

PINE PROBABILITIES.

Lathrop E. Reed, of the firm of Reed & Sherwood, has been interviewed by the representative of the St. Paul Pioneer Press, in regard to the decimation of the pine forests of Minnesota, and that gentleman has very little fear of an early pine famine; and although his statements lack any good argument to sustain his views we give them to our readers because of facts and figures contained, which have little bearing on the question which he pretends to discuss, but which of themselves are worthy of consideration. He says:—

"I can hardly understand what has occasioned the impression of a pine famine, but it is, perhaps, the immense consumption of pine lumber. Don't you know that in St. Paul alone last year 100,000,000 feet of pine lumber was used in building? In two cities, St. Paul and Minneapolis, about 150,000,000 feet will be worked up this year. However, even at this rate there is pine timber enough in Minnesota to supply the demand for 25 years yet, and may be much longer. Why, pine lumber is almost as cheap here now as it was in 1837, which don't look like a famine. You see, in cutting pine logs only the larger trees are taken—nothing that will square eight inches at the smaller end. Then in six or eight years the smaller trees have grown so that they will do to cut, and in eight or ten years yet a third cutting can be made. You must understand, however, that once all the small trees have grown up and been cut down, there is an end of your forest, the pines don't sprout from the roots as some other trees do.

It is a fact that the growth of the pine trees, so long as any are left to grow, more than pays the taxes on the land every year—almost the interest on the investment. In fact, extra pine land accessible to creeks is now worth from \$15 to \$20 per acre, and good can be bought at \$10 to \$15. Standing trees are worth \$3 to \$5 per thousand sold by 'stumpage,' and it costs from \$4 to \$5 per thousand to cut and drive, so the logs cost delivered here \$7 to \$10 per thousand. The 'stumpage' measurement involves some peculiarities. It is a computation of the number of feet of lumber in a tree by applying the rule across the stump, and this decision is final in all cases of dispute or trespass. Also, in case the actual trespassers are not financially responsible, the parties to whom they have sold logs or lumber are held for the obligation. From records preserved in the surveyor general's office it is easy to trace logs that have been cut three or four years, and wherever found they or their product can be seized by the original owner of the land without allowing anything for cutting, driving or sawing up. So you see it behooves dealers to buy of responsible parties. But, with the Rum and Mississippi rivers regularly bringing down two hundred to three hundred million feet of logs every year, to say nothing of other sources of supply, I think you may safely assure your readers that there is no danger of a pine famine for a good many years yet."

THE TIMBER TRADE OF AMERICA.

Prof. Rothrock, of the Pennsylvania University, in speaking of the danger of a timber famine, says that the area of the United States, including Alaska, is 2,306,560,000 acres. Of this, it is stated officially, 350,000,000 are in woodland chiefly belonging to private parties. In other words, taking our area as a whole, we have about sixteen-and-a-half per cent. remaining in forest growth. Of this, we must remember, that a large proportion represents lands which have been cut over, and are now covered with immature growth of good timber, or with trees of such kind as have no commercial value. It will, no doubt, be surprising to learn that as a whole, Europe has twenty-eight per cent. of its area remaining in forest. This, however, is very unevenly distributed, and, to be of further use as a point of comparison, we must examine into the timber statistics of each important district. The percentage taken in this are: Sweden and Norway, forty; Russia, thirty-nine; Austria-Hungary, twenty-three; Germany, twenty-three; Switzerland, nineteen; Italy, seventeen; France, sixteen; Belgium, twelve; Spain, eleven; Portugal, six; Great Britain and Ireland, about three. None of these countries

which have less timber land than above seventeen per cent of their total area have sufficient wood to get along with. They have to import. Making, as far as I can, due allowance, and testing my results by various standards, I am now prepared to assert that we are in danger of a timber famine at any time our forests fall below fifteen per cent of the entire area of the country. At this hour, so far as I can estimate, we have not more than 16.47 per cent. This gives 1.47 per cent between ourselves and want, so far as our industries are concerned. Of all civilized countries driven to make the largest use of iron and to exercise the greatest economy in wood, Great Britain heads the list. Here then we might suppose there existed the greatest ability, to dispense with it. Her importations of wood were valued at \$77,063,399 a year from 1872 to 1876, or \$2.50 worth for each soul per annum.—Canadian Manufacturer.

NEW BRUNSWICK LUMBER.

The St. John Telegraph has the following:—
At present there are in port, loading deals for Alex. Gibson, ten vessels, four steam and six sail will clear for sea, carrying fully 2,500 standards of deals. The cargoes of the vessels still remaining will amount to 2,600 standard more. Up to date, including vessels now loading, it is estimated that Mr. Gibson's shipments amount to 62,000,000 feet of deals, carried in 68 vessels, 37 of which are steamers. On the first of August last year 66,000,000 feet of lumber had been shipped by him during the season to that date.

It is interesting in this connexion to note the extent to which the steamers have cut into the traffic formerly monopolized by sailing vessels. As regards the shipment of this large operator the following will illustrate the manner in which the steamers are superceding sailing vessels in the deal carrying trade:—

	Sail.	Steam.
1880	97	0
1881	83	11
1882	97	29
1883	94	23
1884 (estimated)	50	50

The figures for the present year are of course conjectural as to the future but are based on reliable estimate. As two steamers on the average carry as much lumber as five sailing vessels, the extent of the inroad upon the trade of the latter can easily be comprehended. Taking the estimate of Mr. Gibson's shipments for this year at 20,000,000 feet, the amount carried by each would be:—

	Feet.
Steamers	25,000,000
Sailing ships	25,000,000

In 1882, two steamers alone, the Missouri and the Kansas, carried away no less than 3,000,000 feet of deals.

Mr. Gibson is handling a stock this year that will approach very closely his heavy operations in 1877, 1882 and 1883.

The Nashwaak crop this season amounts to 20,000,000 feet of logs, of which 12,000,000 have reached St. John for shipment. From Randolph & Baker this spring he bought 10,000,000 feet; from George Barnhill 3,500,000 feet; from Geo. Eaton, Shulea, 4,000,000 feet; from W. H. Murray 4,000,000 feet, while F. Tufts & Co., his agents, have purchased about 15,000,000 feet from operators on both sides the bay. All the lumber which comes from St. John for Mr. G. is surveyed by Messrs. Sulis & Courtenay, who keep an accurate record of the operations for each year. These exhibit the following figures for the past nine years:—

	Sup. Feet.	Vessels.
1875	63,874,983	91
1876	93,503,349	139
1877	104,479,813	141
1878	71,807,790	87
1879 (estimated)	25,000,000	30
1880	70,926,008	97
1881	89,591,212	94
1882	110,162,327	120
1883	97,558,718	117

Ten years ago the Anchor Line steamers were occasionally chartered to carry deals, but the discriminating tariff of ship laborers made the expenses too heavy to leave any profit in the trade.

In former years, notably last season, nearly all the mills in St. John were employed on large

contracts of sawing for Mr. Gibson. This spring only two of them are sawing his logs; R. A. Gregory's mill, Carleton, and Cowan & Gaskin, above Indiantown. All the logs cut on the Nashwaak are sawed in the Marysville, Robinson and Morrison mills.

THE UNITED STATES BUSINESS OUTLOOK.

From a state of panic, a few weeks ago, the New York banks are now described as "the personification of health and strength." Recuperation is going on. The severe contraction of credit, if unpleasant in its operation, has had a good effect. The deposits in the savings banks are increasing. The yield of wheat is expected to be 500,000,000 bushels, against 400,000,000 last year; and the estimated surplus for exportation is 150,000,000 bushels. Farmers would better off if they received 80 cents this year than \$1 last year would have made them. The actual price is about twenty cents lower than last year; but then speculation had sent it up abnormally, whereas it is now at a figure which admits of exportation. Short time has improved the condition of the coal trade; a very doubtful improvement for the general public. Speculation is not now active, and future trouble from that source need not be dreaded. On the whole, things look fairly well far our neighbors.—Timber Trades Journal.

FACTS ABOUT LEAVES.

As is well known, a tree cannot grow without leaves. These are put forth every year, and are a contrivance for vastly increasing the surface. An oak tree of good size exposes several acres of surface to the air during the growing season. It has been estimated that the Washington elm at Cambridge, Mass., not a very large tree, exposes about five acres of foliage, if we include both sides of the leaves. Leaves are more nearly comparable to stomachs than lungs. A leaf is a laboratory for assimilating or manufacturing raw materials into plant fabric. The cellular structure of the leaves, wood and bark of a tree is a complicated subject to treat in a popular way. It requires a vast surface of leaves to do a little work. By counting the leaves on a seedling oak, and estimating the surface of both sides of each, we can see how many inches are needed to build up the roots and stems for the first year. After the first year the old stem of the oak bears no leaves. It is dependent on the leaves of the branches, or its children, for support. A tree is a sort of community, each part having its own duties to perform. The root hair takes up the most of the nourishment. The young roots take this to the larger ones, and they in turn, like the branches of a river, pour the flood of crude sap into the trunk, which conveys it to the leaves. The assimilated or digested sap passes from the leaves to all growing parts of the plant, and a deposit is made where most needed. If a branch is much exposed to the winds, the base of it has a certain support or certain amount of nourishment. So with the trunk of a tree. If the base of a branch or the main trunk is much exposed to the winds and storms, as much thicker deposit of food is made there. The winds give a tree exercise, which seems good to help make it strong. Our toughest wood comes from trees growing in exposed places. The limbs of a tree are all the time striving with each other to see which shall have the most room and the most sunshine. While some perish in the attempt, or meet with only very indifferent success, the strongest of the strong buds survive.

Michigan Forest Fires.

DETROIT, Aug. 23.—Harman City, Michigan, was destroyed by forest fires yesterday; two buildings escaped destruction. The dock was also burned. This property belongs to Harman & Crowe, of Cleveland. Harman City is in the new country of Arenic, just south of Tawas City, on the shore of Saginaw Bay. Four fires are still burning in the townships adjoining East Tawas, although a slight rain on Saturday partially stayed their progress. A two hours' heavy rain storm quenched the fires along the Port Austin division of the Port Huron and Northwestern Railway on Saturday morning, and all danger there is considered over.

LIST OF PATENTS.

- The following list of patents upon improvements in wood-working machinery, granted by the United States Patent office, Aug. 19, 1884, is specially reported to the CANADA LUMBERMAN by Franklyn H. Hough, solicitor of American and foreign patents, No. 617 Seventh St., Washington, D. C.:
- 303,787.—Wilhelm Arnold, New York City, insertable saw tooth.
 - 303,909.—Melow Bancroft, Whitestown, N. Y., clamping machine.
 - 303,621.—Lodyard Colburn, Derby, Conn., gearing.
 - 303,819.—John T. Cunningham, Wheeling, Va., boat wheel.
 - 303,925.—Wm. H. Doano, Cincinnati, Ohio, circular sawing machine.
 - 303,720.—Chas. W. Gago and A. S. Homoe, N. Y., saw.
 - 303,039.—Froeman Hanson, Bar Mills, assignor to H. W. Palmor, Hollis, Mo., Lathe for turning polygonal forms.
 - 303,642.—John H. Ingam, Ayers, Ala., water wheel.
 - 303,861.—Poder O. King, Valley City, Dak., combination tool for carpenters.
 - 303,938.—Jno. M. Lowry, Jonesborough, Ga., saah fastener.
 - 303,882.—Merritt W. Palmer, Holland, Mich., windmill.
 - 303,950.—Granville Rowell, assignor to Tubular Saw Co'y., Manchester, N. H., Tubular saw.
 - 303,677.—Bernard T. Setter, Utica, N. Y., match split clamp.
 - 303,781.—Thos. Wise, Framingham, Mass., Rotary steam motor.
 - 303,600.—Phillips Abbott, Brooklyn, N. Y., machine for covering boxes and covers.
 - 303,420.—Stephen Cox, Bridgeton, N. J., lubricator.
 - 303,425.—Henry Teigh, and J. L. Murphy, assignor to L. Powers & Co., Philadelphia, Pa., planing machine.
 - 303,281.—Ross J. Hoffman, Binghamton, N. Y., lubricator.
 - 303,283.—Albert D. Howe, Cosh ton, Ohio, axle lubricator.
 - 303,374.—Charles Hownid, Jackson, Mich., tool for turning round tenons.
 - 303,314.—Chas. E. Newart, Boston, Mass., machine for sharpening pencils.
 - 303,320.—Wm. J. Powell, Marsfield, N. Y., miter box.
 - 303,463.—Vincent Seiler, Redding, Ohio, saw set.
 - 303,338.—John F. Taber, and W. F. Gibbs, Clarion, Iowa, bench plane.
 - 303,478.—Granville W. Wright, assignor to Sargent & Co'y., New Haven, Conn., tool handle.

Tree Planting in the Northwest.

One of the measures before the Northwest Council, now in session, is the introduction of an ordinance providing for the encouragement of those who will undertake the work of planting out trees on the prairies, both for the purpose of raising timber belts on such portions as are of little value for cultivation, and to create wind-breaks around homesteads and along the roadsides for shelter and shade. In either case it is most desirable that the encouragement to be given should be of a liberal nature. There is nothing, we believe, in either the climate or the soil to militate against success, except that the varieties of trees to be tried should be those best adapted to exposure. The experiment need not be a costly one, and a beginning might be made by planting out those sorts that are indigenous to the country or to localities with a winter climate equally as cold.—Calgary Herald.

American Forestry Congress.

A circular has been issued by Mr. B. E. Fernow, corresponding secretary, calling attention to the annual meeting of the American Forestry Congress, which will be held this year at Saratoga, N. Y., on 16th Sept. The denudation of the forests of the Adirondack region concerning which there was so much discussion in the New York newspapers last summer, will form the subject of several debates. Among the subjects of special interest to Canadians will be "Canada's Method of Lumbering."