

WOOD PULP ~ ~ DEPARTMENT

THE MANUFACTURE OF PULP IN CANADA.

VIEWED from almost any standpoint, there appears to be a promising future for the pulp industry in Canada. The development during the past ten years, in the face of an import duty of ten per cent. imposed by the United States government on the manufactured article, has been such as to cause capitalists to look with favor upon that industry as a profitable field for investment, and the number of new mills now in course of erection, or contemplated, is evidence of its growing importance. An abundance of raw material, valuable water powers, efficient labor at an average cost—these advantages place Canada in a position to compete with any other country in the world in the supply and manufacture of pulp and paper.

At the present time there is a strong agitation in favor of imposing an export duty on spruce wood, which provides the main supply for the pulp mills. Such action on the part of the Canadian government would probably be followed by retaliatory measures by the United States government, and instead of the duty on pulp going to that country being ten per cent. of the value, as at present, it would likely be advanced to such a point as to practically close the United States market to Canadian pulp manufacturers. The effect of this would be, we believe, to stimulate the manufacture of paper in Canada, as well as cause manufacturers of pulp to seek new markets.

Our foreign exports of pulp already total up to a considerable sum annually, and information to hand proves that the industry is capable of much greater development. Denmark is now turning her attention to Canada for a supply of pulp wood, and if the raw material can be profitably exported to that country, there is no reason why the manufactured article should not find a market there, unless tariff duties should prevent. It is also learned that there has been a decided increase in the cost of logs in Norway and Sweden, which countries have hitherto furnished a large portion of the European supply, and as a result the price of pulp wood to English paper manufacturers has been increased. Thus a wide market would seem to be opening for the Canadian product, as no raw material suitable for the manufacture of paper is found in Great Britain.

The establishment of new mills will not, perhaps, meet with the approval of the proprietors of existing concerns, who may fear the effects of competition, but taking a broader view, and attaching due importance to the present outlook for an increased foreign trade, the demand would seem to warrant a considerable increase of production.

One drawback to the manufacture of pulp for export is said to be the excessive freight rates. On the highway of water communication through rates to the seaboard are equitable, but there is a lack of facilities for shipping cheaply from inland points. With the growth of the industry this will no doubt be remedied.

PULP AND PAPER.

It is estimated that 3,000 to 4,000 cords of pulp wood a day enters into the manufacture of paper in the United States. At the minimum, 3,000 cords, the total for a year would be the enormous amount of 900,000 cords. It is safe to call it 1,000,000. If this wood were piled in one continuous string, it would make a wall four feet wide and four feet high a little over 1,515 miles in length. It can be seen what a prodigious thing the wood pulp industry is, and at what a tremendous rate it is devouring trees, mainly spruce. Yet all this wood is converted into paper, which, after being used, vanishes from sight in a few days, and goes back to dust, out of which element the trees grow. The pulp business of this country is only a "patchin" to what the world can show. One mill in Paris annually imports about 50 ship loads of pulp wood from Norway and Sweden, and on the east coast of Great Britain and Scotland large quantities are imported every year. The mills of this country export a large portion of their output. During the week ending November 18, pulp and paper to the amount of \$30,000 worth was shipped foreign from New York. Of the total \$10,000 worth went to Melbourne, Australia, \$4,725 to Mexican ports, \$2,160 to London, \$2,715 to Liverpool, \$500 to Manchester, \$3,578 to Wellington, \$680 to Buenos Ayres, and about 600 to Hamburg. The exports of paper this year from this country have been greatly in excess of that of any previous year, amounting to \$2,107,700 against \$1,711,131 in 1895. For the month of September the comparative increase was 43 per cent. With this grand start in the business further increase may be looked for in the years to come. Verily the pulp and paper trade is a big thing, and spruce timber is strictly in it along that line.—Northwestern Lumberman.

SISSIBOO FALLS PULP COMPANY.

THE manufacture of pulp in Nova Scotia has grown to be quite an important industry, and one of the largest establishments is that of the Sissiboo Falls Pulp Company, which is located on the Sissiboo, about eight miles above Weymouth Bridge. The company was organized in January, 1894, the capital being \$30,000, held chiefly by American parties, Messrs. F. M. Steadman, the manager, and W. E. Palfrey, of Lawrencetown, being the only Nova Scotia shareholders.

The factory is built in the heart of the lumber country, which furnishes an abundance of raw material, which after being manufactured into pulp, is shipped chiefly by rail into Port Gilbert station. The works are operated by water power and lighted by electricity. The machinery is most improved.

The company owns two hundred acres of wood land of its own, but this is far from sufficient for the capacity of the mill, and every lumberman around sells his cut. They buy between one and one-half and two million feet each year.

Less than one hour is required for the transformation of a log of spruce wood into pulp. The wood best adapted for the purpose is smooth rounds of six inches diameter. The log is sawn into two foot lengths and has the bark removed by revolving scrapers. These pieces are then placed in the grinders, which are immense stones

revolving at great speed. The wood is ground against the fibre, hydraulic pressure of 100 pounds to the inch forcing the stick against the stone until the last bit is ground up. It is very essential that these stones, of which there are three, are strong, for the strain is immense. As it courses through the grinder the wood, which is now a pulp, is mixed with water, to counteract the heat of the friction and to act as a temporary glue between the particles. It is then pumped up thirty feet into a long trough from which it is taken to the three wet machines. These machines resemble rude printing presses. As the porridge-like pulp passes through these it goes over a sieve which drains out the bulk of the water. The sheets which come out at the other end are then cut up into smaller sheets, and placed in a hydraulic press for a final drainage of water. After leaving here the pulp is bundled into a machine similar to a hay press, and is now ready for shipment in 100 lb. packages. In twenty-four hours 40,000 pounds are manufactured. The output of the mill is sent largely to the American market, the sales being made through a Boston agent.

PULP NOTES.

It is stated that the construction of a pulp mill at St. George, N. B., is under consideration by capitalists.

It has been decided to erect a pulp mill at Chicoutimi, Que. The shareholders of the electric light company are the promoters.

Mr. B. Wickett, of Sundridge, Ont., has been engaged to build a pulp mill at Sturgeon Falls, Ont., for Messrs. Heath & Paget.

It is said to be the intention of Messrs. Hamilton & Ayers, who are building a new dam across the North river at Lachute, Que., to build a large pulp mill.

The South River Mercantile Company of Manitoba have made a contract to supply 2,000 cords of pulp wood to an Ontario mill.

The cut of pulp wood in Maine and New Hampshire this winter will be larger than ever before. It is estimated that more than half the cut of spruce will be consumed in the manufacture of pulp.

Twenty-one cars of lumber, paper and pulp were recently shipped in one week by the Royal Paper Mills Company, of East Angus, Que. The company have recently received twelve carloads of paper machinery from Scotland.

Mr. Thomas Allison is said to have commenced an action against the proprietors of the Masterman pulp mill at Chatham, N. B., to recover the sum of \$5,000 alleged to be due him for services in connection with the construction of the mill and in perfecting the manufacture of pulp. The works are said to have cost \$100,000.

The American idea of concentrating the manufacture of pulp and of paper in one establishment is making headway in Germany. The manufacturers of sulphite pulp in that country have not found their industry very profitable during the past year or two, and they have been gradually turning their attention to the manufacture of paper, finding it easier to sell paper than it is to sell pulp.

It is said that the Glens Falls Paper Mills on the Hudson River, New York, the largest pulp and paper concern in the world, will in 1897 make 275 tons of finished newspaper per day. This will require at least 475 cords of spruce wood each day, or 142,500 cords in a year, a quantity equivalent to 90,000,000 feet of spruce logs. More than 80 per cent. of this spruce is of Canadian production, while the balance is cut in the Adirondacks. At the average of spruce growth in the forests of Canada or Maine, these mills will consume each year the merchantable product of 22,500 acres of land. Should Canada impose an export duty on pulp wood of \$2 per cord, it would cost nearly \$300,000 per annum over present cost to supply these paper mills with the requisite spruce wood from the Dominion.