

formation of Upper Silurian age, in which the beds of the mineral sometimes reach a thickness of 250 feet. The Canadian production during the present century has shown fairly steady growth from 59,428 tons in 1901 to 91,582 in 1911, 164,658 in 1921, 262,547 in 1926 and a high record of 330,264 tons in 1929. Since then production has declined to 259,047 tons valued at \$1,904,149 in 1931 (see Tables 2 and 5 of this chapter) and 263,543 tons according to the preliminary figures for 1932.

Section 6.—Production of Clay Products and Other Structural Materials.

Brick and Tile.—Although the brick and tile industry is established in every province of the Dominion, production is naturally greatest near the chief centres of population, that is, in Ontario and Quebec. Here the widespread clays of glacial and post-glacial age occurring over considerable areas of the St. Lawrence Lowlands have furnished the materials for numerous brick and tile industries. Production fluctuates with building activity and reached its highest point in the year 1912. Since that time the gradual substitution of steel and reinforced concrete for brick has reduced the production of brick so that, while the value of construction undertaken in 1928 or 1929 is estimated to have exceeded that of 1912, the quantity of brick produced in the later years was only about half that of 1912. On the other hand, as will be seen from Table 31 below, the production and consumption of cement in 1929 greatly exceeded that of 1912 or 1913. The production of building brick of various types in 1930 and 1931 is shown in Table 2 of this chapter, while the production by provinces in 1931 is given in Table 5.

Cement.—The cement industry in Canada began with the manufacture of hydraulic or natural rock cement. The first production was probably at Hull, Quebec, between 1830 and 1840. The manufacture of Portland cement began about 1889. Owing to its superiority in uniformity and strength, it soon superseded the older product. Portland cement consists of an accurately proportioned mixture of lime, silica and alumina. The lime is usually furnished by limestone or marl, and the silica and alumina by clay or shale. The cement industry has naturally become established where these materials are situated and where fuel supplies and transportation are readily available. The largest production is in Quebec and Ontario, although there are also active plants in Manitoba, Alberta and British Columbia. As may be seen from Table 31, while production has declined somewhat since 1929, the industry still shows a healthy recovery from the unfavourable conditions from which it suffered during the War and early post-war periods. Whereas in pre-war years Canada was an importer of Portland cement she is now on balance an exporter of this commodity.