

FORESTRY OF THE MISSISSIPPI VALLEY.

During the recent session of the Minnesota Horticultural Society, in Minneapolis, Hon. F. P. Baker, Commissioner of Forestry for the United States, and editor of the *Topoka, Kansas, Commonwealth*, read a paper upon "The Forestry of the Mississippi Valley and Tree Planting on the Plains," which we would like, because of its excellence, to reproduce in full. Its tenor and the line of argument pursued can, however, be appreciated by our readers as they peruse the following extract:

Mr. Baker divided his subject into three parts, as follows:

First—The natural condition of the region, as found by the early settlers, or "what nature did."

Second—The changes that have been wrought by the progress of settlement, and through the agency of individuals and the national and state governments, or "what man has done."

Third—The question of future development of forestry, with some few practical suggestions as to the duty of individuals, corporations, and the state and national governments, or "what should be done."

After describing the plains as they were before settlement by white men, and showing what man has done, discussing the timber culture act, and showing what had and could be done, the speaker turned to his third subdivision.

He argued that the government had as unquestionable a right to protect the timber upon its domain as it had to protect the capitol at Washington, or the vessels carrying the flag of the United States; to prohibit spoliation by the early settlers under the plea that useless and almost criminal waste "develops" the country. The custom of removing the timber from Government land for domestic use, and the abuses which followed in every portion of the country, were detailed at length—abuses in which railroads and saw mills participated largely. Near one Colorado town, and within a radius of ten miles, sixty charcoal kilns are running, with a capacity of 4,000 bushels each, per month, representing a monthly distribution of 240,000 bushels—all the charcoal being made from wood belonging to the United States, which receives no compensation of any kind; and the actual settler is compelled to travel much longer distances for fuel in consequence of this reckless and unlawful destruction. The situation along the eastern slope of the Rocky Mountains, for as far as occupied by miners or penetrated by the railroad tie cutters, was fully illustrated, and Mr. Baker then turned to the question how the forests may be protected, deeming as the most efficient means the appointment of government foresters, to be composed of young, energetic and practical men, educated by the government, and the establishment of experimental farms, the schools to be distributed in different sections of the union, according to climatic division and the character of their natural forests. He believed in different systems of culture and irrigation in different localities, and results noted through a series of years—and in this work the government, people and railway companies might profitably combine. The government of the United States, being the largest land-holder, also has a paramount interest in reclaiming this empire and converting it from a wilderness to fields, gardens, orchards, forests and pastures. That the government should actually do the work is not to be expected, but it seems to be reasonable to expect that it should aid in doing it. Knowledge is power; and let the government furnish the knowledge. The government owns the land; it can set apart any amount of it which may be required; it can place the work in the hands of the best practical talent in the country; it can do on a large scale what individuals are doing on a small scale. As the government is impersonal and can be accused of no selfish or sinister interests, the statements put forth under the sanction of the government officers and agents will be accepted as the truth. It will be shown what trees can and what trees cannot be grown on the plains, what are the effects of copious and unlimited irrigation; what is the actual amount of water required for given areas; what is the result of irrigation on the same land for a series of years; and, most

important of all, what is the effect of planting large bodies of trees—actual forests.

The speaker next discussed the importance of adopting an amendment to the timber culture act, based on the theory "once a timber claim always a timber claim,"—that is, when a filing is under the timber culture act, the land should be withdrawn from entry under the homestead or pre-emption acts. The best method of planting trees—four feet apart instead of twelve, as under the law—the importance of cultivating timber on homesteads, the work which may be done by states and railway companies, were discussed in succession, after which Mr. Baker pointed out the duty of the people generally to cultivate forests, concluding his address as follows:

Much sentimental talk has been indulged in concerning our duty to the next generation. We should plant trees, it is said, under which our grand children may repose. This is doubtless a fine and ennobling sentiment, but the average American citizen cares little for the generation preceding him, and nothing for the one to come; he expects the next generation to provide its own shade. The question he wishes to determine is whether the trees he plants will benefit men in this generation. Curiously, people almost always overestimate the age of trees. Who has not heard a great elm or oak spoken of as centuries old, when it really has grown within the lifetime of living men? Trees are a sure crop, and, after all, a quick crop. The homesteader who goes out on the raw prairie knows that it is five years before his farm can be producing crops with anything like regularity. His trees are making a return as soon as his fields are. The Memmonite settlers in Kansas, of whose success we have spoken, in seven years, at the farthest, from the time they turned the first sod, are literally sitting in the shade of the trees they planted; are raising their own firewood, and eating the fruit of their own mulberry trees. What these settlers from Russia, strangers to our climate and soil, can do, others can do. It must be remembered, too, that the objectors have had their day; every argument which can be used against the cultivation of forest trees has been used in the prairie states west of the Mississippi against the cultivation of fruit trees. For example, men accustomed to hillside orchards in the old states have demonstrated to their own satisfaction that apples would not grow in Kansas; but wagons full of round and rosy evidences to the contrary may be seen standing in the streets of every Kansas market town. The number of those that till the soil, be it a bit of garden ground or acres by the hundred, who believe in the profitability of trees, is constantly increasing. In front of the humblest cottage in town you see the three or four maples or elms covering the front of the lot; and out on the wide prairies, as far as settlement has extended, the group of planted trees marks the outpost of the picket guard of civilization. It is with the hope of contributing in some way to this useful and beautiful pursuit, which is to shelter the bare and blistered earth; which is to catch and hold the rain and the dew; which is to shelter the home and its occupants from summer's heat and winter's cold; which is to bring fuel and comfort to the housewife; and which is to increase by millions the well-earned wealth of a nation, that this paper is submitted.—*Wood and Iron.*

DURABILITY OF WOOD IN BUILDING.

Herr Weise, Forest-Inspector at Eberswalde (Germany), says a contemporary, has recently published a summary of his observations bearing on the above subject. He considers that the system now usual for the supply of wood is in some measure to blame for the complaints which are from time to time made by experienced authorities as to the reduced durability of modern woodwork. He remarks that in the Middle Ages the whole of the wood for any large building was carefully selected from one spot, and after being felled was stored and dried together, a certain homogeneity in the woodwork being thus obtained. Nowadays wood is used just as it is delivered by the dealer, coming from various districts and having been felled at different seasons, these circumstances causing a more or less unkind divergence

in quality. He remarks that the first tendency towards decomposition shows the disadvantage of using various qualities of wood together, and calls attention to the fact that microscopic observation of the approach of decomposition is not by any means as much used as it might be. He considers that the development of agriculture and the neglect of the judicious extension of forests have exercised an unfavorable influence upon the quality of wood in modern times. In illustration of this assertion he cites the fact that trees yielding 33-inch planks (such as are to be found in the castle of Fuessen) can only be exceptionally found even in forests under Government control.

BOARD OF TRADE RETURNS.

The following are the returns issued by the Board of Trade, for the month of March, and for the first three months of the year—

MONTH ENDED 31ST MARCH, 1883.		
Timber (Heaven).	Quantity.	Value.
Russia.....	233	2,343
Sweden and Norway.....	73,037	118,420
Germany.....	1,519	6,352
United States.....	5,073	21,016
British India.....	2,626	30,330
British North America.....	803	3,076
Other Countries.....	33,744	45,015
Total.....	123,194	233,100

Timber (Sawn or Split, Planed or Dressed).		
Russia.....	1,939	6,154
Sweden and Norway.....	101,009	232,444
British North America.....	3,057	9,373
Other Countries.....	12,801	43,707
Total.....	120,606	309,738

Staves, (all sizes).....		
Mahogany (tons).....	4,597	46,626
Total of Hewn and Sawn.....	243,703	642,904

THREE MONTHS ENDED 31ST MARCH, 1883.		
Timber (Heaven).	Quantity.	Value.
Russia.....	1,004	4,004
Sweden and Norway.....	103,241	103,945
Germany.....	6,272	23,632
United States.....	11,202	45,368
British India.....	13,963	102,608
British North America.....	4,730	21,701
Other Countries.....	102,570	117,838
Total.....	243,027	600,300

Timber (Sawn or Split, Planed or Dressed).		
Russia.....	8,478	21,549
Sweden and Norway.....	144,358	300,078
British North America.....	42,019	97,355
Other Countries.....	20,525	95,608
Total.....	221,380	574,590

Staves (all sizes)..... 10,539 54,574
Mahogany (tons)..... 10,184 97,583
Total of Hewn and Sawn..... 404,407 1,443,580

Spruce Trees Dying.
BANGOR, Me., May 3.—It is reported from the lumber regions of Aroostook that spruce trees are dying rapidly. Last winter the operations were on a part of the township where it was expected that 700,000 feet would be cut, but only 85,000 feet of sound spruce could be found. An examination shows that the spruce in the rest of the township is in the same condition. As far as ascertained no worms are at work on the spruce, and the cause of the decay is a mystery. The tops of the dead spruce trees are of a reddish color, as though scorched by fire.

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