

(No. 108.)



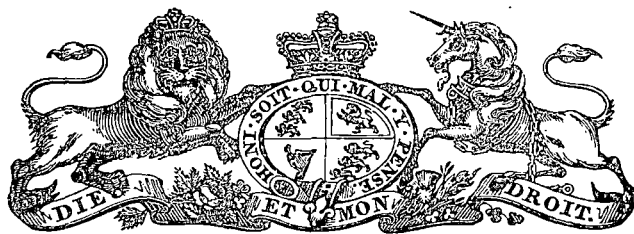
1887.

PARLIAMENT OF TASMANIA.

INSPECTOR OF SURVEYS:

REPORT FOR 1886-7.

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



Hobart, 16th July, 1887.

SIR,

I HAVE now the honor to submit my Annual Report, which is the fourth in succession since my appointment as Inspector of Surveys.

Surveys in Arrears.

Shortly after forwarding my last Report, I was compelled, owing to a great number of surveys for land and mineral leases not being executed, to visit certain District Surveyors to urge upon them the necessity for using greater expedition in effecting such surveys, and in some cases to provide for the transfer of work to other Surveyors in consequence of the District Surveyors being unable to execute the same in a reasonable time.

West Coast District.

At Mount Lyell such a number of surveys were applied for simultaneously that Mr. David Jones, the District Surveyor, was unable to effect them in a reasonable time: I therefore took down Mr. Innes, now the District Surveyor for Kent, to help Mr. Jones. On my return to Hobart, I duly forwarded a report showing what were in my opinion the wants of this District as to roads, tracks, huts, &c. During my stay there I verified the position of some of the old trigonometrical stations, chose new additional ones, and fixed exactly the position of Mount Owen; I also got Mr. Jones to measure a short base at the foot of this mount, by which the position of the mineral claims could be also definitely fixed. Mr. Jones was also instructed by me to make a traverse of the track leading from the Linda Valley as far as Woody Hill, taking angles along it to the piles on different hills; these piles I hoped to have had built by the Trig Construction or Subsidiary Party before Mr. Jones commenced the traverse. On my return to town, however, my suggestion was not acted upon; and I must point out that the plan since sent in shows the angles taken to the different hills; but these angles are of no use, and are calculated to mislead anyone not knowing the existing conditions.

During my stay on the coast I made a few water-colour sketches, thinking that such sketches might be useful to the Department, owing to the interest that had been manifested in this locality through the discovery of the Mount Lyell Gold-fields; such views have since been published in an Australian illustrated paper (*The Sketcher*), with descriptive notes.

Standard Survey of Launceston.

I must submit this is hardly the work the Special Survey Vote was created for; and I have reason to believe the Honorable the late Minister's attention was drawn to this matter. I have to point out that my Assistant Surveyor is now almost continuously employed on this sort of work, which, although of a very important nature, is yet of no practical use to the Special Survey Department, and I would suggest that the expense of these re-surveys should be borne either by the respective Corporations or out of the Lands' Titles Reserve Fund. However, the re-survey of Launceston has well progressed; a base has been measured with spring-balance drawn to a tension of fifteen pounds, corrections for temperature, &c. applied, and very close results obtained, minor Trig Stations erected, and whole blocks accurately closed, as detailed in my letter to the late Deputy Surveyor-General of the 26th November last; this letter, I am very pleased to say, caused the Honorable the late Minister to direct that my Assistant, Mr. Stokell, be complimented for the trouble and skill exercised by him in carrying out my instructions. This winter will probably see this survey practically finished as far as we are concerned.

Standard Survey of Formby.

In consequence of a memorial from the residents, &c. of this town asking for a re-survey of its older portions, I, in company with Mr. Stokell, inspected this part of the town, and pointed out to him which streets I wished to have re-established according to the original information in the possession of the Department. This seems to be very desirable before matters get worse. It then appeared to me from what I saw that the work on the ground was very erroneous, or else the newly compiled and published plans are very incorrect, for where one road is shown straight it is crooked on the plan, and *vice versa*. It is just possible serious trouble may hereafter arise, as pointed out by the late Deputy Surveyor-General on page 5 in his Report for 1885.

Incorrect Plans.

I have again to draw attention to the manner in which the plans are prepared in our office as pointed out in my report for 1885. The system now pursued is obsolete, and produces incorrect results. To remedy this I would again urge the imperative necessity for circuit traverses and standard line in connection with Trigonometrical Stations.

Circuit Traversing.

There has been very little of this necessary work done this year owing to Mr. Stokell having been engaged on the re-surveys before mentioned.

The Subsidiary Party.

After doing excellent work, this party had to be disbanded in March last owing, as the late Deputy Surveyor-General informed me, to want of funds. I need scarcely point out that this is a great loss to the Department, and also causes great hindrance and embarrassment to me, seeing that survey assistants require special training before they can be of much service. The re-establishment of these Trigonometrical Stations is of national importance, and the cost relatively slight.

The Special Survey Department.

In consequence of the condemnation in 1883 by A. Black, Esq., now Surveyor-General of Victoria, of the system of surveying then in vogue in Tasmania, a new department was created for the purpose of initiating and supervising a system of survey based on Geodetic principles, and of this department I was made the head. For the purpose of carrying out the suggestions made by Mr. Black, a Special Survey vote has been annually passed, with the result, as stated by the late Deputy Surveyor-General in his report of last year, that a great improvement has been made in the surveys. In this opinion I am glad to learn he is corroborated by Mr. Black, who, when over here recently, expressed his approval of the advance made in the survey system. I regret, however, that each year the vote for Special Surveys has been steadily reduced, and is now so small that my subsidiary party, in March last, had to be disbanded for want of funds. Mr. Black, as I am informed, deprecated this reduction of the vote on the ground that the efficiency of the staff must of necessity be reduced in the same ratio; and I would finally add that if this reduction in the Estimates continues, the old system of making surveys, which was so strongly condemned by Mr. Black, will be revived.

Inspection of District Surveyors' Work.

I am glad to be able to report that the result of my inspection has in most cases been satisfactory, and I was pleased to notice a commendable improvement in many of the surveys inspected by me; but I regret to have to report that a Surveyor, whose work I was compelled to condemn last year, and who in consequence of such condemnation was censured by the late Deputy Surveyor-General, still continues to carry out his work in the same negligent manner.

Field Diagrams and Field Notes.

As you are aware, both of these are supplied by the District Surveyors; but I regret to have to draw your attention to the fact that considerable discrepancies frequently exist between the field notes and field plans or diagrams sent to this office by the District Surveyors: this should not be.

Admiralty Marine Surveys.

At the late Deputy Surveyor-General's desire, I drew some plans for H.M.S. *Dart* from the information afforded by the records of the old Trigonometrical Survey. This occupied some time, as I had to collect and then test the information and eliminate all false and conflicting work. On return of H.M.S. *Dart*, on the completion of the Marine Survey for this year I was requested to wait upon the Commanding Officer to see whether I could give him any further assistance; but unfortunately he was ashore, and as I had to leave town the next day I did not see him; but on the 3rd of May I received a letter from him asking me whether he had made a mistake of ten (10) degrees or not, which would give a deflection error of 14 chains to the mile—in this case about two miles. Upon examining the plans to see where the mistake could have arisen, I discovered that in addition to the information I had prepared, another plan had been supplied: upon testing this I found it was incorrect at the part called into question, and accordingly wrote to Mr. Field, the Commanding Officer, as he had asked me whether I could explain the discrepancy. This matter having been satisfactorily disposed of, I received further letters asking for information on other subjects, which information, at your desire, I supplied, and which has been acknowledged by the Commander of the *Dart*.

On a question of longitude, I have thrown out a suggestion that if a naval officer was attached for a short time to the Melbourne Observatory to record "personal error," a convenient position here, say of the Hobart Semaphore, could be observed by the same officer, some time in the summer, acting in conjunction with Melbourne by "wire;" this being done, we can supply accurate positions all along the coast derived from the records of the Trigonometrical Survey.

In conclusion, I have great satisfaction in saying that under the new system of survey the improvement is continuous, and is at this present time exhibiting a more satisfactory result than when I was first appointed as the Professional Adviser of the Department: I must at the same time admit there is still much to be desired.

I have the honor to be,
Sir,

Your obedient Servant,

WENTWORTH M. HARDY,

Inspector of Surveys.

The Hon. the Minister of Lands, Hobart.