

light but is also much cheaper than colza oil; the annual saving on the present consumption of oil at the current prices in the Colony for kerosene of the best brands would amount to £407 5s.

The construction of the lantern and apparatus referred to in my last report as having been ordered for Manukau was proceeded with immediately the order reached home, and advices have been received that the lantern has been shipped. The lamps, as before stated, are to burn kerosene, a supply of which, sufficient for the first year's consumption, has been ordered from England. It is intended to test this oil with the best samples procurable in the New Zealand market, with a view of arranging hereafter, if possible, to purchase it in the Colony. Plans for the tower and dwellings have been prepared by the Marine Engineer, and contracts for their erection will be entered into immediately. It is expected that the light will be ready for lighting in the early part of next year.

The attention of the Government has from time to time been called to the desirability of proceeding with the erection of the proposed Tory Channel Lighthouse, as that light would be most useful to steamers entering Tory Channel at night, and would complete the lighting of the narrow part of Cook Strait. An additional reason in favour of the erection of that light (which is to be a red one) is, that the Pencarrow and Mana lights are both fixed white lights, and the possibility of one being mistaken for the other was shown when the "City of Newcastle" was wrecked close to the entrance to Tory Channel, the Master having evidently mistaken Pencarrow light for Mana light and shaped his course accordingly.

The returns appended hereto show that the light dues collected during the year amounted to £6,845 9s. 5d., being £941 9s. 5d. in excess of the amount collected in the previous year. The amount paid for expenses of maintenance was £5,277 3s. 3d.; but to this should be added the cost of the services of the "Luna," which, as usual, were placed at the disposal of the Marine Department several times during the year, for the purpose of carrying stores to and of inspecting the Lighthouses in Cook Strait. She was employed on this service altogether about fourteen days, as under—

On the 3rd and 4th August, 1872, in going to Cape Campbell Lighthouse.

From 20th to 28th August, 1872, to Cape Campbell, Mana, Nelson, and Farewell Spit.

On 3rd and 4th October, 1872, to Cape Campbell.

From 13th to 16th May, 1873, to Cape Campbell, Mana, Nelson, and Farewell Spit.

I feel that I should not be doing my duty whilst referring to the "Luna," if I did not take this opportunity of expressing how much the Department is indebted to Captain Fairchild, the Master of that vessel, for the zealous and cordial manner in which he always carries out the duty of attending on the lighthouses, or indeed any other duty he is asked to undertake for the Marine Department.

3. *Flat Rock Beacon*.—This work, the contract for which was let in March, 1872, was reported on the 14th December last as having been begun to be erected, and it was then anticipated that a month would suffice to complete it, but by the end of January little beyond conveying material to the spot had been effected, as the weather was unfavourable for continuous work on the rock; the lower length of the centre iron pipe, and several stones which had been placed in position, were washed away, and soon afterwards a heavy N.E. gale swept away the whole of the work that had been done with the exception of the first course of stone, which stood this severe test remarkably well. In this gale the crane used for placing the material in position was washed away, and this loss greatly impeded the progress of the work during the subsequent fine weather. On the 5th March a similar disaster occurred, when the second and third courses of stonework, together with the crane erected in the place of the former one, and everything moveable, were swept away, which occasioned further delay. At the beginning of April, however, good progress had been made, and so much of the work as was then completed was severely tried by a heavy gale and stood well. During the further progress of the work great delay was still caused by bad weather, which occasioned the loss of much of the contractor's plant and material. After all these disasters, it was reported on the 24th June last that the beacon was completed, all but fixing the iron cage on top of it. The cage has since been washed away before it was fixed in its place, although it was securely fastened on the lee side of the beacon by a stout iron chain; the beacon itself remained intact, so that its permanent stability may now be confidently reckoned on.

4. *Wrecks and Casualties*.—The number of wrecks and casualties that occurred on the coasts of the Colony during 1872-73 was twenty-four, of 3,421 tons in the aggregate, being less in number though more in tonnage than the losses of the previous year, during which there were thirty-eight casualties of 3,104 tons. Thirteen lives (including eight, the number that was supposed to have been on board the brig *Australia*, wrecked off Cape Campbell) were lost through the wrecks of 1872-3, against eleven in the previous year. The wreck return includes particulars of five casualties that happened beyond the limits of the Colony, viz., the "Der Fuchs," foundered off Mauritius, crew rescued and brought on here by the "Glenlora;" "Siren," struck a rock off Cape Portland, Tasmania; "Alsaga," foundered near the Friendly Islands; "Mary Hamilton," struck on a rock near Nepean Island, which lies a short distance from Norfolk Island; and the "Bertha," on board of which a fire occurred in Lat. 36°S., Long. 66°E., on her way to New Zealand from Mauritius. Particulars of these casual-