

A report has been received from Messrs. D. and C. Stevenson, of Edinburgh, engineers to the Northern Board of Lighthouses, to the effect that, after instituting a series of experiments with the view of devising burners for the consumption of mineral colza oil, they regret to say that the result is not encouraging, and that they are forced to the conclusion that the burners now in use in the colony are the best that can be devised. Under such circumstances it is not desirable to use this oil, as when it was tried with the present burners at several lighthouses the results were not satisfactory.

On the 25th May, 1896, a very heavy sea washed away 130 ft. of the tramway which runs from the landing-place at Cape Maria van Diemen. This has been replaced by the keepers with fresh material sent for the purpose. The hauling-wire of the wire tramway which is stretched across from the mainland to the island for the purpose of enabling keepers to get letters and parcels sent across having broken some time ago, an attempt was made to replace it when the Government steamer "Tutanekai" was at the station in March last, but the attempt was not successful, owing to the wire carrying away. New wire will be procured, so that the work may be done when the steamer next visits the place.

On the 4th September last the ketch "Champion" came into collision with the beacon from which a light is shown in the French Pass. Some damage resulted to the beacon, which was repaired the same day by the lightkeeper and his assistant.

On the 16th October last a signal was made from Puysegur Point Lighthouse to a passing steamer for medical assistance, and on the steamer reporting this on her arrival at the Bluff arrangements were at once made for the harbour tug to take a doctor down. On her arrival it was found that Principal Keeper Alexander Parks was so ill that it was necessary to bring him up to the Invercargill Hospital, where he died on the 12th November. He was in the lighthouse service for twenty-three years, and was a most efficient keeper. A compassionate allowance equal to one year's salary has been granted to his widow, and his eldest son has been appointed a lightkeeper. The thanks of the department are due to the Bluff Harbour Board for their courtesy in allowing the tug to proceed to the lighthouse with the doctor. No charge was made beyond the actual cost of coal, provisions, and extra labour.

The Slaughter's cotton-powder signal mentioned in my last report as having been ordered for erection at Pencarrow Head has not yet arrived from England. The delay has been caused through the patentee having designed certain improvements which he wishes to incorporate in the signal he is to supply.

A very heavy thunderstorm occurred at Puysegur Point on the 16th July last, when the base of the tower was struck by lightning, but fortunately no serious damage was done.

On the 16th November last the ketch "Huon Belle," when passing through Ponui Passage, ran into the lighthouse, and did considerable damage to it, which has since been repaired. The owner of the vessel paid £40 towards the cost of the repairs.

The question of improving Somes Island light so that it may be a better guide to vessels entering Wellington Harbour has been under consideration, but so far no decision has been arrived at as to what would be the best thing to do in the matter. If a more powerful light is erected on Somes Island a new tower will be required, and it is estimated that the cost of this and the new light that would be required would be £2,000.

The erection of the tower and other buildings at Cape Palliser is now being carried out by the Public Works Department, and the work is expected to be completed at an early date. As soon as the buildings are handed over to this department the erection of the lantern and apparatus will be proceeded with.

The question of the erection of a lighthouse at the Snares by the Governments of New South Wales, Victoria, Tasmania, and New Zealand was discussed at the Conference of Premiers held in Hobart in February last, and a resolution was passed leaving it to this colony to submit proposals for its construction and maintenance. A draft agreement has accordingly since been prepared and submitted to the Governments of the colonies mentioned, and on their agreeing to its terms it is proposed to proceed with the work.

During the year a communication was received from the committee of Lloyds on the subject of establishing signal-stations on Stephens Island, Cape Maria van Diemen or the North Cape, and the Snares, for the purpose of signalling and reporting vessels approaching the New Zealand ports. The committee stated that it would undertake the working of such stations provided the necessary sites could be granted and telegraphic communication provided. The Government replied that there was no telegraphic communication with the North Cape, Stephens Island, and the Snares, but that the use of sites for stations would be granted, if desired, at Farewell Spit and Cape Maria van Diemen. It was at the same time suggested that the better and more economical course would be for Lloyds to contribute the salary of an additional lightkeeper, which would enable one keeper to be always kept on the look-out for vessels, and avoid the expense of a separate signal-station. The committee did not, however, agree with this suggestion, stating that there were grave objections to the same men being employed as lightkeepers and also as signalmen, and that they had instructed their agents in Wellington to prepare plans for signal-stations at Farewell Spit and Cape Maria van Diemen, and to submit them to this department for approval, so that measures might be taken to establish stations at these places.

All the lighthouses have been inspected by Captain Allman, whose report is appended hereto.

The sum of £15,995 5s. 4d. was collected for light dues during the year, as compared with £15,562 5s. 3d. during the previous year, being an increase of £433 0s. 1d.

*Harbours.*—The buoys in most of the harbours under the control of this department have been overhauled and cleaned by the Government steamers. Representations having been made that leading lights should be erected at the entrance to Hokianga Harbour, the Nautical Adviser visited the place to see what was necessary. He advised that a permanent light should be established on