

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 1935. The total installation of electric motors increased 2,071,261 h.p., or 159 p.c., in the 13 years covered, by far the greatest part of this increase being in motors operated by power purchased from central electric stations.

Of the total power equipment installed in the manufacturing industries (first part of Table 33), it will be seen that approximately 50 p.c. is used in the manufacture of wood and paper products; the next group in importance is iron and its products, which accounts for a little over 15 p.c.; non-ferrous metal products is third with 9.6 p.c. Together, these three groups account for about 75 p.c. of such installation.

Fuel and Electricity.—Fuel and electricity consumed by the manufacturing industries of Canada in 1935 was valued at \$84,273,129. Of this amount \$43,548,065 was for fuel and \$40,725,064 for electric power. The fuel used in industrial establishments in 1935 included 4,397,580 tons of bituminous coal valued at \$23,642,048, constituting 54.3 p.c. of the total fuel cost. The other chief fuels in order of value were: fuel oil 14.7 p.c., gas (principally manufactured gas) 13.2 p.c., coke 4.5 p.c., wood 3.4 p.c., and anthracite coal 3.0 p.c. Out of a fuel account of \$43,548,065, Ontario's requirements cost \$21,176,658 or 48.6 p.c. of the total; Quebec's cost \$10,887,347; Nova Scotia's, \$3,248,434; and British Columbia's, \$2,415,241.

The groups of industries in which fuel was most extensively used in 1935 were: non-metallic minerals \$8,742,968, wood and paper \$8,664,304, iron and steel products \$7,995,847, and vegetable products \$5,798,332. Fuel is used quite generally throughout the industrial field for the generation of power by means of internal combustion and steam engines. The most important industries where heat is applied directly to materials to transform them or to facilitate their manipulation are foundries and machine shops, blast furnaces and steel mills, smelting plants, brick, tile, lime and cement-making, petroleum refining, and the glass industry. In such industries as the manufacture of coke and gas the coal, used as a material which enters into the actual composition of the product, is not treated as a fuel but as a raw material and is not, therefore, included in the figures of Table 34.

The total annual expenditure on fuel decreased by \$8,092,847 or 15.7 p.c. in the fourteen years 1921-35 covered by the summary figures in Table 34. During this period prices of fuel generally have declined; thus with an increase of 7.2 p.c. in the quantity of bituminous coal used, the value decreased by 32.0 p.c.

The wood and paper products group is the largest user of electric power, the consumption in 1935 being valued at \$18,068,175 or 44.4 p.c. of the total cost of power used by all manufacturing industries. The iron and its products group ranks second with only 11.3 p.c. of the total. Other principal users were non-ferrous metal products, vegetable products, and textiles.

In the provinces of Quebec and British Columbia the cost of electricity exceeds that of fuel. For Quebec, which is the largest user of electrical power, the electricity used was valued at \$17,761,056 as against \$10,887,347 for fuel, while in British Columbia electric power totalled \$3,649,470 and fuel \$2,415,241. Ontario, which ranks second as a user of electrical energy, expended \$14,896,266 for electricity and \$21,176,658 for fuel.