

FORD FACTS

In the past seven years the plant investment of the Ford Motor Co. of Canada, Ltd., has been practically trebled, the value of building, land, equipment and raw and completed stock amounting to nearly \$15,000,000 in 1922.

The new plant now being added represents a further investment of \$10,000,000.

In the construction of the Canadian Ford the total value of imported finished material employed is only \$15.22 per car.

FORD FACTS

The payroll of the Ford Motor Co. for the year 1922 is estimated at \$5,000,000.

Fifty freight cars are loaded and unloaded each day at the Ford factory.

Allowing a driving distance of about eight feet between each car, the total number of Fords in use today would form a complete girdle around the world at the equator.

Ford cars shipped during the Company's fiscal year ending July 31st, 1922, will exceed 70,000 of which Canada will take 40,000 and overseas territory 30,000.

Ford News

VOL. 5

FORD, ONTARIO, SATURDAY, JULY 14, 1923

NO. 48

FORD 1923 PRODUCTION BEATS ALL RECORDS

FORD TO DISTILL COAL IN CANADA MANY BY-PRODUCTS TO BE RECOVERED BY NEW METHOD IN \$500,000 PLANT

New Process to Produce Coke, Benzol, Creosote, Sulphate of Ammonia, Gas and Basic Oils

PULVERIZED COKE BURNED

Benzol Production May Reach 4,800 Gals. Daily; is Practical Commercial Substitute for Gasoline

Will the farmer of the future fertilize his soil with a by-product of the coal consumed in city factories; will the motorist of the future operate his car with fuel and lubricating oil which is another by-product from the same base; will the factory of the future be designed to operate in conjunction with a new type of power-producing plant, where coal will be made to produce not only heat units but a wide variety of other things as well, such as benzol, creosote, sulphate of ammonia, fuel gas, smokeless furnace coke and a number of basic oils?

It is an interesting and routing speculation and it is nearer to realization than most of us would suppose for such a plant is now in course of construction by the Ford Motor Co. of Canada, at Ford, Ont., and is the material evidence of the first commercial realization of Henry Ford's dream of a "burn coal plant."

Ever since it was discovered that soft coal would burn, getting rid of the heavy soot and smoke has been a serious problem, and much time and money has been expended in efforts to find a practical method of disposing of it, even though it was commonly known that the smoke represented valuable properties which the ordinary method of burning soft coal liberated but failed to utilize.

That problem, however, may soon be written in the industrial history of a bygone day for in the new Ford By-product Plant, coal will be subjected to an entirely new process of treatment through which many by-products will be recovered before the coal, converted into coke, pulverized and fed into the furnaces by blowers permitting the recovery of by-products in much the same way as gas is burned, and the by-products themselves in turn will be converted and consumed to serve a variety of purposes.

The new process is based upon a method of coal distillation which differs from all previous practice in that the coal is distilled at a comparatively low temperature, which makes possible the recovery of "volatiles" which have hitherto been lost because high temperature process ovens only have been used.

The distillation of coal through the application of heat, in an enclosed refractory chamber, in its earliest development, was accomplished in a crude way by the use of the beehive oven, and although the resulting coke was highly valuable for metallurgical purposes, all of the by-products were allowed to escape to the atmosphere.

In the year 1854 the first coke oven permitting the recovery of by-products was erected at Commeny, in France, and this led to the almost universal adoption of this method, as these by-products are the basis for all the coal-tar products which are particularly valuable in the aniline dye industry.

The gases arising from coal as the result of low-temperature distillation are primary in character, and their products very closely resemble petroleum, but the character of these by-products changes as the heat increases so that after the temperature to which the coal has been subjected passes 1350 degrees F., their structure due to the effects of heat, has been converted into a series of chemical compounds, of which Benzol is the most important. Benzol, when properly treated, is a gasoline substitute of excellent properties, largely used in the operation of automobiles.

After chemical treatment, the available amount of Benzol or Motor Fuel resulting from high temperature distillation will reach a maximum of 4 1/2 gallons per ton of coal treated, whereas in low temperature distillation this maximum will be increased

to 12 gallons, and the resulting material from both a chemical and physical standpoint will be true gasoline, differing from gasoline obtained from petroleum only in its initial form, through the fact that it will contain a larger percentage of unsaturated hydrocarbons. A large proportion of these unsaturated hydrocarbons, however, will be synthetically converted in the Ford Plant into their true gasoline form, and the cost of the gasoline produced by the new process is much less.

The importance of this development is not confined to the automotive industry, however. It is universal in application, permitting the manufacture and production of the new Motor Fuel, and equalizing the character of the products from the distillation of practically all carbonaceous deposits, so that the resulting coke will be of practically the same uniform quality, although the by-products will vary as to amounts of the several sub-divisions recoverable.

The coke resulting from low temperature distillation is of a honey-comb-like character, and in the state in which it leaves the furnace is not suitable for shipment or use except in pulverized form as fuel for producing steam, when it can be so utilized without the necessity for transportation. This fuel, however, has all the properties of anthracite coal, and is used in the same manner.

In this compressing, or briquetting process, it is necessary to use a "binder." In the Dominion of Canada there is available a vast quantity of what has been hitherto considered an absolutely waste product from the manufacture of pulp, known as "Sulphite Liqueur," which, when concentrated, has proven an excellent binder. The low-temperature coke, when briquetted with Sulphite Liqueur as a binder makes an entirely smokeless fuel, suitable for domestic purposes, and in the burning of which there will be absolutely no smoke or soot. A small percentage of pitch can also be used as a binder.

The chemistry of coal is very complex, and the number of chemical combinations recoverable from the products of coal distillation is practically limitless. There are certain

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EIGHT MILLIONTH FORD MARKS EPOCH IN HISTORY OF AUTO INDUSTRY

Infant Born 20 Years Ago With \$28,000 Capital, Now Industrial Goliath

The Ford Motor Company, Detroit, was 20 years old on the 16th of June. Its birthday anniversary found it enjoying the greatest prosperity in its history and carrying out an expansion program of enormous magnitude, to bring manufacture up to meet the demand for Ford products.

In the score of years since its incorporation on June 16, 1903, the company has gained rank among the greatest in the country and expanded its business to nearly every country on the globe.

Only \$28,000 Paid In
The capital originally subscribed in the company was \$100,000, of which only \$28,000 in cash actually was paid into the treasury. Among the 12 stockholders with the company in its infancy, Henry Ford held 25 per cent. of the stock.

Ford personally presented his car to the public at the very start by practical demonstration. He piloted the first Ford racer himself and won race after race in all parts of the country. Driving old "99" on an ice track at Baltimore bay, Mich., he was the first to break the mile-a-minute record.

In 1907, Mr. Ford acquired additional stock, sufficient to bring his

holdings in the company up to 58 1/2 per cent.

In 1913, Mr. Ford set a new standard for the industrial world, when he announced his now famous \$5 a day minimum wage and the \$10,000,000 profit-sharing plan, a move that gained him international fame.

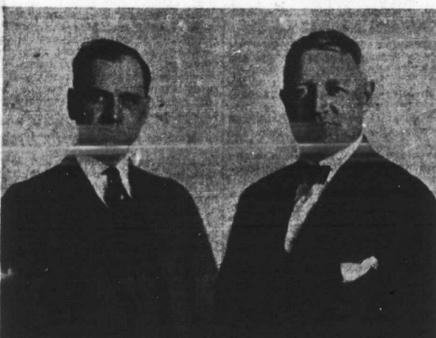
Many will remember, too, a year or so later, when announcement was made that if sales went to a certain figure every Ford purchaser would receive a rebate. The sales passed the figure and checks went out by the hundreds of thousands.

Last October the price of Ford cars was reduced to the lowest level in the history of the company. And

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SALES BRANCH IN SOUTH AFRICA IS PLANNED BY FORD OF CANADA

Representatives Investigate Prospects for Larger Ford Expansion Overseas



C. R. HOLMES A. STOCKELBACH
The latest development in the vast and diversified programme of expansion embarked upon by the Ford Motor Co. of Canada, Ltd., at the beginning of 1923 when ground was broken for the new \$10,000,000 factory at Ford, Ont., was marked by the Ford Motor Co. of Canada, Ltd., at

FACTORY AT FORD, ONT., SHOWS INCREASED OUTPUT EACH MONTH SINCE JAN. 1st-10,000 CARS SHIPPED IN MAY

Large Demand for Ford Products in Canada and Throughout British Empire

CLOSED CAR OUTPUT GAINS 58%

Shipments for First Six Months of 1923 are 55 per cent. Greater than for Same Period Last Year

Among the many indications of the growth which is being enjoyed by Canadian industry none is more encouraging than that reflected in the present year's demand for Ford Cars, trucks and tractors which has far surpassed the demand in any similar period in the Company's history and has stimulated production to such a degree that the factory at Ford, Ont., has broken its own production records every month since January 1st.

During the first six months of this year, 48,774 cars and trucks were produced as against 30,131 during the first six months of 1922, an increase of 55 per cent.

This in itself is a remarkable record, and coming as it does at a period when all Canada is engaged in a great national effort to place Canadian commerce on a basis that will overshadow pre-war achievements, is substantial evidence that those efforts are surely accomplishing their purpose.

But this record is even more remarkable when considered in relation to the production records of previous years and illustrates in a graphic manner the phenomenal progress made by the automobile industry in Canada within the past few decades.

In the year 1904, the year in which the Ford Motor Co. of Canada, Ltd., was incorporated, the total number of motor cars registered in Canada was 58 and the Ford Motor Company's production record for that year was 117 cars.

Insignificant though this may seem in the eyes of a generation born into an age of automobiles it was an achievement of no small magnitude in those days, a very precarious achievement too in the opinion of many and not a few of the wisecracks of the day wagged dubious and ominous heads over the future of the enterprise that devoted so much energy to the production of such an unheard-of thing as a horseless carriage.

But the horseless carriage had

come to take its legitimate place among the daily necessities of civilized life and it developed and flourished and prospered and ten years later, in 1914, the total motor car registrations in Canada had grown to 27,000 of which more than 20,000 were Ford cars.

Thus within a single decade, the total number of cars in use in Canada had been multiplied 125 times and in the same period the number of Ford cars had been multiplied 258 times.

While this phenomenal expansion is probably without parallel in the annals of Canadian industry, the path of the missionaries of the automobile was by no means without its obstacles and the nervous and diffident looked upon the advances of the motor-car with misgiving. Already warnings against "over-production" were being sounded and the arrival of that elusive "point of saturation" was forecasted as an event to be expected in the almost immediate future.

In spite of all that, however, production kept steadily on and in proof of the soundness of judgment of those who planned the greater Canada of the future as a motorized Canada, we have the production record of the Ford Motor Co. of Canada for the first six months of 1923—48,774 cars and trucks—48 per cent. more than the total number produced during the whole of the first six months of the corresponding period of the previous year.

The highest peak in this year's production records to date, was reached in May when production totalled 10,000 cars and trucks, the greatest number ever produced by the company in any one month and practically as many as was produced during the entire year of 1913-14.

Shipment Increased 28 Per Cent.
A comparison of the shipments month by month for the six months ending June 30th, with the best shipment records for the same months of previous years, provides evidence as to the demand for low-priced efficient transportation.

Car and Truck Shipments

Month	1923	Previous Record for Corresponding Month
Jan.	5780	2854
Feb.	4928	2854
March	5417	2854
April	8394	4155
May	10021	5139
June	7735	5097
Total	46774	24485

Closed Models in Demand
The general trend of public opinion in the matter of automobile body types has been a matter of more immediate interest to the car manufacturer in recent years than it was in the earlier years of the auto's existence. There actually was a time, in fact, when the top which is considered so necessary today was not included as standard equipment on cars. Neither was the windshield, the headlamps nor the gas generators which supplied acetylene gas for the headlamps, nor the jack. None of these were included in the first purchase price, although a car cost more than double what it costs today, and the ambitious motorist had to leave such luxuries as the protection of a top on his car and the assurance of being able to see the road when he motored after dark, had to purchase the necessary equipment as extras.

But the old order changed, indeed with the passing of a few years and today people buy automobiles as they buy washing machines and vacuum cleaners—the car is a thing of daily necessity the year 'round and the growing tendency is toward the car that affords maximum comfort under the weather conditions of summer and winter alike.

So it is that while shipments of open Ford models such as touring and runabouts show an increase of 11 per cent. for the first half of 1923 the shipments of the sedan and coupe models have increased 48 per cent. over last year's shipments for the same period.

In the industrial world the motor truck has rapidly displaced the inefficient and slow moving unit. The motor truck also has been termed "the little brother of the Railway" competing with and sometimes competing against the "Big Brother." In this realm the Ford six-ton truck has achieved tremendous success. This year's Ford truck production is also breaking records and up to June 30th an increase of 25 per cent. over the first half of 1922 is noted.

The Fordson tractor, too, is breaking new records, and is being purchased and used in increasing numbers in all sections of the world as well as in diversified domestic uses. Shipments of the Fordson tractor are being made in large quantities to

FORD MOTOR CO'S. NEW POWER AND BY-PRODUCTS PLANT AT FORD, ONT.

