H.—15A.

Offices should, in the near future, be opened at Wanganui and Napier, to save the long journeys now made from Wellington. Napier is now becoming a fairly busy shipping port, and numerous journeys have to be made to cope with the survey of steamers there, owing to the shipping facilities being limited.

POSTAL AND POLICE AUTHORITIES.

This Department is much indebted to the Postal and Police authorities, who have rendered valuable assistance with reference to the boiler and machinery certificates.

"Inspection of Machinery Act, 1902."

By this Act the previous Inspection of Machinery Act of 1882 and the amending Acts of 1894. 1896, 1898, 1900, and 1901 were consolidated, and the principal sections were re-enacted. provisions affecting boilers and machinery are practically the same, but it would be well for every steam-user to make himself thoroughly cognisant of the clauses of the Act.

MARINE ENGINEERS' EXAMINATIONS.

The examinations have been held in alternate centres throughout the year, and at the following places away from headquarters: Gisborne, New Plymouth, Wanganui, Napier, Blenheim,

Westport, and Greymouth.

Every year shows a marked improvement in the work of candidates who present themselves, and this is notably the case with the third-class applicants, who are again very numerous. All the Examiners bear witness to the faithful reading of the young engineers from the workshop in matters pertaining to marine engineering, which is brought out very clearly in the oral examination held at these examinations. It is very gratifying to the Department to have such material to deal with, and, seeing so many of the promising boys take to engineering in the colony, no doubt this industry will be well able to hold its own as the colony gets more advanced.

Table No. 17 gives a list of the successful candidates, and the various grades in which they

passed, also the total number of applicants, the total fees payable, and the number who failed.

During the year new regulations were compiled by me, which are now in conformity with the Board of Trade Regulations as far as they could be made for New Zealand. New additional elementary questions have been added, containing questions on electric-light installations, comprising all the different points about the dynamo, and defects that might arise with the whole installation, as might be found on board ship. Questions have also been added connected with hydraulic installations, feed-heaters, filters, refrigerating machinery, comprising cold air, ammonia, &c. All these subjects show that the education of the modern marine engineer must be a very varied one; and where, say, at freezing-works and electric-light installations on shore, a separate staff is employed, the engineer on a steamer must be master of all these different classes of machinery when placed under his charge in the ship. Every day adds to his duties, and the Admiralties of both Great Britain and America are waking up to the importance of placing the engineers in their navies on a much better footing.

SURVEY OF SHIPS.

The work of this branch of the Department has been well kept up, and, with the exception of one or two of the outlying districts in Auckland, the surveys are practically up to date. At the ports of Auckland, Wellington, and Dunedin, special attention has been given to hulls and equipments of steamers, numerous surprise visits having been paid to steamers to examine their boats and equipments, but, as a rule, very little to find fault with has been discovered. This speaks volumes for the care and attention paid to these important matters of a ship's equipments which tend to the safety of the travelling public.

SURVEY FOR SEAWORTHINESS.

Twenty-four special surveys for seaworthiness were made during the year, comprising cases of grounding, collision, &c., a detailed list of which is given in Table 19. In some of these cases where grounding took place on a fairly soft bottom, a diver was employed for the external examination of the hull, but in any case of doubt docking was insisted on, so that a thorough examination could be made. These investigations have been made at all hours, and the judgment displayed by surveyors has been very clearly shown in numbers of cases. The shipowners generally are always glad to have the tried opinion of the officers of our Department in these times of disaster, and they on their part have facilitated our work very much by help generously given on many occasions. The fees earned by such surveys amount to £74 8s.

GOVERNMENT STEAMERS.

The following Government steamers were surveyed during the year -viz., the s.s. "Hinemoa," "Tutanekai," "Janie Seddon," "Lady Roberts," "Nile," "Gordon" (before sale), and the several torpedo boats, &c.

Excursion Steamers.

Seventy-five steamer excursions were allowed, representing the carriage of 26,017 passengers, and no trouble has arisen at any time throughout the year with any of these trips. These excursions have been scattered all over New Zealand, and are much appreciated by the public.