

35-inch blooming mill, a 28-inch rail mill, a 350-ton tilting melting furnace for the open-hearth department, three 40-ton open hearth furnaces and a 500-ton blast furnace were added to the equipment in 1911 and 1912. Additional open hearth furnaces and a merchant mill for the production of heavy structural steel were completed in 1914.

The War Period.—The iron and steel industry passed through many vicissitudes during the war period. The development between 1900 and the outbreak of the war had been rapid and practically continuous, and the dislocation of the first two years of war brought about a temporary setback. The receipt of munition orders, as well as the restriction of the overseas import trade, created a buoyant demand in 1916, which was immediately reflected in the activity of the primary iron and steel plants, encouraged by the efficient policy of the Imperial Munitions Board. The monthly production of pig iron was maintained at an average of about 98,202 short tons during the last three years of the war, while the average monthly production of steel was 140,214 tons.

Post-War Problems.—The problems of development and of intensive production to meet war demands were no more serious than were presented during the post-war period. After the war it was necessary to convert the machinery of the finishing mills from war to peace-time production, to find markets for the surplus production of plants that had been greatly expanded, and to endeavour to furnish employment to a force of employees far in excess of those employed under normal conditions. Contrary to expectations, prices fluctuated only slightly at the beginning of 1919 and then followed an ascending curve until the autumn of 1920. The beginning of 1921 saw the ending of a period of unusual industrial expansion and the beginning of a period of depression ushered in by falling prices. Considerable recovery was effected during the latter part of 1922, and in the first nine months of 1923 the average monthly production of pig iron, 84,000 short tons, exceeded comparative post-war records with the exception of the year 1920, when the average was about 89,600 tons. The amalgamation of the Dominion Steel Corporation, the Nova Scotia Steel and Coal Co. and related companies, to form the British Empire Steel Corporation, effected during the period under review, was of far-reaching importance from the standpoint of organization.

5.—Chemical and Allied Industries.

Early Conditions.—The first important demand for raw and manufactured chemicals, apart from their direct domestic and medicinal uses, came with the development of the textile industry. As a result of the organization of home and domestic industries, the necessity of dyeing and bleaching wool used in yarn and cloth became greater with each generation. Eventually coal became a source of chemical supplies, the coal tar intermediates forming the foundation of dyestuffs. Before the war Germany controlled the world market for dyestuffs, owing to the favourable nature of German coal and the advance of chemical research in Germany. During the war investigation into various dye processes was carried on in allied countries with a view to utilizing domestic supplies, and independence of the former source of supply is now assured.

At the emergence of the factory system it was found that the chemical industry lay at the foundation of many other industries. For example, as the soap industry requires large supplies of soda, supplies of salt for the recently established Canadian soda industry are being produced in Ontario. Again, the farmer has recently begun the use of artificial fertilizers, more especially as during the war the demand for