

### Subsection 2.—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 United States citizens who obtained concessions from the seigneurs. Upper Canada's first mill, which is still in operation, was built in 1813 at Crook's Hollow (now Greensville) near Hamilton, and the Maritime Provinces entered the industry in 1819 with a mill at Bedford Basin near Halifax.

In 1866, Alexander Buntin installed at Valleyfield, Quebec, what is claimed to have been the first wood grinder in America and began the manufacture of wood-pulp by the mechanical process. During the same year Angus Logan and Co. built the first chemical wood-pulp mill in Canada at Windsor Mills in Quebec. During the next decade the use of wood-pulp in paper making was extensively developed and in 1887 Charles Riordon installed the first sulphite mill in Canada at Merritton in the Niagara peninsula; by the beginning of the century the output of the industry had exceeded \$8,000,000. In 1907 the Brompton Pulp and Paper Co. built, at East Angus in Quebec, the first mill in America to manufacture chemical pulp by the sulphate or kraft process.

The gross output of the industry increased rapidly and steadily until the boom years following the Great War, when it jumped to a peak of over \$232,000,000 in 1920. This was followed by a drop in 1921, after which there was a steady recovery, resulting in a second peak in 1929 of \$243,970,761. This was followed by annual decreases down to 1933 and annual increases up to 1936.

The rapid development of this industry up to 1929 was due chiefly to the existence in Canada of abundant water powers adjacent to extensive forest resources of pulpwood species and an increasing demand for newsprint paper in the United States. Summary statistics for the combined pulp and paper industry are given on p. 304.

There are to-day three classes of mills in the industry. These, in 1936, numbered 25 mills making pulp only, 44 combined pulp and paper mills, and 24 mills making paper only.

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 sawmills 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. So 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 into pulpwood.

On account of legislation already referred to, pulpwood cut on Crown lands must, in every province, be manufactured into pulp in Canadian pulp mills except under special permit. The pulpwood which is exported to the United States is, therefore, largely cut from private lands. Table 5 shows the annual production of this commodity from 1926 to 1936, together with the quantities used by Canadian pulp-mills and the quantities exported and imported.