

JUNE, 1901.

At an adjourned meeting of the Royal Society of Tasmania on Thursday evening, June 6th, the discussion on Mr. W. Heyn's paper on "The present and future prospects of timber in Tasmania," was resumed. His Excellency the Administrator (Sir John Dodds, K.C.M.G.), presiding.

TASMANIAN TIMBER.

(By A. O. Greene).

up the forestry question, now much neglected.

Mr. A. O. Green, of the Railway Department, read an additional and able paper on the subject, and brought to the meeting 27 specimens of Tasmanian timbers labelled with the common and scientific names, weight per cubic foot, specific gravity, etc.; also some other specimens of timber that had been in use up to 70 years in the State. He said:—The subject that has brought us together this evening is one of the very highest importance for Tasmania as a whole, and worthy of this society, which has for its object the study of the natural products of Tasmania to the end that science in general, and the good of Tasmania, may be advanced. This country has been like England, and many other countries in the past, when forests were looked on as a bar to progress, and as stifling the energies of the inhabitants of the country. It is a phase through which all countries pass, or have passed, where there is luxuriant vegetation. But all countries in time are forced to recognise the value of the timber products which a beneficent nature forms for us, from the atmosphere we breathe. The first feeling of mankind about the forest is that of being overwhelmed by it, and trees are looked upon as encroachers upon the domain of man, to be got rid of at all costs. But in every country of which we have records, as time has passed, the forest has come to be looked upon as an indispensable adjunct to the life of man in the country, in that it tempers the wind and heat, moderates hail and storm, conserves water against periods of drought, forms and prevents the dispersal of that fertilising "humus," without which soils become barren, and when rightly used, is a prolific source of revenue for all time.

We are greatly indebted to Mr. Heyn for his valuable paper, in which he has reminded us of the advantages that Nature has given us, and in which he has not feared to place before us the small appreciation, in which they appear to him as a visitor to be held by the inhabitants generally. We can, I am sure, quite feel for him in his diffidence, after so short a sojourn, in speaking upon a

subject authoritatively, which so nearly concerns us as Tasmanians; but I am confident that every member of the Royal Society of Tasmania will feel indebted to Mr. Heyn for sinking his personal feelings in this matter, and giving us his impression of our great national asset, and the manner in which it seems to him to have been treated.

With regard to the practical recommendation that is before us, i.e., the establishment of a nursery of forest trees with the view of encouraging planting for the purpose of shelter, water conservation, beauty and profit, it is one that eminently deserves the whole-hearted support of this society, and I trust that the proposition will be endorsed by us with such unanimity that the hands of the Government, and others interested, may be strengthened to help forward the project as it deserves.

It is a matter which has, on several occasions, been discussed in this room, and I myself had the honour in 1893 of reading a paper upon the advantages of planting coniferæ, giving a list of suitable trees, and a light resume of what has been done in other countries; also another paper in 1894, more especially devoted to the economic preparation and uses of our timbers, but incidentally bearing on the subject in hand.

At the present time, in many parts of the island, sand-blows, wind, the failure of springs, and the impoverishment of the soil, are compelling people to recognise the beneficial influence of trees upon a country.

In some parts of the island, even now, after our short occupation, timber has to be brought from comparatively long distances for structural and other economic purposes. To those conversant with the subject it is painfully apparent that in the near future most of our forests within a working distance of railways and centres of population will be rendered absolutely barren, as far as production of timber is concerned. And this period, I may say, taken with regard to the unit of the life of the nation, is so short as to be almost the actual present. This is a matter which intimately concerns every inhabitant as well as the Government; but under our form of rule, the Government in railways, bridges, and jetties is far and away the largest consumer of timber, therefore is more interested than any individual in the conservation of the timber resources of the State; as one instance there is every prospect that within a short period the sleeping of our railways alone will become a question of

grave anxiety, from the failure of the forests near the lines to produce timber suitable for this purpose.

As it is well to approach a subject such as this from its beginning, I may be pardoned for offering for consideration some propositions that have passed into axioms:—

A well managed forest produces a large amount of timber, not for this year only, or next, or even for a generation, but for all time. A constant output of timber of the best quality of its kind is ensured for ever by methods that have been usual for centuries, in many countries where forestry has been a profession. In all newly-inhabited countries, and in barbarous countries, the wants of the moment are supreme, the trees are abundant, each man takes what he wishes for use, and destroys wholesale, without let or hindrance. After a time it comes to be recognised that a tree that is the product of the State soil for a century belongs, in some measure to the Government, and without any view to the future, the State, for the purpose of present revenue, licenses companies, or individuals, to cut down for their own profit, and to destroy the forest, so long as they pay the fee demanded by the State for that right. Then with regard to fire, it is generally looked upon as impolitic, in new countries, to restrict too harshly, either its use, or its abuse. In forestry, the two greatest enemies are fire and the license-holder.

State forests should be defined by marked bounds, and defended from the ravages of thieves and fire by forest officers, and by fireguards. In a new country statistics should be gathered to fix the best season for felling each kind of tree, the proper method for seasoning the timber, the period required for the various trees to reach a growth suitable for the purposes for which they may be wanted, and for the trees to reach maturity; also to obtain information as to the uses for which each timber is best suited, the defects it is subject to, and the diseases to which the trees are liable. Roads suitable for the removal of timber should be made, and the forest divided into blocks, of which one at a time is open for felling. After these preliminaries the trees in a block should be marked in consecutive numbers, and the issue of licenses to enter the forest to cut tracks and to fell indiscriminately is stopped. Trees are only allowed to be felled in their season. Applicants for timber are taken by a ranger to a tree or trees of the kind they require, and told the price, say, 1s. 4d., or 3d. a cubic foot, or trees are sold by auction, as they stand, at the estimated quantity of timber in them. After the purchase, it is to the interest of the purchaser to use up the whole of the tree, and not to buy

a tree with 500ft. of useful timber in it for the purpose of cutting 10ft. out of the middle.

Under the licence system a man will wander for miles through the forest in search of timber, cutting tracks, trying, and even felling, trees and leaving them until his fancy is suited, thus damaging ten or a hundred times as much of the property of the State as the timber he uses is worth; besides leaving behind him the rest of the trunk, and all the branches and tops to cumber the ground and prevent the growth of young trees, to form a harbour and breeding ground for insects and fungi that are enemies of the forest, and to add greatly to the destructiveness of any fire that may occur. At first, a systematic treatment of the forest is looked upon by all concerned in the timber industry as fatal to their interests, but in every country in which it has been tried, it has been found to convert an evanescent industry into a permanent one, to improve the status and profits of the worker, and to form the source of a very large State revenue. This paper is written without works of reference, but quoting from my paper of 1893:—

“Norway, at that time, exported timber to the value of £2,000,000 annually, while the profits from some of the European State forests were, annually:—Sweden, £21,000; Austria, £90,000; France, £1,000,000; Prussia, £1,500,000.”

Further details of methodical forestry are, that the forests should be worked in blocks of such dimensions as are suited to the rate of growth of the timber, and in such a way that the trees that are left shelter the young growth, and that the prevailing winds shall scatter the seeds from the standing portions on to the cleared parts. This is supplemented by hand-sowing and planting—a part of the pay of the ranger or bailiff being for trees successfully planted out from the nursery at his cottage. As the trees grow, if necessary, they are cut out as poles, and the whole of the new part of the forest is kept growing at the greatest speed possible, and from the same influences, producing superior timber. When the end of the forest is reached, the trees on the first section will have arrived at maturity, and thus the profits are kept always at the highest state. On the other hand, under the licence system, every man who goes into the forest destroys many, many times as much as he uses, the tops and refuse, and the cutting of tracks destroy saplings, and make an entry for fire and cattle, which still farther increase the damage done by the timber getter, and in a very short time, perhaps 50, say 60 to a 100 years, not

a marketable tree is left, and beyond that, the point on which I wish to lay especial stress is this, that in most cases in inhabited countries, no first rate tree will ever grow in that forest again. What is called rubbish will grow, and that, with the debris of the tops, will so smother the young growth, that those plants that force their way through will be permanently injured, will tend to branch instead of forming straight trunks, and, roughly speaking, will never again form good timber-producing trees of their class. This is not theory, but fact, that has been proved over and over again in every part of the world where civilised man has come. In new countries where the licence system obtains, the destruction of the forest is brought about very rapidly, and in older countries the effect is kept up by similar systems, and by rights of commonage, and the task of converting the forest again to a productive state is one that requires considerable expenditure, and a length of time that must be measured by generations.

The project before us is a modest one, i.e., that a small piece of land shall be taken whereon to raise trees, for the planting of denuded tracts, watercourses, and sandblows, and, incidentally, to spread abroad the meaning of the old saying that "He who plants a tree is an unselfish man, in that he benefits not only himself, but also his neighbour and posterity." I must beg your forbearance if I have appeared in what has gone before, to have wandered from my subject, but in all works that are undertaken, no matter how limited the present means may be, it is well to begin with a plan that is complete in every respect, instead of providing for the apparent needs of the present moment only. It is the especial object of this society, by its discussions, to bring before its members, and through them the Government, and the inhabitants of Tasmania, the advantages to be derived from a right knowledge of the natural products of the State, and I think that every one of us has realised the immense latent value that there is in our forests. The trees produce fuel, both wood and charcoal, structural material, fibre for the purpose of making paper, acetic acid, tar, potash, and various essential oils, all of them valuable in commerce, and when worked in conjunction, one with another, adding very largely to the profits of forest property.

It is well known that by one method we may exhaust the whole of the commercial value of the source of these natural products in one or two generations, and by the other, that the output may be consid-

erably increased, and kept at that increased rate for all time. It is, therefore, from a national point of view, well worth while to launch this scheme with an eye to the future, and upon the most perfect lines of which we are capable. A beginning is valuable as a beginning—the planting of trees for shelter and ornament will be advantageous in many ways, as well as commercially. Every man who plants a tree values trees more highly, and an adherent to the cause of forest conservation is gained. I would beg of you not to treat this scheme that I have outlined as chimerical, because it is not immediately attainable, but so to use your influence that the proposed nursery of forest trees shall, in the future, develop into a complete and profitable system of forest conservation for Tasmania.

Mr. Targett said that afforestation would, if started in Tasmania, give employment to a number of people, prove an immense boon in the immediate future, and help to preserve the beauty spots.

Mr. Counsel wished it to be understood that he criticised Mr. Heyn's paper in the very best spirit. They all owed Mr. Heyn a debt of gratitude. Mr. Green's paper contained sound thought, but many of his recommendations were not practicable; no country could carry them out. In a district suited for agricultural settlement the timber had to be cleared; a country could not be opened up by the timber trade alone. In West Australia, as in Tasmania, they had no State forest, but the agriculturist worked hand in hand with the timber-getter. Good land in this State is too good to be utilised as timber land. (Hear, hear.)

Hon. John Henry thought it would be a good thing to, at an early date, re-initiate a system of State forestry. Mr. Green's paper was excellent in many respects, but was not sound on the practical side, in this country, the circumstances of which had to be first considered. On the rich lands of the North-West Coast, it would be, for instance, impracticable; it would mean delaying the opening up of good country for settlement for a remote period. There the settlers must get rid of the timber, and that was their difficulty; if only used for forestry purposes, that land would only support a few. He agreed with Mr. Counsel that good land was too valuable to maintain as forests, whilst there were considerable areas that would grow useful timber, such as the stringy bark, that were not suitable for cultivation, hence the necessity for re-introducing the State forest system.

Mr. Macnaghten, in an interesting

speech, thought Mr. Heyn's paper indicated how population and immigration would increase by increasing the utilisation of our resources.

Mr. T. Stephens spoke on the question of instruction in forestry.

His Excellency thought several of the speakers had not properly caught the meaning of Mr. Heyn's paper. His propositions amounted to this—"You have some excellent land, which you are right in endeavouring to settle people upon; but you also have a large amount of land that will not pay to cultivate, as far as ordinary farm products are concerned, and on that you may profitably produce timber. (Hear, hear.) You have a valuable asset indeed in the shape of splendid forests, which will prove a splendid asset in time to come, if you properly conserve them, and they occupy land that

cannot be turned to other profitable uses. The good lands suitable for cultivation of other products, of course, are not included." (Hear, hear.)

Mr. Heyn thanked His Excellency for putting speakers right as to the purport of his paper. He complained of Mr. Counsel's attitude, and maintained that valuable forests were being shamefully destroyed in Tasmania, and told him that the best blue gum did not grow on the best ground, as he had stated, but on poor and rocky land, on which nothing else would grow. (Hear, hear.) Replying to Mr. Counsel at considerable length, he claimed that his paper put the correct phase of the matter forward, and advocated the establishment of a good school of forestry. (Applause.)

The meeting terminated with the usual votes of thanks.