

# WOOD PULP DEPARTMENT

## FIRST PAPER MILL IN ONTARIO.

Mr. V. H. Hickox, of Niagara Falls, tells of the first paper mill in Ontario. He says.—

"It was in the summer of 1841 that my father and another paper maker, whose name was Samuel Prine, engaged to go to Toronto and start the first paper mill in Upper Canada. They left Niagara Falls in June of that year. This mill was located about three miles from the city, up the River Don, a beautiful clear stream of water, well supplied with trout and other kinds of fish in abundance. The country round about was a vast wilderness of heavy timber, mostly pine, with here and there a little clearing with log cabin homes of the early pioneers.

"Eastwood and Skinner, brothers-in-law, two enterprising Englishmen, built the first mill and received a cash premium from the Canadian Government. In connection with the paper mill there was a grist mill, a brewery and distillery, owned by the Helliwell Brothers, and the place was named Don Mills.

"My father made a sojourn of seven years, during which time he started a second paper mill on the Don River, two miles above the first mill. We moved to Hamburg, west of Buffalo, about 1848. In the year 1851 Albert H. Porter sold the paper mill on Bath Island, and my father, by this change, secured his old position as superintendent of the upper Don paper mills. Then he moved back to Toronto in 1851, where he remained for many years, respected as the man who made the first sheet of paper in the upper province of Canada."

## BLEACHING GROUND WOOD.

The yellowish color of ground wood fibres varies according to the quality of the wood and purity of water in mixture of reddish, brownish and gray shades; but these conditions were of small significance so long as ground wood was only used in small proportions with better stock, says "Sylvanus" in *Der Papier Fabrikant*.

An addition of a red or blue aniline color or a violet will present the impression of a white shade to the unexercised eye, while in fact the shade is really reddish or greenish. A comparison of news and mixed book stock with bleached writing or with white linen or cotton stock will readily tend to prove the great difference in the shade of snow white and ground wood white.

During late years advancing prices have caused a cut in the manufacturing profits and developed a natural desire to economize by introducing the cheaper grades of raw materials on a more extended scale for the making of the grades above news, such as the medium writing and printing qualities.

The yellow shade of the ground wood proved

a disturbing feature, and there arose the necessity of overcoming the well known difficulties in the bleaching of ground wood. Many processes have been gradually "invented," but they proved costly, troublesome and without adequate result.

As a means for at least improving the shade of ground wood, sulphurous acid alone, in its diluted form or in bisulphite of sodium or bisulphurous sodium, has proved of economical usefulness.

The idea of imparting a white shade to ground wood was derived from the old process of bleaching straw pulp, known before wood pulp was ground. The bleaching process may be briefly described as follows: Sulphur is burned in an oven for producing a sulphurous gas, the  $SO_2$ , the same that is used in the boiling of sulphite pulp in the known digesters (in its combination with lime forming calcium bisulphite). The  $SO_2$  gas is introduced through suitable channels into, or rather under, the lower part of a tank provided with a perforated bottom, and also with slowly moving agitator blades, that tend to keep the gradually introduced parts of loose ground wood moving over the perforated inlets for the gas. An aperture is provided to allow the agitator arms to discharge the product, which is collected in a pile or in bags, where its color gradually improves. Experience must teach the time required for producing the best results. Naturally the tank must be closed and provided with an outlet for the gas into the higher regions out of harm's reach.

In case the pulp is to be bleached in the shape of loose rolls, a well closed compartment, perfectly constructed of brick or stone, provided with openings for ingress and exit of hands, gas and ventilation, may be the most advisable. In order to prevent the effect of the noxious gases any small opening should be temporarily hermetically closed by pasting strips of paper over the same. The rolls of pulp should be placed separately on strips of wood to allow the passage of the gases between the surface of the web and to proceed upwardly into the open air.

Another process for bleaching wood pulp by the influence of sulphurous acid is performed by soaking the stuff with solutions of bisulphite of sodium in large tanks and also in this case the rolls should be separately placed on end to allow the solution to pass between the layers.

The quantity of bleach required depends largely on the quality, age and other conditions of the wood, and it is therefore advisable to make several trials in order to reach the desired object. Every contact of iron with the solution, producing a black discoloration, must be carefully avoided. The last described pro-

cess is the more expensive and causes additional labor. The weight should be ascertained before bleaching. However, in the latter process the appearance of free acid is entirely avoided.

## PULP NOTES.

The Chatham Pulp & Paper Company, Limited, of Lachute Mills, Que., has been incorporated.

The Paper Trade Journal says that Francis H. Clergue and other capitalists, some of whom are residents of Detroit, are planning to erect one of the biggest paper mills in the country a few miles below Sault Ste. Marie, Mich.

The Imperial Paper Mills Company, of Sturgeon Falls, Ont., are building a new wood room much larger than the one recently destroyed by fire. The boiler room has been enlarged to accommodate another horizontal tubular boiler.

The Newfoundland Timber Estates Company are announced to have disposed of their timber areas in Newfoundland to Sir Alfred Harmsworth, the well-known publisher of London, England. The price is given as \$2,000,000.

Mr. Charles W. Rantoul, jr., formerly with the Imperial Paper Mills, of Sturgeon Falls, Ont., has opened an office at 41 Park Row, New York, under the name of the C. W. Rantoul Company, Incorporated. The company will act as a selling agency for paper mills.

The members of the survey party sent out by the Quatsino Power & Pulp Company, of Vancouver, B.C., have completed their work for the season. The party numbered thirty-six. The investigations made prove that the company have valuable timber areas. The water power available has been estimated by Mr. Colby, of Boston, at 14,000 horse power, which will permit the company to operate on a large scale. The pulp mill have been completed and plans for the paper mill are being prepared. The construction of pulp mill and a saw mill will be commenced in January next.

The Nassau Paper & Pulp Company, of East Peperell, Mass., are reported to have purchased the pulp mill at Chatham, N.B., formerly operated by the Maritime Sulphite Fibre Company, but which has recently been in the hands of the Bank of Montreal. The purchasers will manufacture sulphite pulp for their mill at East Peperell. Contracts are now being placed for the cutting of pulp wood during the coming winter and the citizens of Chatham are looking forward with anxiety to the time when the mill will resume operations.

Large quantities of spruce and poplar are being forwarded to American mills from points in the Pontiac and Gatineau districts above Ottawa. This season the firm of McFarlane Bros., of Campbell's Bay, shipped 2,000 cords. This winter they expect to contract with jobbers for the cutting of 7,000 cords, mostly poplar and basswood. Next year it is expected that the Canadian Pacific Railway Company will build an extension in the Pontiac country, which will make marketable large areas of poplar and basswood suitable for pulp making.

F. H. Todd & Sons, of St. Stephen, N. B., are said to have completed arrangements with New York capitalists for the establishment of large pulp and paper mills on the St. Croix river. They have disposed of their timber holdings to the St. Croix Pulp & Paper Company, recently organized, with a capital of \$2,500,000 and headquarters at Calais, Maine. Frank Todd is president of the new company, and I. B. Horsford vice-president and general manager. The company will require only the spruce growth upon their area, and Todd & Sons have secured the first option on the pine timber, a provision which will enable them to operate their saw mills as at present.

## WHEN THE COOK CALLS.

There's a merry response when the cook shouts Clark's Corned Beef for dinner. Clark's is made of prime Canadian beef by William Clark, Montreal, and retains all the good qualities.

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