

oak of the size and length used in actual construction. All but two were round, hollow columns, of from eight to eleven inches diameter, the two being about nine inches square. The greatest amount of pressure exerted in any case was about 265,000 pounds. The tests have disclosed frequent instances of defective boring in the columns. The object in boring is to open an air passage through the heart of the stick for the prevention of dry-rot after it is in position in the building. It is essential, of course, that the bore should extend from end to end, but this has not always been effected. The sticks were first bored from one end and then from the other, and the borings have sometimes failed to meet in the middle of the stick. The tests also show that to taper the sticks is a mistake, inasmuch as it weakens the column more than has heretofore been estimated. Reasons for exercising more caution in other respects in the construction and adjustment of wooden columns in building have also been disclosed.—*Scientific American*

Precautions Against Waste.

An Ottawa correspondent says that a new code of timber regulations for the Northwestern Territory has been promulgated, which it is thought will prove more satisfactory than those previously in force. Mr. Thos. Anderson, the timber inspector for the Northwest, will be vested with discretionary power to deal with questions arising under the Crown timber regulations without reference to Ottawa. Permits will still be required by persons cutting timber, but it is understood they will be chiefly formal and for the purpose of preventing waste, and to keep the wood in the control of the Government until the lands are surveyed and entered upon. The cost of a permit for a settler's building material is fifty cents, and rails cut for use on the place, and not for purposes of sale or speculation, free, and firewood for one's own use free. Cordwood cut for sale will be subject to a charge of fifteen cents a cord. Cutting timber to hold for speculation purposes without first obtaining the necessary permits, and destroying timber before the land is entered for, under the pretence of clearing the land for cultivation, is absolutely forbidden. The inspector has been instructed to take every precaution against waste.

Produce of Crown Forests.

From the reports of H. M. Commissioner of Woods and Forests, just published, we find the receipts from the sales of produce of Crown estates for the year ending March 31st, 1881, were as follows:—Windsor Park and Woods (timber, bark, poles, cordwood, &c.), £1,938 1s. 1d.; New Forest, £8,360 11s. 6d.; Dean Forest, £6,377 10s. 2d.; Highmeadow Woods, £4,123 6s. 11d.; Alice Holt Woods, £650 11s. 4d.; Woolmer Estate, £148 14s. 6d.; Boro Woods, £939 17s. 9d.; Parkhurst Woods, £343 12s.; Stagden Woods, Bedford, £349 2s. 3d.; Delamere Woods, Chester, £701 6s. 6d.; Chopwell Woods, Durham, £49 8s. 9d.; Manor of English Bicknor, Gloucester, £6 2s. 2d.; Eltham Woods, £185 6s. 1d.; Eltham Estate, Kent, £84 6s.; Torver Woods, Lancaster, £4 19s. 4d.; Hazleborough Woods, £340 6s. 3d.; Salcey Woods, Northampton, £888 19s. 1d.; Egham Estate, £52 10s.; Esher Estate, £1; Esher Woods, Surrey, £782 11s.; Poyning Woods, Sussex, £28 3s.; Bishops Cannings, Wilts, £634.

Douglas Fir.

This king of forest trees, which is the pride of Oregon and Washington Territory, makes the best ship timber in the world. A principal quality of the wood is a flexibility and tenacity of fibre rarely met with in trees so aged. It can be bent and twisted several times in contrary directions without breaking. Masts and spars made of Douglas fir are rare and exceptional for dimensions and superior qualities, such as strength, lightness, absence of knots, and other grave vices. Mr. Wilson Saunders was once ordered by the Lloyds to test the strength of all the woods obtainable for ship-building, and he reported that none of the woods approached the strength of the Douglas fir and pitch pine, it having required a weight of 280 pounds to break a small bar of these woods no more than an inch and a quarter square. Between the Douglas fir and pitch pine, whose strength was equal,

there was this difference, that while the latter snapped short off, the Douglas yielded unwillingly, with a rough and long rend. Often 200,000 feet of Douglas fir is cut from one acre of land, and there is said to be enough of this timber in Washington Territory alone to supply the navies of the world.—*Northwestern Lumberman*.

The Duluth Cut.

The *Lake Superior News* says last winter there were cut in the district, of which Duluth is the centre, between 75,000,000 and 80,000,000 feet of logs. The latter figure, even, was much below the estimates made early last winter, because the season was extremely unfavourable. The deep snows, especially in the latter part of the winter, interfered very materially with work in the woods, and made logging expensive. Careful enquiry among our lumbermen enables the *News* to give reliable figures as to the probable cut of logs this winter. If we have an ordinary winter these figures will be found next season to have been nearly accurate, but should there be very little snow, then these calculations will be somewhat disturbed. We estimate the total cut at 183,000,000 feet, or more than double the cut of last winter. There is nothing extraordinary in this, considering the number of new mills either completed the past season or now under way. By next July the sawing capacity in this district will be double that of last spring, the most prominent new mills being those of the Duluth Lumber Co., G. W. Peck & Co., Sexsmith Bros., and the Oneota Lumber Co.

Lumber Receipts At Buffalo.

Receipts of lumber, etc., at Buffalo by lake during the month of November, and for the season of navigation, were:—

	Nov.	Season.
Lumber, ft.....	23,896,700	240,802,100
Lath, pieces.....	118,000	2,803,000
Shingles.....	7,745,000	25,249,000
Staves.....	100,000	3,886,275
Hoops.....		7,004,000

The lumber receipts for the season of 1880 were 214,169,354, and for 1879, 202,443,612 feet.

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NOTICE TO CONTRACTORS.

Tender for Work in British Columbia.

SEALED TENDERS will be received by the undersigned up to NOON on WEDNESDAY, the 1st day of FEBRUARY next, in a lump sum, for the construction of that portion of the road between Port Moody and the West-end of Contract 60, near Emory's Bar, a distance of about 85 miles.

Specifications, conditions of contract and forms of tender may be obtained on application at the Canadian Pacific Railway Office, in New Westminster, and at the Chief Engineer's Office at Ottawa, after 1st January next, at which time plans and profiles will be open for inspection at the latter office.

This timely notice is given with a view to giving Contractors an opportunity of visiting and examining the grounds during the winter season and before this winter sets in.

Mr. Marcus Smith, who is in charge at the office at New Westminster, is instructed to give Contractors all the information in his power.

No tender will be entertained unless on one of the printed forms, addressed to F. Braun, Esq., Sec. Dept. of Railways and Canals, and marked "Tender for C. P. R."

Dept. of Railways and Canals, Ottawa, Oct. 24th, 1881.
12d10 113

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150 Mils. White Pine,	1 x 10 Stock.
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140 " do	1 inch Sliding
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10 " Cedar,	3 x 6 "
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