H.--15.

found to have been carried out in a very satisfactory manner, whilst in few cases the adjustments have been performed as well as could be expected under the existing circumstances. The latter applies to some of the older vessels, in which it would appear that sufficient attention had not been given to the position allotted to the compass when the vessel was built. This, however, has been largely overcome by artificial compensation. In view of the inadvisability of excessive artificial compensation under similar corcumstances, it is advisable in future, in all cases where vessels arrive in the Dominion for the purpose of engaging in local trade, that the position of the compass should be inspected for the purpose of ascertaining that the compass is placed in a satisfactory position, and that it is not contiguous to masses of iron, particularly steering-engines, as in such cases the directive force of the compass is minimized by excessive artificial compensation.

The Department's Inspectors of compasses at the various ports have carried out their duties in a very satisfactory manner, and the compasses of the vessels inspected have been found to be in good

order and condition.

## NAUTICAL ALMANAC AND TIDE-TABLES.

The annual publication of the "New Zealand Nautical Almanac and Tide-tables" has been carried out as in previous years. The size of the publication has been somewhat reduced, on account of existing expense of production. Some of the substance, principally relating to modern methods of navigation, has been deleted; whilst the more essential and more important matter has been retained.

Any important information published by the Imperial Board of Trade or other authority for the purpose of making safer the navigation of vessels has been included in the publication, which continues to be much used by both overseas and local vessels.

## MARINE CASUALTIES.

Cases of vessels grounding, stranding, missing vessels, vessels in collision, &c., have been investigated, and the Department has been advised to take further action in cases where it has been considered that risk had occurred to life and property, or in cases in which it appeared that the Collision Regulations had been infringed.

## NOTICES TO MARINERS.

During the year the various changes in the Dominion coastal and harbours "aids" to navigation, and of local and overseas obstructions to navigation, has necessitated the issue of the customary notices warning mariners of their existence.

## Examination of Masters and Mates.

The examination of masters and mates has been carried out at Wellington by the Principal Examiner on the first and second weeks in each month, at Auckland by Captain W. Whiteford, whenever required, and at Lyttelton by Captain T. Dykes on the third and fourth weeks in each month. Examinations for certificates for restricted-limits vessels have been carried out when necessary also at Dunedin and Napier.

The total number of candidates who sat for the ordinary examinations during the year was 104, and the total number of failures was forty-nine; of this number fifty-one were candidates for foreign-going certificates and thirty-nine were candidates for home-trade certificates. There were also fourteen candidates for restricted-limit certificates, and thirty-eight candidates were examined in the form and colour vision test. The percentage of passes for foreign-going certificates was 45, and for home-trade certificates 60. The percentage of passes in the form and colour vision rests was 83. Four candidates were found to be subject to defective form-vision, and three were found to be subject to colour-blindness.

During the year three examinations were held for the higher examination for a certificate as extra master. The only candidate who was successful in passing the higher examination was Mr. A. R. Ness, of Lyttelton. As this examination involves a knowledge of naval architecture and stability, also of elementary science and advanced magnetism, in addition to the ordinary subjects, t is not surprising that few are successful in obtaining this certificate.

Two candidates were examined in the voluntary examination for high-speed signalling; both were successful in passing the examination. One candidate was successful in passing the examination

for a license as colonial pilot.

The examinations appear to have been well carried out, and have, as nearly as possible, been conducted in a manner similar to that in which these examinations are conducted by the Board of Trade in Great Britain.

G. S. HOOPER, Nautical Adviser, Principal Examiner of Masters and Mates, and Editor "Nautical Almanae."