EXTENT OF AUTO INDUSTRY

Some Figures on the Magnitude of the Motor Business.

GREAT GROWTH IN FEW YEARS

Expert Compiles Showing that Foots Up Almost Half a Billion Dollars Yearly for the Traffic.

Interesting figures have appeared from time to time showing the large aggregate value of automobiles sold in the United States. When it is said that $122,000,000 worth of cars have been sold in 1908, none realize that this is but a part of the circulation of money which that volume of new automobile product means.

The automobile industry is based on the cars made by the factories, but the hundred millions worth of product means vastly more to the country than that.

For such an aggregate value of cars sold it means, first, a thousand shops in allied work produce parts doing an independent business, of course contingent upon the vehicle producer, running into the millions; the railroads do an enormous freight business to distribute the product; agents and branch houses throughout the country are paying rentals aggregating millions of dollars, preparing for the marketing and distribution of the product; and the makers of sundries and accessories in several thousand shops are preparing to supply the varied and fastidious wants of the purchaser and user of cars. On the other hand, when the new product is sold it adds many tens of thousands in the aggregate, already totaling 146,000 automobiles in use in the United States at the beginning of 1908. To operate these cars requires fuel and lubricant aggregating millions of dollars in the year; replacements and repairs incident to the use of any machinery again, and millions of dollars put into circulation; the states and municipalities are paid license fees for the use of the highways, which now total figures little dreamed of a few years ago; the housing of machines in garages or private stables involves a ground rental and building maintenance, the importance of which is only too well appreciated by the real estate dealer; the insurance against fire, collision or the mulcting in damages has brought into being separate departments of the large insurance companies; the racing fever; the advertising and general publicity incident to a new industry again can only be measured by millions of dollars put into circulation; the tourist who can now spend two or three weeks away from the beaten path of travel in the aggregate circulates millions of the coin of the realm.

Benefits to the Country.

Then what has the automobile manufacturer done for the country?

When the circulation of money or shifting of credits or turn-over of business dependent upon his work is added to the circulation of money due to the use of his product, aggregates several times the actual payments to the manufacturer for automobiles, is it not fair that the manufacturer, the foundation of this now tremendous and growing economic factor of the country, should receive every possible encouragement?

When the maker of automobiles risks his ton by the public. When new money is advance to make and market the aggregate product of $100,000,000, on which fate can only determine whether there shall be profit or loss, in order that the country at large may profit by the circulation of nearly $500,000,000, then is not the automobile manufacturer a factor worthy of the most generous support and protection that can be afforded by the American congress?

In the states we hear from time to time of the workings of the successful manufacturers; the others are rapidly forgotten by the public. When new money is introduced into a new manufacturing enterprise, it goes far and wide to try to establish a reputation—but when no money is left to advertise, nothing more is heard of the derelict and the losses that have been sustained. From 1901 to 1907 about 310 concerns were announced as being in or starting the manufacture of automobiles. Of these about 188 have gone out of existence—their losses cannot be estimated. No state or government department has access, no does it presume to record such vagaries of an industry. The great initial risk and the excessive aggregate losses as compared with aggregate profits are forgotten.

Gowth in Factories.

At the close of that same period, 1901 to 1907, there were about 150 concerns still existing, but over thirty had not been in existence, attempting the manufacture of motor cars, for twelve months, and many have since retired, involuntary as a rule. But of that number less than seventy-five were real producers. At the beginning of 1909 we have an aggregate of probably eighty automobile makers who are the real producers of the country, while over 200 are aspiring to manufacture and in many cases attempting to copy the product developed by the pioneer concerns at the cost of millions of dollars.

Whether the motor car manufacturer, who risks a large investment to add to his quota to move the wheels of progress, does in the aggregate make a profit or not, can best be told by considering the authentic statistics of the country where accurate reports of industrial works are compiled by the government. In this consideration we have before us most startling figures compiled in Germany. The latest available data is for the complete year of 1906. Then the operations of all the motor car producers, not including the allied trades, meant a spending in wages to workmen, salaries to technical and commercial employes and for the operation of their plants and purchase of material, aggregating $10,419,500. The aggregate value of automobiles and chassis produced by these self same factories was about $10,220,000. It will thus be seen that taking the motor car builder, small and large, throughout one country where accurate figures are obtainable, the net results showed a loss of about $100,000 in the value of automobiles and chassis produced in 1906. And still those unitiated in the vicissitudes of manufacture sometimes say too much is charged for automobiles.

Germany's Contribution.

The above-mentioned figures respecting the cost and value of product in Germany entailed in that year, 1906, an investment of capital amounting to $10,220,000. If the aggregate of money invested in these enterprises, large and small, all told, in the United States could be ascertained, and the money actually spent could be determined, there is no question but that, from the nature of things in this country, it must be evident to all that the total aggregate expenditures or cost of production would be far greater in excess of the value of products sold than is the case in Germany, as indicated for the year 1906. It is true that in the United States the novel form of co-operation of the thirty odd pioneer makers who have associated themselves as the A. L. A. M. has done invaluable work in an economic sense and prevented much of the waste of energy and money which invariably has attended the building of a new industry.

But the country at large and the public in the United States are the gainers by what the work of the motor car builder means to it and to them indirectly.

Consider alone that an automobile racing event of 1908 carried to Savannah over $250,000 from visitors who otherwise would never have seen that place, while $750,000 is figured as the sum circulated incident to the running of the race.

When we consider that 145,000 cars were in use in the United States at the beginning of 1908, many operating for hire, the greater number in private use the year round, and a large percentage making at least one actual tour of ten or more days, we find that the aggregate money disbursed for gasoline or lubricating oil, supplies for lighting, extra tires, parts for repairs and replacements, and the disbursements to hotels, etc., ranged in the neighborhood of $40,000,000.

Wages Run Into Millions.

While the direct producers of automobiles are paying from $30,000,000 to $40,000,000 in wages to mechanics and other factory hands, the parties they purchase material from, allied shops making component parts, in the aggregate disburse tens of millions or dollars. In addition to which the use of all sorts of sundries and accessories means of millions disbursed to the wage-earned. The makers of raw material—steel and other metals, lumber, leather, rubber and a multitude of other items—ship supplies to the various automobile factories, aggregating $100,000,000 and over. The agents and dealers pay wages to workmen and salaried employes, and rental of garages and salesrooms, added disbursements running into sums of eight figures.

The dealer pays the manufacturer a deposit in advance of delivery of the cars, in order that he may be assured of deliveries of a definite number on which to base his investment in selling organization. The payments of the purchesers of cars to the thousands of agents throughout the country is the item in the automobile business aggregating what is usually referred to as the motor car product of the country. However, each purchaser of a car, in addition, buys a considerable aggregate value of sundries and equipment, which still further adds to the aggregate turn-over of business.

Each year a considerable percentage of motor cars in use change hands, and we thus have a second-hand business responsible for a circulation of no mean figure.

The states of the country in many cases have collected in a year over $100,000 and in some cases $200,000 or $300,000 in revenues, aggregating a circulation well above the $1,000,000 mark in license fees.

Almost Half a Billion.

A compilation considering most of the principal items, however, shows that the circulation of money involved in the automobile business and the disbursements incident to activities and new developments resulting from operation of motor cars, without consideration of the innumerable detailed expenditures, has run well in excess of $467,000,000 in a year. These are the great results benefiting the general industrial world, and the basis of it all is the persistent progressive work of the pioneers mostly all included in ranks of the Association of Licensed Automobile Manufacturers, when a product of automobiles and chassis leave the doors of the automobile manufacturer for which he receives not in excess of $98,000,000.

If the truth could be ascertained, it would show that the $98,000,000 had not paid interest on the money invested, but that only a few manufacturers of long experience have been able to realize a net profit on their business.

The other three hundred and seventy odd million turn-over or circulation incident to the work of the motor manufacturer has kept the wheels of progress turning.—Herman F. Cuntz, M. E., in Automobile Topics.

OMAHA WOMEN WHO DRIVE

Not Very Many of Them at the Steering Wheel.

ABOUT FORTY LIKE THE SPORT

Most of Them Prefer the Quiet Electric, but a Few Love to Guide the Giant Gasoline Car.

Are Omaha women lacking in sportsmanship? Their automobile record would indicate that they are. Look about the streets, and look carefully at the cars that whiz by on the boulevards and the country roads, and see how many of them are driven by women. As a matter of fact, the number is surprisingly small in proportion to the number of automobiles in the city. It is the exception that the wives and daughters of men owning touring cars are able to run them, and the large majority of those who can are young misses still in school and still unconcerned with the demands and the pastimes that accompany long skirts and done up tresses. To this fact and the bad weather is largely due, perhaps, the very small number of women driving cars this winter; the girls are all in school and their big sisters and mothers prefer the protection of the limousine or the "electric" to the place at the wheel.

It must not be inferred from this that motoring is unpopular with Omaha women, for it is not; still, it can scarcely be claimed that it is popular as a sport or followed for sport's sake, but rather as a convenient and quick means of getting about or as a delightful pastime when the weather is warm or other conditions favorable to recreation out of doors. The women themselves are ready enough to acknowledge this indictment.

Omaha women seem to know but two general classes of automobiles—"gasoline cars" and "electrics," and an inquiry among a score or more of those who drive cars revealed the surprising fact that four were unable to tell the name of the car they drive and eleven do not know the horsepower or the number of cylinders of their machines.

Forty Drive Their Own Cars.

In all perhaps forty women in Omaha drive their own cars, and of this number by far the greater proportion run the electrics. It is a significant fact that most of the women who originally drove gasoline cars have alopted the electrics during the last two seasons, and are seldom seen at the wheel of the big car nowadays. One and all they acknowledge that the gasoline car is rather too strenuous. It is hard work to do the cranking and hard on the nerves as well as the hair to take a big machine for a run out on the country roads or through the crowd of the downtown streets. There is always the risk, too, of a puncture or an accident of more serious nature and all must admit that to remedy one of these mishaps is a job more suited to the muscles and nerves as well as the dignity of a man than a woman. The possibility of having to reach into the vitals of one of these intricate machines is appalling to almost anyone not of a mechanical turn, and the probability of having it to do at some time or other is recognized as inevitable by those of even limited experience.

Several who have deserted the gasoline car for the electric this winter say that the warm weather will find them going back to the big machines, but the spring alone can bring the proof of this. The clean little car so handsomely upholstered and protected from the wind and the dust and the weather has a tight hold on the women. In it they are independent of the chauffeur, and whether it be a shopping trip or the dressiest sort of occasion it is comfortable and the handsomest or most delicate gown is safe from harm in it.

Five Years at the Sport.

It has been about five years since Omaha women began driving their own automobiles. At the start the gasoline cars were used almost entirely. For two or three years it was no common sight to meet a big car on the road with a woman at the wheel, her hair flying, her face glowing and every muscle set alert to the guidance of the machine. Even after the weather got cold these devotees stuck to the sport, although they were not always recognizable under their close little caps tied down with a scarf, their ulsters and their high gauntlets, but after the third or fourth season this enthusiasm began to wane, until this winter it is only on the brightest, warmest days one sees a woman in an automobile, except it be in one of the little enclosed electrics or through the windows or behind the curtains of a limousine.

It must be confessed that Omaha women have ever been inclined to take their recreation in a "lady-like" sort of way, and the weather is usually well settled before they even venture out onto the golf links. Even there they are conservative as a rule, so it could hardly be expected that the extremes in motoring would appeal to them very strongly. In the matter of costume they have been so conservative that the leather coats and even the cheviot and serge ulsters have gone begging among them, until last autumn, when cross-country runs became popular, and the woman who was unprovided with adequate wraps was likely to be put to the embarrassing necessity of borrowing so many, equipped themselves for an emergency.

But they are the exceptions, the enthusiastic few, and the wonder is that their enthusiasm has not converted more to the delights of motoring even if the weather is cold and the wind blowing.

Mrs. Westbrook a Leader.

Mrs. E. S. Westbrook is one of these and she drives her car for sheer love of the sport. She not only drives it, but she knows it. She has recently disposed of her second car, a twenty horsepower Franklin, and gotten a new one of the same make but of a higher power. Mrs. Westbrook has been motoring about three years and while she has never met with any mishap that might be counted serious, she has had occasion to test her knowledge of her machine, and she is recognized as a careful, though fearless, driver. An hour or two of instruction served to make her independent of a chauffeur and she made her first drive alone to Florence, returning home through the downtown section of the city. "No, indeed," was her prompt and emphatic reply to the inquiry whether she would exchange her gasoline car for an electric. "Of course, the electric cars are nice and clean and easy to run, but for getting there or for the sport of it give me the gasoline car every time."

Miss McClanahan a Leader.

Miss Katherine McClanahan, daughter of Dr. and Mrs. H. M. McClanahan, is another of the enthusiastic motorists and has been driving a sixteen horsepower Franklin since last spring. She not only drives the car, but prides herself on her ability to take care of it, except in the heavier work of cleaning and oiling the heavier parts. The general oiling she attends to entirely and she goes over the machine carefully and systematically, priding herself upon its condition. She is sufficiently familiar with all its parts to cope with almost any emergency in the category that commonly befalls the motorist. Miss McClanahan has driven her car over 3,000 miles without serious mishap, having made several trips out into the state and over into Iowa. "Every sound means something to me now," she said, "and I can readily detect any irregularity in the engine by its throb or anything else that is wrong if it makes a noise. I should not undertake to run the car without being at least partially familiar with its mechanism."

Mrs. H. E. Fredrickson holds honors for driving the largest car of any woman in Omaha, she having on several occasions taken out Mr. Fredrickson's seventy-horsepower Thomas. She also drives several other cars and is quite undisturbed by a crush in the down-town district, no matter how thick it may be.

Miss Irene Cole, daughter of Mr. and Mrs. David Cole, has been driving a sixteen-horsepower Franklin for about a year and can take it any place. She confesses to bewilderment at the beginning. "I thought I would have to have a set of rules before me all the time," she said, "but after a while it all came to me and I ran down to South Omaha for my first trip alone. I just made up my mind that I was going to run that car and after that I was not timid."

Likes the Electric Better.

Mrs. E. V. Lewis is one of the ones who has given up the gasoline car for the electric. "I like it much better," she said. "There is not the strain and the dirt and the cranking. I am independent of a chauffeur and can go where I like and look clean and dress like other people." Mrs. Lewis has but limited experience with Mr. Lewis' gasoline car, but says she expects to learn to run his new machine. Asked if she had ever had an accident or unpleasant experience, she laughed merrily and said: "Yes, I have had an experience, but I have never told any one but the person who was with me and I don't intend to. It was too ridiculous," and then she laughed again. Two hours' instruction enabled her to take charge of her machine and she runs it without fear.

Mrs. Glen Wharton is counted one of the best women drivers in the city. She is fearless and keeps her head, taking her father's, (Mr. F. P. Kirkendall) car any place. She confesses, however, that the mechanism is rather beyond her.

Girls Who Drive Cars.

Miss Jean Cudahy, daughter of Mr. and Mrs. E. A. Cudahy, has given up a gasoline car for an electric. "The electrics are so much more comfortable for winter and so much easier to handle and to run," she explained. "For sport, however, I prefer the gasoline car, and I expect to run one next summer." Miss Helen Cudahy also runs an automobile with not a little skill during her summer vacations, preferring the gasoline car.

Miss Elizabeth Davis, daughter of Mr. and Mrs. Fred Davis, is another of the school girls who know how to handle a big car.

Mrs. T. L. Davis has run her father's gasoline car for two years, but has driven it little this winter. She is not timid, but admits that she knows little about the machine. She learned to drive by watching her father, Mr. J. S. Brady, and is doubtful whether she would exchange a gasoline car for an electric.

Mrs. Willard Hosford, who was Miss Mary Lee McShane, also drives a gasoline car and frequently comes down town and makes other drives without a chauffeur.

Miss Lucile Hayden can drive a touring car with a skill that many a man has envied, but the nervous strain has proven too much for her and she has given up the big car for an electric. Miss Mary Hayden, who recently became Mrs. Adolph Storz, is devoted to her electric and has no ambition to exchange it for a gasoline car.

Mrs. A. V. Kinsler is among the most skillful and fearless women motorists in Omaha. She can handle her car quite independent of assistance and is most enthusiastic.

Mrs. William Hynes drives one of the larger cars and manages it with skill.

Electrics Coming Into Vogue

Electric vehicles are fast coming into vogue in Omaha and no first-class household is now thought complete without an electric for the women to drive. It was at first thought that Omaha would be a bad place for electrics because of the grades, but the Baker electric overcame this difficulty by building a car with the weight specially balanced for use on the hills of Omaha and cities similarly situated.

While Omaha has not the long stretches of level country that many cities have which are especially adapted for electrics the use of the electric is becoming quite common in Omaha and scores are seen on the street every day. These rigs are used to a large extent for the good wife to take the head of the family to his place of business in the morning. They are used by "milady" when on her shopping tour and they are used for trips on the boulevards of which Omaha has so many. With an electric a woman is able to make social calls without the aid of a chauffeur or coachman. The electric is more free from oil and grease than a gasoline car and being lighter is not as apt to have tire trouble.

So skillfully have the designers worked that at first glance it is hard to discern the difference between the electric and its gasoline rival. There is the same bonnet used by the gasoline car and under it are the batteries which produce the motive power. Instead of the lever control there is the steering wheel. Only when the car is run can the uninitiated discover the difference. Then it is noted the electric glides along without making any noise in contrast to the gasoline machine.

The electric comes in all sorts of bodies—phaeton, coupe, brougham and stanhope—and in these the tendency is to stick to the lever control. The brakes have been made more powerful and the mileage capabilities of the machine increased. Chain drive is most popular, there being only two makes that use a shaft drive, the Baker, which fits it to its roadster and brougham, using chain in its other two models, and the Babcock, with its taxicab.

One of the novelties of the show is this electric taxicab, a town car capable of carrying seven passengers. It has 120-inch wheel-base and shaft drive and employs truss rods under its side members to brace the frame. Under the steering wheel is a second wheel which takes the place of the change speed lever in the side of the seat. For this sixty miles on one charge is claimed.

Syracuse Air in San Francisco.

With Syracuse air in the tires of George Forderer of San Francisco has run his automobile 11,100 miles on the Pacific slope. The reason that the air in the tires happens to come from nearly across the continent is that the motor car was made at the Franklin factory in Syracuse; that the tires were there inflated before shipment of the vehicle to the west and that no cut, puncture or other tire trouble has since then flattened the tires. The motor car is in constant use in and about San Francisco.

Trio of Enterprising Auto Boosters

JOHN P. DAVIS, The Jackson.

C. L. PEASE, Omaha School of Automobile Engineering.

W. D. HOSFORD, The Velie.

TIRES AND TIRE TROUBLES

Some Suggestions that Ought to Be Valuable to Owners.

POINTS INVOLVED IN PURCHASE

Certain Mishaps that May Occur and How the Annoyance They Occasion May Be Avoided.

For many years the tire problem has been looked upon by automobile manufacturers as the great bugbear of the industry. Little progress has been made toward its solution since Thomas B. Jeffery invented the famous pneumatic clincher tire.

Tires of all designs and textures have been put upon the market, only to prove cumbersome or useless. Demountable rims and other devices have sprung up, but the chief difficulties of the problem have remained.

Many people who consider the purchase of an automobile hesitate because of the time that is practically lost on the road in repairing an injured tire and the trouble that is always incurred through sustaining a puncture at a time when the motorist is hurrying to escape a thunder storm, to catch a train or to reach a certain destination on an urgent mission. One day it occurred to the maker of the Rambler car, that a fifth wheel, or a spare wheel, carried on the side of the car might obviate certain difficulties.

When the spare wheel idea had been fully worked out, it was discovered that the following things were accomplished:

Much time is saved on the road in changing the wheel instead of the ordinary tire. This spare wheel can be substituted for the regular wheel within three minutes.

It is usually quite difficult to remove a tire from the rim after it has been used for some time. This spare wheel is so equipped that the tire need never be taken from the rim while on the road.

An extra tire carried on a car is sometimes stolen or exchanged for a defective one. This spare wheel is provided with a special clasp and lock as a protection against theft.

Many motorists dislike the wearisome task of pumping up a tire on the road, especially on a hot summer day. With this spare wheel no pumping on the road is necessary.

The wheel is complete, excepting the hub center, and is fastened with six nuts. A socket wrench is provided with which these nuts can be removed in one minute. A wheel puller is provided to pull the wheel; the hub remains in place, for its security to the axle is not disturbed. In another minute the spare wheel can be attached and the six nuts again secured. Thus, the Rambler equipment provides a complete extra wheel, available in case of accident. As compared with a demountable rim this device is better, can be changed quicker, mud does not collect around the bolts at the hub, as it might at the rim and there are not as many bolts and nuts to unfasten and secure.

The demand for it already demonstrates that it will prove the most satisfactory of all the methods for meeting tire trouble.

SCHOOL FOR AUTO REPAIR MEN

Instruction to Be Given Them Under Expert Control.

A school for the instruction of automobile repair men, so that it will be possible at any time for the company to furnish any of its 150 dealers throughout the country with trained and competent help is being started by the H. H. Franklin Manufacturing company at its factory in Syracuse.

The work is being inaugurated under the direction of I. O. Hoffman, formerly an instructor in the College of Applied Science at Syracuse university, and the school will be housed in a building now approaching completion. The recitation hours are at night and the course can be completed in from twenty-eight to thirty-five weeks. Mr. Hoffman already has the first of his pupils at work in the engine assembly room and other parts of the factory. They are employes of the factory and continue as such during the period of special instruction. Admission to the classes is obtained through special familiarity with machine shop work or with the gasoline motor. The first to complete the course will finish by July 1. New applicants will be admitted about once a month.

Franklin engines, showing the changes in design in the successive years on from 1903, practically the first year in which the Franklin company was a factor in the automobile industry, are being installed in the school for study purposes. Parts of cars, used in the construction of the various models during the same period, are also available, it being the intention not only to insure familiarity with the construction of Franklin automobiles of this year's design, but with those of the past, most of which are still in service, including eight of the original thirteen, the entire output for 1902, the first season. The development of the carburetor, the rear axle and other parts will be demonstrated by the display of the parts themselves for the several years.

On the first floor of the school building will be a room showing several completed motor cars of 1909 model. On the second floor will be a class room and a general work room. Mr. Hoffman's headquarters will be in connection with the class room.

Standard of Candle Power.

The scientific standard of one candle power is the light of a sperm candle weighing six to the pound, which burns 120 grains of wax per hour.