THE AUTOMOBILE INDUSTRY IN CANADA

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THESIS SUBMITTED FOR M.A.DEGREE,

DEPARTMENT OF ECOMOMICS AND POLITICAL SCIENCE

MAY 1926.

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THE TRIUMPH OF THE MOTOR CAR.

The motor car unlike the locomotive and the steamship, traces its origin to Continental Europe. It is rather remarkable that England who had played such a prominent part in fostering steam traction, contributed nothing of importance to the early development of internal combustion engines. Nor did her people adopt with readiness the new type of vehicle. But stranger perhaps it is that the United States, now recognized as controlling the world's production, was equally unfruitful.

The automobile really owes its inception to the pre-existemce of a cheap and reliable fuel supply. Gasoline, prior to its utilization as a source of power was a little-thought-of by-product of crude oil and was used almost exclusively for cleaning purposes and in necessarily small quantities. The potentialities of this hydrocarbon were easily recognizable. Being clean, inexpensive and light in weight, it embodied all the desirable features of coal or wood with practically none of their drawbacks. The new power-plant then was no chance invention, but was the expression of an effort to harness this liquid form of power.

If the invention of the internal combustion engine can be attributed to any one man, the credit for it must go to the German inventor, Gottleib Daimler of Stuttgart. Prior to him, contributions of importance had been made by Beau de Rochas and the Belgian inventor Jean Joseph Etienne Lenoir, the former of whom had formulated the four-cycle principle.

As early as 1885, however, Daimler made it a practical possibility by dividing a cam system for co-ordinating two cylinders to function together. He also replaced the heretofore used open flame by hot tube ignition. At the same time another German inventor, Karl Benz of Mannheim brought out a very primitive but nevertheless workable gasoline automobile. Daimler was the first to set up a plant for the production of motor cars on a commercial scale. From then on, progress became rapid. The engineers of the German Daimler Company were not slow in improving the motor, the jet-spray carburettor coming out in 1898 as a result of their efforts.

Meanwhile French manufacturers had become interested. The firm of MM. Panhard et Levassor secured the French patents in 1887 and began production. M. Levassor gave the automobile its present characteristics, designed the transmission system much as it is known to-day, placing for the first time the motor in front, and connecting it by clutch, reducing gears, propeller shaft and differential gears to a

countershaft from which the road wheels were driven by connecting chains. The importance of this development can hardly be over-estimated. It meant the graduation of the motor car from a freak contrivance to a useful and serviceable vehicle. While the chain drive has been abandoned on all passenger cars, the Levassor transmission has been otherwise altered only by the introduction of universal joints.

By 1894 the new sport of motor racing began to achieve popularity. In that year the first long distance contest was organized by "le Petit Journal". This was from Paris to Rouen. The winner obtained a mean speed of 15 m. p. h. The event aroused considerable interest and was instrumental in greatly developing speed. In 1900 the Gordon-Bennett cup for international motor races provided that competing cars should be constructed entirely in the country which they represented. For the first two years it was won by French machines. In 1902. however, an Englishman, Mr. E.F.Edge, was successful in a Napier car. Parliamentary sanction was accordngly obtained to use certain roads in Ireland for a limited period, and in the ensuing race, a Mercedes car, a product of the Daimler Company, carried off the honours. This set the pace for British manufacturers. Britain's great advantage in the

production of motor cars, lay in a detailed technical knowledge of the properties of steel and its alloys. Besides, these English engineers added such improvements as the detachable wheel and the multiple disc clutch, which while not being vital details, contributed towards the comfort and convenience of driving. The use of a 6-cylinder engine in cars was primarily a British feature.

Since the beginning of this century improvement has been largely along the line of detail, two notable exceptions to this being the substitution of a cam controlled intake valve, in place of the earlier type which operated under atmospheric pressure and the introduction of electricity to explode the mixture in the cylinder. These innovations as well as the gradual lightening of moving parts, tended both to economy and increased speed.

Difficulties, however, other than mechanical, had to be overcome. As in the case of its predecessor the locomotive, the automobile had to fight its way into public recognition and favour. Repressive legislative measures were the rule rather than the exception. In England, for example, as late as 1896, the speed of motor vehicles was restricted to four miles per hour by law, which also provided that every car be preceded by a man on foot carrying a red flag.

France was not slow to grasp the possibilities of the motor car and was consequently free from much of thisfutile restriction.

In a remarkably short time, however, the automobile had justified itself. Those who had been among its most powerful adversaries, now welcomed it with open arms. Among its early opponents none were more influential and determined than the municipal corporations. The coming of the new vehicle meant the destruction of their roads. Road surfaces are, of course, disintegrated by the sharp blows of horses' hoofs and narrow steel-tired wheels. But little of the dust so formed is raised. The automobile on the other hand, being for the most part heavier, has a crushing effect if road foundations are inadequate, and tends to reduce dirt roads to a series of undulations. This meant the adoption of an entirely different plan of highway construction. The motor proved, nevertheless, to be a great boon to traffic. Because of its superior speed a greatly increased volume of traffic could be handled with actually less congestion. Improved roads had the inevitable result of popularizing the passenger car which to-day constitutes by far the most important type of motor vehicle both positively and relatively. While still extensively used as a source of pleasure, its scope is

by no means so confined. It occupies a position of undisputed importance in the business and professional world, especially in the United States has it greatly fostered municipal expansion and suburban growth, the importance of which it is difficult to estimate. To the extent to which the passenger car is used for touring purposes it is a valuable factor in enlarging peoples viewpoint beyond the horizon of their own communities.

The motor bus and the taxi are two more recent adaptations. Their advent was regarded not unnaturally as an encroachment upon the preserves of the electric street car. Where thisservice was municipally owned, considerable difficulty in obtaining a franchise has been the rule. But it is now well established that the interests of the two are not conflicting but rather complimentary. Today in the United States 134 electric railways are operating bus lines (1) which meet the need for rapid transportation in areas where it is impracticable for any reason to start a permanent tram service. In suburban and inter-urban traffic, the motor bus is to a certain extent, supplementing the railways. The taxi, on the other hand, seems to have created a rôle for itself which interferes with none of the pre-existing services except,possibly, the horse-drawn cab.

(1) The "Annals" of the American Academy of Political and Social Science, November 1924, p. 4; henceforth this reference will be known as The "Annals".)

There are many conjectures today as to how nearly we have achieved the saturation point in the number of automobiles on our public roads. While there can be little doubt that there is yet room for considerable expansion in the number of passenger cars, the scope of the commercial vehicle is admittedly unlimited. The latter has found its way into every branch of industry and commerce, and is considered by authorities to have the greatest potentialities of any powered conveyance. Mr. A. C. Henry, director of the Economics Dept., of the C.N.R., in a recent address said that while he did not consider the motor car would, for some time at least, be in a position to compete with railways, steam or electric, on long distance hauls, he nevertheless thought that for short distance work, particularly suburban and urban traffic, the motor-car might profitably operate with the steam and electric railways, and supplement them to a large degree. To quote Mr. Henry: "The motor vehicle has a distinct economic field in passenger and freight service, under certain conditions, measured either from the standpoint of convenience, expedition or cost."(1)

(1) Verbatim Report in Canadian National Rys. Magazine, February 1926. p. 56.

The possibilities of Mr. Henry's suggestion are made very real when we compare the railway and highway mileages of the Canadian provinces. Nova Scotia has only 1472 miles of railway but 15,190 miles of serviceable roads. Ontario whose railway mileage is greatest at 10,956 miles of steam lines and 810 of electrified tracks, has 64,258 miles of road. But the importance of the motor vehicle in this respect is best seen on the prairies. For example, in Saskatchewan which has 6564 miles of track, ranking in this respect next after Ontario, there are over 135,000 miles of highway. In Canada, as a whole, there are 385,472 miles of constantly improving road, as compared with a total railway mileage of 41,824.(1)

Although cradled in the old world, the motor industry has definitely and, to all appearances, permanently migrated to the North American continent. This is due to a variety of reasons. In the first place, the sparsity of population here, as compared with Europe, has placed a premium on rapid transportation; on the other hand, the average personal income, and consequently purchasing power, in America is greater, which combined with a much lower rate of taxation, not only on motor vehicles but on income and property, generally has a stimulating effect. The War has also done

(1) Heaton's Handbook 1926, page 619.

its share. During that period the governments of warring countries absorbed practically the entire output of the motor car factories. The foreign trade of the latter and much of their domestic business consequently declined and was absorbed by the neutrals especially the United States. The differing policies of manufacturers on either side of the Atlantic have been a contributing factor. Whereas the European engineer designes his car with a view to individuality and perfection of detail, quantity production and low cost have been the keynotes of the American industry. To achieve this double aim, standardization of models was a very necessary corollary.

While this is primarily a study of the Canadian branch of the industry that branch must necessarily be viewed as an appendage of the main growth which is the Automobile trade of the U.S. Canadian built cars are almost all produced under the American trade names, according to American design and by companies which are more or less subsidiaries of parent firms south of the International boundary. To fully understand therefore the situation in Canada, it is necessary to have a general perspective of the industry in the United States.

Standardization, then, may be of different kinds. One manufacturer may specialize in one or two types or sizes of car suitable for the requirements of persons of as many grades of income. Of such a kind is the Dodge Bros. plant. Here different types of bodies

are fitted on to a chassis which is identical for all. Every car is built to exactly the same specification and is even finished off in the same colour. One part will fit with equal facility into any one of that year's production. This method certainly reduces the cost to a minimum, but is very distasteful to the person who likes something a little different from his neighbours'.

Another kind of standardization is the Assembly plan. In this case the producer purchases the various parts from specialists and puts them together, often doing the coach work himself. This is really a more extensive form of assimilation of product than where each producer completes a finished article, for the result is that several makes of cars, instead of one have interchangeable parts. In England the practice is for each manufacturer to dictate his specifications to the specialist, but on this continent the manufacturers agree to what they would severally be willing to accept. In this, of course, a further economy is effected. Over 100 individual makes of automobiles are produced in the United States. Twelve of them are produced by big manufacturers and the rest are "made" by Assemblers who purchase the component parts.

Still another method of reducing costs is co-operative purchase of raw materials. This, however, generally proves to be an intermediary step towards complete consolidation of interests. The General Motors Corporation is the conspicupus example of such development. Incorporated on September 16,1908, in New Jersey, under a perpetual Charter, it had by 1910 acquired absolutely all the capital stock of 22 companies in the United States, Canada and Great Britain, engaged in the manufacture of automobiles, trucks and parts. This (1)

(1) Moody's Industrial Manual 1910, p. 2717-2718.

in practice is really an extension of the last-mentioned type of standardization save that the companies concerned are jo.ntly directed.

Large output and an extensive business not only makes the cost of raw material and labor cheaper, but further distributes the cost of marketing the completed car. While the works cost of each product cannot after a certain considerable figure has been reached, be further reduced by increasing production, the cost of selling is dependent upon the quantity sold. If a complete selling organization involves a certain number of individuals located in a certain number of districts, when the cost of that organization is divided up and a percentage is charged to each car, that car will come off lightes which is sold in the largest quantities.

Being,then,definitely committed to such a policy, it is not surprising that the United States would be the source of 93.2% (1) of the world's production of motor vehicles. Not only does the United States industry lead that of all other countries, but judged as an employer of labor, as a source of investment, as an exporter, and by the value of its output, it ranks among the national industries of first importance.

Although centered in Michigan which has fifty-four of the hundred and fifty-one factories, the industry is represented in twenty-nine states and the District of

(1) The "Annuals" p. 251.

Columbia[1]. It is impossible to estimate the number of employees connected directly or indirectly with the automobile industry. In 1923, 618,000 were directly employed as factory workers in the manufacture of cars and parts and accessories. A further staff of 316,000 is responsible for the selling of these. In addition, there are 114,750 tire factory workers, and 60,000 gasoline refinery and oil workers, both of which trades are intimately bound up with the fortunes of the motor industry[2]. A conservative calculation places the number of persons producing the raw materials of the industry at 226,000. According to R.D.Chapin, Vice President of the National Automobile Chamber of Commerce[2] 3,105,350 is a fair estimate of those dependent for a source of livelihood upon the motor car. Assuming the average family to consist of from four to five persons, it is seen that from twelve to fifteen millions people or 10% of the population of the United States, are contingent directly or indirectly upon the automobile industry. This makes no account of those engaged in the upkeep of rural highways, expenditure upon which alone reaches one billion dollars per annum.

(1) Ibid p.9. "The Annals"
(2) Ibid p.8.

Of a total production of sixty billion dollars in the United States for the year 1923, 4 billion or 6.6% is attributable to the motor trade. This represents the value of 4,000,000 motor cars. The huge amounts of raw materials absorbed are interesting. 3,434,800 tons of iron and steel which constitutes 10.2% of that put to all purposes including large structural works, goes into a year's output of cars. 91.5 million pounds of aluminum and 122 million pounds of copper are used. In addition, the 80% of the rubber production, 69% of that of upholstery leather, and 53% of the plate glass output which go into the motor car business, make it the principal customer for these important raw materials. In the manufacture of the 62 million feet of brake lining annually consumed, Canadian asbestos plays an important role.(3)

As an utilizer of railway facilities the automobile ranks third.(1) More than $142,000,000(2) in 1923 was derived by the rail lines in revenue from the transportation of completed vehicles.(2) In addition, about 80,000 cars were shipped by waterways to their destination. Third place as an exporter is accorded to the industry, being exceeded only by unmanufactured cotton and refined mineral oils,

(1) Interstate Commerce Commission.
(2) The Annals. p. 10
(3) Ibid. p. 8

both of which have had a career of much mor than a quarter century.[1] The value of the exports for 1923 was $170,000,000 for the United States, and $37,000,000 for Canada,[1] the latter sum, for certain reasons, has to be considered as part of the American total.

With this brief sketch of the American industry completed, we can now readily pass to a comprehensive survey of the industry as it exists in Canada.

(1) Ibid pp 251,252.

11.

LOCATION AND EVOLUTION OF THE AUTOMOBILE INDUSTRY IN CANADA

As has been intimated in the foregoing Chapter the automobile industry in Canada is an extension of parent organizations in the United States. These organizations are concentrated in the middle Western States particularly in Michigam, while Detroit has become famous as the headquarters of the industry on the continent. It is not surprising therefore that the corporations in Canada engaged in producing automobiles should be similarly concentrated. All of these plants are situated in the Province of Ontario with most of them in the Southern Ontario peninsula and many in Windsor and its environs just across the Detroit river from the capital of motordom.

There are in Canada at present eleven plants engaged in the manufacture or assembling of completed cars. This number fluctuates considerably having been as high as seventeen in 1920. The decrease in the number of plants since that date however does not signify a falling off in the capitalization of industry or a decrease in the gross output. It has been merely a part of the move towards centralization and consolidation of interests that has been felt throughout the length and breadth of the continent. Capital invested rose from $1,700,000 in 1910[1] when the industry was first classified in the census reports, to 14 millions in 1915. From that year the

(1) Canada Year Book 1924 p. 432.

increase was even more marked. In 1917 with eleven plants in operation the vested interest was $28,192,858, while three years later a pinacle of $53,906,506 was reached. The years 1921 and 1922 saw a rather heavy slump only to be followed by an equally abrupt ~~rival~~ in 1923 and 1924 when $60,766,886 of capital was employed.(1)

It has been mentioned that the automobile industry in Canada has been concentrated in the Ontario Peninsula. Two major reasons contribute to this. In the first place plants so situated are in close touch with the American corporations of which they are branches and are also favorably placed with regard to raw materials. Then, that part of Canada is the most highly industrialized and includes the most densely populated area of the Dominion. Such a situation places the largest market of Canada right at the door of the industry. The importance of this consideration can be appreciated from the fact that of the 652,121 motor vehicles registered in Canada in 1924, 308,693 or 47.3% were in Ontario, Quebec coming next with 85,145.(2)

At Border Cities which comprise the adjoining towns

(1) Dept. of Trade & Com. report on the Automobile industry in Can.1924 p.2. Figures of capitalization include material & stock on hand as well as cash,trading & operating accounts.

(2) Facts & figures of the automobile industry in Canada 1925-p.25

of Windsor, Walkerville, Riverside , Ford, Sandwich and Ojibway, are situated several of the most importamt producers of automobiles. On the bank of the Detroit river is the modern plant of the Ford Motor Company, the largest of its kind in Canada. Plant No.7 of the Studebaker Corporation at Walkerville, and the factory of the Chrysler Corporation of Canada at Windsor are among the producers of completed cars. The Godfredson Corporation, makers of trucks and commercial chassis, has its establishment at Walkerville. In addition there are a large number of parts and accessories. The Fisher Body Company of Canada and the Canadian Products Division of General Motors of Canada, which are affiliated concerns, have their plants at Ford and Walkerville respectively. In the latter city the American Auto Trimming Co., the McCord Radiator and Manufacturing Co., and Motor Products Corporation conduct important business in the manufacture of specialized parts. At Windsor the Auto-Specialties Manufacturing Co. make malleable iron castings in the rough for practically all the important motor car producers in Canada. The Champion Spark Plug Co. of Canada and the Kelsey Wheel Co. supply these important parts in large quantities.

At Oshawa is situated the main plant of the General Motors of Canada, which produce a variety of cars and trucks

at various prices and capacities and is the source of many of the cars in use in Canada. Toronto has three manufactories--- Willys Overland Sales Co., at West Toronto; Durant Motors of Canada at Leaside and the plant of Dodge Brothers.

The National Car Co. has its plant at Hamilton. In addition, a small business in trucks is done by the International Harvester Co. of Chatham. Lastly, there is the plant situated at Stratford, of the Brooks Steam Motors.

The Motor Car industry in Canada has arisen from a variety of sources. To a large degree it is a natural evolution from the carriage and waggon building trades, coming into the foreground with the decline of these. One make of car was put on the market by a company whose primary purpose was the manufacturing of bicycles. But the majority of plants, especially in recent years, have been established at distributing branches to take care of the Canadian retail trade of large corporations in the United States.

Under the latter head comes one of the pioneers in the automobile manufacturing business in Canada and one which has today become the most important in the industry. This is the Ford Motor Co. of Canada. It was first incorporated under the laws

of the Province of Ontario in 1904 with a capitalization of only $125,000.(1) In 1911 the Company was re-incorporated under a Dominion Charter with the exclusive manufacturing and selling rights of the Ford Automobile throughout the Empire except Great Britain and Ireland. In that year 2805 cars were turned out which was an increase of 119% from the preceding twelve months. The 1912 the output increased 124% to 6388 cars. During the war period the value of business increased from 15,657 cars in 1914 to 50,073 in 1917 or 219%. A slump to 39,112 in 1919 was followed by a rise to 55,616 in 1920. This was the highest figure until 1923 when 70,328 cars were turned out from the Ford plant. In 1924 the factory record of 79,807 was set, in addition to which 3785 tractors were handled from the American Corporation in Detroit. Branch factories are maintained at Montreal, Toronto, Winnipeg, and sales branches at Calgary, Regina, Vancouver, St John and London.(1)

The McLaughlin Motor Car Co. of Oshawa which began business in 1907(2) was an outgrowth of a carriage factpry of the same name. Contracts were made for Buick Manufacturing rights in Canada. In 1915 Chevrolet rights were acquired and the plamt enlarged to accommodate the extra output.(3) As far back as 1910,

(1) Moody Industrial Manual -1925 p.71.
(2) Incorporated on Nov.21, for $1,500,000
(3) Canada Year Book 1924 p.432.

General Motors Corporation had held the controlling interest in the Oshawa plant, which, however, had continued under its own name and as a separate identity. But in 1918 a movement to coordinate the holdings of the American concern led in December of that year to the enlargement of the two McLaughlin Companies into a Canadian subsidiary known as General Motors of Canada.(1) The Olds Motor Works Division of Canada Division was later added to produce Oldsmobile cars in Canada. The gross value of cars turned out in 1925 was $34,044,048 being an advance of 30.9% over the corresponding figures of $26,000,000 for the preceding year.(2)

The Canada Cycle Motor Car Co. began production in 1908 and placed on the market four models as follows:

A 2-cylinder car selling at $1600, a small four at $2000; A 5-passenger four at $2500 and a 7-passenger 50 H.P. car at $4500. In April 1911 the name of the automotive section of the plant was changed to the Russell Motor Car Co.(3) Five years later, in January 1916, the business and plant of the Company, which was situated at West Toronto, was merged with the Willys-Overland Co. of Canada, of Hamilton under the laws of the Province of Ontario, taking the name of the latter. The capital stock

(1) Canada Year Book 1924 - p 432
(2) From figures supplied by General Motors Corp.
(3) Canada Year Book 1924 - p 433

was set at £3,000,000 authorized and outstanding of which £2,176,000 is held by Willys-Overland of Toledo,Ohio.[1] The Company has the exclusive right of manufacture and sale of Overland and Willys-Knight cars in Canada.

In the same month that this merger took place, there was incorporated the Chalmers Motor Car Co. of Canada, with a capital stock authorized at £1,000,000 of which the total issue was held by the Chalmers Motor Co. of Michigan. The Company's plant was situated at Walkerville. In view of a lease of all the property of the Chalmers Motor Corporation by the Maxwell Motors Company Inc., from Sept.1.1917 the Canadian plants of the two concerns were jointly operated for some two years when a consolidation of interests took place under the name of the Chalmers-Maxwell Motor Co. operating at Windsor.[2] In 1923, in accordance with the policy followed in the American firm, the manufacture of these two makes of cars was discontinued and the Company resolved itself into the present Chrysler Corporation of Canada making cars of that name.

On Sept. 3,1921, the Durant Motors of Canada was

(1) Moody's Industrial Manual - 1924 - 2555
(2) Poor's Industrial Manual

incorporated with a Provincial Charter under the Ontario Companies Act, with the Canadian rights to manufacture and sell the complete line of Durant and Star cars.
Capital stock was authorized at $3,000,000 to be divided into 300,000 shares. Outstanding shares in 1924 totalled 150,000 with a face value of $1,500,000 of which $750,000 was held by W.C.Durant, President of the American Corporation and associates.

No bonded debt has been incurred.(1) A 15 acre property at Leaside a suburb to the North East of Toronto, and the buildings upon it, which were originally intended for the manufacture of munitions, were taken over.(2) The value of the purchased land and buildings was $300,000 while new erections and installations cost the Company $1,576,000.(3) The first car was delivered on March 1,1922. During the two ensuing years the output totalled 13,507 with a capacity of 40,000.(3) Force of circumstances have compelled the discontinuance of the manufacturing of Durant cars in the early part of this year, only the Star now being produced at the Toronto plant.

(1) Moody Industrial Manual 1924,p.1230.
(2) Poors Industrial Manual 1925 - p.1431
(3) Canada Year Book 1924. p.433.

STUDEBAKER OF CANADA

The Everitt-Metzger-Flanders Co. (popularly known as the E.M.F.) established a Canadian plant for assembling cars at Walkerville one year after its incorporation in Michigan in 1908. On Feb.14,1911, this Company was merged with the Studebaker Bros. Mfg. Coy.of Indiana under the title of the title of the Studebaker Corporation.(1) The name of the Canadian plant of the E.M.F. Co. was accordingly changed to the Studebaker Corporation of Canada by which it is now known. In 1920 the premises were enlarged by the addition of four new buildings containing together 36,500 sq.ft of floor space. This plant is administered, like the other four plants of the Corporation, directly from the Head Office at South Bend, Indiana. Its capacity is estimated at 12,000 to 15,000 cars a year.

DODGE BROS MOTOR CO OF CANADA and BROOKS STEAM MOTORS are the two latest additions to the Canadian industry. The former firm, while in operation only a little over a year, turns out a complete line of Dodge Bros. Motor Cars and Graham Brothers trucks from their Toronto plant.

(1) Canada Year Book 1924 - p 433

The Brooks Steamer is unique not only from the fact that it is the only Canadian-made car propelled by steam, but also because of the fourteen makes of cars produced today in Canada, it alone is not made also in the United States. The output however is not as yet very large, one car a day being the present limit.

Among the makers of automobiles who have recently discontinued manufacturing is Gray-Dort Motors Limited of Chatham. This Company is now only a holding company, the plant being operated by Motor & Coach Ltd. who manufacture complete bodies. The Parker Motor Car Company, which was the only automotive to operate outside of Ontario, having its plant at Montreal, is also out of business. In addition, Beaver Truck Builders Ltd. of Hamilton and the Ruggles Motor Truck Co. of London have stopped producing in Canada. The Canadian Yellow Cab Manufacturing Co. operated a plant at Orillia, building cars for export to London, England. However, the withdrawal of the McKenna duties by the late MacDonald Government, rendered the operation of the business unprofitable and manufacturing was accordingly discontinued, and, as yet, has not been re-commenced.

Viewing the automobile business in Canada as a whole, development of the industry has been no less spectacular than the growth of its individual parts. Until about three years before the war, the automobile trades in Canada might well be regarded as being in the experimental stage. By 1911 it was evident that the motor car producer had come to stay, and an acknowledged position was accorded him among the industries of the country. The stimulatimg effect of the war time inflation reached in favour of the manufacturer. Increased earnings by factory and other hands, particularly munition workers, led inevitably to an over-indulgence in luxuries. The builder of the small cheap car in particular came in for a share of the spoils.

The close of this period of prosperity which came not with the Armistice, but with the declining months of 1920, saw a climax in the value of its output. In that year factory value of products reached $101,465,846, $67,157,045, being spent (1) on semi-finished and raw materials. Part of this is undoubtedly atrributable to the decreased purchasing power of the dollar, but allowing generously for this, a healthy development is to be seen.

Unfortunately, to every artificial boom there must sooner

(1) Trade & Commerce report on the automobile industry 1924. p 2.

come a period of industrial stagnation or even retrogression. So it was in 1921 with Canadian industry in general and the automobile trades in particular. Capitalization of the industry fell in one year from $53,906,506 to $40,080,265, employment fell off 33.8% while in value of products the decrease was 33.9% [1]. In the following year a slight recovery was felt while 1923 saw a new maximum achieved.

In 1924 the eleven plants in operation occupied a total area of 175 acres. The buildings thereon had a floor space of 4,442,768 sq.ft. The estimated yearly plant capacity of the industry was placed at 298,700

This brief history indicates the different ways in which the automobile industry of this country has grown up. The tendency in the main has been towards a complete conformity of Canadian models to American standards and the gradual organization of the Canadian companies as subsidiaries of the larger and more enterprising of the firms in the United States.

(1) Ibid Trade & Comm. Rep. on the Automobile Ind. 1924 p.2.

American appreciation of the benefits of mass production, plant, efficient and quantity purchase of raw materials would incline one to the assumption that the Canadian firms are more or less dependent upon their parent corporations as a source of supply. Such a scheme would only be an extended application of the principle upon which American automobile engineering and finance rests. Then the proximity of the Canadian plants to the United States reduces the transportation problem to a minimum.

A study of the operation of Canada's most important automobile producer, the Ford Motor Co.of Canada refutes this idea. Although but a short distance from the American plant, it is practically independent as regards its source of materials. The only part which it receives from the Detroit factory is the carburettor, which by reason of its specialized nature it is unprofitable to make in Canada. Moreover, as in the case of the parent organization, and unlike other Canadian motor industries, the business is a complete manufacture and not an assemblage. Many of the large concerns in even the United States purchase some parts which require special machinery and processes in their manufacture. This practically does not apply to the Ford Company. To a certain

extent it drawn on the Kelsey Wheel Co. of Windsor for wheels, while one or two other firms supply minor parts. In common with every manufacturer of cars, it purchases such things as tires, spark plugs and speedometers, whose nature is so different from that of the ordinary parts of the car as to require the work of specialists.

Similarly the Brooks Steam Motors Ltd., being an independent Canadian firm, manufacture a large per cent of their car. The boiler, motor and other mechanical plants are made in their plant. Items such as wheels and radiators are purchased in Canada, while a Canadian-made body is fitted. The magneto used to run the lights and horn is a Bosch and is imported, nothing of that nature being produced here.

The Studebaker car is only assembled in Canada. With the exception of wheels, tires, tops of touring cars, and radiators, which are purchased from Canadian firms, all of the larger parts including motors, transmissions, axles, bodies and other units, are shipped from the main plants of the Corporation at Detroit and South Bend.(1) About 3,000 cars are turned out annually to cover

(1) History of the Studebaker Corporation by A.R.Erskine p.171

Canadian consumption.[1] Likewise the Chrysler Corporation imports its motors, bicycles and other large units purchasing the balance in Canada.

The Goltfredson Corporation import the more important parts from their parent company. This concern is an important producer of commercial chassis of capacities of one to 5 tons. All types of bodies are fitted. The Company was for a short time in the taxi manufacturing business, providing a considerable number of cabs to the Kennedy Taxi Co. of Montreal prior to the merger of the latter concern with the Yellow Cab Co. The Willys-Overland Sales Co. import a large number of their parts.[2] All of the products of General Motors i.e. the Chevrolet, McLaughlin Buick, Oakland, Pontiac, Oldsmobile, Cadillac and General Motor Corporation trucks are produced at the Canadian branch. The business-es of the Corporation at Oshawa and Windsor are partly manufacturing but largely assemblages. Most of the more important parts such as motors, transmissions and some bodies are imported. A number of bodies, however, are made and more are finished at Windsor and Oshawa. Lumber, steel, copper and brass are among the raw materials obtained in Canada while fabricated lines purchased from manufacturing plants include tires, wheels, springs, sheet

(1) Supplied by the Corporation Treasurer,

(2) Approximately 35% of the retail value of each Overland four-cylinder touring car is spent in the United States for parts. However, parts are bought wholesale. If, therefore, we consider the wholesale value in both cases the percentage is about 43.

metal, stampings and pressings, leather, plush, paint, body, hardware, glass, windshields, mufflers, axles. These parts were purchased by the Corporation to the value of $9,942,369 in 1925.

Durant Motors in the United States, producers of the Star Car, operate a plant of the assembling type. They purchase their engines from the Continental Motor Co. and other parts from similar specialist firms. Similarly the Canadian Durant Co., obtain their motors, steering gear, propeller shaft and carburettor from plants in the United States. The balance of all major units estimated at 69.55% of the car is made on this side.(1) No parts are imported from the parent company.

It is found, then, that with two exceptions, one of which is relatively unimportant by reason of small volume of business, the motor car industry in Canada is of the assembling rather than of the manufacturing type. Leaving the Ford Motor Co. out of consideration the Canadian plants draw to a large extent on their parent corporations. Some manufacture the less technical parts and most get radiators, tires and wheels and such items as are made in Canada from local producers.(2) That this is quite a natural condition and the result of certain well defined

(1) Estimate by the factory manager.

(2) In the discussion on the extent to which manufacturing is done in Canada several corporations have been omitted while others have necessarily been dealt with in a very general way owing to the disinclination of these companies to supply information relative to their

causes will be demonstrated in a later Chapter.

Foot note (cont).

businesses. While the writer can readily realize that modern industrial conditions are such that care in this respect has to be exercised, he nevertheless feels that an industry enjoying a fair measure of protection at the hands of the community it serves, is, in return, under a moral obligation to that community, to reveal the manner in which it used this privilege.

111.

OUTPUT AND CAPITALIZATION OF THE CANADIAN AUTOMOBILE INDUSTRY.

Canada's position among the countries of the world as an owner of motor cars is indeed an enviable one. While the average for all nations and all countries is one car to every 86 persons[1], there were in Canada for 1924 one for every 14[1], which number increased during the following year to one for every 13[2] inhabitants. This places Canada second only to the United States in the matter of per capita automobile ownership, the ratio for that country being as one is to six[2]. Next in importance to Canada in this respect is New Zealand whose average is one to twenty-one.

While, however, it is to be expected that Canada should have a large proportional ownership because of her situation next door to the United States where 83.4%[3] of the world's motor cars are used, it does not follow that her position in the actual number of cars in operation should be relatively as large. Nor is this so. Although the United Kingdom is far behind Canada on a per capita basis (1:57) in actual number of cars owned she leads by slightly over 130,000[1]. But it is only to Great Britain, apart from the United States, that Canada need take a subordinate place. Her total

(1) Facts and Figures of the Automobile Industry 1925.p.31
(2) From Bureau of Statisfics.
(3) The "Annals" p.251.

of 639,302 for 1924 is substantially ahead of that of France, her closest rival. When it is considered that Canada's population is approximately one-fifth of that of the Mother Country, this surrender of second place is pardonable.

Of this total, almost half are to be found in Ontario, which province has always led in automobile ownership by a large majority. Until the end of 1921 Saskatchewan enjoyed second place in this respect. The following year, however, Quebec obtained a narrow lead, which has been steadily increased until in 1924 it reached 20.1%.. Fourth place goes to Alberta where there are fifty-one thousand cars while British Columbia is only slightly behind. Nova Scotia and New Brunswick have twenty thousand, and nineteen thousand respectively. Prince Edward Island is last on the list with the exception of Yukon territory. The size of the province and the fact that it is only a few years since motor vehicles were permitted to run at all, account for the small registration of 2,583.(1) Fifty cities and towns in Canada have over one thousand. In 1925 the number of cars registered was 720,085.(2)

(1) Trade & Commerce report on auto Industry 1921.p.8
(2) From figures supplied by the Dominion Bureau of Statistics.
(3) Complete figures for this year not available.

The total production of passenger cars, commercial vehicles and chassis in 1924 was 132,580[1] valued at $78,300,000. In the following year this had increased 20.5% to 159,766[2] valued at $97,800,000.[2] Of the above total 74.5% were passanger cars of all types. While open cars still account for the largest part of the output of passenger types, the proportion of enclosed models is steadily increasing.[1] In 1924, the proportion of the latter was 32% of the total output, of passenger vehicles.

Most of the passenger cars and all of the commercial vehicles that are made in Canada have four cylinders (89.8%) while only 165 cars of the 8 cylinder class were turned out in 1924. In the commercial vehicles the majority were of one ton and over, up to a limit of five tons over which capacity none are made. The average factpry value of passenger cars was $666 which was a slight increase over the previous year, while that of trucks was $450 - in this case a decrease in value.

The extent to which automobile engines are manufactured in Canada is interesting to note. Canadian factories turned out 80,584[1] engines during 1924, which represented a falling off

(1) Trade & Commerce Report on auto Industry p.3.
(2) From figures supplied by the automotive industries.
(3) Facts & figures of the Automobile Industry in Can.1925.p.3.

in production of 9.7% from the previous twelve months. All of these were four cylinder having a capacity of less than 25 h.p.A large percentage were the product of the Ford plant.(1) In addition, other important parts are manufactured in large quantities by firms operating in Canada.

Following theexample of corporations in the United States, Canadian plants are concentrating more and more upon the closed car. Unheard of in the early days of the automobile, this type has, in the last few years, literally taken the world of motordom by storm as is proved by the relatively large number to be seen on our public highways. The reaction upon the industry is pronounced. A number of new enclosed body styles have been recently placed on the market, while some manufacturers have even gone so far as to withdraw one or more of their open models. New makes of cars which are being introduced to the public are often made only with a closed body. The significance of this can be seen from the steady increase in the number of closed cars produced each year. In 1922 this was 20% of the total of passenger cars, 26% the following year, 32% in 1924, and in 1925 it was 40% or a relative increase of 400% since 1920.(2)

(1) Trade & Commerce Report on the Automobile Industry
(2) From Figures supplied by the Dom. Bureau of Statistics.

Another pronounced tendency in the industry to-day is away from the four-cylinder engine. This may seem to be a contradiction of the statement made above, that all Canadian made engines were all of this type. As was explained, however, these were largely made by the Ford Company for installation in their own cars. Only one other firm in Canada (1) specializes in four cylinder passenger cars.

In the case of all other firms, this movement to increase the number of cylinders is readily recognized. Of the six makes of cars turned out by the General Motors Company, only one has but four cylinders.

While Canada is more than self-sufficing in the matter of motor-car production, there are, nevertheless, many of the popular American makes that are not manufactured or assembled in Canada at all. Particularly is this true of cars of the more expensive type, but it applies also to the average priced car as well. (2) During the year 1924, $28,954,700 was spent by manufacturers and individuals upon foreign made cars and parts. Slightly over fifteen million dollars, or 52.4% of the above amount, was for parts in the semi-finished or completed state. In addition, (2) 27,371 engines having a value of $4,100,000 were

(1) Dodge Bros. Motor Car.Co.
(2) Trade & Commerce reports on auto Industry 1924 , p5

were brought in to be fitted to Canadian-built frames. In 1925, this number had jumped to 67,305 engines valued at $8,200,000.[1] while imported parts cost $20,600,000. The actual number of motor vehicles imported in 1924 as complete cars, was 8,344 valued at $8,200,000. The following year saw an abrupt increase of 61.6%[2] in the number of passenger cars purchased abroad.[2] A less abrupt increment of 19.7% was to be seen in the number of trucks admitted.

In 1924 nearly 85%[3] of the total imports of the industry came from the United States. Of the total of 9301 cars and cars imported in that year, 9235 came from American plants, 48 from British firms, 16 from France and 2 from other countries.[4] In 1925, the Corporations in the United States supplied 14,511 motor vehicles to Canada, while the contribution to the United Kingdom increased to 110 and that from France was halved. Only three cars came from countries other than the above. In the last calendar year $7,400,000 were paid by car manufacturers and $1,100,000 by parts and material manufacturers to the Government in the form of import duties.[2] This is exclusive of drawbacks allowed by the Department of Customs, nor does it include the duty on complete cars brought in by importing dealers or individuals.

Canada's exports in automobiles and their parts far out-

(1) From figures supplied by the Bureau of Statistics.
(2) From figures supplied by Automotive Industries of Canada.
(3) Trade & Commerce Report on Automobile Industry

balance her imports of these commodities. As this subject will be dealt with fully in another chapter, it will suffice here to mention the volume of our foreign trade. In 1924 the number of motor vehicles exported from Canada was 56,655 (1) Last year this number was increased to 75,411 (2) due principally to the export of a large number of chassis (14,110). (2)

With this rough survey of the production and foreign trade of the industry completed, we are in a position to make some estimate of the apparent consumption of automobiles in this country. This is to be arrived at by deducing the exports for the year under consideration from the sum of the production and imports. Leaving chassis out of consideration, production for 1924 equalled 116,408 passenger cars and trucks, and imports were 9,301. This makes a total of 125,709 vehicles. From this must be taken 56,655 which were exported and 326 imported cars which were re-exported leaving a net apparent consumption of 68,728 cars. A similar calculation for 1925 shows the apparent consumption to be 97,929 complete motor vehicles.

A fairly accurate estimate of the number of cars withdrawn from use can be made by crediting on one hand the sum of

(1) Trade & Commerce Report on Automobile Industry
(2) From figures supplied by Automotive Industries of Canada.

the cars licensed during the preceding year and manufactured and imported during the year in question, and deducting from this amount the cars exported and licensed during the same year. Thus in 1923 there were 586,764 (1) cars registered. In the following year 132,580 cars and chassis were made in Canada and 9,301 were imported. This makes a total of 728,645 on the credit side. On the other side of the account is first 652,121 (1) automobile licenses issued in 1924, which with 56,991 exports and re-exports makes 709,112 cars accounted for. The difference of 19,553 represents the cars withdrawn from use during 1924. Using corresponding figures for 1925 indicates that the number scrapped in that year was 22,932.

In 1924 there was $60,766,886 (1), invested in the automobile manufacturing business. A substantial increase of nearly 23% occurred during the last calendar year to $74,678,461 (2). This, however, cannot properly be called capital in the strict sense of instruments of production, for, in addition to the value of land, buildings, plants, machinery and tools, it includes material on hand, stocks in porcesses and cash, trading and operating accounts. The actual value of the agents of production employed in the industry in 1924 was $33,452,739 (1); the remaining 17 millions being represented by funds temporarily tied up in the

(1) Trade & Commerce report on Automobile industry,1924
(2) From figures supplied by the Dominion Bureau of Statistics

in the industry but of a more or less liquid nature, For 1925 net capital invested in the manufacturing and assembling of motor vehicles (including buildings, plants and machinery) was $39,345,915.31 (1) while tire plants and parts factories represented a further investment of $47,126,840. (1)

The value of the output has already been referred to. $78,734,876 was the value of cars and chassis in 1924. In addition, $9,744,542 worth of parts were produced bringing the total production of that year up to $88,480,418. (2) In the last calendar year, the corresponding total was $107,694,168.69, (1) wholesale value or $110,835,380 (3) on the retail market.

The Automobile Manufacturing and Assembling industry gave employment to 9,277 (4) persons in 1924. Of this number, 7,872 were wage-earners and 1,405 were salaried employees.

5.9% of the total were women, 64.3% of whom were on the salaried staffs.

Monthly employment figures indicate that the industry is more active in the early part of the year, due to the preparation for the flood of orders for spring and early summer delivery. Production, judged upon the basis of employment,

(1) From figures supplied by the Automotive Industries of Canada.

(2) Trade & Commerce Report on Auto Industry 1924. p.3.

(3) From figures supplied by the Dominion Bureau of Statistics.

(4) Trade and Commerce report on the Automobile Industry 1924 p 10

is largest, on the average, in the months of March, April and May, after which time a pronounced falling off is noticeable, until a minimum is reached toward the declining months of the year. For this reason the figures quoted above are necessarily averages of the twelve months. The number of wage-earners went as high as 8,819 in April and fell as low as 7,064 in November, while the total of salaried employees remained constant.

In sympathy with the all-round development of the industry in 1925, employment figures took a jump to 10,301, comprised of 8,705 wage-earners, and 1,596 persons on salaries.(1) This represents an increase of 11.03% over the total employment for the preceding twelve months.

Total wages for 1924 were $10,900,000(2) which averages approximately $1,385 to each person on the pay roll. $3,200,000 were paid in the form of salaries. The total for salaries and wages was $14,200,000 or an average of $1532. for all employees. Average earnings for all persons engaged in the industry in 1925 were $1674, the total outlay in wages and salaries reaching $17,200,000.(3) This represents the outlay of car manufacturers and assemblers alone. There was an additional remuneration by parts and tire manufacturers to automobile workers of $14,000,000.(4)

(1) From figures supplied by the Dominion Bureau of Statistics
(2) Trade & Commerce report on Automobile Industry 1924 p 10
(3) From figures supplied by the Dominion Bureau of Statistics
(4) From figures supplied by the Automotive Industries of Canada

The majority of automobile employees are at the Border Cities. 8978 men are required in the plants of the automobile and parts manufacturers.[1] Of these 1786[1] are in the automobile parts plants of Windsor alone. The largest number are, however, to be found at Ford in the factory of the Ford Motor Co. of Canada, which is the largest employer of labour of any single automotive corporation. In addition to a payroll staff of approximately 5,000 men at the main plant at Ford City,[2] there are almost 1,000 workers in the branch factories of the Company at Toronto, Winnipeg and Montreal. In the neighbourhood of $1,000,000 is spent monthly in the payment of wages.

Second in importance in this respect is General Motors of Canada. In addition to a large staff at its Oshawa plant, the Corporation employs a considerable number of men indirectly through its subsidiary and affiliated companies at Border Cities engaged in the manufacture of parts. These two companies are responsible for a large percentage of the employment in the industry. The remaining plants, having smaller outputs, and the fact that they are more in the nature of assemblers, require the services of fewer men. The average is from three hundred to three hundred and fifty each.[3]

(1) Raymond Morand in House of Commons Debates p.2087
(2) From figures supplied by the Ford Motor Co.of Canada.
(3) From figures supplied by several companies - the only exception to this is the Willys-Overland Co. which employs 858 men (average)

Several automobile companies have some form of profit-sharing or minimum wage plan. The latter scheme applies to all Canadian Ford employees. The Studebaker Corporation have several co-operative plans of the nature of bonuses in operation. The group bonus system was in use in the Chrysler plant. Gray Dort Motors tried a scheme for a joint council of executives and representatives of the employees which apparently worked with marked success[1] until the retirement of the Company from active business. Any attempt at organization of labor in the industry has been practically non-existant. The United Automobile, Aircraft & Vehicle Workers of America, constituting the only union of its type in Canada, had a branch (No.28) at Windsor. In 1921 its membership was only 36 and it has now disappeared entirely.[2]

(1) Report of a Conference on Industrial Relations held at Ottawa, Feb. 21-22-1921. p.9.
(2) Minister of Labour's Report on Labour Organization in Canada 1921 pp. 213 & 244

IV.

THE EFFECTS OF PROTECTION ON THE INDUSTRY IN CANADA.

Every Canadian realizes that automobile prices in Canada are considerably higher for the same make and model of car than in the United States. However, the ideas of the average purchaser as to what extent this is true, are for the most part very vague. Figures for 1925 show that in Canada there is one automobile for every thirteen persons.(1) Similar statistics in the United States indicate that on the average, one person in every six is a car owner. This difference is, in part, accounted for by the larger per capita wealth and consequently larger incomes of Americans. This is not, however, the whole answer. The main factor is the increased price, resulting in a corresponding restriction of ownership.

In comparing American and Canadian prices certain difficulties arise. Canadian manufacturing costs are higher than those in the United States as will be explained. In order to obtain some idea of comparative costs, the net prices free on board at the factory, are of the most use. This, however, is looking at the question more from the producers' than the consumers' point of view. The latter has to consider in addition the taxes levied upon the car by the Government. These are much more burdensome in Canada than in the United States.

When an American purchases an automobile, he pays, in

addition to freight from the factory to the point of delivery, an excise tax to the Federal Government equal to 3% of the retail value of the car. In Canada, a much more complex system is in operation. Here sales tax of 5% is paid; computed, if it is an importation, on the duty paid value or on the retail price at the factory, if it is Canadian-made. In addition, there is the Federal excise tax of 5%, which applies to cars valued up to but not more than $1200.00. If the retail price laid down in Canada is in excess of this amount 5% is paid on $1200.00 and 10% on the remainder. These amounts are collected when the cars are imported and taken from the warehouse or when manufactured and sold as the case may be. The excise tax, moreover, only applies to cars intended or adaptable for passenger use. All trucks and commercial vehicles of every kind are exempt. Likewise, any cars of whatever nature, entered under the class of settler's effects are not subject to the excise duty.

There is yet another factor which tends to increase the price of cars in this country. In the United States the industry is scattered over twenty-nine of the forty-eight states, while in Canada are all to be found within a small area of the one province as has been pointed out. Consequently, the purchaser of any Canadian-made car, either in the east or the west, has to pay for longer freight haul to the point of delivery. This difference is further intensified by the practice of the larger American

firms of operating assembling plants at points distant from the main factory. By this means, complete sets of parts are shipped from the manufacturing establishment at a much cheaper rate than completed cars could be, and with the result that a considerable saving is effected. With one exception, that of the Ford Motor Co., the output of Canadian firms is not sufficiently large to warrant the establishment of branch factories for assembling purposes, while those of the Ford Company itself, situated as they are at Montreal, Toronto and Winnipeg, do not materially affect the situation in the Maritimes or British Columbia.

Of the fourteen makes of passenger cars turned out in Canada, none enjoy such widespread popularity as the Ford, and of the five Ford Models, none are so widely used as the Touring car. The price of this model in Detroit, including demountable rims and a self-starter is $395 (1) without the Federal exise tax of 3%. The same car across the Detroit River at Ford, Ontario, is worth $525 (2) without taxes. This represents an increase of 32%. The average is 33.7% more for all the Ford passenger models, but this is without taxes. If we consider the retail

(1) American prices from Motor Magazine, April, 1926.

(2) Canadian prices supplied by dealers.

price in both countries free on board at the factory with all taxes paid, the Canadian price is seen to be the higher by 42.8%.

The Chevrolet touring car is listed at Oshawa without Federal taxes at $695, which is 36.2% more than the corresponding factory price in the United States. The mean difference in factory prices of all car models is 36.7%. The average difference in prices free on board at the factory, Oshawa, is 45.9%.

For the McLaughlin-Buick the increase is 39.8%, in terms of the factory price on special six models, and 51.5% in the price delivered to the consumer in Oshawa. On the Overland four-cylinders touring car, the Canadian factory price is 40.4% higher in Canada while when the taxes are paid the difference is 49.9%.

Viewing prices in the two countries as a whole, it is seen that the factory prices in Canada range from 32% to 44% higher than corresponding prices in the United States, while the actual cost to the customer is from 41% to 51% more.

Insofar as Canada is concerned, the automobile manufacturing business is not a natural industry. While a wide range of raw materials enters into the making of a complete car, those that are used in by far the largest quantities, are certain grades of iron and steel and their alloys. Neither these products nor the coal to work them are to be found economically situated with regard to the automobile industry in Canada, Ontario ores, being for the most part siliceous, requiring very fine grinding for magnetic separation. Then the fact that shipment of parts is more economical than the shipment of completed cars, is more than compensated by the advantages of completing the manufacture in the one plant, especially since the Canadian firms are, generally speaking, but a very short distance from their parent corporations.

What, then, is the economic justification of the Canadian automobile industry? The answer to this question is to be found in a study of the Canadian, Imperial & Dominion tariffs.

During the early days of protection in Canada, the manufacturers of carriages, buggies and bicycles, enjoyed as at present, a duty of 35% on his products. With the introduction of the automobile asa potential rival of these earlier vehicles, the same rate was accorded.

But in order to foster the growth of a Canadian

automobile industry, there was something more important than the tariff on motor cars. That was an import duty on parts. If the duty on these was placed too low, or no rate at all imposed, not only a loss of revenue from a potent source would result, but the possibility of the Canadian plants ever developing beyond the assembling stage and acquiring a reasonable degree of independence, would be minimized. On the other hand, placing the tariff rate on parts on a parity with the 35% on completed cars, would rob American manufacturers of an incentive to expand their businesses to Canada, by taking away the possibility of at least beginning as assemblers. By fixing the average rate of duty at about 30% it was possible to encourage the branch factory by the offer of a small profit on assembling without unduly embarrassing the national exchequer or discouraging the parts manufacturer. The underlying idea was thus to allow a small bonus to assembling plants and a large subsidy to the complete manufacturer.

It cannot be claimed, however, that the principle has been carried out scientifically. To a large extent automobile parts are not classified separately, but are under general items which include a great variety of products, and which are generally computed on the material involved. Exceptions to this rule are, however,

frequent and lead to confusion..

The Canadian tariff is classified under four heads as follows:-

The British Preferential Tariff,

The French Treaty Rates

The Intermediate Tariff

The General Tariff.

Under the first heading comes Great Britain and all her colonies and most of the Dominions. The French Treaty applies to most of the Continental European and South American countries and Newfoundland. Netherlands, Finland and Spain come under the Intermediate Tariff while the General Rates apply to all other countries. Under the latter head are importations from the United States. (1) Inasmuch as all but 8% of the cars imported into Canada in 1925, and practically all of the parts, came from this cource, the rate on American importations is all that need concern the present discussion.

(1) From figures supplied by the External Trade Branch of the Dominion Bureau of Statistics.

Prior to the introduction of the Robb Budget on April 15, 1926, the tariff, as it affected the importation of complete motor vehicles from the United States, was as follows:- All automobiles, passenger or freight, were subject to a 35% rate. For purposes of the tariff a chassis is considered as a completed automobile. Gas or gasoline tractors, because none are made in Canada, entered duty free when intended for agricultural purposes, and when their value does not exceed $1400. With regard to parts, the same rate (35%) applies on completed bodies i.e. those ready to fit to the chassis, automobile tops, axles and springs (but not spring steel and steel axle bars, which enjoyed a 99% drawback), wheels, tires and all plated parts and accessories. Unplated parts, brake linings with brass wire imbedded and carburettors come in under a 30% duty. Inconsistencies are to be seen in the rates on iron and steel products. Differential gears, forgings, and unfinished steel bpdies were rated at 30% while completed gasoline engines and their parts, transmission gears and universal joints are included in the 27½% category. Castings are admitted under the same rate as such technical completed parts as generators, starting motors and storage batteries, while on speedometers and motormeters the duty is 25%.(1)

(1) For a complete statement of the tariff affecting automobile parts, see Appendix A.

The criticism of this scale is that it takes practically no account of the needs of the automobile industry in and of itself. Items are classed under broad general headings which include a great variety of products. There does not seem to be much justification for placing castings on a parity with complete engines as far as the tariff is concerned. The natural result is to force the producer to manufacture the engine completely or to import the finished product. No inducement was offered to adopt the middle course of bringing in the rough castings and doing the machining or even the assembling in Canada. This situation is a violation of the very principle upon which the Automobile industry in Canada is based. Similarly to distinguish between stearing and differential gears as manufacturers of iron and steel and transmission gears as integral parts of the engine is to draw a distinction more remarkable for its nicety than for its reasonableness.

To explain the development of the Canadian industry as outlined in the last Chapter in the light of the tariff on automobile parts is relatively a simple matter. Approximately 50% of all automobile parts and accessories coming into Canada do so under the 30% rate, while slightly over 25% fall under the 27½% class and about 12½% are in the 35% category. As the parts which are rated at less than 27½% are few and relatively unimportant, the average rate of duty on all parts is a

figure slightly less than 30%. If, then, it is contested that the Canadian tariff is excessive, it must be borne in mind that it is the manufacturer of parts that receives a high rate of protection and not the assembler of automobiles. The former gets his raw materials in the case of metals free of duty if brought in as ore or at a low rate, if in the semi-manufactured state.(1) The assembler on the other hand receives only the amount of protection afforded by the difference between the rate on completed cars and that on parts. The absolute rate then is to him a matter of minor or at least secondary importance. Within reasonable limits, it is not of real consequence whether the duties be, on the whole high or low, as long as the difference in rates is maintained. This applies of course to the assembler pure and simple. As soon as an assembler commences to manufacture he begins to immediately feel the need of an absolute rather than a relative rate on parts.

This condition is really just as it should be. The erection of an assembly plant does not require the extent of outlay that is necessary if manufacturing is contemplated. Viewed from the national standpoint a plant engaged simply in constructing cars from finished parts is not likely to be as permanent as a manufacturing establishment would be. But since every industry must walk before it can run, it is essential to give some incentive to attempt a

(1) Pig Iron & iron ingots $2.50 a ton duty, brass in blocks ingots or pigs 10%.

beginning. This the five per cent difference in rates has been effective in doing.

There is however a positive disadvantage to such a scheme. While it encourages the automobile producer to assemble in Canada it effectually shackles the price of the Canadian product to that obtaining in the United States. Unless the American retail value is lowered, the assembler cannot hope to increase his output, by the usual method of cutting the cost to the consumer. The price of his raw materials--the American-made parts, is fixed by conditions over which he has no control. Obviously, if finished parts in Canada cost on the average 30% more to the importer than do the identical items south of the international boundary, then the person who makes these parts into completely assembled cars must charge at least 30% more for his product than he would get in the United States or go out of business.

Nor is this condition to be rectified by the purchase of Canadian made parts. In the first place, the itemizing of the tariff as already explained, makes the manufacture of certain important constituents unprofitable. Then the manufacturer of parts, himself subject to a hierarchy of rates, is in somewhat the same position as his customer, the motor car assembler, although usually the amount of latitude is much greater in case of the former.

V.

THE EFFECT OF PREFERENCE ON THE INDUSTRY IN CANADA.

While the Canadian tariff has been the major factor in the rapid rise of the automobile industry in this country, the preference clauses in the tariffs of several nations of the British Empire have played a conspicuous part. The full extent of the benefit derived from this favoured treatment can be seen from a summary of the export trade of 1924. In that year, of the total production of 132,580 cars of every type,[1] 56,655,[2] or 42½% were exported. Of this number 72.2%[2], were shipped to ports within the Empire.

The United States, on the other hand, enjoys no reciprocal arrangements or trade concessions from Great Britain, or any of the Dominions. To the American manufacturer, however, development of an export trade is necessary in order to find a market for the ever-increasing flood of production. To do this to the best advantage involves the establishing Canadian branch factories from which vehicles and parts could be shipped under preferential rates.

But if the products of the Canadian factories are to compete on a basis of equality with those of the United States in

(1) Dept. of Trade & Commerce Report on the Automobile Industry in Canada,1924,page 3.)
(2) Ibid, page 5.

the markets of the world, it is very necessary that manufacturing costs should be more or less on a parity with these obtaining within our commercial rival. Obviously this could not be thought of if the Canadian exporter has to pay the equivalent of a 30% duty on all the parts that he required. To meet this difficulty the Dominion Government allows a drawback of 99% of the duty paid by the importing manufacturer upon the latter producing sufficient evidence to show that the parts concerned have been re-exported either individually or in the assembled state.(1) The same regulation applies to the sales tax where it has been collected. By means of this arrangement costs of production are made to compare favourably with those in American plants, and the Canadian industry is able to take advantage of the preference that it enjoys to the fullest extent. This provision, however, creates a situation which may react unfavourably toward the Canadian parts manufacturer. To supply the domestic demand the assembler buys, where possible, from the local maker of parts, either because such a plan effects an actual saving, or for the sake of convenience. The price of Canadian-made parts may equal the cost of similar articles in the United States, plus the import duty. More likely it will be slightly less. At any

(1) Order in Council dated March 25,1920.

rate it is bound to be higher than the cost of like goods at the American factory. If, then, the Canadian assembler can get parts at the American price (which is what the 99% drawback provides) for use on his exported cars, he will certainly not, in consideration of his own interests, pay the extra amount to secure a made-in-Canada product, upon which no drawback applies. To the extent that this is taken advantage of, the automobile manufacturing business in Canada suffers. Whatever its actual importance may be, it is a potential factor tending away from the building up of an independent Canadian parts industry.

In 1915 the Asquith Government imposed the McKenna duties on certain specified articles. Under this Act motor cars, including motor bicycles and motor tricycles, intended for passenger use only, and all accessories and component parts of these excepting tires, were made subject to a 33 1/3% duty. Motor omnibuses, motor ambulanees and fire engines, commercial vehicles, chassis and parts for the same, were left on the free list. Four years later, in 1919, the Lloyd George Government granted am Imperial preference of 1/3 of the duty. While this concession applied to all the items mentioned in the McKenna Duties, the preference on motor cars really affects only Canada, because she alone of all the British Dominions i s

in a position to export automobiles.

To illustrate the importance of this arrangement in building up the automobile industry in this country, the case of the Yellow Cab Manufacturing Company may be cited. This Corporation established a branch at Orillia, known as the Canadian Yellow-Cab Manufacturing Co., to build cabs for export to London, England. When the McKenna duties were repealed by the late MacDonald Government in 1924 , the Company found its Orillia plant to be unprofitable and discontinued operation in Canada. Despite the fact that the duties were almost immediately re-imposed by the Conservative Government, the Canadian Company has not resumed business.

New Zealand accords to Canada very generous treatment, placing her on an equality with Great Britain in respect to import duties on automobiles. All motor vehicles, including commercial tractors, are subject to a 10% duty when entering from Canada. A 25% duty is imposed on similar cars from the Umited States. In addition there is a specific duty according to the type of body fitted. Single-seated bodies of Canadian or Imperial make pay £5 which is 50% lower than the amount charged on American bodies of the same kind. Double-seated bodies are granted a similar preference, £10 and £15 being the respective rates in this case. All bodies with fixed or movable canopy tops e.g. laudaulette, limousine, taxi-cab and similar types are charged at the rate of £15 apiece,

if their origin is Canadian of £22.10. if American.[1] Many parts are considered as complete vehicles and subject, therefore, to the 10% rate, while others are dutiable according to material under the appropriate item of the New Zealand tariff.[1] Rubber tires and tubes stand at the same rates as motor vehicles except that no surtax is applied.[2] In addition to the duty, all imports into New Zealand are subject to a primage tax of 1% as. val. which applies whether the duty is high, low or nil. There is a clause which provides that the British Preferential Tariff will be applied on the basis of 50% of British material and labor. Prior to April 1st of this year the requirement was only 25%.

The Australian tariff may be contrasted with that of New Zealand in almost every respect. In the first place comparatively little preferential treatment is granted to Canada, and that little was won only a short time ago, when under the "Australian Trade Agreement Act 1925"[3], some benefits were given to certain Canadian manufactured goods in return for a special consideration of Australian dairy produce. The articles which are affected are "Parts of vehicles with self-contained power, propelled by petrol, steam, electricity, oil or alcohol.....whether incorporated in the complete vehicle

(1) New Zealand Tariff, Item 550
(2) Ibid Item 275
(3) Assented to June 27.

or separate, viz: Chassis, but not including rubber tires, (a) unassembled, 7½% if Canadian made, 12½% if produced in the United States. No duty is paid on shipments under this head from Great Britain. (b) Assembled 10% from Canada, 17½% from United States, and 5% from the United Kingdom.(1) In addition, vehicle parts, including undergear (inclusive of axles, springs and arms) hoods, wheels and bodies not otherwise identified, are subject to a 50% rate from Canada, and a 55% from the United States, and a 40% rate from Great Britain.(2)

Another point of peculiarity in the Australian tariff affecting motor cars is the number of items upon which a specific duty applies. Especially is this true of bodies and their parts. To encourage the manufacture of this item in Australia a heavy specific rate is imposed whether or not the body is attached to a chassis. The duty is as high as £75. on a closed car body.(3) In this article, Canada received the same treatment as United States.

While the tariff in operation in the Union of South Africa is not excessive, it provides for no Dominion or even

(1) Australian Tariff Item 359, Section D, part 4.
(2) Ibid. Item 359, Section F.
(3) Ibid. Item 359, Section D, part 3.

Imperial preference. Motor cars are classed according to their free on board value. When this is less than £400 a 20% rate applies to all countries. If the value ranges from £400 to £600 the rate is 22%, while 25% is the maximum. Evidence of an attempt to build up an Australian industry is to be seen in the provision which allows chassis imported for bodies to be built in the Union to enter at 10%.(1) A slight Empire preference has been given on tires and tubes.(2)

The scale of duties imposed by India resembles that of South Africa, in that it provides a uniform rate for cars irrespective of origin. Motor cars and articles adpated for use as parts and accessories are subject to an ad.val. duty of 30%(3), while motor omnibuses, motor-lorries, motor-vans and their component parts and accessories enter under a 15% rate.(4) A duty of 30% applies to pneumatic tires and tubes for motor cars and motor lorries(5) while solid tires of all varieties are on the 15% list.(6)

New Zealand was Canada's best customer in 1924. In that year she absorbed $6,145,344 worth of our automotive products. Of this amount over five million dollars was for passenger cars, 9,511 of which were bought. In addition, 1881 commercial cars were purchased from Canada. This represents about 19.5% of

(1) Union of South Africa Tariff.Item 129,section (a)(b)(c) & (e)
(2) Ibid Item 260
(3) India: Tariff Item 68
(4) Ibid Item 67
(5) Ibid Item 130
(6) Ibid Item 135

Canada's total export. Next in order of importance is Australia who spent nearly six million dollars on Canadian-made cars and parts. In actual number of cars imported Australia far surpasses her neighbour. For example, 3.1 times as many trucks and 754 more passenger-cars were sent to Australia in 1924 than to New Zealand, but in aggregate value the latter leads.

The United Kingdom was Canada's next best customer in 1924 absorbing 5,701 passenger cars and 1264 trucks, which, with over half a million dollars worth of parts, brought Britain's indebtedness to the Canadian automobile trades up to $4,800,000. British South Africa bought to the extent of $2,900,000, almost half of which was for parts. India absorbed almost twice as many passenger cars and over fifteen times as many commercial vehicles, but her small demand for parts placed her, after South Africa, in order of importance. The latter took 9.3% of Canada's automotive exports, while India absorbed 9.1%.(1)

Outside of the Empire the Argentine supplied Canadian automobile exporters with the most trade, taking 5.7% of the total. 1919 passenger cars were shipped in 1924 but no trucks. Similarly trade with Brazil was confined to passenger cars

(1) Trade & Commerce report on Automobile Industry 1924.

and parts to the extent of 2.4% of all exports.[1]

It is impossible to go through the long list of countries which purchase motor cars and their equipment from Canada. There is hardly a single political entity or geographical unit which is not on the list. Even such remote corners of the world as Belgian Congo and Korea are to be found there.

The importance of Canada's trade in automobiles can be seen from the position occupied by automotive products among the country's exports. Only three commodities, the products of large and long-established industries[2] exceed its output for external consumption. In 1924 the value of foreign business was $37,991,281.[3] Corresponding figures for 1925 show an increase of 6.3% to $40,387,904.85.[4] This represents the value of 75,411 passenger cars, trucks and chassis and $4,400,000 in parts.[4] 47.2% of the total output was exported.

Exportation is confined, for the most part, to the larger Companies and those which have been established in the country for some time. The Ford Motor Company leads both positively and relatively, slightly over 50% of its production being shipped abroad. The Company controls the Ford Motor

(1) Ibid
(2) Grain & Products, Pulp & Paper, & Manufactured wood.
(3) Facts & Figures of the Automobile Industry in Canada. (1925) p. 2 D.
(4) From Figures provided by Automotive Industries of Canada.
(5) From figures supplied by the Ford Co. of Canada.

Co. of South Africa with an assembly plant at Port Elizabeth. This explains the large shipment of parts to that country. The Colonial Motor Company Limited of New Zealand look after the Ford's interests in that Dominion. General Motors Corporation make about 40% of their output for the export market.(1) The Empire and Foreign trade of the Chrysler Corporation of Canada oscillates between 25 and 40 per cent (2). At present Durant Motors of Canada are not active in the export trade but they expect to be shipping Star cars to the British possessions sometime within the next few months.

It is interesting to compare the foreign trade in automobiles of Canada with that of the United States. During the calendar year 1924, the latter country exported 178,730 cars and trucks.(3) Canada's external business for the same period was 56,655 or 31.7% of the American total.(3) In consideration of the enormous annual production in the United States amounting in that year to 3,144,999 motor vehicles,(4) or 23.7 times that of Canada, this proportion is unusually large. In terms of the dollar the Canadian exports were 12½% of those from American plants.(5)

1. From figures supplied by General Motors Corporation
(2) " " provided by Chrysler Corporation
(3) Facts & Figures of the Automobile Industry in Canada, 1924. p.19
(4) U.S.Dept. of Commerce Report on automobile Production. Nov.25.1925.

VI

TARIFF REDUCTION AND THE ROBB BUDGET.

On March 29, it being a private members' day, Mr. G.G.Coote of MacLeod moved in the House of Commons:"That in the opinion of this house a substantial reduction should be made in the Customs Tariff on automobiles and motor trucks".(1) Thereupon ensued a debate in which both sides of the house, all three parties, and every shade of opinion were represented. That the question is one of very great importance could be seen by the interest which was displayed by members from every section of the country and from almost every province.

Mr. Coote opened his speech by pointing out the important position that the motor car occupies to-day in the life of the community, especially in rural districts in the West. Ownership, he said, is restricted to an undesirable degree by the price charged by manufacturers which is in every case much higher than in the United States. From every part of the country he claimed, was the demand for a revision of the tariff on automobiles to be heard. Frequent mention was made of the Ford Motor Co. Especially was attention drawn to the large sums which had been paid to stock holders of this business in the form of cash and stock dividends since the inauguration of the Company in 1905. He went on to show that the benefit which the country derived from the industry, in the form of wages, salaries and payments to the government to cover import duties less drawbacks

(1) House of Commons Debates, 1926, p.2076

was only slightly over one half of the price charged by automobile manufacturers in excess of that in the United States. He further emphasized the necessity for immediate action with regard to the tariff, without leaving the matter in the hands of the newly-appointed tariff board. He concluded by saying that it was not within the spirit of the National Policy for any industry to be permitted to take advantage of the tariff to the full extent as is being done in the case of automobiles, when it is unnecessary to do so. The motion was seconded by M. Georges Bouchard of Kamouraska, P.Q.

In reply Mr. Raymond Morand, in whose constituency of East Essex are the Border Cities, pointed out that the profits mentioned by Mr. Coote are not peculiar to the Canadian Ford Company but are enjoyed by the Detroit Corporation as well. He intimated the extent to which the industry gave employment to citizens of the Border Cities and the amounts distributed by the local automobile and parts manufacturers in the form of wages and salaries. He showed that if cars werenot made in Canada but imported from the United States, the railways would lose a considerable revenue because entry would be made at the point nearest to the place of delivery instead of being carried completely over Canadian routes. Mention was made of the duty on parts as one cause of the higher price of cars in Canada, while the higher scale of taxation in this country was briefly touched upon, and the

benefits of quantity production were emphasized. He closed with an appeal to submit the question to a thorough revision, presumably by the tariff board, and to reduce federal taxation in lieu of a tariff decrease.

Mr. Robert McKenzie of Assinboia who next rose to address the House, explained the real interest which his constituents felt in the proposal to lessen the tariff burden on motor cars. He claimed that a lowering of the tariff could not result otherwise than in a decreased retail price, which in turn would act favorably upon production, resulting in increased employment rather than in a general closing down of factories. Mr. McKenzie recognized the important fact that the Ford Motor Co. is unique in its financial standing among the automobile industries of this country. He ended by emphasizing the already mentioned argument that it was necessary to submit the question to the Tariff Board.

Mr. T.E. Kaiser of Ontario County pointed out the importance of the automobile industry to the city of Oshawa, in his constituency, and dwelt at length upon the liabilities incurred by the municipal corporation because of the existence of that industry and those that supply it with raw materials. He pointed out how the reduction of the duty on agricultural implements in 1923 had worked adversely to the people of Oshawa and intimated that a decrease in the protection on motor cars would be much more far-reaching in its effect. A summary of the benefits which the country

as a whole and the City of Oshawa in particular receive because of the existence of the industry in Canada, was presented. He endeavoured to show that the sources of supply for raw products affected not only his own city or even the Province of Ontario alone, but practically the whole country, that any embarrassment to the General Motors plant would react unfavorably on many important industries throughout the Dominion.

Mr. Thomas Donnelly of Willow-Bunch attacked the automobile industry on the ground, that it cost the country too much to sustain.

Mr Theodore Gervais (1) spoke at length on free trade as an ideal but unfortunately unachieveable condition. He declared his faith in the Government and his willingness to leave the question to their decision.

Mr. C.H.Cahan (2) argued that Canada is still in a state of development and insisted that the nature of Canadian industries of all kinds, being as they are branch factories of American establishments, renders the need of a substantial and perpetual tariff imperative. He claimed that profiteering could not be eliminated by the mere reduction of import duties, and suggested as an alternative the socialization of profits which bear unduly upon the consumer.

(1) Berthier-Maskinongé
(2) St Lawrence-St George

Mr. M. N. Campbell of Mackenzie explained that the loss of import duties to the Government by reason of the manufacturing of motor cars in Canada was some $19,000,000 in excess of the wages paid to automotive employees. In Mr. Campbell's opinion the proposed reduction would not lead to additional unemployment because the increased output which would inevitably result would lead to a great demand for garage and service men of all kinds. He recalled the statement of Sir John A. Macdonald, when the latter was presenting the National Policy, to the effect that this policy was only to foster infant industries and that no industry could be considered as being in the infant stage when it was able to compete with other countries in the markets of the world. The volume of Canadian automotive exports showed that the industry is in a very healthy condition.

Another Western member, Mr. John Vallance,(1) referred again to the higher price of Canadian cars and for the need of cheap transportation facilities of this nature in the West.

The only maritime member who took part in the debate, Mr. R.H.Jenkins of Queens(2) described himself as being in hearty accord with the motion, referring to the existing tariff as not being impartial.

(1) South Battleford
(2) Prince Edward Island.

Mr. A.J.Anderson[1] told the House that the Willys-Overland Sales Company, which is situated in his constituency, supports a large number of the persons whom he represents. He spoke of the effects of proximity to the United States on the automobile industry. Mr. Anderson quoted figures illustrating the point which has been emphasized of Chapter IV of the present discussion, namely, that the degree of protection afforded to assembling Companies[2] is not the full 35% but rather the difference between that amount and the rate on imported parts. He spoke briefly of the seasonal nature of the industry in Canada and the dependence of other businesses upon it.

Mr. S.G.Tobin of Wetaskiwin expressed his approval of the motion and replied to some of the statements made to those who opposed it as did Mr. A.M.Young of Saskatoon. Upon the motion of Mr. J.E.Letellier[3] the House adjourned without putting the question.

While many matters of interest and importance were dealt with, it would seem that the subject of most vital concern, the whole crux of the situation, had been totally overlooked. Although

(1) Toronto-High Park
(2) $72.87 is paid by the Company to the Government as duty on the parts imported for each Overland four-cylinder touring car turned out.
(3) Crompton

several speakers accused the automobile companies of taking full and unjust advantage of the tariff, none apparently realized that this was inevitable in most cases because of the small differential ratio between the tariff on parts and that on finished cars. In fact the import duty on parts was scarcely mentioned by the Liberal and Progressive members who upheld the motion for reduction.

Figures of prices and costs were quoted in connection with several plants and their products, but the only corporation whose financial standing and income account was specifically criticized was the Ford Motor Company. Attention was repeatedly called to the abnormally large dividends distributed by this Company almost from the date of its birth. Nor is the statement unjustified. However, it was erroneously inferred, that what is tr of the Ford Company is true of every Canadian automobile producer. The majority of Canadian plants turning out automobiles do not profit unduly by the tariff.

The explanation is to be found in the fact that in actual practice, the Ford Corporation enjoys the full benefit of the 35% tariff because it imports practically no parts but makes almost the entire car within the four walls of its own plant. By so doing it is able to absorb the amount which would otherwise be paid to the government in the form of import duties on parts. On the other hand, the other automobile companies are more or less

assemblers, as has been explained, and consequently have to pay considerable amounts in duties on importations, their gain being the difference between these sums paid on parts and that which would have to be paid upon a completed car upon entry into Canada.

In submitting his Budget on April 15th, the Minister of Finance, the Hon. J. A. Robb, proposed the alteration of the tariff in respect to motor vehicles as follows:

Item 438a - automobiles and motor vehicles of all kinds not otherwise provided for--

(1)	(2)		(3)
15%	25%	and	27½%

Item 438 b. Automobiles for conveying passengers only, value at retail with standard equipment complete at not more than $1200.00 each; motor cars or motor trucks (not for railways or tramways) for carrying goods only; motor cycles --

(1)	(2)	(3)
12½%	17½%	and 20%

Item 1055. Materials including all parts when used in the manufacture of goods enumerated in tariff items 438 a and 438 b. Provided that no drawback shall be paid under this item, unless at least 50% of the cost of the finished article has been produced in Canada, 25% drawback.

(1) British Preferential Rate
(2) Intermediate Tariff
(3) General Tariff.

Viewed in the light of the preceding discussion what is the significance of the tariff revisions? The impression which is obtained is that the changes are ill-considered and unscientific in the extreme. It takes away from the assembler his narrow margin of profit without materially affecting the maker of parts.

As has already been demonstrated most Canadian companies engaged in the production of motor cars do not manufacture to anything like the extent of 50%, nor do they even put into their car Canadian-made material to this amount. To any businesses coming under this head the cost of their raw materials--the completed parts from the United States would be prohibitive, at least in so far as they produce for the domestic market. Mr. Robb in one of the few comments which he has subsequently made upon his proposed tariff revisions, when approached in connection with this very subject, stated that it was frankly the intention of the Government to force plants to produce at least half of the value of their products in Canada or purchase an equivalent amount from other Canadian firms.

In the case of those companies who do come within the scope of the drawback clause the effect will be much less onerous. In this connection it is necessary to distinguish between moderate and high priced cars i.e. between cars costing $1200 and less in the United States and those whose retail price is

higher than this amount.

Let us consider the latter type first. The import duty on this class is 27½% from the United States. Accepting 30% as the average amount of duty on parts, the operation of the 25% drawback clause would make the net rate on parts from the United States 22.5%. Thus the differential rate upon which the assembler worked heretofore is maintained except for the made-in-Canada stipulation. It is conceivable, however, that although the drawback clause will encourage manufacturers of this class of car to make or buy the required 50% in Canada, it may have the additional effect of limiting the Canadian-made portion to 50%. As long as the purchaser is within this minimum he is entitled to the drawback on imported, but not on domestic parts. If then the price of Canadian parts is as much as 22.5% above that of corresponding articles in the United States, the temptation to the manufacturer will be to import as much as is permissible.

This possible development does not apply to the manufacturer of the low or medium priced car. Under the application of the drawback he would pay, on the average, 22.5% duty on parts, while the amount of protection that he receives is 20%. Consequently a loss on all parts purchased abroad is sustained, creating an incentive to make as much as possible in Canada. If, however, he endeavours to manufacture all articles under the 35% and 30% rates of duty, and imports only those in the 27½% class, the net tariff to (1)

(1) Under which come motors, transmissions generators, etc, See in this connection Appendix A.

to which he would be subject would be 20.63%, when the drawback is considered. Although the loss on imported components is less in this case, there is still a sufficient incentive to manufacture or purchase in Canada.

Bearing these facts in mind, it is possible that it was the specific intention of the Government, in drafting the new tariff on motor vehicles, to test the real ability and permanence of the various companies producing automobiles, and to eliminate those operating on an unsound economic basis. If we take the view-point that firms who simply assemble foreign-made parts are not an important asset to the country because of the relatively small number of men that they employ, and because of their complete dependance upon an external source of supply, the attitude of the Government is quite justifiable. It may not be a bad thing, after twenty years of protection in the automobile industry, to take stock of how far we have progressed.

A conjecture as to the probable effect of the tariff change on the different companies operating in Canada, and the future of the industry as a whole, is here in order. In the first place, the new scale of duties will not materially disturb such companies as really manufacture all or nearly all of their product on this side of the International boundary. This applies to the Ford Motor Company of Canada and Brooks Steam Motors Limited. In the case of the Ford Company the only consequanee will be a falling off in the profit per car, which beyond all doubt will

be compensated for by the increased volume of production. It is doubtful if the revision of the tariff will affect the Brooks Company in the least, as their car is not made in the United States (1), and is, by its very nature, in a category of its own.

To the extent to which the Canadian automotive firms produce for the export market, they will be untouched by the lower duty. The exporter is not concerned with the Canadian tariff in the least, but only with that of the country or countries to which he ships his product. This factor, of course, has remained unchanged. For this reason the Chrysler Corporation of Canada and Willys-Overland Sales Co. will probably continue. General Motors of Canada have already signified their intention of doing so in their more important lines at least. Durant Motor of Canada is already well over the 50% minimum required by the drawback clause. Dodge Bros. Motor Car Co. will undoubtedly make an effort to reach this standard.

The attitud of Mr. Henry Ford towards the Canadian tariff revisions is interesting and perhaps not altogether surprising. In a recent issue of the Ottawa Evening Citizen, there was a copyrighted article by Charles Vining, describing an interview with the President of the Ford Companies. It said: "Mr. Ford would not merely reduce the tariff on certain classes

(1) See Chap.11. in this connection.
(2) As 99% of the duty he pays is returned upon re-export.

of automobiles, he would wipe out all tariff. He would establish free trade absolute and unequivocal. As a manufacturer of automobiles in Canada, he believes the tariff to be a hindrance and stupidity." Quoting Mr. Ford: "You people are just waking up. You ought to rub the other eye now, too, and clean out the tariff". When asked if he could manufacture in Canada as cheaply as in Detroit, Mr. Ford replied, "I can. Give me that plant at Ford City and I'll compete with the plant here at Highland Park any day. Why shouldn't I? Our unit in Canada can buy as cheaply as we can here. We make every part of the car in the Canadian plant, and 95%, over 85% any-way, is supplied right in Canada. We get our steel from Algoma, lumber, everything we need. "

In reference to large scale production, Mr. Ford explained that it did not offer any advantage after a certain point, and that point had been reached at the Canadian Ford plant. Commenting on the benefit of lower prices to the automobile manufacturer, Mr. Ford said: "It's quite simple. Lower prices mean more buyers, more buyers mean more business, more business means growth for the manufacturer. I would cut out the tariff", he repeated, "and have free trade. Free competition brings healthy business. I can tell you that those fellows over in our Canadian unit are going to manufacture more efficiently now. They'll have to; it's going to be a better plant over there, better organization. That's another reason why it's a good thing for the manufacturer."

APPENDIX A.

Tariff on automobile parts entering Canada from the United States prior to April 15,1926.

Description.	Rate
Acetylene tanks (brass)	30
Aluminum Castings	25
Ammeters	27½
Anti-skid rivets (steel)	30
Automobile covers (tops)	35
Axles	35
Ball bearings	27½
Battery box brass, parts	30
Bearings	27½
Bells	30
Belts,fan,leather	22½
Bent-wood work,unfinished	25
Bodies,complete	35
Bodies, eteel, unfinished and unupholstered	30
Boilers	27½
Boiler parts or iron or steel	30
Bonnets	30
Brakes	30
Brake drums	30
Brake band lining, asbestos only	25
" " " w. brass wires embedded therein	30
" " " cotton w. brass embedded therein	30
Brass castings	30
Brass pipe fittings	30
Carbide	17½
Carburetors)	30
Castings,rough,) brass	30
according to) for engines	27½
material) iron or steel n.o.i	30
Chain repairers according to material	
Chain adjusters	30

Appendix A. (2)

Description	Rate
Chain guards according to material	
Chains, non-skid	30
Charging apparatus, electric	27½
Chassis	35
Clips & Clamps Iron or steel	30
Clocks	30
Clutches iron or steel	30
Cocks,brass	30
Commutators	27½
Cushions, according to material	
Cyclometers	25
Dashes & fenders, according to material	
Differential gears	30
Dust Shields, according to material	
Electric auto motors	27½
Engine packing, rubber	35
Engine parts, integral, or iron or steel	27½
Felt washers & dust rings	35
Foot bellows for horn,leather	25
Forgings	30
Frames, or with engines attached but without axles or springs	30
Fuel-level indicator,brass	30
Gasoline auto engines	27½
" engine fittings,brass	30
" syphon,brass	30
" tank gauges, brass	30
Gear cases,according to material	
Gears, 1 differential	30
" & pinions, iron or steel, steering	30
Generators, acetylene,brass	30
Grademeters	25
Grease cups,brass	30
Hampers	30
Horns,brass, if not plated	30
" " if plated	35

Appendix A. (3)

Description	Rate
Horse clamps & menders, according to material	
Housings, axle, according to material	
Hubs, with sprockets attached	30
Igniters	27½
Ignition apparatus	27½
" batteries	27½
Iron castings, rough	27½
" " finished, if engine parts	27½
" " otherwise	30
Insulators	27½
Jacks, according to material	
Lamps	30
Lamp brackets, according to material	
Lamp parts, metal	30
" storage batteries	27½
Lock nuts, iron or steel	30
Lubricators, according to material	
Luggage carriers, racks of iron or steel	30
Mats, rubber	35
Moto-meters	25
Mud Guards, according to material	
Mud Guard attachments, according to material	
Oil Meters	25
Oil cans, brass	30
Oil cups brass	30
Oil guns, brass	30
Oil hole covers brass	30
Piston rings	27½
Portable electric lights	30
Pressed steel body frames	30
" " channels & angles	30
Pumps, tire, according to material	
" oil " "	
" water " "	
" brass circulation, according to material	
" connections, according to material	
Pumps, iron or steel, operated by engine	27½
Radiators, iron or steel	30
Rims, steel	30
Roller Bearings	27½

Appendix A. (4)

Description	Rate
Spark Coils	27½
Spark gaps	27½
Spark plugs	27½
Speed indicators	25
Springs-vehicle	35
Sprockets	30
Steel balls	10
Steering apparatus, according to material	
" knuckles "	
" wheels "	
" levers "	
" yokes "	
Steps, according to material	
Storage batteries	27½
Switches,electric	27½
Tanks,iron	30
" copper	30
Tires,rubber	35
Tire protectors and anti-skids,according to material	
Fire repair kits	35
" " tape	30
" " tools according to material	
" valves & stems	35
Tool bags	30
Tops	35
Transmission gears	27½
Universal joints, according to material	
Valves, engine, if iron or steel	27½
Vaporizers,brass	30
Volt ammeters	27½
Voltmeters	27½
Vulcanizers,according to material	
Wheels	35
Winfows,curtain, according to material	
Windshields, glass, " "	

Appendix B.

Comparative Table of Retail Prices in Canada and the United States on several popular makes and models, April 12, 1926

	PRICE WITHOUT TAXES			PRICE WITH TAXES		
Model	U.S.	Can.	Inc%	U.S.	Can.	Inc.%
FORD						
Touring	395	525	32.9	406.85	577.50	41.9
Runabout	375	495	32.0	386.25	544.50	40.9
Coupe	500	665	33.0	515.00	731.50	42.03
Tudor Sedan	520	695	33.6	535.60	764.50	42.7
Four-Dr."	560	775	37.1	581.95	852.50	46.5
CHEVROLET						
Touring	510	695	36.2	525.30	764.50	45.5
Roadster	510	695	36.2	525.30	764.50	45.5
Coupe	645	895	38.7	664.55	984.50	47.8
Coach	645	895	38.7	664.55	984.50	47.8
Sedan	735	985	34.0	757.05	1083.50	43.1
Laundralet	765	1045	36.6	787.95	1149.50	45.8
OVERLAND						
TOURING	495	695	40.4	509.85	764.50	49.9
MCLAUGHLIN BUICK						
SPECIAL SIX						
Touring	1150	1610	40.0	1190.50	1800	51.2
Two Door						
Sedan	1195	1670	39.7	1230.85	1865	51.5
Business						
Coupe	1195	1670	39.7	1230.85	1870	51.9
Four door						
Sedan	1295	1810	39.7	1333.85	2020	51.4
4-pass						
Couoe	1275	1785	40.0	1313.25	1995	51.9

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