

been ordered, and, if its use and the further use of the burner in the United Kingdom bear out the results which have been so far obtained, it would be advisable to adopt it in other New Zealand lighthouses, as there would be a great improvement in the power of the lights, and the cost of making the change would be soon recouped by the saving in the oil consumed.

A good deal of attention has been given to the question of fog signals for use at lighthouses. The most effective signals would be sirens similar to those in use at many stations in the United Kingdom, and next to them reed horns, but owing to their large initial cost and the cost of working them they are beyond the means at the disposal of the Department. Apart from sirens and reed horns the most effective signals appear to be the automatic cotton-powder signals, one of which is in use at Pencarrow Lighthouse, and it has been decided to obtain one of these for erection at Taiaroa Head at the entrance to Otago Harbour. At the present time the cartridges at Pencarrow are fired at intervals of fifteen minutes. It is intended at this place and at Taiaroa Head to fire the cartridges at intervals of from five to ten minutes.

During the year two keepers were retired from the service on account of age, four retired on account of the state of their health, one resigned to take up other occupation, one was dismissed for going to sleep on watch and allowing the light to cease revolving, one died, and one joined the Customs service. Ten new appointments were made to fill the vacancies.

The amount of light dues collected during the year was £26,596 10s. The amount in the previous year was £25,626 17s. 6d.

Captain Bollons, of the s.s. "Hinemoa," has carried out the work of inspection as the vessel made her periodical visits with oil and stores to the various stations.

*Harbours.*—The harbour officers at the ports under the control of this Department have carried out their duties in a satisfactory manner. The buoys in the various harbours have been overhauled and cleaned by the "Hinemoa" on her periodical trips. As some of the small iron buoys are becoming worn out, six new buoys have been made for the Department by Messrs. William Cable and Co., of Wellington. Casks for all the cask buoys are obtained from the cooorage in Wellington, and the bands, &c., are put on and the buoys painted in the Department's yard, where the concrete sinkers which are used for mooring all buoys are made.

It having been found inconvenient that the Harbourmaster at Kaipara should be stationed at Pouto, near the Heads, he has been removed to Te Kopuru, from which place he is better able to supervise the shipping and look after the various parts of this extensive harbour. This change has rendered the retention of the boatman unnecessary, and he is to be transferred to the lighthouse service. Complaints have been made by shipowners that the towage service, which is performed by the steamer whose owners receive £340 a year for carrying out such harbour-work as may be required by the Harbourmaster, is not satisfactory, and they have urged the Department to undertake the service itself. The question as to whether this should be done is under consideration. The subsidised steamer is not always available when required by the Harbourmaster, and under the present arrangement he finds it impossible to keep himself acquainted with the changes that take place in the various parts of the harbour, or to exercise that supervision which is necessary for the proper working of the port. If the Department procured a tug, she would always be available for harbour-work when not engaged in towing.

The master of the "River Boyne" was prosecuted and fined for throwing ballast into Kaipara Harbour.

The sand at Manawatu Heads has banked up so much round the Harbourmaster's house and the other buildings at the Pilot-station as to render it necessary that they should be moved, and tenders are being invited for their removal.

Part of the work erected some years ago to train the current at the junction of the Opawa and Wairau Rivers has been carried away, and in consequence the channel has shoaled in such a way as to render navigation difficult. A sum was voted by Parliament last session to repair the work, but the amount has been found to be insufficient.

Fresh limits for the Port of Napier have been defined at the request of the local Harbour Board.

The regulations governing the election of members of Harbour Boards by local bodies have been amended to give the chairman of the meeting held for the election a deliberative as well as a casting-vote.

The sum of £1,711 4s. 6d. has been collected for pilotage and port charges in respect of harbours under the control of the Department. The amount collected during the previous year was £1,950 11s. 2d.

A return showing the harbour-works authorised by the Governor in Council, and the licenses granted for the occupation of foreshore, is appended hereto.

*Fisheries.*—During last winter and spring there was a great scarcity of fish throughout the colony, but there has been a great improvement in the supply since the spring. Since the improvement has taken place there have been good catches, especially by the trawlers in Hawke's Bay and the net fishermen at the Thames. A Wellington trawler working in Cloudy Bay is also having good catches. If the law was altered to provide for the licensing of fishing-boats it would enable the Department to exercise better supervision over the fisheries.

The Department has been in correspondence with the Agent-General, the United States Fish Commission, and Professor Jordan, of the Leland Stanford Junior University, California, on the subject of introducing into the colony suitable kinds of fish from other countries. The Agent-General consulted fishery experts in the United Kingdom, and their opinions, together with the information furnished by the United States Fish Commission and Professor Jordan, have been submitted to the Board constituted for the control and management of the marine hatchery which is being erected at Portobello. The Portobello Fish Hatchery Board now has the work of the erection of the necessary buildings in connection with the hatchery in hand.