

CARGO-WORKING GEAR.

The tables of safe-working loads for chains, wire ropes, and manila ropes, referred to in last year's report, were submitted for the consideration of a conference consisting of departmental officers, with three representatives each from Harbour Boards' Association, Shipowners' Federation, and Waterside Workers' Federation. The various parties to the conference met one another in a most amicable spirit. Conclusions in practically all matters relating to chains and wire ropes were unanimous. The standard adopted for breaking-strain, proof loads, and working loads for chains is that of the Admiralty, while for wire ropes the British Wire-rope Manufacturers' standard specification was adopted. With regard to manila ropes, however, the factor of safety proposed by the Department's draft tables was regarded by all the other parties as being too high, the contention being that ropes of the dimension laid down could not be satisfactorily used in cargo-work. The conference, with the exception of departmental officers, unanimously adopted a considerably lower factor, with certain provisions limiting loads for ropes of certain dimensions, and providing for whipping and rigging of ropes for specified lifts. Departmental officers are now engaged in revision of the whole of the tables and governing regulations. The Department is not fully satisfied with regard to manila-rope standards as adopted by the other parties to the conference, and will further consult with the standing committee which was set up for the purpose of consultation.

DECEASED SEAMEN'S ESTATES.

The estates of sixteen deceased seamen, amounting to £166 13s., have come into the hands of the Department during the year, and, including estates previously received, thirty have been finally administered. A statement is appended showing the estates dealt with and those outstanding. The sum of £42 6s. 6d. has been paid into the Consolidated Fund, representing estates unclaimed for over six years.

WRECKS AND CASUALTIES.

Sixty-four inquiries, involving sixty-eight vessels, have been held during the year, of which sixty were preliminary and four Magisterial. Those relating to vessels on or near the coast of the Dominion were fifty-eight, of 61,729 tons register, as compared with seventy-five, of 94,441 tons register, for the previous year. No lives were lost.

A return of wrecks and casualties to shipping during the year is appended.

LIGHTHOUSES, HARBOURS, AND GOVERNMENT STEAMER.

Lighthouses.—The duties connected with the maintenance of the various coastal lighthouses have been satisfactorily carried out during the year, the lighthouses being tendered by the s.s. "Tutanekai." The inspection of lighthouses has been continued during the year, and good results have manifested themselves.

The sum of £76,867 17s. 2d. has been received as light dues on shipping during the year, as compared with £39,668 15s. in the previous year. This increase is mainly due to the increased scale of dues imposed as from the 1st April last, and referred to in the last annual report.

Harbours.—The work of overhaul and maintenance of navigation aids in harbours under the control of the Department has been satisfactorily carried out by the various Harbourmasters and by the master of the s.s. "Tutanekai." The latter has also attended to the coastal buoys and beacons under the control of the Department during the vessel's periodical trips.

The sum of £768 13s. 1d. has been collected as pilotage and port charges in respect of harbours under the control of the Department, as compared with £746 14s. 6d. during the previous year.

LIGHTHOUSES.

Three Kings Islands.—As indicated in last year's report, further investigations have been made with a view to demonstrating beyond doubt the efficiency of radio direction-finding equipment. A temporary wireless radio beacon was erected at Cape Maria van Diemen to work in conjunction with the direction-finding equipment aboard the s.s. "Tutanekai." The tests were carried out by the Marine Department's officers, assisted by Post and Telegraph officers. The results obtained proved entirely satisfactory. At a later date a demonstration was arranged to take place in Hauraki Gulf to afford an opportunity of carrying conviction to those who had not had personal experience of the efficiency of this apparatus and were therefore opposed to its adoption. The demonstration was carried out in circumstances ideal from the point of view of those experienced in radio direction-finding, and confident, as a result of that experience, in its ability to do full duty under any circumstances. A beacon station was erected at Tiri, and with that as objective the vessel proceeded a distance of several miles through a dense blanket of fog, and was brought to dead in line with and half a mile from the beacon. Every other test asked for by navigators taken aboard to witness the demonstration was responded to. At the conclusion of the demonstration all who witnessed it expressed themselves as satisfied and convinced of the efficiency of radio direction-finding.

The most satisfactory lighthouse fog-signal apparatus that can be designed for Three Kings would consist of two lights—one at either end of Big King, in order to reduce the blind sector which one light would produce over the western reef—and a fog-signal within the blind sector; this would cost approximately £40,000. Owing to the prevalence of fog at Three Kings the lights would be of very doubtful, if any, value just at the time they would be most required.

A radio direction-finding beacon, which can be erected at a fraction of the cost of lighthouse fog-signal apparatus, will serve efficiently day and night and under any weather conditions and in any direction. It has the additional advantage that by bearings taken at intervals not only direction but position can be accurately determined.