

cherry surface. The front stick or crosser should be placed so as to project one inch beyond the ends of the lumber. This allows just enough moisture to collect to prevent the stock from drying too rapidly on the ends, or faster than other portions of the piece. When a pile is completed, the top should have a substantial covering to protect the lumber from the sun or rain. The best way is to elevate the front end of the crossing about 12 inches, and the back about 6, which will admit of a free circulation of the air. The covering should project beyond each end of the pile also over each side.

The best time to saw Basswood is when the frost is in the log. If the boards are placed on end when fresh from the saw for a few days, in an exposed position, when snow is on the ground, it will improve the color. The more white stock a quantity of Basswood contains, the more ready the sale and the better the price. Great care should be exercised in piling, as Basswood, like maple, easily and quickly stains.

Bills of Lading should always be accompanied by a memorandum of the contents of the car, giving as near as possible, the total number of feet, the approximate number of each thickness and some idea of the quality of stock. When several cars of one kind of lumber are shipped at the same time, care should be taken to grade the stock when loading, and put each quality in separate cars. The reason for this is, that some dealers at times want only the better grades, while others the inferior stock; others still, all qualities.

RAINY RIVER COUNTRY.

Conditions are favorable to its development both as an agricultural and mining district of considerable importance. The lumbering industry is already well established, the greater part of the timber which is sawn at the numerous mills near Rat Portage and Keewatin being brought down the Rainy River. The fur trade also is an active industry, trapping being the chief occupation during the winter months of the numerous bands of Indians who inhabit the country, while in the summer they support themselves by fishing, shooting and rice-making.

Agriculture is perhaps the most promising of the economic prospects of the region. Rainy River, from its source at Couchiching to Hungry Hall, flows for eighty miles through a rich alluvial plain, which, so far as can be judged from the banks of the river, is eminently adapted to support a large agricultural population. Travellers and explorers vie with one another in praising the beauties of the river and its capabilities for settlement.

The distance from Rainy Lake to the Lake of the Woods, following the windings of the stream, is about eighty miles, and throughout the whole of this extent the land fronting on the river is fit for settlement, without a single break.

The average breadth of superior land for a distance of 80 miles might perhaps, with propriety, be assumed to be not less than six miles, giving an area of available soil of high fertility, exceeding 260,000; and there can be little doubt, that with the progress of clearing, much that is now included in the area occupied by swamp, would, without difficulty or expense, be reclaimed.

The river has preserved a very uniform breadth, varying only from about 200 to 300 yards. The soil is a sand loam at the surface, much mixed with vegetable matter. Occasionally, where the bank has recently fallen away, the clay is seen stratified in layers of about two inches in thickness, following in all respects the contour of what seems to be unstratified drift clay below. Basswood is not uncommon, and sturdy oaks, whose trunks are from 18 inches to two in diameter, are seen in open groves, with luxuriant grasses and climbing plants growing beneath them.

Along the river crops of potatoes, turnips, hay, oats, wheat, corn, tomatoes and cabbage, all growing to perfection this season, which shows that the climate, as well as the soil, is suitable to successful farming, especially when tomatoes ripen as they certainly did this year as well as ever they ripen in the vicinity of Lake Ontario.

The timber along the river is chiefly large thrifty poplar, mixed with some scattering oak and swamp elm, and some evergreens such as balsam and spruce; inland, the timber changes in character somewhat from that along the river shore, as large balm Gilead, spruce, balsam and tamarac are met with more frequently, and the nice open bush which prevails along the river banks is changed for a tangled brushy undergrowth; but the character of the soil remains the same. Tamarac and spruce swamps occur frequently in this section of the country, as in the case all through this large level area of good land which lies along the banks of Rainy River. These swamps are all perfectly dry this summer and are nearly all capable of being made into excellent land by drainage, as they lie nearly as high as the surrounding dry lands, and only require proper ditching to take the surface water off in wet seasons. The extreme levelness of the country causes the presence of so much swamp land here, as the surface water has no means of escaping from the low lying portions, and consequently the growth of moss and swamp timber is engendered. In most cases the beds of the little streams are deep enough to form outlets for ditches and drains, and these creek beds are usually so numerous that to drain any swamp no very long ditches would be required.

THE ANDREWS DRY-KILN.

We present among our new advertisers this month the card of the Andrews dry-kiln, which has been in use by many of the most prominent manufacturers in the United States in drying their oak, and it has met with an unqualified success. It would seem that they have entirely removed the difficulty of checking, honey-combing or case-hardening oak, which is the great drawback in drying out staves. There is absolutely no machinery about it. Its peculiarity being at the sides of the kiln a sheet steel covering fastened directly to the building, leaving between itself and an inner wall a passage which opens at the top of the kiln into the heating chamber. The steam pipes run the entire length of the kiln, and therefore equalize the heat, so that lumber begins to dry immediately upon entering the kiln. The heat arises, passes through the lumber, takes moisture with it, strikes the cold metal, and immediately begins to condense, the water running down into a brass gutter and out of the kiln, the heat again passing up through the pipes and through the same process. As the lumber progresses from the entering to the delivery end of kiln, this circulation becomes more rapid, and the drying is usually done in three or four days. As this circulation is from side to side of the kiln, there is no interfering of air currents, as there would be providing it was from the length of the kiln. It should be stated that this kiln originated in A. H. Andrews' establishment at Chicago, and that it was adopted after trying nearly everything that had any apparent merit that was offered for sale, and a thorough test in the work of this firm showed it to be a perfect success, and the class of office and bank furniture that this firm produce, which is recognized as standard in every particular, has demonstrated its value to them and to the leading furniture men of the country as we have above stated.

We should recommend to all stove manufacturers who are considering the purchase of a dry-kiln, to carefully consider the merits of this system, which can more fully be explained by communicating with them, and as they are of unquestionable standing, their statements can be relied upon as being correct and substantiated.

WINNIPEG LUMBER DISTRICT CUT.

The total quantity of lumber manufactured by the mills operating under Government license amounts to 13,826,827 feet, B. M. During 1889, there was sold in the Winnipeg district, lumber, Canadian manufacture, 38,464,454 feet. United States manufacture, 10,429,027 feet. This is a large increase in the importation of United States lumber over that of last year. It is regrettable that last year was one of disastrous bush fires. The country lying to the west and northwest of Lake Winnipegosis, as far as the Saskatchewan river, has been pretty generally burnt over, including the valuable

timber on the banks of the Bird Tail Creek, the western slope of the Riding Mountains, Shell River and Duck Mountain district, Swan and Etoumaini rivers, and the Porcupine Hills. The quantity of timber in the districts named, as nearly as can be estimated, is upwards of 900,000,000 feet, B. M., of which a large part has been damaged by fire. The fires can be traced to the camps and hunting grounds of Indians. In but few cases are they started by white settlers.

At Winnipeg cordwood is selling, in car lots, at \$2.75 and \$4.50 a cord—poplar and spruce, respectively. It is estimated that about 18,000 cords of wood were sold on the Winnipeg markets during the year.

Sawmills in Manitoba and Assiniboia operating under Government license for the year ending October 31, 1889, and the capacity for twelve hours:—

	Capacity feet.
Brouse & Co., C. A.	7,000
Brown, Rutherford & Co.	10,000
Bucknall Bros.	30,000
Cameron, Alex.	6,000
Dick, Banning & Co.	60,000
Federal Bank of Canada	20,000
Imperial Bank of Canada	15,000
Jermyn, J. A.	12,000
Jonasson, Sigt.	12,000
Keewatin Lumbering & Manufacturing Co.	12,000
Likely, John	8,000
Miller & Patton	20,000
Morton, George	12,000
McArthur, Peter	6,000
McFadyen, David	3,000
Northwest Timber Co.	12,000
Rainy Lake Lumber Co.	60,000
Ross, David	10,000
Selkirk Lumber Co.	30,000
Smith, Samuel	7,000
Sprague, Daniel	30,000
Wells Bros.	3,000
Whymster & Kyall	6,000

Lumber dressed and rough entered at Winnipeg for the year ending October 31, 1889:—

Lumber, dressed, pine	Feet.	4,852,587
Lumber, dressed, oak	"	4,500
Sash	Number.	33,030
Doors	"	12,752
Lumber, rough, pine	Feet.	5,236,175
Lumber, rough, oak	"	271,600
Lumber, rough, basswood	"	27,165
Lumber, rough, cherry	"	19,000
Lumber, rough, maple	"	1,000
Piling, pine and tamarac	"	16,900
Poles, posts, cedar and tamarac	Number.	18,215
Ties, tamarac	"	26,962
Shingles	M	2,263

Our Ultima Thule.

Hudson's Bay receives upwards of fifty rivers, Lake Winnipeg and Lake Winnipegosis seventy-four rivers, some of them thousands of miles long, with innumerable tributaries. Great Slave Lake, which is one hundred and seventy-two miles in length and one hundred and thirty-eight miles broad, receives many large streams. Lake Athabasca, Great Bear Lake, and a multitude of other lakes, form the head waters of immense rivers that, like Great Fish River, Coppermine River and McKenzie River, drain an almost boundless territory and flow into the Polar Sea. The vast region comprising nearly half a continent is, in many parts, not much different from Manitoba. The same trees, the same birds, the same fish and the same flowers. Taking the country as a whole there is much more wood than in the southern portion of Manitoba and the Northwest Territories, and although wheat may not ripen on every part, barley, rye, and many vegetables grow, and grass is abundant everywhere, except on the sea coast where the reindeer moss is found. Even at York Factory, on the coast of Hudson's Bay, so far back as 1832, forty cattle were kept, and there were good gardens, where turnips, radishes, potatoes and many flowers flourished. In fact, cattle, horses and sheep can be kept in unlimited numbers nearly all over the vast region that lies north of the present settlement in Manitoba and the Northwest Territories.

The saw mill and immense dry-house of the Menasha Woodware Company, at Menasha, Wis., were destroyed by fire June 14th. Loss \$100,000.