

SECOND REPORT

ON

THE MARINE BOARD DEPARTMENT

OF

NEW ZEALAND.

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1865-6.

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BY THE POSTMASTER-GENERAL.

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PRESENTED TO BOTH HOUSES OF THE GENERAL ASSEMBLY, BY COMMAND OF  
HIS EXCELLENCY.

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WELLINGTON.

—  
1866.



## SECOND REPORT

ON

THE MARINE BOARD DEPARTMENT OF NEW ZEALAND,  
BY THE POSTMASTER-GENERAL.

SIR,—

I have the honor to submit, for Your Excellency's information, the following Report on the Marine Board Department of New Zealand.

To His Excellency Sir GEORGE GREY, K.C.B.,  
Governor of New Zealand, &c., &c.

General Post Office,  
Wellington, 25th June, 1866.

I have, &c.,  
JAMES PATERSON,  
Postmaster-General.

## R E P O R T.

DURING the last Session of the General Assembly an Act was passed to amend "The Marine Board Act, 1863," in which it was provided that, upon the coming into operation of the said Amendment Act, the Marine Board, as constituted under the Act of 1863, should cease to exist. Considerable difficulty has been experienced in making arrangements for a suitable substitute for said Board. The matters placed under its control are of far too great importance to be subjected to any management that did not make the most satisfactory provision for their constant and complete supervision. The vast interests affecting life and property involved in the efficiency of the various Lighthouses already erected on the coast, and the serious consequences that might result from the slightest derangement in the regularity of their working, called for the greatest caution in selecting the power by which their operations were to be controlled, and the safety of those engaged in the navigation of our dangerous coasts most effectually secured. And as other Lighthouses will be required to be erected ere long, it was deemed essential, not only that due provision should be made for a competent supervision of their construction, but also for the selection of the most suitable sites where their erection might prove of the greatest possible advantage.

Negotiations have for some time been in progress for securing these objects, which were expected to have been completed before this time. Difficulties, however, have occurred in securing the desired assistance. These, it is hoped, will very soon be surmounted, and an arrangement completed which will give ample security for the safe and efficient superintendence of the important interests in charge of this Department.

The expense of the Board as at present constituted is as follows:—President, £400; two Wardens, £750; and two Engineer Surveyors, £500. Total, £1650 per annum.

There will be found attached hereto a Report by the President of the existing Board, detailing the various matters that have come under the cognizance of the Board since July, 1865. It is satisfactory to have the assurance that the various Lighthouses are at present in excellent order. The keepers are also spoken of as doing their duty well; and where so much depends upon their good conduct, it is very pleasing to find that the present staff perform their responsible duties so entirely to the satisfaction of those who have the supervision of their conduct.

Various suggestions will be found in said Report for providing more effectually than at present for the safe navigation of the coast. These embrace not only a more complete coastal survey than has yet been made, but also the erection of additional Lighthouses at various points where, from want of such accommodation, much inconvenience has been experienced.

In addition to what is there recommended, it is proposed to apply to the Imperial Government for a full Report by the Hydrographic Department on the best mode of effectually lighting the whole coast, indicating those points which, upon scientific principles, are considered as best adapted for placing lights which would be serviceable for general navigation as well as for coastal purposes. Such a Report would be of great value, and would become a standard guide and authority in determining all such questions for the future.

JAMES PATERSON,  
Postmaster-General.

## No. 1.

Captain SHARP to the Hon. the POSTMASTER-GENERAL.

SIR,—

Marine Board Office, Wellington, 4th June, 1866.

In compliance with the requisition contained in your letter of the 17th April, I beg to forward herewith Report of the proceedings of the Marine Board since 1st July, 1865.

I have, &c.,

To the Secretary, Postmaster-General, &c., Wellington.

CHAS. SHARP,  
President Marine Board.

## Enclosure in No. 1.

## MARINE BOARD OF NEW ZEALAND, ANNUAL REPORT.

*Lighthouses.*

SINCE my last Report, dated 4th June, 1865, the lighthouse at Dog Island then in course of erection has been finished. The light was exhibited for the first time on the 5th of August, thus completing all the works of that character undertaken by the Marine Board, viz., Tiri Tiri, Mana, Godley Head, Tairoa's Head, and Dog Island, in a period of about fourteen months,

Shipmasters and other persons visiting our ports speak favourably of the benefit derived from these coastal guides, which enable those in charge to conduct vessels, even during the most gloomy weather, with comparative safety into our harbours.

Forming a judgment upon the residence of more than twenty-four years at the sea ports in this Colony, aided by nearly half a century of nautical experience, I can with confidence assert that the few lighthouses already placed on the coast of New Zealand have afforded advantages to the maritime interests which cannot be over estimated, not a single casualty having occurred to shipping within the limit of their range during the past year.

Considering the staff of lighthouse keepers are (with one exception) new to their duties, and have had but trifling instruction previous to entering upon their offices, it is a matter of congratulation to find that no accident has happened to prevent the lights being permanently exhibited from the date of first illuminating. The few repairs that are occasionally required to keep the optical apparatus in working order there has hitherto been no difficulty in getting executed in this Colony.

A first order lantern and dioptric apparatus ordered by the Provincial Government of Otago, and originally intended for Cape Saunders, has not yet, owing to the dearth of funds at the disposal of the Board, been made use of. Further information obtained from shipmasters has caused the Board to think that the "Nuggets," south of Cape Saunders, would for the purposes of navigation be a far better position, both for directing vessels on their course, going either north or south, as also pointing out a safe place of anchoring during the height of south-west gales which prevail with great violence on that part of the coast.

The increasing amount of traffic from Cook's Strait, and Nelson in particular, to the Ports of Hokitika and the Grey, renders it imperatively necessary to place a light near the extremity of Cape Farewell Spit, the low character of which, together with the shoal extending some miles to the south-east, presents more than ordinary dangers to navigation in that locality. The Marine Board on previous occasions have directed the attention of Government to this urgent want, and both merchants and master mariners, interested in the commerce carried on to the Gold Coast, have frequently indorsed the Board's opinion.

Should the apparatus intended for Cape Saunders not be required at the South, it might (if suitable) with great propriety be placed on such site as might be determined at Farewell Spit, thus saving an immediate outlay of about three thousand pounds (£3,000), and by bringing the apparatus into early use obviate that danger which may probably arise from the want of constant care and inspection. A light due, levied on vessels entering the Strait from the westward, or passing round Cape Farewell to the Gold Coast, would, I believe, more than defray the expense of maintaining a lighthouse establishment.

Mr. Aylmer, who was deputed by the Government to survey Farewell Spit, and report upon the most suitable site for the erection of a lighthouse, seemed to think some difficulty of an engineering nature might be experienced in forming a foundation for such a structure, owing to the continual moving of the sand. He therefore suggested a floating light. On this matter, for several reasons, I entertain a different opinion :

1. There is no secure place of anchorage for a vessel where the light would be of service.
2. The elevation of a floating light would be insufficient to be visible when approached from the south-west.
3. It would be liable to removal or entire loss, and might therefore lead vessels attempting to make it into danger.
4. The cost of maintenance of a floating light would be greater than a shore establishment.

For the foregoing reasons I am decidedly of opinion that a lighthouse on Bushend, Farewell Spit, has a preference.

At the southern entrance to Queen Charlotte Sound (Tory Channel), a light of the third or fourth order is also much needed, the navigable water being narrow, and dangerous after nightfall. The traffic through this passage is not so great as during the gold mania at Havelock ; but even now all the subsidized mail vessels calling at Picton, and many other steamers, invariably proceed by that route, it being a saving of many miles in distance. The value and usefulness of a light where proposed will be evident, both as affording facilities to commerce, and lessening the very great risk encountered in attempting the passage of Tory Channel when the dangers are not visible.

There are other headlands where lights would be of service, were the Government disposed to incur the expense of their erection. It has been suggested that, during the long winter nights, the Panama boats might have their passage expedited by lights being placed at Capes Egmont and Palliser, those two points forming the north-east and north-west extremity of Cook's Strait. Of the two, Palliser is of the most importance, as being near the terminus of a long ocean run, when the fuel on board the vessel will be short, and consequently every hour saved of moment.

The very exposed position of lighthouses and keepers' dwellings generally, has caused some of the latter to sustain damage during the severe storms of the past year. At Godley Head, the roof, although of a substantial character and slated, was so much shaken as to render repairs necessary. At Tairoa Head, the violence of the wind carried stones to a considerable height, breaking windows, and nearly blowing in the sashes. Precautionary measures have been taken to guard against such damage arising in future.

At Dog Island, during a severe gale which occurred in April last, the tide rose four feet higher

than had been previously known since the lighthouse keepers have been stationed there. I am glad to say that, although the lofty tower sensibly vibrated, no damage is reported to have been sustained on that occasion.

The light dues for the past year have very nearly reached the amount estimated. Auckland and Otago only, showing a slight deficiency. At the former, probably arising from a diminution in the shipping traffic, owing to the smaller amount of Commissariat supplies being required for Her Majesty's Troops; and the latter, from the gradual decrease of gold found in that Province. On the whole, however, the receipts, while not overtaxing commerce, may be considered satisfactory,—providing a sufficient fund to defray all the expenses of the department, and a small rate of interest on outlay.

#### *Survey and Inspection of Steam Vessels.*

This branch of the establishment has been greatly reduced during the past year. It formerly comprised three Inspectors and two Engineer Surveyors. The present working staff is one Inspector (Captain Johnson), who receives salary as Admiralty Mail Agent; and two Engineer Surveyors (Messrs. Nancarrow and Hamilton), who perform the duties of acting Inspectors also when required, Warden and Inspector Robertson having resigned, and Warden and Inspector Kennedy being lent to command the Government steamer "St. Kilda," in which capacity, I understand, his services on the East Coast and elsewhere, have been most useful.

The number of steam vessels trading on the seaboard and rivers of New Zealand, coming under the immediate inspection of this department, are thirty-seven (37), having low pressure engines, and twenty, high pressure; the former, requiring to be surveyed at an interval of six months, and the latter, every third month: thus making in all, about one hundred and fifty-four (154) services. Besides which, many steamers, having Australian certificates, running to this Colony, undergo cursory supervision.

When it is considered that these vessels find employment at ports extending from Auckland to Bluff Harbour, and both on the East and West Coast, where the inspecting officers, in the performance of their duties, have to visit them, it will be perceived that the labor, with the present limited staff, is by no means light.

It affords me great pleasure to state that Messrs. Nancarrow and Hamilton, upon whom most of the duty of survey has devolved, have shown themselves both efficient and assiduous in the double capacity of Engineer Surveyors and acting Inspectors. The assistance they have rendered in superintending repairs of lighthouse apparatus, has also been of great service.

From Captain Gibson, Port Officer at Lyttelton, who is deputed by Government to supervise Marine Board duties at Canterbury, I have ever received willing and valuable assistance.

It has been reported to me that at the ports of Hokitika and the Grey, small steam-vessels fitted only to ply with safety within the rivers, and having certificates bearing on the face of them the limit to which they may lawfully proceed, are in the habit of plying beyond the distance which in the judgment of the surveying officers is considered safe.

The Steam Navigation Act, while enacting that vessels shall be certificated for river or sea service, fails to provide for the enforcement of any penalty for violating the conditions of their certificates, unless in cases where they have to clear the Customs, which does not apply to vessels in question. It is quite necessary the Act should be amended in this particular, or a bye-law be made to check the evil, otherwise from the character of the vessels, they being of the smallest and most inferior class, some accident, attended by loss of life, is almost certain to occur.

As I predicted in my last report, numerous casualties to vessels trading to Hokitika, the Grey, and other ports on the West Coast, have taken place. The very nature of the rivers renders losses almost inevitable, so long as recklessness is induced by the temptation of large profits, from the passenger or other trade, to the gold country. These bar ports can only be entered by vessels of burthen during fine weather and under skilful management. It is generally when such considerations are ignored that most of the accidents happen.

#### *Surveys.*

My attention has been frequently directed to the incomplete nature of the surveys of the West Coast of the Middle Island, which since the discovery of the gold fields has been much traversed. Several outlying dangers are said to have been discovered, not laid down in the Admiralty charts, which do not profess to give more than a cursory or running survey, northward of Milford Haven. The great and increasing importance of the trade renders it highly necessary that an accurate and minute marine survey should be made of the coast between the Grey River and Milford Haven. This service would be most satisfactorily performed by the Admiralty Surveying Staff, some of whom are now employed in the Australian Colony, it being very difficult to obtain reliable and qualified persons, whose charts would bear the stamp of authority, from any other department.

#### *Buoys and Beacons.*

There are several buoys and beacons beyond the limits of ports, which have been placed, from time to time, by local authorities, and others recently sanctioned by Government, which require a certain amount of expenditure to keep in serviceable condition. Hitherto no vote of appropriation has been made for this especial service; delays consequently arise in making references to obtain the means wherewith to effect repairs, &c., when needed, thereby exposing shipping for a much longer period to the dangers which these marks are intended to lead them clear of, than under other circumstances might be necessary.

Appended are Returns of Steam Vessels Surveyed, Certificates issued to Masters and Engineers, Pilot's Licenses granted, and Light Dues collected since 1st July, 1865.

Marine Board Office, Wellington,  
1st June, 1866.

I have, &c.,

CHAS. SHARP,  
President Marine Board.

## LIST of STEAM VESSELS surveyed in NEW ZEALAND, since 1st July, 1865.

Name of Vessel.	Nature of Machinery.	Remarks.
Wellington ... ..	Low pressure.	
Lord Ashley ... ..	Ditto.	
Phœbe ... ..	Ditto.	
Airedale ... ..	Ditto.	
Claud Hamilton ... ..	Ditto.	
Auckland ... ..	Ditto.	
Prince Alfred ... ..	Ditto.	
Ahuriri ... ..	Ditto.	
Lady Bird ... ..	Ditto.	
Rangatira ... ..	Ditto.	
Wanganui ... ..	Ditto.	
Queen ... ..	Ditto.	
Storm Bird ... ..	Ditto.	
Favorite ... ..	Ditto.	
Taranaki ... ..	Ditto.	
Wonga Wonga ... ..	Ditto.	Wrecked at the Grey.
Wallaby ... ..	Ditto.	
Kennedy ... ..	Ditto.	
Lyttelton ... ..	Ditto.	
Nelson ... ..	Ditto.	Stranded at the Grey, now undergoing repairs.
Omeo ... ..	Ditto.	
Thane ... ..	Ditto.	Stranded at Okarita, and since repaired.
Bruce ... ..	Ditto.	
Lioness ... ..	Ditto.	
Challenge ... ..	Ditto.	
Ballarat ... ..	Ditto.	
Southland ... ..	Ditto.	
Star of the South ... ..	Ditto.	Stranded at Chalky Inlet, and since repaired.
Geelong ... ..	Ditto.	
Keera ... ..	Ditto.	
Egmont ... ..	Ditto.	
Moa ... ..	Ditto.	
Tasmanian Maid ... ..	Ditto.	
Prince Alfred ... ..	Ditto.	
Beautiful Star ... ..	Ditto.	
Eleanor ... ..	High pressure	Wrecked at the Grey.
Yarra ... ..	Ditto.	
Persevere ... ..	Ditto.	
Polly Hopkins ... ..	Ditto.	
Maid of the Yarra ... ..	Ditto.	Wrecked at Hokitika.
Lady of the Lake ... ..	Ditto.	
Uno ... ..	Ditto.	Wrecked at the Grey.
William Miskin ... ..	Ditto.	
Betsy Douglas ... ..	Ditto.	
Golden Age ... ..	Ditto.	
Enterprise ... ..	Ditto.	
Tairoa ... ..	Ditto.	
Peninsula ... ..	Ditto.	
Waipara ... ..	Ditto.	
Mulloch ... ..	Ditto.	Stranded at Sumner Bar, and since repaired.
Novelty ... ..	Ditto.	
Gazelle ... ..	Ditto.	
Waitemata ... ..	Ditto.	
Waipa ... ..	Ditto.	
Maori Chief ... ..	Ditto.	
Gymnotus ... ..	Ditto.	
New Zealand ... ..	Low pressure	Wrecked at Hokitika.
Samson ... ..	Ditto	Wrecked at Hokitika.

STEAMERS trading to New Zealand, having Australian Certificates, which have been occasionally inspected by Surveying Officers.

Tararua, Otago, Albion, South Australian, Barwon,	Alhambra, Gothenburg, Hero, Rangitoto,	Lady Darling, Aldinga, City of Hobart, Star of the Evening.
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STATEMENT of PERSONS to whom CERTIFICATES of Qualification have been issued since 1st July, 1865.

Name.	Nature of Qualification.	Vessel.	Date of Issuc.
R. S. Lowe ... ..	Master	Wanganui ... ..	17th July, 1865.
F. C. Kreeft ... ..	Ditto	Lady Bird ... ..	18th July, 1865.
John Elmsly ... ..	Ditto	Pride of the Yarra ... ..	23rd July, 1865.
Lewis Anderson ... ..	Ditto	New Zealand ... ..	29th July, 1865.
Charles McLean ... ..	Ditto	Eleanor ... ..	5th August, 1865.
Henry White ... ..	Ditto	Ballaarat ... ..	19th August, 1865.
Charles Marshall ... ..	Ditto	Novelty ... ..	19th August, 1865.
Alexander Farquhar ... ..	Ditto	Prince Alfred ... ..	19th August, 1865.
John Walker ... ..	Ditto	Nelson ... ..	22nd September, 1865.
H. B. Macneehan ... ..	Ditto	Uno ... ..	16th October, 1865.
Richard Hillemon ... ..	Ditto	Lady of the Lake ... ..	16th October, 1865.
John Christian ... ..	Ditto	Moa ... ..	7th November, 1865.
W. H. Meikleham ... ..	Ditto	Airedale ... ..	13th November, 1865.
Charles Hodge ... ..	Ditto	Star of the South ... ..	5th November, 1865.
John McDougall ... ..	Ditto	Waitemata ... ..	4th January, 1866.
William Scott ... ..	Ditto	Lyttelton ... ..	5th February, 1866.
William Bendall ... ..	Ditto	Star of the South ... ..	14th April, 1866.
John Dawson ... ..	Ditto	Peninsula ... ..	14th April, 1866.
Samuel Hatfield ... ..	Ditto	Enterprise ... ..	3rd May, 1866.
Edward J. Carter ... ..	Engineer	Onco ... ..	14th July, 1865.
Franklin West ... ..	Ditto	New Zealand ... ..	29th July, 1865.
Charles Boyd ... ..	Ditto	Betsy Douglas ... ..	29th July, 1865.
J. S. Morrison ... ..	Ditto	Southland ... ..	24th August, 1865.
Robert Pope ... ..	Ditto	Beautiful Star ... ..	24th August, 1865.
Charles Balme ... ..	Ditto	Prince Alfred ... ..	28th August, 1865.
James Nesbit ... ..	Ditto	Peninsula ... ..	14th September, 1865.
Thomas Thomson ... ..	Ditto	Maid of the Yarra... ..	23rd September, 1865.
W. H. Williams ... ..	Ditto	Yarra ... ..	4th October, 1865.
George Buchanan ... ..	Ditto	Uno ... ..	4th October, 1865.
Adam Clark ... ..	Ditto	Lady of the Lake ... ..	4th October, 1865.
W. S. Lamb ... ..	Ditto	Wonga Wonga ... ..	16th October, 1865.
James Butter ... ..	Ditto	Lord Ashley ... ..	25th October, 1865.
Thomas Nutt ... ..	Ditto	South Australian ... ..	31st October, 1865.
John Patterson ... ..	Ditto	Maori Chief ... ..	6th November, 1865.
David Robertson ... ..	Ditto	Star of the Evening ... ..	14th November, 1865.
Charles Wallace ... ..	Ditto	Waipara ... ..	30th November, 1865.
Samuel Erdis ... ..	Ditto	Wonga Wonga ... ..	20th December, 1865.
George Crole ... ..	Ditto	William Miskin ... ..	1st January, 1866.
Alfred Bach ... ..	Ditto	Enterprise ... ..	19th January, 1866.
Edward Willcox ... ..	Ditto	Lioness ... ..	26th January, 1866.
Peter Morrison ... ..	Ditto	Thane ... ..	26th January, 1866.
James Barr ... ..	Ditto	Ahuriri ... ..	14th February, 1866.
William Melville ... ..	Ditto	Keera ... ..	14th February, 1866.
William Brown ... ..	Ditto	Blue Nose ... ..	19th February, 1866.
Archibald Donald ... ..	Ditto	Prince Alfred ... ..	21st March, 1866.
John Isbester ... ..	Ditto	Lady Bird ... ..	14th April, 1866.
Daniel Moore ... ..	Ditto	Enterprise ... ..	19th April, 1866.
Alfred Price... ..	Ditto	Woodpecker ... ..	19th April, 1866.
George Gibson ... ..	Ditto	Challenge ... ..	19th April, 1866.
John Carruthers ... ..	Ditto	Claud Hamilton ... ..	11th May, 1866.

Marine Board Office, Wellington,  
1st June, 1866.

CHAS. SHARP,  
President Marine Board.

STATEMENT of Moneys received by Officers of the Marine Board as FEES for the Survey of Steam Vessels, and the Examination of Masters and Engineers, from 1st July, 1865, to 31st March, 1866.

Purpose.	Amount.	Remarks.
Survey of Steam Vessels at the several Ports ... ..	£ s. d. 362 5 0	These amounts have been paid into the Treasuries at Auckland, Wellington, Nelson, and Otago.
Examination of Masters and Engineers at the several ports ... ..	45 3 0	
Total ... ..	£ 407 8 0	

Marine Board Office, Wellington,  
7th June, 1866.

CHAS. SHARP,  
President Marine Board.

## REPORT OF THE

LIST of PERSONS to whom PILOT LICENSES have been granted since 1st July, 1865.

Name.	Place.	Date of Issue.
Thomas Cross ... ..	Foveaux Straits ... ..	29th September, 1865.
John Atto Scott ... ..	Port of Wellington ... ..	29th November, 1865.
Lancelot Holmes ... ..	Ditto ... ..	4th December, 1865.
John Gibson ... ..	Port of New Plymouth ... ..	13th December, 1865.
Thomas Coulson ... ..	Port of Greymouth ... ..	16th December, 1865.
William G. Cellum ... ..	Port of Napier ... ..	18th December, 1865.
Alexander Reid ... ..	Summer Bar and Heathcote ... ..	19th January, 1866.
Toha Rahurahu ... ..	Wairoa, Hawke's Bay ... ..	9th February, 1866.
Neil McGill ... ..	Hokitika, West Coast ... ..	18th April, 1866.

Marine Board Office, Wellington,  
1st June, 1866.

CHAS. SHARP,  
President Marine Board.

STATEMENT of LIGHT DUES collected at the Ports of NEW ZEALAND from the 1st July, 1865,  
to the 31st March, 1866.

Ports.	Amount.	Remarks.
	£ s. d.	
Auckland ... ..	1,442 0 11	} Light dues, collected from the 5th August, 1865, when Dog Island Light was first ex- hibited.
Wellington ... ..	653 16 10	
Lyttelton ... ..	884 7 5	
Otago ... ..	1,102 12 0	
Nelson ... ..	710 9 3	
Bluff Harbour ... ..	319 10 5	
Invercargill ... ..	35 2 6	
Riverton ... ..	5 11 9	
Picton ... ..	94 17 3	
Havelock ... ..	7 15 4	
Akaroa ... ..	25 2 10	
Timaru ... ..	2 4 8	
Wanganui ... ..	25 1 4	
	£5,308 12 6	

Amount collected during nine months.

Marine Board Office, Wellington,  
1st June, 1866.

CHAS. SHARP,  
President Marine Board.

STATEMENT of EXPENDITURE incurred on account of MARINE BOARD DEPARTMENT, including  
Maintenance of Lighthouses and Survey of Steam Vessels, from 1st July, 1865, to 31st  
March, 1866.

Salaries of Officers, including Inspector of Steamers and Engineer Surveyor.	Salaries of Lightkeepers.	Cost of Oil for Lighthouses.	Freight, &c., on Oil.	Sundry Repairs to Lighthouses.	Contingencies.	Travelling Expenses for Officers of Board, and Surveyors of Steam Vessels.	Total.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1078 10 0	1693 6 8	726 0 0	190 7 0	132 9 10	71 17 6	219 15 10	4162 6 10

*Remarks.*—The officers at present receiving salary, are the President and Master Warden, and two Engineer Surveyors, who also act as Inspectors. Warden and Inspector Robertson resigned on the 30th November, 1865, and Warden and Inspector Kennedy has been employed on special service, in command of Government steam vessel "St. Kilda," from the same date.

The travelling expenses are almost wholly incurred by officers on survey duty, the ports from which steam vessels ply having to be visited for that purpose every three months.

Marine Board Office, Wellington,  
25th June, 1866.

CHARLES SHARP,  
President Marine Board.



RETURN of WRECKS on which Inquiries have been held under the Inquiry into Wrecks Act, from 1st July, 1865, to the 30th June, 1866.

Name of Vessel.	Tonnage.	Description.	Whether insured.	Nature of casualty.	Where casualty occurred.
Pilot ... ..	Not stated	Cutter ...	Not stated	Total loss	West Wanganui, Nelson.
Sir Francis Drake...	158 52-100	Schooner ...	do.	do.	Hokitika.
Au Revoir ... ..	138	Brigantine ...	Insured £1,600	Stranded	Port Waikato.
Alabama ... ..	337 3-95	Americanbarque	Not stated	Total loss	Port Hutt, Chatham Islands.
Vernon ... ..	891	Ship ... ..	do.	Damaged	At sea.
Montezuma ... ..	Not stated	Brigantine ...	do.	Total loss	Hokitika.
New Zealand ... ..	...	Paddle steamer	do.	do.	do.
Titania ... ..	56 41-100	Screw steamer	do.	do.	do.
Sturt ... ..	Not stated	Paddle steamer	do.	Damaged	Waitara.
Effort ... ..	32	Schooner ...	Insured	Total loss	Awanui River.
Gem ... ..	25	do. ...	Not insured	do.	Tauranga Nui.
Augusta ... ..	35	do. ...	do.	do.	Melville Cove, Queen Charlotte's Sound.
Midas ... ..	26	do. ...	do.	do.	Flat Point, Cook's Strait.
Christina Thompson	85	do. ...	Insured	do.	Greymouth.
Swan ... ..	36	Cutter ...	Not insured	do.	do.
Leonidas ... ..	111	Brigantine ...	Insured	Stranded	Hokitika.
Mount Alexander...	72	Schooner ...	do.	Total loss	do.
Samson ... ..	76	Paddle steamer	Not insured	do.	do.
John Bullock ...	149	Three - masted schooner	do.	Stranded	do.
Maria ... ..	161	do. ...	Insured	do.	do.
Emerald Isle ...	22	Schooner ...	Partly insured	Total loss	Port Underwood.
Maid of the Yarra	111	Screw steamer	Not stated	do.	Hokitika.
Star of the South ...	147	do. ...	Insured £5,000	Stranded	Chalky Inlet, West Coast.
Eleanor ... ..	58	do. ...	Not stated	Total loss	Greymouth.
Catherine .. ...	153	Barque ...	do.	do.	Chatham Islands.
Wonga Wonga ...	40	Screw steamer	Insuredfortwo-thirds	do.	Greymouth.
Maria ... ..	161	Schooner ...	Insured £700	do.	Hokitika.
William ... ..	62	do. ...	Not stated	Stranded	do.

G. ELLIOTT ELLIOTT,  
Secretary, General Post Office.

## No. 2.

COPY of a Letter from Mr. AYLMEY to Captain SHARP.

*Report on site for Lighthouse at Cape Farewell.*

SIR,—

Nelson, 28th December, 1865.

I have the honor to report that in accordance with the instructions contained in your letter of the 6th instant (223-65), I left Wellington on the 9th instant, arriving at Nelson on Sunday, the 10th.

I immediately placed myself in communication with the Provincial Secretary, who kindly afforded me all the assistance in his power. Owing to a prevalent head wind, it was decided that the boat and crew which had been placed at my disposal should be towed as far as possible by the first steamer proceeding toward the Sand-spit.

The s.s. Wallaby left Nelson on Thursday, the 15th, and by her the boat was towed to Separation Point, and sailed thence to the Sand-spit. Up to Wednesday, the 21st, I was engaged in examining the spit, taking bearings, and the elevations of the highest points, &c., &c.

I returned to Nelson on Friday, the 23rd, having been absent eight days, a greater part of which were occupied by the passage, on account of baffling winds.

On arriving at the Sand-spit I at once commenced to search for a site for the lighthouse, examining the entire portion from about the centre of the spit to the outer extremity. I took the levels of some of the highest portions, and sunk shafts in two or three places, in order to ascertain the nature of the ground. I also took bearings from the centre of the spit, and from the spot marked in the chart as "Bushend Point," which is the outer end of the spit at high water. A day also was spent in taking soundings in the vicinity of Spitend.

By these bearings and soundings I found that Bushend Point is correctly laid down on the chart, but that the bank which runs under water from the point has extended towards the south-east, the depth of four and a half fathoms where given on the chart has now decreased to two and a half.

The portion of the Sand-spit above water is entirely composed of loose fine sand, which has formed into a number of hills, the highest of which is about eighty feet above high water mark. The small plateaus of level ground at the foot of these sand hills are, in some places, two or three feet above the water level; and in others as much below it. The sand hills are constantly shifting their position, and some of them bear a low straggling scrub. During the strong winds the sand is borne to seaward in dense clouds. Bushend Point is the last of these sand hills, the general elevations of which are about ten feet above high water. The test shafts which were sunk showed nothing but fine sand, but no great depth was arrived at, as they were soon flooded with water; but I believe that had it been possible to continue the sinkings, the same sort of sand would have been found to a great depth.

On account of the peculiar nature of the sand hills which compose the Farewell Spit, I am of opinion that it is impossible to establish a lighthouse on any part of the spit which is at all elevated above high water mark. The permanency of the high sand is not to be depended on for a single day. The nearest point where any elevation could be obtained is on Cape Farewell, where the land is very high. If a light were established there it would serve chiefly as a mark for making Cook's Strait, on account of the great range it would have. I do not believe that any iron tower would be required, but only a good stone foundation to carry the lantern. The light should be white, of the first order, revolving, to distinguish it from the neighbouring Mana and Nelson lights. The prime cost would be about six thousand pounds.

I also directed my attention to the practicability of establishing a lightship off Spitend; and I consider that this would be the best and most efficient means of protecting shipping from the dangers of the Sandspit. There is excellent holding ground and good shelter for a lightship to ride in security just inside Spitend. A double white light would be required, as it might be mistaken for Nelson or Mana light, and a sufficient elevation could be obtained to make the light visible from a ship's deck at a distance of twelve miles.

The light could be established in a comparatively short time, as the ship might be built in the Colony, and the light apparatus can be obtained from Sydney.

I believe the entire prime cost of such a lightship would not exceed four thousand pounds, and the yearly expense of maintenance would be about the same as of a first-class lighthouse.

I have, &c.,

The President, Marine Board, Wellington.

R. AYLMEY, C.E.

### No. 3.

COPY of a Letter from Mr. G. ELLIOTT ELLIOTT to Mr. R. AYLMEY.

SIR,—

General Post Office, Wellington, 19th January, 1866.

With reference to your Report upon the proposed light at Cape Farewell, dated 28th December last, forwarded to this department by the Marine Board, I am directed to inform you that the Government is not prepared to sanction at present the establishment of a lightship at Cape Farewell without further information, as it is considered that it would be attended with great risk and expense.

Be good enough to state in what manner a lighthouse could be best constructed at Bushend, in the event of the Government deciding to erect one there.

I have, &c.,

R. Aylmer, Esq., Auckland.

G. ELLIOTT ELLIOTT,  
Secretary.

### No. 4.

COPY of a Letter from Mr. C. AYLMEY to the Hon. the POSTMASTER-GENERAL.

SIR,—

Marine Board Office, Auckland, 1st March, 1866.

I have the honor to acknowledge the receipt of your letter (H.-66-6), informing me that my Report upon the Cape Farewell Sand-spit had been received, and directing me to state in what manner I consider a lighthouse could be best constructed at Bushend.

I presume that at present the general principles only of the plan I would recommend are required, therefore I shall not now enter into details.

Taking into consideration the very peculiar nature of the Sand-spit (as fully described in my first Report), I am of opinion that the foundations should be either cast or wrought iron screw piles—the former would, perhaps, be preferable—which should be screwed into the sand to a depth of not less than twenty-five or thirty feet. These piles to be of the ordinary description, but having very broad screw heads, in order that the weight of the superstructure may be spread over as great an area as possible. On the top of these piles should be firmly bolted an entablature of cast iron segments or beams, fitted with planed fitting strips, key-ways, and bolt holes, for securing the first tier of tower plates. The tower to be, say, sixty feet high, fifteen feet six inches diameter at the base, tapering to ten feet six inches at the top, and to be of cast iron flanged plates, bolted together with planed joints caulked with rust. The total height from the ground to the vane would be about ninety-two feet. All the internal fittings, such as floor girders, stairs, floor plates, and the outer balcony to be of wrought iron, and as light as possible. The entrance door of the tower should be on the second floor, approached by a ladder; the first or ground floor to be used as a store.

The lantern to be of the most approved modern construction, the astrigals and horizontal pieces to be of gun-metal, the former to be fixed diagonally, and the whole roofed with sheet copper outside and wrought iron inside. The light apparatus to be dioptric, revolving, of the second order.

Assuming the height of the tower to be sixty feet, the centre of the light, or the focal plane, will be about ten feet more; and supposing the ground to be ten feet above high water mark, we have the focal plane eighty feet above high water, which, with the usual allowance for the height of the deck of a ship, will give the light a radius of sixteen English miles in clear weather.

The keepers' dwellings should be erected of wood, at a convenient distance from the lighthouse.

I shall be happy to furnish further particulars of this plan, with rough specification, estimate, weight, &c., &c., should such be required.

The Hon. Postmaster-General, Wellington.

I have, &c.,

R. AYLMER, C.E.

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