THE LIVERPOOL MARKET.

The October circular of Messrs. Farnworth & Jardine contains the following:

The arrivals from British North America during the past month have been 59 vessels 51,527 tons, against 24 vessels 18,598 tons during corresponding month last year, and the aggregate tonnage to this date, from all places, in the years 1881, 1882 and 1883, as shown by the table below, has been 256,860, 284,089, and 322,082 tons respectively.

The arrivals have again been heavy, and, notwithstanding there has been a large consumption, stocks are rapidly increasing, and the market is weaker.

CANADIAN WOODS.—Yellow Pine Timber: There has been a fair demand for prime square and wanny timber, but commoner qualities are difficult to sell; stocks are heavier than they were a year ago. Red Pine has been in fair demand, though at rather low prices. Elm and ash have come forward more freely and have met with ready sale. Oak: There has been a steady demand and prices have been fairly maintained; planks for waggon building still rule at disproportionately lower prices. Pine Deals: The better qualities are scarce and wanted, but of third quality there is a large stock and prices rule low. Staves: Pipe continue in good demand, but puncheon are dull of sale at low prices.

NEW BRUNSWICK AND NOVA SCOTIA SPRUCE AND PINE DEALS.—The consumption has been good but the arrivals have been very heavy and stocks are increasing, being fully double the very light stock of last year, though only 25 per cent. larger than in 1881, prices are lower and have now touched a point at which importers may fairly consider it safe to hold. Lower Port Pine Deals have arrived pretty freely, and have been sold at low prices. Birch: There has been a rather large import and the consumption has also been large; prices are easier.

NORTHWEST TERRITORY.

We take the following extracts from the official report of the evidence of Prof. Macoun, Botanist to geological survey, before the Committee on Immigration and Colonization:

Q. On these very dry plains, you say they were dry because the water could not permeate the soil?—Yes; particularly on account of the old soil. The salt lands of the North-West get so thoroughly baked in the dry weather that it is impossible to penetrate them, and yet when they are broken up in the spring and are a little moist, they are like ashes, and remain so in the summer if they have been broken, but if not, the rain evaporates and none goes into the soil, and that is my reason for saying it is climatically not barren.

Q. What about the rainfall?—The rainfall of the south is light and the rainfall of the north is heavy. We all know what the cause of the deficiency of rainfall in Ontario at the present time is. There is a gentleman who has a big farm and it is without grass or anything upon it, and he sees a rainstorm, a thunder storm, coming in the distance, and one part of it goes to the right and one to the left and he is without a drop, and when it passes him the two parts meet again. Why? Because the farm was radiating too much heat and the clouds were dispersed, and instead of the rain storm stopping it dispersed. It is the same in the North-West. The rain is brought from the south, and over the grassy plains, scarcely any rainfall takes place until it comes in contact with the wooded country, and then down comes great quantities of rain, and that is the reason. As soon as cultivation commences and trees are planted the North-West, instead of being at its worst, as it is now, will improve climatically, the rainfall will be less in the north and greater in the south, and settlers will be sure of having no drought.

Q. You think there should be tree planting?—Certainly.

Q. Explan why the heat radiating causes the clouds to separate?—South of our boundary there is a radiating surface in the United States of over 300,000 square miles—it may be 500,000. Upon that great plateau to the south, there are scarcely any trees. As the moisture that comes in from the Gulf of Mexico or even from the Gulf of California goes over that plain instead of being deposited there, the sun is pouring down heat and this heat is radiated again in the atmosphere, and the result is that moisture and heat are both carried north, both from the east and west, and as they come up over on to our plains, as soon as they strike the Wood Mountain and the Turtle Mountain and the Moose Mountain, where we have a series of broken hills, environed by ponds and covered with wood, the rain pours down. The clouds pass on, and on the interior plain, where there is no wood, you can see a thunder storm playing round a little hill—a local storm—and in another place you get none, because it is a dry region. At the Elbow of the South Saskatchewan there is a group of sand hills. When I was there, there was no rain at the Elbow though there was everywhere near us, because it was too hot. The Clouds passed on up to Humboldt till they struck the wood, and the rain there fell in torrents. We get in the Northwest the rain that ought to fall on the American plateau geographically, but it is carried on up to our country, and I can see the heat flowing far to the north, beyond where any one of us believe, and I see the summer climate there suitable for anything. The heat and moisture of the south is spread over our whole North-West, and in time this will be better understood. When my head is in the grave men will say "Macoun told the truth though it was hard to believe him." Mr. Fleming once asked me, when they were putting the railway into the Leatherhead Pass, "why is the country up from Edmonton to Leatherhead so very wet?" I said "it is on account of the glaciers that are around the head of the Athabaska and the North Saskatchewan, and the air comes down and condenses the moisture, and down it comes in great quantities, and that is the reason why the Peace River region is a prairie and has a light rainfall, because the rainfall that should go there is stopped on the watershed of the Athabaska and the Saskatchewan.

Q. Do you think that trees can be successfully cultivated on the prairie now treeless, and please give your reasons for such belief?—I profess to be a scientific botanist, and on that ground I take my stand. Here are certain points: Men have said to me, "What is the use of talking about trees on the prairie? If they were suited for the prairie they would have been there." Please notice this. Throughout the whole world every species of tree has its own particular region. I will give you a remarkable fact in connection with the prairie maple that is now being planted—the ash-leaf maple, the *negundo aceroides*. Where there is a great deal of moisture in the air that tree is not hardy. It is not hardy to the east and it is hardy on our plains. That shows that when men say the maple will not grow there because it is not found there they are wrong. The maple of the North-West is not hardy in many parts of Canada and the United States, because the air is not suitable for its growth. Down to the south of the Coteau, near Regina, at the base of the Dirt Hills, I found growing *fraxinus viridis*, what you call rim ash, the river ash. The Indians make their baskets of it pincipally. I found it growing along the base of the Coteau and not in river valleys, but on the open prairie, and other trees in that region. The beech, which is a very prominent tree in our woods, never grows further west than the straits of Mackinaw. Would any one who found the maple in an isolated group at the west end of Lake Superior, say it is stopped there by the cold? No. Looking at it in that way, I say our maple and trees of that nature, and all our oaks, every one, are sure of being successfully grown in the North-West. All our oaks, because the oaks grow naturally—I am speaking of our white and black oaks—on a sandy, dry soil in our woods. If the land gets very dry there, which it does not, but if it should, then these trees would have moisture enough to keep them growing. All that is necessary is for the seeds to be taken out to the North-West and planted, and the proof of my words will be found at once. What is the reason why the country is found without wood? I have gone up and down the prairie on a straight line from north to south, and have always found—I have travelled for eighty miles on a stretch, and have never seen a bush except a rose-bush, not a willow or a poplar, but I got permanent water. The first willows I struck were at the northeastern corner of a pool. For instance, there is a pool. The fire would burn on each side and leave the grass, and I would find the willows where the fire could not touch them. The first poplars we would strike would be always in a little depression, where the fire would come up to a little hill first where there was short grass. I found on the big plain north of the Cypress Hills, where trees are not supposed to exist, twenty-three big poplars, 2 ft in diameter, some of them in the midst of the sand-hills, where the fire could not touch them—enormous trees standing alone, buried in sand—and there they are yet, unless they were cut down last year by the C. P. R. people. Willows and poplars do not grow from seed, except when it suits them. They do not depend on their seeds. Cut a willow or a poplar stalk, and put it down and it will grow. These trees propagate from their roots, and then thousands of little trees grow up. People say they come up from the seeds. It is nonsense. They come from the roots. As soon as the root of the willow or poplar is burnt out and rotted, there is no power in the prairie to re-clothe itself with wood.

Q. This conflicts with the statements given by Professor Bell?—Professor Bell is a geologist. I am a botanist, and I may conflict with any gentleman, for I speak my own knowledge from my own standpoint.

Q. You say the trees are devoured the same as cattle would devour if they were unfenced, and the fire cannot get at them the same as if there were a fence to stop the cattle?—Exactly, they are fenced from the fire. In the driest part of the country, I was camped near the bow of the South Saskatchewan, where none of the storms would come near us. There was lots of wood. We were in sand hills and the fire could not burn it out, and in every place where there is sand there is wood.

Q. Mr. Darwin agrees with you entirely. He mentions where a piece of wild land was fenced, and there was no appearance of trees, and in a few years it was full of vegetable and animal life?—Not a doubt of it.

Q. Have you examined the catalpa tree?—I have. I was talking with Mr. Saunders, of London, about that tree. Any tree that ripens its wood—I mean, for instance, our common lilac; it takes a rush in the spring, grows about 8 inches or 10 inches and stops, and no power can make it grow any more that season—any tree of that type can stand the North-West climate, because it will harden its wood. If the catalpa hardens it wood, it will stand the North-West, because it is not the intense cold that kills trees. It is their inability to resist changes of temperature. That is where the question comes. If the North-West was subject to such changes as we have here—for instance, a sudden thaw, and the temperature rises to 50°, and a few days after the sap would be flowing, say, moving down to 40° below zero again. Our trees burst and our fruit is destroyed in that way.

Q. We could not expect, then, that our fruit trees would succeed in that climate?—You are right there.

Q. How about these Russian varieties?—I have brought this pamphlet with reference to that.

Q. Do you believe that at any time these prairies were covered with timber?—I have not the slightest hesitation in this answer. No one on this Committee, who is acquainted with the east, ever saw trees growing in a salt marsh. Every salt marsh in the North-West, I am quite sure trees would not grow there, because vegetation of a certain character will not grow where there is a superabundance of salt. Then the St. Pierre beds, where the wasting clays are going on, there are certain tracts of those lands that I do not think were ever covered with trees in the past. They were unsuited for the growth of trees. With the exception of these two tracts, I believe our whole North-West has been covered with trees.

Q. You only saw small trees there?—Poplar, the two or three kinds of poplar, or the poplar of the region.

Q. You never heard of stumps being discovered in any excavations in the North-West, have you?—No.

Q. You say the whole country of the North-West must have been covered with forest, except those places you mentioned?—Yes, I am quite positive.

Q. Except those places, you believe the same conditions geographically and climatically exist, that existed when the forests were there?—Yes; except that to-day the North-West is at its worst, because the south is abnormally dry and the north abnormally wet, owing to the want of forests in the south.

Q. But not sufficiently to prevent vegetation?—No.

Q. If the fire sweeps over the ground, it destroys the trees and burns the stumps?—There is a book written in the year 1859. In that book, Professor H. G. Hind, of Windsor College, N. S., records his explorations. Where he saw large forests, I passed over in 1860 and never saw a twig, because the stumps and everything were gone as you state.

Q. Did you ever observe shrubbery and some trees on the north side of the hills and the south side bare?—Yes. Here is where Palliser went wrong on that. I went and looked at the same hill he mentioned. The sun shone on the southern part of the hill. All the fires come from the southwest or the west. As soon as the fire comes, the south of the hill is dry. The fire comes to the south side of the hill and sweeps off a line of the timber. Next year it goes further in, and at last the whole southern part of the hill is clear of timber. The other side of the hill is damp and the timber remains there because it is not burnt off. There is not a river throughout the length and breadth of the North-West, and up to latitude 62 or 63 that the north side of the river is totally without wood, while on the south side it is just the opposite. In latitude 56 the cactus was growing on the north side of the river, and on the southern I got the Arctic flora. The southern slopes are always dry and always burnt.

Q. Is it not the case on the Qu'Appelle River at some points?—The Qu'Appelle River, from one end to the other, is without wood, except in the ravines.

Q. I travelled through the treeless valley of Dakota and found in a number of places, where the timber had been protected, where there perhaps was not a tree within a hundred miles, there were places between lakes where the fire had never reached, I have seen timber cutting 60 cords to the acre, and that satisfied me a large portion of the country had been covered with timber. They are planting there now, altogether almost, ash-leaf maple and the catalpa, and they claim that those two trees will flourish the best in the North-West?—I am in favor of the catalpa.

Q. You attribute the bareness of the southern slopes of the hills altogether to fires. Would it not be caused by the heat of the sun rotting the bark of the trees?—No; I deny that. No proof can be given that the sun destroys any trees in the North-West.

Q. Not even fruit?—That is a question I want to find out. I agree that our present fruit, with one or two exceptions, will never do in the North-West.

Q. Do you think that if raised from the seed, they would become acclimatized there?—I do; at least a part of them.

Q. Does not the wild plum occur there?—Yes.

Q. Would not that make an excellent stock for fruit trees?—No; I have tried it. It will not work.

Q. There was no indication of decay in these two trees, while in a number of others there was indication of decay?—I think the catalpa is like the lilac, grows for a time and then stops for the season.

Q. You gave an interesting description of the country about Gaspe and north of the lower St. Lawrence, but there is a very extensive country between Lake Nipissing and Lake of the Woods near the line of the Pacific Railway, and the climate is mild towards fall. How do you account for that. What influence would these inland lakes have on the climate?—Lake Superior makes the climate in the vicinity of the lake of a low temperature all the year round. The reason I mention this is—I compared the