

ment in the vicinity. The burning of coke in the house furnace, the necessity of enriching the soils with nitrates, the increase of refrigerating operations and the extended use of tar products have prompted the larger plants to increase their output. The industry is also intimately connected with the iron and steel industry and depends upon the demand of the non-ferrous smelting plants. Coke plants are maintained at Sydney, Hamilton and Sault Ste. Marie by the three principal iron and steel companies. Hamilton By-Product Coke Ovens, the Crow's Nest Pass Co., and Granby Consolidated Mining, Smelting and Power Co. also operate plants.

Other industries of a varied nature included in this group are the manufacture of asbestos products, the glass industry, the manufacture of abrasives, the preparation of ornamental and monumental stone, the bottling of aerated waters and the manufacture of various clay products and cement.

Chemicals.—New developments in Canada's chemical industries serve to focus attention on the growth of these great enterprises. At the present time the expansion in this field is more noticeable than at any other period since the abnormal expansion during 1914-1918, when war demands necessitated the establishment of many new lines of production.

At Trail, B.C., large chemical plants are shortly to be erected. The sulphuric acid plant, using the gases from the zinc roasting process, will be enlarged. Nitrogen obtained through the liquefaction of air will be converted to ammonia, and both ammonium phosphate and ammonium sulphate will be made, as well as superphosphate of lime for use as fertilizer.

At Sandwich, Ontario, where caustic soda and chlorine have been made for many years by the electrolysis of brine, by-product hydrogen formerly wasted is to be saved and made into ammonia by the Casale process.

In the Sudbury area, owing to the growth of the nickel-copper industry which uses large quantities of acid sodium sulphate in the smelting process, a new chemical plant is being erected to make acid sodium sulphate from the Saskatchewan natural sulphate. This is a notable development in that the new works will produce only a material that was formerly considered to be a waste product.

The growth of the ten main groups of chemical industries in Canada may be realized by noting that gross production in 1921 was about \$89 millions and in 1928 nearly \$147 millions.

The chemical industries of the Dominion may be arranged in the following order of importance, based on the gross value of product: (1) acids, alkalies, salts and compressed gases, (2) paints, pigments and varnishes, (3) soaps, washing compounds and toilet preparations, (4) medicinal and pharmaceutical preparations, (5) explosives, ammunition, fireworks and matches, (6) coal tar products, (7) inks, dyes and colours, (8) fertilizers, (9) wood distillates, and (10) a miscellaneous group of industries not otherwise classified. These industries contribute in no small measure to the diversification of Canadian manufactures and add appreciably to the volume of production. If the larger definition of chemical industries be taken as including all industries using chemical processes, the field covered represents not less than one-fifth of the aggregate of Canadian manufactures.

Central Electric Stations.—Beginning with 1926, central electric stations have been taken out of group 9—Miscellaneous Industries—and shown as a separate group. The purpose of the separation is to facilitate the presentation of the statistics of the power installed in manufacturing establishments. Practically all other