

Marine Board Office,
Auckland 15th Nov., 1864.

SIR,—

In compliance with your request in letter H. 64, 35, I have the honor herewith to furnish the following report upon the progress and condition of the Lighthouse now in course of construction on the Island of Tiri Tiri.

The iron tower, lantern, and the illuminating apparatus arrived in Auckland, per *Queen of the Deep*, on the 15th June, and, after some unavoidable delay, were transhipped into small crafts, conveyed and landed at once on the Island, with the exception of the illuminating apparatus, which was taken and stored in the Government Store on the North Shore, for greater security and until the time it would be required; it is now, however, on the site.

The carriage of material of every description from beach to site was expensive and difficult. A team of 12 bullocks, with fodder, had to be taken there, but from the nature of the ground—being in one place one in four steep, it was impossible to draw on the sledge over half a ton weight at one time.

After preparing necessary Plans for Foundation, tenders were advertised for early in August, but, in consequence of delay arising from the lowest Tenderer not being able to find approved sureties, it was not let until the 27th. This work was performed very satisfactorily within the specified time—two months.

The excavations for Foundation were sunk 10 feet down through layers of dry hard clay mixed with soft sand-stone, and layers of hard yellow clay sand-stone with traces of iron, but no water. The foundation is formed of three feet of concrete with seven feet of solid scoria masonry, of the best description of stone, quarried from Mount Eden. On this the first plate of the tower was laid, and firmly fixed and secured with holding-down bolts, on the 21st October, and is now 48 feet high, completed with its internal column, outside gallery, and floor-girders; leaving to be carried out the erection of lantern, lighting apparatus, fixing floor stairs, and other internal fittings of tower, together with caulking and painting.

By the end of the year I fully expect that the whole of the works will be completed, and the Light, which is of the 2nd order Dioptric, fixed, be ready for exhibition on the 1st January, 1865. The Light will be visible from a ship's deck at a distance of 24 nautical miles.

The Keepers' dwellings, in connexion with the Lighthouse, are completed, and are now occupied by the workmen employed on the tower. They consist of two cottages of four rooms each, are built of timber, and cost £775.

All the works are carried out under the immediate superintendency of R. Aylmer, Esq., C.E., who came from England with the Lighthouse for that purpose.

The exact amount of cost of all these works cannot correctly be stated until they are completed, but I do not anticipate it will exceed £6,600.

The cost of maintenance annually, including painting, insurance of dwellings, providing stores, salaries of two Keepers, and expenses incurred in visiting, &c., will be about £550.

With regard to any suggestions I may consider desirable to make, I beg to recommend that the whole of the island be kept as reserve for Lighthouse purposes and Pilot and Telegraph Stations. It seems to me when the trade of the Port increases, it will be desirable to remove the two latter. A Semaphore Telegraph may be erected there at once, with one repeating station half way. This alteration would involve two new stations, and the maintenance of one more than at present; or a single wire may be laid, crossing the harbour above the usual anchoring place for ships. Until a Telegraph is erected on the island it is desirable for the Board to have a boat to convey stores, oil, &c., there, and to enable the local member to visit the Lighthouse once a month to see that everything is going on right, as the rules are stringent in not permitting the Keepers to leave the island without permission, under any circumstances. The cost of a suitable boat probably would not exceed the sum of £150. Two bullocks or a horse will also be required to be kept on the island, to draw up stores, &c. I beg also to recommend that a beacon be placed on Flat Rock, off Kawau. This rock is only a few feet above water, and three miles from land, and is dangerous to vessels coming from or going to the North at night. A beacon is also much required on the end of Rangitoto Reef. This, I presume, comes within the Port limits, but as His Honor the Superintendent has not defined those limits it leaves the question open.

I have, &c.,

R. JOHNSON,
Warden.

Secretary to Postmaster-General.