

FORESTRY IN ONTARIO.

There was a good attendance at the regular weekly meeting of the Canadian Institute on Jan. 31st. The President, Prof. W. H. Ellis, M. A., occupied the chair. After routine business Mr. R. W. Phipps delivered the following address on "Forestry and its Necessity in Ontario."—

I must beg the attention of my hearers for a short space to a subject that is not uninteresting, and is very important—the rapid and injurious deforesting of Ontario and the means whereby it can best be checked. When, not so long since, the white men came first hither, the forest wealth of all this region was immense. Could it have stood till now there would have been no difficulty in rapidly selling timber enough to build half a dozen Pacific railways had we so chosen to invest our funds. But the settlers came; they needed sustenance; they could not eat the trees; they could not sell them, and they burned them. But, unfortunately, much was uselessly burned. Much land so cleared had far better have remained uncleared till to-day. I have seen near Toronto great heaps of clear pine, worth now \$40 a thousand burned to uncover poor land which gave but a crop or two, and ever since but very poor pasture. I have seen out west where great fields had been in walnut, two or three trees, left by accident, had sold for a thousand dollars, showing that the field would have sold for a hundred thousand dollars—a field which, in its whole cleared day till now has never given a thousand profit. Much land through the Province might well have been spared the axe, and yet enough been given to the field. But we cleared without method or order, each thinking the more he cleared the richer he grew, till a deadly hatred of trees seems to have pervaded the community, and their destruction was considered equally patriotic and beneficial. It is found, however, that we have been under a great mistake, and that a country will grow more grain and cattle and produce them easier when one-fourth is left in woods interspersing the rest, than when all is cleared. The reason of this is evident to all who consider the structure of a tree, which I will ask you to notice. Every tree draws its nourishment from the soil near its roots. It is carried upwards by means of a large quantity of water, which passes with it to the leaves—the lungs of the tree. Here it is exposed to the air, changes occur, the food goes to its place in trunk, branch, or leaf, the water passes off into the air. It is said one oak may thus send off 440 gallons per day. At all events the amount transpired by a tree is large—that of a forest immense. This passes upwards to the atmosphere—it is said that if it could be tinted the wood below would form no proportion in size to the vast covered columns above—and, being cool, necessarily compels precipitation on reaching a warmer strata of moist air, and rain ensues as soon as the precipitation is sufficient. The forest is the great local cause of the showers which fertilize the spring and summer fields. The next great benefit to agriculture is the reservoir they form for water. Their bed is deep, loose, porous, a mass of decayed leaves, intersecting roots, and forest soil, which holds in reserve great quantities of water (which otherwise would flow rapidly off over the fields), and feeds therewith the innumerable underground channels which keep moisture in the soil. Once we got water by digging seven or eight feet in many places; now we must go forty or fifty. As land is too much cleared the springs recede from the surface, and the process goes on, where allowed, till it becomes a desert where no blade of grass can grow. In history countries are known to have been rich and fruitful, to have been deprived of their due amount of frost; to have become sterile and to be abandoned by their population, to have been sufficiently replanted, to have recovered their lost watercourses and vanished rainfall, and to have become fertile again. (Mr. Phipps gave many instances from the history of different lands—Spain, France, Germany, Palestine, India, and others bearing on this point.) The operations of nature, he said, are chiefly hidden from our view. We see the tree grow and the field yield its increase, but the actual accretion, particle by particle, so that the buds sprang forth, the leaves appeared, the

blossoms and the fruit followed in due season, is not within our sight. But we know that the sun gave its warming beams; that the moisture continually rose from the earth at its call, and fell again in rain, and rose and fell again. And we know when alternate heat has dried the land, and alternate shower has given its waters, fill trunk and branches drip, and the roadside ditch is a flowing river, that then leaf and bud and blossom glow and smell with a new beauty, that the great leaves of the cornfield broaden with a more vivid green, that the waving wheat receives growing impetus and overtops the rustic fence, and every ombowering grove sends out a fresher fragrance upon the summer air. It is the enriching influence of the circulation of heat and moisture—it is with this we interfere when we deforest the land. In Ontario, in many parts, we have cleared all but ten per cent., and even this small amount is not remaining. How to preserve and increase it is the chief question for Ontario to-day, for on that alone depends whether her farms shall remain fertile or become barren. In the rest of the address, which was entirely impromptu, and of which this report is necessarily but a synopsis, Mr. Phipps narrated many interesting facts concerning the influence of deforesting on agriculture in Ontario, and stated that, in the older settled parts, there were but three ways of proceeding. By windbreak, by plantation, and by preserving whatever portions of forest yet stood, by excluding cattle, which last was the main point. He gave the methods of proceeding in each case, and mentioned the trees suitable for each. He also spoke of the large pine forests in the interior, the necessity of their preservation from fire, described the burnt lands he had lately seen near the Ottawa, were for a length of seventy miles, and a breadth of twenty, in one place alone, was nothing but dead trees, useless now, a pine forest worth many millions a few years back, and mentioned that Quebec was reserving great areas for forest alone, discouraging settlement wherever the pine forest should be preserved. He concluded by saying that it was much more than a Provincial, it was more than a national, more than a moral question, it was an object which should be impressed upon us by the highest feelings of our religion. We found here the wood, the water, the fertile soil. We know that the deforesting of a country does more than remove the one, it greatly impairs the others, so that the land may not be able to support more than the tenth part it now maintains. We should remember that no proprietor can have a title to destroy the fertility of the soil, lest "the field cry out against him, and the furrows thereof likewise complain." The vast concourse of humanity continually emerges from the unknown past, it travels toilsomely by it is lost in the clouds of the future. Be sure that there we shall meet with strict questioners; nor will those pass unchallenged who have, to serve their own purposes, rendered painful, sterile, and barren the path of generations yet to follow.

The address was listened to throughout with great interest, and a spirited discussion followed, in which Mr. Alan McDougall, and Mr. Geo. Murray from their own experience corroborated the statements of the speaker.—*Toronto Globe.*

GLASGOW LUMBER TRADE.

Among the ports of which the *Timber Trades Journal* gives exhaustive reports of the past year is that of Glasgow, which has a special interest for those engaged in the timber trade in Canada. The *Journal* says that the timber trade at Clyde ports during the past year has been in a depressed and unsatisfactory state, especially so in the latter part of the year, when there was an increased difficulty in making sales, and falling prices was the rule.

Business generally has been dull, and industries on which the timber trade is largely dependent have felt this in a marked degree, and imparted to our trade the same tone. Looking at the Clyde shipyards, for instance, it was stated in April last that 8,000 men had been discharged since November 1883, and now it is estimated there are 15,000 men under the number that were employed throughout the various yards a year ago.

But the difficulties of the wood trade have been greatly lessened during the past year by the decisive measures taken for reducing imports a considerable reduction having been carried out, and which has clearly strengthened the market. The following is a summary of the imports in 1884, as represented by the tonnage employed in conveyance (exclusive of arrivals at Grangemouth, which are noted apart).—

	Tonnage employed.
British North America	65,300
United States	7,500
Pensacola	30,493
Moulmein and Rangoon	7,438
Demerara	1,366
Mexico	4,500
North of Europe ports	7,400
Total tonnage, 124,000, as against 210,000 in 1883.	

For imports of wood goods at Grangemouth during 1884, the carrying tonnage is 85,605 tons, about 8,000 tons of which represent arrivals of pitch pine and Quebec timber, the rest being for the conveyance of goods from North of Europe ports, and consisting chiefly of deals and battens. In 1883 the total tonnage employed conveying wood to Grangemouth amounted to 99,536 tons.

Shipbuilding on the Clyde is of the greatest importance to the timber trade here, having probably half the entire consuming power. It has fallen off during 1884, the total for which, however, is exceeded only by the three years immediately preceding. These three years exhibit a gradual increase; 1881, tonnage launched, 340,823 tons; 1882, 395,149 tons; and 1883, 417,831 tons. For last year the total is 299,110 tons, or a value of £7,000,000 against £10,000,000 for 1883. There is no gainsaying the fact that the depression experienced of late resulted from an over-supply of tonnage. Freights, however, are now improving, and builders are again receiving fresh orders for new ships. It is stated that shipowners in North America have been induced by the low prices to contract for the construction of some iron vessels. And there is little doubt that some of the Government work for which tenders have been invited will come this way.

The comparative activity of the wood consuming trades generally in Glasgow and districts, to which it is a centre of supply, is indicated by the quantities that have gone into consumption, particulars of which are noted below:—

CANADIAN YELLOW PINE AND WANEY BOARDWOOD.—The import during 1884 was 27,404 logs, and the consumption 34,428 logs. An average of the four years preceding gives for each the import of 45,288 logs, and consumption, 43,347 logs.

The rates for waney boardwood have been fairly steady throughout the past year (strengthened probably by the small import of 1st quality deals), say 18 to 21 in. 2s. to 2s. 5d.

The stock now remaining shows about a fourth of decrease compared with quantity on hand a year ago.

For common housebuilding yellow pine, 40 to 60 ft. per log, prices have ranged from 14d. to 16d.

The stock of deck plank, 1st class, is moderate; prices 2s. to 2s. 5d. Of 2nd class the stock is moderate, prices, say, 1s. 5d. to 1s. 8d. The demand has been quieter, and prices have gone down somewhat owing to the depression in shipbuilding.

RED PINE.—An import of 3,943 logs and consumption 7,711 logs is shown by the past year, and the four years preceding give a yearly average import of 8,670 logs, and consumption 7,950 logs. During the past year there has not been much change from 1883 as regards prices; they have ranged from 13d. to 1s. 0d. for good quality, and ordinary 11d. to 1s. 2d., according to sizes.

OAK.—The import during 1884 amounts to only 2,173 logs, and the consumption has been 6,115 logs. Averaging the four preceding years gives an import of 7,970 logs and consumption, 6,520 logs. The stock of logs at present is little more than half the amount on hand a year ago. There has been a large import of oak planks and

scantlings by steam liners from the States, and the stock on hand December 31st was heavier than usual, amounting to 29,897 pieces measuring 91,831 cub. ft.

Prices for first-class oak logs have ranged to 2s. 9d. per cub. ft. ordinary quality, and 2nds have been sold at 1s. 8d. to 2s. 4d.

ELM.—There have been 2,874 logs imported during the past year, and the consumption amounts to 3,000 logs. The four preceding years show an average yearly import of 3,918 logs, and consumption 3,519 logs. Prices ruled at the opening of 1884 from 2s. 4d. to 2s. 7d. for logs 40 to 50 ft. average, but fell probably 3d. from the middle of summer.

ASU.—For 1884 the import was 2,200 logs, and the consumption 1,660 logs. For the preceding four years average yearly import 1,945 logs, and consumption 1,988 logs. There has been a fair demand during the year for best quality, 2s. per cubic foot being obtained; but latterly there was a falling off of about 4d. per cubic foot, fresh imports having come forward freely.

BIRCH.—Imports during 1884 amount to 7,490 logs, and consumption 6,636 logs. The four preceding years show an average yearly import of 7,004 logs, and consumption 6,608 logs. There was little change as to price in Quebec birch during the past year. Lower port, on to the middle of the year, brought from 14 to 18 in. 1s. 4d. to 1s. 9d.; but large supplies coming afterwards reduced prices 2d. per cubic foot at least.

WALNUT.—The past year's import has been small, about 1,400 logs against 2,800 in 1883. There has been an average consumption, but as it is a first-class wood, a return of good trade would increase the demand. Prices have been from 3s. to 4s. 6d., and 5s. per cubic foot for 16 to 18 in. wood.

DEALS.—The aggregate import of 1884 shows a marked decrease compared with recent years. Of Canadian deals the arrivals amount to 435,000 pieces, and from New Brunswick and Nova Scotia 570,400 pieces. Arrivals during 1880-3 on average give for each year an import of 761,000 Canadian deals, and 738,000 pieces N. B. and N. S. The consumption for the past year, however, compares more favorably, amounting to 736,000 pieces Canadian, and 561,000 pieces N. B. and N. S. deals, the four years above referred to averaging 677,000 pieces as the yearly consumption of Canadian deals, and same quantity, or nearly so, of New Brunswick and Nova Scotia.

The stock of Quebec deals on hand at present is light, especially so as regards 1st, 2nd and 3rd qualities; but there is a heavy stock of lower port deals. A falling off in the consumption of the commoner descriptions is to a great extent attributable to slackness in packing-box making. For 1st pine (Michigan and Quebec) prices have ranged from 2s. 9d. to 3s. 7½d. per cubic foot, the narrower breadths from 2s. to 2s. 6d.; 2nd quality, 1s. 6d. to 2s. 6d., according to specification; 3rd quality Quebec pine, 11 in. 10½d. to 13½d.; broader ranging to 1s. 9d. 4ths have sold from 9d. to 13d. Red pine (2nd and 3rd) from 9½d. to 1s. Quebec spruce have brought from 9d. for 3rds to 1s. 2½d. for 1st quality, 4th 8d. and 8½d. Lower port spruce 7½d. to 11½d., and pine 5½d. to 12½d.

STAVES.—Arrivals from Quebec amount to 140 miles, which is less than half the ordinary importation; the consumption also has been comparatively small, 154 miles. Imports from the States have been 660 miles—a larger total than usual; and the consumption also is greater, being over 700 miles; the stock on hand is moderate.

Quebec merchantable pipe have ranged from £65 to £80 and W.O.W.L. £16 to £20. United States hogshead staves (prime) have sold at £19 10s. to £21 10s. Barrel have varied from about £13 to £14 10s. Prices for pipe have been steady, 4½ feet bringing £42 10s. to £45, and 5 feet according to quality £45 to £52.

PITCH PINE.—There is an increase of stock compared with this time last year. The year's arrivals at Clyde ports amount to 88,194 logs, hewn and sawn, and about 20,000 planks; the consumption has been about 34,500 logs. There has been an average yearly import, taking the preceding four years, of about 44,000 logs,