

WOOD PULP ~ ~ DEPARTMENT

THE FIRST FLAX FIBRE PULP MILL.

WHAT is understood to be the first mill in the world to produce flax fibre is now nearing completion at Niagara Falls, N. Y., the owners being the French-Hickman Flax Fibre Company. The process is covered by patents, and consists of the making of chemical pulp from straw, or as termed by the inventor, flax, in such a manner as to be equal to any other pulp for the use of fine papers and boards. It is claimed that it can be made as cheaply as other chemical pulp, is clean, and has a closer fibre.

The flax straw is secured from North Dakota in bales, and is taken from the cutting room to the digesters, where it is cooked in a way somewhat similar to that used in the soda process. The product is then blown out into the blow tanks, where the liquor is drained off through a system of rotary furnaces and the pulp pumped to the washers. After being thoroughly washed it goes to the bleaching tanks, from which it is taken to the beating engines and prepared for the machine.

The main buildings are flanked on the long sides by railroad tracks. On one side the flax product is received, while on the other it is turned out as pulp ready for shipment. The interior arrangement shows a thorough economy of space for the best results. The raw product comes into the main building on carriers and first goes to the digester room. This is a two-storey room, 52 x 72 feet. There are in it five digesters, each 9 feet in diameter and 16 feet long. They were made by the Pusey & Jones Company, of Wilmington, Del., and have a capacity of 25 tons.

The boiler house adjoins this and is 52x76 feet. Here are five 100 horse power tubular boilers, each 66 inches by 18 feet. They were furnished by the Erie City Iron Works, of Erie, Pa.

The next room in rotation is the incinerator room. This is where the peculiar system of the Hickman process takes place. An incinerator, or rotary furnace, is used for burning the liquor. There are also three liquor tanks, 11 feet in

diameter by 11 feet deep, through which the fluid passes. The alkali room is next, 52x84 feet, and two stores, with rock bottom and cement ceiling. This is used for liquor mixing and lime reclaiming. Here are six mixing tanks, each 14 feet in diameter and 8 feet deep. They were furnished by the Dobbie Foundry Co., of Niagara Falls, N. Y. The yaryan room, 50 x 72 feet, is equipped with four steam pumps made by the Stilwell-Bierce & Smith-Vaile Company, of Dayton, Ohio.

Before describing the machine room a word about the machine shop. Here is a perfectly appointed repair room two stories in height, 32 x 50 feet, equipped with lathes, drill press, cutters, planers and other necessary tools. It adjoins the machine room, which stretches out 225 feet by 56 feet, with a solid cement floor. The room is designed for two 96 inch machines, one of which is now being set up. It is from the Pusey & Jones Company's shops at Wilmington, Del., and has two cylinders and twenty-seven dryers. Some 50 feet of this room are allotted for a basement. Here two beating engines from the Globe Iron Works, of Dayton, Ohio, will be set up, as well as a quota of stuff chests, which are being made by Superintendent Campbell.

The store room continues on from the machine room, is 108 x 56 feet, one storey, with cement floor. Here is ample room for storing and shipping the finished product as it comes from the dryers ready for tying-up.

Back of the machine room is the wash and bleach room, 65 x 156 feet, three stories. Here are two beating engines, two large sized blow tanks, 18 feet in diameter by 16 feet deep; ten draining tanks, 25 bleaching tanks and five washers. The engines, drain tanks and washers are from the Pusey & Jones Company, while the bleach tanks are being built by Superintendent Campbell and the blow tanks by the Dobbie Company.

The office and laboratory will complete the main buildings. The former will be 32x36 feet, located in the north-west corner, second story,

and will be modernly appointed. The laboratory adjoins, where the chemical and electrical supplies will be kept and tests made.

Near the south-west corner of the main buildings is the straw, or flax, house a brick structure two stories high, 48 x 54 feet. Here the raw product is received, and is cut and placed in proper form for starting on its way to be transformed into flax pulp. This building is equipped with two cutting machines made by the Winona Manufacturing Company, of Winona, Minn., with a capacity of 25 tons a day. The carriers take the flax, after it is cut the right size, to the digesters.

Back of the flax house, and near the river, is the pump house, a brick fireproof building, 24 x 30 feet in size. It is furnished with one large pump made by the Lawrence Machine Company, of Lawrence, Mass., and two centrifugal 10-inch pumps, also made by the same company. A filter system will also be installed.

PURCHASES OF CANADIAN PULP.

CONCERNING the large orders reported to have been placed for Canadian wood pulp for this year's delivery, a correspondent writes to the Paper Trade Review, of London, Eng., as follows:

As the very tall yarn regarding the reported purchase of 60,000 tons of Canadian pulp by Messrs. A. Wertheim & Company is calculated to injure the Canadian pulp industry, I hasten to contradict the same.

No such purchase is possible at one time and for one year's delivery. Canada has never yet shipped 60,000 tons of mechanical wood pulp.

It is common knowledge that the Nova Scotia mills sold out by August last for this year's delivery, and the pulp did not go to the firm mentioned, although I understand Wertheims took over in October last the contracts of one of the original buyers, for a total quantity of about 20,000 wet tons, which quantity included the product of the Newfoundland mill.

It is therefore absurd to suggest a purchase of a further 60,000 tons from Canada, especially as two productions are still open, and I assume the 20,000 to which I refer have grown in transmission.

The Canada Paper Company is putting a new digester, 28 feet long and 7½ feet in diameter, in a sulphite mill at Windsor Mills, Que.

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