HEMLOCK TO THE FORE.

Hemlock is fast attaining prominence as one of the most valua[illegible]ng the soft woods. Its adaption to numer[illegible]ses is being more fully recognized, and this one despised wood is coming prominently to the fore as one of the most useful in the catalogue. The memory of the writer carries him back to the time, not very many years, either, in the vista of the past, when in the purchase of lands for lumbering purposes in the Saginaw valley, hemlock was left entirely out of the calculation, and thousands of acres containing vast quantities of hemlock have been allowed to revert to the state after the same had been denuded of the pine, because the hemlock was considered practically worthless except for the bark, and that could not be utilized because of the lack of transportation. These hemlock lands loomed slightly into prominence a few years since at the time of the hemlock extract boom, when several extract factories were established in the state, but the "great expectations" of the stockholders in hemlock extract bonanzas appear to have vanished into thin air or in a fruitless search for profits which their projectors had promised. Up to within a few years hemlock was considered worthless, except for fencing, joists, or for some of the purposes for which rough, coarse lumber was demanded. But as pine has advanced in price and is growing scarcer, necessity has demonstrated that hemlock is especially adapted, not only for coarser work, but also for inside finishing, and is being utilized in its natural state—being found capable of extraordinarily fine polish for such purposes, in some very expensive structures. As an illustration we might cite a church in a neighbouring city, finished principally in hemlock in oil, in which is displayed some of the most beautiful specimens of natural graining, in the panel work, which can possibly be produced. It has been ascertained that hemlock is adapted for almost any of the uses to which the soft class of woods has heretofore been applied. The popular favor with which it is being received has resulted in rapidly enhancing the price of the lumber, as well as the lands on which the timber is located, and hemlock stumpage has appreciated in value to such an extent that in some sections it is ruling higher than that received for pine land stumpage a few years ago. This may have been partially induced by the speculative mania which has lately set in for the possession of timbered lands, but not wholly so; and because of the utility of the lumber for almost every conceivable purpose, it is safe to predict that hemlock will maintain a much higher figure in the future, and be received with much greater favor than in the past, and those who through foresight, or inability to dispose of them, have retained possession of these lands, will find they have struck a bonanza.—*Lumberman's Gazette.*

CONSTITUENCY OF WOOD.

All woods heated away from the air yield watery vapor chiefly, leaving nearly pure charcoal, which, when burned, leaves more or less mineral matter as ashes. Of green wood from one-third to one-half or more of its weight is water, the conditions partly depending upon the time of cutting. A gentleman made experiments on a basis of 100 pounds, and found they contained water as follows

	Cut in Jan.	*Cut in April.*
Ash, pounds water	29	38
Sycamore	33	40
White Pine	52	61

All kinds of wood cut in January contain from 15 to 25 per cent. less water than after the sap is in motion in April, and considerably earlier in the Southern States. As wood seasons naturally in the air, it loses from one-sixth to one third its weight of water, but still contains from one-seventh to one-fourth its weight of moisture. A considerable part of the latter may be expelled by kiln-drying, and most of it if the kiln heat be raised to 212°. Some careful tests made showed that five cords of beech and maple just cut weighed as much as eight cords of the same wood when thoroughly air seasoned. This teaches us a practical lesson; that is to haul and handle green wood requires a very large waste of strength In handling five cords of green beech wood, for example, we have loaded, hauled, and unloaded three or more tons of useless water, which a few months' seasoning would have removed. A cord of wood contains 128 cubic feet as it lies piled up. But allowing for the interstices in fairly piled wood, we may reckon a cord to actually contain about seventy-two cubic feet of solid wood. Thoroughly dry wood weighs about as follows, per cubic foot and cord:—

	One c. foot.	*One Cord.*
Hickory, pounds	62	4,464
White oak	53	3,816
White ash	49	3,528
Red oak	45½	3,276
White beech	45	2,340
Apple tree	43	3,096
Black birch	43	3,096
Black walnut	42½	3,060
Hard maple	40	2,880
Soft maple	37	2,664
Wild cherry	37	2,664
White elm	30½	2,628
Butternut	35½	2,556
Red cedar	35	2 520
Yellow pine	34	2,447
White birch	33	2,376
Chestnut	32	2,304
White Pine	26	1,872

If the wood is to be used for steam-generating purposes, the relative values per cord, of various seasoned woods, taking into account weights, heating power, etc., and valuing hickory, as a basis, at $5 per cord, we reach the following results:—

Hickory	$5 00
White oak	4 05
White ash	3 85
Apple	3 60
Red oak	4 45
White beech	3 23
Black walnut	3 25
Black birch	3 15
Hard maple	3 00
White elm	2 90
Red cedar	2 08
Wild cherry	2 75
Soft maple	2 70
Yellow pine	2 70
Chestnut	2 60
Butternut	2 55
White birch	2 40
White pine	2 10

We find no record of careful experiments to test the relative value of cottonwood and rosewood or linden. The hickory named above is what is known as the shellbark hickory (*Carya alba*). The pignut hickory (*Carya porcina*) is of nearly equal value. The western hickory (*Carya sulcata*) weighs about 25 per cent. less than the shellbark, and its relative value per cord is estimated at $4.05, or the same as white oak.—*Northwestern Lumberman.*

SOUTHERN PINE FORESTS.

The St. Paul *Pioneer Press* learns through the parties chiefly interested, of quite an important transaction in Florida pine, which will be of interest to people in the northern lumbering regions. In 1872, A. J. Floyd, a Kentuckian, once wealthy but impoverished by the war, came into this country on a prospecting tour among the pine lands, of which there were many thousand acres that had reverted to the state through default in the payment of taxes. He was without means of his own, but had interested in his prospects Mr. W. H. Polleys, of Wisconsin, an old Black river lumberman of considerable wealth, who had agreed to back him to a reasonable extent if satisfactory opportunities for investments offered. Mr. Floyd was well posted on pine, and after examining the country thoroughly, located 64,000 acres in a nearly or quite solid mass, lying on waters flowing into the gulf and splendidly situated for operations and marketing. Mr. Floyd with his family took up his residence upon the tract, and has lived there in hermit-like seclusion for ten years, selling each year a few logs which found their way to the navy yard at Penascola, and furnished sufficient means for the payment of taxes and support of his family. His confidence in the value of his investment never weakened, and his partner, Mr. Polleys, was equally hopeful, although the financial panic of 1873, following right upon the heels of a venture which tied up for some years considerable of his available cash capital, seriously crippled him, and probably caused him some regrets that he had hampered a profitable business with uncertain speculations of this character. However that may be, his judgment has been vindicated. The land was well selected and its value has been recognized during the past year by capitalists from the north, who have been seeking investments in the gulf states. Offers have been made and refused. Recently an English firm, Sanders & Rankins, made an offer of $5 per acre for the entire tract. This was refused. They then offered $5 per acre for an undivided one-half of the 64,000 acres, and this was accepted. I understand the transfer has been made, and the purchase money, $160,000 in cash, placed to the credit of Messrs. Polleys & Floyd. They expect to hold the remaining 32,000 acres, considering it the most profitable investment they can make. Mr. Floyd, who was here last week, left to-day for Alabama, where he will reinvest in pine lands. This trade has opened the eyes of northerners wintering here, and although to-day there are tracts of pine in the gulf states that can be had by clearing up taxes, for a nominal sum, it seems likely that within a year the best located portions will have passed into the hands of the numerous capitalists now looking for investments.—*Lumberman's Gazette.*

EXPORT OF HEMLOCK BARK.

The St. John, N.B., *Daily News*, of March 6th, says:—The discussion or conversation that took place last week in the Legislative Council in connection with Mr. Jones' motion for papers relative to the hemlock land sale, showed that the weight of opinion in that body was opposed to the course pursued by the Local Government on that matter. In the course of that discussion, two points were brought out very clearly, of which one was that the policy of stimulating the destruction of our hemlock forests for the maintenance of a great export trade in hemlock bark extract, was a most wasteful and short-sighted one, and the other of which was, that whether that policy was wise or no the land disposed of had been sold at a price far below its value.

There seems to be no doubt as to the soundness of these conclusions. It is plain to every intelligent observer that the tanning industry is one which the world can never dispense with. Its importance can never be lessened, but rather increased age after age. But the materials needed for use in the tanning process naturally become scarcer and scarcer. The trees whose bark furnishes the best tanning material grow slowly, and are destroyed quickly. The hemlock is one of the best of the tanning-bark bearing trees. It has been plentiful in this Province. But it is being rapidly destroyed, and as it grows scarcer it becomes more and more valuable. It would pay the Province well to guard it carefully. The rapid destruction of tanning-bark bearing trees elsewhere will surely enhance the value of such trees in New Brunswick. There is not the slightest probability that the use of tanning bark will be superseded by any discovery or device whatever. Where it cannot be obtained in sufficient quantity, inferior tanning will have to be depended upon. Where it can be got it will always command a good price. But anyone can understand that as the supply of such bark is limited, the country would profit far more in the long run from its use in tanning factories at home, than by its exportation in any shape for use in tanning factories abroad.

The exportation, however, may be found difficult to stop altogether; but henceforward the Government should be careful to part with no hemlock lands in large quantities, and with none in any quantity below their real value. The Government should be made to understand that the hemlock forests of the Province are sources of wealth to be jealously guarded and husbanded for the general good.

POLEROADS IN WASHINGTON.

The lumbermen of the Puget Sound district have adopted the poleroad system, for years so successfully operated in Michigan. The Blackman Brothers, of Snohomis City, have invented an improvement on car trucks for these railways, and the invention seems to promise good results. The renouncing of primitive methods for advanced ones adequate for the demands of the lumber business is a question of the times. A wooden track with these improved cars can be used by the lumbermen in places and upon grades where an iron track could not be used, for the reason that an iron track can only be used on comparatively light grades, whereas the wooden track has been successfully used with these trucks where the grade was one foot to every nine. All such improvements are hence important, and when the idea is perfected it will work a revolution in the methods of hauling logs from the woods to the booms or navigable water.—*Northwestern Lumberman.*

BURNING UNDERBRUSH.

Mr. Thos. Meehan, of Philadelphia, who is an authority on matters relating to forestry, endorses the proposition of Joaquin Miller to burn the brushwood and rubbish in the forests every year, to prevent extensive conflagrations. In the *Gardeners' Monthly* he says:—

"If the undergrowth is kept down and dead matter not allowed to accumulate, there will be no fire to hurt the living trees. We know of a piece of wood that is burned under every year by sparks from the Reading Railroad Company's locomotives, but the standing timber has never been injured. It will not cost a thousandth part as much to clear out all the brushwood in the United States forests as we lose in one year by forest fires, and the true way to preserve our forests must start from just here. At any rate this idea removes the great objection to forest planting, that it may get burned. If rank vegetation is kept down for a few years during the growth of the forest, it will by its own shade keep down the growth thereafter.

The Literature of Forestry.

The large place which forestry holds in European countries is strikingly shown to the American mind by the number of publications on the subject issued by the European press Spain, from which we should not expect a voluminous literature of the sort, furnishes us a *catalogue raisonne* of 1,126 books, MSS., etc., in Spanish, on subjects connected with forest science. In Schmidt's Catalogue, published in Prague in 1876, are given the titles of German works on this subject published from 1870 to 1875 inclusive, which amount to 650. A gentleman to whom application was made from the Cape, South Africa, for information in regard to suitable works on forestry in the German language, reported that they might be reckoned by cart loads. Publications on this subject are also abundant in the French and other languages of Europe.—*N. H. Egleston.*

The Question Settled.

There's no use in arguing the question of the potency of some substances for especial service in emergencies. They will do all they promise, and more, if judiciously used. The following from Mr. P. Murphy, of No. 1 Fire Station, Ottawa, bears upon the point stated above. Mr. Murphy says:—I had occasion to use St. Jacobs Oil recently, and must say that it is the best Liniment I ever saw used. I caught cold from getting wet at a fire, and it settled in my shoulder and down my back to my hip. I suffered a great deal from the pain. I was advised to try St. Jacobs Oil. I did so, and after the fourth application I was entirely free from pain. I cannot speak too highly of it, and advise others to use it.

Planting Trees.

Dr. J. M. Anders, in the *American Naturalist*, says:—"The experiment has been tried extensively in France of planting trees in belts 100 metres apart, and with marked benefit to the climate, and there are some good reasons for believing that a similar experiment in various places in our own country would prove equally advantageous. It has been observed many times that fruit grown in the city surpasses in quality and size that grown in the country, and this is ascribable to the more effectual shelter in the former place."

At Shell Lake, Minn., a boom will be put in that will hold 40,000,000 feet of logs. One of the mills at this point will put in a track and employ a locomotive to bring logs to the lake to offset the shortage in the winter's cut. The distance is from four to six miles.

Saved from the Poorhouse.

For years David Allingsworth suffered with rheumatism, and notwithstanding the best medical attendance, could not find relief. He came to the Sciota County Poorhouse, and had to be carried into and out of bed on account of his helpless condition. After the failure of all the remedies which had been applied, the directors of the Poorhouse resolved to use the celebrated German Remedy, St. Jacobs Oil, and this was a fortunate resolution; for, with the trial of one bottle, the patient was already better, and when four bottles had been used upon him he could again walk about without the use of a cane. The facts, as above stated, will be verified by the editor of the Portsmouth (Ohio) *Correspondent.*