

POSTAL DEPARTMENT AND POLICE DEPARTMENT.

The Department is indebted to the officers of both the Postal Department and the Police Department for their valuable assistance rendered during the year, the Postal Department materially helping in connection with the collection of boiler fees and the issue of certificates to engine-drivers, and the Police Department assisting in bringing defaulters into line, and help in carrying out the prosecutions that have taken place during the year for breaches of the Inspection of Machinery Acts. Most of these prosecutions were on account of owners employing uncertificated or improperly certificated engine-drivers, and engine-drivers taking charge of boilers and machinery without being the holders of the proper certificates entitling them to take charge of such a boiler or machinery.

MARINE ENGINEERS' EXAMINATIONS.

These examinations for certificates of competency have been held at the following places, namely, Auckland,* Christchurch,* Dunedin,* Gisborne, Greymouth,* Invercargill, Longburn, Manapouri, Napier,* Nelson*, Oamaru, Te Kopuru, Timaru, Wanganui,* and Wellington*; and at these examinations 191 candidates passed their examination successfully.

A great number of new questions have been added to the mathematical portion of the first and second marine engineers' examinations during the year. During the past few years quite a number of new questions have been added to the oral-examination syllabus, embracing questions in refrigeration, hydraulic power on board ships, electric lighting and dynamo construction, and the different classes of steering-gear. The marine engineers who now sit for examination require to possess a very complete knowledge of all the various machinery which is to be found on a modern steamship. Some of the candidates who passed these higher class examinations this year are to be congratulated on the good sound practical and theoretical knowledge displayed by them, which shows that such knowledge is not the result of mere cram, but has developed that resourcefulness in arriving at conclusions and answers to questions that would be useful in emergency. Some of the drawings done by the candidates are excellent productions both in neatness and in accuracy of details.

The third-class marine engineers' certificate still appears to be very popular with young engineers who have just completed their apprenticeship, and no doubt their looking forward to gain this certificate is an incentive to their home studies to qualify themselves when the opportunity comes.

Return No. 14 gives the names of the successful candidates and the various grades for which they passed, the total number of applicants, total fees payable, and the number of candidates who failed to pass such examinations.

SURVEY OF SHIPS AND STEAMERS.

This branch of the Department's work keeps on steadily increasing in each successive year.

The tendency of late years is the employment of large steamers in trade where in quite recent years very much smaller steamers were employed. In the case of these larger steamers much longer time is occupied in their survey, as most of these steamers are now provided with water-ballast tanks, and great care has to be taken in thoroughly inspecting these tanks. At the annual survey of these steamers a large number of repairs were found necessary, and all these repairs have been carried out satisfactorily under the Department's Surveyors of Ships.

Numerous surprise visits have been made to steamers for the purpose of inspecting their equipments and the vessels generally; but, as a rule, everything was found on such visits to be in capital order, and apparently well cared for.

A notable addition to the steamers in New Zealand has been made by the arrival of the s.s. "Maheno," as this vessel is the first steamer fitted with turbine machinery to arrive in the colony. She was built and engined by Messrs. Denny Bros. of Dumbarton, and is fitted with turbine engines of the Parson pattern, and has three propellers on three separate shafts. The freedom from vibration is very noticeable in this vessel, as compared with the vibration in steam vessels fitted with the ordinary reciprocating engines. Her passenger accommodation is luxurious and exceedingly well ventilated.

EXPLOSIVES.

During the year 226 written permits were issued by the Department in Wellington for the carriage of explosives on steamers.

SURVEYS OF SHIPS FOR SEAWORTHINESS.

During the year thirty-five of these special surveys were made throughout New Zealand, and the repairs found necessary on such surveys to make the vessels seaworthy have been effected under the supervision of the Surveyors of this Department. These surveys have often been made by the officers of this Department at the various ports of the colony after hours, so as to expedite the work on behalf of the owner; and such assistance so given by the Department has been much appreciated by the owners. The causes for these surveys include grounding of vessels, defective steam-pipes, collisions, fire, and breakdowns of machinery.

Return No. 17 gives full particulars of each case in detail.

The fees earned by these surveys amount to £79.

* Places at which examinations were held more than once during the year.