

THE CANADIAN NORTHWEST.

A correspondent writes from Winnipeg, Man., to the *Northwestern Lumberman* as follows:—

Some attention has already been called in the *Lumberman* to the development of a new and distinctive lumber interest in the extreme northwest suggested by the building of mills at Crookston and Grand Forks by T. B. Walker. These enterprises of Mr. Walker are in fact, but a part of the transformation now going on in the lumber business of the Canadian Northwest, and which must have for all time their centre in this city. Prior to 1883 Mr. Walker and N. P. Clarke who were the owners of about all the stumpage in the Minnesota pine region on waters flowing north into the Red river of the north found a market for such quantity of timber as they saw fit to cut, at mills located in this city. There were five of these, and logs, during the years when the phenomenal and disastrous boom was on, in 1882-83 sold in this market as high as \$18 a thousand. This was not regarded as an exorbitant price, considering the fact that the logs had to be driven 1,600 miles, that it took three months to get them here and that the Red river offers no perfectly safe facilities for holding the logs once they are in the water.

Messrs. Clarke and Walker at that time virtually held a monopoly of the lumber supply of this region, since they could bring into the Provinces logs free of duty while lumber was subjected to a duty of 20 per cent. At that time the Canadian Pacific had not penetrated to the east and had not made accessible the pine along and tributary to the Rainy Lake river, and Lake of the Woods. With the subsidence of the town came financial disaster, and almost without exception the manufacturers here found themselves practically bankrupt. The Winnipeg Lumber Company, which had been Mr. Walker's principal customer, had its affairs turned over to trustees, and Mr. Clarke, who had made arrangements to sell his logs to J. R. Sutherland, found it necessary to have them sawed on his own account, and is now of the firm of Sutherland & Clarke, engaged in disposing of the product of these logs. In the midst of the sawing, Mr. Sutherland's mill was burned. During last season the only mill operated was that owned by D. E. Sprague, who owns a small pine limit nearly exhausted on the Paseau river, a tributary to the Red river, entering the larger stream very near the boundary line. I am assured that the probabilities are that after this season, when the last of Mr. Sprague's stumpage will be cut off, that no more lumber will be cut in Winnipeg. There will remain to be supplied, however, this growing city of 25,000 population and a country rich in possibilities, stretching clear to the Rocky Mountains. The demand of this vast territory is being anticipated, and while Mr. Walker undoubtedly expects to find a market for a part of the annual cut of 40,000,000, he expects to make at his Minnesota mills, the greater portion of the supply is destined to be drawn from mills located on this side of the line.

The centre of operations is already, and promises to be for years to come, at Rat Portage, about 180 miles east of here, at the point where the Canadian Pacific strikes Lake of the Woods. There has been built at, or near this point, the past season, two new saw mills, equal to the best modern American mills, with a capacity of 100,000 feet in ten hours. One of these was put up by the Rainy Lake Lumber Company, to take the place of a mill destroyed by fire, and the other by the Minnesota & Ontario Lumber Company, the heaviest stockholders in which are Dennis Ryan, the St. Paul capitalists, and W. J. Macauley, who has had exceptional opportunity to study the pine region on the northern waters in Minnesota, who has secured contract of a large part of it, and who is thoroughly posted. I met Messrs. Ryan and Macauley here recently, just returning from Rat Portage. Their mill was not completed until September, and after that date sawed 4,500,000 feet of lumber, 2,000,000 shingles and 1,000,000 lath. They had a stock of 15,000,000 feet of logs on hand, and they put in, during the winter, 3,000,000 in addition. Mr. Macauley estimates that there is on the

Minnesota side, tributary to waters flowing north, about 1,000,000,000 feet of pine, principally white pine, of better quality, he says, than that further south. This lies on streams which are easily driven. At present his company is cutting on the Big fork of the Rainy river, floating their logs about 180 miles to the Lake of the Woods and then tow them to Rat Portage. Lake of the Woods is a beautiful body of water, dotted with thousands of islands, and the rafts are easily and safely taken across the lake.

The Rainy Lake Lumber Company's mill was not operated last season, and its future is dependent upon negotiations which are now pending looking to the accession of more capital. Hugh Sutherland, who is the principal stockholders in the company, and who is thoroughly conversant with the subject, tells me that the pine region on the Canadian side extends from Rat Portage on Lake of the Woods as far east as Lake Superior, and the northern line is pretty clearly marked by the line of the Canadian Pacific. In this area there is between 800,000,000 and 1,000,000,000 feet of pine, white and Norway, of which amount his company controls 350,000,000 feet, selected before the present Government requirement was imposed that the selection should be made in 50 mile limits.

In addition to the mills already mentioned, there is at Rat Portage the Bullmer mill with a daily capacity of 35,000 feet; a mill owned by Cameron & Co., with a capacity of 25,000 feet; a water mill owned by Dick Bonning & Co., capable of cutting 40,000 feet daily; and at Keewatin, three miles east, the plant of the Keewatin Lumber Company, which consists of a water mill of 75,000 feet capacity, a complete planing mill, etc. This latter company cut nearly 15,000,000 feet of lumber last season, and with ample capital has been up to this time the leading lumber concern of this section. Throughout this region there remains in addition to these mills a few small concerns cutting spruce, and it is estimated that of a total stock of 70,000,000 feet of sawed lumber on hand December 14th that fully 20 per cent. was spruce, the use of which the people have learned.

First common white pine in this market commands about \$18 a thousand; red pine, which comprises a large part of the whole stock, is worth \$16, while spruce can be bought for \$12. It is largely used for dimension, siding, etc. Fully one-half of all the pine on the Canadian side is Norway or red pine, the abundance of the supply resulting in its very general use. I find in all the buildings here that it is freely used for flooring, wainscoting, ceiling and inside finish generally. None of the timber produces a larger proportion of clear lumber, but it is usually sound and the knots small and firm.

At Fort William and Port Arthur, 250 miles east of Rat Portage, there is springing up another lumber centre. At Fort William there are mills owned by W. H. Carpenter, Graham, Horne & Co., and the Neebing Lumber Limit Co, the latter recently established; and at Port Arthur the Port Arthur Lumber Company. The combined capacity of these mills is about 30,000,000 feet yearly. The Rat Portage manufacturers and the Winnipeg dealers do not anticipate that lumber manufactured at Port Arthur will ever enter into competition with their product, but the Canadian Pacific during all the past season has found it possible to bring lumber from Ashland across the lake to Port Arthur and ship it west. I think that time will develop that such lumber as may seek a market from the mills at Port Arthur and Fort Williams will ever figure in competition with that produced further west. Railroads are likely to still further develop the industry and afford another outlet.

Manitoba and the Northwest territories are rich in agricultural lands and it has been proven that more and better wheat can be raised than in Minnesota and Dakota. The development of the country is going on slowly, but it is going on all the same, and when it is considered that there is tributary to this city a territory as large and as fruitful as that tributary to St. Paul and Minneapolis, it can readily be expected that the future will witness a large develop-

ment of this lumber interest, located on the northern waters and centered about Red Lake, Lake of the Woods and Rainy Lake. For the past two years all this country has suffered from the result of the collapse of the boom contest in Winnipeg, during which values for business property were run up beyond prices paid in Chicago. The upward turn has come, confidence is restored and prosperity is in sight.

I find no confidence that a great deal of money is to be made in the lumber business this season, but a healthy demand and fair profits are believed to be not far away by the men who have recently made investments. All the region west of Winnipeg must be supplied from the sources indicated, except so far as spruce in limited quantities, jack pine and hardwoods can afford a supply. No timber supply of any importance is encountered until the western slope of the mountains is reached, where there is an abundance of what is known as the Roberts pine, a coarse-grained white pine, growing in great plenty in very large trees.

FORESTRY.

Prof. William Saunders, in his report to the Canadian Department of Agriculture on Agricultural colleges and experimental farm stations, with suggestions relating to experimental agriculture in Canada, gives much information on forestry, including the following:—

There should be a competent forester in charge of this department, one who thoroughly understands what is needed and under whose direction all work connected with the forest industries of the Dominion should be carried on. Such would include experiments in reforesting denuded land, testing the comparative value of our native trees, also of those from all other parts of the world where similarity of climate or other circumstances render it probable that they will prove useful. It would also include the propagation of trees of economic value for general distribution.

On this important subject I have been favored with a communication from Mr. Bernhard E. Fernow, of New York, Secretary of the American Forestry Congress, one of the best authorities on this continent, a graduate of the Prussian Forest Academy at Munden, who served as chief forester under the Prussian Government for several years before removing to this country. His letter which was kindly written at my request contains so many valuable suggestions that I append it in full:—

"AMERICAN FORESTRY CONGRESS,
"OFFICE OF THE CORRESPONDING SECRETARY,
"12TH JANUARY, 1886.

"Wm. Saunders, Esq.:
"MY DEAR SIR,—In reply to your request for my opinion in regard to the needs of forestry in the Northwest Provinces of Canada, and to a plan for its introduction, allow me to say that a subject so important and complicated can hardly receive adequate treatment within the limits of a letter. Space, and my time for using it, being limited, my knowledge of the specific conditions of the region in question being only imperfect, and not derived from personal inspection, I shall content myself with giving you simply such general hints from the standpoint of a forester as may be useful in forming your own answer to the questions you ask.

"The subject of forestry in your country seems to me to have two distinct aspects. Forest conservation and the restoration of natural forests are required on the larger area, and mainly for economic purposes, while agricultural needs call for the creation of new forests in a more limited part of the Dominion, mainly, I believe, in the Provinces of which you speak.

"I assume that the climatic and hydrologic influences of forests in general are too well known to need discussion. That a permanently successful agriculture depends on a judicious distribution of forests is the natural consequence of those influences. As the improvident denudation of large forest areas in the old world and on this continent has rendered those districts barren and unproductive and of no value for agricultural purposes, there can be little doubt that reforestation will be the best aid for restoring favorable agricultural conditions.

"Aside from the economic value of the wood lot and the mechanical influence of the wind-

break, retarding the velocity of surface winds, and lessening the severity of blizzards, the most important effect of forest areas properly distributed lies in their hydrologic significance.

"They are the cheapest, the most reliable, the best irrigators. This office is due rather to a negative influence upon passing rain clouds. The forest does not prevent rainfall, as does the open plain; for while the extensive, treeless plains present an air column, which, being dry and of high temperature, raises the point of saturation of a passing rain cloud, and allows it to pass without deriving the benefit of its moisture, the cooler air hovering over the forest tends rather to lower the point of saturation, induces rainfall on the neighboring territory, so that the most helpful agency of the forests on agriculture is attained by their distribution, in belts or clumps, over the agricultural lands.

"The co-relation of forests and atmospheric moisture is such, that while the latter, to a certain degree, is a *conditio sine qua non* for forest growth, at the same time the growing forest tends to increase the atmospheric moisture of its surroundings, creating the very condition which it requires for its development.

"I consider, therefore, that the reforestation of the treeless and arid plains, and thereby their recuperation for agricultural uses, is, beyond doubt, not a difficult task, if begun judiciously, starting from the outskirts of the present forest area and reaching forward gradually with those species, which, like the cottonwood, soft maples, birches and others, will vegetate in the arid soil and dry atmosphere of those plains. These species may not be the most desirable for timber growth, and should therefore be replaced as soon as sufficient increase of favorable conditions is attained, by undergrowing them with more valuable species, gradually removing the first crop, which had fulfilled its office by preparing the way for its better.

"To accomplish the result—modification of climatic conditions—the extent of such forests must be commensurate with the vast area needing the change, and it is questionable whether the individual efforts of small settlers will not be too isolated, and the results too limited and too remote, to be appreciably beneficial.

"But if the Government does not undertake such forest planting on a large scale, as has been done in European countries, and is now practised in India and Australia, it would certainly be a wise policy to inaugurate and supervise systematic planting of forest belts or clumps as a condition of land grants from the public domain. But this would place the moral obligation upon the Government of providing at least all possible protection against failure, by gathering and disseminating the necessary information on forest growing. Cautious and judicious proceedings are in no enterprise more necessary than in forestry, if financial results are of account. While agricultural experiments are answered in a year's time, or at least in a few years, the results of forestal operations cannot be ascertained until many years are elapsed. Mistakes are apparent only after generations have passed, especially when timber value or financial results form the main object.

"A few examples may illustrate my meaning. Some eighty or ninety years ago the American white pine was highly extolled in Germany as a desirable immigrant and largely planted. Today it is found that to attain the quality which we demand for building timber the white pine requires more than one-third longer time than the native Scotch pine. Whether the larger yield per acre will offset the amount of interest on the original outlay thus lost, is extremely questionable.

"Another mistake was the cultivation of birch in pure (unmixed) growth, which found its advocates some years ago. The results of this birch mania have been large areas impoverished under the thin foliage of the birch, which neither shades the ground nor enriches it with suitable humus, taxing the ingenuity of the forester to restore the soil to proper condition.

"The mistakes made in European forestry are frequent enough to serve as a warning to others to proceed more judiciously.

"I would not discourage the planters of walnut in our northern climes, who, from the rapid growth which the tree makes in the first