

requiring to a greater or less extent skilled supervision. The very nature of coast defence batteries—with their galleries of communication, underground magazines, artillery stores, casemates, barracks, electric light installations, &c.—calls for watchful attention in this respect, as a very small evil may soon, if unattended to, become a serious one. The general upkeep of established fortifications forms a noticeable portion of the duties of Royal Engineers at all places where fortress companies of the corps are stationed.

*Armament Court, Dunedin Exhibition.*

Following the example of the Melbourne and other Exhibitions, a display was made in a special court at the Dunedin Exhibition of specimens of the guns, mines, and other weapons and models, &c., connected with defences, and attracted considerable attention. The electric light was also worked.

*General foreign information.*

Further information and suggestions connected with the perfection of the equipment and the fighting-powers of the guns in possession of the colony, and embodying also the latest ideas and results derived from experiments and trials of various guns and other means of defence in England, have been forwarded during the year by the Agent-General and General Harding-Steward, R.E.

*Land Sites.*

In connection with the acquisition of sites for batteries and other works, the sum of £1,500 has had to be paid for one of the Auckland sites, as referred to below. To enable the complete scheme of defence to be carried out it will be necessary to acquire some additional sites, but the expenditure involved is not in any case likely to be serious.

*Expenditure.*

With regard to expenditure during the year, provision for the matériel of war from England (partly in fulfilment of contracts entered into by the previous Government and partly to complete equipments), which has always been charged to loan fund, as well as certain miscellaneous charges which cannot properly be brought against the vote for prison-labour and material, was made last year by a vote out of loan fund of £6,432, being the balance of allocation, against which appears an expenditure of £7,293. The reason of this excess of £841 has been the compulsory payment in accordance with an award of the Court of over £1,500 to the Native owners for land acquired for a battery in Auckland, and for which it was thought another more valuable but not required military reserve adjoining would be accepted in exchange without the passage of money.

On the other hand, a saving of £1,541 has been made on the vote of £10,000 for the works, the expenditure having been £8,459.

The net result, therefore, is a saving of £700 on the total amount voted.

The liabilities at the 31st March were £1,850 upon matériel and miscellaneous charges, to which has to be added the deficit of £841 above mentioned, making actual liabilities £2,691 in all, which require to be covered by a small vote out of loan; and £1,418 upon works, which will merge in the current year's expenditure.

The total outstanding liabilities at the 31st March amount, therefore, to £4,109.

The values of lands acquired, owing to the exigencies of negotiations, in excess of actual requirements, and of the engines, plant, &c., on the works, amount to £12,000; this sum is an asset against the cost of the defences.

The total expenditure on harbour defences up to the 31st March, 1890, has been, in round numbers, £458,000, of which £238,000 represents cost of matériel of war from England and miscellaneous charges connected therewith, and £220,000 the cost of works in the colony. Of this latter sum about £34,000 has been paid for land, and the balance, £186,000, represents the cost of the forts, batteries, submarine defences, steam-launches, reports of Royal Engineer officers, engineering, supervision, and all other charges.

The usual return is attached to the report, giving, under some principal subdivisions in tabular form, particulars of the total expenditure upon the harbour defences of the colony, from the first steps taken up to the present date.

31st March, 1890.

ARTHUR BELL,

Engineer for Defences.