

The works connected with these new lights have been delayed solely from want of a steamer to convey the materials to the various sites, and afterwards to keep up constant communication for the purpose of supplying provisions and stores, as well as for maintaining a proper supervision over the works. Several efforts were made to begin some of the works with the assistance of the "Luna;" but, owing to the frequent demands for her services by other departments, it was found that she could not be relied upon to carry out to completion any work she might undertake in connection with the new lights. The department was therefore reluctantly compelled to suspend operations until the arrival of the lighthouse steamer "Stella," now on her way to the colony; the undivided services of which will enable the works to be pushed on without interruption.

4. *Lighthouse Sites*.—Endeavours have been made for some time past, by the department, to secure clear titles to the land on which lighthouses have been or are to be erected in various parts of the colony. The following is a list of the stations, titles to which have already been secured:—

Tiri Tiri—Whole island, reserved by Order in Council dated 29th December, 1874.

Manukau Heads—618 acres, reserved by Secretary for Crown Lands for lighthouse and other purposes on the 17th December, 1874.

Farewell Spit—600 acres, and right of road the whole length of the Spit, reserved by Order in Council dated 7th January, 1869.

Nelson—1 acre 3 roods 18 perches (Section 1132, City of Nelson), reserved by Waste Lands Board, and surrendered to Crown, by conveyance, by his Honor the Superintendent.

Mana Island—The property of the Provincial Government of Wellington—5 acres set apart for lighthouse purposes.

Pencarrow Head—69 acres purchased from Natives by deed dated 24th September, 1873.

Cape Campbell—161 acres, reserved by Provincial Government.

Godley Head—168½ acres, reserved by Order in Council dated 22nd June, 1876.

Taiaroa Head—Site reserved by Order in Council dated 20th October, 1869.

Nuggett Point—130 acres, reserved by Order in Council dated 23rd June, 1869.

Dog Island—Whole island, reserved by Order in Council dated 19th September, 1875.

Cape Maria Van Diemen—Whole of island off Cape, on which lighthouse is to be erected, reserved by Order in Council dated 5th March, 1875.

Portland Island—36 acres, purchased from Natives at a cost of £150.

The Brothers—Whole of islets reserved by Order in Council dated 16th January, 1875.

Cape Foulwind—84 acres, reserved by Order in Council dated 7th September, 1870.

Centre Island—Whole island, reserved by Order in Council dated 6th November, 1875.

Puysegur Point—Site reserved by Order in Council dated 15th September, 1875.

Moeraki—Nearly 9 acres, purchased from Mr. N. J. B. McGregor at a cost of £100.

The Island of Moko Hinau or Poko Hinau, at the northern entrance to Hauraki Gulf, has not yet been secured; the owner, however, has promised to sell the portion of the island required for the lighthouse site.

5. *Paraffin Oil*.—Reference has been made in previous reports to the saving that would be effected by the use of mineral in the place of colza oil in the lighthouses. One of the principal objections to the use of this oil has been that the shipping firms, whose vessels trade to New Zealand, refused to carry it except on deck at shippers' risk. I am glad, however, to be able to state that this difficulty has been overcome, Messrs. Patrick Henderson and Co. having agreed to take the oil as ordinary cargo. I attach hereto copy of correspondence on this subject.

The mineral oil that we have hitherto obtained in this colony was from the manufactory of Youngs' Paraffin Light and Mineral Oil Company. I attach a copy of a report of an analysis thereon, made by Dr. Stevenson Macadam, Lecturer on Chemistry and Consulting Analytical Chemist, of Edinburgh, from which it will be seen that this oil is of the best description.

As the annual expenditure for oil now amounts to a large sum, it becomes a matter of importance that the oil should be procured from wherever it can be bought at the cheapest rate. With this object in view, I have had a correspondence with Messrs Whittemore (Agents for the Oriental Coal Oil Company), of Boston, United States of America, regarding the Oriental 160° fire-test mineral oil, which can be delivered in the colony at about 2s. per gallon. At my request, samples of this oil have been sent to Messrs. D. and T. Stevenson, in order that they may have it analyzed, for the purpose of seeing whether it would be equal in quality to the oil now in use, which costs about 2s. 9d. per gallon in the colony.

6. *Store for Lighthouse Supplies*.—I have on several occasions pointed out the difficulties experienced by the department from want of a suitable building in which the oil and other lighthouse supplies can be stored. The only building the department now has is a small shed in the Custom House yard at Wellington. This shed will not hold more than a third of the annual supply of oil required for existing lighthouses; the remainder, therefore, often at great inconvenience, has to be distributed to the several lighthouses as soon as possible after being landed, or to be stored in private warehouses. Now that mineral oil is to be used in the lighthouses, the difficulty of obtaining storage will be enhanced, as, according to "The Dangerous Goods Act, 1869," oil of this description can only be placed in a store distant fifty yards from the nearest building. It will, therefore, be absolutely necessary that steps should be taken as soon as possible to provide a suitable store in which the large shipments of paraffin annually required for all the New Zealand lights can be placed in security.

7. *Lighthouse Dues*.—The amount received on account of light dues during the year amounted to £11,439 2s. 4d., being £1,197 2s. 10d. more than was collected during the year ended 30th June, 1875, and £6,294 13s. 10d. more than the amount (£5,144 8s. 6d.) expended on the maintenance of lighthouses during the past year. The total amount received from 1st July, 1866, to the 30th June last, for light dues in excess of cost for maintenance of lights, amounts to £25,142 7s. 3d., which sum may properly be regarded as a substantial contribution towards the cost of the new lights now about to be erected.

8. *Surveys*.—During the last year a survey of a shoal off Kiourangi Point, and of that part of the coast between Cape Foulwind and the Buller, was made by Captain Johnson, of this department;