

## ABOUT FORESTRY.

In writing on forestry, says the Cincinnati *Commercial, Gazette*, Gen. James S. Brisbin, U. S. A., not only presents the features of his theme, but describes the use of each American tree. While 8,000,000 trees are cut every year only 1,000,000 are planted. To reproduce the forests that have been cut away it would take forty generations. Of course no one desires to turn the country into a wilderness again, but there is a danger line in forest destruction that has already been passed in many localities in America as in whole regions, now the scene of desolation in Europe.

When Gen. Brisbin turned forester the subject had made no public impression. Few journals could be induced to give him a hearing. One of the first to aid him with his pen was William Cullen Bryant. The progress that has been made is not insignificant. Nebraska once called the treeless state, is covered with young forests and will soon be as well timbered as an eastern state. For several years past from 15,000,000 to 20,000,000 trees have been set annually in that state. Its arbor day is an annual holiday. The governor of Nebraska offers a large reward to the family that will set out the greatest number of forest trees. "When I was there," the general writes, "It was \$500 for the first premium, \$400 for the second, and so on down to \$25. Even the women and children could earn premiums, medals and diplomas and great was the competition for these rewards of the state.

Patches of timber have sprung up everywhere, and where a few years ago only the naked plain could be seen now waves a goodly forest." Trees 10 and 12 years old are 30 feet high and 8 to 10 inches in diameter. Forest trees well cared for grow with great rapidity in the west. Sage brush when irrigated will produce from twenty-five to fifty bushels of wheat per acre. The general gives many instances of the remarkably rapid growth of young forests planted in Nebraska. He has no doubt that all the plains between the Missouri river and the Rocky mountains can be covered with trees if the friends of forestry persevere.

The Island of Santa Cruz, in the West Indies, which twenty-five or thirty years ago was a garden, is now almost a desert in consequence of cutting away the forests. Owing to the same cause many of our American rivers have lost half their usefulness. The Connecticut is hardly navigable, and the Kennebec and Merrimac have shrunk one fourth. The Potomac has lost nearly one-fourth of its volume and the Hudson has declined one-sixth. The recent almost instantaneous and very destructive July flood in the Monongahela river is calculated to make the people of the Ohio valley more thoughtful on the subject of disappearing forests. The loss of millions and the sweeping away of hundreds of comfortable homes and industrial improvements as the result of a single hard rain is a heavy tax to pay for neglect to prevent the waste of trees.

New York has taken hold of the forestry question with considerable earnestness. Over 200 fire wardens have been appointed throughout the state to prevent forest fires. The New York forest commission has twenty-five foresters in its employ, located in the eleven northern counties. Trespassers have been compelled to reimburse the state on account of timber taken. Timber thieving and the spoliation of forests have been stopped. The New York forest commission was appointed to preserve the forests for the following objects:

First—For the value of the timber, both present and future.

Second—For the value of forests as sanitariums—health resorts for invalids, summer breathing places for all.

Third—For the conservation of the sources of water supply. Both science and observation agree that forests are the great reservoirs that hoard the rainfall to feed brooks and rivers. The streams of Europe have shrunk as the forests have been cut away. Our own streams have been following on in the same track.

Fourth—For the increase of rainfall. Cautious scientific men are not yet ready to assert that forests increase the rainfall, but the theory has many supporters and the belief is fast growing that forests are such an important factor in supplying moisture that it is a most dangerous policy to strip the country of its trees.

Fifth—For the climatic and sanitary influence of forests. There can be little doubt that forests are great equalizers of temperature, render the surrounding country less liable to violent winds, absorb malarial and noxious vapors, and act in many ways beneficially to human health.

A remarkable illustration of the fact that the clearing of hilly countries is likely to result in the complete failing of springs is given by Mr. Ney, who states that in Provence, France, after all the olive forests, which had been frozen, were cut down, a great number of springs failed totally. In the city of Orleans, after the surrounding heights had been thus cleared, nearly all the wells dried up, and it became necessary to go to the headwaters of the Little Loire for a water supply.

The state of New York is fortunate in still owning the most

of the Adirondack region, covered with the primitive forests. It has also a forest preserve of 46,000 acres in the Catskill region.

## Planing Lumber "On the Log."

S. N. Berry, of Meridian, Miss., has applied for a patent on an invention which he says makes possible "the planing of plank on the log before it reaches the saw." The *Meridian News* says:

This interesting device is a marvel of simplicity, and, as is generally the case with all useful inventions, the greatest wonder about the whole thing is why somebody did not discover it long ago. The lumber planed by this machine is now being used in the construction of several buildings in this city, and has every appearance of being as smoothly planed as lumber dressed by the regular planing mills. It is believed, as before stated, that every saw mill in the country will be compelled, in order to compete successfully in the sale of lumber, to use one of these cheap and comparatively inexpensive machines, and in this way deliver their lumber in a dressed condition to their customers, instead of in the rough as heretofore. It will be remembered, in connection with this statement, that the planed lumber is worth \$5 per M more than the undressed lumber. There is no question as to the usefulness and practical working of this novel device, and when the probable increase of \$5 per thousand in the value of the lumber is considered, it becomes at once apparent that the saw mills will find it to their interest to adopt them. The crude and original machine as started by Capt. Berry, is working successfully at his mills, four miles west of the city, and the lumber referred to in building here shows how well it has done its work. Improvements are being made by the parties having this matter in charge, and they feel pretty sure that they have made a most valuable discovery. As soon as the models are complete and the patents secured, the Messrs. Berry propose to manufacture these machines in this city.

## A Pine Tree.

A handful of moss from the woodside,  
Dappled with gold and brown,  
I borrowed to gladden my chamber  
In the heart of the dusky town;  
And there, in the flickering shadows  
Traced by my window vine,  
It has nursed into life and freshness  
The germ of a giant pine.

I turn from the cool-blossomed lilies,  
Dewy the whole day through,  
From the haunting torches of tulips,  
Flame-like in form and hue—  
From the gorgeous geranium's glory,  
From the trellis where roses twine  
To welcome the sturdy stranger,  
This poor little alien pine.

Out of this feeble seedling  
What wonders the years may bring:  
Its stems may defy the tempests  
Its limbs in the whirlwind swing.  
For age which to men comes laden  
With weakness and sure decline,  
Will add only strength and beauty  
And growth to this tiny pine.

Hark! is it an airy fancy?  
The roar of its storm-wrung limbs,  
Then the sigh of its tender tassels  
To the twilight's zephyr hymns:  
The rain on its thick, soft greenness,  
When the spring skies weep and shine:  
O, many and mighty the voices  
Haunting this tiny pine.

I will take it again to the woodside,  
That safe with its kindred there,  
Its evergreen arms may broaden  
Yearly more strong and fair:  
And long after weeds and brambles  
From o'er this head of mine,  
The wild birds will build and warble  
In the boughs of my grateful pine.

## A Use for Tree Tops.

The tops of pine and spruce trees are now utilized in Maine in the manufacture of paper pulp, a fact which it is argued has more than a local or mere industrial significance. The fires which do such immense injury in the coniferous forests can generally be traced to the tops and branches of trees, left by lumbermen behind them in the woods. These by the middle of the following summer become thoroughly dry and afford the very best material to start a great fire with, in case a careless hunter or tramp or berry-picker drops a lighted match or a spark from his pipe into it. In Europe there is a demand always for such minor products of the forest; and the material itself pays for cost of gathering up every part of the trees which lumbermen cannot make use of, to say nothing of the increased safety this gives to the forest, and to the priceless surface coating of decay-

ing vegetable mould which fires consume. No one in this country has wanted the tops and branches of trees, and lumbermen have preferred to take the chance of almost inevitable fire rather than pay the cost of having the woods cleaned up behind their operations. The upper part of the main trunk as well as all the branches and chips and all unsound logs, the whole amounting generally to a third of the whole bulk of the tree, has been left in the woods to burn or rot; while in the case of hemlock it is within a comparatively recent time that any use of the tree except the bark has paid. In some districts in Maine now, however, the tops and large branches are gathered, and the wood, from which the knots and sapwood is first removed, is thoroughly steamed to extract all resinous matter and then ground into dry pulp. If it is profitable in Maine to do this, it will doubtless prove profitable in other parts; and one of the principal causes of forest fires may perhaps in time be eliminated in this way.—*Ex.*

## From Worn-out Saws.

A wagon, heavily laden with a nondescript assortment of old saws in every stage of decrepitude, was slowly wending its way along Greenwich avenue the other day. The curious collection caught the eye of a reporter who, hailing the driver, inquired whither he was going with his unique load. "Jump aboard and I will show you."

The reporter clambered to the lofty seat and there obtained a closer view of what appeared to be the most valueless sort of rubbish imaginable. There were hundreds of saws in the load of every kind and description, from the long and broad two-handled instrument of the lumber camp to the delicate scroll saw of the cabinetmaker, and there was not a whole one in the wagon.

Proceeding slowly to the neighboring street, the driver turned into a yard of a large factory, where the broken and rusty relics were dumped upon the ground to be sorted into separate piles according to their worth. "You will be surprised," said one of the proprietors of the establishment, "when you learn the use to which the old saws are put after they leave our hands."

Then leading the way into the exhibition room of the place, the reporter's attention was called to a show case containing a collection of engineering and surgical instruments of delicate make and exquisite finish, including rules, sextants, quadrants, compasses and lancets, and knives of the finest manufacture and all highly polished.

"Every one of these scientific instruments," continued the proprietor, "is made from the same stock which you saw dumped upon the ground a few moments ago. We make a regular business of buying up used-up saws from carpenters, cabinetmakers and others all over the city, which we transform into these delicate tools, and they are the very best materials for our purpose. It is not generally known that saws are made of the finest and best-tempered steel, but it is a fact, and, therefore, as we get them at prices usually paid for junk, you see it is much cheaper than manufacturing our own product."—*New York Mail and Express.*

## A Big Lumber Mill.

Mr. J. E. Parker, of Ottawa, who has just returned from an extensive tour throughout Washington Territory, gives an interesting account of what is said to be the largest saw mill in the world. The mill is situated at Port Bleakly, near Seattle Wash., Territory, and is 403 feet by 101. It cost \$200,000, and has to drive the machinery, twelve boilers and eleven more are being put in and two five-hundred-horse power engines. One hundred and fifty men are now employed, and when the mill is completed, three hundred men will be employed in the mill proper. The largest trees cut turn out about 15,000 feet each and the largest logs cut are 160 feet in length. The amount of lumber used in the construction of the mill was 3,000,000,000 feet. The principal of the mill is a blind man, and the manager a young lady who, Mr. Parker says, can talk lumber with any person.

## The Rage for Red Oak.

The lovers of the beautiful, not only those of really æsthetic tastes, but the plebeians patricians alike, says a lumber trade journal, have only begun to realize the true beauty of red oak and are in danger of satiating themselves. Red oak at the present time overshadows all other woods together in this city for the interior finish of the better class of buildings. The furniture manufacturers say that no other wood, either American or foreign, ever had such a run as oak is enjoying today; there is a greater demand for oak furniture, in every section, for that of all other woods combined, and the consequence is the red oak men are reaping a rich harvest, which bids fair to continue—well at least until popular fancy skeddaddles in some other direction.—*The Wood-worker.*