

6. Through the courtesy of the Trinity Board in England, arrangements have been made for the oil required for our lighthouses to be purchased by that Board along with its own annual supplies, and to be supplied to the New Zealand Government at contract price. This arrangement is a most satisfactory one, as it insures a supply of oil of the best quality and at the lowest price at which it can be purchased in England in large quantities. Of the last annual supply of 5,000 gallons, the largest portion was ordered in casks similar to those in which lighthouse oil is supplied to the Trinity Board instead of in five-gallon drums as heretofore, whereby a saving of £70 was effected; the remainder was in strong tin-lined drums, fitted with large screw bungs, and are intended to be used for distributing oil to the lighthouses, so that in future the whole annual supply of oil can be procured in casks, and afterwards repacked into these drums for conveyance to those stations where it is difficult to land oil in larger packages.

7. From particulars given in a correspondence printed and laid before the Imperial Parliament, it appears that a very considerable saving could be effected, and at the same time a more brilliant light produced, by using kerosene instead of colza oil. I have therefore been making inquiries of the lighthouse authorities in various places where I understand mineral oil is used, with the object of seeing whether the same kind of oil could not with advantage be made use of in New Zealand. As great attention is now being devoted in Great Britain and other parts of the world to the improvement of lamps for burning mineral oil in lighthouses, I have little doubt that the Department will at an early date be in possession of such full and reliable information on this subject as will enable it to take steps for adopting the use of kerosene.

8. The cause of the delay in erecting the small light which had been procured for the Manukau Heads was explained in last year's Report. Pending the construction of a road from the landing-place near the Heads to the signal station on the top of the hill, by which the apparatus and the materials required for the construction of the tower, &c., were to be carried up, the cases containing the apparatus and lamps, &c., were sent on to Onehunga, and were there stored in the Custom House, a stone building, which, along with several others, was burned down in December last, when the apparatus was unfortunately destroyed. This loss, much as it is to be regretted, has however had the good effect of causing steps to be taken for providing a larger and more suitable light. Orders have been sent home for a dioptric apparatus and lantern of the third order for a fixed light to illuminate an arc of 180°, and strengthened at the most important seaward section by a dioptric glass mirror of 90°.

9. The Light Dues collected during the year amounted to £5,904, being £328 13s. 8d. in excess of the amount collected in the previous year. The cost of maintenance, exclusive of superintendence, amounted to £5,759 6s. 7d.; but as the services of the "Luna" were obtained on several occasions to convey stores to the lighthouses, and to shift keepers and their families from one station to another, this sum does not represent the actual total cost, which would have been about £500 more than the amount stated if private steamers had been chartered for carrying out the services that were performed by the "Luna." The expenses last year were increased by the cost of repairs at Dog Island, and the cost of materials for Keepers' dwellings, &c., at Farewell Spit. Taking one year with another, it may be considered that the light dues will about pay for the cost of maintaining the lights.

10. *Flat Rock Beacon.*—A contract was taken in March last for the erection of a new beacon on Flat Rock, off the Island of Kawau, to replace the one that was swept away in the previous March, just a year after it was completed. The new beacon is to be a pyramidal structure of dressed stone, strengthened and cramped together with iron, and is to be surmounted by an iron cage; the design was by Mr. J. Stewart, C.E.; the amount of the contract was £1,084; it has been stipulated that the work is to be finished early in December next.

11. *Examinations of Masters, Mates, and Engineers.*—Regulations for these examinations were made by an Order in Council, dated the 4th January last, and promulgated in the *New Zealand Gazette*; they were also printed in pamphlet form, and forwarded to the various Custom Houses throughout the Colony for distribution to candidates for examination. These Regulations are almost identical with those now in force in the United Kingdom, and were so framed with the object of insuring that certificates issued under them should be recognized as of the same value as those issued by the Board of Trade, so as to enable the holders of them to command British ships in any part of the world. The Regulations were forwarded to the Board of Trade in a letter from this Department, dated the 13th April last, copy of which is appended hereto, and in which will be found described in detail the several steps that have been taken for carrying out the conditions imposed by the Board of Trade with regard to certificates to be issued in accordance with the provisions of "The Merchant Shipping (Colonial) Act, 1869." I fully expect to hear in the course of the next two months that an Order in Council has been issued by Her Majesty, declaring that certificates of competency issued in New Zealand under the Regulations referred to shall be of the same force as those issued by the Imperial Government. It will be advisable, I think, when that intimation reaches the Colony, that those clauses of "The Merchant Shipping Act, 1854," now in abeyance, that make it compulsory on Masters and Mates to have certificates, should be brought into operation, by Order in Council, under "The Merchant Shipping Acts Adoption Act, 1869." No reasonable objection can be urged against this course, as Masters and Mates who have served in those capacities before the 1st January, 1871, and have had their usual place of residence in New Zealand for a period of not less than three years then next preceding, if they are unwilling to undergo examinations, can now obtain certificates of service. With regard to this point, it will be remembered that I took occasion in last year's report to represent the hardship that would result to a large number of Masters and Mates who had commanded vessels in these Colonies for a number of years, but who were not possessed of certificates of competency, if they were required to pass examinations; and I suggested that the authority of the Legislature should be obtained for issuing "Certificates of Service," on conditions relatively the same as those laid down in the 135th section of the Imperial "Merchant Shipping Act, 1854." The Government were pleased to entertain this suggestion favourably, and soon afterwards, with a view of giving effect to it, introduced a Bill ("The Merchant Ships Officers Examination Act Amendment Act, 1871,") into the Assembly,