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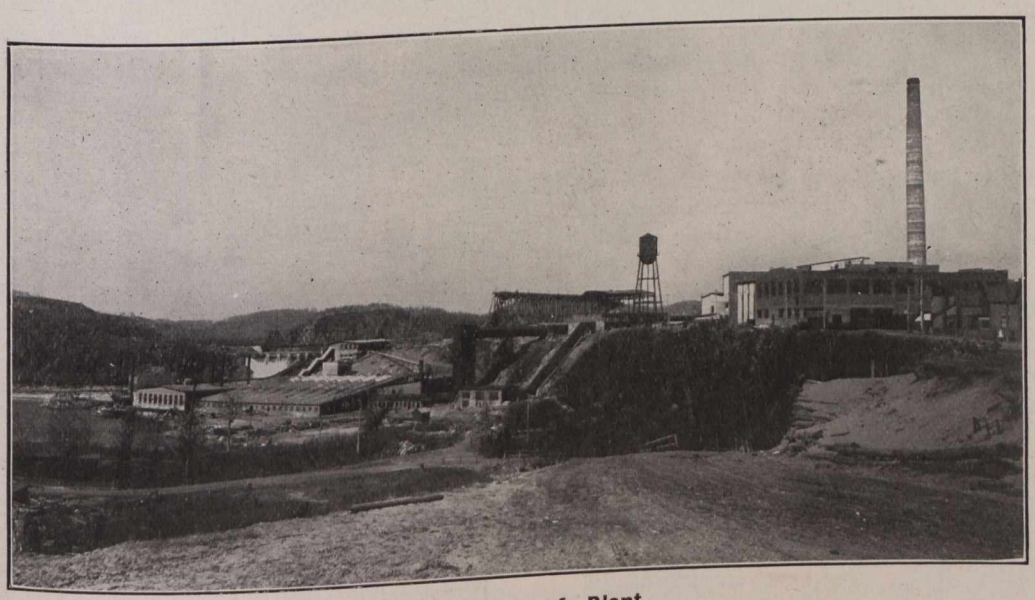
THE PLANT OF THE SPANISH RIVER PULP & PAPER MILLS LIMITED

The Spanish River Pulp & Paper Mills, Limited, are well located to meet the object they have in view. To Espanola, where are situated the company's mills, the Spanish River runs through the heart of the wood pulp country, its tributaries reaching practically every portion of the six thousand square miles comprised in the company's holdings.

Espanola is located on the Soo branch of the Canadian Pacific, forty miles west of Sudbury and 138 miles east of Sault Ste. Marie.

The company's timber lands consist of practically six thousand square miles, covered with the best grades of spruce and jack pine, balsam and poplar. The wood operations are carried on in the winter and in the spring; all the timber cut during the cold months is driven direct to the booming ground by means of the Spanish River, which, with its tributaries, drains the concession.



General View of Plant.

When the logs have been driven down the streams and rivers into proximity to the mills, provision has been made for their reception. At Espanola the Spanish River runs between two promontories. A sixty-foot head of water was obtained by placing a concrete dam across one branch. The penstocks lead away from this dam to the power-house, being controlled by gates operated by hand power, the mechanism being placed on the top of the dam. At one end a spillway is provided for getting rid of ice, logs, etc.

The manufacturing process commences when the logs first leave the booming ground. At this stage they vary in length from eight to sixteen feet. As they emerge from the booming ground the logs are raised on an inclined cable until they are on a level with a sixteen-foot slasher contained in a solid brick building far above the level of all the other buildings comprising the pulp plant. The slasher cuts all the logs into two-foot lengths. The dissevered logs, without any handling, drop directly from the slash table into a cable storage conveyor, which is six hundred feet long and sixty feet high. The wood, when it reaches the topmost altitude, drops into piles, where it remains until the time comes to feed the blocks into the barking machines. A supply has to be created to keep the mill going throughout the winter months, and there is a storage capacity for 40,000 cords of wood. The cost of taking the logs from the water, sawing them into two-foot lengths and storing them, is less than 15 cents a cord. This is the only saw slasher of its kind in use, as it was designed by the company's staff.

The logs are conveyed from the storage pile to a room situated on the brink of the hill overlooking the pulp mill proper. Here the rough knots and the bark are removed by means of barking machines operated by motor. The shavings and waste from the wood are mechanically conveyed by blowers to the boiler house. The barked wood, in its turn, is delivered to the grinder house by means of a short conveyor and a large gravity slide. At the bottom of this slide the logs find their way into a tank of water, where they remain until they are ready to be placed in the grinders.

The grinder room is situated in the northern part of the main pulp mill. Twenty-four grinders are in use and these are driven by water-wheels. When the logs have been reduced to the consistency of pulp, the pulp, greatly reduced in consistency by means of water, is conveyed to a large concrete tank by means of gravity. The grinders and water-wheels used in this process are set upon heavy concrete and steel foundations.

Over a period of five years, the maintenance of water-wheels and grinders has not exceeded fifteen cents per ton.

In the screen room the diluted pulp is conveyed by gravity through two sets of screens, passing thence in a