

*Progress of Year in Land Works.*

In advancing the preceding arguments and facts, it will be gathered by implication that a considerable degree of progress has been made with the defence-works during the past year; and, as a matter of fact, the capability of artillery resistance to attack at each port has been effectively increased. There are, however, 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, a bar which also prevents the mention of many interesting details.

*General Edwards's Inspection.*

Before leaving the general subject of the works constructed or under construction allusion may be permitted to the visit of Major-General Edwards, C.B., R.E., to the colony, and to the impression which was made upon the mind of so able and experienced an officer by these works. I had the honour to accompany him during his visit upon inspections of all works at the four ports, and to be made aware of the opinions which he entertained upon them, and very impartially and critically expressed; and the subsequent remarks upon defence-works embodied in the valuable report which he submitted to the Government are, at all events, not in the direction of condemnation.

*Land Works uncommenced.*

Although much has been accomplished up to the present date towards the realisation of the complete scheme as laid down from time to time by the military advisers of the Government, there still remains much to do to bring both the land and submarine defences to the necessary degree of completeness and efficiency. There are several batteries of the first importance, the armament for which is available, but for which ground has not been broken, and which call seriously for attention. It is not feasible to undertake these batteries, situate chiefly at more or less distant outposts from the centre of defence, with prison-labour, this being only utilisable within a certain radius of the temporary prisons. Their construction should therefore be by free day- and piece-labour under the department, by schedule of rates, or by ordinary lump contract. Of these three methods, the second is recommended as, on the whole, most likely under the circumstances to prove satisfactory, for many reasons. It is also the method which the experience of the Royal Engineers, as laid down in their professional and occasional papers, appears to approve. If, however, the Prisons Department could venture to allow the convicts to work at these remote places, it would be possibly best to go to the expense of erecting buildings which would serve in the future for barracks for the men who in the time of war would require to be quartered at hand, and in the present as sufficiently large auxiliary temporary prisons; and thus to continue the system of prison-labour. The conditions of only one of the sites of the batteries now referred to would admit of a prison-hulk being anchored in the vicinity; and this method of confinement, always inadvisable, would probably in the end be more expensive than barrack building. At present there are no funds made available to the construction department for these very necessary works. They form, however, as already stated last year, essential and integral and, in one or two cases, most important parts of the defences, and it will be necessary to keep them earnestly in view, and to provide in the best considered and most economical manner for their early execution, if the complete scheme of defence is to be carried out to its legitimate conclusion.

*Armament for future consideration.*

Although artillery questions proper do not come within my province, it is impossible for any one connected with works of defence not to take an interest in the rapid development and strides which are now made in the science of gunnery. In addition to high-angle-fire guns, quick-firing guns of much heavier calibre than were thought possible a year or two ago are now ranked as proved arms. The success of that very formidable weapon the dynamite-gun is practically insured. All these three classes of ordnance could find employment in our harbours as supplementary or complementary to their present armament in the many well-adapted positions which the contour of the shores afford; while almost a revolution may be effected in the practice of the artillery already mounted in the batteries when the secret of smokeless powder is introduced into the composition of heavy-gun cartridges; thus facilitating the already-proved and marvellously adaptable systems of range- and position-finding, in which electricity—as in many other branches of general defence—has enabled a degree of certainty to be obtained undreamt of a few years ago. There are many other instances of quite recent development which might be brought forward, and which are at once the delight and despair of those connected with fortifications; because in the one aspect they are capable of so vastly improving the power of defence, and in the other tend to depreciate in the light of to-day work brought up to proof in the light of yesterday. All these matters, however, resolve themselves into the usual primary factor of funds, and, as there are none available, pass beyond the region of at all events present practical attainment.

*Mounting of Ordnance.*

All the guns ordered from England, and their complete equipment for mounting and ammunition, had, at date of last report, been delivered in the colony. During the past year several have been mounted, and, as anticipated, without any mishap. Both the artillery and construction branches have now become so acquainted with the exigencies of transport and mounting that no trouble is experienced in taking the heaviest of the guns to any site and there mounting it when the works are ready.

*Submarine Defence.*

With regard to submarine defence, some further progress has been made with the depôts, which are now, as regards their sheds, appliances, and equipment, and also barrack-accommodation for the men of the corps, well on to completion. But here again it must be urged that there is still very