

Acting Dominion Statistician:
 Chief - Mining, Metallurgical and Chemical Branch:
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ANNUAL INDUSTRY REPORT

MANUFACTURES OF THE NON-FERROUS METALS GROUP

THE ELECTRICAL APPARATUS AND SUPPLIES INDUSTRY, 1940

This industrial group includes most of the concerns in Canada which manufacture equipment for use in the generation, transmission and utilization of electricity. However, it is not possible to include all such producers in this industry as the system of classification which is used for the annual Census of Industry provides for the grouping of concerns according to the chief materials used in manufacturing and under this system some important producers of electrical supplies must be allotted to other industries. For example, since clay is the chief material used in making porcelain insulators, the producers of these goods have been classified to the Clay Products Industry under the main group which embraces all manufacturers of non-metallic minerals; similarly, the makers of electric washing machines have been included in the Machinery Industry of the iron and steel group. Again, some electrical supplies were made as minor products of plants which were primarily engaged in other lines of business and, therefore, were included in other industries. The output of electrical apparatus in these other industries, including electrical accessories for automobile and household use but excluding office and industrial machinery, amounted in value to about \$20,123,000 in 1940. The items which go to make up this outside production are shown in Table 11, in as much detail as it is possible without violating the secrecy clause of the Statistics Act, which provides that the Bureau may not publish information pertaining to individual companies.

Statistics given in Tables 1 to 10 of this report cover only the concerns in the Electrical Apparatus and Supplies Industry. Table 11 shows the output of certain electrical apparatus by firms in other industries, and Tables 12 to 31 give the total Canadian output (regardless of the industry in which produced) of motors, generators, transformers, batteries, washing machines, vacuum cleaners, lighting fixtures, wire and cable, refrigerators, stoves, water tank heaters, radio tubes, conduit, radios, ironers, oil burners, incandescent lamps, switch gear and wiring devices.

Production by firms in the Electrical Apparatus and Supplies Industry was valued at \$130,001,367 in 1940, an increase of 46 per cent over the 1939 total of \$89,060,578. The 194 firms which reported in this group for 1940 were distributed across Canada as follows: 142 in Ontario, 26 in Quebec, 13 in Manitoba, 9 in British Columbia and 4 in Alberta. These plants had a fixed and working capital of \$118,825,205 and gave employment to a monthly average of 25,130 people who were paid \$35,246,655 in salaries and wages. Materials worth \$58,371,201 were purchased for use in manufacturing processes and an additional \$1,621,175 was spent for fuel and electricity.

Imports into Canada under the heading of electrical apparatus were valued at \$21,250,135 in 1940 against \$13,751,833 in the previous year. Exports of Canadian goods of this class were appraised at \$3,283,175 and re-exports at \$234,213. Corresponding totals for 1938 showed exports at \$3,229,469 and re-exports at \$236,786.

Table 1 - PRINCIPAL STATISTICS, 1929 - 1940

| Year | No. of plants | Capital employed | Average number of employees | Salaries and wages | Cost of fuel and electricity at works | Cost of materials at works | Gross selling value of products at works |
|--------------------------------------|---------------|------------------|-----------------------------|--------------------|---------------------------------------|----------------------------|--|
| | | | \$ | \$ | \$ | \$ | \$ |
| 1929 | 130 | 101,767,108 | 20,871 | 26,725,215 | 1,098,506 | 49,623,322 | 113,796,002 |
| 1930 | 149 | 102,979,896 | 20,568 | 26,260,004 | 1,082,700 | 43,111,629 | 104,577,790 |
| 1931 | 163 | 100,057,945 | 18,207 | 22,474,319 | 950,975 | 32,385,342 | 81,579,595 |
| 1932 | 169 | 82,458,754 | 14,305 | 16,262,568 | 976,453 | 20,414,844 | 53,264,918 |
| 1933 | 174 | 80,844,131 | 11,767 | 12,428,430 | 851,575 | 14,504,269 | 37,012,509 |
| 1934 | 174 | 77,980,366 | 13,657 | 15,220,022 | 986,528 | 21,308,006 | 50,234,811 |
| 1935 | 182 | 75,499,255 | 15,549 | 17,594,759 | 1,070,801 | 25,409,806 | 61,152,834 |
| 1936 | 186 | 79,794,524 | 17,037 | 19,501,982 | 1,187,942 | 30,484,468 | 72,288,548 |
| 1937 | 191 | 97,187,905 | 21,706 | 26,291,436 | 1,331,249 | 41,695,446 | 98,841,992 |
| 1938 | 188 | 97,122,970 | 20,353 | 24,978,077 | 1,199,103 | 35,916,344 | 90,129,119 |
| 1939 | 190 | 102,245,835 | 20,261 | 25,711,092 | 1,266,471 | 39,331,766 | 89,060,578 |
| 1940 | 194 | 118,825,205 | 25,120 | 33,246,655 | 1,621,175 | 58,371,201 | 130,001,367 |
| Per cent change 1940 from 1939 | ... | | +16.2 | +24 | +29.4 | +28 | +48.4 |
| | | | | | | | +45.9 |

NOTE: Profits or losses cannot be calculated from the above figures as data are not available for general expense items, such as, interest, rent, depreciation, taxes, insurance, advertising, etc.

Table 2 - PRINCIPAL STATISTICS, BY PROVINCES, 1939 and 1940

| Province | No. of plants | Capital employed | Average number of employees | Salaries and wages | Cost of fuel and electricity at works | Cost of materials at works | Gross selling value of products at works |
|----------------------|---------------|------------------|-----------------------------|--------------------|---------------------------------------|----------------------------|--|
| | | | \$ | \$ | \$ | \$ | \$ |
| 1939 | | | | | | | |
| Quebec | 27 | 23,244,787 | 5,010 | 6,501,725 | 331,348 | 8,777,582 | 20,375,847 |
| Ontario | 140 | 78,298,175 | 15,027 | 18,917,134 | 915,187 | 30,144,956 | 67,733,158 |
| Manitoba | 10 | 400,858 | 124 | 162,949 | 15,264 | 265,585 | 588,971 |
| Alberta | 4 | 76,865 | 26 | 27,563 | 1,810 | 33,765 | 90,230 |
| British Columbia ... | 9 | 225,148 | 74 | 101,721 | 4,862 | 109,878 | 272,321 |
| CANADA | 190 | 102,245,833 | 20,261 | 25,711,092 | 1,266,471 | 39,331,766 | 89,060,978 |
| 1940 | | | | | | | |
| Quebec | 26 | 28,340,187 | 6,379 | 8,588,720 | 405,522 | 12,484,877 | 27,100,749 |
| Ontario | 142 | 89,579,229 | 18,475 | 24,323,549 | 1,189,461 | 45,367,849 | 101,671,361 |
| Manitoba | 13 | 540,417 | 156 | 193,579 | 18,663 | 378,597 | 784,778 |
| Alberta | 4 | 77,930 | 21 | 23,029 | 1,854 | 38,747 | 76,865 |
| British Columbia ... | 9 | 287,442 | 89 | 117,778 | 5,675 | 151,131 | 368,004 |
| CANADA | 194 | 118,825,205 | 25,120 | 33,246,655 | 1,621,175 | 58,371,201 | 130,001,457 |

Table 3 - CAPITAL EMPLOYED, BY PROVINCES, 1939 and 1940

| Province | Present value of lands, buildings, fixtures, machinery and tools | Inventory value of materials and finished products on hand and stocks | Operating capital (cash, trading and operating accounts and bills receivable) | TOTAL CAPITAL EMPLOYED |
|----------------------|--|---|---|------------------------|
| | | \$ | \$ | \$ |
| 1939 | | | | |
| Quebec | 11,923,547 | 5,306,215 | 6,005,227 | 23,244,787 |
| Ontario | 27,467,218 | 23,036,986 | 27,793,971 | 78,298,175 |
| Manitoba | 161,072 | 152,900 | 86,886 | 400,858 |
| Alberta | 37,424 | 24,753 | 14,688 | 76,865 |
| British Columbia ... | 96,943 | 72,080 | 56,125 | 225,148 |
| CANADA | 39,696,004 | 20,592,932 | 33,956,897 | 102,245,833 |
| 1940 | | | | |
| Quebec | 12,079,543 | 7,762,465 | 8,498,179 | 28,340,187 |
| Ontario | 27,604,116 | 32,386,030 | 29,589,083 | 89,579,229 |
| Manitoba | 230,173 | 187,763 | 122,481 | 540,417 |
| Alberta | 34,824 | 25,525 | 17,581 | 77,930 |
| British Columbia ... | 126,082 | 84,994 | 76,366 | 287,442 |
| CANADA | 40,104,738 | 40,446,777 | 38,303,690 | 118,825,205 |

Table 4 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1939 and 1940

| Province | Average number of employees | | | | | TOTAL SALARIES and WAGES | | |
|----------------------|-----------------------------|--------|----------|--------|--------|--------------------------|------------|------------|
| | On Salaries | | On Wages | | TOTAL | Salaries | Wages | |
| | Male | Female | Male | Female | | | | |
| 1939 | | | | | | | | |
| Quebec | 1,127 | 384 | 2,553 | 946 | 5,010 | 2,960,388 | 3,541,337 | 6,501,725 |
| Ontario | 3,164 | 1,107 | 8,297 | 2,459 | 15,027 | 8,445,437 | 10,471,697 | 18,917,184 |
| Manitoba | 37 | 6 | 78 | 3 | 124 | 94,418 | 68,531 | 162,949 |
| Alberta | 5 | 2 | 19 | ... | 26 | 9,591 | 17,972 | 27,563 |
| British Columbia ... | 24 | 3 | 47 | ... | 74 | 51,436 | 50,285 | 101,721 |
| CANADA | 4,357 | 1,502 | 10,994 | 3,408 | 20,761 | 11,561,270 | 14,149,322 | 25,711,092 |
| 1940 | | | | | | | | |
| Quebec | 1,158 | 493 | 3,330 | 1,792 | 6,379 | 3,208,454 | 5,352,266 | 8,588,720 |
| Ontario | 3,445 | 1,389 | 10,403 | 3,238 | 18,475 | 9,011,352 | 15,311,597 | 24,323,549 |
| Manitoba | 43 | 9 | 100 | 4 | 156 | 104,205 | 89,374 | 193,579 |
| Alberta | 4 | 4 | 13 | ... | 21 | 7,466 | 15,563 | 23,029 |
| British Columbia ... | 26 | 3 | 60 | ... | 89 | 57,550 | 60,228 | 117,778 |
| CANADA | 4,676 | 1,904 | 13,906 | 4,634 | 25,120 | 12,417,627 | 20,829,028 | 33,246,655 |

Electrical Apparatus

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Table 5 - WAGE-EARNERS, BY MONTHS, 1939 and 1940 (On the last work-day of each month)

| Month | 1 9 3 9 | | | 1 9 4 0 | | |
|-----------------|---------|--------|--------|---------|--------|--------|
| | Male | Female | TOTAL | Male | Female | TOTAL |
| January | 10,247 | 2,839 | 13,086 | 11,830 | 3,817 | 15,647 |
| February | 10,089 | 2,811 | 12,900 | 11,860 | 3,931 | 15,791 |
| March | 10,136 | 2,910 | 13,046 | 12,298 | 4,132 | 16,430 |
| April | 10,284 | 2,866 | 13,150 | 12,544 | 4,197 | 16,741 |
| May | 10,562 | 3,087 | 13,649 | 12,752 | 4,374 | 17,126 |
| June | 10,770 | 3,422 | 14,192 | 13,411 | 4,607 | 18,018 |
| July | 10,677 | 3,559 | 14,236 | 13,798 | 4,783 | 18,581 |
| August | 10,854 | 3,711 | 14,565 | 14,565 | 4,297 | 19,562 |
| September | 11,288 | 3,871 | 15,159 | 15,149 | 5,259 | 20,388 |
| October | 11,788 | 3,982 | 15,770 | 15,928 | 5,243 | 21,171 |
| November | 11,388 | 4,065 | 16,053 | 16,411 | 5,434 | 21,845 |
| December | 11,967 | 3,786 | 15,755 | 16,377 | 5,204 | 21,581 |
| AVERAGE | 10,994 | 3,408 | 14,402 | 13,906 | 4,634 | 18,540 |

Table 6 - HOURS WORKED PER WEEK BY WAGE-EARNERS, 1939 and 1940 (In one week of month of highest employment; overtime included)

| Hours worked per week | Number of Wage-Earners | | Number of Wage-Earners | | |
|-----------------------|------------------------|-------|---|-----------|-----------|
| | 1939 | 1940 | 1939 | 1940 | |
| 30 hours or less | 238 | 593 | 51 - 54 hours | 288 | 2,430 |
| 31 - 43 hours | 2,046 | 1,300 | 55 hours | 303 | 751 |
| 44 hours | 5,964 | 4,793 | 56 - 64 hours | 300 | 4,733 |
| 45 - 47 hours | 3,863 | 1,746 | 65 hours or over | 234 | 2,423 |
| 48 hours | 1,309 | 1,946 | Total | 15,345 | 22,751 |
| 49 - 50 hours | 800 | 2,031 | Total wages paid in selected week | \$321,344 | \$521,040 |

Table 7 - FUEL AND ELECTRICITY USED, 1939 and 1940

| Kind | Unit of measure | 1 9 3 9 | | | 1 9 4 0 | | |
|-----------------------------------|-----------------|------------|---------------|------------|---------------|--|--|
| | | Quantity | Cost at works | Quantity | Cost at works | | |
| Bituminous coal - Canadian | ton | 25,113 | 145,175 | 18,904 | 117,718 | | |
| Imported | ton | 41,339 | 246,367 | 54,732 | 356,153 | | |
| Anthracite coal | ton | 2,675 | 21,582 | 2,648 | 23,028 | | |
| Lignite coal | ton | ... | ... | 89 | 517 | | |
| Coke | ton | 1,130 | 11,931 | 3,462 | 35,703 | | |
| Gasoline | Imp. gal. | 17,078 | 3,275 | 89,070 | 19,680 | | |
| Kerosene | Imp. gal. | 2,640 | 398 | 3,372 | 553 | | |
| Fuel oil | Imp. gal. | 1,395,072 | 92,609 | 1,619,297 | 121,418 | | |
| Wood | cord | 74 | 459 | 308 | 1,316 | | |
| Gas - Manufactured | M cu. ft. | 519,240 | 98,659 | 177,719 | 115,592 | | |
| Natural | M cu. ft. | 21,927 | 12,573 | 38,231 | 22,230 | | |
| Other fuel | ... | ... | 445 | ... | 25 | | |
| Electricity purchased | K. W. H. | 68,839,638 | 633,193 | 96,577,558 | 807,242 | | |
| TOTAL | ... | ... | 1,286,471 | ... | 1,621,175 | | |
| Electricity generated for own use | K. W. H. | 10,206,060 | ... | 12,858,977 | ... | | |

Table 8 - POWER EQUIPMENT, 1939 and 1940

| | Ordinarily in use | | In reserve or idle | |
|---|-------------------|-------------------------|--------------------|-------------------------|
| | Number of units | Total rated horse power | Number of units | Total rated horse power |
| <u>1 9 3 9</u> | | | | |
| Steam engines and turbines | 16 | 7,330 | 2 | 415 |
| Gasoline, gas and oil engines | 4 | 100 | 2 | 247 |
| Hydraulic turbines or water wheels | 7 | 4,400 | ... | ... |
| Electric motors run by purchased power .. | 10,348 | 79,772 | 403 | 2,797 |
| TOTAL | 10,375 | 91,602 | 407 | 3,459 |
| Electric motors run by power generated by above primary units | 1,275 | 12,090 | 1 | 100 |
| Stationary boilers | 88 | 10,861 | 12 | 1,276 |

Table 8 - POWER EQUIPMENT, 1939 and 1940 (Concluded)

| | Ordinarily in use | | In reserve or idle | |
|--|--------------------|----------------------------|--------------------|----------------------------|
| | Number of units | Total rated horse power | Number of units | Total rated horse power |
| 1 9 4 0 | | | | |
| Steam engines and turbines | 15 | 5,610 | 1 | 300 |
| Diesel engines | 1 | 30 | 1 | 30 |
| Gasoline, gas and oil engines | 6 | 82 | 2 | 247 |
| Hydraulic turbines or water wheels | 7 | 4,400 | ... | ... |
| Electric motors run by purchased power .. | 11,359 | 74,672 | 389 | 2,094 |
| TOTAL | 11,388 | 85,794 | 393 | 2,671 |
| Electric motors run by power generated by above primary units | 1,296 | 12,137 | ... | ... |
| Stationary boilers | 86 | 11,010 | 9 | 459 |

Table 9 - MATERIALS USED IN MANUFACTURING, 1939 and 1940

| Materials | Unit of measure | 1 9 3 9 | | 1 9 4 0 | |
|--|--------------------|------------|------------------|------------|------------------|
| | | Quantity | Cost at works | Quantity | Cost at works |
| Aluminum - | | | \$ | | \$ |
| Castings | lb. | 411,555 | 186,394 | 515,044 | 278,037 |
| Ingot and scrap | lb. | 122,387 | 24,621 | 250,219 | 50,986 |
| Punchings and spinnings | lb. | 62,372 | 30,607 | 11,901 | 8,888 |
| Rods and bars | lb. | 673,750 | 124,821 | 31,299 | 14,046 |
| Sheets | lb. | 416,569 | 149,114 | 510,651 | 182,671 |
| Other | lb. | 186,333 | 103,598 | ... | 122,681 |
| Ammonium chloride (sal ammoniac) | lb. | 1,656,190 | 54,878 | 1,214,435 | 57,556 |
| Antimony | lb. | 140,786 | 18,641 | 166,533 | 24,918 |
| Argon | cu.ft. | 160,461 | 52,404 | ... | 57,987 |
| Asbestos - | | | \$ | | \$ |
| Board | lb. | 179,631 | 30,521 | 357,372 | 61,318 |
| Yarn | lb. | 120,394 | 46,474 | 103,932 | 36,895 |
| Tape | lb. | 21,350 | 11,194 | 29,771 | 27,708 |
| Bakelite in all forms | ... | ... | 409,999 | ... | 534,629 |
| Battery boxes | No. | 762,495 | 405,431 | 952,175 | 547,232 |
| Brass and bronze - | | | \$ | | \$ |
| Castings | lb. | 893,391 | 287,420 | 678,067 | 203,740 |
| Ingots | lb. | ... | ... | 91,631 | 14,412 |
| Rods and bars | lb. | 1,643,625 | 268,895 | 1,899,937 | 354,707 |
| Tubing and pipe | lb. | 85,450 | 26,524 | 94,320 | 31,769 |
| Lamp bases | ... | ... | ... | ... | 207,092 |
| Sheets | lb. | 952,717 | 204,650 | 1,048,996 | 249,954 |
| Screws | ... | ... | 73,352 | ... | 98,691 |
| Scrap | lb. | ... | ... | 1,118,422 | 104,699 |
| Other | ... | ... | 109,263 | ... | 168,772 |
| Carbon brushes, brush stock and plates | ... | ... | 110,419 | ... | 144,532 |
| Carbon electrodes | ... | ... | 97,622 | ... | 115,742 |
| Copper - | | | \$ | | \$ |
| Castings | lb. | 66,283 | 20,962 | 136,979 | 41,662 |
| Ingots, slabs, wire bars, etc. | lb. | 694,178 | 138,388 | 1,675,341 | 324,056 |
| Rods, including wire rods | lb. | 29,159,186 | 3,242,545 | 50,755,124 | 6,189,116 |
| Scrap | lb. | 44,554 | 4,612 | 93,358 | 12,132 |
| Tubing and pipe | lb. | 303,897 | 89,741 | 452,911 | 131,006 |
| Sheets and plates | lb. | 446,535 | 125,259 | 575,371 | 150,451 |
| Wire, bare | lb. | 5,216,630 | 825,453 | 6,606,363 | 1,126,007 |
| Wire, enamelled | ... | ... | 351,172 | ... | 703,785 |
| Wire, other insulated | ... | ... | 930,583 | ... | 1,232,526 |
| Cotton and linen yarns | ... | ... | 745,408 | ... | 985,790 |
| Cotton sheets, tapes and webbing | ... | ... | 94,248 | ... | 175,965 |
| Cork sheet, etc. | ... | ... | 53,368 | ... | 14,985 |
| Fibre rod, sheet, tubing, etc. | ... | ... | 121,306 | ... | 238,455 |
| Frit for enamelling | lb. | 459,637 | 37,666 | 509,435 | 43,322 |
| Glass bulbs, tubing and cane | ... | ... | 561,911 | ... | 797,514 |
| Insulating varnishes, japsans, lacquers, etc. | ... | ... | 106,934 | ... | 183,568 |
| Insulating waxes | ... | ... | 141,876 | ... | 180,001 |
| Insulators, porcelain | ... | ... | 394,864 | ... | 561,550 |

Table 9 - MATERIALS USED IN MANUFACTURING, 1939 and 1940 (Concluded)

| Materials | Unit of measure | 1 9 3 9 | | 1 9 4 0 | |
|--|-----------------|------------|---------------|------------|---------------|
| | | Quantity | Cost at works | Quantity | Cost at works |
| Iron and steel - | | | \$ | | \$ |
| Pig iron | long ton | 1,484 | 49,264 | 1,922 | 50,121 |
| Iron castings | short ton | ... | 461,841 | 6,260 | 816,965 |
| Steel castings | short ton | 293 | 69,496 | 1,789 | 248,613 |
| Steel forgings | short ton | 262 | 45,951 | 538 | 79,690 |
| Steel bars | short ton | 1,557 | 135,542 | 2,732 | 262,190 |
| Steel rods | short ton | 1,811 | 253,276 | 1,772 | 283,027 |
| Iron and steel pipe | short ton | ... | 820,915 | ... | 1,807,623 |
| Steel sheets | ... | ... | 1,655,736 | ... | 2,743,930 |
| Steel wire | ... | ... | 255,794 | ... | 608,669 |
| Structural steel | short ton | 2,824 | 170,424 | 4,480 | 246,394 |
| Steel strip | short ton | 3,660 | 399,984 | 4,583 | 518,472 |
| Stampings | ... | ... | 296,275 | ... | 229,514 |
| Bolts, nuts and screws | ... | ... | 288,088 | ... | 335,711 |
| Scrap iron and steel | short ton | ... | ... | 6,373 | 78,761 |
| Steel, alloy, including stainless | ... | ... | 188,853 | ... | 289,334 |
| Other iron and steel | ... | ... | 372,677 | ... | 203,309 |
| Lead - | | | | | |
| Pig | lb. | 23,218,853 | 1,002,973 | 30,433,619 | 1,637,238 |
| Scrap | lb. | 237,026 | 7,274 | 222,300 | 7,962 |
| Sheets | lb. | ... | ... | 30,547 | 2,332 |
| Other | lb. | 2,149,838 | 121,067 | 2,696,744 | 156,953 |
| Lead oxide (litharge and red lead) | lb. | 1,997,898 | 144,809 | 2,703,701 | 199,239 |
| Lumber | " bd. ft. | 4,680 | 213,591 | 7,974 | 381,275 |
| Manganese dioxide | lb. | 5,597,349 | 108,558 | 6,502,876 | 197,163 |
| Mica | ... | ... | 83,555 | ... | 151,774 |
| Mineral wool | lb. | 349,634 | 9,257 | 521,292 | 9,720 |
| Nickel-silver tubing | ft. | 137,824 | 5,797 | ... | 12,926 |
| Nitrogen | cu. ft. | 553,510 | 13,258 | 717,740 | 9,496 |
| Oil - | | | | | |
| Transformer | Imp. gal. | 555,847 | 132,116 | 1,039,224 | 248,902 |
| Switch | Imp. gal. | 31,176 | 7,389 | ... | 3,475 |
| Paints, stains, lacquers | ... | ... | 245,313 | ... | 424,687 |
| Paper | ... | ... | 320,426 | ... | 496,874 |
| Pressboard | ... | ... | 81,359 | ... | 152,672 |
| Radio cabinets | ... | ... | 870,721 | ... | 1,252,375 |
| Radio parts for assembling | ... | ... | 2,546,811 | ... | 3,355,618 |
| Radio tubes purchased and used to equip radio receiving sets manufactured | No. | 1,766,990 | 830,509 | 2,357,747 | 1,010,767 |
| Refrigerator cabinets | ... | 1,348 | 69,589 | 1,060 | 65,069 |
| Refrigerator parts | ... | ... | 1,780,353 | ... | 2,705,291 |
| Resistance wire | ... | ... | 95,604 | ... | 248,758 |
| Rubber, crude | lb. | 1,289,337 | 248,951 | 2,598,582 | 581,767 |
| Rubber, other | lb. | 1,641,750 | 195,429 | 1,829,383 | 232,361 |
| Silk, artificial | lb. | 31,177 | 34,871 | 43,214 | 43,246 |
| Steel tanks | No. | 6,154 | 95,514 | ... | 118,627 |
| Sulphuric acid, 66° Be | lb. | 4,509,837 | 61,891 | 5,594,488 | 76,614 |
| Talc | lb. | 388,362 | 5,636 | 443,192 | 5,551 |
| Thermometers | No. | 19,698 | 37,939 | ... | 56,047 |
| Tungsten wire | ... | ... | 52,207 | ... | 62,175 |
| Wood battery separators | ... | ... | 170,241 | ... | 249,001 |
| Zinc - | | | | | |
| Ingot and bar | lb. | 1,764,270 | 123,625 | 1,605,305 | 94,243 |
| Sheets | lb. | 2,919,148 | 220,178 | 2,234,459 | 204,126 |
| Zinc chloride | lb. | 600,074 | 32,491 | 570,349 | 34,325 |
| Electric motors purchased | ... | ... | 416,866 | ... | 656,962 |
| Other electrical apparatus purchased | ...) | ... | 11,929,785 | ... | 4,532,895 |
| All other materials | ...) | ... | 791,659 | ... | 12,668,432 |
| Containers and packing material | ... | ... | 39,321,766 | ... | 945,094 |
| TOTAL | ... | ... | ... | 58,371,201 | |

Table 10 - PRODUCTS MADE IN THE ELECTRICAL APPARATUS AND SUPPLIES INDUSTRY, 1939 and 1940

NOTE: In the Census of Industry the reporting firms are classified to certain industries in accordance with the nature of the main products which they manufacture. Data in this table represent only the output of concerns classified to the Electrical Apparatus and Supplies Industry (see Directory). The figures for the individual items do not necessarily represent the total output in Canada as these articles may have been produced as minor products by companies which have been classified to other industrial groups. The asterisk (*) indicates that the article was made also in other industries. For the total Canadian output of certain major items, see Tables 12 to 31.

| Products | Unit of measure | 1 9 5 9 | | 1 9 4 0 | |
|--|-----------------|------------|------------------------------|------------|------------------------------|
| | | Quantity | Gross selling value at works | Quantity | Gross selling value at works |
| Appliances, motor driven, and parts, including vacuum cleaners(*), fans, washing machines(*), electric clocks(*), furnace blowers(*), air conditioners(*), floor polishers(*), clippers, etc. (See Tables 16, 17, 19 and 28) | ... | ... | 5,055,523 | ... | 2,841,078 |
| Batteries and parts (See Table 20) | ... | ... | 7,105,076 | ... | 8,804,607 |
| Conduit and fittings (*) (See Table 13) | ... | ... | 1,207,595 | ... | 2,088,902 |
| Converter equipment | ... | ... | 84,213 | ... | 2,458,124 |
| Cooking and heating apparatus, electric - | | | | \$ | \$ |
| Stoves, grills, etc. (*) (See Table 23) | ... | ... | 1,155,554 | ... | 1,351,988 |
| Heating elements (sold separately) | ... | ... | 118,928 | ... | 114,411 |
| Heaters, air and space (*) | No. | 11,042 | 45,279 | 14,271 | 38,885 |
| Heaters, water, domestic (*) (See Table 25) | No. | 20,802 | 105,137 | 22,150 | 111,343 |
| Heating pads, electric | No. | 20,715 | 55,851 | 19,530 | 57,614 |
| Toasters - | | | | | |
| Commercial | No. | 43,977 | 45,616 | 39,110 | 44,694 |
| Domestic - Sandwich | No. | 52,057 | 74,595 | 27,351 | 84,089 |
| Other | No. | 87,859 | 164,728 | 104,574 | 191,957 |
| Percolators and coffee urns, electric | No. | 791 | 2,205 | 2,485 | 9,355 |
| Glass coffee makers, electric | No. | 25,005 | 97,051 | 53,062 | 165,021 |
| Irons, flat, electric - Automatic | No. | 36,607 | 147,997 | 54,205 | 234,711 |
| Non-automatic | No. | 151,739 | 237,180 | 179,612 | 271,027 |
| Waffle irons, electric | No. | 3,756 | 12,201 | 5,293 | 17,801 |
| All other cooking and heating apparatus | ... | ... | 35,681 | ... | 68,278 |
| Cutouts and fuses - | | | | | |
| Primary cutouts, all types | No. | 21,472 | 160,037 | 32,409 | 249,715 |
| Cutouts for cartridge and plug fuses | No. | 57,571 | 14,478 | ... | 21,217 |
| Cartridge and other fuses and renewals | ... | ... | 369,814 | ... | 488,517 |
| Generators, A.C. and D.C. and parts (See Table 14) | No. | 218 | 1,345,168 | 406 | 2,110,903 |
| Industrial electrical heating equipment - | | | | | |
| Furnaces, resistance, induction and arc types ... | No. | 78 | 102,889 | ... | 772,018 |
| Industrial ovens and commercial cooking ovens ... | No. | 10 | 6,513 | 25 | 20,704 |
| Other industrial heating equipment | ... | ... | 82,048 | ... | 114,442 |
| Instruments and meters (except ammeters for autos)- | | | | | |
| Demand meters | No. | 10,854 | 216,087 | 9,501 | 211,160 |
| Watthour meters | No. | 149,757 | 1,372,005 | 171,547 | 1,539,239 |
| Electrical indicating and graphic instruments ... | No. | 1,176 | 59,161 | 1,952 | 81,909 |
| Other electrical instruments and meters | No. | 1,017 | 61,740 | 1,691 | 106,393 |
| Meter and instrument parts | ... | ... | 157,234 | ... | 166,953 |
| Lamps, incandescent - | | | | | |
| Standard size | No. | 24,161,955 | 3,828,252 | 28,216,496 | 4,529,711 |
| Miniature size | No. | 12,722,002 | 592,550 | 15,572,768 | 750,902 |
| Lighting fixtures (*) (See Table 21) | ... | ... | 2,301,515 | ... | 4,295,500 |
| Line material(*) (excluding wire and insulators) | ... | ... | 274,604 | ... | 558,463 |
| Motors, A.C. and D.C. and parts(*) (See Table 15) | No. | 177,976 | 4,791,806 | 232,531 | 9,179,953 |
| Panel boards and cabinets | No. | ... | 351,581 | ... | 464,399 |
| Radio apparatus and parts(*) (except tubes and transformers) (See Table 22) | ... | ... | 10,556,245 | ... | 14,256,753 |
| Rectifiers, for storage battery charging, and parts | No. | 1,374 | 48,266 | 1,470 | 48,335 |
| Refrigerators, electric(*) (See Table 24) | ... | ... | 7,679,022 | ... | 8,694,919 |
| Switch gear and protective equipment (except telephone switchboards) (See Table 28) | ... | ... | 2,822,339 | ... | 5,461,648 |
| Telephone material (telephones, switchboards, etc.) | ... | ... | 4,687,384 | ... | 5,915,509 |
| Time switches | No. | 1,414 | 27,664 | ... | 23,695 |

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Table 10 - PRODUCTS MADE IN THE ELECTRICAL APPARATUS AND SUPPLIES INDUSTRY, 1939 and 1940 (Concluded)

| Products | Unit of measure | Quantity | 1939 | | 1940 | |
|---|-----------------|-----------|------------------------------|-----------|------------------------------|----------|
| | | | Gross selling value at works | Quantity | Gross selling value at works | Quantity |
| Traffic signals and controls | ... | ... | 2,398 | ... | 51,952 | |
| Transformers and parts (See Table 12) | ... | ... | 4,755,557 | ... | 8,672,002 | |
| Therapeutic lamps and other electro-therapeutic apparatus | ... | ... | 62,348 | ... | 170,029 | |
| Vacuum tubes - | | | | | | |
| Radio receiving tubes (See Table 26) | No. | 2,527,200 | 1,246,372 | 4,123,804 | 1,726,328 | |
| Other vacuum tubes, including X-ray tubes | ... | ... | 90,999 | ... | 73,508 | |
| Welding apparatus | ... | ... | 174,616 | ... | 452,737 | |
| Wiring devices (except auto starting switches and time switches) (See Table 29) | ... | ... | 5,698,108 | ... | 4,920,208 | |
| Wires(*) and cables, except aluminium (See Table 18). . | ... | ... | 14,496,967 | ... | 23,337,950 | |
| Receipts from custom and repair work | ... | ... | 1,165,368 | ... | 1,317,155 | |
| All other products | ... | ... | 7,908,695 | ... | 10,232,866 | |
| TOTAL | ... | ... | 39,060,578 | ... | 130,001,457 | |

Table 11 - PRODUCTION OF CERTAIN ELECTRICAL APPARATUS BY FIRMS CLASSIFIED TO OTHER INDUSTRIES THAN THE ELECTRICAL APPARATUS AND SUPPLIES INDUSTRY, 1938 - 1940

NOTE: Data given in this table represent the output of electrical appliances or equipment reported as minor products by concerns which have been classified to industries other than the Electrical Apparatus and Supplies Industry. (See supplement to Directory). These figures should be added to those given in Table 10 to arrive at the total Canadian output for these items. (See Tables 12 to 31).

| Products | Gross Selling Value at Works | | |
|---|------------------------------|-------------------|-------------------|
| | 1938 | 1939 | 1940 |
| Washing machines, electric | \$ 3,967,808 | 4,034,421 | 5,495,712 |
| Stoves, rangettes, hot plates, etc., electric | 1,895,093 | 1,933,168 | 1,845,340 |
| Carbon and graphite electrodes | 2,865,219 | 2,967,949 | 4,114,812 |
| Ignition coils, automobile | 290,972 | 232,962 | 308,020 |
| Generators and starters, automobile | 1,366,693 | 1,486,404 | 2,423,862 |
| Signs, electric, including neon signs | 1,472,881 | 1,411,894 | 1,272,275 |
| Lighting fixtures | 87,062 | 54,563 | 100,652 |
| Water tank heaters, electric | 17,528 | 22,196 | 28,560 |
| Spark plugs, electric irons, electric motors, vacuum cleaners, electric refrigerators, porcelain insulators, etc. | 4,559,669 | 4,467,039 | 4,534,261 |
| TOTAL | 16,522,925 | 16,610,596 | 20,123,494 |

Table 12 - PRODUCTION OF TRANSFORMERS IN CANADA, BY TYPES, 1939 and 1940

| Type | 1939 | | | 1940 | | |
|--|--------|--------------|------------------------|--------|--------------|------------------------|
| | Number | Total rating | Selling value at works | Number | Total rating | Selling value at works |
| | | K.V.A. | \$ | | K.V.A. | \$ |
| Distribution transformers, 200 k.v.a. and under, and 15,000 volts and below.. | 15,860 | 162,573 | 2,151,755 | 15,308 | 237,909 | 2,603,073 |
| Power transformers, 200 k.v.a. to 7,500 k.v.a. inclusive, and over 15,000 volts to and including 152,000 volts | 393 | 311,795 | 1,620,156 | 552 | 742,623 | 3,160,774 |
| Power transformers, over 7,500 k.v.a. or over 152,000 volts | 8 | 147,750 | 267,702 | 39 | 848,640 | 1,841,487 |
| Current and potential transformers | 5,072 | ... | 115,083 | 7,552 | ... | 321,940 |
| Constant current transformers | 69 | 612 | 80,973 | 34 | ... | 15,655 |
| Series lamp transformers | 796 | ... | 13,975 | 127 | ... | 2,719 |
| Luminous tube transformers | 7,363 | ... | 52,977 | 1,635 | ... | 51,909 |
| Ignition transformers | 2,872 | ... | 21,696 | 1,598 | ... | 22,640 |
| Radio transformers | ... | ... | 123,586 | ... | ... | 214,107 |
| All other transformers | ... | ... | 188,979 | ... | ... | 152,562 |
| Parts and supplies | ... | ... | 139,675 | ... | ... | 285,136 |
| TOTAL | ... | ... | 4,755,557 | ... | ... | 8,672,002 |

Table 13 - PRODUCTION IN CANADA OF CONDUIT FOR ELECTRICAL WIRING, 1939 and 1940

| Items | 1939 | | | 1940 | | |
|---|----------|---------------------------|-----------|------------|---------------------------|----|
| | Quantity | Selling value at works | \$ | Quantity | Selling value at works | \$ |
| Rigid iron conduit | lb. | 13,760,136 | 1,092,414 | 22,672,597 | 1,823,000 | |
| Flexible conduit (steel and non-metallic) | ft. | 3,154,405 | 55,026 | 2,378,649 | 52,828 | |
| TOTAL | ... | ... | 1,147,440 | ... | 1,875,825 | |

Table 14 - PRODUCTION IN CANADA OF ELECTRIC GENERATORS AND PARTS, 1939 and 1940

| | 1939 | | | 1940 | | |
|---|-----------------|-------------------------------------|-----------|-----------------|-------------------------------------|-----------|
| | Total Number | Selling value rating at works | \$ | Total Number | Selling value rating at works | \$ |
| Alternating current | 83 | 70,980 | 1,084,710 | 115 | 154,223 | 1,376,462 |
| Direct current and including excitors | 47 | 4,053 | 146,372 | 291 | 19,536 | 445,775 |
| Accessories and parts for generators | ... | ... | 103,620 | ... | ... | 288,666 |
| TOTAL | ... | ... | 1,334,702 | ... | ... | 2,110,903 |

Table 15 - PRODUCTION IN CANADA OF ELECTRIC MOTORS AND PARTS, 1939 and 1940 (From all industries)

| | Number | Total rating | Selling value at works |
|---|---------|---------------|---------------------------|
| <u>1939</u> | | | |
| 1/3 h.p. and under - single phase, A.C. | 185,421 | 47,370 H.P. | 1,565,266 |
| 1/2 h.p. and 3/4 h.p. - single phase, A.C. | 5,884 | 2,993 H.P. | 171,112 |
| 1 h.p. to 5 h.p. inclusive - single phase, A.C. | 2,271 | 3,326 H.P. | 139,435 |
| 1/3 h.p. and under - polyphase, A.C. | 566 | 139 H.P. | 13,451 |
| 1/2 h.p. and 3/4 h.p. - polyphase, A.C. | 2,052 | 1,386 H.P. | 100,519 |
| 1 h.p. to 5 h.p. inclusive - polyphase, A.C. | 6,000 | 16,144 H.P. | 473,786 |
| 1/2 h.p. and under - D.C. | 1,384 | 458 H.P. | 23,973 |
| 1/2 h.p. and 3/4 h.p. - D.C. | 57 | 33 H.P. | 1,478 |
| 1 h.p. to 5 h.p. inclusive - D.C. | 19 | 48 H.P. | 2,279 |
| Over 5 to 200 h.p. - induction | 2,663 | 29,716 H.P. | 768,215 |
| Over 5 to 200 h.p. - D.C. | 22 | 882 H.P. | 29,380 |
| 201 h.p. and over - induction | 44 | 17,075 H.P. | 162,368 |
| 201 h.p. and over - D.C. | 4 | 3,450 H.P. | 55,350 |
| Railway and vehicle motors, A.C. and D.C. | 91 | 46 H.P. | 6,377 |
| Synchronous condensers and motors | 71 | 28,379 K.V.A. | 218,050 |
| Starting and control equipment for electric motors | ... | ... | 1,109,531 |
| Accessories and parts for electric motors | ... | ... | 182,303 |
| TOTAL | ... | ... | 5,022,672 |

1940

| | | | |
|---|---------|---------------|-----------|
| 1/3 h.p. and under - single phase, A.C. | 250,074 | 66,319 H.P. | 2,211,053 |
| 1/2 h.p. and 3/4 h.p. - single phase, A.C. | 7,650 | 4,583 H.P. | 230,743 |
| 1 h.p. to 5 h.p. inclusive - single phase, A.C. | 3,115 | 5,205 H.P. | 203,510 |
| 1/3 h.p. and under - polyphase, A.C. | 1,147 | 363 H.P. | 27,989 |
| 1/2 h.p. and 3/4 h.p. - polyphase, A.C. | 3,935 | 2,618 H.P. | 180,900 |
| 1 h.p. to 5 h.p. inclusive - polyphase, A.C. | 14,458 | 37,732 H.P. | 1,236,682 |
| 1/3 h.p. and under - D.C. | 1,707 | 460 H.P. | 28,542 |
| 1/2 h.p. and 3/4 h.p. - D.C. | 749 | 395 H.P. | 33,732 |
| 1 h.p. to 5 h.p. inclusive - D.C. | 1,469 | 4,311 H.P. | 134,251 |
| Over 5 to 200 h.p. - induction | 6,051 | 130,280 H.P. | 1,712,018 |
| Over 5 to 200 h.p. - D.C. | 103 | 2,916 H.P. | 130,290 |
| 201 h.p. and over - induction | 42 | 17,200 H.P. | 187,196 |
| 201 h.p. and over - D.C. | 13 | 11,750 H.P. | 188,744 |
| Railway and vehicle motors, A.C. and D.C. | 420 | 13,715 H.P. | 170,912 |
| Synchronous condensers and motors | 79 | 36,679 K.V.A. | 321,611 |
| Starting and control equipment for electric railway and vehicle motors | ... | ... | 190,077 |
| Starting and control equipment for other motors | ... | ... | 2,075,608 |
| Accessories and parts for electric motors | ... | ... | 342,077 |
| TOTAL | ... | ... | 9,605,935 |

Table 16 - PRODUCTION OF DOMESTIC WASHING MACHINES IN CANADA, 1927 - 1940 (From all industries)

| Year | H A N D | | E L E C T R I C | | O T H E R P O W E R | | T O T A L | |
|------|---------|------------------------|-----------------|------------------------|---------------------|------------------------|-----------|------------------------|
| | Number | Selling value at works | Number | Selling value at works | Number | Selling value at works | Number | Selling value at works |
| 1927 | 21,841 | 356,409 | 38,409 | 4,606,631 | 1,986 | 153,452 | 62,136 | 5,096,422 |
| 1928 | 22,118 | 374,491 | 60,871 | 7,724,740 | 3,408 | 212,028 | 86,397 | 8,311,259 |
| 1929 | 25,586 | 487,516 | 70,261 | 9,109,794 | 4,377 | 479,135 | 100,224 | 10,076,445 |
| 1930 | 16,038 | 339,917 | 67,577 | 8,807,068 | 2,443 | 244,726 | 86,058 | 9,391,711 |
| 1931 | 16,189 | 531,722 | 59,443 | 6,490,378 | 1,061 | 96,348 | 76,693 | 6,918,458 |
| 1932 | 10,416 | 122,095 | 47,440 | 3,158,172 | 650 | 36,520 | 58,486 | 3,317,337 |
| 1933 | 7,852 | 84,941 | 50,527 | 2,723,847 | 482 | 35,243 | 58,931 | 2,844,031 |
| 1934 | 9,325 | 116,998 | 73,657 | 3,607,088 | 1,097 | 96,917 | 84,079 | 3,820,988 |
| 1935 | 7,445 | 79,033 | 75,121 | 3,600,904 | 2,110 | 169,256 | 84,876 | 3,849,193 |
| 1936 | 11,557 | 142,474 | 89,524 | 4,321,912 | 1,747 | 126,244 | 102,628 | 4,600,530 |
| 1937 | 12,248 | 139,899 | 115,385 | 5,414,315 | 5,842 | 401,390 | 133,475 | 5,955,604 |
| 1938 | 8,967 | 105,856 | 91,159 | 4,553,465 | 5,724 | 399,425 | 105,850 | 5,058,746 |
| 1939 | 6,515 | 72,058 | 92,057 | 4,549,421 | 5,512 | 364,254 | 103,882 | 4,985,733 |
| 1940 | 8,209 | 102,536 | 100,415 | 5,116,373 | 9,742 | 673,621 | 118,306 | 5,897,480 |

Table 17 - PRODUCTION OF DOMESTIC ELECTRIC IRONERS(x) IN CANADA, 1935 - 1940 (From all industries)

| Year | Number | Selling value at works | |
|------------------------------|--------|------------------------|----|
| | | \$ | \$ |
| 1935 | 9,028 | 364,626 | |
| 1936 - Operated by own motor | 5,435 | 509,509 | |
| Attached to washing machines | 3,391 | 62,769 | |
| TOTAL - 1936 | 8,826 | 372,078 | |
| 1937 - Operated by own motor | 3,622 | 224,369 | |
| Attached to washing machine | 1,101 | 30,608 | |
| TOTAL - 1937 | 4,723 | 254,977 | |
| 1938 - Operated by own motor | 2,812 | 177,849 | |
| Attached to washing machine | 856 | 23,761 | |
| TOTAL - 1938 | 3,668 | 201,610 | |
| 1939 - Operated by own motor | 1,714 | 100,613 | |
| Attached to washing machine | 587 | 12,356 | |
| TOTAL - 1939 | 2,301 | 112,969 | |
| 1940 - Operated by own motor | 3,282 | 201,906 | |
| Attached to washing machine | 430 | 9,472 | |
| TOTAL - 1940 | 3,712 | 211,378 | |

(x) Includes some gas and steam operated ironers.

Table 18 - PRODUCTION(x) OF ELECTRICAL WIRES AND CABLES, 1938 - 1940 (From all industries)

| | 1 9 3 8 | Selling Value at Works | |
|--|------------|------------------------|------------|
| | | \$ | \$ |
| Copper, bare | 2,147,729 | 2,438,005 | 3,752,244 |
| Weatherproof | 1,416,084 | 1,508,401 | 1,670,684 |
| Rubber insulated, braided | 2,351,706 | 1,888,029 | 3,145,028 |
| Cambric insulated, braided | 105,895 | 102,307 | 849,038 |
| Rubber insulated, leaded | 360,687 | 416,628 | 754,217 |
| Cambric insulated, leaded | 118,011 | 90,136 | 525,432 |
| Paper insulated, leaded | 615,593 | 505,898 | 1,153,880 |
| Rubber insulated telephone wires | 282,713 | 797,565 | 626,292 |
| Paper insulated telephone cable | 1,025,280 | 1,111,451 | 1,671,668 |
| Flexible cords, except telephone and switchboard cords | 900,195 | 668,291 | 1,225,123 |
| Armoured cable | 721,643 | 902,415 | 1,603,972 |
| Signal and control cable | 28,687 | 33,363 | 85,769 |
| Magnet wire - enamelled | 731,694 | 756,915 | 1,152,080 |
| all other | 425,590 | 540,659 | 938,208 |
| Non-metallic sheathed cable | 334,759 | 556,498 | 827,542 |
| All other wires and cables | 1,112,650 | 2,261,537 | 2,576,176 |
| TOTAL | 12,678,886 | 14,578,098 | 22,557,053 |

(x) Except aluminium wire and cable.

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Table 19 - PRODUCTION OF ELECTRIC VACUUM CLEANERS AND PARTS, 1937 - 1940 (From all industries)

| | | 1937 | 1938 | 1939 | 1940 |
|-------------------------------------|-----|-----------|-----------|-----------|-----------|
| Electric floor models | No. | 44,721 | 40,897 | 47,118 | 41,169 |
| | \$ | 1,701,307 | 1,517,631 | 1,721,011 | 1,597,525 |
| Electric hand models | No. | 4,017 | 5,521 | 2,551 | 2,272 |
| | \$ | 41,743 | 62,675 | 29,145 | 51,557 |
| Attachments and parts for above ... | \$ | 295,270 | 216,724 | 255,968 | 272,670 |
| TOTAL | \$ | 2,036,520 | 1,797,030 | 2,006,124 | 1,944,991 |

Table 20 - PRODUCTION OF ELECTRIC BATTERIES, BY TYPES, 1939 and 1940

| Kinds | 1939 | | 1940 | |
|---|------------|---------------------------------|------------|---------------------------------|
| | Number | Selling value at works \$ | Number | Selling value at works \$ |
| <u>STORAGE</u> - | | | | |
| For internal combustion engine starting and ignition | 690,886 | 2,931,847 | 870,015 | 5,816,574 |
| For farm lighting plants (cells) | 50,346 | 168,649 | 51,732 | 182,104 |
| For railway service (cells) | 4,487 | 85,049 | 5,511 | 104,583 |
| For telephone switchboards | 1,751 | 51,822 | 5,052 | 88,156 |
| For motorcycle starting | 2,952 | 9,085 | 4,143 | 14,580 |
| For all other purposes | ... | 388,865 | ... | 412,145 |
| Total Storage | ... | 3,613,317 | ... | 4,818,120 |
| <u>DRY CELL</u> - | | | | |
| 6 inch cells (cells) | 1,595,162 | 359,886 | 1,403,632 | 387,349 |
| A, B and C for radio (batteries) | 33,787,639 | 1,754,929 | 1,528,854 | 1,960,761 |
| Flashlight (cells) | 12,828,327 | 730,007 | 18,451,579 | 992,035 |
| Other dry cells (cells) | 126,837 | 8,900 | 446,558 | 26,223 |
| Total Dry Cells | ... | 2,853,722 | ... | 3,566,366 |
| Parts and supplies, including all other dry cells and primary wet cells | ... | 638,037 | ... | 820,121 |
| TOTAL | ... | 7,105,076 | ... | 8,804,607 |

Table 21 - PRODUCTION IN CANADA OF ELECTRIC LIGHTING FIXTURES, 1938 - 1940 (From all industries)

| | Selling Value at Works | | |
|--|------------------------|-----------|-----------|
| | 1938 | 1939 | 1940 |
| Interior lighting fixtures, residential..... | 680,465 | 881,765 | 1,303,448 |
| Interior lighting fixtures, metal reflectors | 129,327 | 186,550 | 353,425 |
| Interior store and office lighting fixtures | 135,905 | 334,590 | 300,044 |
| All other interior lighting fixtures | 163,403 | 316,365 | 498,731 |
| Exterior lighting fixtures | 142,008 | 149,098 | 293,459 |
| Exterior lighting control devices | 2,171 | ... | 52,049 |
| Searchlights and floodlights | 68,900 | 108,813 | 1,240,252 |
| All other lighting equipment | 377,250 | 378,697 | 354,746 |
| TOTAL LIGHTING FIXTURES | 1,699,429 | 2,355,878 | 4,396,152 |

Table 22 - PRODUCTION OF COMPLETE RADIO RECEIVING SETS IN CANADA, 1925 - 1940

| Year | Number of sets | Selling value at works(x) | Year | Number of sets | Selling value at works(x) |
|------------|-------------------|------------------------------|------------|-------------------|------------------------------|
| 1925 | 48,531 | 2,278,292 | 1933 | 112,273 | 4,401,313 |
| 1926 | 42,430 | 2,253,098 | 1934 | 188,710 | 8,195,248 |
| 1927 | 47,500 | 3,748,622 | 1935 | 191,293 | 9,495,399 |
| 1928 | 81,032 | 7,486,127 | 1936 | 253,896 | 11,388,173 |
| 1929 | 150,050 | 15,604,145 | 1937 | 289,247 | 11,696,717 |
| 1930 | 170,082 | 19,196,936 | 1938 | 242,721 | 8,801,981 |
| 1931 | 291,711 | 18,555,710 | 1939 | 348,507 | 8,678,130 |
| 1932 | 121,468 | 6,808,877 | 1940 | 485,010 | 11,268,339 |

(x) Not list prices.

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Table 23 - NUMBER AND FACTORY SELLING VALUE OF STOVES MADE IN CANADA, 1938 - 1940

| Kind | No. | 1938 | 1939 | 1940 |
|---|--------|---------------------|---------------------|----------------------|
| Coal and wood cooking stoves and ranges, all styles | No. \$ | 85,006 3,947,666 | 89,835 4,233,359 | 111,463 5,390,916 |
| Coal and wood heating stoves (including all heaters, circulators, Quebec, box, Oak, Franklyn, Globe or laundry) | No. \$ | 77,540 799,624 | 102,123 963,106 | 130,520 1,312,106 |
| Combination for gas and coal | No. \$ | 8,954 607,429 | 10,178 765,312 | 11,919 898,408 |
| Combination for coal and electric | No. \$ | 2,041 181,062 | 2,164 192,571 | 2,517 231,788 |
| Gas cooking stoves and ranges, not combinations, including all styles with ovens | No. \$ | 23,395 938,392 | 25,292 1,102,172 | 31,229 1,503,726 |
| Electric cooking stoves and ranges over 35 amperes, all styles with ovens | No. \$ | 32,513 2,312,034 | 33,227 2,504,570 | 30,353 2,513,224 |
| Electric rangettes, including cord attachment and oven as one unit | No. \$ | 11,834 200,381 | 13,725 232,982 | 14,117 263,756 |
| Electric cooking plates and grills | No. \$ | 69,704 157,679 | 77,441 158,759 | 88,941 188,560 |
| Gas cooking plates | No. \$ | 2,757 8,698 | 3,227 13,301 | 2,386 10,358 |
| Gas heating stoves | No. \$ | 2,893 43,399 | 2,472 47,530 | 1,953 40,398 |
| Oil and gasoline stoves | No. \$ | 53,306 243,153 | 44,233 264,073 | 40,525 240,925 |
| TOTAL | \$ | 9,440,617 | 10,533,235 | 12,594,665 |

Table 24 - PRODUCTION(1) IN CANADA OF ELECTRIC REFRIGERATION EQUIPMENT, 1930 - 1940

| Years | Individual domestic type, complete, all sizes | | All other types(2) | | TOTAL | |
|------------|---|---------------|--------------------|-----------|--------|-----------|
| | Number | \$ | Number | \$ | Number | \$ |
| 1930 | - | Not available | - | - | 6,302 | 1,607,784 |
| 1931 | 9,879 | 1,708,327 | 4,314 | 1,088,590 | 14,193 | 2,798,917 |
| 1932 | 19,454 | 2,218,798 | ... | 914,455 | ... | 3,133,253 |
| 1933 | 15,059 | 1,896,033 | 1,590 | 305,688 | 16,649 | 2,201,721 |
| 1934 | 27,897 | 3,502,089 | 2,360 | 430,933 | 30,257 | 3,933,022 |
| 1935 | 22,452 | 2,835,079 | 4,615 | 609,472 | 27,067 | 3,444,551 |
| 1936 | 40,688 | 5,054,554 | 5,637 | 880,409 | 46,325 | 5,934,963 |
| 1937 | 52,068 | 5,795,926 | 12,350 | 1,337,110 | 65,018 | 7,131,036 |
| 1938 | 52,934 | 6,341,496 | 10,971 | 1,564,107 | 63,905 | 7,905,603 |
| 1939 | 51,534 | 5,914,220 | ... | 1,624,228 | ... | 7,538,448 |
| 1940 | 53,165 | 6,249,335 | ... | 2,296,406 | ... | 8,545,741 |

(1) Production figures include equipment manufactured or assembled in Canada.

(2) Includes ice-cream cabinets, display cases, condensing units only, beverage coolers, etc.

Table 25 - PRODUCTION OF DOMESTIC WATER TANK HEATERS, 1939 and 1940

| | 1939 | | 1940 | |
|---------------------------------------|--------|---------------------------|--------|---------------------------|
| | Number | Selling value at works \$ | Number | Selling value at works \$ |
| Cast iron for coal, wood or oil | 6,898 | 56,947 | 7,989 | 107,958 |
| Gas, automatic | 4,064 | 190,889 | 3,519 | 232,253 |
| Gas, not automatic | 8,724 | 59,589 | 4,438 | 34,010 |
| Electric, circulating type | 4,370 | 53,493 | 4,541 | 63,440 |
| Electric, immersion type | 16,913 | 59,379 | 18,043 | 52,851 |
| Electric, storage tank type | 1,689 | 14,461 | 2,169 | 23,612 |
| TOTAL | 42,658 | 434,758 | 40,699 | 514,124 |

Table 26 - PRODUCTION IN CANADA AND IMPORTS OF RADIO RECEIVING TUBES, 1930 - 1940

| Year | PRODUCTION | | IMPORTS | |
|------------|------------|------------------------|-----------|---------|
| | Number | Selling value at works | Number | Value |
| 1930 | 3,116,096 | 3,191,276 | ... | 327,728 |
| 1931 | 3,297,007 | 2,298,098 | ... | 113,760 |
| 1932 | 2,747,456 | 1,610,850 | 55,762 | 60,157 |
| 1933 | 1,731,569 | 1,023,364 | 119,367 | 84,027 |
| 1934 | 2,367,674 | 1,389,815 | 266,285 | 155,271 |
| 1935 | 2,193,529 | 1,181,239 | 460,749 | 258,149 |
| 1936 | 2,952,415 | 1,545,823 | 565,875 | 289,659 |
| 1937 | 3,320,637 | 1,760,109 | 484,227 | 290,698 |
| 1938 | 1,969,598 | 1,108,408 | 440,294 | 213,433 |
| 1939 | 2,527,200 | 1,246,372 | 1,124,361 | 586,084 |
| 1940 | 4,117,577 | 1,313,341 | 989,026 | 494,698 |

Table 27 - PRODUCTION IN CANADA OF ELECTRIC FLAT IRONS, 1936 - 1940

| | AUTOMATIC | | NOT AUTOMATIC | | TOTAL | |
|------------|-----------|----------------------------|---------------|------------------------|---------|------------------------|
| | Number | Selling value at works | Number | Selling value at works | Number | Selling value at works |
| 1936 | | \$ | | \$ | | \$ |
| 1937 | - | - Not available separately | - | - | 168,114 | 270,586 |
| 1938 | 36,178 | 150,433 | 140,164 | 220,405 | 183,147 | 321,302 |
| 1939 | 36,607 | 147,997 | 151,739 | 237,180 | 176,342 | 370,838 |
| 1940 | 54,205 | 234,711 | 179,612 | 271,027 | 188,346 | 385,177 |
| | | | | | 233,817 | 505,738 |

Table 28 - PRODUCTION(x) IN CANADA OF ELECTRIC TOASTERS, 1936 - 1940

| | Number | Selling value at works |
|------------|---------|------------------------|
| 1936 | 140,806 | 230,814 |
| 1937 | 165,029 | 258,731 |
| 1938 | 139,311 | 252,141 |
| 1939 | 163,393 | 284,939 |
| 1940 | 171,015 | 320,740 |

(x) Includes toaster-grills.

Table 29 - PRODUCTION OF INCANDESCENT ELECTRIC LAMPS IN CANADA, 1932 - 1940

| Year | STANDARD SIZE | | MINIATURE SIZE | |
|------------|---------------|------------------------|----------------|------------------------|
| | Number | Selling value at works | Number | Selling value at works |
| 1932 | 17,102,308 | \$ 3,597,173 | 6,244,103 | 526,835 |
| 1933 | 15,176,002 | 3,230,911 | 5,765,149 | 485,166 |
| 1934 | 20,622,906 | 4,035,361 | 7,292,187 | 496,574 |
| 1935 | 23,026,982 | 4,155,803 | 9,832,118 | 633,769 |
| 1936 | 24,364,181 | 4,117,871 | 11,246,707 | 662,628 |
| 1937 | 25,689,598 | 4,477,267 | 12,362,115 | 744,011 |
| 1938 | 20,634,204 | 3,409,585 | 11,087,021 | 597,196 |
| 1939 | 24,161,955 | 3,828,252 | 12,722,002 | 592,550 |
| 1940 | 28,216,496 | 4,529,711 | 15,572,768 | 750,902 |

Table 30 - PRODUCTION OF ELECTRICAL SWITCH GEAR AND PROTECTIVE EQUIPMENT (Except telephone switchboards) 1939 and 1940

| | Selling Value at Works | |
|---|------------------------|-----------|
| | 1939 | 1940 |
| | \$ | \$ |
| Switchboard panels and equipment | 1,405,565 | 2,325,297 |
| Lightning arresters, other than radio, 15,000 volts and below | 95,675 | 130,749 |
| Lightning arresters, above 15,000 volts | 157,416 | 177,237 |
| Oil circuit breakers | 365,121 | 1,223,338 |
| Air circuit breakers | 236,354 | 713,676 |
| Disconnecting switches - Up to and including 15,000 volts | 191,266 | 260,296 |
| Over 15,000 volts | 87,382 | 234,293 |
| Generator voltage regulators and accessories | 213,975 | 30,580 |
| Parts and supplies | 280,399 | 243,849 |
| TOTAL | 2,983,154 | 5,348,315 |

Table 31 - PRODUCTION OF WIRING DEVICES (Except automobile starting switches and time switches) 1939 and 1940

| | Selling Value at Works | |
|--|------------------------|-----------|
| | 1939 | 1940 |
| | \$ | \$ |
| Sockets (lamp holders) brass shell | 170,740 | 250,986 |
| Sockets (lamp holders) porcelain and moulded | 205,173 | 251,211 |
| Switches, surface and flush types | 275,228 | 285,631 |
| Switches, enclosed safety type | 404,389 | 717,744 |
| Switches, canopy | 32,435 | 48,717 |
| Switches, all other | 294,709 | 354,868 |
| Receptacles (convenience outlets), single and duplex | 109,876 | 147,081 |
| Wall plates for switches and outlets | 58,574 | 73,809 |
| Cord sets, all types | 302,710 | 348,882 |
| Attachment plugs, caps and cord connectors | 87,352 | 123,458 |
| Plug devices, caps and heater plugs | 100,211 | 114,017 |
| Other wiring devices | 1,658,821 | 2,202,804 |
| TOTAL | 3,698,108 | 4,920,208 |

Table 32 - IMPORTS INTO CANADA OF ELECTRICAL APPARATUS, 1939 and 1940

| | 1939 | | 1940 | |
|---|------------|---------|------------|-----------|
| | Quantity | Value | Quantity | Value |
| Batteries, primary (B) and (C) for radio | ... | 4,412 | ... | 10,659 |
| Batteries, electric and galvanic, primary, n.o.p. and complete parts | ... | 223,342 | ... | 224,990 |
| Batteries, electric, storage, and complete parts, n.o.p., including separator walls of wood, cut to size or not | ... | 133,647 | ... | 302,451 |
| Heating apparatus, n.o.p. | ... | 44,192 | ... | 57,607 |
| Electric dynamos or generators, n.o.p., and complete parts | ... | 396,404 | ... | 772,374 |
| Fuses, fuse plugs and cutouts, electric, and complete parts, n.o.p. | ... | 71,521 | ... | 148,747 |
| Lamps, electric, arc | ... | 7,856 | ... | 10,355 |
| Lamps, electric, incandescent, carbon filament No. | 189,119 | 8,292 | 151,341 | 11,023 |
| Lamps, electric, incandescent, metal filament No. | 13,003,892 | 333,538 | 12,965,565 | 385,723 |
| Lights - Electric head, side and tail lights, n.o.p.; electric torches or flashlights and parts | ... | 350,245 | ... | 521,526 |
| Electric light fixtures and appliances, n.o.p. and complete parts | ... | 939,429 | ... | 1,312,636 |
| Lightning arresters, choke coils, reactors and other protective devices, and complete parts, n.o.p. | ... | 35,979 | ... | 72,764 |
| Electrical instruments or apparatus of precision, of a class or kind not made in Canada | ... | 225,840 | ... | 353,954 |
| Meters, electric, and complete parts | ... | 168,420 | ... | 297,524 |
| Motors for electric fans, n.o.p. (to December 31, 1939) | No. | 20,609 | 36,215 | ... |
| Motors, electric, valued at less than \$10 each (from April 1, 1939) | No. | 36,577 | 158,368 | 55,623 |
| | | | | 133,647 |

Table 32 - IMPORTS INTO CANADA OF ELECTRICAL APPARATUS, 1939 and 1940 (Concluded)

| | 1 9 3 9 | 1 9 4 0 |
|--|------------|-------------------|
| | Quantity | Value |
| | Quantity | Value |
| Motors, electric, n.o.p., valued at \$10 or over; and complete parts (From January 1, 1940) (Included in "Motors, electric, valued at less than \$10 each" prior to April 1st, 1939) | ... | 1,628,118 |
| Rheostats, controllers and other starting and controlling devices, and complete parts | ... | 608,839 |
| Sad irons, electric, and complete parts | ... | 106,397 |
| Self-contained lighting outfits and complete parts, n.o.p. | ... | 8,183 |
| Sockets, outlets and receptacles and complete parts | ... | 46,847 |
| Spark plugs, magnetos, n.c.p., and other ignition apparatus and complete parts | ... | 13,374 |
| Magnetics and complete parts thereof, when imported by the manufacturers of internal combustion engines, for use exclusively in the manufacture of such engines in their own factories | ... | 8,990 |
| Switchgear, flame proof, electric, for use underground in coal mines, and complete parts | ... | 3,419 |
| Electric dry shaving machines of a class or kind not made in Canada, for use in removing human hair, and complete parts thereof | ... | 205,720 |
| Steam turbo-generator sets, electric, 700 h.p. and greater, of a class or kind not made in Canada, and complete parts thereof | No. | 380,488 |
| Switches, switchboards, circuit breakers and complete parts, n.o.p. | ... | 550,284 |
| Telegraph apparatus, electric, and complete parts | ... | 173,250 |
| Telephone apparatus, electric, and complete parts | ... | 1,113,753 |
| Transformers and complete parts | ... | 224,752 |
| Radio tubes | No. | 1,124,361 |
| Radio receiving sets | No. | 586,084 |
| Radio receiving sets, parts of (From April 25, 1939) | 10,437 | 989,026 |
| Radio tube parts (From April 25, 1939) | ... | 209,109 |
| Radio and wireless apparatus, electric, n.o.p. (Included the two preceding items prior to April 25, 1939) | ... | 6,922 |
| Electric welding apparatus, not including motors | ... | 278,376 |
| Electric apparatus, n.o.p., and complete parts | ... | 103,644 |
| TOTAL | ... | 13,751,833 |
| | | 21,250,135 |

Table 33 - EXPORTS FROM CANADA OF ELECTRICAL APPARATUS, 1939 and 1940

| Items | 1 9 3 9 | 1 9 4 0 |
|---|------------------|------------------|
| | \$ | \$ |
| (a) EXPORTS | | |
| Batteries, storage | 214,416 | 321,526 |
| Batteries, n.o.p. | 53,668 | 212,748 |
| Radio receiving sets (except batteries) | No. | 645 |
| | \$ | 845 |
| Telegraph, telephone and radio apparatus, n.c.p. | 18,998 | 24,427 |
| Radio and wireless apparatus (except batteries) | 176,356 | 187,317 |
| DYNAMOS, generators and motors | 91,456 | 68,294 |
| Electric stoves and parts | No. | 295,817 |
| | \$ | 389,168 |
| Electric cooking and heating devices, domestic, n.c.p. | 14,618 | 8,196 |
| Spark plugs, magnetos and other ignition apparatus | 923,181 | 587,299 |
| Electric lamp shades | 18,253 | 33,670 |
| Electric apparatus, n.o.p. | 657,071 | 371,182 |
| | 5,236 | 18,937 |
| TOTAL | 774,917 | 1,067,207 |
| | 3,229,469 | 3,283,175 |
| (b) RE-EXPORTS | | |
| Telegraph, telephone and radio apparatus (except batteries) | 83,235 | 40,175 |
| DYNAMOS, generators and motors | 30,847 | 94,056 |
| Spark plugs, magnetos, and other ignition apparatus | 2,547 | 4,136 |
| Electric apparatus, n.o.p. | 130,159 | 95,846 |
| TOTAL | 236,786 | 234,213 |

NOTE: The letters "n.o.p." mean "not otherwise provided for" in the statistical classification.

DIRECTORY OF FIRMS INCLUDED IN THE ELECTRICAL APPARATUS AND SUPPLIES INDUSTRY, 1940

NOTE: This Directory is not intended to be a complete list of the manufacturers of electrical equipment. It is merely a list of the concerns which the Bureau has classified to the Electrical Apparatus and Supplies Industry, which includes all works engaged CHIEFLY in making electrical equipment using non-ferrous metals as their main materials. Some concerns make electrical equipment from iron, steel, clay, etc., but such producers have been classified to other industries, according to the constituent materials used. Other manufacturers make electrical supplies as minor products and have also been allotted to other groups. (See Appendix to Directory).

Names of FirmsLocation of PlantsQUEBEC -

Cables, Conduits & Fittings Limited
 Canadian Laco Lamps Limited
 Canadian Marconi Company Ltd.
 Conduits National Company Limited
 Devoe Electric Switch Co., The
 Economy Fuse & Mfg. Co. of Canada, Limited
 Electrical Manufacturing Co. Ltd., The
 Electrolier Mfg. Co. Ltd.
 Electrolux (Canada) Limited
 Elpeco of Canada, Limited
 Flex-I-Con Manufacturing Company, Limited
 Hale Brothers Limited
 Haliburton & White Limited
 Hart Battery Company, Limited
 Hughes, Benjamin, Electric Co.
 Keith & Cronin
 National Electric Refrigerator, Ltd.
 New Era Battery Co.
 Northern Electric Co. Limited
 Phillips Electrical Works Limited
 RCA Victor Co. Ltd.
 Silex Company Ltd.
 Solex Company, Limited, The
 Temco Electric Manufacturing Company
 White, T. N., & Sons Limited

63 Richelieu St., St. Johns
 745 Guy St., Montreal
 2442 Trenton Ave., Montreal
 3081-C Ontario St. E., Montreal
 865-875 St. Maurice St., Montreal
 1030 St. Alexander St., Montreal
 Lointmagny
 5849 Boyer St., Montreal
 1725 Basin St., Montreal
 6259 Notre Dame St. E., Montreal
 6155 Lafontaine St., Montreal
 6230 Chambord St., Montreal
 686 Notre Dame St. W., Montreal
 170 St. Georges St., St. Johns
 205 Vitre St. W., Montreal
 1061 Bleury St., Montreal
 Montmagny
 2240 Bellechasse St. E., Montreal
 1281 Shearer St., Montreal
 5795 De Gaspe Ave., Montreal
 376 Lacasse St., Montreal
 201 St. Louis St., St. Johns
 4060 St. Lawrence Blvd., Montreal
 480 Lagauchetiere St. W., Montreal
 476 St. Henri St., Montreal

ONTARIO -

Aerovox Canada Ltd.
 Allanson Armature Mfg. Co.
 Alpha Amplifier Co.
 Amalgamated Electric Corp. Ltd.
 Ardrion Mfg. Co.
 Arrow-Hart & Hegeman (Canada) Limited
 Backer, C. B., Co. Ltd.
 Baden Electric Fence Co.
 Baird, Wm., & Son
 Baldwin-International Limited
 Bepco, Canada, Ltd.
 Bersted Mfg. Co. (Canada) Ltd.
 Boston Insulated Wire & Cable Co. Ltd.
 Branston, Chas. A., Limited
 Braun & Bonnick Limited
 Brock Snyder Mfg. Co.
 Burger Lighting Equipment Co.
 Burgess Battery Company
 Campbell, W. J., Co. Ltd.
 Canada Batteries Limited
 Canada Metal Spinnings
 Canada Wire and Cable Co. Ltd.
 Canadian Astatic Ltd.
 Canadian Curtis Refrigeration Co. Ltd.

35 Catharine St. S., Hamilton
 855 Bay St., Toronto
 101 Queen St. W., Toronto
 384 Pape Ave., Toronto
 577 Adelaide St. W., Toronto
 310 Spadina Ave., Toronto
 25 Aberdeen St., Ottawa
 Baden
 568 Dundas St., Woodstock
 620 King St. W., Toronto
 45 Niagara St., Toronto
 589 King St. W., Toronto
 118 Shaw St., Hamilton
 58 Stewart St., Toronto
 22 Orillia St., Toronto 2
 21 John St., Grimsby
 690 King St. W., Toronto
 399 Buttrey St., Niagara Falls
 137 Clarence St., Brantford
 927 Dufferin St., Toronto 4
 465 Church St., Toronto
 Leaside
 1756 Kingston Road, Toronto
 20 George St., Hamilton

DIRECTORY OF FIRMS INCLUDED IN THE ELECTRICAL APPARATUS AND SUPPLIES INDUSTRY, 1940
 (Continued)

| <u>Names of Firms</u> | <u>Location of Plants</u> |
|---|---|
| ONTARIO (Continued) | |
| Canadian Electric Mfg Co. | 1402 Queen St. E., Toronto |
| Canadian General Electric Co. Ltd. | 224 Wallace Ave., Toronto |
| Canadian General Electric Co. Ltd. | 107 Park St., Peterborough |
| Canadian General Electric Co. Ltd. | 1025 Davenport Rd., Toronto |
| Canadian General Electric Co. Ltd. (Vacuum Tube Division) | 139 Dufferin St., Toronto |
| Canadian General Electric Co. Ltd. (Edison Lamp Works) | 221 Dufferin St., Toronto |
| Canadian Jefferson Electric Co. Ltd. | 60 Osler St., Toronto |
| Canadian Line Materials Limited | Scarboro Junction, Toronto |
| Canadian National Carbon Co. Ltd. | 805 Davenport Road, Toronto |
| Canadian Transformer Co. | 293 Queen St. S., Kitchener |
| Canadian Triangle Conduit Co. Ltd. | 2382 Dundas St. W., Toronto |
| Canadian Westinghouse Co. Ltd. | Sanford Ave. and Wyler St., Hamilton |
| Cansfield Electrical Works Ltd. | 260 Geary Ave., Toronto |
| Commercial Fixture Co. Ltd. | 69 Sherbourne St., Toronto |
| Commonwealth Electric Corp. Ltd. | 130 Dennistoun St. S., Welland |
| Conduits National Co. Ltd. | 33 Labatt Ave., Toronto |
| Continental Carbon of Canada, Ltd. | 54 Sumach St., Toronto |
| Continental Electric Co. Ltd. | 310 Spadina Ave., Toronto |
| Copper Wire Products Ltd. | 2733 Dundas St. W., Toronto |
| Crouse-Hinds Co. of Canada, Ltd. | 7 Labatt Ave., Toronto |
| Crown Electrical Manufacturing Co. Ltd. | 19 Sydenham St., Brantford |
| Curtis Lighting of Canada, Ltd. | 280 Richmond St. W., Toronto |
| Dominion Cutout Co. Ltd. | 250 Richmond St. W., Toronto 3 |
| Dominion Electric Mfg. Co. Ltd. | 60 Sumach St., Toronto |
| Dominion Electrohome Industries Ltd. | 39 Edward St., Kitchener |
| Durable Electric Appliance Co. | 81 Jarvis St., Toronto |
| Eastern Power Devices, Ltd. | 1244 Dufferin St., Toronto |
| Electric Magnetic Blanket Co. | 15 Walmsley Blvd., Toronto |
| Electric Products Co. of Canada | 349 Carlaw Ave., Toronto |
| Elgin Electric Mfg. Co. | 419 Coxwell Ave., Toronto |
| English Electric Co. of Canada, Ltd. | George St., St. Catharines |
| Erie Resistor of Canada Ltd. | 314 Terminal Warehouse Bldg., Toronto |
| Exide Batteries of Canada, Ltd. | 153 Dufferin St., Toronto |
| Falls Electric Resistors Limited | Courtwright St., Fort Erie North |
| Farley, T. S., Ltd. | 41 West Ave. N., Hamilton |
| Federal Wire & Cable Co. Ltd. | 265 Suffolk St., Guelph |
| Ferranti Electric Ltd. | Industrial St., Mount Dennis, Toronto 3 |
| Flexible Shaft Co. Ltd. | 321 Weston Rd. S., Toronto |
| Force Electric Products | Church and Guelph Sts., Acton |
| Frigidaire Division, General Motors Sales Corp. | Commercial St., Leaside |
| General Dry Batteries of Canada, Ltd. | 223 St. Helens Ave., Toronto |
| Groh's Cooler Ltd. | Laurel St., Preston |
| Hammont Mfg. Co. | 38 Wellington St. W., Guelph |
| Hart Manufacturing (Canada) Ltd. | 512 King St. E., Toronto |
| Hoover Company Limited | Gage Ave. and Barton St., Hamilton |
| Hygrade Electric Mfg. Co. | 151 Beverley St., Toronto |
| Industrial Electric Products Ltd. | 25 Golden Ave., Toronto |
| International Resistance Co. Ltd. | 187 Duchess St., Toronto |
| Ireland Mfg. Co. | 95 Cannon St. W., Hamilton |
| Jones & Moore Electric Co. Ltd. | 296 Adelaide St. W., Toronto |
| Justus Electric Co. | Winchester |
| Kearney, J. R., Corp. of Canada, Ltd. | Vanderhoof Ave., Leaside |
| Kelvinator of Canada, Ltd. | 1152 Dundas St. E., London |
| Kondi Mfg. Co. Ltd. | South St., Preston |
| La Salle Lead Products Ltd. | 630 Wyandotte St. E., Windsor |
| Leff Electric Mfg. Co. | 261 Dundas St., London |
| Leland Electric Canada Ltd. | 50 Crimea St., Guelph |
| Lincoln Electric Co. of Canada, Ltd. | 65 Bellwoods Ave., Toronto 3 |
| Line & Cable Accessories Limited | 347 Sorauren Ave., Toronto 3 |

Canadian Electric Mfg Co.
 Canadian General Electric Co. Ltd.
 Canadian General Electric Co. Ltd.
 Canadian General Electric Co. Ltd.
 Canadian General Electric Co. Ltd. (Vacuum Tube Division)
 Canadian General Electric Co. Ltd. (Edison Lamp Works)
 Canadian Jefferson Electric Co. Ltd.
 Canadian Line Materials Limited
 Canadian National Carbon Co. Ltd.
 Canadian Transformer Co.
 Canadian Triangle Conduit Co. Ltd.
 Canadian Westinghouse Co. Ltd.
 Cansfield Electrical Works Ltd.
 Commercial Fixture Co. Ltd.
 Commonwealth Electric Corp. Ltd.
 Conduits National Co. Ltd.
 Continental Carbon of Canada, Ltd.
 Continental Electric Co. Ltd.
 Copper Wire Products Ltd.
 Crouse-Hinds Co. of Canada, Ltd.
 Crown Electrical Manufacturing Co. Ltd.
 Curtis Lighting of Canada, Ltd.
 Dominion Cutout Co. Ltd.
 Dominion Electric Mfg. Co. Ltd.
 Dominion Electrohome Industries Ltd.
 Durable Electric Appliance Co.
 Eastern Power Devices, Ltd.
 Electric Magnetic Blanket Co.
 Electric Products Co. of Canada
 Elgin Electric Mfg. Co.
 English Electric Co. of Canada, Ltd.
 Erie Resistor of Canada Ltd.
 Exide Batteries of Canada, Ltd.
 Falls Electric Resistors Limited
 Farley, T. S., Ltd.
 Federal Wire & Cable Co. Ltd.
 Ferranti Electric Ltd.
 Flexible Shaft Co. Ltd.
 Force Electric Products
 Frigidaire Division, General Motors Sales Corp.
 General Dry Batteries of Canada, Ltd.
 Groh's Cooler Ltd.
 Hammont Mfg. Co.
 Hart Manufacturing (Canada) Ltd.
 Hoover Company Limited
 Hygrade Electric Mfg. Co.
 Industrial Electric Products Ltd.
 International Resistance Co. Ltd.
 Ireland Mfg. Co.
 Jones & Moore Electric Co. Ltd.
 Justus Electric Co.
 Kearney, J. R., Corp. of Canada, Ltd.
 Kelvinator of Canada, Ltd.
 Kondi Mfg. Co. Ltd.
 La Salle Lead Products Ltd.
 Leff Electric Mfg. Co.
 Leland Electric Canada Ltd.
 Lincoln Electric Co. of Canada, Ltd.
 Line & Cable Accessories Limited

1402 Queen St. E., Toronto
 224 Wallace Ave., Toronto
 107 Park St., Peterborough
 1025 Davenport Rd., Toronto
 139 Dufferin St., Toronto
 221 Dufferin St., Toronto
 60 Osler St., Toronto
 Scarboro Junction, Toronto
 805 Davenport Road, Toronto
 293 Queen St. S., Kitchener
 2382 Dundas St. W., Toronto
 Sanford Ave. and Wyler St., Hamilton
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 69 Sherbourne St., Toronto
 130 Dennistoun St. S., Welland
 33 Labatt Ave., Toronto
 54 Sumach St., Toronto
 310 Spadina Ave., Toronto
 2733 Dundas St. W., Toronto
 7 Labatt Ave., Toronto
 19 Sydenham St., Brantford
 280 Richmond St. W., Toronto
 250 Richmond St. W., Toronto 3
 60 Sumach St., Toronto
 39 Edward St., Kitchener
 81 Jarvis St., Toronto
 1244 Dufferin St., Toronto
 15 Walmsley Blvd., Toronto
 349 Carlaw Ave., Toronto
 419 Coxwell Ave., Toronto
 George St., St. Catharines
 314 Terminal Warehouse Bldg., Toronto
 153 Dufferin St., Toronto
 Courtwright St., Fort Erie North
 41 West Ave. N., Hamilton
 265 Suffolk St., Guelph
 Industrial St., Mount Dennis, Toronto 3
 321 Weston Rd. S., Toronto
 Church and Guelph Sts., Acton
 Commercial St., Leaside
 223 St. Helens Ave., Toronto
 Laurel St., Preston
 38 Wellington St. W., Guelph
 512 King St. E., Toronto
 Gage Ave. and Barton St., Hamilton
 151 Beverley St., Toronto
 25 Golden Ave., Toronto
 187 Duchess St., Toronto
 95 Cannon St. W., Hamilton
 296 Adelaide St. W., Toronto
 Winchester
 Vanderhoof Ave., Leaside
 1152 Dundas St. E., London
 South St., Preston
 630 Wyandotte St. E., Windsor
 261 Dundas St., London
 50 Crimea St., Guelph
 65 Bellwoods Ave., Toronto 3
 347 Sorauren Ave., Toronto 3

DIRECTORY OF FIRMS INCLUDED IN THE ELECTRICAL APPARATUS AND SUPPLIES INDUSTRY, 1940
 (Continued)

| <u>Names of Firms</u> | <u>Location of Plants</u> |
|--|------------------------------------|
| <u>ONTARIO</u> (Continued) - | |
| Merkel Electric Products Ltd. | 23 Lewis St., Fort Erie North |
| Marr Machine & Mfg. Co. | 62 Wallace Ave., Toronto |
| Marsland Radio Engineering Co. | 154 Victoria St., Kitchener |
| Martin Electric Ltd. | 624 King St. W., Toronto |
| Meredith, C. C., & Co. Ltd. | Queen St. N., Streetsville |
| Metal Industries Limited | 112 York St., Hamilton |
| Minneapolis-Honeywell Regulator Co. Ltd. | 117 Peter St., Toronto |
| Mohawk Radio Ltd. | 54 Osler Ave., New Toronto |
| Moloney Electric Co. of Canada, Ltd. | 213 Sterling Road, Toronto |
| Monarch Battery Mfg. Co. Ltd. | Montreal and Joseph Sts., Kingston |
| National Batteries Ltd. | 12 Church St., Toronto |
| National Electric Mfg. Co. | 510 King St. W., Toronto |
| Neon-Ray Clock Co. | 292 James St. N., Hamilton |
| Nestle Le Mur Co. | 680 King St. W., Toronto |
| Noma Electric Co. of Canada, Ltd. | 179 John St., Toronto |
| Opal Mfg. Co. | 490 Adelaide St. W., Toronto |
| Osborne Electric Co. Ltd. | 1536 Dundas St. W., Toronto |
| Packard Electric Company, Ltd. | 13 Race St., St. Catharines |
| P. & E. Division of Powerlite Devices Ltd. | 171 John St., Toronto |
| Philco Products Ltd. | 1244 Dufferin St., Toronto |
| Phillips Electrical Works Limited | Brockville |
| Pierce Fuse Corp. Ltd. | 24 Klauch St., Fort Erie North |
| Premier Vacuum Cleaner Co. Ltd. | 18 Breadalbane St., Toronto |
| Prest-O-Lite Storage Battery Co. Ltd. | 1352 Dufferin St., Toronto |
| Radiant Aluminum Co. | 575 Adelaide St. W., Toronto |
| Radio Condenser Co. Ltd. | 1010 Dufferin St., Toronto |
| Radio Valve Company of Canada, Ltd. | 189 Dufferin St., Toronto |
| Railway & Power Engineering Corp. Ltd. | 171 Eastern Ave., Toronto |
| Fedi-Heat Electrical Appliance Co. | Mill St., Deseronto |
| Reed-Cameron | 516 Richmond St. W., Toronto |
| Renco Therapeutic Co. | 55 York St., Toronto |
| Renfrew Electric & Refrigerator Co. Ltd. | Elizabeth St., Renfrew |
| Robbins & Myers Co. of Canada, Ltd. | 40 Morrell St., Brantford |
| Rogers-Majestic Corporation, Ltd. | 622 Fleet St. W., Toronto 2 |
| Rogers Radio Tubes, Ltd. | 100 Sterling Road, Toronto |
| Sanson-United of Canada, Ltd. | 69 Sherbourne St., Toronto |
| Sangamo Co. Ltd. | 183 George St., Toronto |
| Service Lamp Co. Ltd. | 197 King St., London |
| Shonbeck Clock Co. | 35 Mary St., Hamilton |
| Smith & Stone Limited | Georgetown |
| Sparton of Canada, Ltd. | Elm and Pine Sts., London |
| Square D Co. of Canada, Ltd. | 672 Dupont St., Toronto |
| Standard Bronze Co. Ltd. | 4 Trafalgar Ave., Toronto 3 |
| Standard Radio Products | 25 Gaukel St., Kitchener |
| Star Electric Fixtures Ltd. | 107 Church St., Toronto |
| Sterne Equipment Co. | 94 Wellington St. W., Toronto |
| Stewart-Warner Alemite Corp. of Canada Ltd. | Macdonald Ave., Belleville |
| Stromberg-Carlson Telephone Mfg. Co. of Canada, Ltd. | 211 Geary Ave., Toronto |
| Superior Electrics Ltd. | Pembroke |
| Sutton-Horsley Co. Ltd. | 263-267 Adelaide St. W., Toronto |
| Taylor Electric Mfg. Co. Ltd. | 625 Princess Ave., London |
| Universal Cooler Co. of Canada, Ltd. | 135 Brant St., Brantford |
| Utah Products (Canada) Ltd. | 560 King St. W., Toronto |
| Virden, J. C., Ltd. | 35 Front St. E., Toronto |
| Volta Manufacturing Co. Ltd. | Alexander St., Welland |
| Vulcan Electric Products | 3160 Dundas St. W., Toronto |
| Walker Metal Products Ltd. | 1500 Kildare Rd., Walkerville |
| Wheeler Reflector Co. of Canada, Ltd. | 44 York St., Toronto |
| White Radio Ltd. | 41 West Ave. N., Hamilton |

DIRECTORY OF FIRMS INCLUDED IN THE ELECTRICAL APPARATUS AND SUPPLIES INDUSTRY, 1940
(Concluded)

| Names of Firms | Location of Plants |
|--|---------------------------------------|
| ONTARIO (Concluded) - | |
| Willard Storage Battery Co. of Canada, Ltd. | 269 Campbell Ave., Toronto 9 |
| Wilson Battery Products | 21 Church St., Oshawa |
| Wilson, J. A., Co. Ltd. | 9 Morrison St., Toronto |
| Wynston, A. L., Jr., Ltd. | 590 King St. W., Toronto |
| MANITOBA - | |
| Canadian Electric & Brass Ltd. | 574½ Minto St., Winnipeg |
| Champion Battery Co. | 174 Isobel St., Winnipeg |
| Dixon Batteries | 120 Charlotte St., Winnipeg |
| Electric Heating & Mfg. Co. Ltd. | 902 Home St., Winnipeg |
| Ex-Cel Battery Mfg. Co. | 708 Portage Ave., Winnipeg |
| Globelite Batteries Ltd. | 147 Pacific Ave., Winnipeg |
| Ideal Electric Mfg. | 372 Selkirk Ave., Winnipeg |
| Lanzley Electric Mfg. Co. Ltd. | 677 Notre Dame Ave., Winnipeg |
| Lighting Materials Ltd. | 803 Erin St., Winnipeg |
| Leeders' Limited | 1375 Portage Ave., Winnipeg |
| L. & S. Electric Mfg. Ltd. | 468 Ross Ave., Winnipeg |
| Red Devil Mfg. Co. | 268 Selkirk Ave., Winnipeg |
| Wahl Mfg. Co. of Canada | 62 Albert St., Winnipeg |
| ALBERTA - | |
| Alberta Battery Co. Ltd. | 420 Ninth Ave. E., Calgary |
| Calgary Battery Co. | 117A .. 11th Avenue W., Calgary |
| Langley Electric Co. Ltd. | 1301 .. 11th Ave. E., Calgary |
| Smith Batteries Ltd. | 1012 .. 9th Ave. W., Calgary |
| BRITISH COLUMBIA - | |
| Cemco Electrical Mfg. Co. Ltd. | 165 W. Fourth Ave., Vancouver |
| Cope & Son Ltd. | 550 Cambie St., Vancouver |
| Coyle Batteries Ltd. | 1481 Venables St., Vancouver |
| Electric Panel Mfg. Ltd. | 1250 Richards St., Vancouver |
| Francis Battery & Tire Service Ltd. | 1412 Quadra St., Victoria |
| Giant Battery Co. | 1249 Granville St., Vancouver |
| International Battery Corp. Ltd. | 1130 Richards St., Vancouver |
| Jones Brothers Batteries | 866 Yates St., Victoria |
| Langley Manufacturing Co. Ltd. | Granville Island, Vancouver |
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| APPENDIX TO DIRECTORY | |
| List of firms making electrical goods or supplies during 1940, but which have been classified to other industries | |
| Aluminum Company of Canada Ltd. | Arvida, Que. |
| Armstrong, S. A., Ltd. | 720 Bathurst St., Toronto, Ont. |
| Atlantic Service Co. Ltd. | 135 Logan Ave., Toronto, Ont. |
| Atlas Boiler and Ship Repairs | Prince Rupert, B.C. |
| Automatic Electric Sales & Service | 104 Jarvis St., Toronto, Ont. |
| Beach Foundry Co. Ltd. | Hinton Ave., Ottawa, Ont. |
| Bearing & Auto Parts Reg'd. | 667 Lagauchetiere St., Montreal, Que. |
| Beatty Bros. Ltd. | Fergus, Ont. |
| Belanger, A., Ltée | Montmagny, Que. |
| Bendix Eclipse Co. of Canada Ltd. | 1473 Argyle Road, Walkerville, Ont. |
| Berkel Products Co. Ltd. | 533 College St., Toronto, Ont. |
| Brantford Washing Machine Co. of Canada Ltd. | Brantford, Ont. |
| Burnside, Harry | 442 King St. W., Toronto, Ont. |
| Canada Motor Products Ltd. | 272 Van Horne St., Toronto, Ont. |
| Canada Vulcanizer & Equipment Co. Ltd. | 1109 York St., London, Ont. |
| Canadian Ironing Machine Co. Ltd. | 1151 Queen St. W., Toronto, Ont. |
| Canadian General Electric Co. Ltd. | 262 Townsend Ave., Peterboro, Ont. |

APPENDIX TO DIRECTORY - (Continued)

| Name of Firm | Location of Plant |
|---|---|
| Canadian Motor Lamp Co. Ltd. | Seminole St., Windsor, Ont. |
| Canadian Ohio Brass Co. Ltd. | Niagara Falls, Ont. |
| Canadian Porcelain Co. Ltd. | Paradise Road, Hamilton, Ont. |
| Canadian Radiator Mfg. Co. | 439 Wellington St. W., Toronto, Ont. |
| Canadian Sirocco Co. Ltd. | 310 E. Ellis Ave., Windsor, Ont. |
| Canadian Summer Iron Works Ltd. | 1214 E. Pender St., Vancouver, B.C. |
| Chadwick-Carroll Brass & Fixtures Ltd. | 365 Wilson Ave., Hamilton, Ont. |
| Champion Spark Plug Co. of Canada Ltd. | 1624 Howard Ave., Windsor, Ont. |
| Clare Bros. & Co. | Preston, Ont. |
| Coffield Washer Co. Ltd. | 77 Niagara St., Hamilton, Ont. |
| Connor, J. H. & Son Ltd. | 10 Lloyd St., Ottawa, Ont. |
| Cote Bros. & Burritt | 1280 Conde St., Montreal, Que. |
| Dominion Carbon Brush Co. Ltd. | 250 Richmond St. W., Toronto, Ont. |
| Dominion Chain Co. Ltd. | 800 Bender Ave., Niagara Falls, Ont. |
| Dominion Machine & Tool Co. Ltd. | 460 Richmond St., Toronto, Ont. |
| Dowswell, Lee & Co. Ltd. | 193 Elgin St., Hamilton, Ont. |
| Easy Washing Machine Co. Ltd. | Miranda & Schell Ave., Toronto, Ont. |
| Eaton-Wilcox-Fitch Ltd. | 379 Pitt St. W., Windsor, Ont. |
| Electric Auto Lite Ltd. | Sarnia, Ont. |
| Electro Metallurgical Co. of Canada Ltd. | Welland, Ont. |
| Enamel & Heating Products Ltd. | Sackville, N.B. |
| Engineering Products of Canada Ltd. | 6259 Notre Dame St. E., Montreal, Que. |
| Essex Wire Corp. Ltd. | 1635 McDougall Ave., Windsor, Ont. |
| Fairbanks, E. & T., and Co. Ltd. | Sherbrooke, Que. |
| Fairgrieve & Son Ltd. | 50 Dovercourt Rd., Toronto, Ont. |
| Findlays Limited | Carleton Place, Ont. |
| Flaherty Mfg. Co. | 76 Wellington St., Hamilton, Ont. |
| General Steel Wares Ltd. | London, Ont. |
| Gilbert & Barker Mfg. Co. Ltd. | 64 Jefferson Ave., Toronto, Ont. |
| Gilson Mfg. Co. Ltd. | York Road, Guelph, Ont. |
| Greely, Wm. & J. G., Ltd. | 56 Esplanade St., Toronto, Ont. |
| Guelph Stove Co. Ltd. | Guelph, Ont. |
| Gurney Foundry Co. Ltd. | 96 Principal St., St. Laurent de Montreal, Que. |
| Hamilton Machine Co. | 11 Ferguson Ave. N., Hamilton, Ont. |
| Hamilton Potteries Ltd. | 100 Locke St., Hamilton, Ont. |
| International Business Machines Co. Ltd. | 300 Campbell Ave., Toronto, Ont. |
| Johnson Copper & Bronze Ltd. | 142 Davenport Road, Toronto, Ont. |
| Johnson, A. J., Co. | 2002 Victoria St., Montreal, Que. |
| Kribs, W. A., Co. Ltd. | Guelph Ave., Hespeler, Ont. |
| La Fonderie Ouellet, Enrg. | St. Leonard d'Acton, Que. |
| Leyland Auto Parts Co. | 188 Parliament St., Toronto, Ont. |
| MacDonald Metal Products Co. Ltd. | Taylor St. E., Waterloo, Ont. |
| Maxwells Ltd. | 73 Park Ave., St. Marys, Ont. |
| McIntyre & Taylor, Ltd. | 505 Queen St. W., Toronto, Ont. |
| McKinnon Industries Ltd. | Ontario St., St. Catharines, Ont. |
| McOuat, T., & Son | 9 Princess St., Lachute Mills, Que. |
| Mitchell, Robert, Co. Ltd. | 750 Belair Ave., Montreal, Que. |
| Metal & Wood Products Ltd. | 43 E. Third Ave., Vancouver, B.C. |
| Moffats Ltd. | Weston, Ont. |
| Monarch Oil Burners Co. | 701 St. Clair Ave. W., Toronto, Ont. |
| Morris, Herbert, Crane & Hoist Co. Ltd. | Stanley St., Niagara Falls, Ont. |
| New Idea Furnaces Ltd. | 100 Charles St. E., Ingersoll, Ont. |
| Northern Crane & Hoist Works Ltd. | 1428 Argyle Rd., Walkerville, Ont. |
| Cutboard Marine & Mfg. Co. of Canada Ltd. | Monaghan Road, Peterboro, Ont. |
| Peerless Motor Products | 216 .. 12th Ave. W., Calgary, Alta. |
| Roelofson Elevator Co. Ltd. | 289 Sumach St., Toronto, Ont. |
| Sheldon Ltd. | Grand Ave., Galt, Ont. |
| Shelton, W. G., Co. of Canada Ltd. | 428 Cannon St. E., Hamilton, Ont. |
| Service Station Equipment Co. Ltd. | 101 Hanson St., Toronto, Ont. |
| Singer Mfg. Co. | 165 St. Paul St., St. Johns, Que. |
| Standard Brass Foundry | 561 Catharine St. N., Hamilton, Ont. |
| Thor Canadian Co. Ltd. | 1244 Dufferin St., Toronto |
| Timken Silent Automatic of Canada Ltd. | Walker Road, Walkerville, Ont. |
| Toronto Metal Spinning Co. | 32 Eastern Ave., Toronto, Ont. |
| Trico Products Corp. | 40 Courtwright St., Fort Erie N., Ont. |
| Tudhope Metal Specialties Ltd. | Orillia, Ont. |
| Whitehead Metal Products Co. of Canada Ltd. | Port Colborne, Ont. |
| Wood, W. C., Co. Ltd. | 2480 Dundas St. W., Toronto, Ont. |

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