



PUBLISHED
SEMI-MONTHLY.

The only Newspaper devoted to the Lumber and Timber Industries published in Canada.

SUBSCRIPTION
\$2.00 PER ANNUM.

VOL. 2.

PETERBOROUGH, ONT., SEPTEMBER 15, 1882.

NO. 18.

PRUNING FOREST TREES.

At the recent Forest Congress at Montreal the following paper was read by Mr. John S. Wolfe, of Roslyn, N. Y., entitled

"THE COMMERCIAL VALUE OF PRUNING.

I would call attention to pruning for the benefit of the lumber product of trees, not for beauty, only the increased value of the sawn lumber. The value of clear in comparison with knotty lumber is well known. The defects of loose knots and much of the rotten lumber is due to the want of pruning.

Trees when quite young have branches extending to the ground, as it grows these, if not pruned, will die and in time produce a black knot that will continue to extend through the tree as long as the branch is attached, causing the tree when sawn to produce lumber with black or loose knots.

Often when the tree has been standing a long time the branch will decay, this decay extending to the centre of the tree, causing it to be worthless while it looks sound on the outside, and its condition is only known when sawn, involving a loss of all expenses and costs.

Clear lumber of all kinds is only obtained on the outside of the log. All logs having a center of knots, if this can be made small and the few knots kept sound, as they will be by being cut off when alive and quickly overgrown.

With the hickory and the oak there is still more difference, as the knotty lumber has no value over firewood, and as the large knotty oak and hickory logs are scarcely worth cutting and splitting small enough for firewood.

I have now in mind a hickory tree nearly two feet in diameter, that for the want of pruning was not worth the labour to split into firewood; had it been pruned early and with but a few hours' labour expended, it would have been easily worth \$30 to \$50.

White oak timber, if knotty, will so check and warp that it is worthless.

The chestnut invariably shows the decay of the dying branches in the centre of the log and rendering the timber of but little value.

In most if not all of our more older woodlands, trees are allowed to grow as nature starts them. The worthless ones are not cut out and replanted with those of value. It has been the thought of many that nature attends to all this, and the trees that are best suited to the soil will grow. This error is plainly shown by the fact that two locust trees are now growing at Roslyn, L. I., that originally were brought from Virginia by Capt. John Sands, of Sands Point, in 1785. From these two trees and another at Oyster Bay, L. I., have grown all the valuable locust timber on Long Island.

When we notice that the value of clear pine has nearly doubled in value in the past ten years, and is higher now than black walnut was then, and is still increasing in value each year, while the common or knotty pine is worth but

a few dollars more now than then. Hard wood shows the same increase in value.

When we realize that the old growth of forests are melting away so fast, and that will not long have the old century growth of trees to cut clear lumber from the outside, caring but little for the centre, even if it is knotty for a foot or more in diameter, it being of so little cost at the stump that it might make but little difference.

But when timber has been planted and each year of its growth watched, the value of pruning will at once be seen as an element of profit.

Forests showing a sound growth of smooth trees, no dead and decaying branches will at all times have a value that will repay all the expenses of pruning and replacing trees of value for worthless ones.

The fact is we have never cultivated our woodlands, and do not now realize their value, or what would be their value if in proper condition. But we will soon learn. With clear pine selling at wholesale for \$65 per thousand feet; black walnut, \$100; oak, \$65 to \$85; hickory, \$35 to \$120.

We will then scarcely believe that we have devoted so much time to crops of a yearly growth, and done nothing for those that take a lifetime to harvest.

CEDAR FOR BLOCK PAVING.

Now that cedar is likely to come extensively into use for block paving, it is necessary to apply some test which will prevent bad or decaying cedar being used. The Corporation of Toronto, in its specifications for this kind of work, requires that none but live cedar be put in; but this condition is far from being adhered to in practice. There can be no doubt that this restriction is a proper one, and we fail to see on what authority corporation officials authorize a departure from it. It is clear that they have no authority to waive one of the essential conditions of a contract. Cedar dies from various causes; from an excess of moisture, from the ravages of worms, which get below the bark and which eat a slight distance into the alburnum or sap-wood; occasionally the roots rot, probably from being lifted up by the frost. No cedar which is cut after it has died is as good as one cut while living, and some are quite rotten when they die. Small cedars which die first at the root are almost invariably rotten by the time the foliage withers. Cedars killed by worms are in a state of decay when they die. Sometimes a tree will stand erect years after it is dead, and those years take so much out of the wood that it had in it when it died, yet we see such cedar as this used in Toronto as short posts to support the planks that mark the line between the boulevards and the cedar block roadway. The intention of the corporation has been to reject them, and though the restriction is founded on good reasons, this kind of cedar is very much

used for this purpose. It is useless to say that live cedar cannot be got, anyone can get it if he is willing to pay for it.

A distinction should be made between live cedar and green cedar, though the tree should be felled when it is alive, it ought to be allowed some time to dry before it is used. None, however, seems to have been made by the City Council of Toronto, perhaps because if we had to get dry cedar, cut when alive, we should have to postpone the making of some of our cedar roads. But the error is one which ought to be corrected when opportunity offers.

We are satisfied that the rejection of every kind of dead cedar rests on substantial grounds—not that some kinds of dead cedar have not considerable wear in them—and for some purposes they are useful; but if dead cedar were allowed to be used in making block pavements, we should bargain for rottenness and decay, and could not complain when we got them.

Of live cedar, that is best in which the duramen or heart wood forms the greatest proportion of the whole, and the sap-wood the smallest part. The heart-wood is permeated by a secretory matter of a resinous nature, insoluble in water, while the mucilaginous ingredient of the sap-wood is soluble in water. The general and well-known tendency of sap-woods to decay is not less in cedar than other kinds of wood. Round cedar posts decay on the outside, but in small posts the decay is greatest, because the thickness of the sap-wood relatively to the diameter of the trees is greater. The heart-wood of the cedar is peculiarly liable to decay, under some conditions of growth or age. When this decay manifests itself and proceeds far, the sap-wood is the best part of the tree. By the process of kyanizing, which consists of injecting some preservative substance, such as creosote, the sap-wood can be made as durable as the heartwood; but where this is not done, the less the proportion of sap-wood bears to the heart-wood the better. Very small blocks are almost certain to be, in this way, objectionable; and a good rule would be to establish a minimum size, below which no block should be used for paving.

The mechanical decay of cedar, which commences in the live tree, and is carried on by grubs or worms below the bark, probably ceases soon after the death of the tree; for, unlike the operations of the furniture beetle, the ravages of this grub are superficial, and can be traced in a kind of graving on the outside of the tree when the bark is taken off. But when mechanical decay ceases, natural decay, the work of low forms of parasitical vegetation, is very likely to commence, and this is more likely to happen in a tree which dies a natural death, than in one which is cut down in a healthy state.

The part of such block most liable to decay is the outside, which is also, when laid in a road bed, liable to the greatest pressure when struck,

say by the point of a horse's shoe at an unfavorable angle. The tendency of these two causes must be to make the blocks decay on the outside first. When the proportion of sap-wood is large, the chances of decay are increased from two causes instead of the one which exists where there is no striking or pressure to resist.

But surely cedar is not the only wood in which we ought to experiment in block paving our streets. Several other kinds are used in England, and some not used there might be tried here. *Monetary Times.*

FIRST CIRCULAR SAW IN AMERICA.

R. O. Hussey writes as follows to the *Builder and Woodworker*: 'I have long known that it was a very old invention, and have sought very diligently to learn who first used the saw in this country. Without presuming to certainly know about it, I will say that the first to use it of which I have any information was Constant Wyatt. In the early years of the present century Mr. Wyatt worked at cart and wagon making in the neighborhood which is now embraced in the town of Pawtucket, R. I. At the time I received the information he was still living, and I sought him and received from him in person this statement: 'About the year 1800 I heard by an Englishman that there was in England a round saw in use for sawing plank, and it seemed to me that such a saw would save much hard work. I went up to a shovel factory and got a plate that had not been bent to shape, and from it I cut out a saw and filed up the teeth as well as I could and set it to going in my shop. It was rather a rough affair but it saved me much labor. Afterwards I made a better one and used it several years, and when the war was over I sent and got one from England.'

'I had the above statement from Mr. Wyatt many years ago and as I have not been able to learn of any one in this country who used one before him I have believed him to be the first maker, user and importer also, of circular saws in America, and that to the bright town of Pawtucket belongs not only the credit of running the first cotton mill, but also that of the first circular saw.'

Quebec.

It is reported that Richard White's white pine timber, about 52 feet average, 16½ inches girth, has been sold at 31½c per foot, and from two to three drams of Muskoka waney board pine, 19½ inches, at 35½c per foot.

The *Northwestern Lumberman* says about 30 workmen were brought from Ottawa, Canada, by the American Lumber Company, the other day, to begin operations at Nowberry, Mich. Another year the company expects to have about 1,000 men in its employ at Nowberry and in the Ontonagon region.