

THE FORESTRY CONGRESS.

The American Forestry Congress met in annual session August 8th, at St. Paul, Minn., and after an interesting session of three days, adjourned.

In his annual address, the President, Hon. George B. Loring, gave many valuable points of information concerning the forest area of the country, the pine supply, the value of the timber industry, etc. He said: "The forest lands of the United States amount to less than one fourth of the entire area. The proportion of wooded area is less than in Eastern, Northern and Central Europe, and is very unequally distributed. Norway has two-thirds of its area wooded, Sweden six tenths, Russia nearly one third, and Germany nearly one fourth. The countries having less forest area, arranged in order of proportion, from 18 down to 5 per cent. are Belgium, France, Switzerland, Sardinia, Naples, Holland, Spain, Denmark, Great Britain and Portugal. West of the line of prairies running southwest through Indiana, Illinois, and Missouri to the Indian Territory, the central prairies, the dryer plains and much of the southern belt of the Pacific slope are destitute of wood. The streams in all this great region are more or less fringed with trees of some sort, and the higher mountains, on the protected side, have a thin covering of forest. In the deep valleys of the western slope of the Sierra Nevada are forests of extraordinary density, filled with soft wooded evergreen trees of enormous size. Here the sequia gigantea or big tree flourishes in isolated patches, while the coast range is the home of the sequia semivivida, or red wood. From North Carolina to Louisiana nearly six tenths of the farm area is wooded, though most of the area thinly, and part of it has been culled and is in second growth. Including unoccupied areas not in farms which are in forest, something like three fourths of the entire South is wooded. Comparing the census returns of 1870 and 1880, we find a decrease of wood lands in farm areas in Michigan from 41 to 32 per cent; in Minnesota from 21 to 15, and in Iowa from 16 to 11 per cent. In Nebraska tree planting has changed the record from 3 to 10 per cent. From the increase of farms in the wooded area Wisconsin has 31 instead 29 per cent. Of the value and importance of the forests covering these areas let me say: Next to the white pine of the Northern forests, the most valuable tree is undoubtedly the Pinus Australis, or long leafed pine of the southern coast land, forming a belt of varying breadth, up to 100 and 150 miles from the Atlantic and Gulf shores. The southern pine will come into still greater prominence, as railroad and steamboat lines extend facilities for transportation, which is now being done with great rapidity.

"The condition of the pine timber supply of the United States, in connection with the statements I have made, is interesting. The destruction of this tree by fire, and the axe of the lumberman is very great. Together with the spruce it is being rapidly consumed, and I think the following figures will show that the supply is to be obtained hereafter by allowing an exhausted region time to recuperate, while the comparatively uncut sections, are resorted to for filling the demands of the market. Investigations recently made show that the supply of pine in New Hampshire and Vermont is exhausted, and that the spruce lumber, at the rate the cutting is now going on, will last in the former State but 7 years, and in the latter but 4; in the State of Maine the pine will last four years and spruce 15 years; in South Carolina the pine forests will last 50 years at the present rate of cutting; in California, 150 years; in Arkansas, 300 years; in Pennsylvania, 15 years; in Georgia, 80 years; in Louisiana, 100 years; in North Carolina, 50 years; in Wisconsin, 20; in Michigan, 10; in Minnesota, 10 years; in Mississippi, 150 years; in Alabama, 90 years; in Florida, 30 years; in Texas 250 years. That the exhausted forests in this list of States can be restored in time there is no doubt, and every means of cultivation and protection should be applied by the people and the government, both State and Federal, each in accordance with its own jurisdiction."

"The black walnut, culled from western forests to meet a limited though important demand is really becoming scarce on the northern side

of the Ohio valley; but on the southern, along the foothills and in the valleys of the Appalachian range, it is abundant and almost untouched. It grows rapidly in the Western States, even beyond the Missouri. The millions of acres of existing forests in this great eastern chain of mountains has not yet been considered in the statistics of forestry here presented. Their resources have never been measured, are yet comparatively unknown, and almost untouched by the axe of the woodman."

"In addition to this the white pine of Minnesota is estimated at 6,100,000,000 feet exclusive of isolated timber in birch lands and amidst other hard wood growth. In Michigan, the estimate for the lower peninsula cover 7,000,000,000 feet. In the Saginaw district, 8,000,000,000 on the streams flowing into Lake Huron, and 14,000,000,000 on those flowing into Lake Michigan. The upper peninsula contains 6,000,000,000 more, making 35,000,000,000 feet in the principal pine districts in Michigan. The great pine forests of Wisconsin are estimated to contain 41,000,000,000 feet of lumber, the largest proportion in the Chippewa and Wisconsin districts. They cover an area of 22,500,000. The northern border of the pine area is less productive than the areas of the lower latitudes. The cedar swamps of Wisconsin scattered the pine belt are estimated to cover 1,365,000 acres, and to contain 62,800,000 posts, telegraph poles and railroad ties. There are also large supplies of tamarack and spruce and valuable oak timber, especially in Dunn, Pierce and St. Croix counties, and other hard woods are abundant through the southern border of the wooded districts. The united area of the States south of Maryland and the Ohio river is more than 500,000,000 acres, containing nearly 400,000,000 acres of forest land."

BRITISH COLUMBIA FOREST.

We extract from the Report of the Committee on Immigration and Colonization the following portions of the evidence of Dr. George W. Dawson, F. G. S., Assistant Director of the Geological Survey:—

Q. Will you please inform the Committee as to the timber resources of British Columbia, the country over which the Douglas pine occurs, and other timber trees at present or likely in future to be of value? The Douglas pine, I understand, is of the greatest commercial value just at present? This map (produced, published in Report of Geological Survey 1879-80) will illustrate some of these points. It shows the range of the Douglas fir and some of the other important timber trees. So far, the Douglas fir or Oregon pine, as it is also called, is the only tree that has attracted much commercial attention. It has been largely cut and exported. It is found on the whole eastern coast of Vancouver Island and on the coast of the mainland opposite to it. It extends northward a little back from the coast as far as the Skeena River, and in the northern part of the interior of the Province as far north as Tacla and Babine Lakes. The timber which occurs immediately on the coast, is, however, indisputably the best. There are magnificent forests there, composed almost entirely of the Douglas fir, and naturally, on account of the facilities for shipment, they have attracted the most attention. The quality of the timber is excellent and the size of the trees is great. One that was cut down at Burrard Inlet for the Philadelphia Exhibition, of which a section is in the Parliament grounds now, was measured to be 305 feet in height, had a thickness of 8 ft. 4 in., 20 ft. above the ground, and was perfectly sound throughout. Many of these logs measure as much. Commercially speaking, the medium sized logs are more useful in the mill than these exceedingly large ones. The localities chosen for the mills are selected in regard to facility of shipment, and those now working are chiefly situated on Burrard Inlet. In addition to the Douglas fir, there are a number of other trees in British Columbia which are exceedingly valuable, and which will eventually attract a good deal of attention. There is the cedar, which sometimes attains a diameter of 17 feet, though generally these very large trees are more or less hollow. There is the spruce, which is an excellent wood, not so soft as our spruce on this side of the continent, and a different species; the white pine,

not the same as the eastern white pine, but producing an equally good wood. As a rule this tree is remote from the sea coast, so that it has been utilized only to a small extent so far. The hemlock, again, grows to a much greater size than our hemlock, and produces good, clean lumber, and that tree is found along the whole of the coast and over a considerable part of the interior. The maple, which is rather an inferior wood, except for cabinet-making purposes, owing to the curly grain, is only found on the coast. The oak is confined to the southern part of the coast, and is not in sufficient quantity to be looked upon as a commercial wood on a large scale. The yellow cedar or yellow cypress is another wood that has attracted much notice. It is found chiefly on the northern part of the coast, and is an exceedingly fine wood for cabinet-making. It is a close wood, and very lasting, penetrated by resinous substances which protect from decay to a very great extent, and give it a peculiar odor. In the interior of the Province there is the yellow pine, which inhabits the dry southern part of the plateau, and is locally a tree of great value. In fact, it is the wood most used in the interior, in some districts even in preference to the Douglas fir, where that occurs, I might state, in general, that every part of British Columbia is amply and well provided with excellent wood for construction and other purposes. The coast has the pre-eminence in that respect, owing to the facility of export and to the gigantic size of their forests, due to the mildness of the climate and its humidity.

Q. Point out the northern and eastern limit of the Douglas fir?—The northern limit is on the Skeena, and on Tacla and Babine lakes. To the east the limit is at the Rocky Mountains. It is abundant even on the eastern slopes of the Rocky Mountains, as far east as the Porcupine Hills, and is now being extensively used for construction in the western part of the prairie region.

Q. Principally on the rivers that may be utilized for bringing it to market?—On the eastern slope of the Rockies, yes; but on the west the timber business is carried on by floating the logs down rivers as it is here, because of the large size of the logs and the rapidity of the streams. Nearly all the timber cut for exportation on the west coast is drawn out, either by teams or on small steam tramways, to the shore, launched into the sea and towed to the mill.

Q. Will you give us your opinion as to the timber resources of Vancouver and Queen Charlotte Islands respectively?—The chief difference between Vancouver and Queen Charlotte Islands, in regard to timber, is that on a large part of Vancouver Island the Douglas fir is found abundantly, while in the Queen Charlotte Islands it is not found at all. It is replaced there by cedar, hemlock and spruce, and the yellow cypress or yellow cedar. An area of about 1,900 square miles of the flat part of the Queen Charlotte Islands is covered very densely with excellent timber, but it does not include the Douglas fir and the Islands are rather north of the usual merchantile routes at present, it has not given rise, so far, to the erection of any mills. There are very excellent sites for mills, however, in the Islands, particularly at Naden and Massel Harbors, and other places where streams from the low country reach the sea. The timber of the Queen Charlotte Islands I look upon as one of the most valuable immediate resources of the Islands, and as soon as the demand for timber shall increase a little more, they will, no doubt, be utilized. Another feature with regard to these Islands is that, owing to the humidity of the climate, the woods have been very little affected by forest fires, and even where large quantities of rotten and decayed trunks, of great thickness, have accumulated on the ground, they lie there and go to decay rather than burn.

Q. Speaking of the cedar as a commercial wood, you say sometimes it grows to a diameter of 17 feet; are the trunks covered with branches, or are they comparatively free from branches for any considerable distance from the ground? The cedar is apt to give off a number of branches, but when it attains large dimensions, the living branches are generally near the top. These very large trees are more or less hollow

generally. The Indians select the largest sound cedars they find for their magnificent canoes, and the dimensions of those canoes show how large such trees may be found when one goes to search for them carefully. I might state, however, in connection with the Queen Charlotte and Vancouver Islands, that, as the area of Vancouver is considerably greater than Queen Charlotte Islands, doubtless the timber supply of Vancouver is more important than that of Queen Charlotte Islands, at least, in correspondence with the areas.

Q. What is the diameter of the largest tree you have seen in British Columbia, and are there very many of that size or nearly approaching it? I cannot state precisely the diameter of the largest Douglas fir I have ever seen; when a specimen was selected to send to Philadelphia Exhibition, one was chosen which was sure to be sound throughout, and there were larger trees they were not sure about. This tree had a diameter of 8 ft. 4 in., and a height of 103 ft., and there were a great many in the vicinity of Burrard Inlet approaching to this size. In fact, whole areas of forest are composed of trees of similar size.

Q. What is the average size of logs sawn in the mills at Burrard Inlet?—I should say the average size must be between 4 feet and 6 feet.

Q. In diameter?—Yes, in diameter.

Q. What class of spars can be got out, i. e., their length and diameter?—Spars and masts of any size desirable for shipping can be easily got in British Columbia, and are unsurpassed for straightness and strength. I believe masts have been usually shipped hewn to octagonal form from 20 to 30 inches in diameter and 60 to 120 feet long. They have been shipped to special orders as large as 42 inches in diameter and 120 feet long. Yards are generally from 12 to 24 inches in diameter and 50 to 102 feet long.

Q. How does the timber at Burrard Inlet compare with that at Puget Sound, as to size, quality and market prices?—It is probably about the same in both places; or Burrard Inlet, not being as much cut into as Puget Sound, probably contains in proportion to its area more valuable timber at the present time.

Q. Are there any places in Vancouver Island adapted for the erection of saw-mills?—A great number of localities. For instance, in the vicinity of Cowichan and northwest towards Comox, where there is a large area of flat country covered with fine timber, besides Alberni Canal and other places on the coast.

Q. Have you any means of knowing the principal markets to which British Columbia lumber and spars are shipped, the prices obtainable in those markets, and the general opinion of its quality?—I cannot state the prices obtainable in the markets. It has been shipped to a small extent to San Francisco—not in large quantity because of the duty. A good deal has been sent to South America, and to Australia, some occasionally to China, and masts and spars have been exported to England and France. Its quality, tested by strength and in other ways, is excellent, particularly for masts and spars. The only respect in which the Douglas fir compares unfavorably with white pine is its somewhat coarser grain, and that is connected of course with its greater strength.

The last raft of square timber of the season has passed through the Calumet slides.

The Hasting Star says that Rathbun & Son's drive of 150,000 logs has passed through there.

In a description of the great Bell Farm in our Northwest Territory a correspondent of the London Ont., Free Press says:—The farm is ten miles square, and there is being planted a grand avenue of 10,000 poplar trees, ten miles in length. Some of the trees were planted last year and are healthy, and average from 12 to 15 feet in height.

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