(No. 67.)



1886.

PARLIAMENT OF TASMANIA.

CROWN LANDS OFFICE:

REPORT OF THE DEPUTY SURVEYOR-GENERAL.

Presented to both Houses of Parliament by His Excellency's Command.



CROWN LANDS OFFICE.

ANNUAL REPORT, 1886.

Hobart, 1st July, 1886.

I HAVE the honor to submit to you a Report upon the work of the Crown Lands Department for the year ending the 30th June, 1886.

The period 1 have to review has been one of steady work; and although nothing of especial importance has occurred beyond the ordinary routine. I find that the daily work continues to increase, and is now just as much as the staff is able to keep pace with. Many improvements might with advantage be introduced, and there are many paths into which our operations might be extended; but, as I understand the Government is anxious to keep down the Departmental Estimates, I have not asked for the increase of staff that would be necessary if further duties are to be undertaken.

Revenue.

In 1884 the Revenue of this Department was £59,679, and I pointed out at the time that this amount would not be sustained, as a large amount of overdue payments had been got in. The Revenue for 1885 was £57,231, rather more than I expected. The amount collected during the first half of the present year is £28,025. The estimated revenue for the year, as furnished by me twelve months ago, was £56,600. I am confident that at the end of the year my estimate will be exceeded by at least £2000, the receipts for the first six months being £1132 in excess of the corresponding period of last year. The receipts from pastoral rents show a falling off of £887, owing in a great measure to the fall in the price of wool. Nearly half of the Land Revenue is derived from selections under the 24th section, the receipts from which have increased from £16,822 in 1880 to £31,614 in 1885.

The Revenue of the last four years shows an aggregate increase of $\pounds 50,000$ over the preceding four years.—See Appendices.

Progress of Settlement.

The number of Applications for Land received during 1885 was 1942, as compared with 1748 for the previous year; 930 applications have been received during the first six months of this year.

The area of country lands taken up in 1885 was 58,914 acres, as against 74,133 in 1884. The large area taken in 1884 was due to the fact that Tasman's Peninsula was then thrown open for selection. On reference to the tables in the Appendix, it will be seen that the area taken up during 1885 and 1886 was equal to the whole area selected during the preceding four years. The area taken up during the first six months of this year is about 25,000 acres. I expect the year's sales to reach 55,000 acres. From these figures it will be seen that the demand for Crown Lands is active; indeed, the areas sold during the last two years are unprecedently large, the average for the ten years preceding being about 40,000 acres,—that for the last two years being 65,000 acres.

The localities in which the lands have been taken up can be gathered from the tables.

Sir,

In Devon, Wellington, and Dorset applications have been made so fast that the District Surveyors have been unable to effect the necessary surveys as speedily as might be desired; accordingly I have been obliged to send other Surveyors to clear off the press of work. In Wellington, Mr. Windsor and his assistant, Mr. J. A. Sorell, are fully employed, Messrs. Thompson and Jones also working there for a time. In Devon, Mr. Hall is assisted by Mr. Boyes, and probably another surveyor will be required. In Dorset, the three District Surveyors are fully employed, and Mr. Counsel is on the point of proceeding to their assistance.

All the survey work in the south is well up to date, and I hope that by the end of the year all the arrears in the north will be cleared off.

In continuation of the figures contained in my last year's Report, I now give a table showing what proportion of land selected is actually being occupied and improved.

In order to make myself fully acquainted with the wants of settlers, I periodically visit Launceston, and have travelled through many settlements. So far as the present Land Laws enable me to do so, I believe satisfaction has been given.

I desire to draw attention to the desirableness of encouraging settlement upon the islands in Bass' Strait. I believe that Flinders' Island and King's Island are capable of sustaining a large population, and I strongly recommend that a special Land Act be introduced dealing with these Islands. It would be bad policy to alienate any portion of the islands; and as population is required more than revenue, I believe a system of letting the land to *boná fide* occupants at very low rents would induce people to go there. Both Flinders' Island and King's Island are likely to be found rich in minerals; and as the surrounding waters abound in fish, there is reason to hope that the Islands may eventually prove profitable appendages to the Colony.

King's Island is at present let to some Victorian gentlemen, who have some sheep upon the open portions, but the greater part of the land is thickly timbered and very scrubby; these portions, I have no doubt, might be resumed. Flinders' Island is now available, the last lease having been cancelled for nonpayment of rent. I venture to commend the proposed method of dealing with these islands to the early consideration of the Government.

In connection with the progress of settlement, it may be interesting to note the amount of land now being taken up in the country south of Table Cape. It will be remembered that some four or five years ago, when the question of a road to Mount Bischoff was under consideration, it was objected that all the land along the proposed Table Cape route was myrtle forest, and, therefore, so inferior that selectors would not take it up even if a road were made. The road has not yet been made, nevertheless upwards of 13,000 acres have already been selected in the locality, and to give access to these settlers 16 miles out of the 38 must now be made. As the Colony possesses at least a million acres of similar land on the North West, it is satisfactory to find that settlers are ready to take it up.

Drafting Room.

During the year 1885 so much extra work came in connected with the railways and the Electoral Act that the energies of the draftsmen were severely taxed, and important work relating to the ordinary routine of the office had to be put on one side. However, I am pleased to find that substantial progress has been made in the preparation of new plans for the use of this office and the Lands' Titles Office. For very many years few new plans have been attempted beyond the compilation of a few working plans, and as those attempted were printed from transfers, the work has to be in a great measure done over again. Since the introduction of photo-lithography we have been enabled to compile and print a number of plans, both county, parish, and town. The originals are carefully preserved, and can be entered up from time to time. The copies are distributed to the public and used for office purposes. Thus by degrees we shall accumulate a valuable series of permanent plans, and shall be saved the trouble of re-compiling. During the year 1885 twenty-six plans were completed, and twenty more during the first six months of this year. Amongst the number already completed are plans of Launceston, Latrobe, Formby, Torquay, Ulverstone, Parattah, Waratah, Leith, Tarleton, Fingal, Beaconsfield, Longford, Campbell Town, and St. Helen's; other important towns are in progress, and by degrees all will be published. A few parish plans have been prepared, but lately other work has been too pressing to allow much progress in that direction. Nearly all the County sheets are up to this year's date, and before long I hope to have recent sheets of all the settled parts of the Island.

It would be a great public advantage if more progress could be made with the preparation of new plans; and if the Government can see their way to afford the expense, two additional draftsmen could be so employed for some years to come.

During the past year the Computing Draftsmen examined and checked 940 Surveyor's plans, and during the first six months of this year, 537 plans.

Lithographic Work.

The Photographer reports that during the period from January, 1885, to June, 1886, he has taken 402 plans, covering an area of 128,344 square inches of glass, and prepared the resulting transfers in readiness for the Lithographer. He draws attention to the fact that in the first Report of the Photo-Lithographer of Wellington, New Zealand, the area of glass returned as covered is 98,143 for a period of thirteen months; so that, taking the work done per month as an average, the amount executed here is about the same as that in Wellington.

Mr. Pickering estimates the value of his work as follows, taking the prices put upon similar work in the Sydney Office as his basis :---

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Transfers produced	555	16	0	
328 silver prints	24	12	0	
~	£580	8	0	
Cost of producing, including salaries, chemicals, and materials	£495	0	0	

The value of the thousands of prints taken from these plans is not included. The staff consists of the operator and one boy.

The litho-printing room has been kept fully employed, the work being so abundant that on several occasions the men have had to forego holidays and work at night. Something like 100,000 prints have been taken.

Special Survey Service.

The report of the Inspector of Surveys attached hereto will be found to indicate the operations under this head during the past year. All the District Surveyors have been visited and their work reported upon, with the result that, with one exception, all were found executing their surveys in accordance with the regulations. In the case of the exception the offending surveyor was ordered to put the faulty surveys straight, and cautioned that an early opportunity would be taken to examine more of his work. I believe that the bad work was owing to the reprehensible practice some of the surveyors have, of allowing their pupils to effect surveys without supervision.

During the coming summer the Inspector will make a more critical examination of the work of all the surveyors, and, if necessary, personally supervise the work of some surveyors until a good system is established. The appointment of this officer has certainly made a great improvement in the surveys, so that by degrees the work is reaching a high standard, the corrections required becoming fewer. Since the Department distributed Standard Steel Band Chains the measurements have much improved, and it is seldom that we find cause to complain on that score. The marking, too, is invariably good, a matter of the utmost importance in such surveys as ours.

Year by year settlement is pushing into rougher country, and survey work becomes more difficult and expensive; already several surveyors are complaining that the work is not remunerative at the rates paid, so that unless we are prepared to expend more upon our surveys we cannot expect first-class results.

It will be seen from Mr. Hardy's report, that a large number of Trig. Stations have now been rebuilt and utilised in the surveys of the various lines of railways, as well as our own Standard surveys. By the end of next summer I hope sufficient Trigs. will have been built to enable us to reconstruct some of our plans by means of standard traverses.

Mr. Stokell has lately commenced a survey of Launceston with the view of preparing an outline plan of that town for survey purposes. Such a plan is absolutely necessary as a check upon the Lands Titles surveys. Standard lengths and bearings will be assigned to the various blocks, and iron pins provided at all the intersections of streets; all surveys will henceforth be referred to these, and some security obtained that the lengths dealt with are reliable. At present every surveyor adopts what he considers the most reliable starting point, so that discrepancies are many and wide. The whole business is of a very loose and dangerous character, promising much future trouble as land increases in value.

A base has been carefully measured on the Western Swamp by means of steel band tapes, provided with spring balances to regulate the tension and thermometer to correct for temperature. A triangulation will be extended over the town, a number of permanent marks established, and all measurements connected therewith. It is not intended to make detailed surveys of the various properties, nor to determine building lines; the former is matter for future time, and the latter is a municipal affair. When the skeleton map is completed any details that may be required can be easily ascertained and added. It was my intention to have proceeded with this necessary work during each winter until it was sufficiently advanced to be useful. To do without it much longer is to court danger of loss to the Insurance Fund under the Real Property Act.

A very elaborate survey of Sydney is now in progress; Melbourne is about to be commenced, Adelaide is finished, and, I believe, most of the large towns in New Zealand.

A survey of Hobart was made many years ago, and answers all present purposes. At some future time it will be necessary to extend this survey and carry it up to date. We have no complete plans of either Hobart or Launceston.

Conservation of Forests.

A Conservator of Forests was appointed in March of the present year. He commenced his duties by visiting the principal saw-mills in the Huon and North-West Coast Districts. He then examined and selected a site for a large forest reserve east of Ross; after that he proceeded to Macquarie Harbour, walking down by way of Mount Bischoff and the Pieman. The object of the latter journey was to ascertain the nature and extent of the Pine forests in the vicinity of the newlydiscovered gold fields.

During the intervals of his out-door duties Mr. Perrin compiled some useful information respecting forest timbers of Tasmania used in constructive work; this was done at the instance of the Engineer of the Otago Harbour Works, who required some definite information. Mr. Perrin's first departmental report is attached.

I propose shortly to confer with Mr. Perrin as to the preparation of Regulations for your approval for the purpose of protecting timber reserves, and other matters.

It is too soon yet to expect any results from the Conservator's appointment, but I am pleased to report that the settlers generally seem to take a deep interest in the question of forest conservation, and I have no doubt that in time we shall be able not only to conserve our existing forests, but to introduce some of those valuable foreign timber trees which thrive so well in our climate.

I believe that our own pines might be cultivated without trouble, and I am confident that there are no timbers in the world to excel them.

Road Trusts.

For some time past I have been forced to the opinion that matters relating to the Road Trusts of the Colony are in a confused and unsatisfactory condition. Although the supervision of main roads and road construction generally comes under the Public Works Department, it has somehow come about that the Lands Office has undertaken all matters relating to the proclamation of new districts, alterations in boundaries, elections of Trustees, &c. Lately these duties have become somewhat irksome, owing to the intricate and elaborate machinery under which the Road Trusts work. In 1884 a new Roads Act was passed, and in 1885 an Amending Act followed. In their anxiety to regulate the smallest details the Legislature has beset these Acts with so many pitfalls that few Road Trusts are able to keep a safe course through their provisions. The number of things to be done before an election of Trustees can be said to be safe is so bewildering and exacting, that up-wards of a dozen Trusts carried out this year's elections in various informal ways, and in several instances the ratepayers have protested against the elected Trustees taking office. Every year a dozen or more Trusts, finding they have forgotten to fix the period for holding their annual election, petition the Governor for an extension of time; in several cases, the Trusts themselves have fixed a time beyond that prescribed by law; other Trusts give such short notice that it is impossible the ratepayers can be prepared. The Roads Act Amendment of 1885 provided that the elections should be by ballot, and as a fresh series of complications was thus thrust upon the bewildered electors, this year the Department found itself appealed to on all sides, sometimes for advice, more frequently by disappointed candidates and ratepayers asking that the elections might be quashed on account of alleged informalities. In all these cases the opinion I expressed was that the Act did not give any power to the Governor in Council to review the proceedings of an election of Trustees; but as the law officers think differently, it is easy to see that the Department may soon find itself mixed up in a business it is incompetent to deal with satisfactorily. It will be impossible for this Department to ascertain the facts of any disputed election that may be brought under notice, and, if the action of the Department is resisted, there is no way to enforce its demands for information.

With a view of simplifying matters and removing these complaints, I have submitted to you certain amendments which should be introduced into the Roads Act.

On looking into the facts and figures connected with the Road Trusts of the Colony, I find that there is an increasing tendency to split the districts into smaller ones, the small proprietors aiming at existence apart from their more powerful neighbours, who, having obtained all they want in the

way of roads, often endeavour to prevent their properties from being taxed to construct roads for the outlying settlers. In many cases the Trusts exist, but the large landed proprietors prevent a rate from being levied. Thus antagonistic interests are created, and an agitation is set on foot resulting in subdivision of the district. This process is repeated again and again until we have a number of Road Districts so small and so poor that they are unable to achieve any useful results.

There are about 90 Road Trusts in Tasmania, comprising an army of about 600 persons; they control about 4200 miles of roads, of which about 3000 miles are mere bush tracks and unmetalled roads. The aggregate income of all the Trusts is about £28,000, half of which is raised from rates and the other half given by Government.

There are seven large districts, comprising properties whose total rateable value ranges from £32,000 to £19,000, eight districts range from £13,000 to £10,000, twenty from £10,000 to £5000, nineteen from £5000 to £2000, five from £2000 to £1000, and about thirty have rateable property below £1000 in value.

Eighteen Trusts collect less than £100 a year in rates, twenty-two are in debt, and twenty-three did not collect any rate last year.

In one district lately abolished there were about eighteen ratepayers, of whom five were Trustees and one Collector. In a district still existing I doubt if there are a dozen properties.

The annual incomes of the Trusts range from $\pounds 3300$ to $\pounds 50$, and the number of miles of road from 298 to 4.

It will be remembered that the Members of the Royal Commission on Public Works recommended that greater powers should be given to local bodies, and that the expenditure of public money upon roads should be entrusted to them. In the principle of this recommendation I heartily concur, although I admit that great reforms will be necessary before local bodies can be constituted on a sufficiently firm basis to work such matters successfully.

I am strongly of the opinion that until the control of these matters is vested in local bodies, this Department will go from bad to worse, unless the Government are prepared to appoint a very much larger staff of officials than it at present possesses.

It must be patent to you that every day this Department is in some difficulty with petty details relating to roads in sparsely settled districts, and that a harassing amount of correspondence ensues, because the Department has no local knowledge to guide it, and no machinery for collecting reliable information cheaply and speedily. Take, for instance, a typical case, one that occurs almost every day. A writes to say that he has no road of access to his land from a main road lately constructed, and asks that a road be obtained for him through B's land. Before the Department can arrange this matter, the facts must be ascertained, a surveyor or some other officer has to visit the locality in order to obtain information, then B has to be communicated with, his terms ascertained, and an agreement signed, a survey is then made, a conveyance to the Crown executed, and B's grant deeds put straight. Now, a local body could arrange such a matter without the least trouble, and, being untrammelled with the formalities of the Government Departments, they would do it whilst we would be looking for information. The simple matter I have instanced requires the united services of the Lands, Works, Treasury, Audit, Lands Titles, and Law Offices to put it straight. It is obvious that such a system, although it might suit when there was not much to do, is too costly and cumbersome now that the business of the Government Departments is increasing so rapidly. I say nothing of the advantages to be derived from placing road construction in the hands of local bodies; such arguments are not looked for from this Branch, I merely state that in my opinion it is impossible for a Department to successfully carry out the immense number of small works that are now yearly in progress throughout the Colony.

The demands now made upon the time of the Minister of Lands and Works in attending to the details of these small works are so pressing that it is with difficulty the heads of the other branches can get an opportunity of consulting his wishes as to matters of importance in connection with their duties; and it is becoming more and more clearly to be seen that the limit of possibilities has been reached.

It may be and has been urged that if the Lands and Works Department did its duty by properly laying out roads, and carefully constructing the same, up difficulties would occur; theoretically this is correct, but practically no such perfection has been obtained here or elsewhere, and never will be so long as fallible human beings have to do with them. The problem is to devise some means by which the public requirements can be met as speedily, efficiently, and cheaply as circumstances permit, and these requirements I am satisfied can best be met by Local Bodies. For this purpose I suggest that a Commission of half a dozen Civil Servants be appointed to draw up, for the consideration of the Cabinet, a scheme of Local Government whereby the Road Trusts may be placed on such a footing that they may be entrusted with the powers recommended in the Report of the Royal Commission. Such Commissions are generally appointed in Great Britain when any new legislation is contemplated, dealing with matters on which the opinions of experts are required.

Boundaries.

Writing of Road Trusts brings up the subject of the boundaries of the various social and political divisions of the Colony. It is amazing what a confusion of boundary lines we have— Ccunties, Parishes, Electoral Districts, Municipalities, Police Districts, Road Districts, Registration, Courts, Rabbits, Schools, &c.,—all interlaced with one another. Fortunately for us our Chief Draftsman knows his way amongst the labyrinth.

It has been several times proposed that a Commission should be appointed to consider how best to introduce some sort of order, but no one seems to care to take the matter up. No doubt it would be a difficult task to undertake, but it should be done nevertheless.

I have the honor to be,

Sir,

Your obedient Servant, CHAS. P. SPRENT, Deputy Surveyor-General.

The Hon. the Minister of Lands and Works.

APPENDICES.

STATISTICS of the Crown Lands Office for the Years 1883, 1884, and 1885, as compared with the preceding period.

	1880, 1881, 1882.	1883, 1884, 1885.	INCREASE.	DECREASE.
Revenue from all sources f	144,316	169,393	25,077	
Revenue from Deposits and Instalments, 24th Section $\dots $ £	56,686	90 ,3 32	33,646	
Revenue from other Sales of Crown Land $\dots $	59,503	51,853		7650
Rent of Crown Land for Pastoral purposes \pounds	25,507	· 23,893		1614
Area of Country Lands sold Acres	94,983	157,942	62,959	
Area of Land selected under Immigration Act "	3224	13,198	9974	
Number of Applications received	3160	5300	2140	•
Number of Grant Deeds issued	967	1614	647	

STATISTICS.—Crown Lands Branch.											
	1880.	1881.	1882.	1883.	1884.	1885.	1886. 6 Months.				
Revenue from all sources $\dots \mathcal{L}$	45,010	46,968	52,338	"52,483	59,679	57,231	28,030				
Revenue from Deposits and Instalments, 24th Section $\dots \pounds$	16,822	18,442	21,422	24,975	33,743	91,614	15,428				
Revenue from other Sales of Crown Land \pounds	18,850	18,825	21,828	17,675	$16,\!805$	17,373	8881				
Rent of Crown Lands for Pastoral purposes \pounds	8842	8669	7996	8781	8002	7115	3202				
Area of Country Lands sold Acres	37,913	30,794	$26,\!274$	36,796	$68,\!284$	52,862	23,295				
Area of Land selected under Immigration Act "	977	1890	357	1297	5849	6052	1426				
Number of Applications received for Selection and Purchase	1147	938	1075	1610	1748	1942	930				
Number of Grant Deeds issued	308	282	377	402	602	610	224				

RETURN of Country Lots of Crown Land sold during the Years 1880 to 1885 inclusive, and the first Six Months of 1886.

C										Area se	old	in–			•••						_
County.	188	80.	1	188	31,		188	32	•	182	33.	1	188	14	6	188	5.		188 6 Mor	6. 1th	s.
	A.	R.	p.	A.	R.	P.	A.	R.	р.	А.	R.	p.	A.	R.	р.	A.	R.	р.	A.	R.	P
Buckingham	2535	2	24	2983	3	0	1693	2	0	3497	2	0	5056	1	16	4684	3	9	1506	3	29
Cornwall	508	1	0	. 626	2	0	1741	2	0	2336	3	0	2359	3	16	1717	0	23	499	0	23
Cumberland	427	0	0	573	0	0	2236	0	0	2231	3	0	5210	0	1	3318	1	3	1551	1	3
Devon	11,571	1	35	6721	0	0	5763	2	32	7246	3	0	18,307	3	18	12,281	1	3	4934	0	19
Dorset	8719	3	0	8532	3	0	6430	3	32	5689	3	16	11,827	0	0	8332	1	9	1859	2	10
Glamorgan	221	2	0	225	0	0	240	3	10	1224	0	0	3415	2	9	1195	3	32	1179	3	23
Kent	1543	0	0	1857	2	0	2271	2	0	1732	3	0	2634	3	4	3117	3	33	997	0	35
Lincoln				320	0	0							392	2	27				302	0	0
Monmouth	3449	2	29	1674	0	0	873	0	5	3022	2	27	1545	3	3	1727	2	17	511	2	13
Pembroke	2972	1	0	2450	2	0	1770.	3	0	2984	1	0	8194	0	29	6003	2	- 3	3977	1	12
Russell	30	0	0													•••			•••		
Somerset				447	0	0	958	3	0	2098	1	0	150	2	13	1408	1	-7	560	3	19
Wellington	1448	1	0	1352	0	24	941	2	0	1171	3	0	2769	0	18	4586	0	27	3242	2	31
Westmorland	4435	3	0	3031	0	0	1354	0	0	3470	1	0	6720	3	39	4488	3	0	2172	1	5
TOTALS	37,913	1	8	30,794	3	24	26,274	3	39	36,796	2	3	68,284	2	33	52,862	0	16	23,294	3	22

RETURN of Town and Suburban Allotments sold during the Years 1880 to 1885 inclusive, and the first Six Months of 1886.

Year.	No. of Lots.	Area.	Amount sold for.			
1880 1881 1882 1883 1884 1885 1886 (six months)	254313. 30817329122416	A. R. P. 837 0 36 540 2 3 893 0 61 839 1 13 1031 3 16 1058 0 17 49 1 2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$			

RETURN shoring Progress of Settlement under the 24th Section of "The Waste Lands Act," as reported on by the Crown Lands Bailiff and District Surveyors.

County.	No. of Lots reported on.	Area in acres of Lots reported on.	No. of Lots re- ported on as resided upon or improved.	Area in acres of Lots resided upon or im- proved.	No. of Lots re- ported as un- improved.	Area in acres of Lots unimproved.
Buckingham	892	39.586	575	23,339	317	16.247
Devon	1079	86,742	812	63.083	267	23,659
Dorset	507	36.857	386	27.115	121	9742
Cumberland	84	11.302	39	5568	45	5734
Cornwall	204	9473	159	7725	45	1748
Kent	282	18.170	175	8187	107	9983
Monmouth	171	11,019	147	10,085	24	934
Wellington	139	9239	96	6069	43	3170
Westmorland	314	29,456	245	22,938	69	6518
Pembroke	165	11,421	83	6141	. 82	5280
	3837	263,265	2717	180,250	1120	83,015

NOTE .- Of the unimproved lots some are but recently surveyed; others adjoin homesteads already in process of improvement.

REPORT OF THE INSPECTOR OF SURVEYS.

Hobart, June, 1886.

I HAVE the honor to submit my annual report to the Honorable the Minister of Lands and Works through yourself, giving particulars as to the manner in which the special survey service and myself have been engaged during the past twelve months.

SIR,

Duties and Cost of Inspection.

I began inspecting field work early in October last, and have been almost continuously employed ever since in going over the different surveyors' work, submitting particulars in each case, and occasionally in visiting the party employed in trig. station construction and Mr. Stokell, the assistant surveyor. Up to the present time, from October, I have travelled over three thousand miles (3000), at a cost in travelling expenses of a trifle over two hundred pounds (£200); this includes the expenses of an assistant for a great portion of the time and also the wages of a man, whom it was necessary to employ for a short period whilst I was engaged in a complete re-survey of faulty work for the Mines Department. I have inspected, tested, and reported upon the work of eleven (11) surveyors, and visited five (5) others. Mr. Stokell also inspected another surveyor's work in whose district he happened to be at work.

Result of Inspection.

As mentioned in your report of last year, one surveyor objected to conform to the regulations at the present scale of fees, and has continued to survey in the old style—with compass or circumferenter. I found his work, as regards chainage and permanent marking, as good as several others. The work of one district and one authorized surveyor were found on my field inspection both to be abominably bad, badly executed, and by one of them deliberately falsified ; in the other case inaccuracy was caused either by gross carelessness or sheer incompetency. The field diagrams of one surveyor had been checked in the office, and in several cases the apparent error of close was Nil. and recorded as such. In each of these cases, besides others, my field inspection proved beyond a doubt that the real close was atrociously inaccurate; of course mistakes may happen now and then, but I trust I shall not have occasion to report such painfully flagrant cases again. It is with great pleasure that I have to report one case where everything was really well done, the work having more the appearance of careful standard work than contracted for. In most cases too, I am very pleased to be able to state that the work was extremely well shewn on the ground, and a very decided improvement on the state of things obtaining anterior to the issue of the new regulations early last year. Now, it is not only possible to find a survey after a lapse of time, but also to determine its value by being able to recognize the exact way it was done at the time of actual survey. I have found the chainage invariably very good on all the work, except where distances were wilfully falsified. The country is generally very rough and thickly timbered, and in the absence of circuit standard traverses or standard lines, which are urgently required but for which we have very little funds, we shall have to accept these distances as correct till we are in a position to find and apply the correction needed. Some of the work is apparently staked by eye: where this is the case, in starting off an old corner peg the old lines are frequently not cut out and produced, but an independent starting point is made of the peg, so that a bend frequently occurs on the ground which is not always shewn on the surveyor's plan. There is more time lost, I should say, in staking by eye backwards and forwards on a "closing" line than there would be if a proper theodolite survey was carried round the block; however, this appears to be a case of opinion with some; but if the lines staked out by this system do not happen to be reasonably straight, I shall certainly record the error and condemn the work. I have no wish on this and other matters to be hypercritical, and have not overstated any case; but I have no sympathy for makeshift and bad work, or "fudging," as falsifying is called. We have good professional men who are anxious to please and deserving of sympathy, who should not be classed with incompetents. I must respectfully insist that the clause in the regulations in re tally-pegs be most strictly enforced.

Surveying Instruments.

Those theodolites I have examined were found to be in perfect adjustment, with one exception; that, through no fault of the maker, was quite unfit for use; it was filthy, and out of adjustment both as regards levels and collimation; in the hands of a competent man matters could have been easily rectified. This instrument was the property of an authorised surveyor, who, although not employed by this department, is nevertheless empowered by virtue of the Mineral Regulations to make surveys for that branch, as well as under the Real Property Act. In our own special department band chains have quite superseded the old style, which in a great measure accounts for the very close results obtained in check chainage. There are one or two of the old pattern still in use, I believe, in private hands.

Land Marhs.

A surveyor or some members of his party caught a selector moving out the line of stakes of his newlysurveyed selection whilst they were returning down the line and engaged in permanently marking it. Some stringent penalty ought to be enforced for this sort of thing.

The Assistant Surveyor.

Mr. Stokell was sent to make a standard traverse of the Brickmakers'. Bay Road. I did not wish him to go there till the track was cleared and grubbed out, but as many people had selected some miles down the existing path and wanted to be put on their blocks, and it being a new locality, a plan was necessary, so it was better that it should be accurate from the start, and he therefore undertook it. What with deviations in the thickly-timbered country to avoid obstacles and obtain good grades, his progress was necessarily slow. He observed for true meridian, connected his traverse to and from trig. stations, and put

down permanent marks. Mr. Stokell then moved to Mount Hicks, and commenced a traverse from trig. station along the road in a southerly direction as far as the Calder. His progress here was more rapid, as this road had been cleared, and there was no seeking for grade. Both of these surveys will be of the greatest assistance to us. This gentleman also made an inspection of certain work, and executed some re-surveys.

Survey of the Town of Launceston and Suburbs.

Last year you strongly recommended the survey of this town. Quite recently I inspected and selected a suitable place for a base, and Mr. Stokell and party are at present engaged in measuring this and adjacent work. Each chain of the base is measured with a spring balance, drawn to a tension of fifteen pounds; the difference in seventy chains is about one inch, which is sufficiently close. I do not wish to say more in this present report than that the base will be produced and connected by angular measurements to minor trig. stations, and these in turn will connect with the major triangulation; also that permanent marks will be put down, and everything that will tend to fix positions permanently made use of. This survey will supply a long-felt want,—that of having reliable starting points or places of reference permanently fixed in every street. A temporary office will be necessary in Launceston for drafting and making calculations in connection with this work. Last year you strongly recommended the survey of this town. Quite recently I inspected and selected

Inspecting Engineer of Surveys.

I had occasion to draw your attention in my report last year to the great kindness and voluntary assistance given me by two Civil Engineers of the Public Works Department,—Messrs. Atkinson and Sheard. Just lately, James Griffiths, Esq., has been appointed Inspecting Engineer of Surveys, and is kindly carrying on the same material and valuable assistance in connecting the Railway Surveys in hand to the Trigonometrical Stations, thus thoroughly checking the value of the Railway and Selection Surveys. Mr. T. M. Atkinson, although he has left the Government service, has lately offered to put permanent marks on the Scottsdale Line, and take additional angles to the Trigonometrical Stations gratis. I feel very naturally personally much indebted to these gentlemen, as without their assistance I could not have hoped to obtain this desirable work, as you know that we cannot at present afford to re-survey alienated land. and, in fact could do with a considerable sum for standard surveys which are very much required. in fact, could do with a considerable sum for standard surveys which are very much required.

The Subsidiary Party.

This party has been in charge of Mr. W. H. Smith for some time past, he being one of the original This party has been in charge of Mr. W. H. Smith for some time past, he being one of the original members of the party. They have had a great deal of travelling; have had to re-clear a lot of hills, and rebuild the piles on them; also to clear and pile hills where new stations were required. Their progress has been very satisfactory. They have built Temple Bar, Mounts Direction, north and south, Mount George, Mount Barrow, Mount Scott, Mount Maurice, Mount Saddleback, Mount Montgomery, Round Hill, Table Cape, Rocky Cape, Circular Head, Mount Littlechild, Little Plains, Lottah, Mount Pearson, St. Helen's Point, Scamander Range, St. Patrick's Head, Mount Fenton, Belmont, Mount Spode, Mount Clarke, and one or two others, particulars of which are not yet to hand.

Circuit Traversing.

I think roads should be set out as much as possible and scrubbed before selection, and the circuit traversing follow immediately after or before, so as to be in advance of selection. I would be very glad to see certain very deserving District Surveyors entrusted with work of this nature, as the fees for survey of selections are sometimes barely remunerative if the work has been conscientiously done.

The Mines Department.

I venture to suggest that some distinctive marks be adopted in the field for this branch. Our marks which are at present in use are of too permanent a character. As for the existence of mineral claims generally, they are surrendered and taken up again over and over again, each time with a slight alteration of boundary : the result is not calculated to ensure good work.

Conclusion.

In conclusion, I have much pleasure in informing you that the District Surveyors have invariably treated me with consideration and kindness. In some cases, I am very glad to say, I met with a great amount of professional sympathy, which was all the more gratifying as I may at any time in the strict exercise of my duty have to report adversely on some one for whom I may entertain great personal regard.

I have the honor to be,

Sir,

Your obedient Servant,

WENTWORTH M. HARDY, Inspector of Surveys.

The Deputy Surveyor-General, Hobart.

REPORT UPON THE WOODS AND FORESTS OF TASMANIA.

Crown Lands Office, July 26, 1886.

I HAVE the honor to submit my first Report upon the Woods and Forests of Tasmania, to June 30th of present year. The Report is necessarily of a general character, and deals largely with the future benefits to be derived from a systematic system of forest conservancy in the Colony.

As a good deal of misconception exists as to the value of timber for climatic purposes, irrespective of all questions of revenue, I have dwelt upon this aspect of forestry, and trust my Report may be the means of drawing public attention to what I conceive to be a very important matter.

I have the honor to be,

Sir,

Your most obedient Servant,

GEO. S. PERRIN, Conservator of Forests.

The Honorable NICHOLAS J. BROWN, Minister of Lands and Works.

FOREST REPORT TO JUNE 30.

SECTION I.

Inspection of Saw-mills and Forests of the Huon River, and also of the North-West Coast.

1. On the 24th day of March I reported my arrival in the Colony from South Australia Arrival of Conservator to the Honorable the Minister of Lands and Works, and was inducted into the duties pertain-of Forests, and ing to the office of Conservator of Forests. induction into

2. On the 29th of March, left Hobart for the purpose of inspecting the saw-mills and forests of the Huon and southern portions of D'Entrecasteaux Channel, noting and collecting information as to output of timber from the various mills visited, and the timber supply of the outlying districts around them, together with particulars as to number of employees, length of tramways constructed, horse-power of engines, and acreage of selected lands, &c.

3. The owners of the various mills courteously rendered every assistance and information rendering in their power, and I was thereby enabled to see and judge of the character of the forests assistance and around the respective mills, and of the country beyond them.

4. This tour of inspection extended from Franklin to the lower end of Recherche Bay to Tour of a finite to inspection extended from Franklin to the lower end of Recherche Bay to inspection within a few miles of South-East Cape, and included the townships or settlements of Franklin, from Franklin Geeveston, Surges Bay, Port Esperance, Hastings, and Recherche; the journey from Geeveston to Recherche being performed on foot both ways.

5. The forests inspected undoubtedly comprise the finest timber lands to be found in Tasthe forests and mania, and are chiefly valuable for the blue gum they contain. It is probable that the timber height and in the forests around Geeveston are unequalled in the colonies for size and stem-girth of individual trees, as both the blue gum and stringy-bark (*E. obliqua*) here attain to enormous height and girth. One fallen tree which I measured gave the following dimensions: -250 ft. to the first limb, 300 ft. to the junction of three limbs forming the head of the tree, 309 ft. to to the first limb, 300 ft. to the junction of three limbs forming the head of the tree, 309 ft. to the broken stem, which here gave a diameter of over 2 ft.; the circumference, at 8 ft. from the ground, of the butt was about 40 ft.; the wood being sound and of splendid quality. The total height of this tree might fairly be placed at 330 ft. Trees of 300 ft. are met with occasionally, whilst those of 200 to 250 ft. are common enough, and run from 16 to 20 to the acre in good "beds." The timber here is of good quality, especially the blue gum, which, if cut under other conditions (see Report on the Eucalypts and Decorative Woods of Tasmania), would be unsurpassed for utility and adaptability to the wants of the timber merchant or consumer.

SIR,

Inspection of forests and saw-mills of the Huon and Recherche districts.

duties.

Mill-owners information.

Tour of Bay.

Excellence of growth of timber.

6. The trees of lesser value to be found in these forests consist of gum-tops (*E. Sieberiana*), Eucalypts of swamp gum (*E. amygdalina* and *E. viminalis*), whilst the small Eucalypt (*E. cordata*) may $\frac{\text{lesser}}{\text{value in}}$

Forests.

7. Cabinet and decorative woods are here to be found in abundance, of which the chief are Cabinet and myrtles (*Fagus*), musk (*Eurybia argophylla*), sassafras (*Athosperma moschatum*), pepper tree decorative (*Drimys armotica*), yellow dog-wood (*Pomaderis eliptica*), with a host of other woods possibly abundant. of great value, but of little practical use at present.

8. The first saw-mill inspected was that owned by Mr. John Geeves, of Geeveston, Messrs. J. and which is capable of turning out sawn timber to the extent of 12,000 superficial feet daily, O. Geeves' though only averaging 8000 to 9000 feet. Adjoining is the extensive saw-mill of Mr. O. Geeveston. Geeveston. Geeves, which is more modern in construction than the other.

The total daily output from these two mills reaches 18,000 feet, though, if trade justified the extra quantity, 25,000 feet a day could be readily put through the saws. About 25 miles of tramways have been constructed, and a large extent of forest land has been selected, the timber from which keeps the two mills going.

These mills employ a large number of hands, and an extensive and thriving settlement is the outcome of this industry as established at Geeveston.

9. The late Mr. H. B. Evans' mill at Surges Bay next comes under notice—the output Saw-mill, here being 3000 feet daily, from 300 acres of forest land. Eight miles of tramways are in use, Surges Bay. whilst a 12-horse power engine drives the machinery.

10. The site of the fine mill only recently acquired by Messrs. Pulfer Bros. at Port Messrs. Pul-Esperance was the next visited, but unfortunately, a heap of ashes, and burnt and twisted fer's mill, Port portions of valuable machinery, gave token of the disastrous fire which wrecked these extensive premises some two months previous to my visit.

11. Leaving Port Esperance, Mr. Chesterman's mill on the River Esperance is the next to Mr. Chesterclaim notice, the land here selected being about 1500 acres of Stringy-bark forest, and the man's mill. output of timber 20,000 ft. a week. This fine mill employs a number of hands, and possesses several miles of tramway.

12. Mr. Judd's mill followed. Here an immense water-wheel had just been superseded by Mr. Judd's steam of 20-horse power and capable of turning out 20,000 feet of timber a week in full work. ^{mill}. Three hundred acres of land are selected, and five miles of tramway in use, the mill employing fifteen hands; timber, stringy-bark.

13. Mr. John Hay's mill at Hastings was next inspected, and a couple of days were well Mr. John spent in examining the forests and extensive saw-mill plant—one of the most important in Hay's fine saw-mill at Hastings.

All the appliances are admirable, and show a spirit of progress and enterprise which should be emulated by other mill-owners.

About 1500 acres of land have been secured, mostly splendid blue-gum, stringy-bark, and gum-top forest. The saw-mill is a first class one and in perfect working order, the appliances being of the very best description, and numerous labour-sexing implements abound

being of the very best description, and numerous labour-saving implements abound. The output of timber is about 9000 feet per day, the various saws and other machinery being driven by a 30 horse-power engine.

being driven by a 30 horse-power engine. There is a foundry, where castings, brasses, and metal bearings, and even trolly wheels used on the tram, are cast and finished off by experienced workmen; all repairs are here executed with despatch and first-class workmanship.

A large and valuable steam-lathe is one of the chief features of the workshop; and by means of this useful machine, work usually sent to town in other mills is here done on the premises.

Two barges are kept fully employed taking timber to market; and a settlement, large enough to be called a town, shows what energy and enterprise may accomplish even in these densely-timbered out-of-the-way places.

14. After leaving Hastings a short stay was made at Mr. Tyler's mill. This is a new Mr. Tyler's enterprise, the output averaging 20,000 a week, with 12 horse-power engine, and possessing $1\frac{1}{2}$ mill. miles of tramway; timber, stringy-bark.

15. Mr. Cuthbert's mill at the top end of Recherche Bay was the next in order to visit: Mr. Cuthbert's here, however, no work was going on. This mill is capable of 20,000 a week, the saws being mill, Recherche driven by a 20 horse-power engine, and the plant in full work employs 20 men. The forest is Bay. stringy-bark only, 600 acres of land being selected.

16. Mr. M'Dougall's mill, situated at the lower end of Recherche Bay, was the last saw- Mr. M'Doumill visited, and is the most southern mill on the island, and not very far from South-East Cape. gall's mill. The plant is nearly new, and includes an engine of 20 horse-power, turning out 7000 fect daily, a mile of tramway, and a selection of 500 acres of land; forest, stringy-bark and myrtle. Twenty men are employed.

17. On the 15th of April left Hobart for the North-West Coast to inspect saw-mills and Inspection of forests en route. Arrived at Formby 16th, Emu Bay 17th, Circular Head 19th, Duck River North-West Coast.

and Montagu 20th. The country around the latter place is moderately flat, and possesses good forests in strips on ridges of low altitude, alternating with swampy low-lying ground, covered with Montagu and Duck Rivers.

Blackwood logs decaying and neglected at ports.

The preservation of blackwood important.

interests.

The low price and small revenue derived.

Destructive tendencies of blackwooders.

22. Provision should also be made by regulation limiting the size of trees to be cut, and stop the wholesale destruction of immature timber, by men who greedily cut undersized trees for no other reason than to prevent others making use of them. I have seen dozens of such trees now lying rotting in the bush at Duck River and other places. This sort of thing should be the tree of the local sector of the local sector. be stopped by the strong arm of the law, and supervision over young growing blackwood be provided. Some good forest country is to be found at the back of Montagu, and towards the Duck River, whilst blackwood in quantity is still available, notably, on the upper portion of the Duck River, and here large numbers of fine young blackwood are growing freely. These should most carefully be conserved for future supplies of this timber.

Mr. Lee's mill 23. The only mill in this district is the one owned by Mr. Lee. This gentleman has been at Duck River. two years in possession of his site here, and was formerly located at the Cam River. The improvements are very extensive, and include a fine jetty into deep water, enabling large-sized craft to come alongside and load direct from timber trucks drawn by a locomotive.

24. The "plant" includes an engine of 20 horse power, first-class sawing gear, and all necessary appliances, and employs some 20 hands. The chief feature of this sawmill is the employment of an upright boiler locomotive of 20 h.p., and an iron-rail tramway instead of the customary wooden one.

25. The locomotive seems admirably adapted to its work, and moves along the decidedly uneven iron way at a rattling good pace, drawing several trucks with two logs apiece on them. It is capable of drawing 40 tons easily, and will haul in from the forest, upon up and down grades, 20 logs of 3ft. diameter as easily as are two logs of same diameter in other mills by two or more horses. The timber here is chiefly stringy bark, gum-top, stringy gum, and blackwood. Some immense trees (*Melaleuca ericifolia*) are found, many 2 feet in diameter; and one at Montagu, which I measured with a tape in the presence of Mr. Saward, gave the surprising girth of 9 feet 9 inches at four feet from the ground; it was very little buttressed, as few indentations customery to this tree presence. At 30 foot the tree forked and each of these indentations customary to this tree were present. At 30 feet the tree forked, and each of these forks would probably measure 18 inches diameter. Its height was about 70 feet. The timber was hard-like iron, and would take a magnificent polish.

Splendid forest country, Duck River and Rocky Cape.

The necessity for the con-servation of blackwood in quite evident that unless means be taken to propagate and conserve it, also to prevent the wanton cutting of trees necessary for seed, and to foster the indigenous growth, this tree must in the nature of things become scarce, and blackwood as an article of commerce practically view of extinct, that is to say, on the Coast lands in proximity to good roads, ports, or shipping-places. approaching scarcity. 28. The conservation of blackwood can only be done under a wise system of State reservation in suitable localities. These reservations need not be very extensive in first-class agricultural Blackwood

reservation.

Good forests. Detention Table Cape.

country so long as they are fairly numerous along the coast, and admit of efficient supervision, and serve the purpose of sheltering the adjoining lands, cutting off or shutting out prevailing winds, and affording timber for domestic and other uses in the future. 29. First-class forest land is found at Detention River, Boat Harbour, and Table Cape, and River, Boat comprise timber of good quality, consisting of stringy bark chiefly, though white gum, stringy Harbour, and gum, and blackwood are found fairly abundant, whilst myrtle—some of it very inferior—abounds.

26. At Duck River and on the ridge above it a fine forest extends towards Irish Town, and back some distance in the direction of Rocky Cape. Forest reservations would be highly desirable in this district, as already millions of splendid trees are ring-barked, and rear their naked, leafless stems and limbs to the sky. This district is eminently suitable for blackwood reserves for the conservation of the young growing trees.

27. If blackwood be destined to continue a staple product of the North-west Coast, it is

if left much longer exposed to the action of the weather.

and the state reap some benefit from its exportation.

dense growth of *melaleuca* scrub, in which the blackwood is found, of fine quality and fairly abundant. Extensive button-grass plains, with patches of heath, and marshy, appear in places. 18. Large numbers of fine blackwood logs are lying at the shipping place or port; some of these have evidently been *in situ* for years and are sun-cracked, and will become unmarketable

19. The blackwood question of this coast is one that must be grappled with sooner or later, as it is highly undesirable that so valuable a wood, and one in such demand, should be allowed without protest to be misused, and run the danger of extinction.

Shipping of 20. The present system of sending away the timber in the log is to be regardled, in the cutting up of this timber should certainly be retained in the district from whence 20. The present system of sending away the timber in the log is to be regretted, as labour

> 21. The price received for blackwood in the Colony is far too low considering its approaching scarcity, and its nearness to water carriage; and some scheme should certainly

> be devised by which the value of blackwood might be raised, without detriment to the producer,

Upright boiler locomotive used in drawing timber.

Adaptability of this locomotive to heavy haulage on rough tramway. Enormous Tirce (Melalcuca).

30. Messrs. Moore and Quiggin's mill, Table Cape, next underwent inspection. This is a Messrs. Moore large and very old industry, being established some 25 years ago. A 40 horse-power engine is and Quiggin's in use, and 30 men are employed. Seven miles of tram line has been made, and the output of Cape. timber is estimated at 30,000 superficial feet a week when in full work. The timber is stringy bark, stringy gum, white gum, peppermint, and blackwood, the latter scarce and the former very abundant.

31. The River Cam was the next stopping-place, and here Messrs. King and Sons have Messrs. King a fine 40 horse-power engine and plant capable of 20,000 feet a week, employing 19 men, with and Son's mil at River Cam

32. Good forest lands lie along the Pine Road to the back of the Penguin as far as the Penguin and Blythe River, the timber being of good quality and easily obtained.

33. The Leven was the next stopping-place, but in consequence of missing the tide, the Mr. Reid's Gawler mill, a large and important industry, was not seen. The sawmill owned by Mr. Reid, mill, Castra on the Castra road, was the next in order of inspection. This is only a small "plant," capable Road. of turning out 9000 to 12,000 feet a week. A large 30 horse-power engine, at one time a locomotive, is used, and six men are employed.

34. The Don Co.'s mill, in the fine agricultural district along the banks of the River Don, The Don Co.'s comes next under review; but the timber trade here has fallen off (owing to agriculture) of late mill and tramyears, and at the present time but little sawing is going on, and the few logs cut are brought in ^{way}, ^{River} from long distances on the excellent tramway owned by this powerful company, and now used chiefly in the conveyance of produce, which is brought down the line in great quantities.

35. The country for miles around is alienated from the Crown, the once magnificent forests Splendid are defunct, and thousands of acres of ring-barked trees meet the eye on all sides. The farmers forests of here have most unwisely opened out their lands to the direct action of the winds from the sea; timber ringbut few protecting "clumps" or lines of trees are left, hence the country looks cold and bleak. and Don Left Formby on 3rd of May for Launceston, *en route* to Hobart.

SECTION II.

Forest Reserves.

36. The following Forest Reserves have been gazetted in various parts of the Colony, but Forest I have not yet had an opportunity of inspecting them, with the exception of the last-named :-- Reserves.

West Coast Forest Reserve	8500	acres	
Mount Bischoff ditto	1700	,,	
Lisle ditto	3000	,,	
Tasman's Peninsula ditto	2500	,,	
Branxholm ditto	5000	"	
Beaconsfield ditto	3000	,,	
Lefroy ditto	850	,,	
Ross ditto	27,000	"	
	·		
Total area reserved	$51,\!550$	acres	

37. The last, and largest reserve has just been proclaimed in consequence of a visit of Ross Forest inspection made on the 5th of May, and was so far favourable that on my return to Hobart I Reserve. submitted a special report to the Honourable the Minister of Lands as to the suitability of this country for forest purposes, and the land has accordingly been gazetted a Forest Reserve.

38. It is not altogether advisable to dedicate small blocks of land for forest purposes, The disadunless special reasons arise for so doing—such as for shelter, or were land is valuable, or vantages of for public purposes in the shape of parks, &c. Small reserves are useless from a forestal point small forest of view, and if under supervision are costly, if not under supervision are neglected, and therefore useless; besides, very small areas of forest land defeat in a great measure one grand object of their existence, viz., Climatic influence.

39. All forest lands intended to be placed under official control should be of sufficiently Forest resorves large an area to make it worth while to place it under proper supervision.

reserves of large area worthy of

40. Certain portions of the Ross Forest Reserve might in future years be utilized by the supervision. introduction of various timber trees of great ecomonic value, e.g., the useful American timber tree used largely for railway sleepers—*Catalpa speciosa*—which would thrive admirably on the The utilization banks of the Macquarie River and low-lying marshy lands on the Reserve. The red gum of Reserve for Victoria and New South Wales might with considerable advantage be introduced on low-lying the introduclands, with other trees, including numerous members of *Coniferæ* family. The *Catalpa* has tion of been introduced into South Australia and New South Wales with considerable success, and I valuable nonindigenous am sure that Tasmania will be found far more suitable for its successful growth than either of the timber, as 'Colonies named,—our moist clinate and never failing rainfall making success certain. The catalpa, red gum. sequoias, and other conifers.

Sequoio gigantea, or mammoth tree of California, is another tree highly suitable for planting largely in Tasmania. It would thrive wonderfully in a climate like this, and might be planted with assured success on the Ross Reserve. Several noble trees of this conifer may be seen in the Botantic gardens at Hobart, thriving well and of good size.

SECTION III.

The Conservation and Preservation of the more valuable Eucalypts of the Colony, with remarks on Climatic influences of Forest Lands, Sc.

The importthe increasing demand for it.

41. The Eucalypt of first importance in the Southern Forest is the blue gum-E. globulus in course of time, unless measures are taken to preserve it by planting or reservation.

> 42. The demand for this timber for constructive and other purposes, not only in Tasmania, but in the neighbouring Colonies, is so great, that in a few years' time there is danger of the supply failing to meet the demand.

The local distribution of the blue gum, and its comparative scarcity with regard to

Timber destroyed on private holdings.

Shelter and the warmth imparted by woodlands or forests necessary to the well-being of the land.

The too free the admission of the sea air or prevailing winds undesirable.

Drought and floods follow the extensive removal of forests, illus-trated by New South Wales.

The want of forests and necessity for

43. It will no doubt surprise strangers to the Colony to be told that the famous blue gum is not found universally distributed over the island, but only on the southern portion of it, and a few places on the eastern coast. This being the case, it behoves the Government to be watchful of this timber, and as the best localities of its growth are already in the hands of sawmill owners (and, as a matter of course, alienated from the Crown), it follows that any blue regard to other timbers Government and the people. Wherever the land is selected by the small occupier, and the blue of the Colony. or other gum is found upon it, it fares the usual fate, and is mercilessly ring-barked or destroyed—the good timber along with bad.

> 44. All practical experience shows us, that only in rare cases will the private owner of timber lands take any steps to conserve or protect the timber growing on it. It is invariably looked upon as an enemy to be got rid of as quickly as possible, and not as a useful friend providing shelter and giving fertility to the land, or even as a marketable commodity; consequently, it is to the true interests of the State to preserve timber in localities where through carelessness or heedlessness of the selector it is likely to become scarce, in order that the grazing or cropping capabilities of the land may not become impaired through the reckless and wanton destruction fo the timber around such lands.

> 45. Shelter, then, is one great requisite all lands require, and it is absolutely essential that farmers and graziers, particularly those of the Midland Districts around Campbell Town, Deloraine, and the settled portions of the Colony generally, should recognise this fact; and where damage has been done in this respect, to repair the mischief as soon as possible, by forming plantations of the more valuable economic trees, or planting in groups and rows, in order to cut off cold bleak winds from the elevated lands of the interior, when the additional warmth imparted to the land by such shelter would give increased produce, and largely augment the yield of grass,—thus amply repaying in kind the small expenditure needed to produce these results. Without shelter or the moistening influence of timber, land in course of time becomes soured, partially unproductive, and eventually unprofitable; and this applies with increased force to all lands which at one time were heavily timbered. The nutritive and highly fertilizing properties originally given to the land by the timber growing upon it must in the nature of things lose its virtue and power when the timber is altogether withdrawn from it, whilst continuous cropping or grazing year after year hastens the time when the land will cease to yield its usual increase of either grain or fodder.

46. Opening the land to the influence of prevailing winds, and the present system of ringopening up of barking or destroying every tree upon the holdings, cannot be too strongly deprecated, more forest lands to particularly when in close proxmity to the sea. The saline particles with which the winds are particularly when in close proximity to the sea. The saline particles with which the winds are laden will in course of time affect the land to its detriment. It may be years before this fact is brought home to the settlers and landowners of the North-west Coast, but the time will assuredly come when the rash and thoughtless system of utterly rooting out every tree will be bitterly regretted, and dearly bought experience cause those who have been so free in the use of the axe to become nearly as free in the use of the spade in replanting portions of their holdings.

> 47. Should anyone doubt these statements, I would ask any such to cast a retrospective glance at the other Colonies. We hear of cattle and sheep dying by thousands in the interior of New South Wales ; drought-the arch-destroyer of millions of animals-is rife year after year, when south Wates; drought—the arch-destroyed of minimum of animals—is the year arch year, when a scanty rainfall brings untold misery and ruin upon thousands; in the winter season tidings of fearful floods, washing away railway lines and destroying lite, are flashed along the telegraph wires. Are not both these ever recurring calamities directly traceable to the wholesale slaughter of timber in the inland and coastal districts of New South Wales, also to the influence of the vast treeless plains of Riverina, and the great central deserts of Australia?

> 48. Again, turn to South Australia, when we find drought again rampant; ruined farmers crying out for water and Government aid; horses and cattle dead and dying all over the treeless dried-up plains. The Government are nobly coping with the difficulty by planting

extensively, and were it possible to clothe those arid plains with timber at once we should hear planting in no more of drought. It will take long years of tree-planting over such a vast area to make South Australia. Australia nearer to the time when serious drought shall be unknown, and comfortable sheltered homesteads take the place of the now dreary desolate looking homes of the northern areas, when ample water supply will be found in the dessicated water-channels which are, by courtesy only, called creeks.

49. America, too, has had trouble from this very cause. Since the forests have been Cyclones in hacked, burnt, and slaughtered, "King Boreas" has run riot; cyclones and tornadoes of America. unexampled fury and destructiveness level and utterly destroy whole towns and villages, kill people by scores, and spread ruin and desolation around.

50. If the cause of this be asked, I reply-"The reckless destruction of the forests allow- The cause of ing the winds to collect over vast areas of country till they assume the form of tornadoes, and these destrucsweep over the country, where no timber belts or forests check their career, where their fury is two cyclones spent on some hapless village to its entire destruction." The following extract from the New York Correspondent of the South Australian Advertiser, dated May of the present year, may perhaps help to convince the sceptical of the folly of destroying all the timber upon their holdings:—

In the west we have had another terrible cyclone. A little town in Minnesota named St. Cloud, was, after less than five minutes' notice, assailed by the wind, and before even the wayfarers on the street could escape to the nearest cellars, they were picked up and dashed against the buildings or carried through the air hundreds of feet and dropped with broken ribs and stripped of their clothing on the ground. Many buildings were torn from their foundations and tumbled into a shapeless wreck, carried through the air hundreds of leet and dropped with broken ribs and stripped of their clothing on the ground. Many buildings were torn from their foundations and tumbled into a shapeless wreck, some of their fragments being carried 15 and 20 miles. Planks were borne for miles and driven into the hard prairie to the depth of a foot or more into the ground. About 60 lives were lost, and several hundred families rendered homeless. It is perhaps worth while to repeat what perhaps I have stated in previous letters—that this ruin and loss of life are due to the neglect of the people to preserve such woodland as nature gave them, and to increase its area with the least possible delay. Slowly but surely they are being taught by experience, but each month of neglect means loss of life and property. Even in the eastern states tree-planting has become a recognised duty, and the day before yesterday the State of Massachusetts for the first time celebrated as a general holiday "Arbor Day."

51. It is evident then, from the foregoing, that the preservation of timber must not be The climatic regarded as a question of revenue only, —much wider issues are at stake. The best interests of influence of the farmer and landowner are vitally affected by the shelter and climatic influences afforded by trees. a well-selected series of forest lands, which are invaluable when surrounding bare exposed lands, growing crops, or grass, causing such to longer retain their fertility, and tend greatly to prevent its "souring" and becoming unprofitable.

52. In the case of a valuable timber threatened with probable or partial extinction in the The necessity course of years, it must be patent to the meanest comprehension that, unless measures are for the care of taken to preserve such timber, irreparable damage may be done inadvertently to the true and valuable best interests of the Colony in allowing large portions of the Crown Lands containing blue order to pre-gum or other valuable timber to become monopolized by private owners, when, in the greater vent extinction number of cases, the timber is ring-barked and destroyed. If this system be continued, it or scarcity. follows that the blue gum must in course of years become diminished in quantity, and that its value for state constructive works must increase in due ratio to its scarcity, and the Colony pay in future years heavy charges for blue gum required for Government purposes, through the non-reservation of suitable timber lands, when such could have been easily reserved, and give in future years a fair and equitable means of revenue from forest reserves, when private lands have become exhausted of their timber and turned into grazing areas.

53. All this will, of course, take years to effect; but the time will most assuredly come The value of when the Government timbered lands will be looked upon as sources of great and illimitable forest reserves wealth, and the Colony be amply justified in looking well ahead and abundantly providing for in the future with regard to the timber requirements of the future. revenue.

selaginoides (Don).

SECTION IV.

The Conservation of the indigenous Pine of Tasmania.

54. The members of the Conifera family indigenous to Tasmania are fairly numerous, The and, though classed among the *Conifers*, are not true pines, partaking more of the characteristics indigenous of the yew in their structure and habits; yet their value (some of them) is indisputable. About 12 species are to be found in Tasmania, of which the chief, in following order of their uses and createring relatering relations in the relations.

excellence and economic value, might be placed :-The Huon Pine, { Dacrydium Franklinii (Hooker).

Huonese (Cunningham). The Celery-top Pine, Phyllocladus rhomboidalis (Richard). Arthrotaxis cupressoides (Don). Gunniana (Hooker). ,, The King William Pine, laxifolia (Ditto).

"

The Oyster Bay Pine, Frenela Australis (Hooker). The Native Cypress, " Gunnii (Endlicher Mountain Tops, (?) Podocarpus Alpina (Hooker). Gunnii (Endlicher).

value for export, &c.

17

55. The greater number of these trees may be set aside as far as their forestal value goes, being of little use as timber trees. The first three on the list are those, then, which possess qualities of most use in the commercial world, and of these the *Dacrydium Franklinii* (Huon Pine) takes the leading place. The timber of this tree excels that of any imported timber whatever, being absolutely without a rival in its lasting qualities for naval or shipbuilding purposes and its power of resisting wet or attacks of either fungoid or insect pests, whilst its beauty for certain furniture uses is admitted on all sides.

Here, then, is a tree possessing all these requisites, indigenous to the soil, reproducing itself by thousands in its native *habitat* year by year; and yet it is neglected, and the young growth going to waste. The timber of this tree if cut into railway sleepers, when its good qualities became known generally, would command the highest price paid for such purposes, and, I am sure, would outlast three of the very best jarrah, red or sugar gum sleepers ever cut from a sawmill. In boat-building the wood is well night imperishable, and has the peculiar and highly valuable property of preserving from rust or decay the iron bolts or nails used in construction ; insects of all kinds avoid it; buried in mud and covered with water—fresh or salt—for years at a time, the logs turn out fresh and new, as though but recently cut. A well-known instance of this is that of a vessel wrecked 35 years ago at the mouth of the Pieman River, which sank with a number of pine logs imprisoned in the hold. Thirty years after the vessel broke up from decay, and the logs drifted ashore with portions of rotten chains imbedded in the wood and falling to pieces with rust. These logs on being tested proved as sound as the day they left the forest, and apparently suffered no injury from sea water or marine insects during their lengthy sub-mersion. Would American lumber or Baltic logs stand such a test as this? Could the price of mersion. Would American lumber or Baltic logs stand such a test as this? Could the price of this timber be raised in proportion to its value and the difficulties of transport connected with its removal, it would matter little to the State or the timber-getters the uses to which the timbermay be put, so long as it is profitable and brings in a revenue to the country.

Pine.

The Huon

qualities.

pine, its value and good

The value of Tasmanian pine in the event of American or Baltic timber becoming scarce.

The King William Pine growing near Deloraine. The extensive planting of local and other pine advocated.

Forestry as applied to state forests woods comparatively

neglected in British Dominions.

Forestry largely experi-mental in dealing with native or

indigenous forests. Lack of practical knowledge on the subject of native forests.

The Arthro-taxis, or King William Pine, is the next in order of importance. The taxis, or King timber of the species *cupressoides* is of a highly useful character, and, no doubt, if under culture William would improve greatly. No more weful tree could be formed in the relation. It is fill The would improve greatly. No more useful tree could be found in the colonies. It is fully equal to, and in many respects excels, the American or Baltic timber now in such general use. It is chiefly remarkable for its lightness and fissile properties.

> 57. The Huon Pine, the King William Pine, and the Blackwood should be largely conserved and planted. There is no reason why Tasmania should not in years to come supply Arthrotaxis timber to the neighbouring colonies at a much less rate than the Baltic and Oregon timber, both of which year by year are becoming scarce, and in a few years will cost twice the present price.

> That the Arthrotaxis could be grown with advantage on the foothills of the Western Tiers is proved by the fact that all the varieties of it, as mentioned above, are found growing at the head of the Meander, or on the tiers adjacent to that stream, a dozen miles or so from Deloraine.

> 58. There is a vast field for State operations of the most valuable kind in Tasmania, and one that is certain to be highly remunerative in future years, especially in the care and culture of its native indigenous timber of the more useful varieties, together with the introduction of American and European Conifers, and other trees of approved value for economic purposes.

SECTION V.

Colonial Forestry and the Timber Exports of Australasia.

59. Forestry, as a branch of technical science, has only assumed importance within the British Dominions in the last two decades, though on the Continent of Europe its principles and practice have been well understood for a century or more. Schools of forestry are established in France and Germany; able professors and men of scientific attainments are at the head of the various forests administrations: but the United Kingdom, America, and many of the British Colonies are still behindhand in the matter of looking after their woodlands and forests, and up to the present time no schools are in existence where English, Colonial, or Canadian students can obtain forestal education, unless at foreign schools. Many of the officials of the Indian Forest Department have derived the chief portion of their elementary knowledge at the French forest school at Nancy. Steps are, however, being taken to remedy this standing want, and a school of forestry is about to be established in Edinburgh.

60. It follows, then, that forestry is to Englishmen largely experimental, not so much in regard to dealing with plantations and small areas of woodlands, and the planting of wellknown trees, but in regard to the care of forests of indigenous growth in new lands, and under new and strange conditions, where precedents are scant and experience totally wanting.

61. Some persons hold the idea that the management of forests consists in the able use of an axe, and that the possession of the faculty of "bushcraft" is all that is necessary; and, admitting the usefulness of the former Gladstonian art, and the utility of the latter, still a great deal more than this is required, which experience alone can give. A system of forestry suitable for one country or colony may be unsuitable for another. Hence, it is necessary that forests should be dealt with on general well-defined principles, but with a very great regard to their veculiar circumstances, which experience alone can deal with.

62. In this section of my Report I purpose taking a retrospective glance at the doings of our neighbours in the matter of forest conservation, also of the general export timber trade of the colonies under notice. In New South Wales forest conservation dates from the year 1877, Forest conand from the Report for 1884-5 I take the following :—"State timber reservations in 1884-5 are servation as estimated at 5,390,513 acres, or $2\frac{71}{100}$ of the area of the colony. In the county of Denison, where, carried out in 1882, 83 per cent. of the land had been alienated from the Crown, Ranger Manton reports, Wales. in 1882, 83 per cent. of the land had been alienated from the Crown, Kanger Manton reports, 'That, with the exception of the forest reserves, a few strips along the travelling stock roads and water reserves, all the timber had been ring-barked;' and, again, reporting on the River Murray districts in the central division, the same writer states, 'In a very short time there will be no Crown lands (except reserves),' and 'alienation of the land means utter destruction of the natural forests. Even at the present time there is very little *living* timber to be seen, and it may become necessary to plant ere long.' The total area reserved for timber supply in the district referred to is 461,431 acres; upon reserves under forest licence, 14,569,035 feet of timber were cut, with 293 trees, for special purposes. The Royalty and licence fees amounted to £8392 8s. 10d."

63. The available records show the quantities shipped from ports to be 58,267,350 sup. ft., Timber exports 5331 piles, 1539 girders, 4849 logs, 2341 pieces, 13,492 spokes, 2,213,000 laths, 498,000 palings, under Forest 53,547 felloes, and posts and rails and shingles unenumerated. The above does not include the 1884-5. ports of Sydney, Newcastle, Gosford, Macleay, and Hawkesbury Rivers.

64. The total receipts from all sources were £17,565 5s. 8d., and the expenditure Receipts, ex. £17,480 14s. 5d., including the sum of £801 16s. 5d. spent in planting catalpa, cedar, penditure, and and wattle. The staff required to supervise the enormous area of country reserved is very employed. large, and consists of a Chief Clerk, Inspector of Forests, 30 Forest Rangers (at salaries from £150 to £200 a year), 12 Assistant Rangers, 4 Clerks for office, and several juniors and labourers, costing £9521 13s. 11d., whilst a sum of £7157 4s. 1d. was expended on travelling expenses.

65. South Australian forest operations are on a large and most important scale. The The forests of exports of timber are *nil.*, all local timber being utilised; whilst the Colony important scale. The local strate and Tasmania and Western Australia. This Colony, especially the northern parts, is to a great their manage-extent treeless; and bare open plains, bounded by mallee scrub or stunted timber, except in a ment. few favoured localities, extend for miles. The chief natural forests are in the order named,— Wirrabara, Melrose, and Wilpena in the northern areas; whilst the southern reserves, or those of the south-eastern portion of the Colony, consist of the forests at Mounts Burr and M'Intyre, Nangwarry and Penola, and Cave Range; also the timbered country round Echunga, Mount Barker, and Mount Pleasant. The latter are, however, not forest reserves.

66. The whole of the timbered country in South Australia has been pretty well gone over Timber 66. The whole of the timbered country in South Australia has been pretty well gone over Timber in the last few years, and the best of the matured timber has been turned into railway sleepers. exports nil.— A prodigious demand having arisen in consequence of the railway policy of the Colony, 200,000 sleepers have just been delivered from the Wirrabara Forest, which is pretty well locally from exhausted of its matured trees, though a few thousands more might be got out of it at a pinch. the forest Some 200,000 sleepers from the south-east forests have been obtained in the past few years, which will thin out the bulk of the matured timber there. Kangaroo Island and Melrose Forests are the only places left where timber may be procured in large quantities; and even here the supply is limited.

It will be seen from the foregoing how very important the forest operations as carried out in the Colony are, and the planting of forest trees there is as much a necessity as the making of roads or bridges; so the State has wisely determined to plant largely the treeless plains of the north. The land is of splendid quality; but the scanty rainfall (caused by the absence of trees) year after year has wrought ruin and desolation to the farmers of South Australia.

67. The following is the acreage of the various Forest Reserves in the two Districts; viz.- Total area of forest reserves and number of Northern 94.146 acres. trees planted, 1884-5. South-eastern 45,449 Total area reserved 139,595 " 344,933 Trees planted by the Department, 1884-5 Trees given away free to farmers 187,000 "

> Total planted during Season 531,933

The acreage planted in eleven plantations was $5727\frac{1}{2}$ acres.

68. The improvements at date of last report were valued at £100,000, and included a Improvevaluation of trees (at a nominal value) in plantations, houses, stables, nurseries, stock, and ments, fencing, &c. The buildings consist of 5 houses for Nurserymen at the 5 Nurseries of the buildings, and Department; 2 Foresters' houses, stables, &c. The Forest Staff consists of a Conservator, Chief Clerk, 3 Foresters, 6 Cadets, 5 Nurserymen, and about 40 Labourers as required.

Receipts and expenditure.

69. The expenditure for 1884-5 was \pounds 6028 18s. 4d., whilst the receipts amounted to \pounds 6202 14s. 5d.,—the total expenditure for nine years since the inception of the Department being \pounds 52,752 8s. 8d., the receipts for the same period being \pounds 50,919 12s. 9d., that is to say, the Department cost the Government the sum of \pounds 1832 16s. 1d. in nine years; and for that expenditure has magnificent assets to the value of \pounds 100,000; whilst the chief portion of the trace plotted is receipt increasing in value and at a rate for of these assets-the value of the trees planted-is yearly increasing in value, and at a rate far beyond the expenditure originally laid out upon their growth.

The system pursued at Wirrabara and other reserves is strictly in accordance with scientific forestry, varied as experience dictates or expediency suggests.

New Zealand forest reserves.

70. New Zealand is the next colony to claim notice, and has only just begun forest conservancy. The Conservator, Professor Kirke, has been employed for some months in inspecting the forests of the different provinces with a view of reporting on the same for the future protection of the timber.

The area of forest reserves in the colony to date of Report 1884, was 594,051 acres, and the area of plantations in the different provinces as follows :

Otago	1588 acres	
Canterbury	25,324	> 27,075 acres.
Auckland	163	, ,

of which, however, only 1500 acres have been planted during the six years the Planting Boards have been in existence; the expenditure on these plantations amounts to £1415 5s. 11d. from November, 1882, to March, 1885. No particulars are to hand as to forest matters under Professor Kirke.

Victorian forest reservation.

71. Victoria has large forest reserves throughout her territory, and some of these, at Cape Otway and Upper Gippsland, are of large size. No particulars as to the forest doings of the colony are to hand.

A fine nursery, under the personal superintendence of Mr. Ferguson, the Inspector of Forests, is situated at Mount Macedon, and small plantations are formed in various parts of the colony, notably at Mount Macedon and the You-Yangs, near Geelong. Some splendid specimens of the Sequoia gigantea and Sempervirens, also P. insignio are at Mount Macedon nursery, the latter only 6 years old and some fifty feet in height. No particulars are to hand as to the forest doings of the other colonies not mentioned in the

preceding report. A tabulated statement of the exports of timber from the Australian Colonies for the year 1884 will no doubt prove suggestive and interesting.

m. 1	tot the jour 2002 with no dous	o pro i c		o and mitor osting.		
Timber	Tasmania, 1884.		£	Queensland, 1	884.	£
Austrolian			Value.			Value.
Colonies 1884.	Logs, No.	3097	7076	Cedar Logs, sup. feet	884,462	8889
0010110.0, 200 1	Laths and shingles, No 1,58	88,950	817	Myall Logs, No	2503	1737
	Palings, No 3,36	64,998	17,782	Sawn Pine, sup. feet	187,925	1527
	Posts and Rails, No 4	14,630	630	Bark not given.		
	Sawn Timber, sup. feet 9,09	94,274	24,779	-		<u> </u>
	Trenails and Staves, No 47	73,275	2016			$\pm 12,153$
	Bent pieces, No	4063	523			
			£59 639			
	Daula tana	10.0593	£03,023			
	Bark, tons	12,000%	80,089	Wastown Austral	a 1004	0
	Total value experted		£140.919	Hestern Australi	<i>a</i> , 1864.	.L. V.J
	Total value exported	•••		Sandalwood tong	1597	96 916
			part <u>alon</u> a mandris <u>sequen</u>	Timboy Jarrah Londa	16 0691	67.950
	Victoria, 1884.		£	Bank not given	10,0022	07,800
		1005	Value.	Dark not given.	•	
	Dressed, sup. feet	4835	636			£104.066
	Undressed ditto	01,388	6987			.5104,000
	Logs	36,300	165			
	Palings 1,38	30,437	985			
	Shukes and Slabs	75,676	792			
	Spokes and Felloes 1	10,124	402			
	Bark not given.		1	New Zealand,	1884.	£
				.	~ ~	Value.
	Total exported	•••	£9967	Logs	5014	29,370
	·			Sawn, leet 10	,704,051	63,570
	New South Wales, 1	884.	£	Undressed, ditto 14	,063,105	65,797
			Value.		•	A170 808
	Dressed Timber, sup. feet 32	20,093	5231			£152,737
	Undressed ditto 14,23	39,211	87,759	•		
	Spars, 6648	•	8815			
	Bark not given.					
				South Anetro	lia	
	Total sup. ieet 14,55	59,304	$\pm 100,805$			
				Timber Export	S. /V1/.	

SECTION VI.

Inspection of Forests and Reports submitted to the Honorable the Minister of Lands and Works.

Difficulties of travelling in Tasmanian forests.

72. The limited time I have been in the colony—viz., four months—quite precludes the possibility of formulating a complete scheme of forest conservancy suitable to Tasmania, for obvious reasons, chief among which may be mentioned the difficulty of getting about the

timbered country by reason of the want of roads or the dense jungle of vegetation common to all the forests rendering travelling even to experienced bushmen difficult and at times impos-Inspection under such conditions must of necessity be laborious and occupy much time before an intelligent idea of the capabilities of the forests of the colony can possibly be arrived at.

73. The fact of large areas of forest land being held by private owners will always militate Forest land in a great measure against rules and regulations upon Crown Lands devoted to forest reserves, held by because such owners are quite independent of these, and are in occupation of the best timber private areas of the country, and in possession of the best position as to water carriage and access to owners, &c. markets; hence forest conservancy, in regard to profitably dealing with the timber in the public interest, will be heavily handicapped at the outset.

74. It is very generally recognised that state conservation of forests can only be properly Large areas of carried out by means of large areas of forest land being dedicated to that purpose by the Legisla-ture of the country, when proper means can be devised for the due protection of the timber reservation. against the inroads of the heedless selector or careless splitter.

75. It is in the proper care and culture of the young growing trees that the work of a The culture forest department largely consists, as well as the supervision of the various forests, to prevent and care of local valuable unauthorised entry and the removal of timber otherwise than by licence or payment of royalty timber, and due on such, under regulation, as well as the introduction in suitable places, of trees of greater introduction economic value than the indigenous timber, whereby a larger revenue may be obtained in the of better kinds future, and timber of a better and more useful quality be supplied to the consumers. In of trees non-indigenous, for the standing and growing forests is of vital moment to her future prosperity, whilst the fact of the standing and growing forests is of vital moment to her future prosperity, whilst the fact of the standing and growing forests is of vital moment to her future prosperity, whist the fact of approaching scarcity of timber supplies on the mainland of Australia should make us very eager to preserve the wealth of timber we possess,—always bearing in mind the geographical position of the island with regard to Victoria and South Australia; *their* timber requirements, and our means of supply, and ready access to water carriage, as against their decreasing forests, ever increasing population, and the difficulties of access to the available timber in the colonies named.

76. Inspection of the natural forests is necessary, and to do this thoroughly is a matter of Inspection. time, as considerable judgment should be brought to bear upon the choice of localities suitable for reserves. Careful examination of each block proposed to be reserved is necessary; whilst experience gained in other colonies show this to be a work which should never be hastily performed; and, until a thorough examination of the forests has been made, it is not advisable to adopt hasty schemes of protection, which, on extended acquaintance, might require important revision.

77. The following districts have been visited for the burpose of	inspection :-)ection	ction –)n :	:

1. The Huon and Southern Forest at Recherche Bay.

- The Hubh and Gouthern Porces to Receive 2.
 The North-West Coast, as far as Montagu.
 The Blue Tier, Ross Forest Reserve.
 The West Coast, Pieman, King and Queen Rivers, Macquarie Harbour, and Mount Sorell.

78. The following Reports have been written and submitted to the Honorable the Minister Reports submitted. of Lands and Works:

- The Constructive and Decorative Woods of Tasmania.
- Report on the suitability of the Ross Forest Reserve.
 Report of trip to the West Coast re damage to Huon pine.
- 4. Forest Report to 30th June, 1886.

79. The actual distance travelled over in four months has been 1374 miles, of which about Distance 400 miles were performed on foot in consequence of the nature of the country, the difficulty of travelled. procuring horses, and the entire absence of horse-feed, natural grasses, or otherwise.

> WILLIAM THOMAS STRUTT, GOVERNMENT PRINTER, TASMANIA.

the Colony visited.

Portions of