

PRESENT AND FUTURE PROSPECTS OF TIMBER IN TASMANIA.

Paper read by W. HEYN, Timber Department, Admiralty Harbour Works, Dover, at a Meeting of the Royal Society of Tasmania, 29th April, 1901.

AFTER introductory remarks, Mr. HEYN proceeded to say—

You will naturally ask me why I came out to Tasmania, a long distance of some 13,000 or 14,000 miles (a few hundred more or less not being of much matter) from England; what I came for, and the probable results of such a long journey. Had I come to see and admire the lovely scenery of your island, or to revel in the delightful air of one of the most perfect climates I have ever experienced, or other charms, I acknowledge that I would have been amply repaid for the protracted sea voyage and loss of time by what I have seen and enjoyed since my arrival in Hobart. But, as a business man, I must confess that none of these reasons actuated me in coming to Tasmania, for, to tell the truth, until I actually saw and experienced them, I never once imagined that such a beautiful island existed. The facts are these: In the English Channel, which, as you know, separates England from France, we have not along the whole stretch of coast, from the Isle of Wight to the mouth of the Thames, a single harbour of refuge, or marine station worthy of the name, or suitable for the large-sized ships, of which our naval and merchant services are now principally composed. You, who have one of the finest, if not the finest, natural harbours in the world, can scarcely understand what the want of a good, safe, and easily-entered harbour means

in a channel ploughed by storms and heavy seas from the Atlantic on the one side, and from the North Sea on the other, and subject to be clouded over very frequently by those impenetrable fogs which are so common and dangerous along our English coasts. But, beside the question of having a place of refuge to which our ships can repair under severe stress of weather,—and, you must remember, that it is calculated that on an average nearly 2000 ships of one class or another pass Dover every day,—there is another reason equally strong, and, if possible, more important, as far as the interests of our great Empire are concerned, which rendered the construction of a great National harbour at Dover an absolute necessity, as well as a great national duty.

As you are aware, our coast at Dover is only about 21 miles distant from France; so close that one of our new torpedo-catchers could cross to Calais and return to Dover inside of an hour's time. You also know that the English Channel is the great highway through which all the European fleets, and a great number of other warships, are continually passing; consequently, Dover, with the requisite battleships and torpedo-boats, commands one entrance of the Channel, and can, in case of need, either attack a hostile fleet, prevent an invasion of our shores, or inflict punishment upon any neighbour who wishes to annoy us. When the Dover National Harbour is completed, it is computed that a large portion of our fleet and torpedoes can lie at anchor in safety there, ready to strike if any of these emergencies arise.

The necessity of the formation of a great national harbour in this part of the English Channel has for a great number of years engrossed the attention of the naval and military authorities of our country, and as long ago as 1844, a Royal Commission sat on the subject, and plans, for which the late Duke of Wellington was, I believe, in part responsible, were prepared and considered. These plans must have been tied up very tightly with red tape, for it took 52 years to open them, and it was not until the year 1896 that any tangible progress in the carrying out of this great national under-

taking was made, and entrusted to Messrs. S. Pearson & Son to execute.

After all, perhaps, this delay was beneficial, for, when first proposed, it was intended only to spend two millions upon the work, whereas the present plans will require an expenditure of at least double that amount, with corresponding advantages in extent and execution.

I have prepared a sketch of the proposed works, which I will try to explain to you, so that you may have some idea of what has been accomplished during the last three years, and still remains to be done before one of the finest artificial harbours in the world will be finished, and which will still require about seven years for its accomplishment.

It is to find the timber requisite to enable us to carry out this gigantic work that I, representing the timber department, have been sent to Tasmania; and you will be glad to hear that, so far, my mission has been most successful, and I feel certain that when the piles I have procured here reach England, they will prove admirably adapted for the work for which it is intended to utilize them. The splendid workmanship shown in the squaring of these logs will also prove that Tasmanian axemen are among the finest in the world. In connection with this I may mention that a considerable portion of this timber has been cut and prepared, and will be shipped from your township of Dover, to be taken to and used at Dover, in England—a curious coincidence.

This, I am happy to think, will add another record to the services which little Tasmania has been able to render to the mother country. She has already sent six contingents of her most stalwart and tallest sons to help to keep flying the flag so dear to us all, and now she is furnishing some of her finest and tallest trees as her contribution of the most necessary timber for the completion of a harbour in which Britain's fleet can keep watch and guard over those shores which must always be kept, and

which we all intend to keep, inviolate from the tread of any invader.

To give you some idea of the magnitude of this work, only as far as the timber required in its construction is concerned, I give you the quantities which can be regarded as the minimum required before it is completed:—Hardwoods, principally greenheart and rock-elm, 25,000 cubic feet, and softwood, pitch-pine, redwood, &c., 75,000 cubic feet for permanent work; and for merely temporary staging, 550,000 cubic feet blue-gum and other hardwood; and pitch pine, &c., for superstructure, 700,000 cubic feet; so that an undertaking which will consume some 27,000 to 30,000 loads, or 1,500,000 cubic feet, in its construction, is not a matter which any timber-producing country can regard with indifference.

You will naturally ask why we were obliged to come to Tasmania for these piles of 100 feet in length and 18 to 20 inches square? Could we not have got them in some other quarter less distant, and at a smaller cost? In reply to this, I can tell you that we could and did get very good timber of the same length and dimensions from Vancouver's Land, and have employed already a large quantity on the Dover works. We found, however, that this Oregon timber, which, I may mention, cost us considerably less in price than Tasmanian blue-gum, had certain disadvantages. In the first place, it has only 47 to 48 lbs. of specific gravity. This, in itself, is an objection for driving purposes. In a place like Dover, where we have to contend against strong tides and currents, it is nearly impossible to get a pile of Oregon 100 feet in length into position for driving it into the ground, through 47 feet of water at low tide, unless it is what we call "weighted" with old railway iron at the end, and which entails an expense in material and labour of nearly £10 per log. Then we have to reckon in these submarine structures with a very small, but most destructive, little insect called, in Latin, the "*Terridæ navalis*," or, in plain English, a species of seaworm. We found that in 21 months to two years' time this ravaging little animal completely honeycombed an 18-inch log of

Oregon, and rendered it unfit for further use as a pile. As all these piles are only employed as temporary staging to enable us to lay our 42-ton concrete blocks for permanent use, it stands to reason that, if after we have laid these blocks, we are able to use the piles a second time, they only cost us one-half; three times, one-third, and four times practically nothing. Now, we had received through one of your most enterprising timber firms, Messrs. Gray Bros., Adventure Bay, a small cargo of Tasmanian timber, in which we found blue-gum logs, which were, in our opinion, likely to supersede Oregon to our advantage. In the first place, the specific gravity of Tasmanian blue-gum being nearly 75 lbs. to the cubic foot, water being about 65 lbs., there was no necessity to weight the piles to get them into position, thus saving an expenditure of £10 per log, and in case of being carried away by accident they would sink where they were, and could be easily recovered, instead of floating about, a menace to the works or to ships and steamers. Experience showed us that the seaworm did not find *eucalyptus* to its taste, and, consequently, virtually confined its ravages to the other timber of a softer and more succulent nature, of which it had no difficulty in procuring a sufficient supply for its wants in our harbour.

You have in your forests in Tasmania a tree which combines the *desiderata* we require for our piling purposes—length, dimensions, solidity, and high specific gravity, and less liability to attack by the *terrida*, in number sufficient for our wants for many years to come, and in situation near enough to the sea to allow of its being loaded on ships without too heavy a transport cost. This timber is known to botanists as the *Eucalyptus globulus*, and is commonly called Blue-gum, and for size, strength, and durability it would be difficult, in my opinion, to find any wood superior to it. The enormous size and height to which these giants of the bush grow, enable us to hew out of them piles of 100 feet in length and 20 inches squared parallel from top to bottom. To do this, however, we require a tree 15 ft. to 18 ft. in girth 5 feet from the ground, and about 150 feet to the first branch. We found trees of this length and dimen-

sions in Norfolk Bay, and also at Port Esperance, where there are at present several hundred logs lying ready to be sent off in the ships now on their way to load them.

The following slides, so admirably prepared by Mr. Beattie, will give you a fair idea of our work in the bush :—

- No. 2. Tree-felling.
- „ 3. Squaring logs in bush.
- „ 4. Squared log, with butt. (Axemen.)
- „ 5. Bullocks bringing piles (driver and animals).
- „ 6. Ditto at stage, ditto.
- „ 7. Trammings piles to beach (behind horses).
- „ 8. Ditto (before horses).
- „ 9. Piles, Norfolk Bay, ready shipment.
- „ 10. Ditto.
- „ 11. Ditto.
- „ 12. Dinner-time, bush.
- „ 13. A bush road.
- „ 14. A steam hauler (instead of bullocks).
- „ 15. Hauling logs through bush.

You have also another species of *eucalyptus* growing in the same, or even larger, quantities, and of equal length and dimensions, I mean the Stringy-bark (*Eucalyptus obliqua*). When cut it is often difficult to distinguish it from blue-gum, except in the specific gravity, which is, I believe, generally about 5 lbs. less. When grown in the same soil where the best blue-gum is found, on the slopes of your gullies, with the roots imbedded among rocks and stones, there is little to choose between either, both being excellent. Personally, for this Admiralty work, I prefer the blue-gum, not alone for its greater specific gravity and consequent strength and durability, but also for a most important point, that is, its greater freedom from bad knots. I have found a much more considerable number of faulty and rotten knots in Stringy-bark than I have ever met with in Blue-gum. I can assure you that even one rotten knot in one of these piles is sometimes a most serious matter when it comes to driving them ten to twelve feet into the ground. I have even seen a log of Stringy-



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MAP OF NORTHERN PART OF BERNACCHI'S FREEHOLD
MARIA ISLAND.

bark, 100 feet long and 18 inches square, break right across the centre, where one of these knots existed, merely from its own weight, which would be from nine to ten tons. In selecting, therefore, the Blue-gum here, I have studiously avoided all bad or suspicious knots, a defect which might, at a critical moment of its use, occasion serious damage to life and property. You will at once perceive how very careful we must be in the quality of the timber, and in the construction of the temporary staging, in which it is the prominent feature, when you hear that every part of this staging must be able to sustain a weight and resist a pressure of 450 tons throughout. Of course, I have had a long experience in Baltic and American timber, but, with the exception of rock-elm, which is a very treacherous wood, I have seldom seen knots so detrimental to the value of the log as in *eucalyptus*. I have often seen Danzig timber full of knots, but as long as it was not required for sawing purposes it could perfectly well be employed for beams, and, in fact, sometimes the knots were the strongest part; but in *eucalyptus* my experience is that the tendency in the knots is to rot, and, if I may, I would suggest to your timber exporters to be very cautious in their selection in this respect. Of course, it is impossible, or nearly so, to get wood quite perfect, and Blue-gum, as well as Stringy-bark, has the defect of shakes and shrinkage; but both these may be very considerably modified by care and attention. At first I was rather frightened to drive piles which had great shakes at the ends, but I must say that, with one or two exceptions, they bore the ordeal very well. All those piles which I am now sending to Dover are ringed at both ends in the bush before being transported to the beach by tramway; and I find this a very good preventative. I think that, generally speaking, these shakes are more detrimental to the appearance of the timber than injurious to its real value. But for timber which has to be sold in open market, of course it would be wrong to overlook the fact that these shakes might prove a serious obstacle to their sale. Ringing large logs, painting or tarring the ends, particularly of planks or boards, will, I feel certain, help to diminish this. As for "shrinkage," cutting at the proper time, or ring-barked three or six months before

cutting, and then, particularly in the case of sleepers and boards, allowing them to season in the *open air*, but *under cover*, will, in a great measure, prevent this, and benefit the timber much. Your Stringy-bark of the best quality, when well cut and seasoned and polished, resembles a good deal our English oak, and might be used for many similar purposes at a remunerative price, for oak is getting very scarce in England, and fetches high rates now.

Respecting the value of Blue-gum and Stringy-bark for paving purposes, I can scarcely speak with any real authority, not having had any practical experience with these two woods employed in this way. I have seen, from personal experience, that the Australian Jarrah does very well, and stands a heavy traffic without shrinkage or apparent injury for a reasonably long period. The only sample of wood-paving I have seen in Hobart is not calculated to inspire much confidence or lead to larger export orders; but, then, I do not consider that the wood has had anything like fair play. In the first place, it is not laid on a good concrete floor, one of the very first requisites for a wood pavement, either to serve for any time or to look well. Besides, I feel certain that the wood employed was not properly seasoned before laying, and, under these circumstances, it would be wrong to blame it, or to say that it was unfit for pavement. Why not give it a good trial?

If you will allow me to say it, I think, with careful scrutiny, you will be able to find a street in Hobart, for choice the one with the heaviest traffic, which could do with a new pavement. Why not take up a part or the whole of it and pave it with Blue-gum or Stringy-bark blocks, properly seasoned and prepared six months before, and then laid on solid concrete flooring? You will then have an opportunity of seeing and showing what the wood is worth in this capacity, and, considering that you have it close at hand, and that it is cheap, the cost would not be excessive; or, even if it did cost more than your present pavement, it might be worth the difference in bringing in orders from other countries. Perhaps some wanderers to your shores, if the trial proved successful, which, I am inclined to

think, if properly carried out, it would be, might be struck with its appearance; and in these days of unlimited Limited companies, which float far less legitimate projects, they might inaugurate a boom in your timber market which would be as welcome, as it is, to all appearance, badly wanted at the present time.

I cannot lay too great stress upon the absolute necessity of all the timber, particularly that intended for the European and English markets, being cut at the proper time when the sap is down, and seasoned for at least six months before exportation. The seasoning applies principally to boards, planks, sleepers, and small scantling generally. I can assure exporters, from a long personal experience, that there is not the slightest use in sending unseasoned scantlings of Tasmanian timber to England. It would arrive there warped, cracked, and disfigured, and would have no chance against the enormous quantity of really good wood with which it would have to compete. There are two methods by which seasoning may be accomplished, either naturally or artificially, but, I think every man practically acquainted with timber, will agree with me that the natural process is by far the more beneficial, not only as regards the appearance of the wood, but its strength, which has been proved to be greatly increased by proper seasoning, and lengthens its life nearly 100 per cent.

You will perceive that in the foregoing observations I have only spoken of Blue-gum and Stringy-bark. My reasons for so doing are—

1st. That I have had more experience with these two descriptions; and

2nd. Because I believe that they are likely to be the principal woods which, from the large supply you have of them, and their peculiar characteristics in length, dimensions, and durability, are the most likely to be able to compete against other timber in English or European markets. You have in your Huon Pine, Blackwood, Myrtle, and other woods (principally used for the manufacture of furniture), timber, which for beauty and solidity cannot easily be surpassed; but I do not think that they could hold their own in English markets

against bird's-eye maple, black walnut, and many others which can be procured there much cheaper than they could possibly be delivered from Tasmania, leaving a fair profit to your exporters. A considerable quantity of Blackwood has, however, lately been sent to Woolwich, where it is being used in the construction of gun-carriages, and has, I believe, given satisfaction. Another thing of great importance, in a business point of view, is that these foreign woods can be delivered in nearly any quantity required, and that there always exist large stocks of them, seasoned and ready to be selected by intending purchasers. You, on the contrary, as far as I have seen or heard, have, comparatively, to Blue-gum and Stringy-bark, a very small quantity to dispose of; indeed, scarcely more than is necessary for your own and the neighbouring States' consumption.

I shall not easily forget my impressions on entering your Bush for the first time. The whole scene struck me as so weird, so antediluvian, if I may so express myself, so very different from anything I had seen before; such a contrast to either our English woodlands or the continental forests. Those blanched giant trees, some of them 250 feet in height, spreading out their bare branches to the sky; the young undergrowth of gums in full foliage, and splendid ferns of every species and size, formed a picture which never can fade from my recollection. But, mingled with my feelings of instinctive admiration with which I regarded your splendid trees, a great emotion of regret, pity, and at last indignation overcame me when I saw the waste—wilful and ignorant destruction of some of the finest trees which ever existed in any country. When I thought and knew, that every one of those magnificent, but ruined, monarchs of the forest would have been worth, at least, some £50 in England, I felt really heartsick as I looked at such standing monuments of man's ignorance and folly in destroying, or allowing to be destroyed, such a valuable factor in the prosperity of your country and of its climate.

On investigation I found that bushfires, on the one hand, and wanton and useless ringbarking and burning

on the other, were the principal causes of this deplorable destruction of such valuable property.

As for bushfires, I believe you have laws regulating the lighting of fires in the bush ; but making laws is one thing, and seeing that they are enforced (a very necessary adjunct) is another. Are these laws enforced by proper and continual supervision ? To speak from my own experience, I should say not. Everywhere I found abundant evidence of the recklessness with which fires were lighted, and the carelessness with which they were left burning afterwards, when a strong breeze might raise a conflagration in which lives and property would be imperilled. I believe in such cases Government has to compensate the sufferers. Would not prevention in this, as in so many other instances, be the better alternative, and money spent in supervision, save money spent in compensation, besides preserving valuable timber from destruction ? This is, I think, a matter which should engage the serious attention of those in power, and any really practical move in this direction should have the approval of the inhabitants of this country. Personally, I feel convinced that eight out of ten bushfires are the result of culpable negligence or gross carelessness and ignorance in the use of fire for clearing purposes.

As for the terrible and disastrous waste caused by indiscriminate hacking, hewing, and even malicious vandalism, along with ringbarking, there ought to be some immediate and drastic measures taken to prevent this national loss to property. I may safely say that I have seen thousands of trees ringbarked and destroyed by ignorant men upon ground upon which nothing else could possibly grow, and who had thus destroyed the only valuable asset upon their land. Had these men been properly instructed in the first elements of forestry, they could not possibly have failed to see the folly of spending their labour, time, and money in annihilating the only good thing their soil could produce ; or had there been anyone to call their attention to the suicidal irrationality of such a procedure, the waste and destruction might have been stopped in time, and the owners would have seen that it was their interest to preserve rather than to destroy.

It appears to me, therefore, that ignorance is really more to blame for the waste and destruction of your timber than carelessness or recklessness. A man who really understands a business from which he hopes to gain a living or profit, is not, generally, reckless or careless. He knows what he is about; the value of the products with which he has to work; the best and most economical way of getting the utmost out of them, trusting to technical and practical knowledge to help him through, and not to haphazard and indiscriminate methods which can never end in any good result. Now, I believe that it is the first duty of a really enlightened Government to give their citizens an opportunity of gaining this knowledge, which does not come intuitively, but has to be *taught* and *learned*, on reasonable terms; and this can only be done by the organisation of good, well-appointed, Technical Schools. You have done, and are doing, a great deal in this respect for the Mining industry, the other great factor in Tasmanian prosperity. Why not do something for the other branch—forestry and agriculture? After all, the value of the mines is a problematic one. You are perfectly right in doing your utmost to promote their proper exploitation, but why neglect the sister industry, where you have the positive evidence of existing value and worth? The proper management of the one is as much a science as it is of the other.

Now, as far as timber is concerned, it seems to me that when a country possesses such treasures of vegetable wealth as Tasmania, no effort should be spared to make the most of such a source of national wealth and prosperity, by establishing a School or Schools of Forestry and Agriculture, where those who have the sense to appreciate the value of the great gift with which nature has endowed this land can either learn themselves, or have their children taught, the proper way to set to work to derive the greatest advantage from it. You would not expect a man to be able to make a pair of shoes or a piece of machinery without some practical previous knowledge of bootmaking or engineering; so how can you be surprised if a man who knows absolutely nothing of the laws of forestry and

agriculture, by his ignorance wastes and destroys the products of the land entrusted to him, impoverishing the country, and doing no good to himself or anybody connected with him? And it is not alone the conservation and intelligent use of the timber which *already* exists here which concerns you, but also the propagation of other kinds of wood, which now and in future, as the country develops, you will require in quantities sufficient to repay any reasonable expenditure in its acquirement. I see that your timber merchants are importing cargoes of Norwegian deals and boards, at a cost, I should say, of nearly £20,000 per annum. Why not take prompt measures to grow similar timber here, and keep this annual payment to foreigners in your own country? Larch, fir, and pine all grow splendidly here. As a proof of this assertion, pines and ash planted as far back as 1821, 1840, and 1860, gave splendid results, attaining 12 feet in girth and 70 to 80 feet in length. I have seen here very fine average oaks, beech, ash, chestnut, and firs, and have not the slightest doubt that, if properly chosen and planted, they would thrive well. The cultivation of these trees might be encouraged by the Government leasing suitable tracts of waste lands at a very low or peppercorn rent, on condition that they should be used solely for this purpose. You have plenty of ground in the Peninsula, Huon district, and inland regions on which to make plantations, which in ten or twelve years' time will already begin to show useful results. But all this must be done in a methodical and scientific manner, otherwise badly-directed energy will end in failure and disappointment.

From what I can learn and see, a School of Forestry, Agriculture, and State Nursery would not be a very expensive undertaking, even in the beginning, and ought, under proper management, to become soon, at the very least, a self-supporting institution, while rendering invaluable services to the country.

I have been informed, on very good authority, that a suitable plot of ground can be acquired in the neighbourhood of Hobart, about 100 acres in extent, on a lease of 21 years, at an annual rental of £25, with the right of

purchase at the termination of the lease at £12 per acre, and with the necessary supply of water practically guaranteed. This seems a promising starting-point for the project which, I believe, would prove so advantageous to Tasmania if properly carried out. This establishment should, in my opinion, provide for three sections at the outset; others can follow as the undertaking succeeds.

1st. *Forest Section*.—This would include importation of desirable seeds from different parts of the world, as well as collection of native seeds. Growth and distribution of nursery stock, particularly of trees likely to benefit materially and physically Tasmania, such as firs of all description, and walnut, to replace your blackwood, and bird's-eye maple your Huon pine; beech, birch, &c. Practical teaching, with ocular demonstration, of the art of forestry to those desiring it.

2nd. *Orchard Section*.—Treating of typical fruit-trees, to which the many heterogeneous growths could be compared and named. The various principles of planting, pruning, thinning, manuring, treatment of pests, best mixtures to enhance quantity and quality of crops, to be taught in a practical manner.

3rd. *Cereal and Grass Section*.—Dealing with the proper production of cereals; experiments in fertilisation and pest eradication; analysis of soils and of manures, and practical instruction in ploughing, sowing, planting, management, &c.

I have been told that the initial cost of such an establishment, including the building of a small house, clearing of several acres, and salary of a permanent resident gardener, besides cost of imported seeds, would be about £500, and that an annual subsidy of about £250 would suffice to keep it going. I am not in a position to verify the exactness of this statement; indeed, I fear the initial expense should be much higher if the establishment is to be of real service; still, if the necessity of such an institution was in principle acknowledged, these details could be settled afterwards. I believe, if properly organised and practically worked, such a school would soon become self-supporting, as so many similar ones on the Continent are at the present day. For one

instance, take the Forestry and Agricultural School established for many years at Gembloux, in Belgium. Boys, when they have reached 13 or 14 years of age, after having gone through the usual schooling term at their respective schools, are allowed to enter this institution after passing an examination, which any properly educated lad with ordinary intelligence can easily do. He is boarded, taught practically and scientifically everything necessary to make him, in two or three years, during which he has to pass periodical examinations, proficient in forestry and agriculture, at an expense to his parents or friends of about £30 to £40 per annum. There are scholarships attached, which, in many cases, cover this outlay. Any lad who leaves the school with a certificate of proficiency is sure to meet at once with an engagement from large land and forest owners, who are only too glad to avail themselves of the services of persons thoroughly and practically brought up. There are numbers of them employed also at very remunerative salaries in foreign countries, such as Russia, Siam, Burmah, Turkey, &c. Your youth would, however, soon find an opportunity, either under Government, or for their own or family's account, to turn their practical training to good advantage at home. In these schools, also, there are, during certain months of the year, classes for adults, which farmers and foresters can profitably attend, at a very small expense. The school fees, charges for analysis of manures and soils, valuation of properties, laying-out of grounds, gardens, products of nursery, cattle, &c., render such schools soon self-supporting, and as the manual labour in the establishment is practically done by the pupils, and nearly all the necessaries for living are produced there, the annual expenditure should not be very great.

I cannot help thinking, from what I have seen here, that this instruction is very much required, and I believe that your best agricultural men would agree with my views. I have visited many of your orchards and fruit farms, and it seems to me that, in a great many cases, a good deal more of technical knowledge was required—in choosing the trees, planting and pruning them, as well as packing the fruit for export—if your great fruit

industry, of such enormous value to Tasmania, is to succeed as it ought. Of course, I will be met with the objection that the Government resources might not be adequate to establish and keep up such a school. I do not see why all the expenses of such an establishment, in my opinion so necessary for advancing the pecuniary and commercial interests of those engaged in timber and agricultural pursuits, should fall entirely upon the Government. The personal initiative and support of the large number of persons interested ought to be forthcoming if such a scheme is considered advisable and necessary, and after formulating the lines on which it was to be run and the amount which the promoters considered likely to be forthcoming, the Government could be approached for the grant of an annual subsidy until the institution became self-supporting, as I feel sure, if properly managed, in a few years, it would. To raise these funds by an infinitesimal tax on exported fruit and timber, or an annual subscription by all those interested, should not be a matter of great difficulty if taken in hand by competent persons, consisting of timber and export merchants, members of your agricultural societies, fruitgrowers, shipping companies, and prominent public men.

Another point which I should like to impress upon Government is the fact that in numerous parts of Tasmania young trees are coming up from seedlings, which, in 15 to 30 or 40 years, will be valuable timber, and that these locations should be jealously reserved, and all "rights" inimical to State interests there eliminated.

I have thus given you a few of my impressions, and made some suggestions which I believe would materially benefit the forestry and agricultural interests of Tasmania. It rests with you to decide whether they are worthy your attention. You may be quite certain that systematic forest and agricultural management not only benefits those directly interested, but also the whole industry of the State.

I would impress upon you, however, that, if you decide on doing something, lose no time in doing it at

once. You have already lost enormous quantities of valuable timber through its destruction by ignorance, waste, vandalism, and preventable fires. If you allow this to continue unchecked for a few years more, it must result in the exhaustion of your timber, and disaster to thousands of people depending on this branch of industry; but if a bold comprehensive scheme to conserve what you have, and to plant for the future, and for the practical and scientific development of agriculture in all its branches be adopted and carried out, not only will you reap an abundant reward in the present, but coming generations will profit by and bless you for the efforts you have made to promote and protect one of the most important industries in this Island.

In conclusion, if, either here or on my return to England, my services can be of any use, they are, as far as my official duties will permit, entirely at your disposal, either for reference, information, or advice.

I can assure you that I will always not alone think it a pleasure, but consider it a duty, to do my utmost to advance the interests of Tasmania, to which I am so much attached, and where I have met with so much kindness.
