1888.
NEW ZEALAND.

MARINE DEPARTMENT.

(ANNUAL REPORT OF DEPARTMENT FOR 1887-88.)

Presented to both Houses of the General Assembly by Command of His Excellency.

SIR,— Marine Department, Wellington, 9th August, 1888.

I do myself the honour to transmit herewith, for your Excellency's information, the report of the Marine Department of this colony for the financial year ended on the 31st March last.

I have, &c.,
GEO. FISHER,
For Minister having charge of the Marine Department.

His Excellency Sir W. F. Drummond Jervois, G.C.M.G., &c.,
Governor of New Zealand.

1888.

NEW ZEALAND.

MARINE DEPARTMENT

(ANNUAL REPORT ON).

Presented to both Houses of the General Assembly by Command of His Excellency.

The Assistant-Secretary to the Hon. the Minister having charge of the Marine Department.

Sir,— Marine Department, Wellington, 27th July, 1888.

I do myself the honour to submit the following report of this department for the year ended on the 31st March last.

Lighthouses.—The number of lighthouses under the control of the department remains the same as last year, no additional lighthouses having been erected. The light at French Pass has been altered to show red in the channel towards Nelson, with a white arc round over the Piege Rocks; this alteration, it is understood, is much appreciated by mariners. The lighthouses have been kept in good order, no extensive repairs having been required to buildings or apparatus, &c. The only accident to a light reported was at Waipapapa Point, when the keeper on duty fell asleep and allowed the light to become stationary. The offending keeper was dismissed the service. The light on the beacon at French Pass, which is kept burning night and day, was blown out on three different occasions, viz., on the 18th June, at 7.30 p.m., when it was not possible to light it again until daylight; on the 24th November, when it was out from 2 to 4.30 a.m.; and on the 23rd March, when it was out from 2.30 to 8.30 a.m. No complaints of any of the lights being inefficient were received from mariners. Seven assistant-keepers left the service: two having been dismissed for going to sleep on watch, the services of three having been dispensed with for misconduct, and two having resigned. The knoll at Cape Campbell on which the lighthouse is built having weathered considerably during the last few years, steps have been taken to terrace it with manuka scrub, which it is believed will prevent any further wearing away. Measures are also being taken to put a wire-net fence across the boundary of the reserve, and then to destroy the rabbits, which are very numerous, notwithstanding the fact that there are a good number of ferrets on the reserve. The heavy southerly gale of the 27th and 28th March last was felt most severely at all the stations on the east coast, as far north as Portland Island, but I am glad to say that comparatively little damage was done, the most serious being the destruction of the boat at Portland Island, and the carrying-away of part of the jetty tramway at Cape Campbell. To show the violence of the wind at this station during the gale, I may state that a large lifeboat belonging to the "Kangaroo," lying on the beach at Cape Campbell, was lifted 8ft. or 10ft. off the ground, and carried a distance of about 6 chains. The small light maintained at Wangawehi being very little used, owing to the trade being now principally carried out by steamers, was abolished on the 31st March last.

New Lighthouses.—Steps have been taken to take the land necessary for the erection of Cuvier Island Lighthouse, and plans for a cast-iron tower have been prepared, the contract for its construction having since been let to Mr. A. Beaney, of Auckland, for the sum of £704 3s. It is anticipated that the light will be ready for exhibition in less than a year. Owing to the unfortunate wreck of the "Derry Castle" at the Auckland Islands, attention has been again drawn to the necessity of erecting a lighthouse on the Snares. Correspondence has taken place between the Victorian and New Zealand Governments and the Chambers of Commerce at Melbourne and Invercargill on this important question. The view taken by the New Zealand Government and the Underwriters' Association at Melbourne is, that a light should be erected at the Snares, but the Invercargill Chamber of Commerce recommend that, in any case, a light should be placed on the Auckland Islands. The question of maintaining the dépôts for castaways at the Auckland and other outlying islands, and of visiting these islands at regular intervals, has also formed the subject of correspondence. These questions are, however, still in abeyance, waiting further communications from the Victorian Government. The necessity for the erection of a light at Stephens Island, Cook Strait, had already been pointed out on more than one occasion. It would be a most useful light to all vessels bound through Cook Strait from the westward, the number of which is increasing rapidly owing to

the development of the coal trade at Greymouth and Westport. I would urge upon the Government the desirability of proceeding with the erection of this light as soon as possible. The masters of vessels trading to Napier are urging that a light should be erected at Cape Kidnappers; this light would be of great service to traders to Hawke's Bay.

Harbours.—No works of any importance have been carried out at any of the harbours, the administration of which is under the control of this department. The accounts, however, show expenditure in respect of snagging the Mokau River and the improvement of the Ferntown Channel, Collingwood. These works were, however, practically completed during the previous financial year. The buoys and beacons have been attended to as in former years by the s.s. "Stella." It has been found that the services of the boat's crew at Manukau could be dispensed with, and the work of attending to the Heads carried out by a local steamer at a small cost. The services of the chief boatman at Manukau Heads, whose principal duties were to assist the signalman, have also been dispensed with, and arrangements made for the lighthouse-keepers to carry out his duties. At Kaipara the port charges have been raised in order to make the revenue nearly equal to the expenditure. The result of the survey reported as having been done last year has been added to the Admiralty chart of this port. At Wairau a pilotage-rate has been imposed in order to cover the cost of maintaining the pilot establishment, no harbour dues having been collected there before. The Southland County Council, wishing to continue the pilot establishment at Fortrose, Mataura River, the Council has been, under the provisions of section 242 of "The Counties Act, 1876," declared to be a Harbour Board for that port.

Orders in Council.—The following Orders in Council under the provisions of the Harbours Acts have been issued during the year:—

April 19, 1887. Approving plans of ferry-jetty and goods-wharf off Quay Street, Auckland.
April 19. Fixing pilotage, &c., for Kaipara Harbour.
April 19. Validating election of members of Waitara Harbour Board.
May 9. Vesting Wainui Wharf in Akaroa County Council.
June 1. Approving plans of north wall to enclose Timaru Harbour.
June 14. Approving plans of extension of Havelock Wharf.
June 14. Approving plans of drain from Gisborne Hospital into Turanganui River.
June 14. Approving of Thames Harbour Board licensing J. W. Rickit to occupy portion of foreshore for shipbuilding, &c.
June 14. Approving of Thames Harbour Board licensing J. G. Ralph to occupy portion of foreshore for working tailings, &c.
June 28. Appointing Trustees of Moeraki Sea-bathing Trust.
June 28. Approving plans of first 800ft. of Gisborne Breakwater.
June 28. Approving plans of Borough Council's Wharf at Akaroa.
June 28. Licensing Akaroa Borough Council to occupy foreshore for wharf at Akaroa.
July 5. Approving plans of James Darrow's boom across Kirikiri River, Thames.
July 5. Licensing James Darrow to occupy foreshore at Kirikiri River, Thames, for booms.
July 5. Validating election of members of Waimakariri Harbour Board.
July 19. Approving plans of No. 2 Jetty, off Quay Street, Auckland.
July 19. Approving of Thames Harbour Board licensing W. Rowe and R. E. Williams to occupy foreshore for working tailings, &c.
August 2. Approving of Westport Harbour Board connecting Cape Foulwind Railway with eastern breakwater.
August 2. Approving plans of C. Georgeson's smokehouse, Otago Harbour.
August 2. Licensing Charles Georgeson to occupy foreshore in Deborah Bay, Otago Harbour, for smokehouse and fish-curing.
August 16. Approving of plans of reclamation in Freeman's Bay, Auckland.
August 23. Approving plans of site, &c., of Charles Effey's bathing-machines, New Brighton.
August 23. Licensing Charles Effey to occupy foreshore at New Brighton for bathing-machines.
August 30. Revoking license for Auckland Tramway Company to use foreshore for wharf-site.
August 30. Fixing pilotage-rates for Port of Wairau.
October 5. Approving plans of cattle-landing wharf, Greymouth.
October 5. Approving of meat-freezing as purpose for which Harbour Boards may allow use of foreshore.
October 18. Approving plans of Wellington Rowing-club's boatshed, Wellington.
November 8. Approving plans of slipway, Timaru Harbour.
November 8. Approving plans of outer tee of Burke Street Wharf, Thames.
November 8. Approving plans of wharf, Miranda River.
November 8. Licensing W. Findlay and others to occupy foreshore, Miranda River, for wharf.
November 8. Prescribing additional dues for Kaikoura Wharf.
November 15. Revoking Order in Council vesting Whangaroa Wharf in Mongonui County Council.
November 15. Vesting Whangaroa Wharf in Whangaroa County Council.
November 22. Revoking Order in Council approving plans of additions and repairs to outer tee of Queen Street Wharf, Auckland.
November 22. Approving plans of additions and repairs to outer western tee, Queen Street Wharf, Auckland.
January 5, 1888. Approving plans of further reclamation, Te Aro, Wellington.
January 5. Approving plans of baths at Port Moeraki.

January 31. Approving plans of reclamation at Te Whare-o-Maranui, Napier.
January 31. Prescribing dues and rates for Herd's Point Wharf, Hokianga.
February 2. Approving plans of North British and Hawke's Bay Freezing Company's Wharf, Napier.
February 7. Approving plans of Timaru Boating Club's boat-shed at Timaru.
February 27. Prescribing dues and rates for County Wharf, Kohukohu, Hokianga.

Notices to Mariners.—Forty-seven Notices to Mariners were issued during the year, of which twenty-seven related to matters within the colony. The following is a list of them:—
Otago Harbour: Position of dredge mooring-buoys altered.
Bluff Harbour: Lights on dolphins discontinued.
French Pass: Light altered.
Tauranga Harbour, Catlin's River, and Fortrose Harbour: Pilot and harbour services discontinued.
Wellington Harbour: Removal of position of wreck-buoy over "Eli Whitney."
Nelson Harbour: Position of bar-buoy altered.
Westport Harbour: Colour of bar and danger-signal balls altered.
Opunake: Signal station discontinued.
Lyttelton Harbour: Dredging operations.
New River: Dredging operations.
Foxton Harbour: Temporary flagstaff and Manawatu River bar. Bar and danger signals shown therefrom (two notices).
Port of Invercargill: Narrow channel between Bombay Rock and New River bar.
Waimakariri River Bar: Signal-staff and gear attached washed away, and carried out to sea.
Riverton Harbour: Harbour establishment done away with.
Bluff Harbour: Tidal signals made from Bluff Hill.
Otago Harbour: Position of outer leading beacon altered.
Riwaka Harbour: Harbour light discontinued.
Poverty Bay: Reported danger in anchorage.
Timaru Harbour: Amended notice as to Timaru light.
Greymouth Harbour: Leading-lights altered (two notices).
Waimakariri River Bar: New signal-staff erected.
Tauranga Harbour: Colour of light on Town Wharf altered.
Otago Harbour: Leading-lights altered.
Pelorus Sound: Position of rock in Tawhitinui Reach.
Wangawehi: Light discontinued.

Light-dues.—The sum of £12,358 13s. 9d. was collected for light-dues. Of this sum £3,570 15s. 4d. was paid in respect of coasting-vessels, being the proceeds of the ¼d. rate imposed from the 1st April, 1887. In the amount collected for light-dues is included the sum of £2,165 4s. 10d. paid by the Post and Telegraph Department in respect of light-dues remitted on the San Francisco, New Zealand Shipping, and Shaw-Savill and Albion Company's steamers.

Government Steamers.—The "Hinemoa" was running only until the end of April, 1887, after which date she was laid up in Wellington. New boilers have been made for her; the work was considerably delayed owing to one of the flanged steel plates imported from England having been found to be cracked, a new plate having to be imported. The "Stella" has been employed on her usual work attending to lighthouses, buoys, &c., and carrying out the quarterly service to the West Coast Sounds. She made a trip to the Kermadec Islands in August last for the purpose of hoisting the British flag there, and has recently sailed to those islands to establish dépôts for the benefit of castaways; she also made a trip to the Auckland, Campbell, Antipodes, and Bounty Islands in January last. The dépôts for castaways at these islands, with the exception of the Bounty's, were replenished, and boats were left at Enderby Island and Adams Island (Auckland Group). During the year the "Stella" steamed 21,332 miles, was 2,538 hours under steam, burnt 774 tons coal, carried 253 passengers, and landed 711 tons cargo.

Examination of Masters, Mates, and Engineers.—One hundred and thirty-one candidates passed their examination for certificates of competency, and 34 failed. Of those who passed, 82 were masters, mates, and engineers of sea-going vessels, and 49 masters and engineers of river-steamers. Three candidates failed to pass the colour-test. Only five certificates of service were issued during the year, one being for the foreign trade, two for the home trade, and two as engineers, four of these certificates being renewals in lieu of previous certificates which had been lost or destroyed.

Relief of Distressed Seamen.—During the past year the sum of £234 1s. 8d. has been disbursed on account of the relief of distressed seamen. Of this amount £84 has been paid to the Adelaide Steamship Company for passages of the crew of the "Rapido," wrecked in Cambridge Gulf on the 1st October, 1886, in discharge of their claim of £136 made in the previous year (see Marine Report, 1887); £5 17s. has been paid to the Queensland Government; and £2 17s. to the Government of New South Wales in respect of the "Jane Anderson," wrecked off Cape Van Diemen, Northern Australia, on the 2nd July, 1886, and £11 15s. to the last-mentioned colony in respect of two seamen of the "Alexa." There has been £129 12s. 8d. expended in refitting and replenishing the dépôts for castaways in the Auckland, Campbell, and the Antipodes Islands.

Wages and Effects of Deceased Seamen.—During the year the estates of 45 deceased seamen have been dealt with: £116 6s. 8d. has been paid to relatives or creditors, and £209 11s. 7d. paid into the Public Account, in accordance with the provisions of section 87 of "The Shipping and Seamen's Act, 1877."

Survey of Steamers and Inspection of Machinery.—Certificates of survey under "The Shipping and Seamen's Act, 1877," have been issued to 202 steamers, of 31,640 aggregate tonnage and 10,548 horse-power, as against 185 steamers, of 30,649 aggregate tonnage and 10,059 horse-power, being

an increase of 17 in the number of steamers, 991 in the tonnage, and 489 in the horse-power. For some years past the Board of Trade has only surveyed first-class steamers once a year; it would be desirable to adopt the same plan in this colony, but, before this can be done, the Shipping and Seamen's Act will have to be amended. Certificates of exemption under the provisions of section 201 of "The Shipping and Seamen's Act, 1877," and subsection (2) of "The Shipping and Seamen's Act 1877 Amendment Act, 1885," were issued during the year for the undermentioned steamers: "Clyde," s.s., fishing-vessel, exempted from survey, and from carrying certificated master, mate, and engineer; "Alpha," New River dredger, exempted from employment of certificated master; "La Buona Ventura," exempted from employment of certificated engineer; "Rosina," exempted from employment of certificated master while trading in Poverty Bay without passengers; "Noko," s.s., exempted from employment of certificated master while trading in Poverty Bay without passengers. The reports of the Inspector of Machinery will be found at the end of this report. No complaints have been made as to the carrying-out of the duties by the Inspectors. Two or three claims to have the boilers considered as being of a less horse-power than estimated by the Inspectors only have been received, these being made in order that the fee payable might be reduced. It would be very desirable if some good rule could be determined on for fixing the horse-power of boilers, for the purpose of ascertaining the fee to be paid for inspection. The work in some districts has fallen somewhat in arrear, owing to the unfortunate illness of one of the Inspectors; but efforts are being made to pull up these arrears, although the quantity of work to be done makes it difficult to do so. Proceedings were taken against a man in Canterbury for deliberately continuing to work a boiler after a certificate had been refused by the Inspector, the result being that he was fined £10 and costs. An Order in Council, providing that dairy-factory boilers used not more than six months' in any year should only be inspected once in every two years, was made on the 17th March last.

Wrecks and Casualties.—The accompanying table shows an analysis of the casualties reported. Those on the coast of the colony number 54, representing tonnage amounting to 16,420 tons, as against 60 casualties, affecting 11,417 tons, in the previous year. There is a decrease in the number of total wrecks within the colony of 19 vessels, but an increase in the tonnage of 5,120 tons, as against 22 vessels of 2,676 aggregate tonnage in the previous year. There is also a decrease in the number of lives lost during the year, being 33, as against 62 in the previous year; those lost in the colony being 31, as against 45 last year. Of the lives lost on or near the coasts of the colony, 3 were lost in the "Reward," 4 in the s.s. "Boojum," 1 in the s.s. "Goahead," 6 in the s.s. "Sir Donald" (all hands), 2 in the "Clematis," 4 in the "Columbia" (all hands), 5 in the "Recamia" (all hands), 3 in the "Bessie," 1 in the "Pleione," 1 from the s.s. "Staffa," and 1 from the "Gleaner." Of those lost beyond the colony, 1 each was from the "Pleione" and the "Kirkdale." The number (14) lost in the wreck of the "Derry Castle," on Enderby Island, in the Auckland Group, in March of last year, while on her voyage from Melbourne to London, are not included in the returns, nor is that vessel included in our returns. The survivors (8) were rescued by the sealing-schooner "Awarua," and conveyed to Melbourne.

Fisheries.—*Oysters:* During the year the close season for oysters in Coromandel has been still further extended until the 31st March, 1889. Proceeding have been taken successfully against persons taking rock-oysters in the close season. The question of the taking of the oyster which is stated to be a "shore" and "mangrove" oyster, and which scientific authorities and the department hold to be "rock-oyster," still remains unsettled; it would be most desirable to get this question decided. The whole question of the oyster-fisheries requires grave consideration; they are so valuable that no effort should be spared in order to preserve them from extermination. In connection with the export of mud-oysters the following extracts from a report on the oyster-fisheries of Maryland, made by the British Consul at Baltimore, may be interesting:—

"The Western States furnish the great market for the Chesapeake raw oyster, and there is hardly a city in that section which does not derive its supply from Baltimore. The raw oysters are so packed in ice as to remain fresh, in ordinary weather, from a week to ten days, though a sudden rise of temperature may render a whole week's supply unfit for consumption. To meet this difficulty, and obviate the loss and inconvenience which it occasions, the ingenuity of enterprising packers has been exercised to the utmost, and has resulted in the establishment of the American Patent Lock Oyster Company. Oysters cannot be preserved without a thorough knowledge of their habits. They feed twice in the day, and always at the still moment which precedes the turn of the tide; at no other time, except when feeding, do they open their shells. When taken out of their natural element, they attempt to feed at regular intervals, and, so soon as their shells open, the liquor which they contain is all lost, the air takes its place, and the oyster is covered with a thick coating of slime. This is the first stage of decomposition, after which the oyster becomes practically useless. As long as the shells are closed, the oyster is fit to eat; it feeds upon the liquor in the shell, and will keep thus in good condition for a considerable time; and a means by which they can be so maintained has long taxed the ingenuity of the packers. In 1884 a Mr. Freeman, of Philadelphia, despatched to Denver, in Colorado, some oysters with their shells fastened by means of the patent wire-spring Yankee clothes-pin. On their arrival they were found when opened to be in perfect condition. Mr. Freeman immediately set about devising some means for closing the shells in a less cumbrous manner. His plan is to fasten securely the oyster-shells with a stout wire; this is done by hand with a pair of pincers, and, as it can be effected very rapidly, vast quantities are so treated daily. The Patent Lock Oyster Company which Mr. Freeman has established on the shores of Chesapeake Bay has already despatched car-loads of oysters, so treated, to San Francisco and other western cities, and with the most satisfactory results. It is stated that some are even on their way to London. He is now completing arrangements to send, next season, consignments to Paris, Rome, and other cities; and, if the experiment proves as great a success as is anticipated, the American oyster will be eaten in its natural condition all over the civilised world."

Imported Fish.—No further importations of salmon ova have been made: the charges under that head shown in the accounts refer to the shipments made in the previous financial year. No reports on the progress of the young salmon, &c., hatched by the acclimatisation societies have been received, but it is understood that they are progressing favourably. It would be desirable that the societies should furnish such reports, and also reports on the progress of pisciculture.

Seal Fisheries.—The close season is yet in force. The question of the seal-fisheries still requires consideration, and no effort should be spared to prevent their destruction by the indiscriminate slaughter such as took place for many years. In consequence of the disclosures made at the time the "Awarua" rescued the crew of the "Derry Castle," proceedings were taken against the master and mate of that vessel for sealing in the close season, the result being that the master was fined £100, or six months' imprisonment, and the mate £20, or two months' imprisonment. The fines were not paid, so they were committed to prison in default. The Fisheries Act Amendment Act passed last session provides heavy penalties for killing seals in close season, and also provides that vessels engaged in the illegal capture of seals may be seized and forfeited to the Crown.

Harbour Improvement Plans.—Again only one Harbour Board—Timaru—has forwarded a plan for publication this year. It would appear hardly worth while to continue the annual publication of the plan of this port.

Returns.—The report by the Marine Engineer on works carried out, reports by Inspector of Machinery, the usual annual returns, and wreck chart will be found appended hereto.

I have, &c.,

LEWIS H. B. WILSON,
Assistant-Secretary.

The Hon. the Minister having charge o Marine Department.

ANNUAL REPORT ON LIGHTHOUSE WORKS, ETC., BY THE MARINE ENGINEER.

The MARINE ENGINEER to the SECRETARY, MARINE DEPARTMENT.

SIR,— Marine Department, 31st March, 1888.

I have the honour to report that no works of any magnitude or importance have been carried out during the year.

Drawings and specifications have been prepared for a cast-iron tower for the light proposed to be placed on Cuvier Island, and it is intended shortly to call for tenders for its construction.

On the acceptance of a tender for the tower steps will be taken to commence work on the island, in preparing sites for the tower and dwellings, &c., making roads, and in erecting houses and stores, &c. It is expected that this work may be begun about the end of July.

I have, &c.,

JOHN BLACKETT,
Marine Engineer.

The Secretary, Marine Department.

SUMMARY of CASUALTIES to SHIPPING and SEAMEN reported to the Marine Department during the Financial Year ended the 31st March, 1888.

Nature of Casualties.	Casualties on or near the Coasts of the Colony.									Casualties outside the Colony.									Total Number of Casualties reported.		
	Steamers.			Sailing-vessels.			Total within Colony.			Steamers.			Sailing-vessels.			Total outside Colony.					
	No. of Vessels.	Tonnage.	No. of Lives lost.	No. of Vessels.	Tonnage.	No. of Lives lost.	No. of Vessels.	Tonnage.	No. of Lives lost.	No. of Vessels.	Tonnage.	No. of Lives lost.	No. of Vessels.	Tonnage.	No. of Lives lost.	No. of Vessels.	Tonnage.	No. of Lives lost.	No. of Vessels.	Tonnage.	No. of Lives lost.
Strandings,—																					
Total wrecks	5	469	7	11	4,517	4	16	4,986	11	..	..	..	1	60	..	1	60	..	17	5,046	11
Partial loss	6	840	..	6	273	5	12	1,113	5	..	..	..	..	..	..	..	..	..	12	1,113	5
Slight damage	1	496	..	1	33	..	2	529	..	..	..	..	..	..	..	..	..	..	2	529	..
No damage	2	2,817	..	1	237	..	3	3,054	..	..	..	..	1	788	..	1	788	..	4	3,842	..
Total strandings	14	4,622	7	19	5,060	9	33	9,682	16	..	..	..	2	848	..	2	848	..	35	10,530	16
Founderings,—																					
Total loss	..	..	..	1	46	4	1	46	4	..	..	..	..	..	..	..	..	..	1	46	4
Capsized,—																					
Total loss	1	19	4	1	69	5	2	88	9	..	..	..	..	..	..	..	..	..	2	88	9
Collisions,—																					
Partial loss	..	..	..	3	1,215	..	3	1,215	..	..	..	..	1	761	..	1	761	..	4	1,976	..
Slight damage	4	518	..	4	2,260	..	8	2,778	..	..	..	..	..	..	..	..	..	..	8	2,778	..
No damage	3	396	..	..	..	..	3	396	..	..	..	..	..	..	..	..	..	..	3	396	..
Total collisions	7	914	..	7	3,475	..	14	4,389	..	..	..	..	1	761	..	1	761	..	15	5,150	..
Miscellaneous, including damage to boilers, machinery, hull, yards, sails, &c.	2	2,048	..	1	115	1	3	2,163	1	1	850	..	5	2,312	1	6	3,162	1	9	5,325	2
Total casualties to shipping ..	24	7,603	11	29	8,765	19	53	16,368	30	1	850	..	8	3,921	1	9	4,771	1	62	21,139	31
Loss of life only	1	52	1	..	..	..	1	52	1	..	..	..	1	1,092	1	1	1,092	1	2	1,144	2
Total number of casualties reported	25	5,959	12	29	8,765	19	54	16,420	31	1	850	..	9	5,013	2	10	5,863	2	64	22,283	33

RETURN showing the Total Ordinary Expenditure of the Marine Department during the Financial Year ended the 31st March, 1888.

Nature of Expenditure.	Details.	Totals.	Grand Totals.
	£ s. d.	£ s. d.	£ s. d.
HEAD OFFICE:—			
Secretary (6 months)	100 0 0		
Assistant-Secretary	416 5 0		
2 clerks	430 0 0		
Marine Engineer	300 0 0		
Draftsman (9 months)	147 10 0		
Nautical Adviser	300 0 0		
		1,693 15 0	
HARBOURS:—			1,693 15 0
Manukau,—			
Salaries	676 10 0		
Contingencies	14 17 7		
		691 7 7	
Russell,—			
Salaries	222 0 0		
Contingencies	18 2 2		
		240 2 2	
Hokianga,—			
Salaries	274 0 0		
Contingencies	7 8 3		
		281 8 3	
Kaipara,—			
Salaries	702 4 9		
Contingencies	69 7 5		
		771 12 2	
Opunake,—			
Salary (1 month)	5 0 0		
Contingencies	3 18 0		
		8 18 0	
Mokau,—			
Snagging river	..	234 16 6	
Foxton,—			
Salaries	210 10 0		
Contingencies	61 13 10		
		272 3 10	
Whangarei,—			
Contingencies	..	4 10 0	
Wairoa,—			
Contingencies	..	2 16 2	
Wangawehi light	..	40 0 0	
Tauranga,—			
Salaries (1 month)	26 10 0		
Contingencies	10 6 9		
		36 16 9	
Wairau,—			
Salaries	145 0 0		
Subsidy for improving river	26 12 9		
Contingencies	41 18 5		
		213 11 2	
Picton,—			
Salaries (5 months)	53 15 0		
Contingencies	1 2 3		
		54 17 3	
Havelock,—			
Grant for wharf	75 0 0		
Contingencies	3 2 6		
		78 2 6	
Nelson,—			
Salaries	920 0 0		
Contingencies	53 13 8		
		973 13 8	
Motueka,—			
Contingencies	..	0 17 3	
Riwaka,—			
Salary	14 0 0		
Contingencies	1 12 0		
		15 12 0	
Waitapu,—			
Salary	25 0 0		
Maintenance of leading-lights	50 0 0		
Contingencies	2 16 10		
		77 16 10	
Collingwood,—			
Salary	25 0 0		
Improving Ferntown Channel	197 5 3		
Contingencies	11 10 6		
		233 15 9	
Karamea,—			
Signalman and contingencies	..	12 8 0	
Mokihinui,—			
Contingencies	..	21 1 9	
Nile River,—			
Signalman	..	24 0 0	
Okarito,—			
Salary	50 0 0		
Contingencies	14 7 2		
		64 7 2	
Okura River,—			
Signalling vessels	..	7 0 0	
Catlin's River,—			
Salary (1 month)	..	10 8 4	
Fortrose,—			
Salary (1 month)	8 6 8		
Contingencies	3 15 0		
		12 1 8	
Akaroa,—			
Salary	..	25 0 0	
Waimakariri,—			
Salary	..	40 0 0	
Carried forward	..	4,449 4 9	1,693 15 0

RETURN showing the Total Ordinary Expenditure of the Marine Department—*continued.*

Nature of Expenditure.	Details.	Totals.	Grand Totals.
	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	4,449 4 9	1,693 15 0
HARBOURS—*continued.*			
Kaikoura,—			
Salary (3 months)..	13 0 0		
Contingencies	0 9 0		
		13 9 0	
Grant in aid of erection of wharf at Miranda	..	60 0 0	
General harbour contingencies	..	474 12 10	
			4,997 6 7
LIGHTHOUSES:—			
Salaries of keepers	7,860 19 11		
Travelling expenses of keepers	49 10 6		
Oil	1,073 17 8		
Stores and contingencies	1,656 10 9		
Pension of Mrs. Deck	24 0 0		
Lighthouse artificer	200 0 0		
		10,864 18 10	
"Stella," s.s.,—			10,864 18 10
Wages, stores, provisions, &c.	4,807 11 7		
Less amount earned by steamer	197 11 5		
		4,610 0 2	
			4,610 0 2
Relief of distressed seamen	..	234 1 8	
Inquiries into wrecks and casualties	..	54 17 10	
Departmental travelling expenses	..	19 4 6	
Charts	..	90 19 5	
Sundries	..	119 8 0	
Expenses under Fisheries Acts	..	39 7 0	
Coastal buoys and beacons..	..	51 2 9	
Protection of seals	..	89 1 4	
			698 2 6
Inspection of Machinery and Survey of Steamers,—			
Salaries of Inspectors	1,900 0 0		
Travelling expenses	737 13 2		
Cost of collection of fees	68 19 0		
Contingencies	69 16 2		
		2,776 8 4	
Examination of Masters and Mates,—			2,776 8 4
Salaries	575 0 0		
Contingencies	85 4 1		
		660 4 1	
Compassionate allowances,—			660 4 1
Mrs. Turnbull	350 0 0		
Mrs. Tall	37 10 0		
		387 10 0	
"Hinemoa," s.s.,—			387 10 0
New boilers	961 13 7		
Wages, coal, stores, provisions, &c.	1,531 9 10		
	2,493 3 5		
Less amount earned by steamer	14 8 4		
		2,478 15 1	
Introduction of fish-ova,—			2,478 15 1
Salmon and trout	1,332 6 6		
Whitefish	26 0 6		
		1,358 7 0	
			1,358 7 0
Guaranteed interest to Wellington Patent Slip Company ..	..	..	2,221 16 4
			32,747 3 11
Less amounts of credits to votes	..	..	191 7 8
Total	..	..	£32,555 16 3

RETURN showing the Certificates of Service issued to Masters, Mates, and Engineers during the Year ended the 31st March, 1888.

Name of Person.	Rank.	Class of Certificate.	Date of Issue.	No.
Charles Quintin Pope (renewal) ..	Mate	Home trade ..	10 June, 1887 ..	2545
William Williams (renewal) ..	Master	" ..	24 Oct., " ..	2546
George Jasper Simmons ..	"	Foreign trade ..	24 " " ..	2547
Archibald Keith (renewal) ..	Engineer	Second class ..	30 June, " ..	1046
James McDonald (renewal) ..	"	" ..	25 Jan., 1888 ..	1047

RETURN showing the Amount of Pilotage, Port Charges, &c., collected during the Year ended the 31st March, 1888.

Name of Port.	Pilotage.	Port Charges, &c.	Total.
	£ s. d.	£ s. d.	£ s. d.
Auckland* ..	340 6 6	1,545 10 3	1,885 16 9
Onehunga ..	..	161 9 9	161 9 9
Whangarei ..	..	49 8 1	49 8 1
Whangaroa ..	..	1 8 11	1 8 11
Mongonui ..	..	52 1 4	52 1 4
Hokianga ..	23 13 6	..	23 13 6
Kaipara ..	134 13 0	442 15 11	577 8 11
Thames* ..	89 2 4	158 4 7	247 6 11
Gisborne* ..	80 10 1	518 14 0	599 4 1
Wairoa* ..	109 3 6	5 16 9	115 0 3
Napier* ..	1,842 18 7	763 14 6	2,606 13 1
New Plymouth*	81 0 0	58 14 5	139 14 5
Waitara* ..	96 13 10	30 14 6	127 8 4
Wanganui* ..	415 15 8	..	415 15 8
Patea* ..	18 16 1	4 19 6	23 15 7
Foxton ..	50 18 0	..	50 18 0
Wellington* ..	578 0 4	2,980 1 3	3,558 1 7
Wairau ..	207 12 10	..	207 12 10
Nelson ..	1,040 6 4	..	1,040 6 4
Hokitika* ..	11 16 2	..	11 16 2
Lyttelton* ..	3,457 0 4	2,454 16 6	5,911 16 10
Timaru* ..	..	821 9 5	821 9 5
Oamaru* ..	579 6 3	568 7 0	1,147 13 3
Dunedin* ..	4,272 2 0	3,323 8 2	7,595 10 2
Invercargill* ..	6 14 8	27 14 0	34 8 8
Bluff* ..	699 10 4	681 9 6	1,380 19 10
Totals ..	14,136 0 4	14,650 18 4	28,786 18 8

* Harbour Board revenue.

RETURN showing the Amount of Light-dues collected during the Year ended the 31st March, 1888.

Port.	Dues collected.	Remitted on Mail Steamers and paid by Postal Department.	Total.
	£ s. d.	£ s. d.	£ s. d.
Auckland ..	2,209 19 1	959 8 8	3,169 7 9
Onehunga ..	83 5 2	..	83 5 2
Whangarei ..	38 8 6	..	38 8 6
Whangaroa ..	15 11 11	..	15 11 11
Russell ..	157 13 9	..	157 13 9
Mongonui ..	15 10 4	..	15 10 4
Hokianga ..	10 12 0	..	10 12 0
Kaipara ..	230 16 7	..	230 16 7
Thames ..	111 16 2	..	111 16 2
Tauranga ..	31 1 10	..	31 1 10
Poverty Bay ..	171 6 8	..	171 6 8
Napier ..	338 6 2	..	338 6 2
New Plymouth	107 4 11	..	107 4 11
Waitara ..	19 19 9	..	19 19 9
Wanganui ..	55 2 8	..	55 2 8
Patea ..	4 7 6	..	4 7 6
Foxton ..	5 17 4	..	5 17 4
Wellington ..	1,870 10 10	792 12 9	2,663 3 7
Wairau ..	20 0 1	..	20 0 1
Picton ..	121 5 2	..	121 5 2
Nelson ..	270 7 9	..	270 7 9
Westport ..	101 15 11	..	101 15 11
Greymouth ..	141 13 2	..	141 13 2
Hokitika ..	24 1 10	..	24 1 10
Lyttelton ..	1,364 18 2	42 3 10	1,407 2 0
Timaru ..	201 7 6	..	201 7 6
Oamaru ..	169 1 4	..	169 1 4
Dunedin ..	1,110 6 1	370 19 7	1,481 5 8
Invercargill ..	22 1 0	..	22 1 0
Bluff ..	1,168 14 7	..	1,168 14 7
Riverton ..	0 5 2	..	0 5 2
Totals ..	10,193 8 11	2,165 4 10	12,358 13 9

RETURN showing the Cost of Erection of the New Zealand Coastal Lighthouses.

Name of Lighthouse.	Cost of Erection.
	£ s. d.
Pencarrow Head	6,422 0 4
Nelson	2,824 8 9
Tiri Tiri	5,747 7 2
Mana Island*	5,513 0 1
Taiaroa Head	4,923 14 11
Godley Head	4,705 16 4
Dog Island	10,480 12 8
Farewell Spit	6,139 11 8
Nugget Point	6,597 3 7
Cape Campbell	5,619 2 6
Manukau Head	4,975 2 4
Cape Foulwind	6,955 9 1
Brothers	6,241 0 0
Portland Island	6,554 14 5
Moeraki	4,288 13 2
Centre Island	5,785 19 0
Puysegur Point	9,958 19 5
Cape Maria van Diemen	7,028 14 8
Akaroa Head	7,150 6 5
Cape Saunders	6,066 6 3
Cape Egmont†	3,353 17 11
Moko Hinou	8,186 5 0
Waipapapa Point	5,969 18 11
Ponui Passage‡	..
Kaipara Head	5,571 8 0
French Pass	1,427 17 5
Cost of telegraph cable to Tiri Tiri ..	1,085 19 6
Miscellaneous and unallocated ..	1,322 2 2
Total	£150,895 11 8

* Light discontinued; moved to Cape Egmont.
† Cost of iron tower, lantern, and apparatus, which were removed from Mana Island, is not included in this.
‡ Built by Provincial Government of Auckland; cost not known in Marine Department,

RETURN showing Expenditure on new Lighthouses, &c., out of Public Works Loan, during the Year ended the 31st March, 1888.

Nature of Expenditure.	Amount.
	£ s. d.
Jackson's Reef Beacon	507 3 4
Cuvier Island Lighthouse	2,359 6 7
Total	£2,866 9 11

RETURN showing the Fees, &c., received under the Shipping and Seamen's Act, the Merchant Shipping Act, the Inspection of Machinery Act; and for Pilotage and Port Charges, and Sale of Charts, &c.

Nature of Receipts.	Amount.
	£ s. d.
Shipping and Seamen's Act—	
Fees for shipping and discharge of seamen, and sale of forms	801 4 6
Survey of steamers	1,291 0 0
Examination of masters, mates, and engineers	153 15 0
Light-dues	12,358 13 9
Merchant Shipping Act	83 14 4
Inspection of Machinery Act	2,849 0 0
Pilotage and port charges	2,164 7 8
Sale of charts	39 3 6
Sundry receipts under Harbours Acts ..	93 0 0
Sundries	58 9 3
Total	19,892 8 0

Descriptive Return of New Zealand Coastal Lighthouses.

Name of Lighthouse.	Order of Apparatus.	Description.	Period of Revolving Light.	Colour of Light.	Tower built of	Dwellings built of	Date first lighted.
Cape Maria van Diemen	1st order dioptric	Revolving	1′	White	Timber	mber	24 Mar., 1879
	..	Fixed	..	Red, to show over Columbia Reef	..	..	..
Moko Hinou ..	1st order dioptric	Flashing	10″	White	Stone	Timber	18 June, 1883
Tiri Tiri.. ..	2nd „	Fixed	..	White, with red arc over Flat Rock	Iron	„	1 Jan., 1865
Ponui Passage ..	5th „	„	..	White and red ..	Timber	„	29 July, 1871
Portland Island	2nd „	Revolving	30″	White	„	„	10 Feb., 1878
	..	Fixed	..	Red, to show over Bull Rock	..	..	..
Pencarrow Head ..	2nd order dioptric	„	..	White	Iron	Timber	1 Jan., 1859
Cape Egmont ..	2nd „	„	..	„	„	„	1 Aug., 1881
Manukau Heads ..	3rd „	„	..	„	Timber	„	1 Sept., 1874
Kaipara Head ..	2nd „	Flashing	10″	„	„	„	1 Dec., 1884
Brothers ..	2nd „	„	10″	„	„	„	24 Sept., 1877
	..	Fixed	..	Red, to show over Cook Rock	..	..	..
Cape Campbell ..	2nd order dioptric	Revolving	1′	White	Timber	Timber	1 Aug., 1870
Godley Head ..	2nd „	Fixed	..	„	Stone	Stone	1 April, 1865
Akaroa Head ..	2nd „	Flashing	10″	„	Timber	Timber	1 Jan., 1880
Moeraki	3rd „	Fixed	..	„	„	„	22 April, 1878
Taiaroa Head ..	3rd „	„	..	Red	Stone	Stone	2 Jan., 1865
Cape Saunders ..	2nd „	Revolving	1′	White	Timber	Timber	1 Jan., 1880
Nugget Point ..	1st „	Fixed	..	„	Stone	Stone	4 July, 1870
Waipapapa Point ..	2nd „	Flashing	10″	„	Timber	Timber	1 Jan., 1884
Dog Island ..	1st order catadioptric	Revolving	30″	„	Stone	Stone	1 Aug., 1865
Centre Island ..	1st order dioptric	Fixed	..	White, with red arcs over inshore dangers	Timber	Timber	16 Sept., 1878
Puysegur Point ..	1st „	Flashing	10″	White	„	„	1 Mar., 1879
Cape Foulwind ..	2nd „	Revolving	30″	„	„	„	1 Sept., 1876
Farewell Spit ..	2nd „	„	1′	White, with red arc over Spit end	„	„	17 June, 1870
Nelson	4th „	Fixed	..	White, with red arc to mark limit of anchorage	Iron	„	4 Aug., 1862
French Pass ..	6th „	„	..	Red and white, with white light on beacon	„	„	1 Oct., 1884

Return showing the Cost of Maintenance of the New Zealand Lighthouses, and the Quantity of Oil consumed at each, during the Year ended the 31st March, 1888.

Name of Lighthouse.	Salaries.	Oil.		Stores and Contingencies.	Totals.
		Gallons consumed.	Value.		
	£ s. d.		£ s. d.	£ s. d.	£ s. d.
Cape Maria van Diemen	380 17 3	853	63 19 6	128 14 11	573 11 8
Moko Hinou	380 0 0	816	61 4 0	62 3 0	503 7 0
Tiri Tiri	248 6 8	522	39 3 0	37 10 9	325 0 5
Bean Rock	150 0 0	72	6 6 0	6 6 0	162 12 0
Ponui Passage	160 16 8	79	5 18 6	20 10 6	187 5 8
Portland Island..	372 16 5	658	49 7 0	73 10 1	495 13 6
Napier Bluff	36 0 0	Gas	18 6 0	5 6 0	59 12 0
Pencarrow Head	233 6 8	887	66 10 6	92 6 10	392 4 0
Somes Island	136 0 0	203	15 4 6	15 11 0	166 15 6
Cape Egmont	272 10 0	505	37 17 6	62 19 5	373 6 11
Manukau Head	247 12 8	500	37 10 0	58 3 3	343 5 11
Manukau South Head leading-lights ..	..	135	10 2 6	..	10 2 6
Manukau North Head leading-lights ..	130 0 0	218	16 7 0	24 4 8	170 11 8
Kaipara Heads	263 12 0	536	40 4 0	70 11 10	374 7 10
Brothers	426 19 11	670	50 5 0	*86 7 9	563 12 8
Tory Channel leading-lights	90 0 0	172	12 18 0	8 1 9	110 19 9
Cape Campbell	260 0 0	534	40 1 0	125 3 11	425 4 11
Godley Head	260 0 0	501	37 11 6	54 5 2	351 16 8
Akaroa Head	270 0 0	608	45 12 0	42 17 4	358 9 4
Moeraki	272 10 0	510	38 5 0	48 1 10	358 16 10
Taiaroa Head	279 13 0	555	41 12 6	48 1 11	369 7 5
Cape Saunders	270 0 0	511	38 6 6	37 16 10	346 3 4
Nugget Point	270 0 0	960	72 0 0	67 5 1	409 5 1
Waipapapa Point	257 19 8	509	38 3 6	47 13 11	343 17 1
Dog Island	356 13 4	809	60 13 6	96 8 1	513 14 11
Centre Island	360 0 0	894	67 1 0	87 7 10	514 8 10
Puysegur Point	368 6 2	897	67 5 6	105 11 10	541 3 6
Hokitika	..	Gas	..	..	†55 8 4
Cape Foulwind	286 13 4	529	39 13 6	44 15 5	371 2 3
Farewell Spit	328 12 10	494	37 1 0	72 7 2	438 1 0
Nelson	291 13 4	229	17 3 6	16 16 9	325 13 7
French Pass	200 0 0	124	9 6 0	9 9 11	218 15 11
Totals	7,860 19 11	15,490	1,180 19 0	1,656 10 9	10,753 18 0

* Includes cost of rationing keepers, £34 8s. 11d.
† Includes £41 13s. 4d. paid to Harbour Board for maintaining lighthouse to the 31st August; £6 5s., salary of keeper; and £7 10s., cost of gas from the 1st September.

RETURN of Estates of Deceased Seamen received and administered in Pursuance of the Provisions of "The Shipping and Seamen's Act, 1877," during the Year ended the 31st March, 1888.

Name of Seaman.	Balance to credit of Estate on 31st March, 1887.	Amount received.	Amount paid.	Balance to credit of Estate on 31st March 1888.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
John Willliams, or Kristensen	13 0 0	18 15 2	31 15 2	..
James Gunning	..	6 13 4	..	6 13 4
A. Grumby	..	7 8 0	..	7 8 0
John Petersen	..	7 5 0	0 8 5	6 16 7
A. Christensen	..	5 6 0	..	5 6 0
C. Larsen	..	5 6 0	..	5 6 0
Cathol McLeod	..	7 12 6	7 12 6	..
J. Ginberg	..	1 0 0	..	1 0 0
Peter Swanson	..	1 0 0	..	1 0 0
Fred Ross	..	0 17 0	..	0 17 0
Hans Rasmussen	..	5 12 0	..	5 12 0
Charles Engelke, *alias* Schultz	3 3 1	..	1 12 6	1 10 7
Patrick or E. McMillan	28 19 3	..	28 19 3	..
Robert Irvine	3 6 0	..	3 6 0	..
R. G. Lloyd	18 8 10	..	18 8 10	..
D. Barclay	12 10 0	..	12 10 0	..
W. Whybrow	2 0 4	..	2 0 4	..
Henry Rennie or Rooney	10 3 8	..	10 3 8	..
Patrick Long	24 19 9	..	24 19 9	..
Robert McArthur	0 1 1	..	0 1 1	..
Francis Hilton	12 1 9	..	12 1 9	..
John Elliott	3 0 8	..	3 0 8	..
G. W. Gairdner	12 8 9	..	12 8 9	..
H. Hansen	5 17 0	..	5 17 0	..
J. J. Quilty	5 17 0	..	5 17 0	..
Jacob Miller	8 17 0	..	8 17 0	..
Charles Tagg	9 17 0	..	9 17 0	..
H. Ferguson	2 11 0	..	2 11 0	..
Unknown	1 5 9	..	1 5 9	..
W. Lawson, *alias* Larsen	10 19 5	..	10 19 5	..
W. E. Huntley	0 10 0	..	0 10 0	..
F. A. Yates	3 19 8	..	3 19 8	..
J. Walker	7 0 0	..	7 0 0	..
E. O. Anderson	7 5 0	..	7 5 0	..
Oscar Carlson	2 5 0	..	2 5 0	..
L. Cord	7 5 0	..	7 5 0	..
Alfred Smith	10 0 0	..	10 0 0	..
Nicolas Alex, *alias* Budzaccos	34 15 1	..	34 15 1	..
C. Lumbert or Lombard	1 0 0	..	1 0 0	..
John Bodkin	1 7 9	..	1 7 9	..
John Wahoo	10 13 0	..	10 13 0	..
O. W. Nilsson	7 7 4	..	7 7 4	..
Andrew Ohlsen	8 17 4	..	8 17 4	..
Alexander Wilkie	5 11 11	..	5 11 11	..
William Gunn	3 17 8	..	3 17 8	..

RETURN of Steamers to which Certificates of Survey were issued in New Zealand during the Year ended the 31st March, 1888.

Name of Vessel.	Tons Register.	Horse-power of Engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Remarks.
Ahuriri	31	17	Compound	Screw	Extended river	
Akaroa	43	28	"	"	"	
Alexandra	73	30	Non-condensing	Paddle	River	
Alpha	34	13	"	Screw	"	Dredge.
Antrim	35	30	"	Paddle	"	
Aorere	44	16	Compound	Screw	Sea-going	
Arawata	623	300	"	"	"	
Argyle	129	45	"	"	"	
Australia	260	77	"	"	"	
Awarua	100	80	"	Paddle	"	Tug.
Awhina	5	50	"	Screw	"	"
Barstow	..	24	Non-condensing	Paddle	River	New vessel.
Beautiful Star	146	30	Condensing	Screw	Sea-going	
Bella	12	12	Non-condensing	"	Extended river	
Bellinger	134	46	Compound	"	Sea-going	First N.Z. survey
Ben Lomond	33	15	"	"	River	
Birkenhead	55	16	Non-condensing	Paddle	"	
Black Swan	..	3	"	"	"	New launch.
Blanche	18	9	"	Screw	"	
Britannia	108	40	"	Paddle	"	
Canterbury	..	24	"	Screw	Extended river	Launch.
Charles Edward	140	60	Compound	"	Sea-going	
Chelmsford	70	24	"	"	"	
Clansman	336	98	"	"	"	
Colleen	33	18	"	Paddle	River	
Coromandel	67	25	"	Screw	Extended river	
Delta	60	30	Non-condensing	Paddle	River	
Devonport	24	12	"	"	"	

RETURN of Steamers to which Certificates of Survey were issued—*continued*.

Name of Vessel.	Tons Register.	Horse-power of Engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Remarks.
Diamond of the Avon	..	10	Non-condensing	Paddle	River	Launch.
Dispatch	..	38	40	Condensing	Sea-going	Tug.
Douglas	..	55	30	"	Screw	"
Durham	..	53	30	Compound	"	Extended river
Eagle	..	138	70	"	Paddle	River
Echo	..	..	3	Non-condensing	Screw	Extended river	Launch.
Effort	..	13	12	Compound	Paddle	River	"
Elsie	..	..	8	"	Screw	Extended river	"
Enterprise	..	61	32	"	Paddle	"	
Erin	..	..	4	"	Screw	River	"
Fairlight	..	..	2	"	"	"	New launch.
Fairy	..	32	15	Non-condensing	"	Extended river	
Fingal	..	22	13	Condensing	"	"	
Gairloch	..	187	85	Compound	Twin-screw	Sea-going	
Gannet	..	..	..	"	Screw	River	First survey.
Gerda	..	..	..	"	"	Sea-going	First N.Z. survey (German vessl.)
Gleaner	..	8	8	Non-condensing	"	River	Launch.
Glenelg	..	156	75	Compound	"	Sea-going	
Grafton	..	297	123	"	Twin-screw	"	
Hauroto	..	1,276	253	"	Screw	"	
Hawea	..	462	160	"	"	"	
Heathcote	..	94	35	"	"	River	Hopper-barge.
Herald	..	356	85	"	"	Sea-going	
Hinemoa	..	..	3	Non-condensing	"	River	New launch.
Hokianga	..	..	7	"	"	"	Launch.
Huia	..	..	6	"	"	"	"
Huia	..	90	25	Compound	"	Sea-going	
Ida	..	12	10	Non-condensing	"	River	
Invercargill	..	123	50	Compound	"	Sea-going	
Iona	..	159	65	"	"	"	
Iona	..	61	45	Non-condensing	Stern-wheel	River	
Janet Nicoll	..	496	90	Compound	Screw	Sea-going	
Jane Douglas	..	75	20	"	"	"	
Kahu	..	93	40	"	"	"	
Kaikoura	..	2,885	600	"	"	"	First N.Z. survey
Kakanui	..	57	22	"	"	"	
Kanieri	..	115	20	"	"	"	New vessel.
Kate	..	..	5	Non-condensing	"	River	New launch.
Katikati	..	27	8	Condensing	"	"	
Kawatiri	..	286	70	Compound	"	Sea-going	
Kennedy	..	138	50	"	Twin-screw	"	
Kina	..	39	15	"	Screw	River	
Kiwi	..	132	30	"	"	Sea-going	
Kopuru	..	28	20	Non-condensing	"	River	
Koputai	..	5	120	Compound	Paddle	Sea-going	Tug.
Koranui	..	301	80	"	Screw	"	
Kotuku	..	41	40	Non-condensing	Three screws	Extended river	
La Buona Ventura	..	4	4	"	Screw	River	Launch.
Lady Barkly	..	39	18	Compound	"	Extended river	
Lilie	..	10	10	Non-condensing	Paddle	River	
Lily	..	20	10	"	Twin-screw	Extended river	
Little George	..	..	4	"	Screw	River	Launch.
Lyttelton	..	39	80	Compound	Paddle	Sea-going	Tug.
Macandrew	..	..	5	Non-condensing	Screw	River	New launch.
Macgregor	..	163	60	Compound	"	Sea-going	Left the colony.
Mahinapua	..	205	80	"	Twin-screw	"	
Mahinapua	..	..	10	Non-condensing	Stern-wheel	River	
Maitai	..	163	55	Compound	Screw	Sea-going	
Mana	..	51	25	"	"	Extended river	
Manapouri	..	1,020	300	"	"	Sea-going	
Manawatu	..	112	40	"	"	"	
Manukau	..	45	15	"	"	River	
Maori	..	118	60	Condensing	"	Sea-going	
Maori	..	17	8	Non-condensing	"	Extended river	
Mararoa	..	1,248	530	Triple expansion	"	Sea-going	
Matau	..	50	40	Non-condensing	Stern-wheel	River	
Matuku	..	..	3	"	Screw	"	Launch.
Mawhera	..	340	75	Compound	"	Sea-going	
May	..	..	3	Non-condensing	"	River	New launch.
Minnie Casey	..	43	25	Compound	"	"	
Miranda	..	..	4	Non-condensing	"	"	Launch.
Moa	..	110	25	Compound	"	Sea-going	
Moana	..	..	3	Non-condensing	"	Extended river	Launch.
Moss Rose	..	..	8	"	"	"	New launch.
Mountaineer	..	66	25	Compound	Paddle	River	
Moutoa	..	..	5	Non-condensing	Screw	"	Late "Fanny."
Murray	..	78	18	Condensing	"	Sea-going	
Napier	..	48	24	Compound	"	"	
Nautilus (yacht)	..	32	18	"	"	Extended river	Launch.
Neptune	..	44	18	"	"	Sea-going	
Nile	..	..	19	Non-condensing	Paddle	"	New vessel.
Noko	..	15	9	"	Screw	Extended river	Launch.
No. 121	..	394	100	Compound	Twin-screw	"	Dredge.
No. 222	..	502	120	"	"	Sea-going	"
Ohau	..	411	92	"	Screw	"	
Omapere	..	352	160	"	"	"	
Orawaiti	..	283	120	"	"	"	
Oreti	..	138	43	"	"	"	

RETURN of Steamers to which Certificates of Survey were issued—*continued.*

Name of Vessel.	Tons Register.	Horse-power of Engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Remarks.
Osprey	138	80	Compound	Paddle	River	New vessel.
Paiaka	10	10	Non-condensing	Screw	"	
Patiki	37	22	"	Paddle	"	
Pearl	9	7	"	Screw	Extended river	
Pelorus	18	12	"	"	River	
Penguin	442	180	Compound	"	Sea-going	
Phœnix	10	4	Non-condensing	"	Extended river	Launch.
Piako	..	6	"	"	River	"
Picton	7	8	"	"	Extended river	"
Pioneer	5	5	"	"	River	"
Planet	13	8	"	"	Extended river	
Plucky	29	40	Compound	"	Sea-going	Tug.
Rangiriri	30	30	Non-condensing	Stern-wheel	River	
Result	13	10	"	Paddle	Extended river	
Result	..	4	"	Screw	"	Launch.
Result	18	14	"	"	"	
Reynolds	..	14	"	"	River	Launch.
Richmond	475	105	Compound	"	Sea-going	First N.Z. survey
Rosamond	462	90	"	"	"	
Rose Casey	99	40	"	"	Extended river	
Rosina	21	14	Non-condensing	"	"	
Rotoiti	17	15	"	Twin-screw	"	
Rotomahana	864	450	Compound	Screw	Sea-going	
Rotomahana	139	45	Condensing	"	"	
Rotorua	576	172	Compound	"	"	
Ruby	32	14	"	"	Extended river	
Scotchman	30	10	Non-condensing	"	River	
Sea Gull	..	3	"	"	"	Launch.
Shag	31	27	"	"	Sea-going	
Snark	..	6	"	"	River	"
Spray	..	3	"	"	"	"
Staffa	40	25	Condensing	"	Sea-going	
St. Kilda	174	45	"	"	"	
Stormbird	137	40	Compound	"	"	
Sumner	94	35	Non-condensing	"	River	Hopper-barge.
Suva	177	55	Compound	"	Sea-going	
Sylph	..	4	Non-condensing	"	River	
Tainui	41	22	"	Paddle	"	
Takapuna	370	165	Compound	Screw	Sea-going	First N.Z. survey
Takapuna	57	20	Non-condensing	Paddle	River	
Tam O'Shanter	22	12	"	Screw	Extended river	
Tangihua	20	15	"	"	River	
Taniwha	..	16	"	"	"	New dredge.
Tarawera	1,269	250	Compound	"	Sea-going	
Tawhara	..	10	Non-condensing	"	River	New launch.
Tay	..	5	"	"	"	Launch.
Te Anau	1,028	250	Compound	"	Sea-going	
Te Aroha	50	14	Non-condensing	Paddle	River	
Tekapo	1,544	270	Compound	Screw	Sea-going	
Terrier	..	3	Non-condensing	"	River	Launch.
Terror	..	10	"	"	Extended river	"
Te Wae	..	16	"	Twin-screw	River	Dredge.
Theodore	35	25	"	Paddle	"	
Timaru	279	70	Compound	Screw	Sea-going	
Titan	21	55	Condensing	Paddle	"	Tug.
Tongariro	39	10	Non-condensing	"	Extended river	Wrecked.
Tongariro	62	25	"	"	River	
Torea	9	18	Compound	Screw	Extended river	
Tuhua	..	28	Non-condensing	Stern-wheel	River	
Vesta	3	5	"	Screw	"	Launch.
Victoria	93	40	"	Paddle	"	
Vivid	16	14	"	Screw	Extended river	
Waihi	63	20	Compound	"	"	
Waihora	1,269	265	"	"	Sea-going	
Waikato	61	20	Non-condensing	Paddle	River	
Wainui	391	95	Compound	Screw	Sea-going	
Waipara	70	13	Non-condensing	Twin-screw	"	
Wairarapa	1,023	292	Compound	Screw	"	
Wairoa	48	16	Condensing	"	Extended river	
Waitangi	..	5	Non-condensing	"	River	New launch.
Waitapu	40	16	Compound	"	Sea-going	New vessel.
Waitara	11	15	Non-condensing	"	Extended river	
Waitoa	27	16	"	Twin-screw	"	
Waiwera	..	8	"	Screw	River	Launch.
Waiwera	6	10	Compound	"	Extended river	"
Wakatipu	1,157	256	"	"	Sea-going	
Wakatu	75	30	"	"	"	
Wallabi	101	25	Condensing	"	"	
Wanaka	278	120	Compound	"	"	
Wareatea	288	70	"	"	"	
Waverley	76	25	"	Twin-screw	"	
Weka	53	20	"	Screw	"	
Wellington	279	80	"	"	"	
Westland	35	60	Condensing	Paddle	"	Tug.
Yankee Doodle	..	12	Non-condensing	"	River	New launch.
Zephyr	..	12	"	Screw	"	Launch.

RETURN of Masters, Mates, and Engineers to whom Certificates of Competency were issued during the Year ended the 31st March, 1888.

Name of Person.	Rank.	Class of Certificate.	Date of Issue.	No.
James Barton Rainey	Second Mate	Foreign trade	4 April, 1887	526
Charlse Edward Hulse	First Mate	"	4 " "	527
Niels Albert Bertelsen	Master Ordinary	"	5 " "	528
Joseph Burke	"	"	16 " "	529
Bror Albert Wiking	Only Mate	"	20 " "	343
Edward John Syvret	Master Ordinary	"	12 May, "	425
Martin John Sprengies	Only Mate	"	12 " "	530
Johan Mathias Rondahl	"	"	17 " "	531
John Chard	"	"	19 " "	532
John Rees	"	"	21 " "	533
George Urquhart Thomson	Master Ordinary	"	23 " "	534
Charles McArthur	Second Mate	"	30 " "	535
Philip Samuel Jones	Master Ordinary	"	30 " "	303
William Jacob Henry Wobling	"	"	6 June, "	379
John Jackson Addison McMeckan	"	"	23 " "	433
John Edwards	"	"	2 July, "	536
William Donald	"	"	2 " "	214
James Robinson	"	"	11 " "	404
Thomas Braidwood	First Mate	"	11 " "	450
Alexander Thomas Francis O'Brien	Second Mate	"	29 " "	537
Arthur Gifford Gifford	Master Ordinary	"	29 " "	538
Angus Campbell	"	"	6 Aug., "	443
James Morgan	First Mate	"	12 " "	539
Henry Hayes	Second Mate	"	29 " "	540
William Hugh Ward	"	"	29 " "	541
Reginald William Moorhouse	First Mate	"	19 Sept., "	542
John Herbert Carter	Second Mate	"	30 " "	543
Sydney Stringer	Only Mate	"	1 Oct., "	544
Thomas Norris	Master Ordinary	"	4 " "	545
Alfred Christian Oswald	Second Mate	"	17 " "	546
Daniel Bernard McDonald	Only Mate	"	2 Nov., "	547
John Wilson	First Mate	"	10 " "	448
James Theodore Wilson	Second Mate	"	14 " "	548
William John Cranch	Only Mate	"	14 " "	549
Donald Hugh McKenzie	"	"	14 " "	550
Thomas Powell	Second Mate	"	16 " "	551
John Mill	"	" (renewal)	16 " "	552
Hugh Ramsay Cassells	"	"	29 " "	553
John Lundie	"	"	29 " "	554
Thomas Andreas Petersen	Master Ordinary	"	29 " "	555
Thomas Burton	"	"	12 Dec., "	556
William Henry Sawyers	"	"	16 " "	557
David Stark Hutchison	Second Mate	"	16 " "	558
John Williamson	"	"	16 " "	559
Alexander Malcolm Gillies	"	"	16 " "	560
Hugh Lamont McFarlane	Only Mate	"	17 " "	561
Matthew Irvine	First Mate	"	20 Jan., 1888	494
John Johnson	Master Ordinary	"	24 " "	460
Moses Case	First Mate	"	6 Feb., "	562
Thomas Roberts	Second Mate	"	6 " "	563
Otto Rodin	Only Mate	"	27 " "	564
George Henry McDonald	Second Mate	"	27 " "	565
William Brown	"	"	2 March, "	566
Donald McLean	First Mate	"	12 " "	409
George Henry McDonald	Only Mate	"	12 " "	565
Edward Stanley	Second Mate	"	26 " "	567
Alexander Craig	Master	Home trade	17 May, 1887	5,270
John Shawyer Barnes	Mate	"	18 June, "	5,314
Elihu Birrell	"	"	29 July, "	5,315
Christian Hansen	Master	"	29 Aug., "	5,288
Peter Andersen	Mate	"	17 Sept., "	5,316
Robert Wilson	"	"	1 Nov., "	5,317
Peter McKay Smith	"	"	17 " "	5,318
Claus Erichsen	Master	"	22 " "	5,319
William Gifford	Mate	"	29 " "	5,320
Frederick Obin	"	"	5 Dec., "	5,321
Henry Arthur Rutter	"	"	10 Jan., 1888	5,322
John Alexander Webster	"	"	24 " "	5,323
Christopher Faulkner	"	"	27 Feb., "	5,324
Francis Clarence Tayler	Master	" (renewal)	29 " "	5,325
William Sinclar	Mate	"	14 March, "	5,326
Edwin Rossnol	"	"	19 " "	5,327
Thomas McNab	"	"	31 " "	5,328
Joseph Scott	Master	River trade	5 April, 1887	3,141
Frederick John Beach	"	"	5 " "	3,142
Andrew Wilson	"	"	11 May, "	3,143
Alexander Marshall	"	"	17 " "	3,144
Leslie Moir	"	"	13 June, "	3,145
James Jones	"	"	23 " "	3,146
Henry Charles Smith	"	"	2 Aug., "	3,147
John Butler	"	"	8 " "	3,148
Henry Brown	"	"	12 " "	3,149
George Anderson	"	"	5 Sept., "	3,150
Watkin Thomas	"	"	12 " "	3,151

RETURN of Masters, Mates, and Engineers to whom Certificates of Competency were issued —*continued.*

Name of Person.	Rank.	Class of Certificate.	Date of Issue.	No.
William Howard Anscombe	Master	River trade	11 Nov., 1887	3,152
Thomas Meredith	"	"	25 " "	3,153
Frederick Devlin	"	"	3 Dec., "	3,154
Edward Miall Moss	"	"	16 Jan., 1888	3,155
William Ames	"	"	3 Feb., "	3,156
Thomas George Smith	"	"	26 March, "	3,157
James Moses Ferguson	2nd Class Engineer	Sea-going	13 April, 1887	168
Alexander William Bethune	"	"	21 " "	169
William James	1st Class Engineer	"	4 May, "	99
Harry Montague Langridge	2nd Class Engineer	"	12 " "	170
William Mouat McLaren	1st Class Engineer	"	9 July, "	105
John Darling Douglas	2nd Class Engineer	"	19 " "	171
Robert Bain Davidson	"	"	12 Aug., "	172
Thomas Pounder	"	"	17 " "	173
John Anderson	"	"	15 Sept., "	174
Arnold Fraenkel Levestam	"	"	17 " "	175
Campbell Campbell	1st Class Engineer	" (renewal)	11 Oct., "	176
Thomas Turnbull	2nd Class Engineer	"	24 " "	177
Duncan McMurrich	1st Class Engineer	" (renewal)	28 " "	178
Walter Stoddart	"	"	22 Nov., "	179
Bruce Lloyd	2nd Class Engineer	"	22 " "	180
Clifford John Johnson	1st Class Engineer	"	10 Jan., 1888	125
David Davies	"	"	24 " "	115
John Smith	"	"	24 " "	135
Shirley Gordon Maxwell	2nd Class Engineer	"	16 Feb., "	181
William Cullen	1st Class Engineer	"	19 March, "	114
James Barr	"	"	19 " "	147
James White	Engineer	River trade	4 April, 1887	1,529
James Walsh	"	"	20 " "	1,530
Thomas Fernandez	"	"	29 " "	1,531
William Thomas Stevens	"	"	11 May, "	1,532
William Smith	"	"	11 " "	1,533
Elias Baggstrom	"	"	11 " "	1,534
Robert Johnson	"	"	11 " "	1,535
David Morrison McDougall	"	"	12 " "	1,536
William Neal	"	"	23 " "	1,537
Thomas Sharpe	"	"	23 " "	1,538
Philip Augustus Vandy	"	"	14 June, "	1,539
Richard Baxter Spinks	"	"	9 July, "	1,540
James Collins	"	"	9 " "	1,541
Charles Head	"	"	21 " "	1,542
William Francis Stephens	"	"	4 Aug., "	1,543
John Alexander Rhodes	"	"	20 " "	1,544
Vincent Edwin Belgrave	"	"	20 " "	1,545
Robert Finister	"	"	23 " "	1,546
Frederick William Soppet	"	"	14 Oct., "	1,547
John Burnip	"	"	17 " "	1,548
James Linklater	"	"	10 Nov., "	1,549
Edwin James Lusher	"	"	24 " "	1,550
William Dickinson	"	"	9 Dec., "	1,551
Thomas Stevenson	"	"	9 " "	1,552
Richard Skellern	"	"	6 Jan., 1888	1,553
Andrew Johnson	"	"	6 " "	1,554
Alexander Wishart	"	"	3 Feb., "	1,555
Henry Roper Porter	"	"	9 " "	1,556
William Ames	"	"	16 " "	1,557
Jacob Taylor	"	"	27 " "	1,558
Robert Egleston Gash	"	"	5 March, "	1,559

RETURN showing the Number of Masters, Mates, and Engineers examined during the Year ended the 31st March, 1888, distinguishing the Number of Successful and Unsuccessful Candidates.

Class of Certificate.	Auckland.			Wellington.			Lyttelton.			Dunedin.			Other Places.			Totals.		
	Passed.	Failed.	Total.	Passed.	Failed.	Total.	Passed.	Failed.	Total.	Passed.	Failed.	Total.	Passed.	Failed.	Total.	Passed.	Failed.	Total.
Foreign-going masters and mates	12	10	22	11	3	14	10	3	13	19	2	21	..	..	..	52	18	70
Home-trade masters and mates	4	..	4	3	3	6	1	..	1	4	1	5	2	..	2	14	4	18
River-steamer masters	4	1	5	2	..	2	..	..	..	3	..	3	7	..	7	16	1	17
Sea-going engineers	2	..	2	7	3	10	2	1	3	7	1	8	1	..	1	19	5	24
River-steamer engineers	10	1	11	1	..	1	2	..	2	3	..	3	14	5	19	30	6	36
Totals	32	12	44	24	9	33	15	4	19	36	4	40	24	5	29	131	34	165

RETURN of WRECKS and CASUALTIES to SHIPPING reported to the Marine Department, from the 1st April, 1887, to the 31st March, 1888.

Date of Casualty.	Name of Vessel, also Age and Class.	Rig.	Register Tonnage.	Number of		Nature of		Number of Lives lost.	Place where Casualty occurred.	Wind.		Decision of Court of Inquiry, &c.	Name of Master.
				Crew.	Passengers.	Cargo.	Casualty.			Direction.	Force.		
1887.													
Jan. 21	Jessie Niccol, 15 years	Schooner	93	7	..	Timber & bricks	Sprung a leak; partial loss	..	On voyage from Tairua, Auckland, to Suva, Fiji	..	..	Vessel sprung a leak, and put back to Auckland for repairs	George Henry Short.
April 18	Omapere, s.s., 5 years	Schooner	352	23	3	Coal ..	Explosion; loss of 6 hatches only	..	Forty miles N.E. of Oamaru	N.	Light ..	Gas exploded in hold, which contained coal, and broke hatches	Richard Edward Smith.
" 20	Rosannah, 7 years	Cutter ..	10	2	..	Oysters..	Stranded; total loss	..	N.E. head of Ruapuke Island	W.	..	Vessel sprang a leak, and had to be beached..	John Carnegie.
" 23	Waitaki, s.s., 11 years	Schooner	228	25	5	Lime, 10 tons	Stranded; total loss	..	Wakauui, Black Head, near Cape Palliser	S.S.E.	Fresh breeze	Wreck caused by undue confidence in log, and steaming at full speed in thick weather. Master blameable for not taking steps to verify his position, and culpable for keeping up full speed in thick weather, particularly when he altered course to W. by S. His certificate was suspended for six months, and he was ordered to pay the costs of the inquiry	Thomas John Pennal.
May 3	Reward, 13 years	Schooner	60	5	..	Wheat & potatoes	Stranded; total loss	3	Waipapa, south end of Mahia Peninsula	S.W.	..	Vessel wrecked through standing in too close to land in thick weather	William Andrews.
" 8	Lalla Rookh, s.s., 11 years	Schooner	44	6	..	Grass-seed	Stranded; total loss	..	Schooner Bay, Great Barrier Island	N.E.	Squally	Vessel sprung a leak, which could not be kept under, as pumps became choked. She had to be abandoned, and drifted on to the rocks on the beach	John Cleverley.
" 9	Julia Pryce, 15½ years	Schooner	41	6	1	Fruit and lime-juicee	Stranded; partial loss	..	A mile south of Mangawai River	E.	Gale ..	Vessel became unmanageable, owing to headsails being blown away, and master then deemed it advisable to run her on shore.	Alfred Clarke.
" 9	Frithjof, 1½ years	Ketch ..	17	3	..	Firewood	Stranded; partial loss	..	Kennedy Bay ..	E.S.E.	Gale ..	Vessel went ashore through stress of weather	Abraham Bronlund.
" 11	Boojum, s.s., 7 years	Cutter ..	19	3	2	Ballast..	Capsized; total loss	4	About half a mile from Petane Beach, and 5 miles from Napier	N.E.	Heavy gale	Vessel went out to render assistance to ship "Northumberland," which was being driven ashore, and while steaming round her a heavy sea struck the "Boojum" and capsized her	John Setter.
" 11	Northumberland, 16 years, A1 Lloyds	Ship ..	2095	45	5	General	Stranded; total loss	..	Petane Beach, about 5 miles from Napier	N.E.	Heavy gale	No blame attached to master, officers, and crew, or to Harbourmaster and Pilot	Richard Todd.
" 17	Onward, 20 yrs.	Schooner	69	5	..	Coal ..	Stranded; total loss	..	Bar of Western Channel, mouth of Turanganui River, Poverty Bay	..	Calm ..	Casualty caused through insufficient depth of water on bar	Patrick McConville.
" 18	Gairloch, s.s., 3 yrs., A1 Lloyds	Schooner	211	18	15	Cattle, sheep, & general	Stranded; partial loss	..	Bar of Waitara River..	..	Calm ..	Vessel touched ground and lost propeller through breaking of port shaft	Findlay McArthur.
" 20 (suppos'd)	Sir Donald, s.s., 13 years	Ketch ..	29	6	..	Timber & station-stores	Supposed stranded; total loss	Supposed 6 (all hands)	Rocks off Tuahine Point, Poverty Bay	S.E.	Gale ..	Vessel is supposed to have been blown up North and wrecked on Tuahine rocks	John Quinlan.

May	20	Go Ahead, s.s., 20 years	Schooner	129	14	3	General	Stranded; total loss	1	Rocky shore, about 2 miles S. of Cape Kidnappers	S.	Strong gale	Master over-estimated speed of vessel, and did not allow enough for leeway; and, even if vessel had been in position master calculated, she was too close to shore. Master also erred in turning vessel's head in shore to take soundings. Master's certificate was suspended for three months, and he was ordered to pay costs of inquiry	Samuel Plumley
"	24	West Riding, 12 years	Barque..	913	19	..	General	Collision; slight damage	..	Close to Inconstant Point, Port Nicholson, Wellington.	N.N.W.	Strong breeze	Collision caused by error in judgment on part of Pilot Holmes, who was in charge of "West Riding," in not keeping clear of "Port Sonachan." The "Port Sonachan," which was in charge of Assistant-Pilot Shilling, was two or three cables ahead and to windward of "West Riding," on port tack, and Pilot Holmes should have put his fore- or main-yard aback, and so have brought his ship to. Pilot Holmes was ordered to pay the costs of the inquiry	William Thomas
"	24	Port Sonachan, 2 years	Barque..	1112	27	..	General	Collision; damaged to extent of £84 for repairs	..					John Watt.
June	16	Clematis, 15 yrs.	Ketch ..	67	7	..	Sawn timber	Stranded; partial loss	2	Two and a half miles south of Waimakariri River	E.S.E.	Strong breeze	Vessel went ashore while on her way from Havelock to Lyttelton	Charles Green.
"	19	Oceola ..	Brig'ntine	231	..	..	Coal ..	Stranded; total loss	..	West Spit, Buller River	S.E.	Strong breeze	Vessel went ashore while being towed to sea.	George Bell.
"	25	Rio Loge, 18 years; A1 Liverpool Red Book	Brig ..	241	10	..	Sugar, 337 tons	Deck swept by heavy seas; partial loss	..	Lat. 40° 49′ S., long. 96° 24′ E. On voyage from Mauritius to Lyttelton	W.S.W.	Strong gale	Casualty caused by heavy sea coming on board during a gale	Hugh Monro.
"	28	Dauntless, 7 yrs.	Cutter ..	28	3	..	Sawn timber	Stranded; total loss	..	Catlin's River Bar, about 200 yards from Old Man Rock	W.S.W.	Light ..	Casualty caused through wind falling when vessel was on bar	Thomas Hill.
"	29	Deva, 14 years; A1 100 Lloyds	Barque..	761	19	..	General	Collision with iceberg; loss of jibboom, bowsprit, and gear attached	..	Lat 50° 20′ S, long. 118° 20′ E. On voyage from London to Dunedin	S.	Moderate breeze	At 3 a.m. a large iceberg was suddenly seen right ahead; helm was at once put up, and vessel began to pay off, when she struck the berg	John Thomas Pierrepont.
July	5	Reward, 10 yrs.	Schooner	40	4	..	Timber..	Stranded; total loss	..	Cavalli Island, North-east coast	N.W.	Moderate	Vessel went ashore when trying to recover her boat, which had broken adrift	Edwin McDonald
" 6 (since)		Columbia, 15½ years	Schooner	46	4	..	Drainpipes and timber	Supposed foundered; total loss	Supposed 4 (all hands)	On voyage from Mercury Bay to Napier	..	..	Vessel left Mercury Bay on the 6th July for Napier, and has not since been heard of. Supposed to have foundered, with loss of all hands	George William Conway.
July	18	Presto, 25 years; A1, 90 British Lloyds	Barque..	384	10	..	Coal ..	Vessel pooped; deck swept by heavy seas; partial loss	..	Lat 37° 30′ S., long. 157° 30′ E.	W. by S.	Strong gale	Vessel pooped, and deck swept during heavy gale	Thomas Laidman.
"	19	Orawaiti, s.s., 4 years	Schooner	283	15	..	Coal ..	Collision; slight damage	..	Western Quay, Inner Harbour, Napier	..	Calm	"Orawiti," s.s., when coming up to the wharf collided with the "Wairoa" and "Waihi," which were moored at the wharf	John Gibb.
"	19	Wairoa, s.s., 3 years	Ketch ..	48	6	..	..	Collision; slight damage	..					Henry Anderson.
	19	Waihi, s.s., 5 years	Ketch ..	63	7	..	..	Collision; slight damage	..					Thomas Rutter.

RETURN of WRECKS and CASUALTIES to SHIPPING reported to the Marine Department—*continued.*

Date of Casualty.	Name of Vessel, also Age and Class.	Rig.	Register Tonnage.	Number of		Nature of		Number of Lives lost.	Place where Casualty occurred.	Wind.		Decision of Court of Inquiry, &c.	Name of Master.
				Crew.	Passengers.	Cargo.	Casualty.			Direction.	Force.		
July 24	Omaha, 13 years	Brig'ntine	133	7	..	General	Stranded; total loss	..	Onenga, Chatham Islands	N. by W.	Light ..	Wreck caused by error in judgment on part of master in standing too long on port tack and neglecting to run out working anchor and 45 fathoms chain after the vessel struck. Master's certificate suspended for six months	James Darnell.
Aug. 11	Macgregor, s.s., 6½ years	Schooner	163	15	18	General	Stranded; partial loss	..	Wanganui Bar ..	S.E.	Gale ..	Vessel struck on bar when leaving Wanganui River for New Plymouth and Manukau, starting rudder-post, which afterwards carried away altogether	Frederick Johnson.
" 24	Recamia, 11 yrs.	Ketch ..	69	5	..	Ballast..	Capsized and foundered; total loss	5 (all hands)	At entrance to Kaipara Harbour	S.S.E.	Gale ..	Vessel is supposed to have capsized in the breakers, as she was seen standing in, and was afterwards found sunk in 15 fathoms water outside the bar	Emmanuel Octavius Holst.
" 24	Mariner, 20½ yrs.	Schooner	63	5	..	Timber..	Stranded; partial loss	..	Abreast Outer Head, Whangarei Harbour	S.E.	..	Casualty caused through the Outer Head being mistaken for the Inner Head	Arthur Tribe.
" 24	Tongariro, p.s., 16 years	Schooner	39	6	..	Timber & general	Stranded; total loss	..	A mile north of Mohaka River, Hawke's Bay	S.E.	Whole gale	Casualty caused through vessel being caught in a heavy gale, and not having sufficient power to steam against it	John Symons.
" 31	Reliance, 12 yrs.	Ketch ..	65	5	..	Hay and grass-seed	Stranded; partial loss	..	On rocks western side of Turanganui River, Poverty Bay	N.E.	Light ..	Wind failed, and vessel got broadside on to sea	Lars Larsen.
Sept. 2	Maitai, s.s., 2 years	Schooner	163	..	..	Cattle ..	Stranded; no damage	..	Cattle landing-ground, Greymouth	N.W.	Strong breeze	Vessel was landing cattle on the river-bank, when a fresh in the river subsided and left her ashore, and she had to be launched off	William Darling Dawson.
" 3	Janet Nicoll, s.s., 3 years, A1 Lloyds	Schoonor	496	19	..	General	Stranded; trifling accident	..	On mole, entrance to Oamaru Harbour	N.W.	Half gale	As vessel was entering between the mole and breakwater she slewed to port, and struck the mole, puncturing a plate	Robert G. Hutton.
" 22	Koputai, p.s., 11 years	Schooner	5	6	..	..	Collision; no damage	..	200 yards from red buoy at Observation Point, Otago Harbour, Dunedin side of point	N.E.	Light	The "Enterprise" was lying at anchor when the tug "Koputai" came down the harbour and struck her on the starboard quarter	Donald Sinclair.
" 22	Enterprise, 21 years	Brig'ntine	84	6	..	General	Collision; partial loss	..					David Connor.
" 30	Norman McLeod, 11 years, A1 100	Barque..	834	19	..	Salt ..	Deck swept by heavy sea; partial loss	..	On voyage from Sharpness, Gloucestershire, England, to Dunedin, about lat. 41° S., long. 38° E.	N.W.	Heavy gale	Vessel pooped by big sea	Charles Herbert Lovett.
Oct. 13	Westland, 9 years, A1	Ship ..	1116	26	..	Ballast..	Collision; slight damage	..	About 1½ miles above Quarantine Islands, Otago Harbour	N.E.	Light air	Vessel was in tow of two tugs, and when near dredge, which was lying in channel, swell caused by a steamer passing up against the tide caused the dredge's chain to part, and she swung across the channel, and was struck by the "Westland"	William Scotland.
" 19	Birkenhead, p.s., 3 years	..	55	3	4	..	Collision; no damage	..	Westward of Queen Street Wharf, Auckland Harbour	..	Calm	Casualty caused through the "Lily" being left with no one on board to look after her	Meredith Rountree.
" 19	Lily, 3 years ..	Cutter ..	19	2	..	Sand ..	Collision; partial loss	..					Solomon Finey.

Oct.	20	Kirkdale, 10 years, A1 Lloyds	Barque..	760	17	..	Sugar ..	Deck swept by heavy sea; partial loss	1	On voyage from Java to Auckland, lat. 38° 38′ S., long. 149° E.	W.S.W.	Gale ..	Heavy sea struck vessel	Charles Davis.
Dec.	8	Waverley, s.s., 5 years	Schooner	77	12	1	General	Stranded; partial loss	..	On beach, 80 yards south of groin, Patea River	W.	Light ..	Casualty caused through insufficient water, as channel had shifted	William John Gibbons.
„	8	Bessie ..	Cutter ..	20	4	..	General	Stranded; total loss	3	Near Long Point, 10 miles south of Catlin's River	S.W.	Fresh ..	Heavy sea set in with change of wind, and vessel became unmanageable. Cables were slipped, but shackle jammed in hawse-pipe and canted her head on to rocks	Charles Edward Hayward.
„	19	Kingdom of Sweden, 13 yrs., A1 Lloyds	Barque..	788	16	2	General	Stranded; no damage	..	Eight miles off Point Olinda, Brazil. Point bearing S.W. ½ S., magnetic	E.S.E.	Moderate breeze	Grazed on rock	Alfred Cooper.
„	28	Pleione, 12 yrs.	Ship ..	1092	26	6	General	Loss of life only	1	Bay of Biscay, on voyage from London to Wellington	N.E.	Gale ..	A seaman named Thomas Haines, while assisting the ship's carpenter in closing one of the ports on the starboard side, was washed overboard by a heavy sea, and not seen again	Andrew Culbert.
1888.														
Jan.	19	Wild Wave, 13 years	Barque..	237	9	..	Timber..	Stranded; no damage	..	About 1½ miles to eastward of Patiti Point	S.	Moderate gale	Touched on end of reef	Wm. H. McArthur.
„	19	Amateur, 19 yrs.	Ketch ..	26	3	..	Timber..	Stranded; total loss	..	South Spit, Bar of Manawatu River	N.W.	Moderate gale	"Napier," s.s., was towing out the "Clyde" and "Amateur." "Clyde," mistaking signal made to steamer, set her head sails, which carried all three vessels towards South Spit, and caused the wreck of the sternmost vessel	Charles Neilson.
„	24	Atlantic, 14 yrs.	Schooner	60	5	..	Cotton and trade	Stranded; total loss	..	Rarotonga Harbour ..	N.	Hurricane	A hurricane caused vessel's chains to part, and drove her ashore	Thomas Harries.
„	26	May Queen, 19 years, *A A British Lloyds	Barque..	733	19	..	General	Stranded; total loss	..	South side of Lyttelton Harbour, near Red Rock, below Camp Bay, not quite halfway up from entrance	S.W.	Fresh breeze	Pilot Lewin, who was in charge, ventured too near the rocks, and a squall caused the vessel to strand on the rocks	George Gardner Colville.
„	28	Neptune, s.s., 5 years	Ketch ..	44	7	3	General	Stranded; partial loss	..	Bar of Wairau River ..	S.E.	Strong ..	Insufficient water	Thomas Eckford
Feb.	1	Gairloch, s.s., 3½ years	Schooner	211	16	16	General	Stranded; partial loss	..	North wall, entrance to Waitara River	S.W.	Strong ..	When taking the bar the vessel grounded on the North Beach, and after coming off she got on the North Training-wall	Findlay McArthur.
„	10	Clansman, s.s., 4 years, A1	Barquentine	336	22	10	General	Collision; no damage	..	About 10 or 12 miles from Mercury Island	S.S.W.	..	Collision caused through the "Mana" not being seen soon enough from the "Clansman"	William Farquhar.
„	10	Mana, 2 years..	Cutter ..	32	3	..	Timber	Collision; slight damage	..					James Stephens.
„	28	Bellinger, s.s., 3 years	Schooner	134	14	15	Railway-sleepers & general	Stranded; partial loss	..	Tokotaratara Reef, about 1¼ miles west of mouth of Waitara River	N.W.	Light ..	Casualty caused by wrongful act and default of master in not relieving the watch without reasonable excuse until about three-quarters of an hour after he was called, by which time the vessel had struck, although informed by the mate that the vessel would be at the Waitara Bar in about half an hour. His certificate was suspended for six months, and he was recommended for a certificate as first officer during its suspension. The mate, Charles Bonner, was censured for leaving the deck before he was properly relieved, when he knew the vessel was so near shore.	James Benson.
March	6	Pukaki, s.s., 1 year	Schooner	850	35	16	General N.Z. produce	Fracture of thrust-shaft	..	Lat 36° 45′ S., long. 167° 24′ E. About 396 from Stephens Island	W.	Moderate strong breeze	The thrust-shaft fractured, apparently through a flaw in the forging	Henry Johnson.
„	11	Defiance, 8 yrs.	Brig'ntine	199	7	..	Coal ..	Collision; slight damage	..	Auckland Harbour ..	W.	Fresh	The "Southern Cross" was at anchor without any riding-light, when the "Defiance" collided with her when coming up the harbour	William Neagle.
„	11	Southern Cross, s.s., 14 years	Barque..	124	..	..	..	Collision; slight damage	..					James Bongard.

RETURN of WRECKS and CASUALTIES to SHIPPING reported to the Marine Department—*continued.*

Date of Casualty.	Name of Vessel, also Age and Class.	Rig.	Register Tonnage.	Number of		Nature of		Number of Lives lost.	Place where Casualty occurred.	Wind.		Decision of Court of Inquiry, &c.	Name of Master.
				Crew.	Passengers.	Cargo.	Casualty.			Direction.	Force.		
1888. March 16	Pleione, 12 yrs.	Ship ..	1092	25	6	General	Stranded; total loss	1	On beach about 2 miles north of Kapiti Island, Cook Strait	N.W.	Fresh breeze	Master committed an error of judgment in relying on his chronometer when he knew it differed from the mate's. He should have taken soundings to verify his position, and if not satisfied with the soundings he should have waited till daylight. He was ordered to pay the costs of inquiry	Andrew Culbert.
„ 25	Ruapehu, s.s., 4 years	Barque..	2654	117	118	General	Stranded; no damage	..	Nine miles west of Farewell Spit Lighthouse	..	Calm ..	Vessel grounded off Farewell Spit, but came off without having sustained any damage	Herbert Edward Greenstreet.
„ 25	Ocean Bird, 15 years	Ketch ..	33	3	..	Sawn timber	Stranded; slight damage	..	About midway between Sandy Point and Mokomoko Jetty, New River Estuary	W.	Strong breeze	Heavy sea, bad holding-ground, and loss of anchor caused vessel to go ashore	Wm. Cameron.
„ 28	Staffa, s.s., 10 years	Schooner	52	8	15	Timber & general produce	Loss of life only	1	About 15 miles off Kaipara Heads, on voyage from Hokianga to Manukau	S.W.	Gale ..	A heavy squall caused vessel to lurch over, and a passenger, Malcolm McLelan, was washed overboard and lost	John Robertson.
„ 28	Gleaner, 18 yrs.	Brig'ntine	115	7	..	Produce	Deck swept by heavy sea; partial loss	1	Off Cape Kidnappers, on voyage from Oamaru to Auckland	S.S.E.	Gale ..	A heavy sea broke on board, causing considerable damage, and washing both master and mate overboard. The master, having a line round him, was saved, but the mate was not seen again	Edward Ryffel.
„ 28	Bayley, s.s., 2 years	Schooner	1696	48	..	Produce	Deck swept by heavy sea; loss of boat, davits, &c.	..	Off Castlepoint, on voyage from Napier to Wellington	S.E.	Storm ..	A heavy sea broke on board, smashing boats, carrying away one of them with its davits, and a ladder, twisting rails of bridge, and causing other small damages. Hull of ship uninjured	A. Childs.

ANNUAL REPORTS ON WORK DONE.

RETURN showing the NUMBER of LAND BOILERS INSPECTED during the Financial Year ended the 31st March, 1888.

Name of District.	Number of Portable Boilers.			Number of Stationary Boilers.			Totals.	
	Under 5 h.p.	5 to 10 h.p.	Over 10 h.p.	Under 5 h.p.	5 to 10 h.p.	Over 10 h.p.	Boilers.	Fees.
								£
Auckland	16	48	24	116	37	140	381	683
Taranaki	1	10	3	8	13	10	45	93
Hawke's Bay ...	5	38	8	17	19	19	106	197
Wellington	13	43	28	28	47	72	231	499
Marlborough ...	4	11	2	8	6	14	45	89
Nelson North ...	1	22	7	21	14	10	75	145
Nelson South ...	...	7	13	20	8	17	65	130
Westland	...	5	4	20	6	10	45	77
Canterbury	19	140	3	100	25	61	348	547
Otago	21	116	12	150	46	119	464	726
Totals ...	80	440	104	488	221	472	1,805	3,186

The INSPECTOR of MACHINERY, AUCKLAND, to the ASSISTANT-SECRETARY, Marine Department.

SIR,— Auckland, 7th April, 1888.

I have the honour to submit to you the annual report on the boilers and machinery inspected in the Auckland District during the financial year ended the 31st March, 1888.

I am glad that there are no accidents to life or limb in connection with boilers to report. During the above period 381 boiler and 38 machinery inspections have been made, making a total of 411 inspections, 98 of which were done by Messrs. Blackwood and Mowatt. Repairs have been effected to 36 boilers. Where the repairs were extensive or difficult, the boiler was afterwards tested with hydraulic pressure, the test being regulated in accordance with age, &c., from 40 to 70 per cent. over the working pressure. Twenty-one new boilers have been put to work, 8 of which were constructed in the colony and 13 imported, 29 changed owners, 8 have extended certificates, and 137 are laid up, due to the great depression of trade and other causes.

I regret having to report accidents with machinery; but these were of the description not preventable, as some parts of the machinery could not be sufficiently protected without rendering it useless for the purpose intended.

The appended returns give the number and description of the boilers and machinery inspected, fees payable, defects found in boilers and machinery, notices to repair boilers and protect dangerous parts of machinery, and accidents to life and limb in this district.

I have, &c.,

The Assistant-Secretary, Marine Department. W. J. JOBSON.

RETURN showing the NUMBER and DESCRIPTION of BOILERS, &c., INSPECTED and FEES payable in the AUCKLAND DISTRICT during the Financial Year ended the 31st March, 1888.

Nature of Boiler.	Number.			Fees.			Remarks.
	Under 5 h.p.	5 to 10 h.p.	Over 10 h.p.	£	s.	d.	
Portable boilers	...	4	5				
Stationary boilers ...	10	2	92	205	0	0	Employed at 41 establishments; fees at £5 each.
Locomotive boilers ...	...	...	1				
Portable boilers	15	41	17				
Stationary boilers ...	106	35	48	478	0	0	Charged for at per horse-power of each boiler.
Locomotive boilers ...	1	3	1				
Machinery inspections at £1 each	...	...	...	27	0	0	
Total for year ...	132	85	164	710	0	0	

RETURN of DEFECTS found in BOILERS and FITTINGS in the AUCKLAND DISTRICT during the Financial Year ended the 31st March, 1888.

Description.	Dangerous.	Ordinary.	Total.
Furnace-flues and fire-boxes out of shape	...	5	5
Blistered plates...	...	2	2
Fractured plates	2	9	11
Pitted and grooved plates	1	2	3
Corrosion, internal	2	2	4
Corrosion, external	...	8	8
Defective tubes	...	4	4
Defective stays	...	1	1
Manholes requiring strengthening	...	1	1
Joints sprung	...	3	3
Total defects in boilers	5	37	42
Defective fittings—			
Safety-valves...	...	7	7
Pressure-gauges	...	6	6
Water-gauges and test-cocks	...	16	16
Spring-balances	...	1	1
Steam-pipes	...	1	1
Feed-pipes	...	2	2
Blow-off cocks	...	3	3
Fusible plugs	...	3	3
Omissions—			
Boilers without test-cocks	...	1	1
Gross total	5	77	82

Three of the boilers found in a dangerous state have been thoroughly repaired, and two condemned.

RETURN of ACCIDENTS to LIFE and LIMB which have occurred in connection with LAND BOILERS and MACHINERY in the AUCKLAND DISTRICT during the Financial Year ended the 31st March, 1888.

Name and Address of Owner.	Description of Machinery.	Name of Person injured.	Nature of Accident.	Fatal or not.	Cause of Accident, and Remarks.
Colonial Ammunition Company	Drawing-press	Polly Messon, aged 14 years	Part of one finger taken off, 22nd April, 1887	Not ..	Employed at a drawing-press, and caught by the punch when attempting to remove a piece of metal from below it.
Union Sash and Door Company	Drag-bench..	Michael McGrath, aged 20 years	Four fingers taken off, 12th June, 1887	Not ..	Was working at a drag-bench, when his left hand slipped, and came in contact with the circular saw.
Auckland Fibre Company	Drawing-frame	Denis Donovin, aged about 14 years	Right arm badly crushed	Not ..	Employed at the Fibre Company's Works, when his arm was drawn in between one of the wheels (and guard fixed for protection) of a drawing-frame. His arm, being badly bruised, was afterwards amputated. He had nothing whatever to do with the machine. It is not known for what purpose he went near it, nor is he altogether clear how it occurred. The guard referred to is fixed over the wheel, with an opening in centre for lubricating.
Colonial Ammunition Company	Drawing-press	Beatrice Revell, age not given, supposed about 15 years	Two fingers crushed	Not ..	Engaged at a drawing-press, when she thoughtlessly reached her hand in to clean a small pinion-wheel, when two of her fingers were drawn in and crushed. This accident, and that of the 22nd April, 1887, occurred in the same factory. The manager's instructions are, that the working parts of the presses are not to be touched while in motion; in fact, the duties that the girls have to perform do not necessitate it. The presses are of the most simple description, making only ten strokes per minute; and with ordinary care no accident should occur.

RETURN of NOTICES given to REPAIR BOILERS in the AUCKLAND DISTRICT during the Financial Year ended the 31st March, 1888.

Date of Notice.	Description of Boiler.	Nature of Repairs ordered.
1887.		
April 19 ...	Cornish	Blow-off rejointed and new pressure-gauge fitted.
May 30 ...	Cornish	Screw-patch fitted to bottom of boiler.
June 10 ...	Portable	Feed-pipe to be renewed.
June 25 ...	Cylindrical ...	One fore-and-aft stay fitted to ends.
July 5 ...	Longitudinal tubular	Cap to be fitted to bottom of mud-receiver.
July 5 ...	Locomotive ...	Nine screwed stays to be fitted to crown of fire-box.
July 26 ...	Vertical flue ...	The defective parts near bottom of furnace to be cut out and renewed.
Sept. 28 ...	Portable	Fusible plug to be fitted to top of fire-box, and mountings overhauled.
Oct. 7 ...	Vertical flue ...	Defective part of vertical flue cut out and renewed.
Oct. 14 ...	Portable	New pressure-gauge to be fitted.
Oct. 15 ...	Longitudinal tubular	New water-gauge to be fitted.
Oct. 17 ...	Cylindrical ...	Two joints in the bottom to be re-rivetted.
Oct. 22 ...	Portable	Four screwed stays to be fitted to top of fire-box.
Nov. 3 ...	Portable	New safety-valve to be fitted.
Nov. 8 ...	Cornish	Joint in furnace-flue to be repaired.
Nov. 14 ...	Cornish	New water-gauge to be fitted.
Nov. 17 ...	Cornish	Patch to be fitted to one of the furnace-tubes.
Dec. 2 ...	Longitudinal tubular	Defective part in after tube-plate cut out and renewed.
Dec. 5 ...	Cylindrical ...	Top end and three defective places in barrel to be taken out and renewed.
Dec. 6 ...	Vertical flue ...	Two screw-patches to be fitted to the shell.
Dec. 13 ...	Vertical tubular ...	Vertical stay to be fitted to crown of furnace.
Dec. 19 ...	Portable	One dog-stay to be fitted to top of fire-box.
1888.		
Jan. 7 ...	Portable	Top of fire-box to be renewed, and patch fitted to shell.
Jan. 20 ...	Vertical flue ...	Two screw-patches to be fitted to shell, and new water-gauge.
Jan. 25 ...	Portable	The defective part of plate in fire-box to be cut out and renewed.
Jan. 27 ...	Cornish	Strengthening-ring to be fitted to man-hole.
Feb. 10 ...	Vertical tubular ...	To be retubed.
Feb. 10 ...	Vertical flue ...	The defective part of vertical flue to be cut out and renewed.
Feb. 15 ...	Cylindrical ...	Defective parts of one plate in end and one plate in bottom to be cut out and renewed.
Feb. 15 ...	Portable	Patch to be fitted to lower part of fire-box, and water-gauge repaired.
Mar. 23 ...	Longitudinal tubular	Two patches in fire-box to be renewed.
Mar. 24 ...	Portable	Defective part in front tube-plate to be taken out and renewed.

RETURN of NOTICES given to FENCE DANGEROUS PARTS of MACHINERY in the AUCKLAND DISTRICT during the Financial Year ended the 31st March, 1888.

Date of Notice.	Description of Machinery.	Parts required to be fenced.
1887.		
May 31 ...	Sash and door factory	Belt of planing machine, and belt of saw-bench.
June 6 ...	Quartz-crushing battery	Engine fly-wheel, crank, and connecting-rod.
June 23 ...	Bone-mill... ...	Engine fly-wheel, one spur, and pinion-wheel.
July 12 ...	Confectionery works	Engine fly-wheel and crank.
July 14 ...	Hydraulic lift ...	Safety-catch to be fitted.
July 23 ...	Hydraulic lift ...	New rack, pinion-wheel, and hood to be fitted.
Aug. 2 ...	Saw-mill	Goose-saw and emery-wheel.
Sept. 5 ...	Chair factory ...	Goose-saw.
Sept. 6 ...	Flour-mill ...	Engine crank and connecting-rod.
Sept. 12 ...	Tannery	Pair of wheels on bark machine.
Sept. 19 ...	Printing-office ...	Pulley on damping machine.
Oct. 13 ...	Saw-mill	Two connecting-rods of breaking-down saw, and belt of planing-machine.
Oct. 25 ...	Saw-mill	Two belts of planing machine.
Nov. 8 ...	Hospital	Rail to be fixed in front of engine.
Nov. 13 ...	Saw-mill	Emery-wheel, and two belts of circular-saw.

RETURN of NOTICES given to FENCE DANGEROUS PARTS of MACHINERY in the AUCKLAND DISTRICT —*continued.*

Date of Notice.	Description of Boiler.	Nature of Repairs ordered.
1887.		
Nov. 17 ...	Winding	One spur, and pinion-wheels.
Nov. 23 ...	Saw-mill	Three couplings on main shafting, emery-wheel, and goose-saw.
Dec. 5 ...	Oil and soap works...	Belt of fan-blast.
Dec. 8 ...	Saw-mill	Feed-gear of breaking-down saw, and two belts of planing machine.
Dec. 19 ...		
1888.	Saw-mill	Emery-wheel, and saw-pit.
Jan. 13 ...	Saw-mill	One length of shafting, and front of engine.
Jan. 16 ...	Pottery and brick works	One pair of wheels of brick-making machine.
Jan. 25 ...	Saw-mill	Two belts of planing machine.
Feb. 13 ...	Mortar-mill ...	Driving-belt on engine fly-wheel.
Feb. 20 ...	Brick and tile works	Engine fly-wheel and belt, and pair of wheels on brick-making machine.
Mar. 3 ...	Saw-mill	Two fly-wheels of breaking-down saw, and emery-wheel.
Mar. 5 ...	Saw-mill	Two connecting-rods of breaking-down saw.
Mar. 12 ...	Saw-mill	Pin of wheels on log-winch.
Mar. 19 ...	Flour-mill ...	Main shafting, pair bevel wheels on main shafting, nine belts on centrifugal machines, and four belts on purifying machines.
Mar. 28 ...	Firewood-cutting ...	Engine fly-wheel.

RETURN of MACHINERY INSPECTED in the AUCKLAND DISTRICT during the Financial Year ended the 31st March, 1888.

Description of Machinery.	Steam.	Steam and Wind.	Gas.	Description of Machinery.	Steam.	Water.	Gas.
Assaying	1	...	...	Ironworks	16	8	...
Boiling-down	4	...	...	Joinery	1	...	...
Boat-building	1	...	...	Laundries	2	...	...
Brickworks	4	...	...	Lifts or elevators ...	4	24	2
Block and pump works ...	1	...	...	Lead works	1	...	...
Bakery	1	...	...	Marble works	1	...	...
Breweries	11	...	...	Malt-mills	1	...	...
Bone-mills	3	...	...	Mortar-mills	9	...	...
Boot factory	1	...	...	Meat-canning factories ...	3	...	...
Butter-box factory ...	1	...	...	Oil, soap, and candle works	2	...	...
Cartridge factory ...	1	...	...	Oil-springs	2	...	...
Coach factory	1	...	...	Phormium-dressing ...	4	...	...
Chair factory	1	...	...	Potteries	3	...	...
Cement works	4	...	...	Pumping and winding ...	12	...	...
Confectionery works ...	1	...	1	Pumping	10	...	...
Chemical works ...	2	...	...	Printing	3	...	1
Cordial works	4	...	1	Pyrites-reduction works...	1	...	...
Chaff-cutting	23	...	...	Pile-driving	1	...	...
Coffee-mill	1	...	...	Quartz-crushing ...	3	...	...
Creameries	2	...	...	Ropeworks	1	...	...
Dairy factories	14	...	...	Road roller	1	...	...
Docks	2	...	...	Saw-mills	26	...	...
Dredging	2	...	...	Sash and door factories...	1	...	...
Freezing works	2	...	...	Sausage-machines ...	5	...	...
Fruit-preserving works ...	1	...	...	Soapworks	2	...	...
Flour-mills	7	1	...	Sugarworks	1	...	...
Flock-mill	1	...	...	Ship-building	2	...	...
Fellmongery	1	...	...	Stone-breaking ...	1	...	...
Fish-preserving	2	...	...	Tallow and manure works	1	...	...
Firewood-cutting ...	16	...	1	Tanneries	3	...	...
Fire-engine	1	...	...	Threshing	10	...	...
Gasworks	3	...	...	Waterworks	2	...	...
Hauling	6	...	...	Woollen mill	1	...	...
Hoisting	18	...	...	Wool-dumping ...	2	...	...
Hair-dressing	1	...	...	Winding	7	...	...

The INSPECTOR of MACHINERY, Wellington District, to the ASSISTANT-SECRETARY, Marine Department.

SIR,— Office of Inspector of Machinery, Wellington, 13th June, 1888.

I have the honour to forward for your information my annual report on the boilers and machinery in the Wellington, Marlborough, Nelson North, Taranaki, Hawke's Bay, Nelson South, and Westland Districts.

The number of boilers inspected during the above period was 606. Of this number, 53 are new, 23 of them having been made in the colony and 30 imported. Although there has been an increase in the number of new boilers, very little increase has taken place in the number of boilers at work, each district having its quota of idle ones. The flax industry, extending as it is, will no doubt employ a good number of those that are at present laid up.

I am glad to be able to record the absence of accidents to life or limb from boilers or machinery during the year. I have, however, to report accidents to three boilers owing to carelessness or want of knowledge on the part of the attendant.

Owing to a portion of Mr. Mowatt's time having been employed in Auckland, after which he was unfortunately laid up with a fever, it was found necessary to get the assistance of Mr. Blackwood, 131 boilers having been inspected by him and 191 by Mr. Mowatt.

Appended are returns showing the class, number, and horse-power, together with the fees payable for inspections, in each district; the number of notices given to fence dangerous parts of machinery; the number of notices given to repair boilers; the descriptions and number of machines inspected; also returns of accidents to boilers.

I have, &c.,
H. A. MCGREGOR,
Inspector of Machinery.

The Assistant-Secretary, Marine Department.

RETURN showing the NUMBER of LAND BOILERS INSPECTED during the Financial Year ended the 31st March, 1888.

Name of District.	Number of Portable Boilers.			Number of Stationary Boilers.			Total.	
	Under 5 h.p.	5 to 10 h.p.	Over 10 h.p.	Under 5 h.p.	5 to 10 h.p.	Over 10 h.p.	Boilers.	Fees.
								£
Wellington* ...	13	43	28	28	47	72	231	499
Marlborough† ...	4	11	2	8	6	14	45	89
Nelson North ...	1	22	7	21	14	10	75	145
Taranaki‡	1	10	3	8	13	10	45	93
Hawke's Bay§ ...	5	38	8	17	19	19	106	197
Nelson South ...	...	6	12	17	7	17	59	120
Westland	...	5	4	20	6	10	45	77
Totals ...	24	135	64	119	112	152	606	1,220

* Twenty-nine boilers over 10 h.p. are included in thirteen maximum fees.
† Five boilers over 10 h.p. are included in two maximum fees.
‡ Four boilers over 10 h.p. are included in two maximum fees.
§ Ten boilers over 10 h.p. are included in five maximum fees.

RETURN of NOTICES given to REPAIR BOILERS during the Financial Year ended the 31st March, 1888.

District, and Date of Notice.	Description of Boiler.	Nature of Repairs.
WELLINGTON— 1887.		
May 28 ...	Portable	Two new girder-stays top of fire-box.
June 3 ...	Multitubular ...	A new safety-valve and lever.
June 11 ...	Cylindrical shell ...	Three new longitudinal stays.
Dec. 6 ...	Multitubular ...	Two extra longitudinal stays.
Dec. 16 ...	Vertical	Plates to be fitted round mudhole-openings, tubes to be expanded and two new ones fitted.
MARLBOROUGH—		
Aug. 20 ...	Lancashire ...	A blistered plate to be taken out and a new piece fitted.
Aug. 24 ...	Cornish	Three new plates in the bottom.
NELSON NORTH ...	Vertical	A new lum-leg fitted.
HAWKE'S BAY— 1888.		
Mar. 15 ...	Portable	Three new screw-stays in fire-box.
Mar. 16 ...	Portable	The lower part of the fire-door-opening to be re-rivetted and tubes expanded.
Mar. 16 ...	Portable	Tube-ends in fire-box expanded, and fitted with verrels.
Mar. 22 ...	Portable	Tube-ends in fire-box expanded, and fitted with verrels.

RETURN of NOTICES given to FENCE DANGEROUS PARTS of MACHINERY during the Financial Year ended the 31st March, 1888.

District, and Date of Notice.	Description of Machinery.	Parts required to be fenced.
WELLINGTON—		
1887.		
May 19 ...	Flour-mill ...	The main driving-belts and end of counter-shaft.
May 20 ...	Brick-yard ...	The gearing of rollers.
June 13 ...	Bush saw-mill ...	The driving-belts from engine to counter-shaft.
MARLBOROUGH—		
Sept. 14 ...	Sash and door factory	The fly-wheel of engine and main driving-belt.
Sept. 16 ...	Sash and door factory	The driving-belt of planing machine.
NELSON NORTH—		
Sept. 6 ...	Bark-mill ...	The gearing of bark-crusher.
Sept. 8 ...	Foundry ...	The fly-wheel of engine and main driving-belt.
HAWKE'S BAY—		
1888.		
Feb. 25 ...	Sash and door factory	A hand-rail round the engine.
Mar. 30 ...	Bush saw-mill ...	The driving-belts from the engine to the counter-shaft.
Mar. 31 ...	Bush saw-mill ...	The fly-wheel of engine.
Mar. 31 ...	Sash and door factory	The driving-belts of the planing machine and circular-saw.

RETURN of MACHINERY INSPECTED during the Financial Year ended the 31st March, 1888.

Description of Machinery.	Wellington.				Marlborough.			Nelson North.		Taranaki.			Hawke's Bay.		Nelson South.		Westland.		Total
	Steam.	Steam and Water.	Water.	Gas.	Steam.	Steam and Water.	Water.	Steam.	Water.	Steam.	Steam and Water.	Wind.	Steam.	Water.	Steam.	Water.	Steam.	Water.	
Phormium-dressing ..	..	..	..	..	2	..	2	..	2	..	..	..	..	..	..	..	..	..	6
Printing	2	..	..	5	..	..	..	1	..	..	..	..	..	..	..	..	1	..	9
Flour-mills	10	1	4	..	..	..	3	4	4	1	3	..	1	2	..	..	..	..	33
Saw-mills	28	..	..	..	14	1	..	25	2	8	1	1	16	..	8	..	7	..	111
Sash and door factories	9	..	..	..	2	..	..	5	..	1	..	1	4	..	..	..	2	..	24
Foundries	7	..	..	..	1	..	..	2	..	1	..	..	2	..	..	..	2	..	15
Quartz-crushing ..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	4	..	..	..	6
Threshing machines ..	7	..	..	..	1	..	..	6	..	2	..	..	27	..	..	..	..	..	43
Soap and candle works ..	8	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	10
Cordial factories ..	1	..	..	..	2	..	..	1	..	..	..	..	2	..	..	..	..	..	6
Boiling-down establishments	6	..	..	..	..	..	..	..	..	3	..	..	5	..	..	..	..	..	14
Brick-making machines	6	..	..	..	1	..	..	..	..	..	..	..	2	..	..	..	..	..	9
Biscuit factories ..	4	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	5
Chaff-cutting machines	6	..	..	..	1	..	..	5	..	..	..	..	2	..	..	..	..	..	14
Breweries	9	..	..	..	1	..	..	4	..	1	..	..	3	..	1	..	6	..	25
Drain-pipe machines ..	4	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	5
Hoisting machinery ..	13	..	..	..	1	..	..	1	..	..	2	..	4	..	19	..	8	..	48
Dredging machines ..	3	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	5
Pumping machinery ..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	4
Coffee- and spice-mills ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2
Tanneries	3	..	..	..	..	..	..	2	..	..	..	..	1	..	..	..	..	..	6
Wool-dumping ..	2	..	..	..	1	..	..	1	..	..	..	..	4	..	..	..	..	..	8
Ice machines	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2
Sausage machines ..	5	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	7
Tobacco-cutting machine	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Traction-engines ..	3	..	..	..	1	..	..	2	..	1	..	..	2	..	..	..	..	..	9
Gasworks	1	..	..	..	..	..	..	1	..	1	..	..	1	..	..	..	..	..	4
Mortar-mill	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Machine shops ..	4	..	..	..	..	..	..	2	..	..	..	..	..	..	1	..	1	..	8
Meat-preserving works ..	3	..	..	..	2	..	..	..	..	1	..	..	1	..	..	..	..	..	7
Locomotives	12	..	..	..	1	..	..	1	..	3	..	..	2	..	9	..	3	..	31
Refrigerating machinery	2	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	4
Hydraulic lifts ..	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16
Wool-scouring machines	2	..	..	..	..	..	..	1	..	..	..	..	2	..	..	..	..	..	5
Electric-light machines	3	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	4
Turneries	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2
Woollen mills	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Hauling machinery ..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	5
Road-roller	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Winding machinery ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	..	3	..	15
Totals ..	188	1	4	5	32	1	5	69	9	23	6	2	89	2	58	..	37	..	531

RETURN of ACCIDENTS to BOILERS during the Financial Year ended the 31st March, 1888.

Date.	District.	Description of Boiler.	Nature of Accident.	Cause of Accident.
1887	Wellington ...	Vertical, Field's patent	Tube ends burnt, and tube-plate cracked	Shortness of water.
1888	Taranaki ...	Cornish ...	Collapse of the flue	Shortness of water.
1888	Taranaki ...	Cornish ...	Collapse of the flue	Shortness of water.

In the case of the vertical boiler the tubes had become so hot that the brass circulating-tubes inside of them were completely melted.

The two Cornish boilers had been idle for some time, and were only partially filled when the attendant lit the fires. He had no idea that he could injure the boilers by getting a little steam even if the water was low.

Repairs have been effected in each case, and the boilers put to work at a reduced pressure.

The INSPECTOR of MACHINERY, CANTERBURY DISTRICT, to the ASSISTANT-SECRETARY, Marine Department.

SIR,— Christchurch, 30th April, 1888.

I have the honour to forward annual report of boilers and machinery inspected by me during the financial year ending the 31st March, 1888, together with the usual returns; and, should any further information be required, I shall be happy to supply it.

I have not been able to quite get over my district during the year, as more than usual of my time has been taken up with steamers, and an accident I unfortunately met with prevented my leaving town lately.

I wish to draw your attention to the largely-increasing number of traction-engines in my district. I very much fear that, unless some measures are introduced to prevent these engines being worked by incompetent men, the consequences may be serious, as the working pressure is nearly as high as that used in the locomotive-engine, and the men in whose hands they are intrusted are often of a very inferior class of engine-drivers.

Of the five accidents I have to report for the year four happened in flax-mills. This industry is naturally a dangerous occupation, as the speeds of the various machines are high; the material is so long and strong in the fibre that any workman, once getting entangled, is immediately beyoud help. The class of labour employed is chiefly boys and young men; and, in some surprise visits I have paid to these mills, I have witnessed the greatest recklessness and contempt for danger. I always do all I can to reduce the chance of danger to a minimum; but it is quite impossible for an Inspector to wholly prevent accident, unless those employed with machinery do all they can also to guard against accident.

Through the general depression in trade there are a few boilers not being used at present; but should trade revive they will again be required. I have, &c.,

The Assistant-Secretary, Marine Department, Wellington. GEORGE CROLL.

RETURN of MACHINERY INSPSCTED in the NELSON DISTRICT during the Financial Year ended the 31st March, 1888.

Description of Machinery.	No.	Remarks.
Boiling-down	1	
Chaff-cutting	2	
Flour-mill	1	All steam.
Landing-service	1	These are included in the returns for Canterbury.
Threshing	1	

RETURN showing the NUMBER of LAND BOILERS INSPECTED in the CANTERBURY and NELSON SOUTH DISTRICTS during the Financial Year ending the 31st March, 1888.

Name of District.	Portable.			Stationary.			Total.
	Under 5 h.p.	5 to 10 h.p.	Over 10 h.p.	Under 5 h.p.	5 to 10 h.p.	Over 10 h.p.	
Canterbury	19	140	3	100	25	61	348
Nelson South	...	1	1	3	1	...	6
Totals	19	141	4	103	26	61	354

The boilers in Nelson are used in the south-east part of the provincial district, and are therefore easier reached from Christchurch.

RETURN showing FEES payable for the INSPECTION of BOILERS and MACHINERY in the CANTERBURY and NELSON SOUTH DISTRICTS during the Financial Year ending the 31st March, 1888.

Name of District.	Fees payable in respect of Boilers.	Fees payable in respect of Machinery.	Total.
	£ s. d.	£ s. d.	£ s. d.
Canterbury	547 0 0	2 0 0	549 0 0
Nelson South	10 0 0	...	10 0 0
Totals	557 0 0	2 0 0	559 0 0

NOTE.—There are 14 maximum fees, including 37 boilers.

RETURN of MACHINERY INSPECTED during the Financial Year ending the 31st March, 1888.

Description of Machinery.	Steam.	Steam and Water.	Water.	Gas.	Description of Machinery.	Steam.	Steam and Water.	Water.	Gas.
Bacon factory	1	...	...	...	Lifts for goods	...	...	...	2
Biscuit factories ...	2	...	...	...	Landing service (Nelson South	1	...	...	...
Breweries	8	...	...	...	Laundry	1	...	...	...
Bone-mill	1	...	...	...	Linseed oil and fibre works	1	...	...	...
Boiling-down	11	...	...	...	Meat-preserving ...	1	...	...	...
Brick and pottery works...	5	...	...	...	Nail-making	1	...	...	...
Chemical works ...	2	...	...	...	Printing	1	...	...	...
Chaff-cutting	24	...	...	...	Pumping	3	...	...	...
Cheese and butter factories	3	...	...	...	Road-roller	1	...	...	...
Cordials and confectioners'	4	...	...	...	Saw-mills	19	...	...	...
Collieries	2	...	...	...	Sausage-chopping ...	22	...	...	...
Coach-building	2	...	...	...	Soap-boiling	4	...	...	...
Cooperage	1	...	...	...	Stone-sawing and -breaking	2	...	...	...
Coffee and chicory works	2	...	...	...	Threshing	104	...	...	...
Dock and slip	2	...	...	...	[Traction-engines] * ...	[42]	...	...	...
Dredging (Priestman's) ...	1	...	...	...	Tram-engines	7	...	...	...
Electric lighting ...	2	...	...	...	Tanneries	3	...	...	...
Fire-engines	4	...	...	...	Waterlifts and baths ...	4	...	...	...
Firewood-sawing ...	7	...	...	...	Wood-turning	9	...	...	...
Flax-mills	3	2	...	...	Wool-washing	4	...	...	...
Flour-mills	9	1	3	...	Wool-dumping	3	...	...	...
Foundries and ironworks	24	...	...	...	Woollen mills	2	...	...	...
Freezing works... ...	2	...	...	...	Winches and cranes ...	11	...	...	...
Gasworks	2	...	...	...					

* The forty-two traction-engines are included in "Threshing," and are independent of the thirty-seven reported last year.

RETURN of NOTICES given to FENCE DANGEROUS PARTS of MACHINERY in the CANTERBURY DISTRICT during the Financial Year ended 31st March, 1888.

Date of Notice.	Description of Machinery.	Notice.	Parts required to be fenced.
1887.			
May 11 ...	Sawing, &c. ...	Verbal ...	To protect fly-wheel of engine and saw-belt.
June 9 ...	Chemical works ...	Verbal ...	To protect belt of bone-mill.
July 11 ...	Printing	Verbal ...	To protect fly-wheel of engine, and sheet-iron covers over all the small gearing of printing machine.
Oct. 17 ...	Flour-mill ...	Written ...	To fence mill-race to water-wheel.
Oct. 19 ...	Flax-mill	Verbal ...	To hoop-ends of scutcher-drum.
Nov. 16 ...	Landing-service ...	Verbal ...	To protect fly-wheel of engine, and bridge over lying-shaft.
Nov. 30 ...	Flour-mill ...	Verbal ...	To fence dam and upright shaft.
Dec. 28 ...	Flour-mill ...	Verbal ...	To protect belts (erection not completed).
1888.			
Jan. 16 ...	Flour-mill ...	Written ...	To protect two lying-shafts, belts, and bevel-gearing (water-power).
Jan. 20 ...	Machine-shop ...	Verbal ...	To protect fly-wheel of engine.
Mar. 17 ...	Flax-mill (steam and water)	Written ...	Counter-shaft to be straitened and to have proper pillow-blocks; new horses for same; gearing on water-wheel and pulleys to be protected; and fence, 4ft. high, full length of counter-shaft.

RETURN of NOTICES given to REPAIR BOILERS in the CANTERBURY DISTRICT during the Financial Year ending the 31st March, 1888.

Date of Notice.	Description of Boiler.	Notice.	Repairs ordered.
1887.			
May 6 ...	Portable ...	Verbal ...	New pressure-gauge.
May 6 ...	Vat	Written ...	Three extra stays in ends.
June 9 ...	Vat	Verbal ...	Stays to be renewed.
June 9 ...	Vat	Verbal ...	New crown-plate (now out of use).
June 17 ...	Vertical ...	Verbal ...	New crown-plate and tubes.
June 23 ...	Cornish ...	Verbal ...	One rivet renewed in gusset-stay.
June 25 ...	Vertical ...	Verbal ...	New set of tubes.
June 25 ...	Tubular ...	Verbal ...	New water-gauge mountings.
June 28 ...	Vertical ...	Verbal ...	New crown-plate and tubes.
July 12 ...	Tram-engine ...	Verbal ...	New half fire-box.
July 22 ...	Tram-engine ...	Verbal ...	Renew twelve stays iu fire-box.
Sept. 22 ...	Vertical ...	Written ...	Bottom of shell and fire-box to be renewed.
Sept. 28 ...	Portable ...	Written ...	New set of tubes and new pressure-gauge.
Oct. 18 ...	Portable . .	Verbal ...	Renew three tubes.
Oct. 21 ...	Portable ...	Verbal ...	Cut out and renew plate in fire-box (cracked) and tubes.
Oct. 22 ...	Cornish ...	Verbal ...	Ring on manhole.
Nov. 16 ...	Vat	Written ...	Two vats, each to have four more stays with plates.
Nov. 21 ...	Portable ...	Verbal ...	New set of tubes.
Nov. 30 ...	Portable ...	Verbal ...	Renew longitudial stay (broken).
Dec. 29 ...	Vat	Verbal ...	Stays and top angle-iron to be renewed.
Dec. 30 ...	Vat	Verbal ...	New crown-plate and new stays.
1888.			
Jan. 24 ...	Portable ...	Written ...	New set of tubes, after present threshing.
Feb. 16 ...	Portable ...	Verbal ...	New spring-balance.
Feb. 25 ...	Traction ...	Verbal ...	New pressure-gauge.

RETURN of DEFECTS found on the INSPECTION of BOILERS and FITTINGS in the CANTERBURY DISTRICT during the Financial Year ending the 31st March, 1888.

Description of Defects.	Dangerous.	Ordinary.	Total.
Collapse of furnaces	2	...	2
Crown of boiler cracked between tubes	3	...	3
Fire-box out of shape	1	1	2
Gussett-stays badly fitted and secured	1	1	2
Longitudinal stays broken or wasted	1	1	2
Manhole without ring	...	1	1
Old and dilapidated generally	...	4	4
Pressure-gauges bad	...	2	2
Spring-balance on safety-valve bad	...	1	1
Tubes thin in smoke-box end	4	2	6
Tubes leaking and cracks in fire-box...	1	3	4
Thin plates from corrosion	...	1	1
Tram-engine boilers, fire-box thin	...	1	1
Tram-engine boilers, twelve stays wasted	...	1	1
Uptake thin in vertical boiler	...	1	1
Vats not sufficiently stayed	4	...	4
Vat-stays and crown-plates wasted	4	1	5
Water-gauge mountings bad	...	1	1
Total	21	22	43

RETURN of ACCIDENTS to BOILERS and MACHINERY reported as having occurred in the CANTERBURY DISTRICT during the Financial Year ended the 31st March, 1888.

Date of Accident.	Owner's Name and Address.	Nature and Cause of Accident.
April 30, 1887	Freezing-works, Belfast	Reported partial collapse of one furnace in Lancashire boiler. Upon examination found both furnaces out of shape, caused by an oily deposit all over furnaces on inside of boiler. By the use of screws and other appliances the shape was restored and are standing well.

RETURN of ACCIDENTS to LIFE and LIMB which have occurred in connection with BOILERS and MACHINERY in the CANTERBURY DISTRICT during the Financial Year ended the 31st March, 1888.

Name and Address of Owner.	Description of Machinery.	Name of Person injured.	Nature of Accident.	Fatal or not.	Cause of Accident, and Remarks.
William Mardon, Rangiora	Water-wheel of flax-mill (steam and water)	Arthur Sloane, aged 14 years	Bruises on body, April 27, 1887	Not	Owner reports: "Cannot say how the accident occurred, as the wheel was not being used, and is protected 4ft. high." He was away from his work, and, it is supposed, must have got over the protection and perhaps stepped upon the wheel, thus causing it to revolve, as it is but a small wheel.
William Mardon, Rangiora	Scutcher in flax-mill (steam and water)	Henry Mardon — Fitzell .. — O'Neil .. Ages not given, but all young men	Wound over eye Wound over eye Some bruises October 8, 1887	Not Not Not	These three young men were engaged scutching flax, when the drum suddenly flew to pieces, and thus caused the injuries. The drum was a new one, but was not made strong enough to withstand the centrifugal force; indeed, this force had not been taken into consideration in the construction.
J. Anderson, Canterbury Foundry	Punching machine in blacksmith's shop (steam)	Charles Langdon, aged 17 years	Three fingers of right hand crushed, December 10, 1887	Not	Punching machine had just been erected. Owner reports: "Instructions had been given to have the wheel protected, but we had not had time to do so." The injured lad was working at this machine, and had thrown the driving-belt off and foolishly seized hold of the large wheel by the cogs to stop it quicker, when his hand was caught between pinion and wheel.
Charles Chinnery, Rangiora	Flax-mill (steam and water)	Alfred Burt, aged 19 years	Caught by a belt, December 22, 1887	Fatal	Being very busy, the mill was being worked dressing flax by day, and scutching as soon as daylight in the morning. In the latter operation the water-wheel alone was used to drive the shafting. Some short time after starting to scutch, Burt noticed one of the stripper-belts hanging on counter-shaft, and went and turned the water off the water-wheel, to stop for the purpose of hanging up the belt, but, unfortunately, did not wait until the shafting was quite at rest. Coroner's jury returned a verdict of "Accidental death, and no blame attached to any one."
Charles Chinnery, Rangiora	Flax-mill (steam and water)	George Newbells, aged 25 years	Right arm crushed in scutcher, drum, March 15, 1888	Not	While working at the scutching machine, which was his usual employment, his right arm was dragged into the machine and so severely crushed as to render amputation at the shoulder necessary. These machines are very dangerous, as the fibre is so long and strong that if the operator gets entangled in any way there is no hope for him. This machine was particularly well guarded, the mouth being only about 18in. by 4in.

The INSPECTOR of MACHINERY, OTAGO DISTRICT, to the ASSISTANT-SECRETARY, MARINE DEPARTMENT.

SIR,— Office of Inspector of Machinery, Dunedin, 23rd April, 1888.

I have the honour to forward you the annual report of inspection of boilers and machinery in the Otago District during the financial year ended the 31st March, 1888, contained in the accompanying tables.

In forwarding this report, I am still unable to report favourably on any increase of trade throughout the district.

Several saw-mills have been discontinued altogether, and a number have been doing very little throughout the year.

There have been two cases where the mining industry has acquired steam-power, although, on the other hand, three claims have discontinued at present.

The engineering shops, I am sorry to say, have been doing very little, and agricultural machinery has also been very quiet.

In the summary of inspections the number of inspections were 464; hydraulic lifts, 54; elevators, 2: total, 520. Of these inspections Mr. Blackwood made—portable boilers, 45; stationary, 83; total boilers, 128: hydraulic lifts, 42; elevators, 2: making a total of 172 inspections altogether.

I may state, through the absence of Mr. Blackwood up North, there still remained a considerable portion of this district to be gone over at the end of March. I may also state that there is a great loss of time on many occasions attending to the marine inspections, especially when there is only one Inspector here, as the steamer surveys are in many cases spread throughout the half-year,

necessitating the surveyor coming in from the farthest part of his district, and not allowing him the leisure to complete these surveys, as laid down in the instructions, which I consider is required for the due fulfilment of these duties.

The return of defects comprises about the average, the principal being fittings and wear-and-tear; the most dangerous were laminated plates. In the one case a longitudinal tubular boiler fired externally, carrying 70lb. pressure; and in the other a return tubular boiler, carrying 45lb. In both these cases fortunately the damage was taken in time, so that there have been no accidents of any sort through defects.

In the case of accidents to boilers reported the number is only 2. In the one case, through dirt and the blow-off being in the wrong place, boiler (longitudinal tubular) externally fired and cracked in bottom plate of shell at far end. The other case, boiler (longitudinal tubular) fired externally, the front end dropped down about 10in., leaving the upper tubes bare at the back, where, through the constant contraction and expansion, the tube-plate cracked across.

Return of notices given to repair boilers is not of much importance, being mostly fittings, with the exception of three cases, where it was necessary to strengthen the boiler.

Return of notices given to remove dangerous parts of machinery consists of only four, three being hydraulic-lift chains, and the other being a cracked circular saw.

Return of notices to fence dangerous parts of machinery consists of one—a new flour-mill.

Return of accidents to life and limb consists of two. In the one case the boy lost his hand at a washing-machine, getting caught between the rollers in clearing them, which he ought not to have attempted without first stopping the machine. In the other case the damages were merely nominal, although they might have been serious. In both cases I inspected the places where these accidents took place, but could do nothing to prevent them.

Summary of Inspections: The number added to the official number since the 31st March, 1887, was 73. Number of boilers changed hands, 31 (Otago); number of new portable, 10 (England); locally made, new, 11 (Otago); number of old boilers imported, 1 (England); number of new vertical and stationary, 6 (England); number of old boilers from Canterbury, 4.

One Cornish tubular has been condemned absolutely, and one vertical provisionally.

I have, &c.,

The Assistant-Secretary, Marine Department, Wellington. ALEXANDER CRAWFORD.

RETURN showing the NUMBER of LAND BOILERS INSPECTED in the OTAGO DISTRICT during the Financial Year ended the 31st March, 1888.

Name of District.	Number of Portable Boilers.			Number of Stationary Boilers.			Total.
	5 h.p. and under.	5 to 10 h.p.	Over 10 h.p.	5 h.p. and under.	5 to 10 h.p.	Over 10 h.p.	
Otago	21	116	12	150	46	119	464

RETURN of FEES payable for the INSPECTION of BOILERS and MACHINERY in the OTAGO DISTRICT during the Financial Year ended the 31st March, 1888.

Name of District, &c.	Fees payable in respect of Boilers.	Fees payable in respect of Machinery.	Total.
Otago—	£ s. d.	£ s. d.	£ s. d.
Portable	253 0 0	...	730 0 0
Stationary	473 0 0	...	
Machinery	...	4 0 0	

RETURN of NOTICES given to FENCE DANGEROUS PARTS of MACHINERY in the OTAGO DISTRICT during the Financial Year ended the 31st March, 1888.

Date of Notice.	Class of Machinery.	Parts requiring to be fenced.
1887. July 22 ...	Flour-mill ...	Fly-wheel and driving-pulley of engine; laying-shaft at oat-meal-gear; driving-belt on second floor; driving-belt on third floor.

RETURN of DEFECTS found on the INSPECTION of BOILERS and FITTINGS in the OTAGO DISTRICT during the Financial Year ended the 31st March, 1888.

Description.	Dangerous	Ordinary.	Total.
Blow-off cocks	...	3	3
Bottoms of shells thin	3	...	3
Corrosion, internal	2	5	7
Corrosion, external	...	1	1
Fire-box, vertical boiler, thin	1	...	1
Furnaces (Lancashire), corroded	...	4	4
Furnace (Cornish), corroded	...	1	1
Furnaces (Lancashire), injured expansion	...	2	2
Gauges, pressure	3	...	3
Gauges, water- and test-cocks	...	10	10
Laminated plates, furnace	1	...	1
Laminated externally over fire	1	...	1
Manholes strengthened	...	2	2
Mud-holes repaired	...	3	3
Portable, barrel thin	1	...	1
Scale, accumulation of	2	...	2
Screwed stays corroded	1	...	1
Safety-valve out of order	1	...	1
Tube-plate cracked	1	...	1
Tubes down through corrosion	2	...	2

RETURN of NOTICES given to REPAIR BOILERS in the OTAGO DISTRICT during the Financial Year ended the 31st March, 1888.

Date of Notice.	Description of Boiler.	Nature of Repairs ordered.
1887.		
July 2 ...	Longitudinal tubular	Test-cocks to be put on boiler as instructed.
July 2 ...	Longitudinal tubular	Three water-gauges and test-cocks to be fitted on each boiler.
July 12 ...	Cornish tubular ...	Blow-off cock to be removed and plate patched.
July 30 ...	Steam-digester ...	Bolts to be fitted through the stays and angle-irons at top.
Aug. 1 ...	Longitudinal tubular	Laminated plate over fire; piece to be cut out and patch rivetted on about 15in. square.
Aug. 13 ...	Cornish	Bridge of angle-iron, 3in. x 3in. x $\frac{5}{8}$in., properly fitted and rivetted, to support crown of furnace.
Aug. 15 ...	Longitudinal tubular (two)	To be immediately and thoroughly scaled in shells over fire.
Aug. 16 ...	Traction road-roller	Five tubes to be taken out for examination and replaced.
Aug. 17 ...	Longitudinal tubular	Full set of water-gauge mountings and test-cocks to be fitted.
Aug. 20 ...	Return tubular ...	New crown to be put in furnace.
Nov. 11 ...	Steam-digester ...	To have two stays fitted, of 1$\frac{1}{2}$in. diameter, properly secured by nuts with large washers; also safety-valve, of 2in. diameter, loaded to 30lb.; also steam-pressure gauge.
Nov. 12 ...	Vertical	New pressure-gauge and mudholes repaired at bottom by bolted patches as directed.
	Semi-portable ...	New pressure-gauge and spring-balance to be fitted on, and gauge test-cocks all done up.
Nov. 17 ...	Vertical	Mudholes to be repaired by bolted patches as directed.
1888.		
Feb. 23 ...	Portable	Patch of 4ft. x 2ft. to be fitted on barrel and fixed as directed.
Mar. 12 ...	Steam-digester (two)	Four new stays in each, of 2in. diameter, secured with nuts, with washer outside of 2in. thick and 12in. diameter.

RETURN of NOTICES given to REMOVE DANGEROUS PARTS of MACHINERY in the OTAGO DISTRICT during the Financial Year ended the 31st March, 1888.

Date of Notice.	Description of Machinery.	Nature of Machinery to be removed.
1887.		
Aug. 9 ...	Hydraulic lift ...	Chain to be removed and replaced by a new proof-chain.
Aug. 10 ...	Hydraulic lift ...	Chain to be removed and replaced by a new proof-chain.
Aug. 18 ...	Hydraulic lift ...	Chain to be removed and replaced by a new proof-chain.
Oct. 19 ...	Saw-mill	Top twin-saw to be removed and replaced by a sound saw.

RETURN of MACHINERY INSPECTED in the OTAGO DISTRICT during the Financial Year ended the 31st March, 1888.

Description of Machinery.	Steam.	Steam and Water.	Description of Machinery.	Steam.	Steam and Water.
Aërated water	1	...	Gasworks	2	...
Agricultural implements ...	7	...	Gold-mining	2	...
Air-compressor	1	...	Graving-dock	1	...
Baths	1	...	Hoists	19	...
Bakeries	5	...	Hydraulic lifts	...	54*
Barbed-wire factory	1	...	Joineries	4	...
Boiling-down	4	...	Lapidary	1	...
Boiler-maker	1	...	Lathmaker	1	...
Bone-mills	3	...	Laundries	3	...
Brass, copper, and lead works ...	2	...	Lead-pipe works	2	...
Brass shop	1	...	Locomotives	8	...
Breaking metal	1	...	Machine shops	3	...
Breweries	12	...	Merry-go-round	1	...
Brick and tile works	6	...	Meat-preserving	2	...
Beehive factory	1	...	Parchment works	1	...
Cabinet-making	5	...	Paper-mills	1	1
Cement works	1	...	Potteries	2	...
Chaff-cutting	7	...	Pipe-clay works	3	...
Chemical works	2	...	Printing-papers	6	...
Cooperage	1	...	Pumping water	3	...
Cocoa factory...	1	...	Refrigerating works	2	...
Confectionery...	3	...	Road-roller	1	...
Cooking	2	...	Ropeworks	1	...
Collieries	7	...	Rolling-mills	1	...
Condensed milk	1	...	Sausage-skins	1	...
Corn-crushers	2	...	Sausage machines	8	...
Coffee and spice works ...	2	...	Saw-mills	30	...
Cranes	20	...	Soapworks	2	...
Creosote works	1	...	Soap and candle works ...	3	...
Dairy factories	14	...	Sheep-dip works	2	...
Dredges	2	...	Standard works	4	...
Dyeworks	1	...	Stone-crushers	6	...
Elevators	2	...	Stone-dressing	1	...
Engine-shops	5	...	Tanneries	3	...
Engine-shops and foundries ...	6	...	Tramway cable	2	...
Foundries, cast-iron	2	...	Traction-engines	8	...
Foundries, malleable cast ...	1	...	Threshing machines	77	...
Floating-dock	1	...	Turning, wood	3	...
Fellmongeries	7	...	Venetian blinds	1	...
Flour-mills	8	6	Wool-pressing	5	...
Flock-mills	2	...	Woollen factories	4	...
Fish-preserving	1	...	Wool-mat factories, fancy ...	2	...
Fire-grate and range works ...	3	...	Woodware factories	5	...
Firewood-cutting	1	...	Wood-working	5	...
Fire-engine	1	...			

* By water only.

RETURN of ACCIDENTS to BOILERS and MACHINERY reported as having occurred in the OTAGO DISTRICT during the Financial Year ended the 31st March, 1888.

Date of Accident.	Name and Address of Owners.	Nature and Cause of Accident.
1887.		
Oct. 21 ...	J. H. Dawson and Sons, Waihopai	Longitudinal tubular boiler fired externally; bottom plate of shell at back end of boiler cracked through accumulation of dirt.
Dec. 29 ...	Messrs. Findlay and Co., Dunedin	Longitudinal tubular boiler; one of three had dropped down in front end about 10in., leaving the upper row of tubes bare at back end; contraction and expansion.

RETURN of ACCIDENTS to LIFE and LIMB which have occurred in connection with LAND BOILERS and MACHINERY in the OTAGO DISTRICT during the Financial Year ended the 31st March, 1888.

Name and Address of Owner.	Description of Machinery.	Name of Person injured.	Nature and Date of Accident.	Fatal or not.	Cause of Accident, and Remarks.
Messrs. Ross and Glendinning, Kaikorai	Woollen mill; wool-washing machine	James Swanerton, aged 14 years	The right hand crushed, 11th October, 1887	Not	Was attending the washing-machine, and, while trying to remove wool from the bottom roller of squeezing-rollers, allowed his hand to get caught, the consequence being that his hand was completely destroyed. No one is allowed to touch the rollers without first stopping the machine: that is the rule laid down. In this case it is supposed the boy thought he could manage without stopping the machine—the consequence being the accident.
Messrs. Donaghy and Co., South Dunedin	Rope-works ..	John McLean, aged 14½ years	Ribs bruised, 17th March, 1888	Not	Was attending a spinning-jenny, and, in clearing it, instead of passing round the other side, attempted to stoop over, when the fly caught his coat, dragging him in. Luckily the extent of the accident was some bruises about the body without any broken bones. The boy was at work again about a week after.

SUMMARY of INSPECTIONS.

Number of inspections of boilers	464
Number of inspections of hydraulic lifts	54
Number of inspections of elevators	2
Number of machines inspected	495
Number of defects found on inspection of boilers and fittings	50
Number of accidents to boilers and machinery reported	2
Number of notices given to repair boilers	15
Number of notices given to remove dangerous parts of machinery ...	4
Number of notices given to fence dangerous parts of machinery	4
Number of accidents to life and limb	2

[*Approximate Cost of Paper.*—Preparation, nil; printing (exclusive of plans) 1,575 copies, £41.]

By Authority: G. DIDSBURY, Government Printer, Wellington.—1888.

NEW ZEALAND

WRECK CHART

1ST APRIL 1887 TO 31ST MARCH 1888

Compiled from Official Records

in the

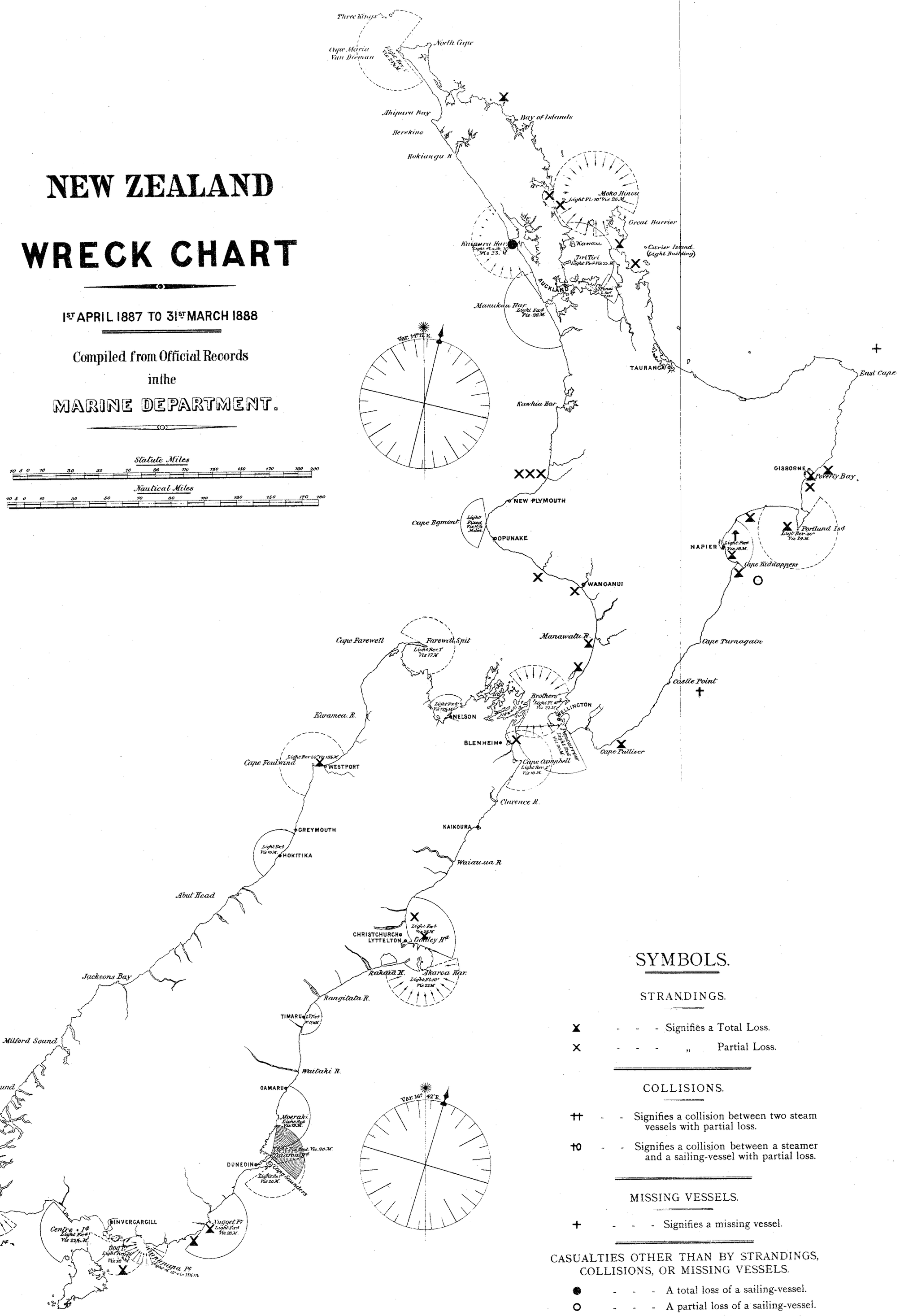
MARINE DEPARTMENT.

Statute Miles

10 5 0 10 30 50 70 90 110 130 150 170 190 200

Nautical Miles

10 5 0 10 30 50 70 90 110 130 150 170 180



SYMBOLS.

STRANDINGS.

X - - - Signifies a Total Loss.

X - - - „ Partial Loss.

COLLISIONS.

++ - - Signifies a collision between two steam vessels with partial loss.

+O - - Signifies a collision between a steamer and a sailing-vessel with partial loss.

MISSING VESSELS.

\+ - - - Signifies a missing vessel.

CASUALTIES OTHER THAN BY STRANDINGS, COLLISIONS, OR MISSING VESSELS.

● - - - A total loss of a sailing-vessel.

○ - - - A partial loss of a sailing-vessel.

† - - - A total loss of a steam-vessel.

† - - - A partial loss of a steam-vessel.

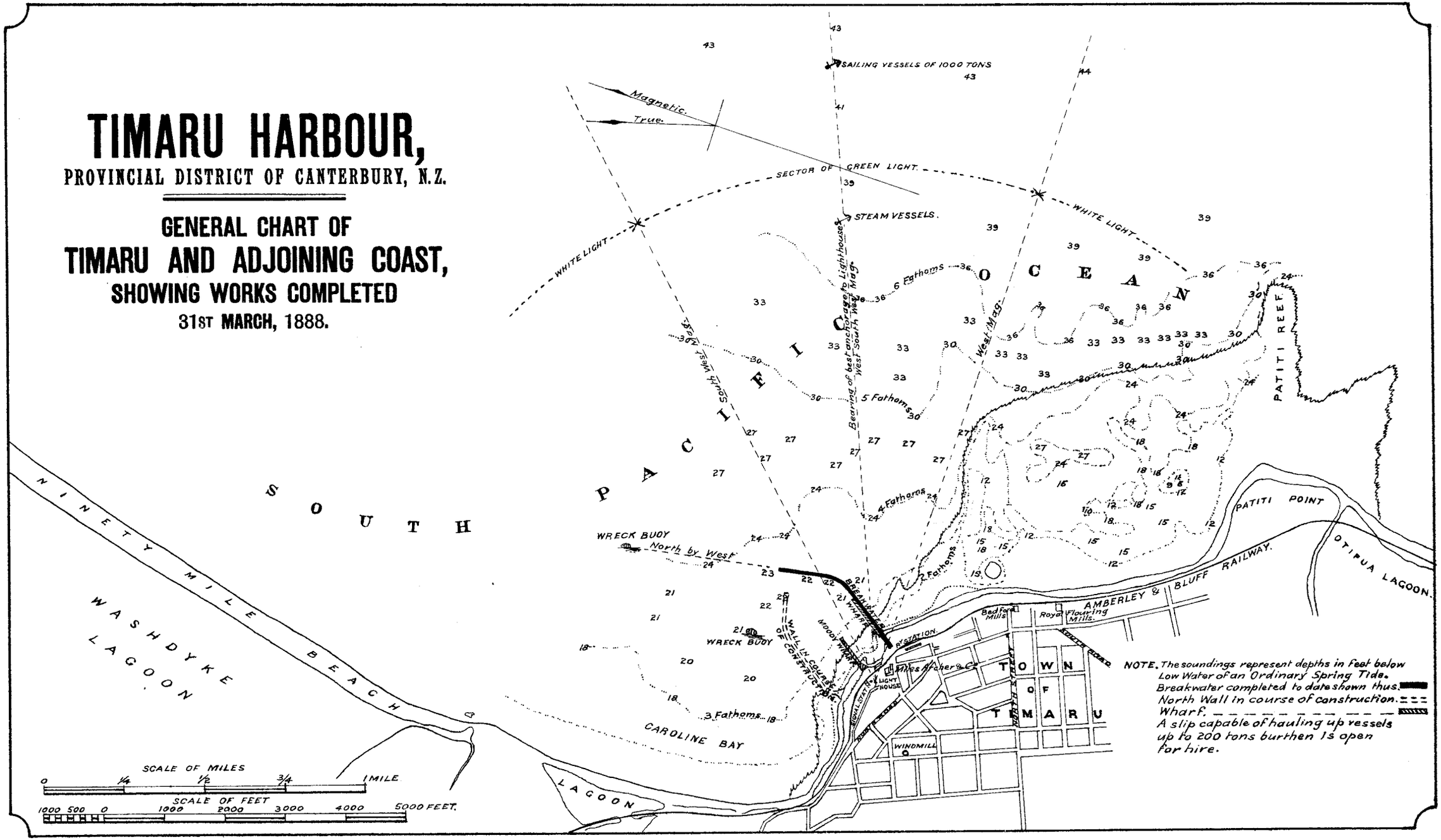
Note.—Casualties resulting in slight damage are not shown on this chart.

Photolithographed at the General Survey Office, Wellington, N.Z. August 1888.

TIMARU HARBOUR,

PROVINCIAL DISTRICT OF CANTERBURY, N.Z.

GENERAL CHART OF
TIMARU AND ADJOINING COAST,
SHOWING WORKS COMPLETED
31ST MARCH, 1888.



NOTE. The soundings represent depths in feet below Low Water of an Ordinary Spring Tide.
Breakwater completed to date shown thus. ■■■■
North Wall in course of construction. = = =
Wharf. — — — — — — — — —
A slip capable of hauling up vessels up to 200 tons burthen is open for hire.

PORT OF TIMARU.

THE Port of Timaru, which is the natural outlet of the large and fertile district of South Canterbury, whose export business in a few years will equal that of any port in New Zealand, is situated at a slight projection of the coast-line at the south-west extremity of the Ninety-mile Beach, south of Banks Peninsula. The town of Timaru stands near the sea-shore, partly on a rise. The lighthouse and flagstaff (only 40ft. apart) are on a cliff towards the north end of the town, in latitude 44° 23′ S., longitude 171° 17′ 20″ E. The breakwater, which is now completed, is 2,278ft. long, it extends from the beach in a N.E. by N. direction, and will be seen when viewed from the sea to be in a line with the flagstaff.

The coast-line from Banks Peninsula to Timaru is low, and cannot be seen in thick weather or by night until close in with the breakers, while southwards of the Town of Timaru the cliffs are from 30ft. to 50ft. high. This is a sure guide to Timaru, viz., low shingle beach northward, moderately high cliffs and headlands to the southward.

If the weather is clear the high mountain range will be seen behind Timaru long before the coast-line has risen. Burke's Pass, a remarkable gorge, almost directly behind Timaru, is a good landmark, showing a distinct gap, and should be steered for on a course W.S.W. magnetic; the cliffs above mentioned will prevent any mistake.

Directions.—Vessels bound for Timaru, after rounding Banks Peninsula, should steer S.W. by W. southerly, unless the wind be strong from E.S.E., which causes an inset, when it is necessary to keep three-quarters of a point more southerly.

The shore from the end of the breakwater to Patiti Point, a long mile, S.S.E., is fronted by sand and shoal patches, with outlying reefs of rock and kelp, always breaking, the reef extending nearly two-thirds of a mile direct to seaward from Patiti Point, and one and a half miles to the south-east from the breakwater at Timaru. The reef off Patiti Point runs out a quarter of a mile farther than is marked on the charts, and should have a wide berth.

From Patiti Point southward the coast is again formed of low cliffs, fronted by a shingle beach, and extends thirty miles in a south direction to Waitangi (chart Waitaki) River, with several small streams intervening. A high mountain range, 3,500ft (the Hunter Hills), approaches within a few miles of the coast, between Timaru and Waitaki River.

The Timaru lighthouse is 30ft high, built of wood, and painted white. The light is a fixed white light of the fifth order dioptric, and shows a green sector of 45° (four points) from W. to S.W. magnetic as viewed from seaward. It stands 85ft. above the sea-level, and, allowing 15ft for the height of the observer's eye, should be visible in clear weather at a distance of fourteen nautical miles.

The green sector is intended as a guide to vessels approaching Timaru during the night or bringing up in the roadstead.

Masters of vessels are particularly cautioned that on nearing the port, and while lying at anchor, they must not lose sight of the GREEN LIGHT; and that, if compelled to make the harbour, they must when within half a mile of the breakwater (owing to the extension of the work) come out of the GREEN into the WHITE LIGHT, and get the light to bear S.W. by S. ½ S., and come in on that bearing until inside the breakwater; and that while under way the lead-line must be kept going. Masters are likewise cautioned not to bring the light to bear S. by W. on account of the "Lyttelton" wreck.

A contract has been let for the construction of a rubble wall to enclose the harbour on the north-west side. The work is now well in hand, and is expected to be completed early in the year 1890.

The accommodation for shipping under the shelter of the breakwater is very considerable. Moorings are laid down, to which several vessels can be well secured, moored head and stern. There are, besides, about 1,500ft. available wharfage for berthing vessels. The depth of water is from 10ft. to 23ft. at low-water spring tides, and vessels drawing up to 19ft. are discharged and loaded with great facility, as the railway runs the whole length of the wharf, and steam cranes are always available.

In order to give despatch to sailing-vessels the Harbour Board maintains a powerful tug of 56 h.p. nominal.

The towage rates have been made exceedingly liberal, to induce masters of vessels to avail themselves to the utmost of the services of the tug.

A patent slip has been built capable of hauling up vessels up to 200 tons register.

Signals.—The New Zealand General Signals are used.

It has been notified by the Harbourmaster that vessels frequenting the port should be provided with at least one extra heavy anchor and strong cable, and that vessels of large tonnage, say 800 tons register and over, must not anchor in less than seven fathoms of water, the flagstaff bearing W.S.W. Vessels of less tonnage may anchor closer in on the same bearing, but not within a mile and a half of the breakwater, and in no case must approach the breakwater or moorings without permission, in consequence of the rapid extension of the harbour works.

On the plan are marked the best anchorages for all classes of vessels, also the bearings from the lighthouse. High water, full and change, at 3h. 30min.; spring tides, rise and fall, 6ft. 6in.

Shipping inwards at the Port of Timaru—

Year 1884	282 vessels	63,133	tons register.
„ 1885	332 „	90,109	„
„ 1886	363 „	98,756	„
„ 1887	332 „	97,905	„

Principal Exports, year 1887—

Wool	23,813	bales.
Wheat	38,344	sacks.
Oats	96,423	„
Flour	99,678	„
Bran and sharps	66,860	„
Potatoes	32,076	„
Frozen mutton	11,509	carcases.
Tallow	629	tons.

Revenue from Wharfage and Harbour Charges—

Year.	£	s.	d.
1879	241	0	6
1880	1,791	6	3
1881	3,926	11	9
1882	4,963	16	1
1883	6,356	7	2
1884	6,323	1	8
1885	8,626	0	6
1886	9,972	18	8
1887	9,523	13	9

The harbour district includes the Counties of Geraldine and Mackenzie, and the following ridings of the Waimate County, namely, Parcora, Otaio, Makikihi, Deep Creek, and part of Waihao, the Borough of Timaru, and the Town Districts of Geraldine, Temuka, and Arowhenua. The area of the district is 2,718,800 acres. Its rateable value under Government assessment is £6,664,000. Population, 24,000.

The Harbour Board has a right of rating over the property in the harbour district in the event of its revenue being insufficient to meet the interest on money borrowed for harbour works. There has up to the present time been no need to levy any rates, the revenue being sufficient for all purposes.

W. J. TENNANT,
Secretary.

Timaru, 1st April, 1888.