Subsection 5.—Power and Fuel.

Power.—The power equipment installed in manufacturing establishments is a very good barometer of the industrial development of Canada, inasmuch as the production is increasingly dependent on the power equipment. Increases and decreases in productive capacity, measured in horse-power, are not the result of temporary fluctuations in costs and values in the same manner as capital investments, values of products, etc. Power equipment will not reflect temporary depressions, but over a period of several years will indicate industrial growth or decline.

Central electric stations, which generate electricity for both lighting and power purposes, are treated in Table 32 separately from the other groups of industries. Internal combustion engines include all gasolene engines, natural, coal and producer gas engines, and diesel and semi-diesel or other engines which produce power by burning the fuel in the cylinder.

Comparisons with the data for 1929 show an increase of 533,714 h.p. or 8·1 p.c. in 1930 in the total primary power equipment installed in all manufacturing establishments, including central electric stations, by far the largest increase amounting to 475,118 h.p., being in the central electric stations, there being a decrease in primary power installation in some of the other manufacturing groups due to the replacement of steam equipment by electrical equipment operated by purchased power. The water-power development of central electric stations increased by 425,182 h.p., while steam power installed increased by 46,349 h.p. and internal combustion engines by 3,587 h.p. Provinces with large water-power developments usually show the greatest primary power increases. During the year 1930, Ontario led with an increase of 147,737 h.p., Quebec came second with an increase of 123,796 h.p., British Columbia third with an increase of 99,216 h.p., Nova Scotia fourth with an increase of 46,633 h.p. and Manitoba fifth with an increase of 43,463 h.p. In the utilization of hydraulic power, Quebec exceeded Ontario for the first time in 1925. In 1927, Quebec exceeded Ontario or any other province in the total of installed primary power from all sources and has been the leading province since then, largely owing to its extensive water-power resources, 92 p.c. of its primary power in 1930 being derived from water.

The rapid increase in the development of power in Canada and in its utilization in manufacturing industries is illustrated by the summary figures for the years 1921 to 1930 in Table 32. The table is divided into two parts, the first showing manufacturing industries exclusive of central electric stations and the second showing central electric stations only. The abundance of readily available water power in many parts of Canada, facilitating the development of low-cost hydro-electric power, has no doubt played a large part in this rapid growth. Of the total primary power increase of 3,968,295 h.p., inclusive of central electric stations, in the 9 years, no less than 3,493,464 h.p. or 89 p.c. was in water power. However, some sections of Canada are not so well provided with water-power resources and chiefly in such sections primary power derived from steam engines and turbines and internal combustion engines has also increased rapidly during the period covered. In the provinces of Prince Edward Island, Nova Scotia, Saskatchewan and Alberta, primary power produced from fuels exceeded that from water in 1930. The total installation of electric motors increased 1,983,185 h.p. or 196 p.c. in the 9 years covered, by far the greatest part of this increase being in motors operated by power purchased from central electric stations.