

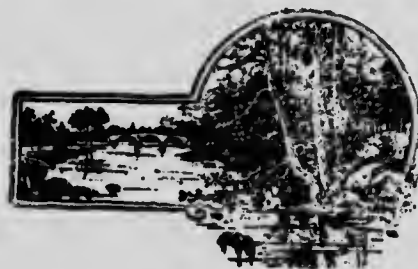
INDUSTRIAL AND COMMERCIAL FACTORS.

This lining protects the iron from the corrosive action of the acid. These boilers, or "Digesters," as they are technically called, are provided with top and bottom man-holes, and are heated by steam pipes placed in their lower part. They are filled full with chips from the bins overhead, and then with the bisulphite of lime fluid, and when the man-lid has been screwed on, steam is injected into the lower part of the digester, and the temperature of its contents gradually raised until it registers about 140 degrees. This occupies from 12 to 14 hours, and during the heating, periodic samples of the liquor are withdrawn and chemically tested, to see how the operation is progressing from time to time. When the workman in charge considers that the boiling process has been conducted far enough, the contents of the digester are blown into a large wooden tank fitted with a perforated false bottom, in which the spent fluid is allowed to drain from the pulp. In this way the waste chemical fluid is separated from the wood pulp. The pulp is then ready to be washed and purified. The washing is conducted inside these tubs by means of a spray of water, the water permeating the whole mass and displacing the spent liquor. After washing, it is then purified by a process of straining, which consists in passing the individual fibres, largely mixed with water, through narrow slits cut in brass plates in a machine known as a "Strainer" or "Screen;" the individual fibres pass through the slits, whilst the coarser particles remain behind on the surface of the plates. The coarse particles consist mainly of knots derived from the wood, and are usually ground up and sold for the production of wrapping paper.

The purified pulp is then converted into a

thick sheet of paper, resembling cardboard, on a specially constructed machine, cut into square sheets and packed in bales ready for the market.

St. John being situated at the mouth of the largest river in the Province, and being the Winter Port of Canada, the facilities which it offers for the extension of this manufacture are unique. The river itself possesses an enormous water shed, and intersects very extensive forests, from which excellent pulp wood can be obtained. Regular steamers run direct to the principal ports of the United Kingdom, such as London, Liverpool, Manchester, Glasgow and Bristol, the service being specially good during the winter months. It is the terminus of the Canadian Pacific and Intercolonial Railways, by means of which commercial products can be distributed all over the United States and Canada. The exports of the port being greater than the imports, it is obvious that cheap and lenient freights can be arranged at certain seasons of the year for the transport hither of raw materials. Small sailing craft are available all the year round for shipment to the United States and elsewhere. Indeed it is not too much to say that manufacturers situated in St. John can ship to all points in the old and new world with facility and advantage.



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