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NEW ZEALAND.

REPORT ON THE NEW ZEALAND FORCES.

Presented to both Houses of the General Assembly by Command of His Excellency.

SIR,— Defence Office, Wellington, 30th May, 1889.

I have the honour to forward herewith, for the information of His Excellency the Governor, Commander-in-Chief of the Forces, reports from Lieutenant-Colonel Hume, Inspector of Volunteers, and Mr. A. D. Bell, Engineer for Defences.

These reports cover the subjects these officers directly responsibly supervise, and are therefore transmitted as usual without comment or remark. I, however, desire to touch upon one or two points to which attention should be directed, and which are not directly dealt with in the reports above mentioned.

During the past year ammunition for the guns in position has been placed in the magazines where ready to receive it, and the equipment of these guns has, as far as possible, been completed.

Four breech-loaders have been mounted, and a fifth will shortly be in position.

The work of mounting these guns has been successfully performed by the non-commissioned officers and men of the Permanent Artillery, under their officers, without accident or hindrance; and, from the difficult nature of some of the work, it reflects the highest credit on those employed.

Instructions have been issued for the care and preservation of the guns, which are strictly adhered to; and although the "hydro-pneumatic" mounting for the breech-loading guns belongs to a class of which no practical experience has yet been gained, even in England, it seems probable that, although slight difficulties may from time to time arise, by constant care and attention to the smallest detail a proper efficiency can be kept up.

The progress made in the development of artillery power within the last few years has added many new weapons which will, no doubt, in the future play an important part in the defence of a country.

The "high-angle fire" guns, the "Zalinski dynamite" gun, the new "rapid-firing" guns, and the "Maxim" automatic machine gun are at present attracting much attention, and, from the reports, official and otherwise, which have been received about them, there is little doubt that they will prove valuable weapons for coastal and harbour defence.

Permanent Militia, Garrison Artillery.—The officers and men of this branch of the Force have until recently been engaged on duties in connection with harbour-defence work, convict-guards, &c., which materially interfered with their work and instruction as artillerymen; but, as these drawbacks have now to a great extent ceased, the men are enabled to devote more time and attention to their legitimate duties. A course of drill and instruction has been laid down, which comprises the specific subjects in which men are to be trained, with the result that the training is now of a more uniform and practical nature than has hitherto been the case. The services of two Quartermaster-Sergeant Instructors from the Royal Artillery were obtained in June, 1888, and the batteries of the South Island have had the benefit of their services, with the most satisfactory results. It is proposed shortly to transfer these Instructors to the North Island, in order that the men of the batteries at Wellington and Auckland may derive similar advantages. During the year examinations, practical and theoretical, have been conducted under the personal supervision of the Staff Officer; and men who passed satisfactorily in the various subjects have been advanced to higher grades. The institution of these examinations will have a salutary effect on the general efficiency of the Force, as it is now apparent to the men that advancement depends upon their own exertions and capabilities; and this, while creating emulation and efficiency, at the same time promotes only those who are thoroughly qualified to the higher grades, an absolute essential when the numerical strength of the Forces is considered. The men have undergone a certain amount of target practice with the Morris tubes for the Nordenfelts, and, when circumstances will permit, the practice will be extended to the heavy guns. The instruction of the Volunteer Naval and Garrison Artillery

Corps has been conducted by the sergeants-major and selected instructors from the Force, and this work has been satisfactorily and intelligently performed, and, if taken full advantage of by the Volunteers, will soon bear excellent results. By regulations published in March, 1888, vacancies in the Police and Prisons Departments are now only filled up from the Permanent Forces, and the higher rate of pay in these branches of the service has naturally had the tendency of attracting some of the smartest men. As long as transfers are confined to the lower grades it will not materially affect the efficiency of the Force, but if it results in the loss of the best-trained men and instructors it will become a question whether the pay of First-class men should not be raised, so as to secure permanently to the Force the services of those who have been thoroughly trained and instructed—a process which cannot be effected, in consequence of the highly scientific attainments required from an artilleryman of the present day, without much time, care, and trouble.

Torpedo Corps.—The members of this corps were assembled in Wellington in March last year, and underwent a course of instruction in submarine-mining under Captain Falconer, during which period special classes for testing, signalling, and telegraphy were formed, and, when the course was completed, officers and men returned to their various stations. Those remaining in Wellington were then employed in removing the torpedo-sheds from Thorndon and Mahanga Bay, and re-erecting them in their present position at Shelly Bay. This work and the fitting of the stores and sheds has now been nearly completed, and reflect great credit on all concerned.

When H.M.S. "Orlando" was at Auckland, with the permission of Admiral Fairfax, C.B., advantage was taken to put another class through a course of Whitehead instruction, under Lieutenant Portal, R.N., the torpedo-lieutenant of that vessel, and it is satisfactory to know that each man obtained a certificate of efficiency. As a similar class was formed when H.M.S. "Nelson" was in Auckland in the early part of 1888, there are now remaining in the corps twelve officers and men who have received the above certificates.

Classes for instruction in the Whitehead torpedo, submarine-mining, testing, telegraphy, and signalling are at present in hand, and by the time they have passed through these courses, with the exception of some few recruits, the whole of the corps may be considered as fairly trained.

As the majority of the men of the corps are artizans and tradesmen advantage has been taken to have work done at stations for the Artillery, &c., which, under other circumstances, would have been placed in the hands of local tradesmen; the result has been that a considerable outlay of money has thus been saved.

A class has also been formed under the Engineer of the corps, and men trained to undertake the care and working of the engines and boilers of the launches and electric light, &c.

Four men have already obtained third-class certificates from the Marine Board, and there are two others now ready for examination.

At out-stations a course of instruction has been laid down for officers and men of the corps in working the electric lights, torpedo-boats, &c., so as to give them a thorough knowledge of the plant which they have in charge, and will have to deal with.

The training of Naval Artillery Volunteers in submarine-mining work has been efficiently carried out under the superintendence of the officers and men of the Torpedo Corps, and much interest and attention has been displayed by officers of Volunteers in this branch of instruction.

It is not deemed desirable to enter into detail regarding the various submarine-mining stations, but it may be stated generally that in the event of war they would in a short time be ready for any emergency which might arise.

The conduct of the men of both branches of the Force during the past year has, with one or two exceptions, been excellent.

Volunteers—New Regulations.—On the 1st January, 1889, the Volunteer Regulations as amended came into operation; and, judging from the few objections which have been raised, and which were for the most part purely of a local character, they seem to have been accepted by the Force as an improvement on those which preceded them. With regard to these objections, it has always been difficult to impress upon Volunteers that regulations can only be applied generally, and that it is an impossibility to legislate to meet all local wants and prejudices; and if this view were more freely accepted by officers of the Force it would conduce to facilitate administration and secure contentment. One of the most important changes in the new regulations has been made in connection with Naval and Garrison Artillery Corps. It has frequently been urged on their behalf that they had no legitimate duties to perform. This reproach has now been removed, and the special training and instruction, as at present established for these corps, will eventually convert them into a valuable auxiliary force to the artillery and torpedo branches of the Permanent Militia. It is satisfactory to know that in one or two districts the new duties have been taken up with a zeal and enthusiasm by officers and men which merit the highest commendation. The frequent amendment of regulations has a tendency to unsettle Volunteers; but it is believed that those now in force will be found sufficient for some time to come, and to answer all purposes while the present organization and system exist. As a practical proof that the revised regulations have not had a detrimental effect on the Force, it may be stated that the strength on the 31st March, 1888, was 147 corps and 8,064 men, and on the 31st March, 1889, 134 corps and 7,776 men, a difference of 13 corps and 288 men. When it is considered that the minimum strength of the thirteen corps which have been disbanded amounts to 559 men, it will be seen that practically a numerical increase has taken place in the strength of the Force.

Camps.—It has hitherto been customary to allow Volunteers to hold camps in localities selected by themselves, and this has severely tested both the transport arrangements of the Railway Department and the funds of the Volunteer vote. As a matter of policy, it was no doubt advisable at times to show the feasibility of concentrating at a short notice a large body of men in any particular locality; but, as future efforts will be in the direction of meeting an external instead of internal foe, the time has now arrived for a different order of things. Camps should be ordered by Government,

and the locality fixed and determined in accordance with the amount of practical work and instruction which would be gained if required to oppose the landing of a hostile force. This particularly applies to the four centres; and, if camps were formed and men concentrated locally at the different points which might be assailed, not only would the Volunteers at the time serving in the Force gain an individual knowledge of the ground and circumstances under which they would have to move and act, but those who had left it would, in case of rejoining, be equally acquainted with the works and duties they would be called upon to perform. The ground and positions occupied by the batteries which the Volunteers would have to defend in time of war are at present, in many instances, a *terra incognita*, and as they for the most part present physical difficulties for manœuvring that can be only overcome by personal knowledge, it appears to be suicidal to permit chances and opportunities to pass which, if taken advantage of now, would be of such inestimable value to the forces who may hereafter be engaged on this duty. It has been frequently contended that the Easter encampments held in out-districts were an incentive to Volunteering; and, while to some extent admitting this argument, it at the same time holds good that if a four-day holiday, passed for the most time in transit to and from a camp, is the stimulus which leads men to join, it cannot be considered satisfactory; and I am convinced that the results of a practical camp held in the vicinity of the batteries would be acknowledged by every real Volunteer as not only instructive but essential for the performance of the duties they would in time of war be called upon to undertake. Another argument against holding camps in out-districts is that it is difficult to keep and maintain a proper discipline over men who are cooped up in railway-carriages for a stretch of some hours; and the recent irregularities in Auckland arose in a great measure from that cause. In Nelson, Christchurch, and other places when camps have been held close to head-quarters discipline and order have invariably been preserved with little or no difficulty.

Cadets.—By the present regulations cadet corps are only permitted in connection with private or public schools, and this is no doubt the proper course to pursue; but at the same time it is to be regretted that a more systematic training of the youth of the colony is not in force. In schools where cadet corps exist it has been found that order and discipline are more easily maintained from the fact that for some hour or so during the week the boys are under the control of the drill-instructor and are obliged to do what they are ordered, and it has frequently been stated that in schools where the drill is strictly carried out a corresponding improvement in the behaviour of the boys is apparent. It is a question whether the training of boys in Government schools should not form part of the regular syllabus of instruction, and if as much attention should not be paid to drill and physical development (which go hand-in-hand) as to the ordinary subjects of study. The importance of the question is magnified when it is considered that the main defence of the colony rests with the Volunteer Force; and it is self-evident that, if the youth of the colony undergo during their school-hours a systematic training in drill and arms, we shall in time have a large proportion of the population so far trained that with very little additional instruction a valuable and effective reserve would be at hand in the hour of need. Even now a large proportion of boys who were in cadet corps join the Volunteer Force when they arrive at the proper age, and they join with a knowledge of arms and drill which enables them to speedily attain an efficiency which with their seniors can only be acquired by constant drill and attention. In centres of population, and in country districts where the schools are not too much scattered, there would be no difficulty in affording the instruction suggested at a very small expenditure, as the drill-instructor of the district could undertake the work in addition to his ordinary duties, or, in cases where this was impossible, the appointment of an additional instructor for cadet-training would be money well spent. In one or two districts instructors receive 1s. extra per diem for drilling the boys of a school, and if this plan was universally adopted the training and drilling of lads could be carried out with little additional expense to the colony, and the results would become more apparent each year by the increased discipline and efficiency of the Volunteer Force. This question of training gathers additional force when argued from a militia point of view. If at any time it was found necessary to call out the militia (after the system had been a short time in operation) it would be found that the drill and training learnt by the boy at school would be readily picked up again, and in a very short period an effective body of men could be obtained, which under present circumstances would only be acquired by a large expenditure of money, time, and trouble.

The periodical inspections of the Volunteers have proved, beyond their more immediate and direct results to the Force, that carelessness and maladministration are likely by their agency to be more readily detected and more easily rectified.

I have, &c.,
C. A. Humfrey,
Colonel, and Assistant Under-Secretary Defence.

The Hon. the Defence Minister, Wellington.

The Inspector of Volunteers to the Hon. the Defence Minister.

Sir,— Defence Office, Wellington, 1st May, 1889.

I have the honour to report, for the information of His Excellency the Governor, that since my appointment as Inspector of Volunteers, on the 6th July last, I have carefully reviewed and investigated the condition of the Volunteer Forces in this colony on somewhat different lines to what has heretofore been observed.

2. *Inspections.*—I elected, this my first year, to examine each corps by itself (with the exception of those forming the 1st Canterbury Battalion, the Christchurch Queen's Cadets, and the Oamaru Cadet Battalion—in these cases there were unavoidable circumstances which prevented the companies being inspected in detail), because I was desirous of seeing closely into the condition

of "the backbone" of the Force—*i.e.*, the company element—so that I might first judge of the material and qualifications of the ranks composing it before investigating the larger unit, for it will doubtless be allowed that if the parts of a company are weak or inefficient, and if officers, non-commissioned officers, and rank and file of a company are defective in any one point, then this must react on the efficiency of the battalion.

3. *Method of Inspecting.*—This system enables the Inspecting Officer to see whether all ranks are well or otherwise versed in those most important details of duty which they would have to perform when on active service—such as guard-mounting, skirmishing, outpost and vidette duty, forming advance and rear guards, &c.—efficiency in which is of far greater value than showy march-pasts, and such ordinary review movements, not that the latter are to be under-estimated, but in a young country like New Zealand too much importance cannot be attached to the correct knowledge of such duties as would be required if emergencies arose. Further, this plan enabled me to examine more closely into the condition of all Government property on issue to each corps, and to see that their books and accounts were kept according to regulations.

4. *Officers.*—A reference to Table V. shows that many of the corps were under-officered, some, indeed, having only one officer on their strength. I also feel it my duty to report that in many corps there were officers who were quite unfitted to command, which remark is equally applicable to both captains and subalterns. In some cases this unfitness was due to ignorance; in others it was personal unfitness to control and manage men—*e.g.*, undue familiarity while under arms; in other instances it was physical incapacity. This inability to control and deal with the men frequently exhibited itself in a reciprocal want of confidence in the men towards their officers, a state of matters which must be subversive of discipline and efficiency. Other officers were too old and infirm for active service, while some had defective vision.

5. *Vacancies amongst Officers.*—The dearth of officers exercised my mind considerably, as did also the fact of so many resigning their commissions after a few years service. One great cause, if not the greatest, is unquestionably that of expense, not only the first outlay, but the annual drain on an officer's pocket. In all ranks of the Volunteers at present the men are equipped entirely free of expense to themselves, and this exemption from expense follows right up to the highest grades of the non-commissioned rank. The non-commissioned officer is correctly described as the "main spring" of the Force, while the commissioned ranks are "the head." The non-commissioned officer is socially in many cases quite on a par with the lieutenant—the former may have all his expenses paid, a free kit from the corps' funds; but the subaltern may not, because it is rightly considered *infra dig* for an officer not to pay for his own uniform. Now, to strike a happy mean in these matters, it is admitted that the first step has been already taken in making, as the new dress regulations have done, it optional with officers to supply themselves with full dress or not, a neat undress having been prescribed by the regulations; and next it is suggested that as an officer should be liable for the cost of his outfit that the officer commanding the corps provides temporarily, out of the corps' funds, an advance for first outlay, receiving it back from the officer in capitation and so much besides per annum. It is assuredly of more importance to get young active men to qualify in every respect than to get men who because they are well off do not trouble to pass the examinations.

6. *Officers' expenses.*—Up to the present time it has always been considered that a Volunteer officer should give his services free, and, in addition, pay heavily for the privileges of his rank. In no other service does this incongruity exist, and it is time that the drain on officers' pockets should cease. It has unquestionably caused some good officers to retire, and in many instances prevented eligible men from seeking to obtain a commission. Actual experience is better than any amount of theories; and I have satisfied myself that the question of expense does enter very largely into this matter.

7. *Resignations of Officers.*—In reference to the resignations of so many officers, who by their intelligence, their manly bearing and tact, and their period of training are of great value to the Force, annual expense also plays a part. The worry of administering a corps' finance under the present system, and the scant recognition of their services which is often meted out to them even by the men under them, and nearly always by the public, is calculated to cool the military ardour of the most enthusiastic, and to drive them out of the Force.

8. *Volunteers electing their Officers.*—Lastly, the system of allowing men to elect their officers has a pernicious effect. It prevents some men who by education and physique would be an acquisition to the Force from joining, and on the other hand is the means of introducing undesirable men. Further, although a Volunteer officer bears the Governor's commission, he is not recognised in the same social category in the estimation of the public as are other branches of the service. This can be proved *ad nauseum*. For instance, if an officer uses his rank off parade he is frequently looked upon as a snob. There is no reason why a Volunteer officer should not be held in relatively as much esteem and public respect as an Imperial officer, as they are both brothers-in-arms so far as the defence of the colony is concerned.

9. *Non-commissioned Officers.*—I found a large number of good ones, and a large number of bad ones, and various shades between the two classes. What has been stated as to the fitness of the officers applies equally to the non-commissioned officers; indeed, they seem to copy the faults of the officers, and especially those faults which relate to the maintenance of their position with the rank and file. From my experience of their defects, and as the 1889 drill-book (just issued) throws more onerous and responsible duties on the non-commissioned officers, it is suggested that district adjutants and their staff see that their supernumeraries are more thoroughly instructed in their duties, &c., to enable them to intelligently and firmly take their proper status, and instruct those under them.

10. *Rank and File.*—With the rank and file I was agreeably surprised, especially with the country corps; and no doubt, with good officers and efficient non-commissioned officers and instructors, they could in a short time be made into very valuable *citizen-soldiers*. In some cases,

perhaps, it would be well to apply the physical test, but these are the exceptions. Their desire for drill seemed strong, and the amount of attention given to it very commendable, while their behaviour during the inspections was admirable.

11. *Equipment.*—I have been struck by the enormous expense which has followed each corps being allowed to select its own particular uniform. Take one example: Some companies have provided themselves with the full valise equipment, the greater part of which could not possibly be required on service in this colony. Again, some have adopted a most expensive Highland uniform, and have thereby seriously crippled their company funds. There was not one company that I inspected with sufficient pouch-accommodation to take the field, even armed with the Snider rifle; whilst several are not provided with greatcoats, leggings, water-bottles, or haversacks. The shoes of the various ranks on the inspection-parades illustrated every variety of a fashionable boot-shop window, and a large proportion of them were quite unserviceable for anything like hard work or inclement weather. This matter of correct shoeing is one to which officers commanding corps should pay special attention. The materials of the equipment on issue to some of the cavalry corps would not stand any wear and tear—*e. g.*, the Canterbury Yeomanry Cavalry pouches and sword-belts are in a particularly rotten state and dangerous, and have long since served more than their time, having been originally on issue to the Otago Gold Escort. The Canterbury Yeomanry Cavalry and Otago Hussars are without sword-knots, which might also prove dangerous. I am strongly in favour of substituting revolvers for swords in the subordinate ranks of all the mounted corps. This matter of providing the Force with a simple, comfortable, efficient, and economical uniform, shoes, and equipment should receive due consideration and be firmly taken in hand without delay.

12. *Officers Commanding Districts and the District Staff.*—These gentlemen and their staff in every instance afforded me material assistance in carrying out my duties, and they appear to me to work zealously to promote efficiency in their commands. The system of having a divided authority in the four centres—viz., an Officer Commanding the District, and an Officer in Charge of the Permanent Militia, entirely independent of each other—is unique and unworkable, and a dual command of this kind, which must lead to disaster, is to be deprecated. As it stands now, the Officer Commanding the District is entirely ignorant of the numbers of the Permanent Force actually stationed within his command, or of the amount or description of ordnance and ammunition available in case of need in his district. On the other hand, the Officer Commanding the Permanent Force would be totally unable to work his guns without the assistance of the Volunteers, from the District Commanding Officer. This system does not tend to bring about that true *rapprochement* between the two branches of the service which ought to exist, and who would be entirely dependent on one another in the event of attack. These branches of the service are never paraded together, and annually at the Queen's birthday parade the Permanent Forces are conspicuous by their absence.

13. *Shooting.*—In this there has been considerable improvement during the past year, which is mainly due to the pains taken by district adjutants to properly instruct all ranks under their charge. With the locally-made ammunition which is now on issue, there is every hope that this progress will be maintained. I have seen this ammunition subjected to several various severe tests, and have no hesitation in reporting it to be superior to what has been on issue in the colony within the past few years.

14. *Battalions.*—I have heard some comments on the policy of disbanding battalions, as they were falsely designated. In my opinion, this step was absolutely necessary—the battalions were merely battalions while on parade, and the present independent companies can at any time be made similar battalions for the purposes of drill. The system just discontinued took the individual corps entirely away from their legitimate instructors—viz., the district adjutants and their staff sergeants-major—and gave them over to their own amateur officers and non-commissioned officers. Often in winter battalions of six companies were assembled in drillsheds capable of only holding one, and if it was a wet night nothing but inspection of arms and accoutrements could be carried out. Then, in many instances, the field officers were incompetent to perform their duties, several never having passed any examination, while in some cases the commanding officers, immediately on assuming command of their battalions, thought it right to show their entire independence of the Officer Commanding the District. The system now in force allows quite as many opportunities for battalion drill as in the past, but under competent instructors, making the parade one of instruction for all ranks, instead of an inspection of buttons and pouches, followed by a march round the town, as was too often the case under the past system. It is generally admitted that when the corps were formed into battalions and handed over by the district authorities to the officers appointed to command battalions they were far better drilled and stronger in numbers than they were when these battalions were recently abolished; indeed, had the latter been continued much longer, it would have utterly disorganized the infantry corps at the four centres.

15. *Medical Officers.*—As a rule, medical officers paraded with their corps, and appeared ready and willing to perform such duties as might be required of them. Some, however, absented themselves, and, I understand, have never performed any duties, and have not even provided themselves with the prescribed uniform. I was not much surprised at seeing very little ambulance-work or appliances, seeing that medical officers are not permitted to draw capitation, nor are they supplied with ambulance-equipments or given grants in lieu thereof. Many medical officers express their willingness to give ambulance-instruction and training to the men, provided they received the necessary appliances. Such an equipment is an essential to the efficiency of the Force; and if medical men are patriotic and self-denying enough to give their valuable time to the work they should be rewarded with something more than rank and position.

16. *Signalling.*—I am pleased to find this important matter is being generally taken up; and, as provisions have been made in the new regulations dealing with this, it is to be hoped this year will see every corps with its quota of trained signallers.

17. *Long-service Medals.*—It seems to me anomalous that the non-commissioned officers and men should be granted medals for long service, and yet the commissioned ranks be denied them. Officers assert that the argument employed—that the same rule exists in the Imperial service—does not apply here, because in the regular army the decoration is given for long service and good conduct, while in New Zealand the medal is bestowed purely for long service. I therefore think, if the present voluntary system is continued, the coveted decorations should also be given to the commissioned officers.

18. *Capitation.*—My inspectional work made it quite clear to me that if the present mode of paying the Force by capitation is to be continued the amount per man must be increased. Even the infantry cannot live on £1 10s. per man, while some branches, such as the cavalry and field batteries, require special treatment of a considerably more generous nature than they have received in the past. I am, however, an advocate for a different system of payment. The method adopted in New South Wales and Victoria of converting the Force into a citizen military force, and placing each man under contract to render certain services in return for a certain pecuniary solatium, receiving pay in exact proportion to the rank attained and the service rendered, is the most satisfactory and economical way of obtaining an adequate defence force for this colony. By this means the position of all ranks is at once raised to its proper status, not only in the individual minds of each soldier, but also in the minds of the public. Such a system would involve a careful selection of the men, both as to their physical and mental fitness; it would also insure greater efficiency; and to belong to it would be considered a greater honour than anything which the country could expect to obtain under the voluntary system. It would be, undoubtedly, economical. The Government should provide uniforms and grant a small remuneration for each parade attended or duty performed; and this, while not nearly so expensive to the taxpayer directly or indirectly as the capitation system is, would be the means of providing disciplined soldiers up to the maximum required. The regulations in force in Victoria and New South Wales do not prevent promotion from the ranks as occasions offer of those men who by their intelligence and diligence may earn it. This paid system would probably abolish much of the political element which has in the past pervaded the ranks of the New Zealand Volunteers to their detriment.

19. *Storage of Arms, &c.*—In examining the spare arms on issue to corps, I found some kept in private houses, others in rooms attached to hotels, or in rooms adjacent to drillsheds, but insecure and liable to loss from fire or other causes at any time, while no insurances were held upon those arms. At Greymouth I found a twenty-four-pounder Howitzer, with sponges, rammers, and appliances, kept out in the open, exposed to all weather, and to the attacks of stones of passing boys, &c. A similar gun I found at Westport with the trail split from top to bottom through gross carelessness. At Greymouth, twenty-one stand of arms on issue to the Navals are stored in a private house occupied by one of the members of the corps; the magazine is also in the garden of a private house; and thirty stand of spare arms on issue to the Greymouth Rifles, with forty stand of new cavalry-carbines on issue to the Greymouth Cadets, are all stored in a small room adjoining the building used for a drill-hall, which is a wooden theatrical hall, old and dilapidated. At Kumara, forty-one stand of carbines on issue to the Cadets are stored in a small room, part of the hall used for a drillshed, which joins an hotel. Much the same arrangements exist at Hokitika and elsewhere. At Christchurch there is no magazine; but all the ammunition for this centre has to be kept in Lyttelton, which is considered altogether too inaccessible, and likely to prove dangerous. A drillshed is also much required at Hastings.

20. *Cadets.*—Maintaining cadet corps unconnected with schools is a useless and unsatisfactory expenditure. The officers have no control over the boys, who are not enrolled, but join or leave the corps as it suits their convenience. The battalion of Canterbury Queen's Cadets appeared on parade a complete farce. The officers are lamentably ignorant of drill, many of the boys are too small and quite incapable of bearing arms, and the parade was little short of an unseemly rabble. This is generally the complaint with corps not attached to schools; perhaps the only exceptions being the Kaiapoi Cadets and the Wanganui Artillery Cadets, two really good corps, the latter furnishing some twenty men to the local adult corps annually. If cadet corps are to be continued it should be a *sine quâ non* that only really qualified officers are appointed to these important commissions.

21. *Corps that might be dispensed with.*—Corps so far inland as Reefton appear to me to be quite useless, and should be made into rifle clubs. The Inangahua Rifles would have to go sixty miles by coach to get to a seaport town; and the majority of the corps, being working miners, could not leave the locality without paying men to take their places, while heavy expenses are incurred in sending a drill-instructor periodically from Hokitika to drill this company. The Brunnerton Rifles, again, are all coal-miners. I inspected this corps at 4 o'clock a.m., as I was told that was the only hour at which I was likely to get a muster. This corps should become a rifle club. Woodville Rifles is another useless corps. The same remark applies to the Peninsula Rifles, and others in the Dunstan district which I have been unable to inspect. I am very dubious as to whether naval artillery are required at such places as Westport and Greymouth; but if these corps were made rifles they would be more serviceable and less expensive. At Westport, after considerable trouble, I got one gun detachment (nine men) to go through drill with the Howitzer, but it might fairly be asked, how much a head those nine men have cost the colony to learn that small amount of gun-drill, and of what use are they in a place like Westport, with its bar-harbour? At Greymouth there is not a single gun detachment forthcoming in the corps, and the Howitzer has never been used since its arrival in the place. Directly a naval artillery corps is formed it becomes necessary to issue ordnance to it; and an artillery-instructor must also be supplied, adding considerably to its cost.

22. *Inspection states.*—A reference to Table III. shows that of the corps inspected there were present on parade—officers 233, rank and file 3,894; total, 4,127: and absentees—officers 29, rank and file 1,008; total 1,037. And of the cadet corps inspected there were present on parade—

officers 46, rank and file 752; total 798: and absentees—officers 9, rank and file 274; total 283. Some of the inspections had to be carried out during shearing time, and others during harvest, which to some extent accounts for some of the absentees. The corps which from their drill physique, cleanliness, and general smartness deserve special mention are the South Franklyn Mounted Rifles, the Wellington and Wanganui Naval Artillery, the A, B, D, and E Batteries Artillery, Auckland Guards, Hawera Rifles, Hastings Rifles, Kumara Rifles, Rangitikei Royal Rifles, Waimate Rifles, and Wellington City Rifles; while of the cadet corps the Wanganui Navals, the Nelson College, and Kaiapoi Cadets specially merited my approbation. The mounted sword-drill in the Canterbury Yeomanry Cavalry and the Otago Hussars was very indifferent, and had evidently been neglected; and the Heretaunga Light Horse is in all respects very far behind any other cavalry corps inspected. The men's accoutrements and appointments were dirty, their horses ill-cared for and anything but fit for a hard day's work, and the officers and non-commissioned officers were, to say the least of it, indifferent drills.

23. *Corps not inspected.*—Owing to unforeseen circumstances the undermentioned corps were not inspected: Alexandra, Rangitikei, Te Awamutu, Waiuku Cavalry, Wairoa Light Horse, and Marlborough Hussars, M Battery Artillery, the Arrow, Bruce, Clutha, Carterton, Cromwell, Coromandel, East Taieri, Featherston, Greytown, Gore, Hampden, Kaitangata, Masterton, Naseby, Otepopo, Papawa (Native), Riverton, Riversdale, Tuapeka, Palmerston South, West Taieri, Wairoa, Waikouaiti, Waitahuna Rifles, and Canterbury Honorary Reserve Rifle Corps.

24. *Conclusions.*—To briefly sum up what has been pointed out in this report, the most serious fault, to which special attention should be at once paid, is that the officers and non-commissioned officers are the weak points of the Force, instead of the back-bone of it, as they should be; next, that proper equipment should be provided, with the necessary medical organization—but in settling what the equipment of the Volunteers should be, it is necessary to consider what duties they might ever be likely to be called upon to perform. The motto of the Volunteers is "Defence, not defiance." Now, it is a fact that if the colony were attacked, and the Volunteers called out, the whole time of their action would probably not extend over more than a fortnight; therefore, in providing them with equipment as a military body, it must be borne in mind that it is unnecessary to equip them as if for a protracted campaign. Volunteers require such important articles as a good plain serviceable undress uniform, a really good rifle and accoutrements, shoes, leggings, greatcoats, haversacks, water-bottles, and sufficient pouch-accommodation to carry an ample supply of ammunition, with signalling and ambulance appliances; and the capitation-allowance should be sufficient to permit corps to be equipped accordingly. The recently-issued drill-book clearly points to the fact that the attention of officers is no longer to be absorbed in the mere drilling of their men, they are now required to train them as well. There must be degrees of training—officers require to know more than sergeants, sergeants more than privates; and therefore it is to officers and non-commissioned officers we must mainly look. Though unnecessary expense is to be deprecated in every way, still care must be taken that the good ship "Efficiency" is not driven to foundering on the rock "Economy." That the colony possesses a very valuable body of men in the Volunteers there can be no doubt, but it it a matter of regret that so many employers raise objections to their assistants being connected with the Force. To this fact is to be attributed the great difficulty of getting men to ranges for musketry practice except on Saturday half holidays and bank holidays, or assembling them for daylight drills. To employers may be pointed out the unenviable position in which they would be placed if no Volunteer Force existed; and it is the duty of employers, as citizens, to aid, by every means in their power, their patriotic employés and their distinct interest to do so; for if the Volunteer Force is not supported, and greater facilities given to its members, the time may come when it will be necessary to call out the Militia—a far more inconvenient and expensive alternative—or to resort to what is now advocated by the highest military authorities in England—a forced conscription.

I have, &c.,
A. Hume,
Lieut.-Col. and A.A. Gen. N.Z.M., Inspector of Volunteers.

REPORT ON THE CONSTRUCTION OF THE HARBOUR DEFENCES.

At the date of last year's report steps were being taken towards the general employment of convict-labour upon the defence-works. At Wellington prisoners had already been installed on the Peninsula in the barracks erected there for the garrison, these buildings having been converted into a temporary prison. In June last year the barracks at the North Head, Auckland, and at Taiaroa Head, Port Chalmers, were similarly converted, and occupied by the prisoners. At Lyttelton they began work on the fortifications both at Ripa Island and Battery Point in April last; but, there being no barracks which could be utilised as at the other ports, they were taken to and from work every day, returning at night to the Lyttelton Gaol. This system is now about to be altered, a temporary prison having been arranged at Ripa Island.

The extent of alteration and strengthening required to convert the barracks at Auckland, Wellington, and Port Chalmers, and the buildings on Ripa Island (originally intended for a submarine mining dépôt), proved to be very much less, as well in material and labour as in expenditure, than might have been expected. All these several buildings were on their first erection substantially and solidly constructed, and their internal arrangements were not in any case unsuited to the confinement and supervision of prisoners. The requirements of the gaol authorities for proper security were duly carried out to a large extent by the prisoners who were to prove them, who appear to have been also themselves satisfied, as there has not been any case of attempt to break out of any one of these temporary prisons.

It may therefore be said that the decision of the Government to employ convict-labour on the fortifications has practically been brought into operation during the whole of the past year. The result may be said to be satisfactory, as anticipated in my report of the 31st March, 1888 (H.-5). Although it is well-known by experience that the labour of convicts will not stand comparison with ordinary or contract labour by the amount of work executed in a given time, yet the economy of their employment compensates for the lesser result, where rapidity is not essential. In the particular case of our fortifications the better class of prisoners is selected for transfer to the temporary prisons and employment on the works; they are housed in buildings which, while secure, are not suggestive of a gaol, and they have an always bracing atmosphere around them. Moreover, they have not to march through the streets to and from a city gaol every day; nor are they, when at work, exposed to curious eyes; and also the nature of the work upon which they are engaged has a definite interest and object to them, and is not merely a monotonous medium for the enforcement of hard-labour. All these considerations combine to induce them to work with greater willingness than is customary with convicts, and in many cases to display an unusual and intelligent interest in the execution of the tasks set to them. It is for these reasons that their work has been stated to be satisfactory, although it is not contended but that a system of contract or piece-work paid labour would have produced a better record of progress, while necessitating a much heavier expenditure than is involved in the wages of only those three or four artisans or foremen at each port with whom it is found advisable to supplement the prison-labour for its better direction and management.

At first the prisoners at work were guarded by a picket of the Permanent Artillery, who had thus to be taken away from their drill and duty. While this arrangement worked satisfactorily, it has been found that the employment at each port of certain of the artisans above-mentioned in the capacity of additional warders enables an equally-efficient supervision to be maintained without additional expense, or detriment to the progress of the works; and the introduction of this system has, by relieving the Artillery from sentry duty, enabled them to give better attention to the guns and stores; while it has also, probably, contributed towards improvement in the work done by the prisoners, who, under their own warders only, and without the constant reminding presence of the armed sentries, appear to work somewhat more freely and willingly.

No other labour than that supplied from the prisons having been employed during the past year, the works upon which progress has been made have been those only the sites of which were more or less adjacent to the temporary prisons. There are obvious reasons why, in a report upon the defence-works which may be made public, it is inadvisable to deal except in generalities, and I am therefore debarred from more particularly alluding to the batteries and other works upon which operations have been concentrated. But it may be said that the record of the year shows a substantial advance towards the desired stage of efficiency of the defences.

The comprehensive attention devoted by General Schaw, C.B., R.E., to the colony's defences, and his invaluable advice, which has throughout been freely given, not only to the Government upon the larger general questions, but also to the executive officers of your department upon the details of design and arrangement both in the office and on the field, has enabled operations to be conducted and the available labour to be employed on definite lines.

Recent experience has proved that the surest reliance in fortification must be placed upon mother-earth. While, therefore, it is at once advisable and necessary that gun-pits and magazines, and such other bomb-proof accommodation as may be required for the protection of artillery-stores and the shelter of the garrison, should be solidly constructed in concrete, masonry, or brick, it is equally essential that as little as possible of this class of work should be in any way exposed or even visible, and that the retaining-walls and other massive outlines, and the enclosed and walled spaces, as well as the neatly-formed and trimmed counterslopes and merlons of recent systems, should be conspicuous by their absence. The realization in actual execution of these principles, while maintaining convenient communications and providing a musketry-defence of the position, is more difficult than would at first sight appear; but every effort has been made to apply them as well as the nature of the sites would allow. The shores of our harbours are singularly devoid of the extended area of fairly even-lying ground required for a fort or battery of this modern type, and their impracticable nature has occasioned a very great amount of difficulty in laying-out works. General Schaw has called frequent attention to this point: and it is one that it is only right should be made clear. A further result of the application of the above principles is this: that a completed battery buried under a mound of superincumbent earth of rough and irregular outline, evenly-trimmed and dressed slopes having been by modern experience found to be as gratifying to the eyes of the gunners of hostile vessels (enabling them to lay their fire accurately on the sharp and defined lines and shadows) as to those of the old school of military engineers eager for perfect neatness of outline. Hence to the casual visitor no proportionate indication is given of the work executed and thus concealed underground; nor is it possible, even when the subterranean galleries and magazines, &c., are entered, to comprehend in the artificial light their extent and solidity. Such is or will be the appearance of all of the more recently-undertaken works, both those that are completed and those that are approaching completion or are in progress.

There are still a few main batteries and several accessory works embraced in the accepted scheme of defence which lie unfinished or for which the ground has not yet been broken, although their armament is to hand in the colony. These are mostly works the sites for which have not been definitely acquired, and which cannot be reached under the present means of distribution and application of prison-labour. The funds at disposal have not admitted their being carried on or undertaken by contract or other methods. They form, however, essential and integral and, in one or two cases, most important parts of the defences, and it will be necessary to keep them steadily

in view and to provide in the best-considered and most economical manner for their early execution, in order to carry out to its legitimate conclusion the complete scheme of defence.

The development of means of defence for harbours appears to reach no final stage, and the unexpectedly accurate and destructive effect which can be attained by "high-angle" fire from guns of an elongated howitzer description against hostile vessels has recently been brought into prominence. The irregular ground along the shores of our harbours affords choice of good sites for the more or less masked emplacement of some of these guns, the collateral works necessary for which are of an inexpensive character.

The whole of the guns ordered have now been delivered in the colony. The discharging of the heavy 8in. guns, weighing over 13 tons each, with their complement of 30 tons more each of heavy appliances and gear, their conveyance from the ships in which they were brought out to the various jetties used for supply of the defence-works, their subsequent haulage up severe and long inclines, and eventual mounting in the pits prepared for their emplacement, have embraced a series of operations requiring much precision, care, and management. The guns are of an altogether new type, and there is no exact precedent upon which to base arrangements for either their transport or mounting; and they had to be both transported over and mounted in awkward places. Although the tackle was improvised, the men unaccustomed to the work, and the appliances generally of a somewhat primitive character, no hitch or accident of any kind has occurred throughout the operations, which have in every case been successfully and rapidly conducted. The experience now gained may be taken as assurance that those of the guns which are yet unmounted will be emplaced, when the works for which they are intended are ready to receive them, with the same success and freedom from accident.

Fair progress has been made with the completion and equipment of the various submarine mining-stations, and with the study and preliminary surveys and preparations for the mine-fields. The lines upon which these are to be laid, and the collateral arrangements for electric search-lights, testing- and observing-stations, and subsidiary machine and shrapnel-firing guns for their protection, have recently been again very carefully gone into, and are now finally settled. The delivery of the necessary full equipment of stores has been considerably delayed owing to the inability of the Imperial authorities to meet immediately the various requisitions made some time ago; but most of the stations are now fairly well supplied, and during the ensuing half-year should receive almost their full complement. The whole of the valuable stores and equipments up till now delivered in the colony are in charge of the Torpedo Corps at the various stations.

In future harbour-warfare it is confidently held that submarine mining will play the more important and decisive part. The pitch to which the wonderful development of its beautiful and scientific appliances has reached, and the deadly and hidden nature of its action, combine to make the submarine mine a weapon of defence of the first importance. It therefore becomes of equal urgency with the proper completion of the land-works that the submarine-mining stations should be supplied with everything that is necessary and essential for their most complete and perfect equipment, so as to enable the now skilled Torpedo Corps, supplemented by the Naval Volunteers who have undergone training, to lay out the mine-fields in time of danger or fear of war. Neither guns alone nor mines alone provide efficient protection, but in combination they present a very strong form of harbour defence. It is proposed, therefore, if possible, to devote a fair proportion of such funds as may be available during the ensuing year to the proper completion of the stations and of the surveys and accessories of the actual mine-fields.

The departure of Sir William Jervois has deprived the colony of his valuable advice and co-operation in its defences; but his connection therewith has been marked by the strong works on Ripa Island (in which he took an especial interest from the first) being, at the suggestion of the Government and with the permission of Sir William, named Fort Jervois.

The steam-launches and all the other plant, gear, stores, and appliances employed in and for the general carrying-on of the defence-works have been maintained in an efficient and satisfactory condition throughout the year. The guns, magazines, artillery-stores, ammunition, &c., are under charge of the Permanent Artillery, and are reported upon by the Staff Officer.

The completed batteries and works when handed over by the construction-branch cease to be under my immediate charge, and are reported upon by the officers of the Artillery. Two of the magazines constructed in 1887 and one or two of the temporary magazines constructed in 1885 have not proved altogether damp-tight. It is proposed to place the defective magazines in a proper condition during the ensuing summer.

The laboratories referred to in my report of last year have not been erected, means having been found to carry out the necessary operations successfully without this expenditure: and the available funds were therefore diverted to more urgent works. The advisability of providing these laboratories, however, remains, and should be kept in view.

Further information and valuable 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 experiment 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.

There have been no new transactions in acquiring land for defence purposes. The expenditure and liabilities under that head for the year represent dealings with claims consequent upon previous purchases or occupations. To enable certain of General Schaw's recommendations to be carried out it will be necessary to acquire some additional sites, but the expenditure involved will in no case be serious.

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

ARTHUR BELL,
Engineer for Defences.

31st March, 1889.

HARBOUR DEFENCES.

Table I.

RETURN showing the EXPENDITURE on HARBOUR DEFENCES, in detail, from their Commencement to the 31st March, 1889, also Liabilities at that Date.

Classification.	1878-79.	1879-80.	1880-81.	1883-84.*	1884-85.	Total Expenditure up to 31st March, 1885.†	1885-86.	1886-87.	1887-88.	1888-89.	Total Expenditure from 31st March, 1885, up to 31st Mar., 1889.‡	Great Totals Expenditure from 1878 to 31st March, 1889.§	Liabilities known to exist at 31st March, 1889.	Grand Total Expenditure and Liabilities at 31st March, 1889.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
I.—MATERIAL FROM ENGLAND.														
R.B.L. guns and carriages, &c.	..	..	..	..	..	..	35,149 0 0	38,033 15 7	11,188 15 8	17,770 7 9	102,141 19 0	102,141 19 0	..	..
R.M.L. guns and carriages, &c.	..	26,356 13 0	..	..	..	26,356 13 0	4,203 6 4	..	..	354 5 10	4,557 12 2	30,914 5 2	..	..
Field-guns and carriages, service pattern	..	..	..	..	..	..	..	900 0 0	..	..	900 0 0	900 0 0	..	..
Machine-guns and carriages	..	..	..	..	..	..	..	1,745 12 2	6,393 9 6	5,673 13 0	13,812 14 8	13,812 14 8	..	..
Ammunition	10 7 10	799 0 7	..	..	..	809 8 5	3,504 5 11	3,352 8 9	11,890 2 2	4,975 1 4	23,721 18 2	24,531 6 7	..	..
War Office stores: Miscellaneous equipments	4,830 0 0	..	..	..	..	4,830 0 0	..	3,975 14 7	485 18 10	120 10 0	4,582 3 5	9,412 3 5	..	..
Major-General Steward, R.E., Military Adviser to Agent-General	..	..	..	..	..	..	513 13 6	1,986 10 8	522 17 4	344 6 0	3,367 7 6	3,367 7 6	..	..
Torpedo-boats	..	..	..	6,300 0 0	4,735 17 0	11,035 17 0	..	..	..	..	..	11,035 17 0	..	..
Whitehead torpedoes and air-compressing machinery	..	..	..	..	..	..	8,104 0 8	685 0 0	..	374 7 7	9,163 8 3	9,163 8 3	..	..
Submarine mining stores for submarine defence of ports	..	..	..	..	..	..	..	872 13 6	12,055 6 6	2,096 4 5	15,024 4 5	15,024 4 5	..	..
Miscellaneous charges: Freight, insurance, shipping, &c.	857 0 4	415 11 1	..	..	2,226 13 10	3,499 5 3	338 19 7	2,026 11 2	3,539 0 11	3,370 7 9	9,274 19 5	12,774 4 8	..	..
Totals	5,697 8 2	27,571 4 8	..	6,300 0 0	6,962 10 10	46,531 3 8	51,813 6 0	53,578 6 5	46,075 10 11	35,079 3 8	186,546 7 0	233,077 10 8	3,715 3 5	236,792 14 1
II.—WORKS IN THE COLONY.														
Defence works generally: Batteries, depôts, launches, engineering, and miscellaneous charges	713 1 3	531 19 8	904 6 2	912 6 11	2,638 5 3	5,699 19 3	58,081 5 1	74,429 6 8	25,805 14 11	12,769 13 7	171,086 0 3	176,785 19 6	1,800 18 10	178,586 18 4
Purchases, &c., of land: Sites for depôts and batteries	..	..	..	..	..	..	17,272 9 0	11,421 6 2	1,577 9 8	2,240 6 0	32,511 10 10	32,511 10 10	600 0 0	33,111 10 10
Totals	713 1 3	531 19 8	904 6 2	912 6 11	2,638 5 3	5,699 19 3	75,353 14 1	85,850 12 10	27,383 4 7	15,009 19 7	203,597 11 1	209,297 10 4	2,400 18 10	211,698 9 2
Totals I. and II.	6,410 9 5	28,103 4 4	904 6 2	7,212 6 11	9,600 16 1	52,231 2 11	127,167 0 1	139,428 19 3	73,458 15 6	50,089 3 3	390,143 18 1	442,375 1 0	6,116 2 3	448,491 3 3

* There was no expenditure for the years 1881-82 and 1882-83. † At this date (31st March, 1885) the actual construction of defence works commenced. The expenditure in the colony prior to this date was—(*a*) For surveys and other expenses incidental to the visits of Colonel Scratchley, R.E., and Major Cautley, R.E., to report upon the defences of the colony; (*b*) the salaries and travelling expenses of those Imperial officers; (*c*) the landing, transport, storage, and care of R.M.L. guns and ammunition, and of torpedo-boats; and (*d*) other miscellaneous charges. ‡ This column represents the expenditure on all accounts incurred since the actual construction of the defence works commenced, namely, from 31st March, 1885, to 31st March, 1889. § This column represents the sum of the separately-shown expenditures of the two periods assigned in the two preceding notes.

31st March, 1889.

ARTHUR BELL, Engineer for Defences.

RETURN of VOLUNTEERS to the 31st March, 1889.

Table II.

District.	Corps.	Cavalry.	Corps.	Mounted Infantry.	Corps.	Naval Artillery.	Corps.	Artillery.	Corps.	Engineers.	Corps.	Rifles.	Corps.	Honorary	Corps.	Total.	Corps.	Cadets.
Auckland	..	..	..	..	4	352	2	107	1	54	7	404	..	..	14	917	..	..
Waiuku	1	66	1	60	..	..	..	..	..	..	1	38	..	..	3	164	..	..
Waikato	1	41	..	..	..	..	..	..	..	..	1	60	..	..	2	101	..	..
Taranaki	..	..	..	..	..	..	..	..	..	..	1	66	..	..	1	66	1	61
Patea	1	59	..	..	..	..	..	..	..	..	2	99	..	..	3	158	..	..
Wanganui	..	..	..	..	1	56	..	..	..	..	2	109	1	69	4	234	2	126
Rangitikei	1	52	..	..	..	..	..	..	..	..	3	169	..	..	4	221	..	..
Wellington	1	43	..	..	2	191	1	65	..	..	6	367	..	..	10	666	2	93
Wairarapa	..	..	..	..	..	..	..	..	..	..	5	242	..	..	5	242	3	140
Napier	..	..	..	..	1	54	1	46	..	..	3	162	..	..	5	262	1	36
Poverty Bay	1	48	..	..	..	..	..	..	..	..	1	81	..	..	2	129	1	67
Thames	..	..	..	..	1	76	..	..	..	..	..	..	..	..	1	76	..	..
Total North Island	6	309	1	60	9	729	4	218	1	54	32	1,797	1	69	54	3,236	10	523
Nelson	..	..	..	..	1	61	1	54	..	..	3	160	..	..	5	275	1	55
Marlborough	1	57	..	..	..	..	..	..	..	..	2	131	..	..	3	188	2	111
Canterbury, North	1	73	1	51	1	79	2	130	1	50	10	652	1	69	17	1,104	4	408
" South	..	..	..	..	1	55	1	46	..	..	6	306	..	..	8	407	3	109
Oamaru	1	56	..	..	1	64	1	46	..	..	6	306	..	..	9	472	5	230
Dunedin	1	51	..	..	3	192	2	109	1	55	15	855	..	..	22	1,262	8	580
Invercargill	..	..	..	..	1	61	1	54	..	..	4	250	..	..	6	365	..	..
Lake	..	..	..	..	..	..	1	37	..	..	2	86	..	..	3	123	3	121
Westland	..	..	..	..	2	84	..	..	..	..	5	260	..	..	7	344	5	215
Total South Island	4	237	1	51	10	596	9	476	2	105	53	3,006	1	69	80	4,540	31	1,829
Total all New Zealand (31st March, 1889)	10	546	2	111	19	1,325	13	694	3	159	85	4,803	2	138	134	7,776	41	2,352
Total all New Zealand (31st March, 1888)	13	714	2	99	20	1,243	14	743	3	147	94	5,049	1	69	147	8,064	47	2,773
Total all New Zealand (31st March, 1887)	13	723	2	103	20	1,238	14	721	3	157	93	5,016	1	71	146	8,029	47	2,880

Strength on 31st December, 1887, 147 corps, 8,419 men; strength on 31st December, 1888, 140 corps, 7,685 men. Decrease since 31st December, 1887, 13 corps, 643 men; decrease in number of corps since 31st December, 1888, 6; numerical increase since 31st December, 1888, 91 men.

Return of Annual Inspections.

Table III.

Name of Corps.	Date of Inspection.	Present on Parade.			Absent with Leave.	Absent without Leave.	Sick.	Total Strength of Corps.
		Officers.	Non-commissioned Officers and Men.	Total.				
	1888.							
Lyttelton Navals	Oct. 11	3	56	59	10	..	..	69
Canterbury Yeomanry Cavalry ..	" 12	4	56	60	13	..	..	73
North Otago Hussars	" 12	2	19	21	3	31	1	56
N Battery Artillery	" 15	2	45	47	1	..	1	49
Canterbury Engineers	" 16	2	37	39	4	..	..	43
E Battery Artillery	" 16	3	51	54	4	..	4	62
Dunedin Navals	" 18	3	39	42	15	..	..	57
Otago Hussars	" 19	3	42	45	..	7	1	53
Dunedin City Guards	" 22	3	46	49	14	..	..	63
Dunedin Highland Rifles	" 23	3	46	49	13	..	2	64
Wellington City Rifles	" 29	2	55	57	1	..	..	58
D Battery Artillery	" 30	2	36	38	4	4	..	46
Wellington Navals	" 31	1	28	29	5	11	..	45
Canterbury Mounted Rifles	Nov. 5	4	40	44	1	4	..	49
Canterbury Battalion—								
Christchurch Guards	" 6	5	35	40	1	14	..	55
Christchurch Rifles	" 6	2	44	46	4	7	1	58
Sydenham Rifles	" 6	3	34	37	2	17	1	57
Canterbury Scottish Rifles.. ..	" 6	3	51	54	6	7	..	67
Richmond Rifles	" 6	1	49	50	1	4	..	55
Canterbury Irish Rifles	" 6	1	33	34	19	..	..	53
Kaiapoi Rifles	" 6	2	54	56	7	4	..	67
Garrison Band	" 6	..	20	20	7	..	..	27
Rangiora Rifles	" 7	2	36	38	11	3	..	52
Stoke Rifles	" 17	2	29	31	6	..	..	37
Waimea Rifles	" 17	3	37	40	3	1	..	44
Nelson City Rifles	" 19	2	48	50	5	..	..	55
Nelson Garrison Band	" 19	..	16	16	5	..	..	21
Nelson Navals	" 20	3	42	45	5	..	2	52
H Battery Artillery	" 20	3	40	43	7	..	..	50
Westport Navals	" 22	2	38	40	5	3	..	48
Inangahua Rifles	" 24	3	39	42	4	1	..	47
Brunnerton Rifles	" 26	3	37	40	7	5	..	52
Greymouth Navals	" 26	3	30	33	3	12	..	48
Greymouth Rifles	" 26	2	28	30	15	..	..	45
Kumara Rifles	" 27	2	57	59	2	..	2	63
First Westland Rifles	" 28	3	47	50	2	..	..	52
Auckland Navals	Dec. 10	3	59	62	9	3	2	76
Newton Rifles	" 11	1	37	38	5	..	..	43
Royal Irish (Auckland) Rifles ..	" 11	3	37	40	11	2	..	53
Onehunga Navals	" 12	2	50	52	22	8	..	82
Onehunga Rifles	" 12	3	37	40	10	4	1	55
Auckland Engineers	" 13	2	37	39	6	..	..	45
A Battery Artillery	" 13	2	47	49	5	5	..	59
O Battery Artillery	" 13	2	32	34	6	4	..	44
Auckland Garrison Band, No. 2 ..	" 13	..	16	16	5	..	..	21
Auckland Garrison Band, No. 3 ..	" 13	..	21	21	6	..	..	27
Waitemata Navals	" 14	2	33	35	5	9	2	51
Devonport Navals	" 14	2	24	26	21	13	1	61
Ponsonby Navals	" 14	2	45	47	6	7	..	60
Auckland City Guards	" 15	3	38	41	10	2	1	54
Hobson Rifles	" 17	3	35	38	7	..	..	45
Victoria Rifles	" 17	3	33	36	9	..	..	45
Hamilton Light Infantry	" 18	3	53	56	..	4	..	60
South Franklin Mounted Rifles ..	" 19	3	43	46	8	4	2	60
	1889.							
Palmerston North Rifles	Jan. 7	2	44	46	1	2	1	50
Manchester Rifles	" 7	3	38	41	..	5	2	48
Rangitikei Royal Rifles	" 8	3	51	54	..	5	1	60
Wanganui Navals	" 9	3	46	49	..	..	..	49
Wanganui City Rifles	" 10	1	41	42	..	4	..	46
Wanganui Rifles	" 10	2	41	43	1	3	2	49
Wanganui Garrison Band	" 10	..	16	16	1	..	..	17
Hawera Rifles	" 11	3	33	36	2	7	1	46
Taranaki Rifles	" 14	3	44	47	1	1	..	49
Napier Navals	" 16	2	42	44	6	..	..	50
Napier Rifles	" 16	2	33	35	4	7	..	46
Napier Garrison Band	" 16	2	18	18	..	..	2	20
F Battery Artillery	" 17	3	38	41	4	..	1	46
Hastings Rifles	" 17	3	35	38	21	..	..	59
Woodville Rifles	" 18	1	26	27	1	9	..	37
Wellington Rifles	" 25	2	32	34	10	6	1	51
Wellington Guards	" 25	2	48	50	..	3	..	53
Petone Navals	" 26	1	28	29	5	11	..	45
Newtown Rifles	" 28	3	37	40	1	4	..	45
Ashburton Guards	Feb. 4	3	29	32	13	..	..	45
Ashburton Rifles	" 4	2	40	42	12	..	..	54
Geraldine Rifles	" 5	3	34	37	9	2	..	48
Temuka Rifles	" 6	2	28	30	14	..	..	44
C Battery Artillery	" 7	2	38	40	7	..	..	47
Timaru Navals	" 7	1	35	36	11	4	..	51

Table III—*continued.*

Name of Corps.	Date of Inspection.	Present on Parade.			Absent with Leave.	Absent without Leave.	Sick.	Total Strength of Corps.
		Officers.	Non-commissioned Officers and Men.	Total.				
	1889.							
Timaru Rifles	Feb. 7	1	33	34	17	..	..	51
Waimate Rifles	" 8	3	39	42	14	3	1	60
Dunedin Irish Rifles	" 11	3	36	39	11	..	..	50
Waikari Rifles	" 12	3	35	38	6	..	..	44
Peninsula Navals	" 12	3	35	38	..	5	..	43
B Battery Artillery	" 13	3	38	41	4	..	..	45
Dunedin Engineers	" 13	3	45	48	1	..	..	49
North Dunedin Rifles	" 14	3	47	50	10	2	..	62
South District Rifles	" 14	3	42	45	12	..	..	57
Port Chalmers Navals	" 15	3	61	64	8	..	..	72
L Battery Artillery	" 15	2	44	46	9	8	..	63
Peninsula Rifles	" 16	2	15	17	32	..	..	49
Bluff Navals	" 18	3	38	41	20	..	..	61
G Battery Artillery	" 19	1	44	45	6	..	..	51
Invercargill Rifles	" 19	3	54	57	8	..	..	65
Invercargill Garrison Band	" 19	..	20	20	..	..	..	20
Oamaru Navals	" 21	3	43	46	8	..	1	55
I Battery Artillery	" 21	3	32	35	7	..	..	42
Oamaru Rifles	" 21	2	34	36	5	5	..	46
Oamaru Garrison Band	" 21	..	24	24	..	..	..	24
Heretaunga Light Horse	Mar. 1	3	32	35	2	3	3	43
Thames Navals	" 27	2	54	56	20	..	..	76
Whangarei Rifles	" 31	3	37	40	5	3	..	48
Total	..	233	3,894	4,127	695	302	40	5,164
	1888.							
Christ's College Rifle Cadets	Nov. 5	2	48	50	9	..	4	63
Battalion Queen's Cadets—								
Boys' High School	" 5	2	40	42	7	..	3	52
No. 1 Queen's	" 5	2	27	29	11	..	..	40
No. 2 Queen's	" 5	3	32	35	13	..	..	48
No. 3 Queen's	" 5	1	49	50	20	..	..	70
No. 4 Queen's	" 5	2	36	38	13	8	7	66
Queen's Band	" 5	..	30	30	..	..	..	30
Nelson College Cadets	" 17	2	56	58	4	..	..	62
Reefton Cadets	" 24	3	26	29	..	..	19	48
Greymouth Cadets	" 26	3	24	27	2	..	1	30
Kumara Cadets	" 27	3	37	40	..	..	2	42
Westport Cadets	" 24	3	34	37	15	..	..	52
Hokitika Cadets	" 28	1	25	26	1	5	..	32
	1889.							
Wanganui Artillery Cadets	Jan. 10	2	25	27	..	19	..	46
Ashburton Cadets	Feb. 4	1	20	21	8	..	..	29
Temuka Cadets	" 6	2	13	15	..	20	..	35
Timaru Cadets	" 7	2	11	13	24	..	..	37
Waitaki High School Cadets	" 21	2	20	22	1	10	..	33
Oamaru North School Cadets ..	" 21	2	34	36	21	..	..	57
Oamaru Middle School Cadets ..	" 21	2	37	39	3	..	1	43
Oamaru South School Artillery Cadets	" 21	2	36	38	25	..	..	63
Kaiapoi Cadets	" 23	2	41	43	7	..	..	50
Wellington College Cadets	Mar. 6	2	51	53	..	..	..	53
Total	..	46	752	798	184	62	37	1,081
Grand Total	..	279	4,646	4,925	879	364	77	6,245

[*Approximate Cost of Paper.*—Preparation, nil; printing (1,350 copies), £10 17s.]

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