

additional sum (£5,000) and complete the work in modified form. Practically £50,000 has been spent or committed. The timber to build the wharf has been paid for and delivered. It is a case of allowing another £5,000 in the hope that shipping may be induced to use the port and provide revenues and thus reduce to the extent of such revenues the rate charge upon the district.

Karamea.—A substantial addition to the existing wharf has been built in order to cope with the timber trade, and plans, &c., have been prepared for a comprehensive lay-out of skidways to serve the milling industry. The shed accommodation in connection with the wharf is also being extended to facilitate the storage and sorting of cargo. Surveys have been carried out in order to determine the best route for a tramway to the stone outcrop on the Oparara River. The existing retaining-wall has demonstrated its utility, but has deteriorated and in places collapsed, and it is now proposed to provide an annual sum which will ensure its replacement.

Little Wanganui.—Plans have been prepared and a contract let for a new wharf at this port. The work is in hand and practically completed.

Waikokopu Harbour.—The new wharf is completed and the amount of shipping using it is steadily increasing. During the year the hull of the s.s. "Talune" was purchased and towed to Waikokopu, where it was filled with stone and sunk in position to form a breakwater. The hulk is now being connected with the shore by a stone breakwater, and already the benefit has been very apparent, vessels being able to lie at the wharf and load in practically all weathers. The wharf shed has been extended owing to the increasing demand for space for storage and handling purposes, and an electric lighting plant has been installed to facilitate night work.

Great Barrier Island, Tryphena Harbour.—Provision was made last year for a sum of money to provide a wharf in this harbour. Unfortunately a difference of opinion exists between the local residents as to the most suitable site, their opinion being determined by localized interest. In order to determine this point, a Commissioner was appointed and visited the island, took very full evidence, and submitted definite recommendations, to which it is proposed to give effect.

General.—A large number of applications have been received from local bodies and private individuals for the approval of works involving marine interests. Each of these has been carefully investigated and, where desirable, approved.

The question as to what harbours should or should not be constructed is, or should be, one of vital interest in a young country in course of development, and demands the closest consideration. In this connection an extract from an article entitled "The Requirements of Modern Ports," by Sir George Buchanan, K.C.I.E., which appeared in the *Dock and Harbour Authority* of April, 1926, may be of general interest. It is as follows:—

"*Port Finance*.—Lastly, turning to the financial requirements, I may say that in my experience the mere carrying-out of engineering-works is child's play to the difficulty in arranging finance.

"To justify large expenditure on the development of a port there must be a sound and permanent economic basis for its existence, and every proposition should be looked upon from the following points of view:—

"(a.) Is the port necessary in the interest of present or prospective trade?

"(b.) Is the proposition a sound one, financially?

"(c.) Can the engineering difficulties, if any, be overcome at a moderate cost?

And to answer these questions there is required, in the first instance, a careful examination and report on the prospective trade of the port, the area of country to be tapped, the possibilities of increasing that area, and giving better transport facilities to the port, also the prospective revenue and maximum capital expenditure permissible as a start. Armed with this information the engineer can, and must, cut his coat according to his cloth, and say what can be done for the money, since a grandiose scheme prepared without this information is a mere waste of time.

"Assuming that the port is established and in operation, the fundamental principles of port finance are that every article or ton of goods which either directly or indirectly uses the port should contribute to the port's maintenance, and that every penny earned by the port should be spent on the port, and if there is a substantial surplus it should be expended on either a reduction of capital debt or a lowering of port dues and charges. The principle that everything using the port should pay was enunciated by the Royal Commission on the Port of London some twenty-five years ago, and is now generally accepted."

This declaration of essential considerations by a so widely recognized authority is a sufficient justification of the harbour-construction policy outlined in the Department's 1923-24 report.

LIGHTHOUSES.

Cape Foulwind.—The conversion of this light to acetone automatic is just about completed.

Kahurangi.—The conversion of this light to automatic has not yet been completed, but it is the next for attention.

Dog Island.—The installation of a new light with second-order dioptric lens and incandescent burner has been completed. This replaces a sixty-year-old, inefficient, and dangerous light.

Pencarrow Head; Godley Head.—Fog-signals of the diaphone type have been ordered, and are due to arrive shortly. These signals will vastly improve the navigation aids in entering Wellington and Lyttelton Harbours.

Matakaoa.—The installation of an automatic light has been completed.

A number of other minor works and improvements have been carried out.