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CANADA
DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
FOREST PRODUCTS BRANCH



REPORT
on the
CARRIAGE & WAGON INDUSTRY

in
CANADA
1928 - 1929

(Subject to revision on further examination of individual reports)

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Minister of Trade and Commerce

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OTTAWA

1931

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NOTE.- Production figures as given in this bulletin do not necessarily represent the total output in Canada of the commodities listed, as there may be also a considerable production in other industrial groups. For complete information this bulletin must be read with the rest of the series of wood-using industries and other publications of the Census of Industry.

DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
CENSUS OF INDUSTRY - FOREST PRODUCTS STATISTICS
OTTAWA - CANADA

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THE CARRIAGE AND WAGON INDUSTRY IN CANADA
1928 and 1929.

Ottawa, March, 1931 - A report on the manufacture of carriages, wagons, sleighs and parts thereof has been completed by the Dominion Bureau of Statistics for 1928 and 1929. The industry is divided into two groups, the first of which consists of factories engaged in the manufacture of what are known as "vehicle supplies" such as spokes, hubs, rims, axles and other wooden vehicle parts. These are sold to manufacturers assembling complete vehicles and to carriage and blacksmith shops for repair work. The second group includes factories manufacturing complete vehicles either from parts made by themselves or purchased from manufacturers of vehicle supplies. The latter class also includes firms engaged, to a certain extent, in the assembling of automobiles from purchased parts, the building of bodies on purchased chassis, and repair work. The manufacture of automobiles as an industry is dealt with in a report published by the Metallurgical Branch of the Bureau of Statistics.

There were 334 firms engaged in turning out complete vehicles in 1929 as compared to 399 in 1928 with a total capital investment of \$9,794,179 in 1929. These firms gave employment to 2,325 workers and paid \$2,745,992 in salaries and wages. Their raw materials cost \$5,268,973 and their products were valued at \$9,886,699.

The manufacturers specializing in vehicle supplies numbered 6 in 1928 and 6 in 1929. In 1929 their capital amounted to \$692,751, their employees numbered 146 and they paid out \$174,866 in wages and salaries. Raw materials in this group cost \$330,928, while the products manufactured were valued at \$639,107.

Tables 1 and 2 give a summary of the principal statistics of these two industries and the distribution of their plants by provinces.

The raw materials used in the manufacture of vehicle parts are chiefly hardwood lumber, bolts and rough turned spokes. Some softwood lumber is also used. Hoop, band and bar iron, steel and castings are also important. The products are chiefly hubs, spokes, bent goods and other miscellaneous items, with a total value of \$639,107.

Firms which manufacture, assemble or repair vehicles also use lumber as their most important raw material. In 1929 they purchased over fifteen million feet board measure, valued at over \$895,000 in addition to \$265,591 worth of hubs, spokes, bent goods and other wooden vehicle parts. Other important materials are paint, oil, varnish, leather, upholstering materials, textiles, glass, and rubber tires valued at \$4,095,014.

The products of this industry are divided into complete wheeled vehicles valued at \$443,750, complete sleighs at \$415,954, gears \$363,231, bodies and boxes \$209,656, hubs, spokes, bent goods, etc., \$42,562. These firms also manufacture autos valued at \$71,370, trucks valued at \$1,932,110, chassis valued at \$5,308 and truck and auto bodies valued at \$3,403,365. The amount received for painting and repairs was \$1,593,399, and other miscellaneous products amounted to \$976,808.

Tables 5 and 6 give the details concerning the materials and products of this industry, while Tables 7, 8, 9 and 10 cover details of capital invested, employment, fuel used and power employed in both industries in this group.

A. INFLUENCE OF HABITAT

M. S. L. and G. C.

ADULTS

JULY 2011

The influence of habitat on the life history of *A. fuscipes* is not well known. In the literature, there is no information on the influence of habitat on the timing of reproduction, the number of eggs laid, or the survival of the young. However, there is some information on the influence of habitat on the survival of adults. For example, in a study of *A. fuscipes* in the United States, it was found that the survival of adults was higher in areas with more vegetation than in areas with less vegetation (Brown et al., 1995). This suggests that the survival of adults may be influenced by habitat type.

In this study, we found that the survival of adults was higher in areas with more vegetation than in areas with less vegetation. This suggests that the survival of adults may be influenced by habitat type.

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THE CARRIAGE AND WAGON INDUSTRY, 1928 and 1929

Table 1. - Principal Statistics, 1928 and 1929

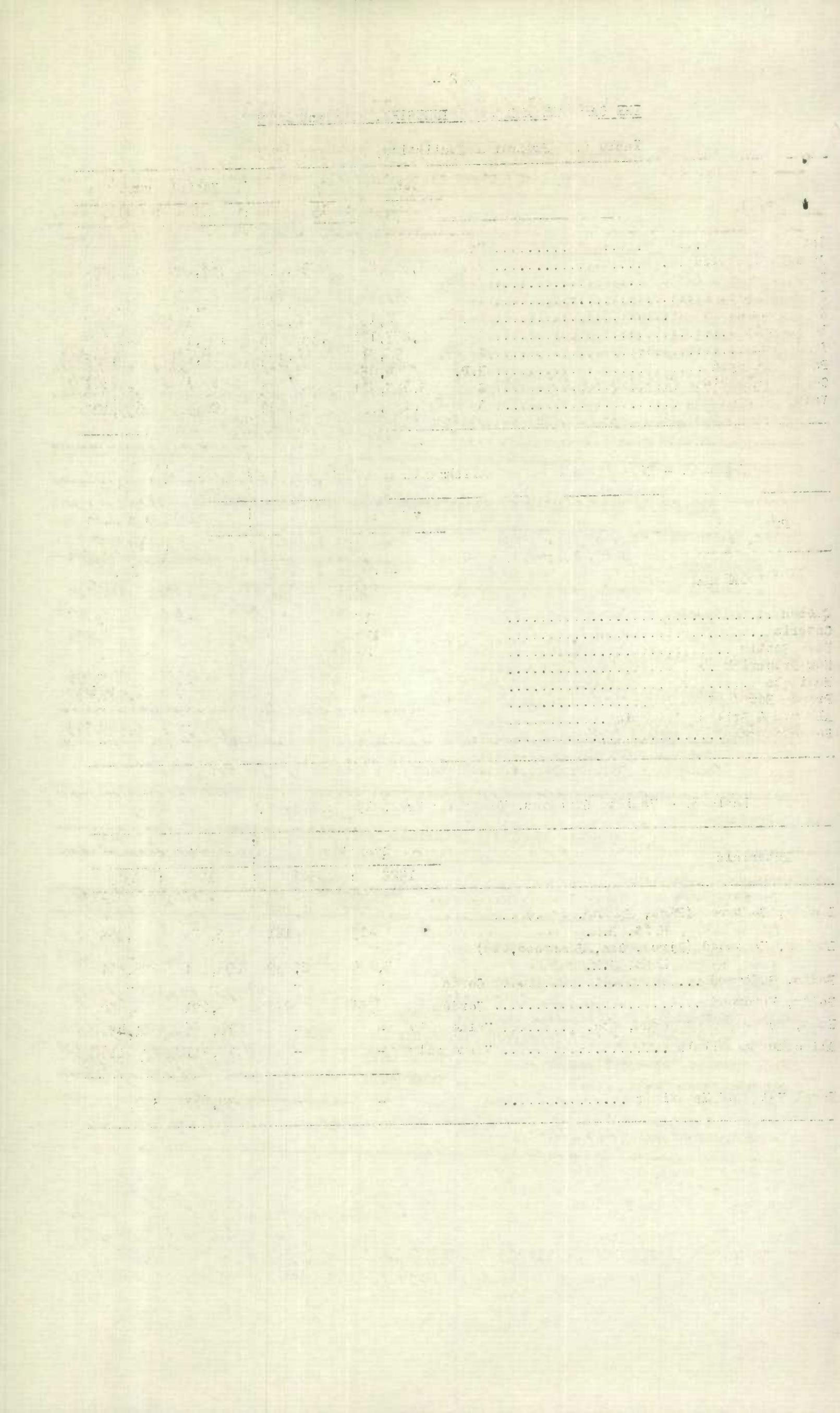
Items	Vehicle factories		Vehicle supplies		
	1928	1929	1928	1929	
Establishments	No.	399	334	6	6
Capital invested	\$	8,355,233	9,794,179	765,546	692,751
Employees on salaries	No.	202	195	19	18
Salaries paid	\$	338,934	389,047	41,384	33,984
Employees on wages	No.	2,199	2,130	153	123
Wages paid	\$	2,273,121	2,356,945	158,173	140,852
Fuel used	\$	95,813	90,643	6,673	6,163
Power employed	H.P.	4,054	4,686	708	721
Cost of materials	\$	3,688,371	5,268,973	470,668	330,928
Value of products	\$	8,194,936	9,886,699	800,721	639,107

Table 2. - Distribution of Establishments by Provinces, 1928 and 1929.

Provinces	Vehicle factories		Vehicle supplies	
	1928	1929	1928	1929
CANADA	No.	No.	No.	No.
Quebec	399	334	6	6
Ontario	217	174	-	-
Nova Scotia	112	96	5	5
New Brunswick	22	17	-	-
Manitoba	24	22	-	-
Prince Edward Island	7	7	1	1
Alberta & British Columbia	4	5	-	-
Saskatchewan	6	6	-	-
	7	7	-	-

Table 3. - Vehicle Supplies, Materials Used, 1928 and 1929.

Materials	Quantity		Value	
	1928	1929	1928	1929
Lumber, Softwood (Pine, Spruce, etc.) ...				
M ft. B.M.	113	121	5,479	5,953
Lumber, Hardwood (Birch, Oak, Basswood, etc)				
M ft. B.M.	3,540	2,539	293,121	226,971
Bolts, Softwood	Cords	-	-	-
Bolts, Hardwood	Cords	358	243	4,291
Hubs, spokes, bent goods, etc.	Value only	-	14,466	21,486
All other materials	Value only	-	113,311	73,416
Total Value of Materials	-	-	430,668	330,928



THE CARRIAGE AND WAGON INDUSTRY, 1928 and 1929

Table 4. - Vehicle Supplies, Products Manufactured, 1928 and 1929

Products	Quantity		Value	
	1928	: 1929	1928	: 1929
Hubs, spokes and bent goods	-	-	553,484	525,584
Complete wheeled vehicles, gears, bodies and boxes, wheels, splices, handles and dovetails, auto and truck bodies, painting, repairs and all other products	-	-	247,237	113,523
Total Value of Products and Work Done -	-	-	800,721	639,107

Table 5. - Vehicle Factories, Materials Used, 1928 and 1929.

Materials	Quantity		Value	
	1928	: 1929	1928	: 1929
Lumber, softwood (Pine, Spruce, etc.)				
M ft. B.M.	2,726	1,931	96,464	78,349
Lumber, hardwood (Birch, oak, basswood, etc.)	15,831	13,991	991,569	816,415
Bolts, softwood	Cords	574	194	3,388
Bolts, hardwood	Coris	1,345	605	13,570
Hubs, spokes, bent goods, etc.				
Value only	-	-	288,324	265,591
All other materials	Value only	-	2,295,056	4,099,237
Total Value of Materials -	-	-	3,688,371	5,268,973

Table 6. - Vehicle Factories, Products Manufactured, 1928 and 1929.

Products	Quantity		Value	
	1928	: 1929	1928	: 1929
Carriages and wagons:				
Complete wheeled vehicles	9,090	5,119	599,269	443,750
Complete sleighs	12,675	9,306	559,465	415,954
Gears only	10,517	8,807	455,618	363,231
Bodies and boxes only	Value only	-	346,764	209,656
Hubs, spokes, bent goods, etc. "	"	-	273,907	190,277
Bodies only (automobile and truck)				
Value only	-	-	2,948,137	3,403,365
Amount received for painting and repairs	Value only	-	1,475,105	1,593,399
Total Value of Principal Products -	-	-	6,658,323	6,619,632
Secondary Products:				
Agricultural implements, automobile trucks, chassis, children's wagons, stepladders, phonographs, sleighs, doll carriages, coffins & caskets, toboggan pungs, furniture and other cabinet-work, hardwood flooring, screen doors, windows and all other products	-	-	1,536,613	3,267,067
Total Value of Products -	-	-	3,194,936	9,885,699

Note:-- Data given here do not necessarily represent the total Canadian production under each heading, since these products are also listed under other industries.

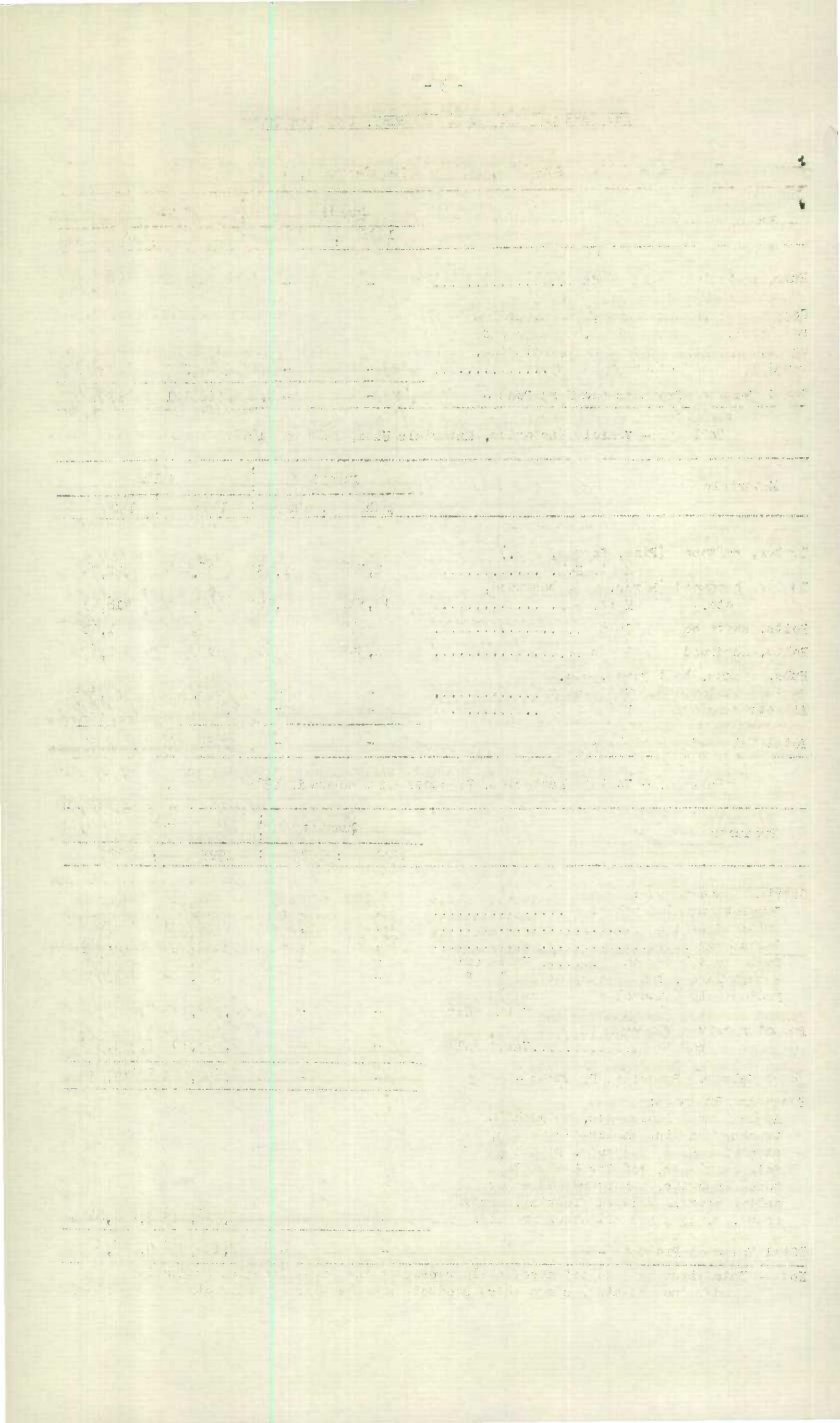


Table 7. - Capital Invested, 1928 and 1929

1928

Industry group	Total Capital Invested	Land, buildings, fixtures, Machinery and Tools	Materials on hand, stocks in process	Cash, trading and operating accounts, etc.
TOTAL	\$ 9,121,779	\$ 4,620,009	\$ 3,585,886	\$ 1,683,884
Vehicle factories	8,356,233	3,131,103	3,162,861	1,462,269
Vehicle supplies	765,546	320,906	223,025	221,615

1929

TOTAL	10,486,930	4,755,161	4,139,408	1,542,361
Vehicle factories	9,794,179	4,489,999	3,945,624	1,358,556
Vehicle supplies	692,751	265,162	243,784	183,805

Table 8. - Employment, 1928 and 1929.

1928

Industry group	Total Employees		Salaried Employees		Employees on Wages		Wages
	Male:	Female:	Salaries and Wages:	Male:	Female:	Salaries and Wages:	
TOTAL	2,524	40	\$ 2,812,112	189	32	\$ 380,818	\$ 2,431,204
Vehicle factories	2,365	36	2,612,055	173	29	338,934	2,273,121
Vehicle supplies	159	4	200,057	16	3	41,884	158,173

1929

TOTAL	2,427	44	\$ 2,920,858	177	36	\$ 423,031	\$ 2,497,827
Vehicle factories	2,285	40	2,745,992	163	32	389,047	2,356,945
Vehicle supplies	142	4	174,866	14	4	33,984	140,882

Table 9A. - Fuel Used, 1928

Kind of fuel	Vehicle factories		Vehicle supplies		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
TOTAL	-	\$ 95,813	-	\$ 6,678	-	\$ 102,491
Bituminous Coal, Can. ... tons.	3,351	\$ 11,831	223	\$ 1,469	3,574	\$ 13,300
" " Imported "	7,729	48,994	356	2,508	8,085	51,502
Anthracite Coal, "	677	8,950	13	145	690	9,095
Lignite coal, Can. "	143	1,760	-	-	143	1,760
" " Imported "	12	242	-	-	12	262
Coke	214	2,009	-	-	214	2,009
Gasoline gal.	20,147	6,110	325	81	20,472	6,191
Kerosene or coal oil	522	109	-	-	522	109
Fuel oil	46,976	4,260	-	-	46,976	4,260
Wood	cords 1,885	9,155	500	2,475	2,385	11,630
Gas m.c.f. 2,058	2,341	32	-	-	2,058	2,341
Other fuel	\$ -	-	-	-	-	32

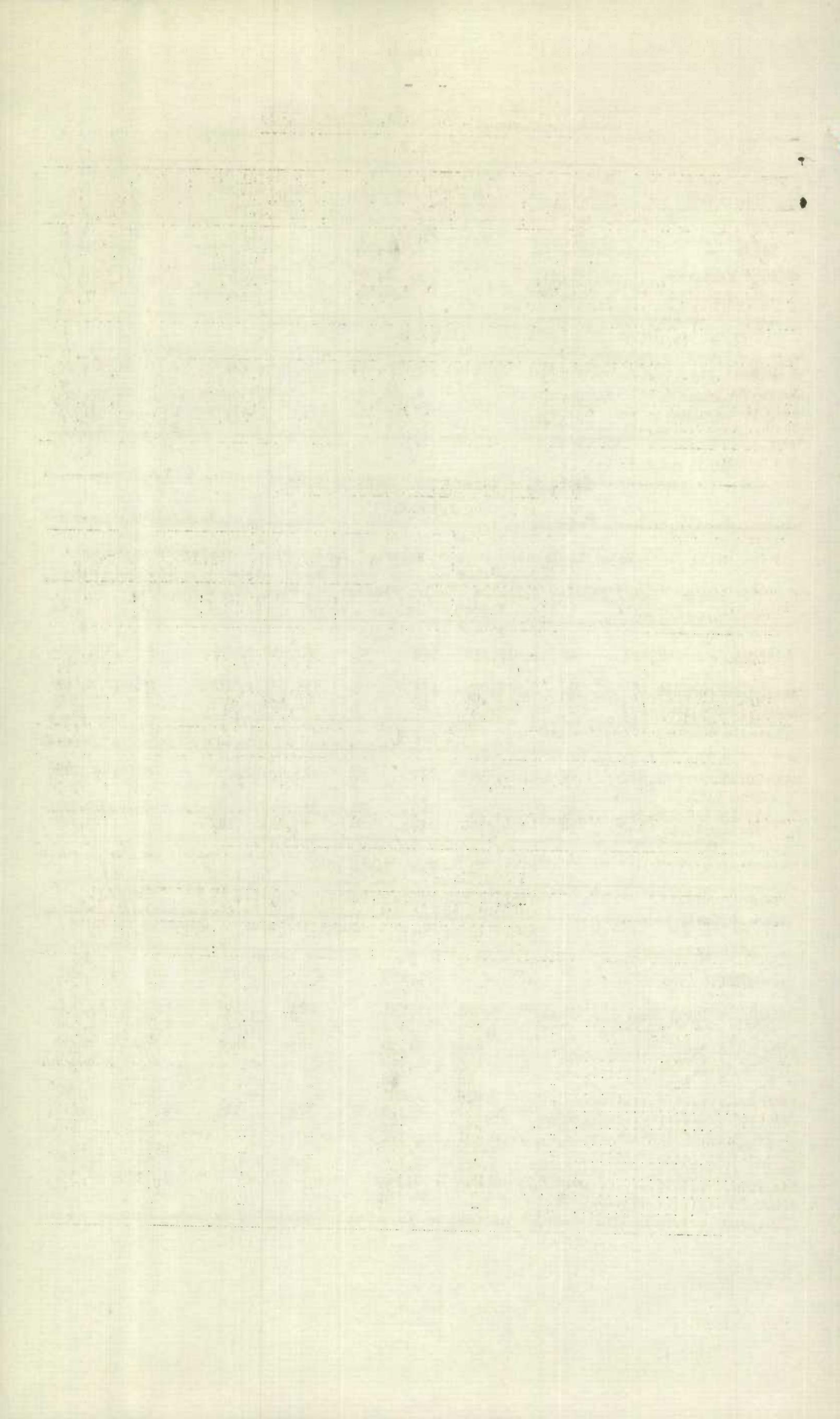


Table 9B. - Fuel Used, 1929.

Kind of fuel	Vehicle factories		Vehicle supplies		Total	
	Quantity: Value		Quantity: Value		Quantity: Value	
	\$	\$	\$	\$	\$	\$
TOTAL	-	90,543	-	6,493	-	97,036
Bituminous coal, Can. ... tons.	3,639	24,461	23	325	3,662	24,786
" " Imported "	5,312	38,473	515	3,562	5,827	44,035
Anthracite coal	441	6,291	-	-	441	6,291
Lignite coal, Can. "	30	373	-	-	30	373
" " Imported ... "	39	437	-	-	39	437
Coke	146	1,390	-	-	146	1,390
Gasoline gal.	18,261	5,375	40	12	18,301	5,387
Kerosene or coal oil ... "	369	90	-	-	369	90
Fuel oil	56,599	3,353	-	-	56,599	3,353
Wood cords	1,310	6,681	525	2,594	1,835	9,275
Gas m.c.f.	2,332	1,900	-	-	2,336	1,900
Other fuel	\$	1,319	-	-	-	1,319

Table 10A. - Power Employed, 1928.

Power units	Vehicle factories: Vehicle supplies :		Total			
	No.	H.P.	No.	H.P.		
Total power used	390	4,054	33	708	423	4,762
Stationary engines -						
Steam	18	1,192	3	255	21	1,447
Gas, oil and gasoline	122	735	-	-	122	735
Hydraulic turbines	1	8	2	50	3	58
Electric motors, purchased power	249	2,119	28	403	277	2,522
Electric motors, generated power	23	436	-	-	23	436
Boilers installed	31	2,191	5	465	36	2,656

Table 10B. - Power Employed, 1929

Power units	Vehicle factories: Vehicle supplies:		Total			
	No.	H.P.	No.	H.P.		
Total power used	440	4,686	33	721	473	5,407
Stationary engines -						
Steam	18	1,617	3	255	21	1,872
Gas, oil and gasoline	114	693	1	10	115	703
Hydraulic turbines	2	11	-	-	2	11
Electric motors, purchased power	306	2,305	29	456	335	2,821
Electric motors, generated power	20	367	-	-	20	367
Boilers installed	28	1,959	6	565	34	2,524

A complete list of the carriage, wagon and material manufacturers in Canada will be included in the directory of the final printed bulletin on the carriage and wagon industries of Canada for 1928 - 1929 which will be published shortly.

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