum. The valve itself is held to its driving shaft by a universal action which takes up any possible misalignment.

The Ace car is shown in four models, touring, roadster, brougham and sedan, at the Hotel Commodore.

The New Pierce-Arrow Touring Car



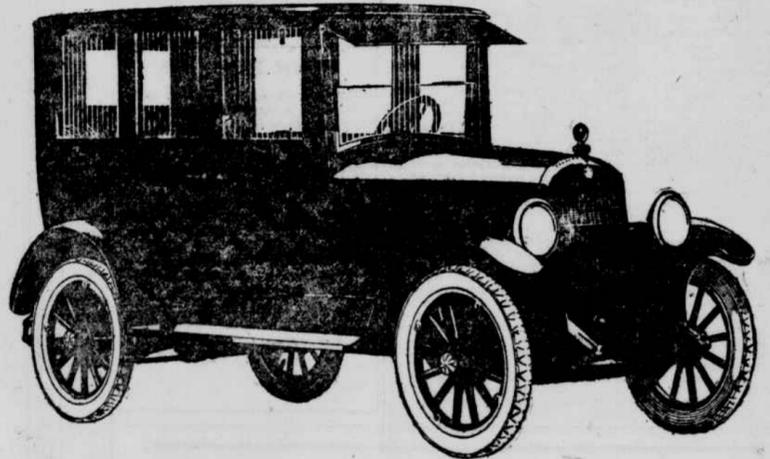
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meant to many owners more than doubled tire mileage.

3. The simplification of the automobile chassis until all ordinary adjustments can be easily made by anyone.
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