

With the growing production of deals and other sawn lumber, the trade with the United States increased until in 1924 Canada exported almost 2,000,000,000 feet of sawn lumber to that country. The total value of exported sawn lumber and other unmanufactured or partially manufactured forest products in the fiscal year ended Mar. 31, 1925, was over \$109,000,000, of which about \$90,000,000 worth went to the United States and \$11,000,000 worth to the United Kingdom. The remaining export trade was widely distributed throughout both trans-Atlantic and trans-Pacific channels.

3.—The Pulp and Paper Industry.

The manufacture of pulp and paper is a comparatively recent development in Canadian industry. Paper was first manufactured in Canada about a hundred years ago, but prior to 1860 no wood-pulp was used or produced. Rags, straw, esparto grass, cotton waste and other substances were the raw materials used. The first paper-mill was established at St. Andrews in Quebec (then Lower Canada) in 1803 by a party of Americans who obtained concessions from the seigneurs. In 1825, at Crook's Hollow, was erected the first paper-mill in what was then Upper Canada. Mr. Crooks, the founder, earned a bounty from the Government of £100 for the first sheet of paper made in the province.

What is claimed to be the first wood-pulp mill in Canada was erected by Angus Logan and Company at Windsor Mills, Quebec, about 1870. The Riordons were among the first to manufacture groundwood pulp, and in 1887 Charles Riordon brought the sulphite process from Austria, and installed at Merritton a sulphite mill which is still in existence. In the census of 1871 no pulp-mills are mentioned, but in 1881 five mills were in operation, with a total capital of \$92,000, 68 employees and an output valued at \$63,000. In 1891 there were 24, and in 1901, 25 mills. Since that date the advance in this industry has been still more rapid. At the present time there are in existence in Canada about 46 pulp-mills, 34 combined pulp and paper mills and 35 mills making paper only, although not all of these are operating at present. This development is due chiefly to the existence in Canada of abundant water powers adjacent to extensive forest resources of pulpwood species. The importance of this combination is evident from the fact that energy to the extent of practically 100 h.p. is necessary for the production of one ton of paper.

The industry in Canada includes three forms of industrial activity, the operations in the woods, with pulpwood as a product, the manufacture of pulp and the manufacture of paper. These three stages cannot be treated as entirely distinct nor can they be separated from the different stages of the lumber industry. Some of the important pulp companies operate saw-mills to utilize the larger timber on their limits to the best advantage, and many lumber manufacturers divert a proportion of their spruce and balsam logs to pulp-mills. As far as operations in the woods are concerned, it is often impossible to state whether the timber being cut will eventually be made into lumber or pulpwood.

On account of legislation already referred to, pulpwood cut on Crown lands in every province but Nova Scotia must be manufactured into pulp in Canadian pulp-mills. Pulpwood cut on lands held in fee simple may be exported, and a large proportion of it is sent to the United States. Raw or unmanufactured pulpwood has therefore a definite market value. Table 7 and the diagram show the annual production of this commodity from 1908 to 1924, together with the quantities used by Canadian pulp-mills and the quantities exported.