

1900.

NEW ZEALAND.

MARINE DEPARTMENT.

ANNUAL REPORT FOR 1899-1900.

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

MY LORD,—

Marine Department, Wellington, 31st July, 1900.

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

I have, &c.,

WM. HALL-JONES,

Minister of Marine.

His Excellency the Right Hon. the Earl of Ranfurly,
Governor of New Zealand.

The SECRETARY to the MINISTER of MARINE.

SIR,—

Marine Department, Wellington, 2nd July, 1900.

I have the honour to make the following report on the work of this department during the financial year ended the 31st March last:—

Lighthouses.—The lighthouses have been maintained in an efficient state. The cost of maintaining them during the year was £13,458 19s. 4d., exclusive of the cost of the Government steamer, which visits them periodically with oil and stores.

Two assistant keepers—J. R. Dickson and P. J. MacLean—have left the service, and one—A. G. Whymark—has been appointed, leaving one vacancy at the end of the year.

The new lighthouse on Somes Island has been completed, and the light was exhibited for the first time on the 21st February last, when the old light was discontinued. The new light is a second-order light, and is visible at a distance of sixteen miles in clear weather. It is of much greater power than the former one, and consequently masters of vessels are able to approach the entrance with greater confidence in thick weather. As it is really a harbour-light, being solely for the benefit of vessels entering and leaving the Port of Wellington, the Harbour Board contributed £800 towards its cost. The former light is now in store, and is available for erection in any suitable locality where a light of the kind is required.

The erection of the lighthouse on East Island, off East Cape, is now nearly completed, and the lighthouse artificer is engaged on the erection of the lantern and apparatus. It was intended to connect this lighthouse with the telegraph system of the colony by laying a cable across the channel which separates the island from the mainland, and Mr. Logan, the Superintendent of Electric Lines, recently visited the place in the s.s. "Tutanekai" to survey the route, when it was found that the bottom of the channel was very rocky, and no good landing-place for the cable could be found on the island. If on further inspection it is found possible to connect it with the telegraph system, the station will be an important one for reporting vessels, and also as a weather station.

In connection with the proposal to erect a lighthouse between Farewell Spit and Westport, the Shipmasters' Association has been asked to say whether it considered Rocks Point or Kiourangi Point the more suitable site, and the reply is in favour of the latter. As soon as East Island Lighthouse is completed steps should be taken to erect a light on one of these sites.

During the year the sum of £236 8s. 4d. has been expended on repairs, the greater part of it having been expended on repairing and strengthening the tower at Cape Campbell. The work done will enable the tower to last a few years longer. Provision should be made in this year's estimates for new houses at Farewell Spit, as the wooden houses which were erected when the first tower was built in 1870 are in such a state that they will not be habitable much longer. Alterations and repairs are also required at Nugget Point.

Arrangements have been completed with the committee of Lloyd's for signalling communications from Lloyd's to passing vessels at Cape Maria van Diemen, Farewell Spit, and Nugget

Point, and in order that shipmasters may know that they can also send messages by signalling them to the lighthouse Lloyd's flag will be flown at each station. When a master signals a message it will be sent by telegraph to Lloyd's agent in Wellington, who will telegraph to the lighthouse any communications which are to be signalled to vessels. If it is found that this arrangement entails much additional work at Nugget Point the question of appointing a third keeper at that station will have to be considered, as there are only two keepers there at present, whose time is pretty fully occupied in performing the ordinary lighthouse duties and in keeping the road from the landing-place in repair.

The sum of £20,996 8s. 3d. has been collected for light dues during the year, as compared with £19,382 16s. 4d. during the previous year, being an increase of £1,613 11s. 11d.

Harbours.—The Government steamers have attended to the overhaul and cleaning of the buoys in the harbours under the control of the department. Those in Gisborne and Whangarei Harbours have also been done, at the cost of the Harbour Boards. The approach to the wharf at Onehunga having become obstructed by a bank, a vote for dredging was taken last session of Parliament, and the Westport Harbour Board dredge and two hoppers have been chartered and taken over to Manukau for the work, which is now being carried out, the dredged spoil being deposited in a part of the harbour where it will not impede navigation. At Nelson material from road-slips was being deposited over the wall of the Rocks Road, and, as this was likely to be injurious to the harbour, it became necessary to stop it. The removal of material for ballast from the foreshore of Waiheke Island has been prohibited, as it was found that the beach was being seriously injured. Mr. Walter Bowles has been appointed Harbourmaster at Picton, in place of Mr. H. B. Dobbie, resigned. The wreck of the steamer "Waipara," which has been lying in the Okarito River for the past two years, being dangerous to passing vessels, the owners have been called upon to remove it. Failing their doing so, the department will do the work and recover the cost from them. Flag-signals for indicating the state of the bar at small ports which are not provided with the means of making the signals fixed by the harbour regulations have been prescribed.

A return showing the harbour-works authorised by the Governor in Council and the licenses issued for the occupation of foreshore is appended hereto.

The sum of £3,255 14s. has been collected for pilotage and port charges in respect of the harbours under the control of the department, as against £2,664 16s. 6d. during the previous year. The amount collected at each port is shown in the appended return.

Fisheries.—Mr. L. F. Ayson, who visited Europe and America for the purpose of inspecting the fish-hatcheries there, and obtaining information respecting the introduction of suitable salt- and fresh-water fish into the colony, has been appointed Inspector of Fisheries. This will enable the department to take more active steps to assist in the development of the fishing industry.

A vote of £500 was taken last session for experimental trawling in order to ascertain the best fishing-grounds off the coasts, and the steam trawler "Doto" was chartered early in March last for the work. She is commanded by Captain Nielsen, who has had considerable experience in trawling in Europe and in Hawke's Bay, and who was in charge of the vessel which carried out experimental trawling in New South Wales two years ago. Mr. Ayson, who accompanies the vessel on behalf of the department, directs where the trawling is to be done, and keeps records of the results. Work was begun off the coast north of Lyttelton, continued down to Foveaux Strait, Te Waewae Bay, and round Stewart Island, and it is intended to test the Wanganui Bight, Blind and Golden Bays, the Hauraki Gulf, and Poverty Bay. Mr. Hamilton, Registrar of the Otago University, accompanied the vessel from Lyttelton to Dunedin for scientific purposes, and Mr. G. M. Thomson, of the Otago High School, will accompany her while working in Blind and Golden Bays and in the Wanganui Bight. The work done so far has been satisfactory, and, when completed, a full report of the results will be made by Mr. Ayson.

Mr. Ayson has inspected and reported on the site of the proposed fish-hatchery at Purakanui, and the department is now endeavouring to arrange for a local Board to construct and maintain the hatchery, a subsidy being granted by the Government towards the cost.

On different occasions American whitefish have been put into Lake Rotoiti, in the Nelson District, but, as none have been caught, an attempt has been made to net the lake, in order to prove whether or not the attempt to acclimatise this valuable food-fish has been successful. Owing, however, to the large number of snags in the lake the netting operations were unsuccessful.

Complaints have been made by line and hand-net fishermen that the trawlers interfere with their fishing, and drive the fish away from places where they were formerly plentiful. For these reasons the department has been asked to prohibit trawling within a prescribed distance from the shore. It has not, however, seen its way to do this. It is believed that the allegation that the fish are driven away is incorrect, and the rocky nature of the bottom close to the shore on most parts of the coast prevents the trawlers from working close in.

Regulations have been made allowing the use of set-nets with an opening of not more than 3 ft. by 1 ft. for taking whitebait in the Ashley River and its tributaries the Taranaki and Waikuku Creeks.

The use of nets for taking fish has been prohibited in the Wanganui River above the Aromoho Railway-bridge for a year from the 1st March last. This has been done to prevent interference with the breeding-ground of flounders and the taking of trout by the fishermen.

The close season for seals has been extended up to the 30th June, 1901. Mr. Henry, the caretaker of the Government reserve for native birds on Resolution Island, Dusky Sound, thinks that it may be possible to restock the seal rookeries in that sound with the progeny of tame seals, and in order that he may make a trial of his plan he has been authorised to get three young seals for the purpose of taming them and breeding from them. The experiment will be interesting, and, if successful, a valuable one.

Inspection having shown that the oyster-beds in the Hauraki Gulf require a rest, they have been closed this year. The beds in the northern and southern subdivisions of the northern oyster-fishery have also been closed. Those in the middle subdivision, extending from the south side of the Waitangi River to Cape Wiwiki in the Bay of Islands, are open, and it is anticipated that they will be able to meet requirements. The leasing of the beds in Manukau Harbour has not turned out so successful as was expected. Some of the lessees, finding that the beds in their areas were not paying them, have surrendered their leases, and it is probable that others will ask to be allowed to do so. The owners of dredging-cutters working in Foveaux Strait and other persons have asked that dredging for oysters by steam-vessels should be prohibited, on the ground that their dredges scoop up most of the oysters and thus injure the beds. The department has not, however, seen its way to accede to this request.

Licenses for the exclusive right of taking sponges from two areas at the Chatham Islands have been granted to Messrs. J. C. Cooper and O. S. Watkins, of Wellington, and if the sponges prove to be marketable a valuable new industry will be opened up.

Weather-reporting.—The duty of making and circulating weather forecasts has been performed by Captain Edwin, as has been the case for many years past. The forecasts for the localities are now shown by means of signals at Cape Maria van Diemen, Tiritiri, Cape Campbell, Farewell Spit, and Cape Foulwind Lighthouses, and are of great value to passing vessels, enabling them to be warned of approaching bad weather. This mode of publishing warnings is the first of the kind in use in the Australasian Colonies.

Inspection of Machinery.—The Chief Inspector's report, which is appended hereto, shows clearly the work which has been done during the year. Owing to the increase in the work of inspection it has been necessary to appoint another Inspector, and the appointment has been conferred upon Mr. A. W. Bethune, chief engineer of the Government steamer "Tutanekai." Mr. Bethune has been stationed in Canterbury, but he will be available for other districts should the work get in arrear. The benefit of having a proper system of Government inspection is shown by the immunity from serious accidents in the colony.

Survey of Steamers, &c.—The report of the Principal Engineer Surveyor is appended hereto. Last session an Act was passed empowering the Minister to make regulations to define the engineers to be carried by vessels propelled by gas, oil, fluid, electricity, or other mechanical power than steam, and to prescribe the certificates to be held by them. Regulations have since been made, and examinations have recently been held at Auckland. In order to interfere as little as possible with small vessels of this class, the Act exempts those under 5 tons register from survey and from carrying certificated officers, and those between 5 and 15 tons which are not allowed to carry more than twelve passengers from carrying certificated engineers, and from survey after the first survey. Several prosecutions have taken place for carrying passengers without certificates to do so, and for carrying more passengers than allowed, conviction resulting in each case.

Examination of Masters, Mates, and Engineers.—The Government having decided to procure an officer from England to fill the positions of Chief Examiner of Masters and Mates and Nautical Adviser, the Agent-General was instructed to confer with the Board of Trade as to the selection of a suitable person. This was done, and resulted in the selection of Captain H. S. Blackburne, who arrived in the colony in August last, and at once commenced his duties. He has prepared entirely new examination-papers, which are being used under his direction, and the examinations are being conducted in a satisfactory manner. The examinations are held at Auckland, Wellington, Lyttelton, and Dunedin, where the local examiners are Captains Reid, Smith, Marciel, and Fleming. The holding of examinations for certificates as masters of steamers plying within restricted limits has been discontinued at the Thames. One hundred and twenty-seven persons passed their examinations for certificates of competency, and seventy-seven failed. Of those who passed, seventy were masters, mates, and engineers of seagoing vessels, and fifty-seven were masters and engineers of steamships plying within restricted limits. No certificates of service were issued. The report of the Principal Examiner of Masters and Mates is appended hereto.

Engagement and Discharge of Seamen.—The appointment of nautical men to fill the positions of Superintendents of Mercantile Marine at the four principal ports having been decided upon, applications were invited by advertisement in the public Press, and Captains Reid, Smith, Marciel, and Fleming were selected for the positions. In addition to performing the duties connected with engagement and discharge of seamen, these officers are Examiners of Masters and Mates, and carry out any other nautical duties that may be required of them. The appointments have given satisfaction, and the department finds it beneficial to have men with nautical knowledge and experience at the shipping centres.

Some seamen having been wounded in a fracas which occurred in Wellington, on a steamer owned in the United Kingdom and trading between London and the colony, and it being necessary to leave them behind, the question arose as to whether the ship was liable for their maintenance in the colony and for their conveyance back to England. In order to settle the matter authoritatively it was brought before the Supreme Court, which decided in favour of the ship.

Proceedings have been taken against persons for employing men without putting them on the articles, a conviction resulting in each case.

Government Steamers.—Both steamers have been fully employed during the year. The "Tutanekai" has been engaged in carrying railway-sleepers and other Government cargo, on repairs to the Cook Strait telegraph-cable, making two trips to Samoa in connection with the native trouble there, and conveying His Excellency the Governor through the Pelorus and Queen Charlotte Sounds and round the greater part of the North Island. The "Hinemoa" has been principally employed on the work of conveying oil and stores to lighthouses, including material for the new lighthouse on East Island, and in overhauling and cleaning buoys. In addition to this work she has visited the Southern Islands and the Kermadec Islands to search for castaways and

to inspect the depots of provisions and clothing which are maintained there for the benefit of shipwrecked persons. On the 2nd June last, when at East Island, one of her boats, in charge of Mr. Brown, the chief officer, was sent in to see if landing was practicable, instructions being given to him to be careful to run no risk. When nearing the landing-place a heavy sea struck the boat and capsized her, and Mr. Brown and three seamen named N. Buchanan, O. Sjoblom, and Ostermann were, unfortunately, drowned. All the bodies except that of Ostermann were recovered, and that of Mr. Brown was, at the request of his relatives, brought to Wellington for burial. The bodies of the two seamen were buried on the island, and the department has enclosed the grave and erected a tombstone.

Coastal Surveys and Dangers.—A dangerous rock having been reported to exist at the French Pass, the locality has been surveyed by Captain Bollons, of the "Hinemoa," who reported that the danger was a patch of rocks completely out of the track of vessels, being a continuation of the first point north of Reef Point. Search has also been made for a reported rock between Hawes Rock and Blumine Island, at the entrance to Queen Charlotte Sound. No rock was discovered, but several patches were found with 1, 2 and 3 fathoms of water on them, and, in consequence, a notice was issued warning mariners against using the channel.

Wages and Effects of Deceased Seamen.—The estates of forty-five seamen, amounting to £321 2s. 4d., were dealt with during the year. Of these, thirty-three were new estates. The sum of £210 16s. 3d. was paid to relatives and other claimants, and the sum of £45 0s. 1d., representing estates which have been unclaimed within the statutory period of six years, has been paid into the Public Account.

Wrecks and Casualties.—Tables showing the casualties to ships and an analysis thereof are appended hereto. Those on the coasts of the colony numbered forty-two, representing 10,146 tons, as against forty, representing 11,550 tons, in the previous year. The total wrecks within the colony were six, of 2,247 tons, as against six, of 367 tons, in the previous year. The number of lives lost was thirty-five, as against eight in 1898–99. Of these, twenty-six were within the colony—viz., twenty-two from the s.s. "Ohau" (all hands), and one each from the s.s. "Takapuna," "Lily," "Ariel," and s.s. "Wakatu." Of the nine lost outside the colony, eight were from the "Jasper" (all hands) and one from the "Ilala."

The increase of lighthouses, the running of two Government steamers instead of one as formerly, and the generally increased work of the head office has put considerable strain on the staff during the past year. It has not as yet been found necessary to increase the clerical staff, which consists of the chief clerk, two clerks, and a cadet. No extra clerical assistants were employed during the year.

I have, &c.,

W. T. GLASGOW, Secretary.

The PRINCIPAL EXAMINER of MASTERS and MATES to the SECRETARY, Marine Department.

SIR,—

Marine Department, Wellington, 17th May, 1900.

I have the honour to inform you that the examination of masters and mates has been carried out by the Examiners at the four principal ports in a satisfactory manner. I have visited all the Examiners, and am very pleased and thankful to have for my colleagues in the work gentlemen whom I can so thoroughly rely on to do their duty faithfully and impartially, and at the same time I believe them all to be gentlemen of pleasant and even temper, so that there has been no ground for complaint (nor is there likely to be) from the candidates of unkind treatment, notwithstanding the fact that the Examiners have had the very unpleasant duty of failing an unusually large percentage of candidates. I have been making every effort to get a large number of examination-papers printed so that the papers may be constantly varied, and since my arrival in the colony last August only papers of my own setting have been given to all candidates, except to those for the Restricted Limits Masters' examination, which last mentioned I now send to Examiners so as to maintain uniformity. At a few of the examinations I have been present myself during the whole of a candidate's examination, and I generally pay a visit to the examination-room for an hour or so while each examination is proceeding in Wellington. All examination-papers are sent in to me from the different ports, which I carefully look through so that any case of wrong failure, or of passing a candidate who ought to have failed, may be rectified. Having had a specially favourable opportunity of late years of watching the conduct of Board of Trade examinations in London, I am thoroughly convinced that the examination now in New Zealand is quite as difficult as in the Home-country, and is as nearly as possible alike to it; also, as it is easier to keep an eye on two or three candidates than on forty or fifty, as in London, there is less opportunity of a candidate cribbing here than in London. I hear, in fact, that now many candidates prefer going to the sister colonies on account of being able to get their certificates easier there. It would be very little expense to the country, and, I believe, would give an impetus to proficiency in navigation, if prizes were given every year for the best papers produced in each grade of the ordinary examination for masters and mates.

I have, &c.,

H. S. BLACKBURNE,
Principal Examiner of Masters and Mates.

The Secretary, Marine Department.

The CHIEF INSPECTOR of MACHINERY to the SECRETARY of the MARINE DEPARTMENT.

Office of the Chief Inspector of Machinery, Queen's Chambers,
Wellington, 4th April, 1900.

SIR,—

I have the honour to submit my annual report on the working of the Inspection of Machinery Act of 1882 throughout New Zealand during the financial year ended the 31st March, 1900.

The work accomplished has been in excess of that of any previous year, and the natural increase through expansion of industries and from the development of new ones is very marked. Freezing, dairying, and mining account for most of it; but, apart from these, the one desire of owners in the colony seems to be the discarding of obsolete machinery, and of obtaining the latest and best to do their special class of work. Gold-dredging has now become a great industry, and, although Otago could till quite recently boast of having the monopoly, the west coast of the South Island has now begun to establish dredges on the various rivers and alluvial flats there, and, from reports recently issued by experts well qualified to judge, much success should be achieved by dredging in this new field, the expenses in gold-dredging in proportion to the gold returned being so much less than those required to develop a quartz-mine.

Iron Trade.—All the iron trades are busy in all parts of the colony, and at the present time there is every indication of continued prosperity. During the year I visited most of the engineering establishments, and found, in nearly all cases, extension of premises, the employment of the latest tools, installation of the electric light, and contracts in hand—more especially in the South Island—sufficient to keep a numerous staff employed for the next twelve months.

Boiler Inspection.—Regarding the work of inspection of boilers in particular, 3,625 inspections have been made, and certificates issued for same, and all machinery driven by these has been very carefully examined to see that no part that might injure or cause bodily harm to attendants is left unprotected. This is a matter that receives very careful attention, and it is found that owners are only too glad to adopt any plan put forth by practical men to insure the safety of their employes. No accident by explosion of a steam-boiler has occurred to cause loss of life or injury to property of any one in New Zealand during the year, and it might be of interest to summarise the accidents to persons and the destruction of property in Great Britain during the twelve months ending the 30th June, 1899. During that period fifty-two preliminary inquiries and sixteen formal investigations into the cause of boiler-explosions were made under the Acts of 1882–90. These sixty-eight explosions caused the death of thirty-six persons, and inflicted injuries on sixty-seven, making a total number of casualties far higher than the preceding twelve months; but this was largely accounted for by the disastrous effect of a serious accident at Barking, in Essex, where ten persons were killed and twenty-three were injured. Out of the total number of explosions forty-seven were of steam-generators, the remainder being accidents to steam-pipes, valve-chests, cast-iron vessels, and so on. Of the forty-seven boilers, fourteen were of the marine type, fourteen were vertical boilers, nine locomotive type, seven Cornish and horizontal cylindrical, and three water-tube boilers. The number of persons killed by these forty-seven explosions was twenty-seven, and the number injured fifty-six, but if the casualties at Barking are deducted the list of accidents from steam-generator explosions was not very high. It is interesting to note that in a large proportion of them the part of the boiler which gave way was the fire-box. Thus, out of the forty-seven cases no less than twenty-two failed in this part, or, if the boilers which have no fire-boxes are subtracted, quite 50 per cent. failed at this part. Amongst the locomotive boilers five fire-boxes were ruptured, and in one case a stud was blown out of the fire-box. In the remaining three cases plugs for stopping tubes were blown out, each accident resulting in casualties. Among marine boilers only two accidents occurred in the furnaces, but among vertical boilers ten failed in the fire-box; one was blown overboard, and presumably the crown of the box had given way; and the three remaining explosions were failures of small importance. The flues of five Cornish-type boilers gave way, and in the two remaining cases of horizontal land boilers, one of which was egg-ended, the shell ruptured. Out of these forty-seven cases twenty-nine were not inspected. In twelve cases where the inquiry had been completed the owners were blamed for negligence, as a rule, as regarded inspection, and had to pay costs varying from £15 to £125. The following extracts from reports on explosions in Great Britain are worth attention:—

“Many safety-valves are loaded by means of a spring in tension or compression, the pressure being regulated by a screw. When the pressure at which the valve is required to blow off is ascertained, the fitting of a washer or ferrule, to prevent any further screwing of the spring, affords a very simple and inexpensive method of preventing the overloading of the safety-valve. Absence of this fitting has resulted in numerous explosions. The Courts have frequently pointed out the necessity for it, but, unfortunately, this simple precaution is not generally adopted. In three of the cases the Court has called attention to the matter. In the Barking case the Court observe that properly qualified persons were not appointed to manage the works, an observation which was emphasized by the neglect of the manager to see that the washer or ferrule was placed under each of the compressing-nuts of the safety-valve, in order to prevent the nuts being screwed down so as to produce an improper load on the safety-valve. In this case the Court found that the explosion was caused through the safety-valve having been screwed down to a pressure exceeding that of 200 lb. per square inch by the neglect of the mechanic who was employed to adjust them, and they held the owners responsible for his neglect, and for also neglecting to appoint properly qualified managers of their works. The explosion last referred to occurred in engineering-works which were formerly under the management of a retired shipmaster, succeeded by a naval architect, neither of whom possessed the qualifications of an engineer; and the naval architect was succeeded by a mechanic, whom the Court held to be unfit to be manager of engineering-works. They were of opinion that a consulting engineer should have been called in from time to time. As in previous years, several of the explosions have been caused through

ignorance, but the Commissioners will not accept this as an excuse for neglecting to take proper measures to insure that a boiler is being worked under safe conditions, and it may be useful to repeat their decision in this respect—viz., that if a person for the purpose of his business chooses to use steam appliances which, if neglected, become a source of great danger not only to himself but to others, he must, in the event of an explosion, be taken to have known that it was his duty to ascertain that they were kept in good condition, and, further, that if he was not able to ascertain that himself, it was his duty to have called in a competent person from time to time to examine the boiler, to ascertain if it was fit to be worked at the pressure required.”

This information may be of use to steam-users in this colony, and it clearly demonstrates how useful, beneficial, and safe compulsory inspection of boilers and machinery—as carried out in New Zealand by competent men—is for those employed about boilers and machinery, as well as a safeguard to residents in the vicinity in which the boilers and machinery are situate, and a protection for their property.

Defects in Boilers and Fittings.—No fewer than 431 defects were discovered in boilers and their fittings, of which eighty-seven were dangerous, many of which, if neglected, would have undoubtedly led to accident to life and injury to property.

New Boilers.—There were 345 new boilers started during the year, representing a total horse-power of 4,116. Of these, 149, with 2,138-horse power, were made in the colony, and 196, with 1,978-horse power, were imported, and include the following classes: Portable, traction, locomotive, Cornish, vertical cross-tube, vertical tubular, multitubular, Lancashire tubular, water-tube, and marine.

Lifts and Water-driven Machinery.—There were 171 hydraulic lifts, twenty lifts driven by gas, steam, and electricity, and 201 water-driven machinery examined during the year. In ten instances new ropes were ordered for lifts, and two new chains, and in twenty-five cases the chains were required to be annealed. With reference to the water-driven machinery, there were twenty-four instances in which notices were given to fence and guard the machinery.

Accidents in connection with Machinery.—I regret to have to report several accidents to life and limb of persons employed amongst machinery, a detailed account of which is given in Return No. 6, attached.

Accidents in connection with Boilers.—I regret also to have to report an accident to a man who was employed cleaning the inside of a boiler which was empty, he being fatally injured. A boiler alongside the empty one was in use and under steam. Unfortunately, the blow-off cock of the empty one had been left open, and when the blow-off cock of the full one was opened to blow off sediment in its bottom the hot water was blown into the empty one, scalding one man inside fatally. The details of this accident appear in Return No. 6, attached hereto.

Competency Certificates for Land-boiler Drivers.—During the year 154 traction- and locomotive- and twenty-one winding-engine drivers passed the competency examination, and ten traction- and locomotive- and three winding-engine drivers were granted service certificates.

Additional Inspector.—Mr. A. W. Bethune, chief engineer of the s.s. “Tutanekai,” was appointed an additional Inspector of Machinery, and commenced duty on the 16th January, 1900. He has been stationed in the Canterbury District, but will assist in the Otago and other districts when required.

Districts.—During the year I have visited all the districts and the various offices of the Inspectors of Machinery, have interviewed most of the shipowners, leading engineers, &c., and have visited works where disputes have arisen, and have generally obtained information for the better carrying-out of the various duties of this department.

Prosecutions.—It has been necessary, to enforce the Acts governing the department, to institute several prosecutions, the majority of which have been for driving engines by men who had not obtained the necessary certificate according to law, and only in one instance against the owner of a boiler for working without a certificate.

Postal and Police Authorities.—The thanks of this department are due to the postal and police authorities for the very valuable assistance they have rendered in the carrying-out of their part of the duties imposed by the statutes upon them, in many instances at great personal inconvenience.

Returns.—Appended are the returns in detail, numbered from 1 to 11: (1.) Number and class of boilers inspected, and fees payable on these; the machinery inspected, and the fees payable thereon; and the classes and numbers of engine-drivers' certificates issued, and the fees payable therefor. (2.) The different classes of work for which the boilers and machinery are used, showing the motive-power also used. (3.) Return of defects found on inspection of boilers. (4.) Return of notices given to repair boilers. (5.) Return of notices given to fence dangerous parts of machinery. (6.) Return of accidents which were not fatal. (7.) Return of accidents which were fatal. (8), (9), (10), and (11). Names of all candidates to whom certificates of service and competency as engine-drivers have been granted during the year.

I have, &c.,

ROBERT DUNCAN,
Chief Inspector of Machinery.

The Secretary, Marine Department, Wellington.

No. 1.

(a.) RETURN showing the NUMBER of LAND BOILERS and MACHINERY INSPECTED, and for which CERTIFICATES are ISSUED, for the Financial Year ended 31st March, 1900.

Boilers—

Stationary—Five-horse power and under, 907; 10-horse power and over 5, 496; over 10-horse power, 909; digesters, 192; total, 2,504.

Portable—Five-horse power and under, 149; 10-horse power and over 5, 839; over 10-horse power, 157; total, 1,145.

Machinery—

Hydraulic lifts, 171; Gas-lifts, 13; electric lifts, 4; steam-lift, 1; steam-and-water lift, 1; gas-and-water lifts, 2: total, 192.

Water-engines, 64; water-wheels, 73; peltons, turbines, rams, &c., 63: total, 200.

Grand total, 4,041.

(b.) RETURN showing FEES PAYABLE for the INSPECTION of BOILERS and MACHINERY, and for the ISSUE of ENGINE-DRIVERS' CERTIFICATES, during the Financial Year ended 31st March, 1900.

Fees payable on boilers, £3,936; fees payable on machinery, £71 5s.; fees payable on engine-drivers' certificates, £78 12s. 6d.: total, £4,085 17s. 6d.

Government boilers and lifts inspected, but not charged for in the above amount, represent £35 10s.

(c.) RETURN showing the NUMBER of SERVICE and COMPETENCY CERTIFICATES ISSUED to Winding-Traction-, and Locomotive-engine Drivers during the Financial Year ended the 31st March, 1900, and the FEES payable therefor.

Steam-winding: Service certificates issued, 3; fees, 7s. 6d. Competency certificates issued, 21; fees, £10 10s. Total fees, £10 17s. 6d.

Traction and Locomotive: Service certificates issued, 10; fees, £1 5s. Competency certificates issued, 133; fees, £66 10s. Total fees, £67 15s.

Service certificates issued, 13; fees, £1 12s. 6d. Competency certificates issued, 154; fees, £77. Total fees, £78 12s. 6d.

Totals of steam-winding certificates, 24; fees, £10 17s. 6d. Traction and locomotive certificates, 143; fees, £67 15s. Total fees, £78 12s. 6d.

No. 2.—RETURN of BOILERS and MACHINERY INSPECTED during the Financial Year ended 31st March, 1900, showing the Number of Factories, Workshops, &c., in which they are used, and the Power used.

Description of Works.	Driven by					Description of Works.	Driven by				
	Steam.	Steam and Water.	Water.	Gas, Electricity, &c.			Steam.	Steam and Water.	Water.	Gas, Electricity, &c.	
Abattoirs	3	..	..	..		Candle-works.†				
Agricultural implements ..	16	..	..	..		Cement-mixing	3	..	..	..
Air-compressing.*		..	..	..		Cement- and lime-making ..	12	..	..	..
Ammonia-works	1	..	..	..		Cheese-factories.†				
Ammunition-factory	1	..	..	..		Chaff-cutting	179	;	6	..
Asphalt-work	1	..	..	..		Chaff-cutting and other work combined	25	..	..	..
Assaying	1	..	..	..		Chemical laboratory	1	..	..	..
Bacon-factories	10	..	1	..		Chemical-works and acid-mills	8	..	..	..
Bakeries	6	..	1	..		Chicory-mill	1	..	..	..
Barrel-stave making	1	..	..	..		Cider factory	1	..	..	..
Bark-mills	3	..	..	..		Coal-mining (including pumping and winding thereat)	16	..	..	..
Basket-making	1	..	..	..		Coffee- and spice-works	8	..	1	..
Bicycle-works	5	..	..	..		Confectioners	7	..	1	..
Biscuit-works	10	..	..	..		Cooking, heating, steaming, and warming	32	..	..	..
Biscuit- and jam-factory	1	..	..	..		Cooking and laundry-work	4	..	..	..
Biscuit and confectionery	7	..	..	..		Cooperages	12	..	..	..
Blacking-works	1	..	..	..		Coppersmiths	6	..	..	..
Blacksmiths and wheelwrights	11	..	..	..		Cordial-factories (including aerated-water works and mineral spring)	46	..	4	..
Block- and pump-works	1	..	..	..		Creameries	193	..	6	..
Boat-building	3	..	..	..		Outlery-work .. .. .	..	..	1	..
Boiler-making	5	..	..	..		Dairy factories	245	..	16	..
Boiling-down (excluding refrigerating and soap-works plant)	61	..	..	..		Dairy-work	3	..	..	..
Bone-mills	17	..	..	..		Dentist .. .. .	..	..	1	..
Boot-factories	3	..	1	..		Diamond drill	1	..	..	..
Box- and case-making	3	..	..	..		Docks and slips	8	..	..	..
Brass-foundries	3	..	..	..		Dredging (harbour-works)	17	..	..	..
Breweries	63	..	..	..		Drug-making	2	..	..	..
Brick- and tile-works and brick- and pipe-works	39	..	..	..		Dye-works	3	..	..	..
Brush-works	2	..	..	..		Electric-light works	11	..	3	..
Builders' tools	2	..	..	..		Engineers' tools and engine-works	51	..	..	..
Butter-factories.†		..	..	..		Fan-driving	5	..	..	..
Cable tramways	2	..	..	..				
Cabinetmaking (including wood-working, joinery, and turnery)	44	..	14	..							

* Included in collieries and gold-mining.

† Included in dairy factories.

; Included in oil-, soap-, and candle-works.

No. 2.—RETURN of BOILERS and MACHINERY INSPECTED during the Financial Year ended 31st March, 1900, &c.—*continued.*

Description of Works.	Driven by				Description of Works.	Driven by			
	Steam.	Steam and Water.	Water.	Gas, Electricity, &c.		Steam.	Steam and Water.	Water.	Gas, Electricity, &c.
Fellmongeries	13	..	..	..	Pottery and colliery	1	..	..	..
Fire-engines	20	..	..	..	Printing-works	27	..	8	..
Firewood-cutting	58	..	11	..	Pumice-works	1	..	..	..
Fish-preserving	7	..	..	..	Pumping (including harbour-works, drainage-works, water-works, and general pumping only)	62	..	4	..
Flax-mills	97	..	16	..	Quartz-crushing	18	..	6	..
Flock-mills	3	..	..	..	Quartz-crushing and winding ..	6	..	..	..
Flour-mills	57	2	22	..	Quartz-reduction works	1	..	..	..
Foundries	34	..	..	..	Rabbit-preserving	2	..	..	..
Fruit-preserving	5	..	..	..	Refrigerating-works	38	..	2	..
Galvanised-iron works	1	..	..	..	Refrigerating-works and trotter-curing	1	..	..	..
Gas-works	16	..	..	..	River-clearing	1	..	..	..
Glass-grinding	1	..	..	..	Road-rollers	5	..	..	..
Grain-crushing	7	..	..	..	Rope- and twine-works	5	..	..	..
Glue-works	3	..	..	..	Roundabouts	2	..	..	..
Gold-mining (including all work at)	76	..	12	..	Sash- and door-factories	43	..	2	..
Gold-dredging	105	..	..	..	Sausage-making	95	..	12	..
Hairdressing .. ..	..	..	1	..	Sawmills and planing-mills ..	373	..	5	..
Harbour reclamation	2	..	..	..	School of engineering	1	..	..	..
Hat-making (including straw-hat making)	3	..	..	..	Searchlight	1	..	..	..
Hauling (including log and road hauling)	103	..	..	..	Seed-dressing	11	..	1	..
Heel- and toe-plate works .. ..	..	..	1	..	Sheep-shearing	25	..	2	..
Hosiery-factory	1	..	..	..	Sheep-shearing and firewood-cutting	2	..	..	..
Hoisting (including hydraulic plant for cranes, also winches and pile-driving)	103	..	..	..	Sheep-shearing and chaff-cutting	2	..	..	..
Instrument-making	1	..	..	..	Shipbuilding yards	4	..	..	..
Iron-rolling mills	1	..	..	..	Soap and sheep-dip factory ..	1	..	..	..
Iron-workers	9	..	..	..	Station work (general)	21	..	..	..
Irrigation-works	1	..	..	..	Stone-crushing	27	..	3	..
Jam-factories	8	..	..	..	Stone-cutting	3	..	..	..
Knitting-factory	1	..	..	..	Stove-making	2	..	..	..
Landing service	1	..	..	..	Sugar refinery	1	..	..	..
Lapidary-work	2	..	..	..	Sulphur-works	1	..	..	..
Laundries	16	..	..	..	Starch-works	2	..	..	..
Lead- and pipe-works	1	..	..	..	Tanneries	19	..	..	..
Lifts for goods	1	1	153	15	Threshing (portable)	105	..	..	..
Lifts for passengers .. ..	..	..	18	2	Threshing and chaff-cutting (portable)	28	..	..	..
Lifts for goods and passengers..	..	..	2	..	Threshing and chaff-cutting and firewood-cutting (portable)	5	..	..	..
Locomotives	42	..	..	..	Threshing (traction)	193	..	..	..
Machine-shops	45	..	8	..	Threshing and chaff-cutting (traction)	8	..	..	..
Matting	1	..	..	..	Threshing and firewood-cutting (traction)	4	..	..	..
Manure-works (including those attached to refrigerating-works)	13	..	..	..	Tinplate-works	1	..	..	..
Match-factories	2	..	..	..	Tobacco-cutting .. ..	..	..	6	..
Meat-preserving	10	..	..	..	Tool-making	1	..	..	..
Milk- condensing, preserving, and pasteurising	6	..	..	..	Toy-factory	1	..	..	..
Milking-machines	2	..	..	..	Tram-engines	7	..	..	..
Mortar-mills	6	..	..	..	Varnish-works	1	..	..	..
Oatmeal-mills	4	..	..	..	Venetian-blind works	1	..	..	..
Oil-, soap-, and candle-works ..	18	..	..	..	Vinegar-works	1	..	..	..
Oleo-works	2	..	..	..	Water-works, 8 (included in pumping).	..	..	..	..
Organ-blowing .. ..	..	..	16	..	Well-sinking	16	..	..	..
Organ-making	1	..	..	..	Winding (now included in the specific works).	..	..	..	..
Paint manufacture	1	..	1	..	Woollen-mills	10	..	..	..
Paper-mills	2	..	..	..	Wool-pressing	25	..	..	..
Pastrycook .. ..	..	..	1	..	Wool-scouring	17	..	..	..
Pickle- and jam-factories	2	..	..	..		
Pig-feed boiling and grinding ..	3	..	..	..		
Pipe-making	1	..	..	..		
Ploughing	2	..	..	..		
Plumbers .. ..	..	..	2	..					
Potteries	10	..	..	..		
						3,385	3	371	17

No. 3.—RETURN of DEFECTS found on INSPECTION of BOILERS during the Financial Year ended 31st March, 1900.

Three hundred and five defects were found out, seventy-six of which were dangerous. One hundred and twenty-six defective fittings were found on inspection, of which eleven were dangerous.

No. 4.—RETURN of NOTICES given to REPAIR BOILERS during the Financial Year ended 31st March, 1900.

Two hundred and sixty-one notices were given to repair boilers, and include boilers of the following types: Cornish, Lancashire, marine, multitubular, portable, semiportable, semitubular, traction, vertical flue, and water-tube.

No. 5.—RETURN of NOTICES given to FENCE DANGEROUS PARTS of MACHINERY, &c., during the Financial Year ended 31st March, 1900.

Twenty-four notices were given to fence dangerous parts of the machinery, and included fly-wheels, gearing, spindles, emery-wheels, driving-belts, ends of shafts, scutchers, pulleys, &c.

No. 6.—RETURN OF ACCIDENTS (not fatal) in connection with Machinery during the Financial Year ended 31st March, 1900.

Name and Address of Owner.	Description of Machinery.	Name and Age of Person injured.	Nature of Accident, and Date.	Cause of Accident, and Remarks.
Leyland and O'Brien, Auckland	Sawmill	James Parkinson; aged 22	Cut on right heel; 31st May, 1899	Parkinson is a drayman who called at the mill, and, starting to load without permission, stepped back against the saw.
Eliza Richardson, Outram	Flour-mill	Albert Tripp; aged 21	Right arm broken below elbow; 11th July, 1899	Right hand was caught in belt, reaching over shaft to put resin on belt.
Singer, Maddox, and Co., Petone	Soap-manufactory	M. Clements; aged 15½	Thigh lacerated	Clothing caught in cogs of soap-mixer.
John Anderson, Christchurch	Wood-planing machine	Archibald Johnston; aged 56	Three fingers taken off left hand; 25th August, 1899	Apparently through trying to take too heavy a cut, the timber skidding caused him to fall towards the machine.
Edward Seagar, Wellington	Punching-machine	James Crawford; aged 15	Broken finger; 25th August, 1899	Cleaning machine, which was stopped, he pulled the wheel round, not noticing where he put his hand, and the wheel caught one of his fingers.
W. Cable and Co., Wellington	Lathe	F. Garvey; aged 19	Top of finger nipped; 4th September, 1899	Placing his hand on cog of feed-gear when in motion.
Skelton, Frostick, and Co., boot-manufacturers, Christchurch	Slugging-machine ..	John Christopher; aged 26	Caught on shaft, body bruised, no bones broken; 11th September, 1899	Putting on belt with shaft in motion his sleeve was caught. He was specially cautioned against this a few minutes before.
Robertson and Co., engineers, Wellington	Crane in boiler-shop	Albert Carter; aged 40	Jib fell down and caused scalp-wound; 28th September, 1899	Jib carried away through material becoming crystallized.
Butterworth Brothers, warehousemen, Dunedin	Hydraulic passenger-lift	William Farquhar; aged 18	Fractured ankle and scalp-wound; 12th October, 1899	Rope-splice on top of cage drew out, and cage fell 40 ft., catch failing to act through cage canting.
New Zealand Insurance Company, Dunedin	Hydraulic passenger-lift	William White; aged 18	Two toes on left foot crushed; 16th November, 1899	He was lift-attendant, and carelessly put his foot over lift, when it was caught between lift and floor.
J. W. Horne, Sydenham	Osborne's well-sinker	Vivien Manson; aged 18	Flesh-wound on leg; 3rd January, 1900	Through leaving machine in gear while hooking the monkey on.
A. J. White, cabinet-works, Christchurch	Circular-saw	John Milne; aged 19	Four fingers on left hand cut off; 9th February, 1900	Want of proper care in handling the wood whilst it was being put through the saw.
Albert Crum, brick-works, Ashburton	Pug-mill	William Kerr; aged 18	Left arm cut off above elbow; 3rd March, 1900	Oiling pug-mill, his loose shirt-sleeve caught in cogs, which drew his arm in.
Robert Stansell, flaxmill, Waikanae	Flax-stripper	William Dalziel; aged 25	Fractured skull; 8th March, 1900	Drum of stripper burst, and piece of casting struck Dalziel on the head.

No. 7.—RETURN of ACCIDENTS which proved fatal in connection with Machinery during the Financial Year ended 31st March, 1900.

Name and Address of Owner.	Description of Machinery.	Name and Age of Person injured.	Nature of Accident, and Date.	Cause of Accident, and Remarks.
Phillip Joseph Hennessy, Foxton	Flaxmill	Joseph Hatton Morgan; aged 27	Caught in belt and carried round shaft; died from internal injury, 25th May, 1899	Putting on belt while machinery in motion, against orders.
Auckland City Council, Auckland	Pumping machinery	Samuel Martin; aged 35	Scalded; 24th January, 1900	Martin was making repairs inside a boiler when steam was let in through blow-off cock having been left open and the opening-up of another cock connected with another boiler under steam alongside, admitting steam to same pipe when blowing sediment out.

No. 8.—RETURN of STEAM-WINDING-ENGINE DRIVERS to whom CERTIFICATES of SERVICE have been GRANTED from 1st April, 1899, to 31st March, 1900.

No. and Name of Person.	Date of Issue 1899.
39. Thomas Smith	8th August.
40. William Henry Smart	"
41. Peter Grayden	8th November.

No. 9.—RETURN of TRACTION- and LOCOMOTIVE-ENGINE DRIVERS to whom CERTIFICATES of SERVICE have been GRANTED from 1st April, 1899, to 31st March, 1900.

No. and Name of Person.	Date of Issue. 1899.	No. and Name of Person.	Date of Issue. 1899.
503. Henry James Harrison	May 11	508. Vincent Philip Aylward	Nov. 8
504. William Page	" 11		1900.
505. Thomas Winters	Aug. 8	509. James Longstaff	Feb. 21
506. Henry Cox	" 8	510. Arthur Curragh	" 21
507. John P'Anson	Nov. 8	511. Henry Hartly	" 21
		512. David Sime	" 21

No. 10.—RETURN of TRACTION- and LOCOMOTIVE-ENGINE DRIVERS to whom CERTIFICATES of COMPETENCY have been GRANTED from 1st April, 1899, to 31st March, 1900.

No. and Name of Person.	Date of Issue. 1899.	No. and Name of Person.	Date of Issue. 1899.
322. Richard Bevan	May 11	389. William Charles Brown	Nov. 8
323. John James	" 11	390. Duncan William Finlay	" 8
324. Albert Jarrett	" 11	391. Albert Charles Cone	" 8
325. David Anderson	" 11	392. Robert Henry Mehrteus	" 8
326. Charles Flavell	" 11	393. Harold Edward George	" 8
327. Nicholas Carne	" 11	394. William John Simpson	" 8
328. Alexander George Scott	" 11	395. Arthur William Johnston	" 8
329. Ernest William Tattley	" 11	396. Stafford Henry White	" 8
330. Paul James	" 11	397. George Martin Harvey	" 8
331. Harry Graham Lever	" 11	398. Owen Carlin Pleasants	" 8
332. John Gourlay	" 11	399. James Levett	" 8
333. Robert Finlay	" 11	400. Ezekiel George Price	" 8
334. Albert Rice	Aug. 8	401. James Bridgland	" 8
335. Ernest Chapman	" 8	402. James Alexander Fowler	" 8
336. Arthur James Taylor	" 8	403. Henry Edgar	" 8
337. Robert John Murray	" 8	404. George Wood	" 8
338. John Samuel Hill	" 8	405. William Henry Woodward	" 8
339. Isaac Simpson	" 8	406. Henry Mehrteus	" 8
340. Leonard James Holdaway	" 8	407. Robert Crawford	" 8
341. Arthur Edgar Segar	" 8	408. Hugh Trounce Pascoe	" 8
342. John Joseph Sundborn	" 8	409. John Caithness	" 8
343. Edwin Herbert Lukins	" 8	410. William Taylor	" 8
344. John Primrose	" 8	411. John Cameron	" 8
345. Herbert Arthur Coates	" 8	412. John Nicol	" 8
346. William Thwaites	" 8	413. Osman Oliver Mackley	" 8
347. Harry Saunders	" 8	414. Albert Hastings Jones	" 8
348. Thomas McCulloch	" 8	415. Arthur Smith	" 8
349. John Russell Crossan	" 8	416. Henry Isaac Woodward	" 8
350. Charles Edgar Neville Woodman	" 8	417. John Stevenson	" 8
351. Henry William Aker	" 8	418. Richard Joseph Kelly	" 8
352. Peter Duncan Campbell	" 8		1900.
353. Charles William Bowman	" 8	419. Robert Reid	Feb. 21
354. David Nuttall	" 8	420. Alfred Ernest Franks	" 21
355. Lionel Saunders	" 8	421. Edwin Metherell	" 21
356. Meredith Wilson	" 8	422. Robert Murray	" 21
357. Robert Henry Bailey	" 8	423. George Richard Cleeve	" 21
358. Francis William Reid	" 8	424. Edmund Thomas	" 21
359. Isaac Furby Croft	" 8	425. Charles Challies	" 21
360. Charles Donald Lucas	" 8	426. Alexander William Doran	" 21
361. Matthew Henry William Galpin	" 8	427. Henry Ernest Maindonald	" 21
362. Frank Jacobs	" 8	428. Henry Edward Gillum	" 21
363. Thomas MacRae	" 8	429. Albert Beazer	" 21
364. Moore McKay	" 8	430. George Green	" 21
365. Roderick McDonald	Nov. 8	431. Douglas McDowall	" 21
366. William Halliday	" 8	432. Edward Joseph Milverton	" 21
367. George Morrill	" 8	433. Robert Hendry	" 21
368. Thomas Urry	" 8	434. John Kyne	" 21
369. Shafto Harrison Wicksteed	" 8	435. George Husband	" 21
370. George William Shortt	" 8	436. Alexander Davidson	" 21
371. Adam Madill	" 8	437. Charles Henry Gibbs	" 21
372. George Dean	" 8	438. Frederick Thomas Bateman	" 21
373. James Joseph Henderson	" 8	439. William Wells	" 21
374. Albert Edward Shirley	" 8	440. John McDonald, jun.	" 21
375. Thomas Jones	" 8	441. Robert Crosbie	" 21
376. Roderick McLeod	" 8	442. David Crosbie	" 21
377. Frank James Saunders	" 8	443. Frederick Charles McClure	" 21
378. Albert Samuel Heyman	" 8	444. Ritchie James Burns	" 21
379. Henry Thomas Heron	" 8	445. Frederick Townsley	" 21
380. James Burgess	" 8	446. Donald Green	" 21
381. Samuel Thornley	" 8	447. William Newman	" 21
382. George Hartnell	" 8	448. Frederick Athole Martin Rawlinson	" 21
383. Ronald Campbell	" 8	449. Gibson Porter	" 21
384. William Fredrick Conway	" 8	450. Owen Tibbott Evans	" 21
385. Jesse Lewin Soal	" 8	451. Alexander McLeod	" 21
386. George Robert Holland	" 8	452. John McKay	" 21
387. Alexander Withers	" 8	453. John Edwin Wilce	" 21
388. Edgar Francis Dixon	" 8	454. David Daniel Ince	" 21

No. 11.—RETURN of STEAM-WINDING-ENGINE DRIVERS to whom CERTIFICATES of COMPETENCY have been GRANTED from 1st April, 1899, to 31st March, 1900.

No. and Name of Person.	Date of Issue, 1899.	No. and Name of Person.	Date of Issue, 1899.
159. David Leach	May 11	170. James Alexander Allan	Nov. 8
160. Thomas McLaughlin	" 11	171. John Thomas Casey	" 8
161. Thomas Nelson Henry	" 11	172. William Henry Redfern	" 8
162. William Henry French	" 11	173. Thomas Lloyd	" 8
163. Robert Falconer	" 11	174. Percival Vesey	" 8
164. Ernest William Tattley	" 11		1900.
165. Alexander McGruer	" 11	175. John Samuel Nicholson	Feb. 21
166. James McGlynn	" 11	176. Frederick Charles Bunyard	" 21
167. Thomas Matthew Snow	Aug. 8	177. David John Morgan	" 21
168. John Berkery	" 8	178. Harry Etches Wilson	" 21
169. Archibald Benjamin Badmin Percy	" 8	179. John Dean	" 21

The CHIEF EXAMINER of ENGINEERS to the SECRETARY of the MARINE DEPARTMENT.

Office of the Principal Examiner of Engineers, Queen's Chambers,
Wellington, 4th April, 1900.

SIR,—

I beg leave to submit my annual report for the year ended 31st March, 1900.

During the year 116 candidates applied to be examined, as follows: Chief engineers, 2; second-class engineers, 9; third-class engineers, 43; river engineers, 39; marine-engine drivers, 23. Fees amounting to £116 were received.

The method that was adopted last year of sending in the application and fee to the Chief Examiner, and thus dealing through one channel only, has given great satisfaction, and, together with the change made two years ago, when set times were fixed upon for examining candidates, so that they could make the necessary arrangements beforehand, has simplified matters, both for the Examiner and the applicant.

A new departure has been introduced during the year—viz., regulations for new sets of examinations wholly for those employed looking after machinery in auxiliary-powered (oil-engine) vessels. There will be three grades of certificates issued—A first-class, for engines above 60 brake horse-power; a second-class, for engines below 60 brake horse-power; and a certificate for vessels in restricted limits or narrow waters. A book setting forth the requirements of the examination, as well as full particulars of the examination, can be had at any Customhouse or from any Superintendent of Mercantile Marine in the colony.

Examinations are held at the four centres during alternate months: Auckland, first week in January, May, and September; Wellington, first week in February, June, and October; Christchurch, first week in March, July, and November; Dunedin, first week in April, August, and December.

The Regulations were gazetted on the 22nd March last.

Mr. A. W. Bethune, Chief Engineer of the Government steamer "Tutanekai," was appointed an additional Examiner, and started his duties on the 16th January, 1900.

Nothing of particular moment has occurred to mar the smoothness of our examinations and methods during the year just ended.

I have, &c.,

ROBERT DUNCAN,

Chief Examiner of Engineers.

The Secretary, Marine Department, Wellington.

The PRINCIPAL ENGINEER-SURVEYOR of STEAMERS to the SECRETARY of the MARINE DEPARTMENT.

Principal Engineer-Surveyor's Office, Queen's Chambers,
Wellington, 4th April, 1900.

SIR,—

I have the honour to submit my annual report for the financial year ended 31st March, 1900.

General.—During the year just closed a larger amount of work has been accomplished than in previous years. Numbers of steamers have undergone a very complete overhaul, including removal of lining throughout the ship for a thorough examination of the plates, angles, and stringers, and it is noteworthy that no accident has occurred traceable to neglect at survey.

Mishaps.—Several mishaps have occurred to steamers, such as partial loss of steering-gear, broken shafts, &c., but by far the most appalling loss was the foundering of the s.s. "Ohau" on the east coast of the South Island during a gale, leaving no trace behind her. About two months prior to this casualty the vessel had undergone a very complete overhaul, including a new wooden deck throughout, and repairs to main boiler and machinery. So extensive were the repairs executed that the vessel was laid up for three months. She was in as good order as on the day she was launched as far as human eye could judge.

The s.s. "Mapourika," which had been stranded on the Greymouth bar, has been refitted, and the hull bottom plating pretty well made new, and the workmanship displayed at this vessel's repair is creditable to New Zealand workmen.

Auxiliary-powered Vessels.—The additions to auxiliary-powered vessels have not been so marked this year as in the two previous years, but the craft fitted with this power have, with one or two exceptions, done fairly good work. The tendency now is to put in oil-engines of more power.

Extra Work.—A considerable amount of extra work has been thrown on surveyors this year in the fitting out and equipment of the troopships that took out the New Zealand Contingents to the scene of the war at the Cape. Up to the present all have carried their valuable freight to their destination safely, which is a credit more particularly to the engineers of these vessels, who have not only to look after the propelling machinery, but also water-supply, pumping, lighting, and ventilating, as well as keeping the ship clear of water.

Engineers.—The duties and responsibilities of the engineer on board steamers have been largely increased not only on the large "liner," but also on the cargo-steamer. The progress of our Empire should be the aim of every one, and it is within the power and scope of the marine engineer to advance the progress of the nation by attention to duty, perseverance in educating himself, and studying how he can best insure the highest economy and efficiency in the machinery of which he has charge. The steamers and machinery of other nationalities are in close competition with us. It is therefore the duty of the marine engineer to practise a sensible economy in all things, to make his steamer a commercial success.

Steam-trawling.—A new departure during the year has been the survey and equipment of a steam-trawler for experimental proving of fishing-grounds round our coasts, the vessel chosen being the "Doto," one of the vessels employed trawling at Port Ahuriri. She is of composite build, her principal dimensions being—58 ft. long, 12½ ft. beam, 5 ft. 7 in. deep; gross tonnage, 28·55 tons; registered tonnage, 19·42 tons; machinery, 13-horse power; single screw.

The trawling industry in and around Port Ahuriri has held its own, and has proved remunerative to owners of steamers engaged in it.

New Appointment.—A. W. Bethune, chief engineer of the Government steamer "Tutanekai," was appointed an additional Surveyor during the year, and commenced his duties on the 16th January, 1900.

Excursions.—No mishap has occurred to any excursion steamer, though numbers have carried their full complement.

Cargo Gear.—The cargo gear, which is now made as safe as it is possible to do commensurate with utility, and in accordance with new regulations enforced in June last year, is giving great satisfaction to those engaged in the discharge and loading of cargo. The open hook could never be relied on. Besides the fitting of the appliance just mentioned, all the small parts of hoisting-gear are carefully annealed as often as possible, to minimise the effects of the crystallizing action of the material under constant strain.

The following table shows the number of steamers engaged in the respective trades, their tonnage, horse-power, and fees payable for survey:—

Number of Steamers.	Number of Certificates issued.	Trade in which engaged.	Aggregate Registered Tonnage.	Registered Nominal Horse-power.	Fees payable.
26	32	Foreign	28,898	5,353	£ s. d. 401 0 0
87	92	Home trade	15,454	4,833	447 0 0
147	181	River and extended river ...	3,749	2,416	377 10 0
260	305		48,101	12,602	1,225 10 0

Appended is a table giving returns of steamers to which certificates of survey were issued in New Zealand during the year ended 31st March, 1900, including the names of steamers, tons register, horse-power, nature of machinery and propeller, also trade in which employed.

I have, &c.,

ROBERT DUNCAN,
Principal Engineer Surveyor.

The Secretary, Marine Department, Wellington.

RETURN of STEAMERS to which CERTIFICATES of SURVEY were issued in NEW ZEALAND during the Year ended 31st March, 1900.

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Remarks.
*Admiral	82	28	Compound ..	Screw ..	Extended river.	
Ahuriri	31	17	" ..	" ..	" ..	
Albany	8	8	Non-condensing ..	" ..	River ..	Launch.
*Alexandra	73	30	" ..	Paddle ..	" ..	Ferry-steamer.
Alice	3	4	" ..	Screw ..	" ..	
Annie Wallace	2	3	Oil-engines ..	" ..	" ..	First survey.
Antrim	35	30	Non-condensing ..	Paddle ..	" ..	
*Aorere	49	16	Compound ..	Screw ..	Home trade.	
Aotea (Auckland)	157	33	" ..	" ..	River ..	First survey.
Aotea (Auckland)	89	15	Oil-engines ..	" ..	Home trade.	
*Awaroa .. ..	..	3	Non-condensing ..	Sternwheel ..	River ..	Towing and cargo only; first survey.
Awarua (Blenheim) .. ..	..	3	" ..	Screw ..	" ..	Fishing-vessel.
Beatrice	8	10	" ..	" ..	Extended river..	"
Beautiful Star	146	30	Compound ..	" ..	Home trade.	
Ben Lomond	33	15	" ..	" ..	River.	
Birkenhead	55	20	Non-condensing ..	Paddle ..	" ..	Ferry-steamer.
*Blanche	18	9	" ..	Screw ..	Extended river.	
Britannia	108	40	" ..	Paddle ..	River.	
Brothers	55	50	Oil-engines ..	Screw ..	Home trade ..	First survey.
Brunner	433	95	Triple expansion ..	" ..	" ..	
Canterbury .. ..	..	24	Non-condensing ..	Twin-screw ..	Extended river..	Launch.
Chelmsford	70	24	Compound ..	Screw ..	Home trade.	
Clansman	336	90	" ..	" ..	" ..	
Clara .. ..	..	2½	Condensing ..	" ..	River ..	Launch.
Clematis	5	8	" ..	Sternwheel ..	" ..	
Comet .. ..	..	2½	" ..	Screw ..	" ..	Launch.
Coromandel	67	25	Compound ..	" ..	Extended river.	
Coy .. ..	..	..	Oil-engines ..	" ..	River.	
Daphne .. ..	..	1	Non-condensing ..	" ..	" ..	Yacht.
*Delta .. ..	..	24	" ..	Sternwheel ..	" ..	Towing and cargo only.
Despatch (Mokau) .. ..	..	6	" ..	Screw ..	" ..	Launch.
Dingadee	393	80	Compound ..	Twin-screw ..	Home trade.	
Dot .. ..	..	0½	Non-condensing ..	Screw ..	River ..	Yacht; first survey.
Doto	19	16	Compound ..	" ..	Home trade ..	Fishing-vessel.
Douglas	55	13	" ..	" ..	Extended river.	
Duchess	62	81	" ..	" ..	River.	
Duco	26	60	Triple expansion ..	" ..	Extended river..	Tug.
Durham	53	24	Compound ..	" ..	" ..	
*Eagle	138	70	" ..	Paddle ..	River ..	Ferry steamer.
Edina	5	6	Non-condensing ..	Screw ..	Extended river..	Fishing-vessel.
*Effort	13	12	Compound ..	Paddle ..	" ..	Towing only.
*Eliza .. ..	..	3	Non-condensing ..	Screw ..	River ..	"
Elsie	15	8	" ..	" ..	" ..	
Energy	15	16	Compound ..	" ..	Home trade ..	First survey.
Erin .. ..	..	4	Non-condensing ..	" ..	River ..	Towing only.
Erskine	98	35	Compound ..	" ..	" ..	Dredge.
Ethel J.	20	16	" ..	" ..	" ..	
Express	36	25	" ..	" ..	Home trade ..	Fishing-vessel.
Falcon .. ..	..	5½	Non-condensing ..	" ..	Extended river.	
Fanny	55	30	Compound ..	" ..	Home trade.	
Fingal	22	9	" ..	" ..	" ..	
*Flora	838	180	" ..	" ..	" ..	
Florence .. ..	..	3½	Non-condensing ..	" ..	Foreign trade.	
Flower of Kent .. ..	..	3½	Compound ..	" ..	River ..	Towing only.
Gairloch	211	85	" ..	Twin-screw ..	" ..	Launch.
Gertie	100	59	Condensing ..	" ..	" ..	
Glenslg	156	75	Compound ..	Screw ..	" ..	
Greyhound	83	50	Oil-engines ..	" ..	" ..	First survey.
Gymeric	2,598	364	Triple expansion ..	" ..	Foreign trade ..	Troopship; first N.Z. survey.
Hamurana .. ..	..	10	Non-condensing ..	Twin-screw ..	River ..	First survey.
Haupiri	475	88	Compound ..	Screw ..	Home trade.	
Hawea	1,114	104	Triple expansion ..	" ..	Foreign trade.	
Heathcote	94	35	Compound ..	" ..	Extended river..	Hopper-barge.
Herald	370	85	" ..	" ..	Home trade.	
Hercules	51	36	Oil-engines ..	" ..	" ..	
Hesketh	393	80	Compound ..	Twin-screw ..	" ..	Wrecked.
Hinemoa (Rotorua) .. ..	..	6½	Non-condensing ..	Screw ..	River ..	Launch.
Hinemoa (Taupo) .. ..	..	3	" ..	" ..	" ..	"
Hirere	32	16	Condensing ..	Twin-screw ..	" ..	"
Horeke .. ..	..	4	Non-condensing ..	Screw ..	" ..	Launch.

* Surveyed twice, and in some cases three times.

RETURN of STEAMERS to which CERTIFICATES of SURVEY were issued, &c.—*continued.*

Name of Vessel	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Remarks.
*Huia (Auckland)	.. ..	8	Non-condensing ..	Screw ..	River ..	Launch.
*Huia ..	196	60	Oil-engines ..	" ..	Home trade.	
Huia (Wellington)	90	23	Compound ..	" ..	" ..	
Huria ..	.. ..	10	Oil-engines ..	" ..	Extended river..	Fishing-vessel; first survey.
Ida ..	12	10	Non-condensing ..	" ..	" ..	
Inoa..	.. ..	10	" ..	" ..	River ..	Towing only; first survey.
Invercargill ..	123	50	Compound ..	" ..	Home trade.	
*Irene ..	.. ..	2½	Non-condensing ..	" ..	River.	
Ithaca ..	7	9	Compound ..	" ..	Extended river..	Fishing-vessel.
Jane Douglas	75	22	" ..	" ..	Home trade.	
Janet Nicoll ..	496	90	" ..	" ..	" ..	
J.D.O. ..	88	28	" ..	" ..	Extended river..	Dredging and tow- ing only.
John Anderson	36	25	" ..	" ..	" ..	
Kahu ..	99	40	" ..	" ..	Foreign trade.	
Kaituna ..	.. ..	4	" ..	" ..	River ..	Cargo only.
Kanieri ..	115	20	" ..	" ..	Home trade.	
Kapanui ..	75	32	" ..	" ..	Extended river.	
Kate ..	.. ..	5	Non-condensing ..	" ..	River ..	Launch.
Katikati ..	27	8	Condensing ..	" ..	Extended river.	
Kauri ..	.. ..	1½	Non-condensing ..	" ..	River ..	Yacht.
Kawatiri ..	.. ..	2½	" ..	" ..	" ..	First survey; launch.
*Kawau (Auckland)	37	14	Compound ..	" ..	Extended river.	
Kawau (Auckland)	53	20	" ..	" ..	" ..	First survey.
*Kennedy ..	124	43	" ..	Twin-screw ..	Home trade.	
*Kilmorey ..	.. ..	1½	Non-condensing ..	Screw ..	River ..	Launch.
Kini ..	702	130	Triple expansion ..	" ..	Foreign trade.	
Kiripaka ..	72	24	Compound ..	" ..	Home trade.	
Knight Templar	2,767	500	Triple expansion ..	" ..	Foreign trade ..	Troopship; first N.Z. survey.
Kopu ..	.. ..	13	Non-condensing ..	Paddle ..	Extended river..	Cargo only.
Kopuru ..	28	20	" ..	Screw ..	River.	
Koputai ..	5	120	Compound ..	Paddle ..	Home trade ..	Tug.
Kotiti ..	40	14	" ..	Screw ..	Extended river.	
Lady Barkly ..	39	20	" ..	" ..	Home trade.	
Lena ..	.. ..	5	Non-condensing ..	" ..	Extended river..	Towing only.
Lily ..	20	12	Compound ..	Twin-screw ..	" ..	
Little George..	4	4	Non-condensing ..	Screw ..	River.	
Lyttelton ..	39	80	Compound ..	Paddle ..	Extended river..	Tug.
Mahuta ..	13	10¾	" ..	Screw ..	River ..	Towing only; first survey.
Makarora ..	45	13	Non-condensing ..	" ..	" ..	First survey.
Mana (Wellington)	77	25	Compound ..	" ..	Home trade.	
Mana (Westport)	51	90	" ..	Paddle ..	" ..	Tug.
Manapouri ..	1,288	300	" ..	Screw ..	Foreign trade.	
Manaroa ..	77	24	" ..	" ..	Home trade.	
Mangaiti ..	.. ..	6	Non-condensing ..	" ..	River ..	Towing only; first survey.
Manukau ..	45	20	Compound ..	" ..	Extended river.	
Manuwai ..	75	25	Non-condensing ..	Sternwheel ..	River.	
Maori (Auckland)	17	8	" ..	Screw ..	Extended river.	
Mapourika ..	718	130	Triple expansion ..	" ..	Home trade.	
Mararoa ..	1,380	530	" ..	" ..	Foreign trade.	
Matuku ..	3	3	Non-condensing ..	" ..	River.	
Mawhera ..	346	75	Compound ..	" ..	Home trade.	
*May ..	.. ..	3	Non-condensing ..	" ..	River ..	Launch.
Medora ..	67	20	Oil-engines ..	" ..	Home trade.	
*Mere Mere ..	.. ..	3	Non-condensing ..	" ..	River ..	First survey.
Minnie Casey	48	20	Compound ..	" ..	Extended river..	Fishing-vessel.
Miranda ..	.. ..	4	Non-condensing ..	" ..	" ..	Fishing-vessel. first survey.
Moa ..	109	33	Compound ..	" ..	Home trade.	
*Moana (Auckland)	96	18	Oil-engines ..	Twin-screw ..	" ..	First survey.
Mokoia ..	.. ..	4	Non-condensing ..	Screw ..	River.	
Monowai ..	2,137	290	Triple expansion ..	" ..	Foreign trade.	
Moss Rose ..	.. ..	6	Condensing ..	" ..	River ..	Fishing-vessel.
Motara ..	.. ..	4	Non-condensing ..	" ..	" ..	Late "Moutoa"; cargo only.
*Moturoa ..	.. ..	10	" ..	" ..	" ..	Launch.
Mountaineer ..	66	50	Compound ..	Paddle ..	" ..	
Muritai ..	133	45	" ..	Screw ..	Home trade.	
*Napier ..	48	30	" ..	" ..	" ..	
Nautilus ..	29	18	" ..	" ..	" ..	

* Surveyed twice, and in some cases three times.

RETURN of STEAMERS to which CERTIFICATES of SURVEY were issued, &c.—*continued.*

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Remarks.
Ngaru .. ..	..	1½	Non-condensing ..	Screw ..	River ..	Yacht.
Ngunguru	54	17	Condensing ..	" ..	Home trade.	
Nina	7	2	Compound ..	" ..	River ..	Towing only; first survey.
Noko	15	9	Non-condensing ..	" ..	Extended river.	
*No. 121	394	100	Compound ..	Twin-screw ..	" ..	Auckland dredge.
No. 222	502	120	" ..	" ..	Home trade ..	Dunedin dredge.
Oban	27	16	Oil-engines ..	" ..	" ..	
Ofa	39	31	" ..	Screw ..	Foreign trade ..	First survey.
Ohinemuri	73	26	Compound ..	" ..	Home trade.	
Ohuru	20	60	Condensing ..	Twin-screw ..	River.	
Omapere	352	80	Compound ..	Screw ..	Home trade.	
Onslow	16	14	" ..	Twin-screw ..	River.	
Opawa	64	18	" ..	Screw ..	Home trade.	
*Opuatia .. ..	..	5	Non-condensing ..	" ..	River ..	Launch.
Oreti	188	50	Compound ..	" ..	Home trade.	
Orewa	37	17	" ..	" ..	Extended river.	
Osprey	138	70	" ..	Paddle ..	River.	
Ovalau	767	75	Quadruple expans'n ..	Screw ..	Foreign trade.	
Paeroa	46	15	Compound ..	" ..	Home trade.	
Pania	27	11	" ..	" ..	" ..	
Pareora	355	71	Triple expansion ..	" ..	" ..	
*Patiki	37	15	Non-condensing ..	Paddle ..	River.	
Pelorus	18	12	" ..	Screw ..	" ..	Towing only.
*Phoenix	6	5	" ..	" ..	" ..	
*Pilot	11	13	Compound ..	" ..	Home trade.	
Pinafore .. ..	..	3	Non-condensing ..	" ..	Extended river ..	Towing only.
Piraki	10	9	" ..	" ..	River.	
*Planet	13	8	" ..	" ..	" ..	Towing only.
Plucky	29	40	Compound ..	" ..	Home trade ..	Tug.
*Poherua	749	128	Triple expansion ..	" ..	Foreign trade.	
Presto .. ..	..	3	Non-condensing ..	" ..	River.	
Prince of Wales	487	27	Compound ..	Twin-screw ..	Home trade ..	Meat-freezing vessel.
Progress	200	50	" ..	Screw ..	" ..	Oamaru dredge.
Pukaki	917	110	Quadruple expans'n ..	" ..	Foreign trade.	
Queen of Beauty .. ..	..	37	Oil-engines ..	" ..	Extended river ..	Yacht; first survey.
Queen of the South	121	40	Compound ..	" ..	Home trade.	
*Result (Napier)	18	10	Non-condensing ..	" ..	Extended river ..	Fishing-vessel.
*Result (Tauranga) .. ..	..	4	" ..	" ..	" ..	
Rimu	144	95	Triple expansion ..	" ..	Home trade.	
Riro Riro .. ..	..	4	Non-condensing ..	" ..	River.	Towing only.
Rita	22	11	Compound ..	" ..	Extended river ..	Fishing-vessel.
Rob Roy	34	16	" ..	" ..	" ..	First survey.
Rosamond	462	90	" ..	" ..	Home trade.	
*Rose Casey	99	109	" ..	" ..	Extended river.	
Rotoiti	630	104	Triple expansion ..	Twin-screw ..	Home trade.	
Rotokino	1,263	135	Quadruple expans'n ..	Screw ..	Foreign trade.	
Rotomahana (Auckland)	139	50	Compound ..	" ..	Home trade.	
Rotomahana (Dunedin)	901	450	" ..	" ..	Foreign trade.	
Rotorua	576	172	" ..	" ..	Home trade.	
Savaii	31	8	Condensing ..	" ..	Extended river ..	Fishing-vessel.
Seagull .. ..	..	6	Non-condensing ..	" ..	River ..	"
Snark	12	10	" ..	" ..	" ..	
Southern Cross (London)	205	19	Compound ..	" ..	Foreign trade ..	Missionary vessel; first survey.
Spray	3	3	Non-condensing ..	" ..	River ..	Yacht; first survey.
Stella	157	90	Compound ..	" ..	Home trade.	
Sterling	26	39	" ..	" ..	" ..	
Stormbird	137	40	" ..	" ..	" ..	
Sumner	94	35	" ..	" ..	Extended river ..	Hopper-barge.
Sunbeam .. ..	..	6	Oil-engines ..	" ..	River.	
*Sylph	5	8	Condensing ..	" ..	" ..	Towing only.
*Swan	16	10	Non-condensing ..	" ..	Extended river ..	Fishing-vessel; first survey.
*Taiari	1,071	155	Triple expansion ..	" ..	Foreign trade.	
Tainui (Auckland)	46	20	Non-condensing ..	Paddle ..	River.	
Tairua .. ..	..	6	Oil-engines ..	Screw ..	" ..	
*Takapuna (Auckland)	58	20	Non-condensing ..	Paddle ..	" ..	Ferry-steamer.
Takapuna (Dunedin)	377	165	Compound ..	Screw ..	Home trade.	
Talune	1,303	255	Triple expansion ..	" ..	Foreign trade.	
Tangaroa	109	70	Compound ..	Twin-screw ..	Home trade ..	First survey.
Tangihua	20	15	Non-condensing ..	Screw ..	River.	
Taniwha (Auckland)	191	40	Compound ..	Twin-screw ..	Home trade.	
*Taniwha (Timaru) .. ..	..	16	" ..	Screw ..	Extended river ..	Dredge.

* Surveyed twice, and in some cases three times.

RETURN of STEAMERS to which CERTIFICATES of SURVEY were issued, &c.—*continued.*

Name of Vessel.	Tons Register.	Nominal Horse-power of Steam-engines and Brake Horse-power of Oil-engines.	Nature of Engines.	Nature of Propeller.	Class of Certificate.	Remarks.
*Tarawera	1,268	250	Compound ..	Screw ..	Foreign trade.	
Tarewai	7	12	" ..	" ..	River.	
Taubara .. .. .	..	10	Non-condensing ..	" ..	" ..	
Taupo	408	92	Compound ..	" ..	Foreign trade.	
Taviuni	910	135	Quadruple expans'n	" ..	" ..	
Tawera (Auckland) ..	44	40	Oil-engines ..	" ..	Extended river.	
Tawera (Te Anau) ..	..	25	Non-condensing ..	" ..	River ..	First survey.
Te Anau	1,028	250	Compound ..	" ..	Home trade.	
Tekapu	50	25	" ..	" ..	" ..	
Terranora	199	94	Condensing ..	Paddle ..	" ..	
Theodore	35	25	" ..	" ..	River.	
Thistle	77	90	Oil-engines ..	Twin-screw ..	Home trade.	
Thomas King	70	16	Non-condensing ..	Screw ..	Extended river..	Cargo only.
Timaru	211	78	Compound ..	Twin-screw ..	Home trade.	
Tongariro (Auckland) ..	62	25	Non-condensing ..	Paddle ..	River.	
Tongariro (Taupo) ..	..	8	Compound ..	Screw ..	" ..	First survey.
Toroa (Napier)	174	91	Triple expansion ..	" ..	Foreign trade ..	
*Tuakau .. .. .	..	2	Non-condensing ..	" ..	River ..	Launch.
Tui .. .. .	..	6½	" ..	" ..	Extended river..	Towing only.
Tuna .. .. .	..	14	Compound ..	Twin-screw ..	" ..	
Vesta .. .. .	..	3	Non-condensing ..	Screw ..	River ..	Towing and cargo only.
*Victoria	92	50	" ..	Paddle ..	" ..	
*Victory .. .. .	..	4	" ..	Screw ..	" ..	Towing and cargo only.
Vivid	6	13	" ..	" ..	" ..	
*Waahi .. .. .	..	5	" ..	" ..	" ..	Launch.
Waiaapu	61	15	Oil-engines ..	" ..	Home trade.	
Waihi	63	20	Compound ..	" ..	" ..	
Waihora	1,269	250	" ..	" ..	Foreign trade.	
Waikare	1,901	229	Triple expansion ..	" ..	" ..	
Waimana	107	18	Quadruple expans'n	" ..	Home trade ..	First survey.
Waimarie	159	48	Compound ..	" ..	" ..	
Wainui	411	95	" ..	" ..	" ..	
Waiotahi	167	56	" ..	Twin-screw ..	" ..	
Wairere	27	80	Non-condensing ..	Paddle ..	River.	
Wairoa (Auckland) ..	63	24	Compound ..	Screw ..	" ..	
Wairoa (Nelson)	48	20	Condensing ..	" ..	Home trade.	
Waitangi	34	62	Compound ..	Twin-screw ..	" ..	
Waitara (Wanganui) ..	..	12	Non-condensing ..	Screw ..	River.	
Waiwera (Kaipara) ..	..	6	Compound ..	" ..	" ..	Towing only.
Wakare	157	140	" ..	Paddle ..	Home trade.	
Wakatipu	1,258	230	Quadruple expans'n	Screw ..	Foreign trade.	
Wakatu	95	30	Compound ..	" ..	Home trade.	
*Wanaka	1,572	280	Triple expansion ..	" ..	Foreign trade.	
*Wasp .. .. .	..	1	Non-condensing ..	" ..	River ..	Towing and family use only.
Waverley	93	25	Compound ..	Twin screw ..	Home trade.	
Weka (Auckland)	86	27	" ..	" ..	River.	
*Weka (Napier)	53	20	" ..	Screw ..	Home trade.	
Wellington	279	90	" ..	" ..	" ..	
Westland	35	64	Condensing ..	Paddle ..	" ..	Greymouth tug.
Whakapara .. .. .	..	2	Compound ..	Screw ..	Extended river..	Yacht; first survey.
Yankee Doodle	6	12	Non-condensing ..	Paddle ..	River ..	Towing only.
*Zephyr	8	12	" ..	Screw ..	" ..	" ..

* Surveyed twice, and in some cases three times.

RETURN showing the Number of MASTERS, MATES, and ENGINEERS examined during the Year ended 31st March, 1900, 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	1	5	6	6	7	13	6	5	11	1	3	4	..	..	..	14	20	34
Home-trade masters and mates	5	9	14	5	7	12	2	1	3	2	..	2	..	..	..	14	17	31
River-steamer masters	7	2	9	3	..	3	..	..	..	2	4	6	3	..	3	15	6	21
Sea-going engineers	11	5	16	12	3	15	2	3	5	13	3	16	4	..	4	42	14	56
River-steamer engineers	14	9	23	2	2	4	5	2	7	..	1	1	5	..	5	26	14	40
Marine-engine drivers	8	4	12	5	2	7	..	..	..	1	..	1	2	..	2	16	6	22
Totals	46	34	80	33	21	54	15	11	26	19	11	30	14	..	14	127	77	204

RETURN showing the TOTAL ORDINARY EXPENDITURE of the Marine Department during the Financial Year ended 31st March, 1900.

Nature of Expenditure.	Details.			Totals.			Grand Totals.		
	£	s.	d.	£	s.	d.	£	s.	d.
Salaries of Head Office .. .. .	..	..	..	1,085	3	10	1,085	3	10
Harbours :—									
Manukau,—									
Salaries	426	0	0						
Contingencies	80	19	4						
Report on channel at wharf	22	16	6						
						529	15	10	
Russell,—									
Contingencies .. .. .	..	..	..			32	12	8	
Hokianga,—									
Salaries	274	0	0						
Contingencies	37	2	5						
						311	2	5	
Kaipara,—									
Salaries	415	2	2						
Subsidy to steamer for harbour-work	340	0	0						
Removal and re-erection of flagstaff	229	16	10						
Contingencies	48	19	7						
						1,033	18	7	
Mokau,—									
Salary	37	10	0						
Contingencies	3	10	6						
						41	0	6	
Opunake,—									
Salary .. .. .	..	..	..			25	0	0	
Rangitikei,—									
Contingencies .. .. .	..	..	..			0	16	9	
Foxton,—									
Salary	190	0	0						
Contingencies	33	12	2						
						223	12	2	
Mongonui,—									
Wharf repairs .. .. .	..	..	..			50	0	0	
Whangarei,—									
Wharf repairs .. .. .	..	..	..			100	0	0	
Tauranga,—									
Contingencies .. .. .	..	..	..			6	14	4	
Wairau,—									
Salary	145	0	0						
Contingencies	27	9	7						
						172	9	7	
Havelock,—									
Contingencies .. .. .	..	..	..			36	1	3	
Nelson,—									
Salaries	480	0	0						
Report on harbour	105	0	0						
Contingencies	174	11	1						
						759	11	1	
Motueka,—									
Salary .. .. .	..	..	..			10	0	0	
Waitapu,—									
Salary	25	0	0						
Contingencies	50	10	0						
						75	10	0	
Collingwood,—									
Salary	30	0	0						
Contingencies	17	0	3						
						47	0	3	
Karamea,—									
Salary	40	0	0						
River stop-bank	100	0	0						
Contingencies	49	2	3						
						189	2	3	
Okarito,—									
Salary	85	0	0						
Contingencies	74	18	8						
						109	18	8	
Okuru,—									
Signalling and Contingencies .. .. .	..	..	..			85	17	10	
Little Wanganui,—									
Signalling and Contingencies .. .. .	..	..	..			28	18	3	
Waikawa,—									
Salary .. .. .	..	..	..			15	0	0	
Waitangi (Chatham Islands),—									
Wharf improvement .. .. .	..	..	..			25	10	5	
New buoys .. .. .	..	..	..			497	9	9	
Chain, lamps, repairs to buoys, and sundries .. .. .	..	..	..			843	14	9	
Pension of J. Heberly .. .. .	..	..	..			86	18	11	
									4,737 16 3
Lighthouses :—									
Salaries of keepers .. .. .	..	..	..			8,984	7	5	
Oil, including freight and storage .. .. .	..	..	..			2,106	8	7	
Stores and contingencies .. .. .	..	..	..			2,916	14	4	
Keepers' travelling-expenses .. .. .	..	..	..			79	3	1	
Lighthouse artificer .. .. .	..	..	..			210	0	0	
Pension of widow of keeper Deck .. .. .	..	..	..			30	0	0	
New light on Somes' Island .. .. .	..	..	..			1,289	3	5	
									15,615 16 10

RETURN showing the TOTAL ORDINARY EXPENDITURE of the Marine Department—*continued.*

Nature of Expenditure.	Details.		Totals.		Grand Totals.		
	£	s. d.	£	s. d.	£	s. d.	
Departmental travelling-expenses			170	3 0			
Coastal buoys			3	3 9			
Inquiries into wrecks and casualties			377	3 6			
Relief of distressed seamen			0	10 3			
Search for missing vessel "Wolverene"			112	14 0			
Grant for maintenance, "Tararua" Cemetery			50	0 0			
Costs of prosecution <i>re</i> fraudulent issue of certificate			195	5 2			
Cost of Marine Commission			1,404	8 7			
Unseaworthy ships			4	16 0			
Charts			71	18 9			
Sundries			452	2 10			
					2,842	5 10	
Weather Forecasts,—							
Salary	350	0 0					
Contingencies	16	15 6					
				365	15 6	365	15 6
Inspection of Machinery and Survey of Steamers,—							
Salaries	2,396	18 8					
Travelling-expenses	1,431	17 5					
Rent and contingencies	374	5 2					
				4,203	1 3	4,203	1 3
Examination of Masters and Mates,—							
Salaries	44	13 0					
Contingencies	125	5 10					
				169	18 10		
Superintendents of Mercantile Marine,—							
Salaries	770	16 8					
Contingencies	70	8 2					
				841	4 10		
						1,011	3 8
Fisheries,—							
Protection of oysters	166	2 1					
Protection of fish	332	7 10					
Expenses, fish-hatcheries	192	9 4					
Expenses of Mr. Ayson to Europe, &c.	313	15 2					
				1,004	14 5	1,004	14 5
						30,865	17 7
Less amount of credits to vote						1,102	15 6
						29,763	2 1
Government Steamers,—							
S.S. "Tutanekai"	9,764	12 8					
S.S. "Hinemoa"	7,688	2 6					
	17,452	15 2					
Less amount received for freight, passages, &c.	5,424	18 6					
				12,027	16 8	12,027	16 8
Compassionate allowance to son of late W. Brown, chief officer of "Hinemoa"				180	0 0	180	0 0
Total						41,970	18 9

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, 1900.

Name of Lighthouse.	Salaries.	Oil.		Stores and Contingencies.	Totals.
		Gallons consumed.	Value.		
	£ s. d.		£ s. d.	£ s. d.	£ s. d.
Cape Maria van Diemen	349 16 3	1,035	78 2 6	198 13 10	626 12 7
Moko Hinou	355 0 0	811	60 16 6	145 2 6	560 19 0
Tiri-Tiri	280 0 0	528	39 12 0	90 18 8*	410 10 8
Bean Rock	160 0 0	89	4 5 4	42 10 8	206 16 0
Ponui Passage	160 0 0	76	5 14 0	23 15 11	189 9 11
Cuvier Island	307 13 11	1,355	101 12 6	135 5 7	544 12 0
Portland Island	380 0 0	754	56 11 0	156 4 6	592 15 6
Napier Bluff	20 0 0	Gas	14 5 0	1 0 4	35 5 4
Cape Palliser	270 0 0	963	72 4 6	125 4 9	467 9 3
Pencarrow Head	300 0 0	934	70 1 0	62 1 7	432 2 7
Somes Island	156 0 0	278	20 17 0	26 18 1	203 15 1
Cape Egmont	270 0 0	553	41 9 6	71 0 1	382 9 7
Manukau Head	261 17 7	527	51 12 0	77 18 0	391 7 7
Manukau South Head leading-lights .. .. .	.. .. .	161			
Manukau North Head leading-lights	120 0 0	147	11 0 6	35 16 1	166 16 7
Kaipara Head	258 18 6	519	38 18 6	89 5 1	387 2 1
Brothers	466 4 3	712	53 8 0	113 14 8†	633 6 11
Tory Channel leading-lights	90 0 0	169	12 13 6	5 12 6	108 6 0
Cape Campbell	270 0 0	554	41 11 0	304 18 9‡	616 9 9
Godley Head	270 0 0	503	37 14 6	59 15 11	367 10 5
Akaroa Head	270 16 8	575	43 2 6	62 15 6	376 14 8
Moeraki	300 0 0	496	37 4 0	88 16 1	426 0 1
Taiaroa Head	290 0 0	521	39 1 6	46 14 9	375 16 3
Cape Saunders	250 0 0	666	49 19 6	50 14 1	350 13 7
Nugget Point	280 0 0	933	69 19 6	66 17 5	416 16 11
Waipapapa Point	270 0 0	659	49 18 6	194 13 7§	514 12 1
Dog Island	347 1 3	785	58 17 6	89 18 7	495 17 4
Centre Island	356 16 0	881	66 1 6	111 2 6	534 0 0
Puysegur Point	347 3 0	922	69 3 0	74 11 5	490 17 5
Hokitika	12 0 0	Gas	15 18 9	0 6 6	28 5 3
Cape Foulwind	280 0 0	544	40 16 0	40 17 0	361 13 0
Farewell Spit	365 0 0	642	48 3 0	114 3 11	527 6 11
Nelson	280 0 0	239	18 8 6	51 5 1	349 13 7
Stephens Island	380 0 0	1,726	129 9 0	137 15 6	647 4 6
French Pass	210 0 0	124	9 6 0	20 4 11	239 10 11
Totals	8,984 7 5	20,371	1,557 17 7	2,916 14 4	13,458 19 4

NOTE.—This return does not include the cost of the periodical visits made to the lighthouses by the Government steamer with oil, stores, and provisions. The proportion of the steamer's expenses chargeable to this service is about £5,000 a year.

* Includes £27 5s., cost of repairs. † Includes £48 16s. 3d., cost of provisions for keepers. ‡ Includes £185 9s. 11d., cost of repairs. § Includes £68 1s. 3d., cost of fencing.

In addition to the amount shown against Somes Island light, the sum of £1,239 3s. 5d. has been expended on the new light The Wellington Harbour Board contributed £800 towards the cost of this light.

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
Cuvier Island	7,406	16	11
Stephens Island	9,349	9	11
Cape Palliser	6,243	16	1
Cost of telegraph cable to Tiri-Tiri	1,085	19	6
Miscellaneous and unallocated	1,322	2	2
Total	£173,895	14	7

* 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 the FEES, &c., received under the Shipping and Seamen's Acts, the Merchant Shipping Act, the Sea-fisheries Acts, the Inspection of Machinery Acts, and for PILOTAGE and PORT CHARGES &c., during the Year ended 31st March, 1900.

Nature of Receipts.	Amount.		
	£	s.	d.
Shipping and Seamen's Acts:—			
Fees for shipping and discharge of seamen, and sale of forms	1,787	8	0
Survey of steamers	1,405	10	0
Measurement of ships	18	8	0
Examination of masters, mates, and engineers	156	15	0
Light-dues	20,996	8	3
Merchant Shipping Act	64	13	0
Pilotage and port charges	3,255	14	0
Sundry receipts under Harbours Acts	207	12	0
Sea-fisheries Act	95	0	0
Inspection of Machinery Acts	3,939	2	6
Sundries	165	5	11
Total	£32,091	16	8

RETURN showing the AMOUNT of LIGHT-DUES collected during the Year ended 31st March, 1900.

Port.	Amount collected.		
	£	s.	d.
Auckland	5,913	9	11
Onehunga	113	1	6
Whangarei	84	12	7
Whangaroa	6	5	2
Russell	20	2	1
Mongonui	6	2	11
Hokianga	6	16	1
Kaipara	232	13	5
Thames	86	5	8
Coromandel	23	5	6
Tauranga	20	3	5
Poverty Bay	446	10	0
Napier	583	7	10
New Plymouth	167	0	4
Waitara	34	6	8
Wanganui	134	3	10
Patea	10	9	10
Wellington	5,026	10	2
Wairau	15	7	2
Picton	266	5	9
Nelson	314	4	2
Westport	477	10	1
Greymouth	197	5	7
Hokitika	1	17	5
Lyttelton	2,252	2	5
Timaru	710	15	3
Oamaru	117	9	6
Dunedin	1,681	9	3
Bluff and Invercargill	2,046	14	9
Total	£20,996	8	3

RETURN showing the AMOUNT of PILOTAGE, PORT CHARGES, &c., collected during the Year ended 31st March, 1900.

Name of Port.	Pilotage.		Port Charges, &c.		Total.	
	£	s. d.	£	s. d.	£	s. d.
Auckland*	615	13 2	3,173	11 9	3,789	4 11
Onehunga	7	1 5	124	3 6	131	4 11
Hokianga	12	9 6	..	..	12	9 6
Kaipara	169	18 3	1,085	4 6	1,255	2 9
Thames*	74	10 8	..	..	74	10 8
Gisborne*	104	16 2	903	8 6	1,008	4 8
Wairoa*	110	13 0	4	3 0	114	16 0
Napier*	742	13 7	3,420	19 3	4,163	12 10
New Plymouth*	64	6 2	134	7 11	198	14 1
Waitara*	80	7 10	73	18 2	154	6 0
Wanganui*	502	4 11	..	..	502	4 11
Patea*	31	9 8	5	10 3	36	19 11
Foxton	164	3 1	..	..	164	3 1
Wellington*	211	19 0	8,713	17 9	8,925	16 9
Wairau	151	2 11	..	..	151	2 11
Nelson	971	11 3	569	19 7	1,541	10 10
Hokitika* .. .. .	..	..	16	16 5	16	16 5
Lyttelton*	6,755	19 0	4,453	2 4	11,209	1 4
Timaru*	1,527	13 8	2,858	12 2	4,386	5 10
Oamaru* .. .. .	..	..	1,811	13 11	1,811	13 11
Dunedin*	6,372	5 0	5,075	14 10	11,447	19 10
Invercargill* .. .. .	..	..	9	18 6	9	18 6
Bluff*	3,029	13 3	1,503	6 2	4,532	19 5
Riverton* .. .. .	..	..	5	4 0	5	4 0
Totals	21,700	11 6	33,943	12 6	55,644	4 0

* Harbour Board revenue. † Tonnage rate on cargo.

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 31st March, 1900.

Name of Seaman.	Balance to Credit of Estate on 31st March, 1899.	Amount received.	Amount paid.	Balance to Credit of Estate on 31st March, 1900.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
T. Mills	0 5 5	..	0 5 5	..
J. Barry	3 7 0	..	3 7 0	..
M. Hegglind	2 12 0	..	2 12 0	..
A. Pearson	4 2 0	..	4 2 0	..
John Spers	0 7 0	..	0 7 0	..
James Marks	0 2 2	..	0 2 2	..
John William Eaton	0 17 3	..	0 17 3	..
William John Wilson	9 17 0	..	9 17 0	..
Henry West	0 17 3	..	0 17 3	..
Mathew Miller	9 2 6	..	9 2 6	..
Robert McDougall	9 8 4	..	9 8 4	..
Alfred Murfin	4 2 2	..	4 2 2	..
Thomas Sullivan .. .. .	..	4 6 8	4 6 8	..
John Price Blacklock .. .. .	..	6 14 4	..	6 14 4
Andrew Hughson .. .. .	..	40 14 8	40 14 8	..
Murdoch MacPherson .. .. .	..	10 10 11	10 10 11	..
Robert Hogg Warrender .. .. .	..	28 17 9	28 17 9	..
A. Gordon Matheson .. .. .	..	2 5 6	2 5 6	..
J. F. Heddell .. .. .	..	3 5 0	3 5 0	..
A. Taylor .. .. .	..	2 16 4	..	2 16 4
John Martin .. .. .	..	2 16 4	2 16 4	..
W. Carey .. .. .	..	14 17 10	..	14 17 10
J. Angus .. .. .	..	2 12 0	2 12 0	..
A. Weibe .. .. .	..	2 12 0	..	2 12 0
William J. Nicholls .. .. .	..	0 17 4	0 17 4	..
Robert Burns .. .. .	..	8 13 4	8 13 4	..
John Young .. .. .	..	4 6 9	..	4 6 9
Douglas Grant Stevenson .. .. .	..	6 1 4	6 1 4	..
James William Chatnoek .. .. .	..	4 2 4	4 2 4	..
J. S. Underwood .. .. .	..	3 13 8	..	3 13 8
William Denny .. .. .	..	4 5 8	4 5 8	..
J. Ferguson .. .. .	..	3 13 8	1 16 9	1 16 11
R. Wilson .. .. .	..	3 13 8	3 13 8	..
Joseph Fielder .. .. .	..	4 6 8	4 6 8	..
Archibald Pender .. .. .	..	1 14 8	1 14 8	..
A. S. Schofield .. .. .	..	4 6 8	4 6 8	..
William Brown .. .. .	..	29 13 5	29 13 5	..
Neil Buchanan .. .. .	..	33 2 4	33 2 4	..
C. Osterman .. .. .	..	7 11 10	..	7 11 10
Otto Sjoblom .. .. .	..	13 1 7	..	13 1 7
Thomas Dowse .. .. .	..	5 1 8	5 1 8	..
Thomas Robertson .. .. .	..	3 10 0	3 10 0	..
Jens Hansen .. .. .	..	3 2 8	..	3 2 8
John Tait .. .. .	..	2 19 8	2 8 6	0 11 2
J. F. Robertson .. .. .	..	5 14 0	5 14 0	..
Totals	45 0 1	276 2 3	259 17 3	61 5 1

RETURN of LICENSES as COLONIAL PILOT issued in pursuance of Section 31 of "The Shipping and Seamen's Act Amendment Act, 1894," during the Year ended 31st March, 1900.

No. of License.	Date of Issue.	Name of Licensee.	Port of Residence.	Date of Expiry of License.
21	6 July, 1899	Richard Groombridge Butt..	Wellington	20 July, 1900.
22	4 Oct., "	Frank Lawton	"	3 March, "
23	13 Nov. "	Edward Wheeler	"	12 Aug. "
24	21 " "	Hugh McLellan	Lyttelton	11 Nov., "
25	18 Jan., 1900	Archibald Kennedy	Wellington	21 Dec., "
26	9 March, "	Frank Lawton	"	3 March, 1901.

RETURN of LICENSES as ADJUSTERS of COMPASSES issued in pursuance of Section 4 of "The Shipping and Seamen's Act Amendment Act, 1895."

No. of License.	Date of Issue.	Name of Licensee.	Address.
1	3 March, 1896	George Frederick Augustus Carl von Schoen* ..	Wellington.
2	20 " "	Thomas Capel Tilly	Auckland.
3	9 April, "	Frederick Macbeth	Dunedin.
4	15 " "	Robert Strang	"
5	5 May, "	George Urquhart Thomson	"
6	26 Nov., "	John Robertson*	Onehunga.
7	9 Dec., "	George Burton	Wellington.
8	11 " "	William Bendall	"
9	1 Feb., 1897	Hugh McLellan	Lyttelton.
10	27 April, "	Frederic William Cox	Nelson.
11	27 May, "	Thomas Fernandez	Auckland.
12	27 July, "	Robert Hatchwell	Lyttelton.
13	1 Sept., "	Arthur G. Gifford	Wellington.
14	13 Aug., 1898	Herbert John Richardson	"
15	26 April, 1899	Robert Heddleston Neville	"

* Left the colony.

RETURN showing the NUMBER of NOTICES to MARINERS relating to Matters within the Colony issued by the Marine Department during the Year ended 31st March, 1900.

Port or Place.	Subject of Notice.
Aotea Harbour ..	Erection of leading beacons.
Auckland Harbour ..	Alteration of buoy off Takapuna Head.
Bay of Islands ..	Buoy placed off Poroporo Island.
Cloudy Bay ..	Safe anchorage during heavy gales in Cook Strait.
Dusky Sound ..	Rock near anchorage in Cascade Cove.
East Cape ..	Exhibition of light.
Gisborne Harbour ..	Back red leading-light raised 10 ft.
Hauraki Gulf ..	Buoy on Sunday Rock, Waiheke Channel.
Manukau Harbour ..	Alteration of buoyage system.
Milford Sound ..	Mooring-buoy dragged out of position by s.s. "Waikare."
Nelson Harbour ..	Alteration of position of bar-buoy.
New Zealand ..	Exhibition of weather-forecast signals.
" ..	Magnetic variation on south coast.
" ..	Signals at ports at which there is no flagstaff from which ball-signals can be shown.
Otago Harbour ..	Exhibition of lights on main-channel beacons.
" ..	Signal at Taiaroa Head for open boats.
Port Abercombie, Great Barrier	Rock in channel between Peter Island and next island to westward.
Patea Harbour ..	Soundings taken off roadstead.
Port Nicholson ..	Exhibition of new light on Somes Island (two notices).
Queen Charlotte Sound ..	Passage between Hawes Rock buoy and Blumine Island to be avoided.
Tauranga Harbour ..	Buoys in Inner or Crooked Channel removed.
Thames Harbour ..	Beacon erected at entrance to river.
Wairau River ..	Buoy placed outside bar.
Westport Harbour ..	Harbour lights and day and night signals.
Whaingaroa (or Raglan) Harbour	Erection of leading beacons.

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	Timber	24 Mar., 1879
Moko Hinou ..	1st order dioptric	Flashing	10"	Red, to show over Columbia Reef.	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
Cuvier Island ..	1st "	Revolving	30"	White	Iron	"	22 Sept., 1889
East Cape ..	2nd "	Flashing	10"	"	"	"	Building.
Portland Island	2nd "	Revolving	30"	"	Timber	"	10 Feb., 1878
	..	Fixed	..	Red, to show over Bull Rock.	"	"	
Cape Palliser ..	2nd order dioptric	Revolving	*	White	Iron	Timber	27 Oct., 1897
Pencarrow Head ..	2nd "	Fixed	..	"	"	"	1 Jan., 1859
Cape Egmont ..	2nd "	"	..	"	"	"	1 Aug., 1881
Manukau Head ..	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	Iron	"	17 June, 1870
Nelson ..	4th "	Fixed	..	White, with red arc to mark limit of anchorage	"	"	4 Aug., 1862
French Pass ..	6th "	"	..	Red and white, with white light on beacon	"	"	1 Oct., 1884
Stephens Island ..	1st "	Group flashing	†	White	"	"	29 Jan., 1894

* Flashing twice every half-minute, with interval of three seconds between flashes.

† Two flashes in quick succession

every half-minute.

RETURN of MASTERS, MATES, and ENGINEERS to whom CERTIFICATES of COMPETENCY were issued during the Year ended 31st March, 1900.

Name of Person.	Rank.	Class of Certificate.	Date of Issue.	No.
Harold William Spencer Goertz	First mate	Foreign trade	1 May, 1899	871
Harold Astlay Houchen	Second mate	"	9 " "	872
Frank Farmar	First mate	"	19 " "	873
James Archibald Wallace	"	"	29 " "	874
Archibald Gordon Baird	Only mate	"	13 June, "	*875
Charles McLean	First mate	"	24 Oct., "	854
George Henry McDonald	Master, ordinary	"	27 Nov., "	565
William Henry Macey	Second mate	"	12 Dec., "	876
Francis Driscoll	"	"	9 Jan., 1900	877
Henry Montague Garrick	"	"	19 " "	878
Frederick John Duncan	Master, ordinary	"	27 " "	750
John McLennan McKenzie	"	"	16 Feb., "	749
Carl Murrell Morris	First mate	"	8 March, "	879
John Nathaniel Beighton	"	"	15 " "	822
Thomas Brown	Master, ordinary	"	15 " "	880
William Gifford	Master	Home trade	28 April, 1899	5320
John McIntyre	Mate	"	28 " "	5442
Sidney Leonard	"	"	29 June, "	5443
John Freeman	"	"	5 Aug., "	5444
Robert Isaac Fletcher	"	"	5 " "	5445
Philip Gibbons	"	"	11 " "	5446
William Haydon	"	"	16 " "	5447
Duncan Alexander Matheson	"	"	24 Oct., "	5448
John McNeilage	"	"	30 " "	5449
Henry Collins	Master	"	24 Nov., "	5414
John Broadbent Hall	"	"	4 Dec., "	5377
Daniel Higgins	Mate	"	19 Jan., 1900	*5450
William Williamson	"	"	16 Feb., "	5451
Alfred Cash	"	"	24 March, "	5452
David Alfred Scott	"	"	24 " "	5453
Joseph Burns	Master	River trade	6 April, 1899	3295
James Cregdala Paton	"	"	9 May, "	3296
James Cooke Skene	"	"	19 " "	3297
John Gallagher	"	"	4 July, "	3298
Arthur Percival Blundell	"	"	29 " "	3299
David Henry Dalton	"	"	29 " "	3300
Francis Knowles	"	"	29 " "	3301
William John McManus	"	"	29 " "	3302
John Findlay Gibson	"	"	25 Aug., "	3303
Allan Edward Neumann	"	"	19 Sept., "	3304
Bernhardt Robert Howard	"	"	19 " "	3305
Percy Eden Waddington	"	"	29 " "	3306
Deane Clifton Sharpe	"	"	14 Nov., "	3307
Thomas Ryan	"	"	16 Feb., 1900	3308
William McFarlane	"	"	24 March, "	3309
John William Robinson	1st class engineer	Foreign trade	6 April, 1899	221
Francis Henry	3rd class engineer	"	21 " "	426
Duncan Neil Fletcher	2nd class engineer	"	21 " "	337
William Wright	"	"	21 " "	285
James Blackwood	"	"	21 " "	282
John Robert Hambleton	3rd class engineer	"	21 " "	427
Henry George Noy	"	"	21 " "	428
John Jabez Hay Wishart	"	"	21 " "	429
Graham Duncan	"	"	21 " "	430
Edward John Shields	"	"	28 " "	431
William Fincher Coutts	"	"	23 May, "	432
Robert Coutts	"	"	23 " "	433
Malcolm John Connor	"	"	23 " "	434
Claude Frank Brookes	"	"	23 " "	435
Joseph Henry George Davis	"	"	23 " "	436
Michael Lanigan	"	"	23 " "	437
James Bambery	2nd class engineer	"	15 June, "	275
Arthur Augustus Flyger	3rd class engineer	"	19 " "	438
John William Bird	"	"	19 " "	439
William John Cameron	2nd class engineer	"	17 July, "	440
Joseph Edward Faulder Buckland	3rd class engineer	"	11 Aug., "	441
John Sinclair	2nd class engineer	"	16 " "	327
William Wood Wilson	3rd class engineer	"	16 " "	442
Rutherford Clark	"	"	16 " "	443
Frederick Charles Davie	"	"	16 " "	444
Robert Sharman Hughes Richardson	"	"	19 Sept., "	*445
Alfred William Price	"	"	19 " "	446
Alfred Sneyd	2nd class engineer	"	19 " "	447
Andrew Douglas Davys	3rd class engineer	"	27 " "	448
Thomas Bell Jones Sinclair	2nd class engineer	"	9 Oct., "	288
Carl Hausmann	"	"	9 " "	295
Norman John Arnott	"	"	9 " "	301
Robert William Wallace	"	"	9 " "	343
Ernest Day	3rd class engineer	"	8 Nov., "	449
Albert Edward Brown	"	"	8 Dec., "	450
Henry Joseph Kelly	"	"	20 " "	451
Henry Simson	"	"	20 " "	452
Edgar Vincent Hudson	"	"	20 " "	453
William John Sutton	"	"	17 Jan., 1900	454

RETURN of MASTERS, MATES, and ENGINEERS to whom CERTIFICATES of COMPETENCY were issued during the Year ended 31st March, 1900—continued.

Name of Person.	Rank.	Class of Certificate.	Date of Issue.	No.
Peter Fleming Watson	3rd class engineer ..	Foreign trade ..	19 Jan., 1900 ..	455
Peter Marshall	1st class engineer ..	" ..	7 Feb., " ..	390
Henry Augustus Levestam	2nd class engineer ..	" ..	7 " " ..	303
Monte George Waller	3rd class engineer ..	" ..	7 " " ..	456
James Powell	" ..	" ..	6 March, " ..	457
John William Townsend	" ..	" ..	29 " " ..	458
Ernest William Tattley	Engineer ..	River trade ..	23 May, 1899 ..	1797
Henry Augustus Dando	" ..	" ..	23 " " ..	1798
Frederick John Foote	" ..	" ..	23 " " ..	1799
Charles Stuart Laird	" ..	" ..	23 " " ..	1800
Eustace Cleary	" ..	" ..	23 " " ..	1801
Harry Jewiss	" ..	" ..	2 June, " ..	1802
Arthur Lett	" ..	" ..	13 " " ..	1803
William Maxwell Lawton	" ..	" ..	17 July, " ..	1804
Charles Flavell	" ..	" ..	17 " " ..	1805
Robert Brisen Johnston	" ..	" ..	11 Sept., " ..	1806
James Edward Jefcoate	" ..	" ..	19 " " ..	1807
Richard John Morgan	" ..	" ..	19 " " ..	1808
William Francis Hallins	" ..	" ..	19 " " ..	1809
John McAlpine	" ..	" ..	19 " " ..	1810
James Hanson	" ..	" ..	19 " " ..	1811
William John Sutton	" ..	" ..	19 " " ..	1812
Frederick Ward Somerfield	" ..	" ..	19 " " ..	1813
Arthur Smith	" ..	" ..	1 Nov., " ..	1814
Frank Lawfield	" ..	" ..	28 Dec., " ..	1815
Samuel Campbell	" ..	" ..	17 Jan., 1900 ..	1816
Samuel Plimley	" ..	" ..	17 " " ..	1817
Hugh Ferry-whier Meikle	" ..	" ..	7 Feb., " ..	1818
George Mathews	" ..	" ..	1 March, " ..	1819
Alexander Anderson Hall	" ..	" ..	13 " " ..	1820
Norman Henderson	" ..	" ..	13 " " ..	1821
William Bentley Mackie	" ..	" ..	24 " " ..	1822
Charles Edward Vercoe	Marine-engine driver	" ..	6 April, 1899 ..	41
Rutland William Hunt	" ..	" ..	23 May, " ..	42
John Collins	" ..	" ..	23 " " ..	43
Edwin Alfred Howe	" ..	" ..	13 June, " ..	44
Thomas Wade	" ..	" ..	7 Aug., " ..	45
Edward Biddle	" ..	" ..	19 Sept., " ..	46
John William Deven	" ..	" ..	19 " " ..	47
William Bentley Mackie	" ..	" ..	27 " " ..	48
Charles Henry Anderson	" ..	" ..	8 Dec., " ..	49
Adam Gibson	" ..	" ..	28 " " ..	50
John Alexander Campbell	" ..	" ..	28 " " ..	51
Walter Richard Paltridge	" ..	" ..	17 Jan., 1900 ..	52
William Gibson Young	" ..	" ..	17 " " ..	53
Joseph Steel	" ..	" ..	17 " " ..	54
Thomas Jefferson McGowan	" ..	" ..	2 Feb., " ..	*55
Thomas James Nott	" ..	" ..	7 " " ..	56
George Schmidt	" ..	" ..	7 " " ..	57
Walter Clifford	" ..	" ..	7 " " ..	58

* Renewal.

RETURN showing the ORDERS IN COUNCIL which have been issued during the Financial Year ended 31st March, 1900.

Date of Order.	Purpose of Order.
1899.	
April 7	Approves plans of Whakatane Road Board's wharf, Whakatane.
" 7	Licenses Whakatane Road Board to occupy foreshore as site for wharf.
" 12	Approves plan of Wellington Rowing Club's skids.
" 12	Approves plans of Barrier Reefs Gold-mining Company's wharf at Whangaparapara.
" 12	Licenses Barrier Reefs Gold-mining Company to occupy foreshore as site for wharf.
" 12	Approves of Westport Harbour Board procuring rolling-stock, &c.
" 12	Declares sponges and sponge-beds subject to sections 18 to 22 of "The Sea-fisheries Act, 1894."
" 12	Revokes Order in Council prohibiting export of rock oysters.
" 12	Prohibits export of rock, shore, drift, or mangrove oysters.
" 17	Approves plans of Glasgow Wharf, Wellington.
" 26	Approves plans of renewal of portion of Queen Street Wharf, Auckland.
May 18	Approves plans of wharf at French Farm Bay, Akaroa.
" 18	Licenses W. Wright and S. Hunt to occupy foreshore as site for wharf, French Farm Bay.
" 20	Approves plans of Riverhead Paper-mills Company's wharf and breastwork at Riverhead.
" 20	Licenses Riverhead Paper-mills Company to occupy foreshore as site for wharf.
" 24	Makes regulations for exclusive right of taking sponges.
" 29	Prescribes dues and makes regulations for Rodney County wharves.
June 10	Approves of Westport Harbour Board carrying out certain works on Westport Railway.
" 22	Appoints Commission to inquire into certain matters relating to Marine Department.
" 26	Makes regulations respecting lighting of hatches of vessels.
July 1	Appoints Commission to report on proposed eastern extension of Timaru Harbour works.
" 3	Approves plan of proposed dredging below Buller Bridge, Westport.
" 3	Approves plan of wharf at Shoal Bay, Auckland Harbour.
" 3	Approves plan of Swain and Lonneker's wharf at Ryan's Creek, Patterson's Inlet.
" 3	Licenses Swain and Lonneker to occupy foreshore as site for wharf.
" 17	Appoints members of Greymouth Harbour Board.
" 24	Appoints members of Westport Harbour Board.
" 24	Approves plan of outfall sewers, Kaiwarra, and authorises Onslow Borough Council to construct same on certain conditions.
" 24	Vests management of Tametame Wharf in Messrs Lane and Brown.
" 31	Makes additional general harbour regulations.
" 31	Vests management of Port Albert Wharf in Rodney County Council, and prescribes dues.
" 31	Approves plans of J. T. Griffin's wharf, Omaka River, Wairau.
" 31	Licenses J. T. Griffin to occupy foreshore as site for wharf.
" 31	Extends time for Commissioners to report on certain matters relating to Marine Department.
Aug. 8	Approves plans of Wairoa Harbour Board works.
" 8	Approves plan of proposed widening of Bluff Wharf.
" 8	Approves plans of T. Eckford's wharf, Opawa River, Wairau.
" 8	Licenses T. Eckford to occupy foreshore as site for wharf.
" 8	Vests management of Mangawai Wharf in Mangawai Road Board, and prescribes dues.
" 21	Approves plans of eastern extension to Timaru Harbour works.
" 21	Vests management of Tokatoka Wharf in Otamatea County Council, and prescribes dues.
" 28	Approves plan of H. Handyside and others' jetty at Cape Turnagain.
" 28	Licenses H. Handyside and others to occupy foreshore as site for boat-landing.
" 28	Allows use of set-nets for whitebait in Ashley River.
Sept. 4	Approves plans of widening berth No. 16, Jervois Quay, Wellington.
" 11	Approves of Westport Harbour Board procuring signals, &c., for Westport station-yard.
" 18	Vests management of wharves at Matakohē, Pahi, and Point Curtis in Otamatea County Council, and prescribes dues.
" 28	Makes additional regulations for the right of taking sponges.
Oct. 7	Approves plan of Premier Joinery Company's wharf, Auckland.
" 7	Approves plans of Patea Harbour Board's wharf extension.
" 12	Licenses J. S. Cooper and O. S. Watkins to take sponges at Chatham Islands.
" 23	Approves plans of proposed widening of Cross Wharf, Dunedin.
" 23	Approves plans of G. Norton's boatshed, Waterloo Quay, Wellington.
" 28	Approves plans of sundry harbour-works at Whangaroa.
" 28	Licenses John McIntosh and others to occupy foreshore at Whangaroa.
Nov. 13	Amends dues and rates for use of Russell Wharf.
" 13	Approves plans of Waitara Harbour Board's wharf at Waitara.
" 13	Approves plans of cattle-wharf, Westport.
" 13	Approves plans of ferry jetty, Chelsea, Auckland Harbour.
" 20	Approves plans of Piako County Council's bridge over Waitohu River at Shaftesbury.
" 20	Prescribes dues and rates for Havelock Wharf.
Dec. 4	Approves plans of Coastal Steamship Company's wharf at Warkworth.
" 4	Licenses Coastal Steamship Company to occupy foreshore as site for wharf.
" 4	Makes general harbour regulations as to shipment and landing of explosives.
" 20	Approves plans of new western tee, Queen Street Wharf, Auckland.
1900.	
Jan. 8	Approves plans of Victoria Wharf extension, Devonport.
" 8	Approves plans of wharf at Greenhithe, Waitemata River.
" 15	Approves plans of Borough Council's bridge at Kaipara, and licenses erection of same.
" 15	Approves plans of Whataitai Rowing Club's boatshed, Evans Bay, Wellington.
Feb. 19	Prohibits use of net-fishing in part of Wanganui River.
" 19	Approves plans of D. A. Gray's wharf and shed at Waiuku, Manukau.
" 19	Licenses D. A. Gray to occupy foreshore as site for wharf and shed.
" 19	Approves plan of G. Swain's wharf, Kaipipi Bay, Stewart Island.
" 19	Licenses G. Swain to occupy foreshore as site for wharf.
March 14	Approves plan of proposed widening of Moturoa Wharf, New Plymouth.
" 16	Appoints James Scanlon member of Westport Harbour Board.
" 27	Extends close season for seals.

SUMMARY of CASUALTIES to SHIPPING reported to the Marine Department during the Financial Year ended 31st March, 1900.

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 Lives lost.	Tonnage.	
	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.				
Strandings,—																					
Total wrecks	1	393	..	3	1,421	..	4	1,814	..	1	12	..	1	12	..	5	1,826	..			
Partial loss	3	721	..	6	452	..	9	1,173	..	..	..	..	..	..	..	9	1,173	..		
Slight damage	1	187	..	..	..	..	1	187	..	..	..	..	..	..	..	1	187	..		
No damage	1	29	..	4	1,495	..	5	1,464	..	..	..	..	..	..	..	5	1,464	..		
Total strandings	6	1,280	..	13	3,308	..	19	4,588	..	..	..	..	1	12	..	20	4,600	..		
Foundering,—																					
Total loss	1	411	22	1	22	..	2	433	22	1	251	8	1	251	8	3	684	30
Collisions,—																					
Partial loss	4	1,505	..	1	68	..	5	1,573	..	..	..	..	..	..	..	5	1,573	..		
Slight damage	2	115	..	2	52	..	4	167	..	..	..	..	..	..	..	4	167	..		
No damage	4	1,364	..	1	27	..	5	1,391	..	..	..	..	..	..	..	5	1,391	..		
Total collisions..	10	2,984	..	4	147	..	14	3,131	..	..	..	..	..	..	..	14	3,131	..		
Fires,—																					
Partial loss	..	..	..	..	..	..	..	..	..	1	4,915	..	..	..	..	1	4,915	..		
Miscellaneous, including damage by heavy seas to hull and cargo, loss of masts, sails, &c.	2	1,681	1	2	114	..	4	1,795	1	..	..	..	2	1,927	..	6	3,722	1		
Total casualties to shipping	19	6,856	23	20	3,591	..	39	9,947	23	1	4,915	..	4	2,190	8	44	17,052	31			
Loss of life only	1	95	1	2	104	2	3	199	3	..	..	..	1	1,245	1	4	1,444	4		
Total number of casualties reported	20	6,451	24	22	3,695	2	42	10,146	26	1	4,915	..	5	3,435	9	48	18,496	35			

RETURN OF WRECKS and CASUALTIES to SHIPPING reported to the Marine Department from the 1st April, 1899, to the 31st March, 1900.

Date of Casualty	Name of Vessel, also Age and Class.	Reg.	Registered 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.		
1899. Jan. 25 (Since)	Jasper, 32 years	Barquentine	251	8	..	Guano ..	Supposed foundered; total loss	8; all hands	On voyage from Bunker Island to Melbourne	..	..	Vessel left Bunker Island on 25th January, and has not since been heard of. A buoy belonging to her was found on 27th April at Diamond Head, Camden Haven	William Burton.
Mar. 4	Gwara Peres ..	Ketch ..	12	*	..	Pearling-vessel	Stranded; total loss	Not known	Pelican Island, Torres Strait	..	Hurricane	Vessel driven ashore during a hurricane, in which many pearling vessels were wrecked	Not known.
"	Orewa, s.s., 1 year	Cutter ..	37	7	15	General	Collision; no damage	..	Off North Head, Auckland Harbour	E.	..	Collision result of keen competition, but no damage done	John McKinnon.
"	Kotiti, s.s., 1 year	Schooner	42	6	7	General	Collision; no damage	..	Lat. 4° N., long. 26° 35' W. On voyage from New York to Wellington	..	..	Maintopmast and topgallantmast and mizen-masthead carried away by a sudden whirlwind	Gustav Erikson.
"	Hiram Emery, 21 years	Barque ..	699	13	1	General	Loss of masts, yards, and sails	..	..	..	..	..	Frank W. Gorham.
"	Rose Casey, s.s., 21 years	Schooner	99	9	8	General	Collision; slight damage	..	Just inside Mahurangi Heads, Hauraki Gulf	N.E.	..	Master of "Rose Casey" made an error in judging distance, and did not reverse his engines soon enough. He was ordered to pay £18 13s. 6d., costs of inquiry	William Bazeley.
"	Kapanui, s.s., 1 year	Schooner	75	7	14	General	Collision; partial loss	..	..	..	..	The tug "Lytelton," coming up the harbour, could not see the "Red Jacket," which was in tow of the "Canterbury," until too close to avoid collision	William James Southgate.
April 24	Lytelton, s.s., 21 years	Cutter ..	39	8	..	Nil ..	Collision; no damage	..	Entrance to Inner Harbour, Lyttelton	..	..	..	John Galbraith.
"	Red Jacket ..	Lighter..	30	1	..	Ballast ..	Collision; slight damage	..	..	..	..	..	..
"	Cloud, 24 years	Barque..	280	10	..	Timber ..	Stranded; partial loss	..	Port Albert, Kaipara ..	S.	..	When heaving out to the anchor, with tug ahead, the vessel's stern swung inshore with the young ebb, and her heel caught the ground. The tug was unable to pull her clear	William Henry Heays.
29	Mavis, 2 years	Schooner	..	4	..	Maize ..	Stranded; partial loss	..	Mahia Peninsula ..	S.E.	..	Vessel's false keel became loose, and consequently she would not beat to windward	Edward Rose Campbell.
May 13	Takapuna, s.s., 16 years	Schooner	377	43	10	General	Deck swept by heavy sea; loss of boat, &c.	1	Half a mile from entrance to Port Nicholson	S.	Strong gale	An A.B., Andrew Hughson, was washed overboard by a heavy sea, which also carried away a boat and deck-fittings	John Grant.
May 14	Obau, s.s., 15 years	Schooner	411	22	..	Coal and timber	Supposed foundered; total loss	Supposed 22, all hands	Supposed near Cape Campbell, on voyage from Greymouth to Dunedin	S.E.	Heavy gale	No evidence to show how vessel was lost. Ship was a first-class one; her load-line was correctly marked, and she was not loaded so that load-line was submerged. Vessel was last seen off Cape Campbell from 3 to 5 p.m., steaming against a heavy gale, until she was lost sight of. Some of her wreckage was washed ashore at Castlepoint	Robert Brewer.

* Not known.

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	Number of		Nature of		Number of Lives Lost.	Place where Casualty occurred.	Wind.		Decision of Court of Inquiry, &c.	Name of Master.
				Passengers.	Crew.	Cargo.	Casualty.			Direction.	Force.		
1899. May 25	Aparima, 14 years	Schooner	22	3	Mutton-birds and firewood	Foundered; total loss	..	Colac Bay, Foveaux Strait	E.S.E.	Gale ..	Heavy seas breaking on board must have carried away, filling the vessel and sinking her.	Joseph Cross.	
June 1	Hercules, 4 years	Schooner	51	5	General	Stranded; no damage	..	Inside Okuru Bar, West Coast, South Island	..	Calm ..	Master mistook signals on beacon for signal to take the bar	John Skilton.	
"	Tavuni, s.s., 9 years	Schooner	910	40	General	Collision; partial loss	..	About two or three miles north of Rangitoto Island, entrance to Auckland Harbour	E.N.E.	Strong breeze	Vessels came into collision on a dirty, dark night. No look-out appears to have been kept on "Rover"	Donald McLean	
"	Rover, 6 years	Schooner	68	4	Ballast..	Collision; partial loss	..		..	Light ..		Joseph Roderick.
July 10	Te Waipounamu, 4 years	Ketch ..	27	3	Oysters..	Collision; no damage	..	About three miles S.E. of Dog Island, Foveaux Strait	N.W.	Very light	If master of "Te Waipounamu" had slackened up his dredge-lines and taken them right aft his vessel would probably have swung round and avoided collision	Charles Bradshaw	
"	Hananui, 16 years	Cutter ..	22	3	Oysters..	Collision; slight damage	..		S.E.	Whole gale	Casualty caused through failure of oil-engines to work at a critical moment	Chas Goomes.	
"	Oban, 2 years	Schooner	27	4	Ballast..	Stranded; partial loss	..	N.E. of entrance to Mokaun River	S.W.	Very light	Heavy seas stove in side of deck-house fore-castle, bringing down ten bunks and injuring four men	Nels Albert Bertelsen.	
"	John o' Gaunt, 30 years	Barque..	1228	22	General	Damaged by heavy seas	..	Lat. 48° 19' S, long. 157° 53' E., on voyage from Liverpool to Wellington	..	Light		J. C. Cannell.	
Aug. 5	Hercules, 4 years	Schooner	51	5	Coal ..	Stranded; no damage	..	North Spit, Hokitika River	E.	Moderate gale	Vessel went on North Spit when entering narrow entrance of river	John Phillips Goulson.	
"	Sterling, s.s., 7 years	Schooner	26	7	NH ..	Stranded; partial loss	..	Pouke, Kaipara	E.	Storm ..	Casualty caused through vessel's moorings parting, and she was driven ashore	William Robertson	
"	Envy, 15 years	Ketch ..	52	7	Explosives	Damaged by heavy seas	..	Near Great Barrier	E.	Light ..	No blame attachable to master. Vessel left Wellington in seaworthy condition	William H. N. Chamption.	
"	Maud Graham, 23 years	Schooner	80	5	General	Stranded; total loss	..	Quarter of a mile north of landing-slip, Port Robinson	E.	Whole gale	Whilst at anchor a heavy sea set in with a very light wind, and her cable parting, vessel drifted ashore. Wind too light to make sail	Peter Johnson.	
"	Ilala, 17 years	Ship ..	1245	27	General	Loss of life only	1	Lat. 39° 40' S, long. 85° 37' E. On voyage from Liverpool to Wellington	S.W.	..	A stowaway, Joseph Lasley, was washed over-board by a heavy sea breaking on board, and was lost	Allan M. Davies.	
Sept. 15	Pareora, s.s., 3 years	Schooner	355	17	Produce	Stranded; partial loss	..	Reef off Cape Wanbrow, near Oamaru	..	Calm ..	Master neglected to take bearings before setting course to pass Cape Wanbrow. The mate, Alexander Robinson, neglected to call master when weather set in hazy, or fix his position by bearings, or use lead when approaching land (which was obscured), or to at once head vessel to sea before calling master, and when peril to ship was apparent. Master's certificate suspended for one month and mate's for two months, each to pay half costs of inquiry, amounting to £14 12s.	John Christian.	

Date	Ship Name	Age	Value	Loss	Category	Location	Direction	Weather	Incident	Officer
Sept. 20	Mawhera, s.s., 15 years	23	340	Stranded; partial loss	General	Inside East Island, off East Cape	W.	Light ..	Master held blamable for taking passage contrary to warning in "New Zealand Pilot." He was ordered to pay £7 7s., costs of inquiry	Edward Shaw.
" 27	Glencairn, 14 years	4	62	Damage to bulwarks, &c., and loss of boat	Produce	Off Amuri Bluff	S.	Gale ..	Casualty caused by heavy sea, breaking on board while vessel running before gale	Peter Falleson.
" 30	Stanley, 17 years	10	344	Stranded; total loss	Sawn timber	Passage between Red Mercury and Kawitihi Islands	..	Baffling	Master committed grave error of judgment in attempting passage, considering caution in "New Zealand Pilot," which he was aware of, that he had never been through passage, and the size of vessel. He was ordered to pay £16 18s. 2d., costs of inquiry	Alfred Netting-ham.
Oct. 4	Hercules, 4 years	5	51	Stranded; partial loss	General	1 mile south of Arawata River, West Coast, South Island	N.E.	Gale ..	Vessel driven ashore in heavy gale, her cables having parted, and her auxiliary oil-engines not being powerful enough to drive her out to sea against the storm	John Phillips Coulson.
" 6	Zealandia, 30 years	26	1116	Stranded; no damage	General	Abreast of first red buoy, entrance to Bluff Harbour	S.S.E.	Strong breeze	Vessel was being towed into port when tow-line parted, and she took the ground	Robert William Bate.
" 6	Hekeke, s.s., 16 years	18	393	Stranded; total loss	Ballast ..	North Beach, Grey-mouth	..	Calm ..	Vessel when entering Gray River was caught by three large rollers in succession, which threw her out of position, and, being unable to recover herself, was thrown on North Beach. No blame attached to master and officers	Felix Black.
" 31	Pleiades, 30 years	20	997	Stranded; total loss	Ballast ..	Akiteo Beach, south of Cape Turnagain	E.S.E.	Gale ..	Master guilty of negligent navigation. His certificate was suspended for six months, and he was ordered to pay £5 9s. 6d., half costs of inquiry. The chief officer, Alfred James Hailey, was held blamable for negligence in not taking and recording cross-bearings where practicable. He was reprimanded and ordered to pay £5 9s. 6d., half costs of inquiry	Thomas Burton.
Nov. 1	Ruakaka, 17 years	4	44	Stranded; partial loss	Ballast ..	Near Point Rodney, East Coast, North Island	S.W.	Light ..	Casualty caused by carelessness of master, whose certificate was suspended for four months	John Henry Rochfort.
" 4	Lily, 25 years ..	5	84	Loss of life only	Timber ..	Off Rocks Point, West Coast, South Island	W.S.W.	Gale ..	An A.B., Jens Hansen, was washed overboard by a heavy sea and lost	Andrew Bloom.
" 10	Stormbird, s.s., 45 years	13	137	Stranded; slight damage	Wool and empty casks	Te Kamara Bay, near Cape Terawhiti	N.W.	Light ..	Master guilty of negligent navigation. His certificate was suspended for three months, and he was ordered to pay £11 11s., costs of inquiry. The mate, Richard Huggins, was culpable for not calling master when weather became thick, and his certificates were suspended for one month	James Crawford.
Nov. 15	Dingadee, s.s., 16 years	19	393	Collision; partial loss	General	Between Rocks Point and Kiorangi Point, West Coast, South Island	S.S.E.	Light	Second mate of "Dingadee," William Fretwell, disregarded regulations for preventing collisions at sea. His certificate was suspended for three months, and he was ordered to pay £7 7s., half costs of inquiry. Second mate of "Kennedy," Carl August, committed error of judgment, but as he held no certificate, the master was held responsible and ordered to pay £7 7s., half costs of inquiry.	Alexander Lind-say Kerr
" 15	Kennedy, s.s., 34 years	14	127	Collision; partial loss	Coal ..					William Arthur Wildman

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

Date of Casualty.	Name of Vessel, also Age and Class.	Rig.	Registered Tonnage.	Number of		Nature of		Place where Casualty occurred.	Wind.		Decision of Court of Inquiry, &c.	Name of Master.
				Passengers.	Crew.	Cargo.	Casualty.		Direction.	Force.		
1899. Nov. 16	Rotokino, s.s., 9 years	Schooner	1304	30	..	Fruit and sugar	Rudder disabled	5 miles east of High Peak Rocks, East Coast, North Island	E.S.E.	Strong gale	Rudder broke in trunk-way during heavy gale.	Charles McArthur
Dec. 22	Rock Lily, 13 years	Ketch	50	..	Timber	Stranded; partial loss	Half mile inside outer beacon Collingwood		S.E.	..	Vessel left wharf with light S.W. wind, but when near outer beacon wind shifted to S.E., right ahead, compelling her to put back to an anchorage, where she grounded at low-tide, and a swell setting in drove her on to her anchor	John Skelton.
" 28	Nautilus, s.s., 14 years	Schooner	29	4	2	General	Stranded; no damage	Near entrance to Buller River	..	..	Vessel touched slightly on sand while trying to pick up entrance during fog	Samuel Alexander Leech
1900. Jan. 28	Ariel, 10 years	Cutter	20	3	..	Fish	Loss of life only	Foveaux Strait, about 5 miles S. by W. of Bluff Hill	S.W.	Gale	A fisherman, Douglas Hanning, was washed overboard and drowned	
Feb. 11	Aotea, s.s., 5 years	Schooner	4915	65	3	General	Fire on board; partial loss	About 80 miles from Wellington, on voyage to London	..	..	Fire in stokehold and engine-room; probably caused by lagging round boilers becoming inflammable through absorbing very fine coal-dust. Vessel returned to Wellington for repairs.	Edgar J. Evans.
" 18	Wakatu, s.s., 21 years	Schooner	95	14	30	General	Loss of life only	On voyage from Lyttelton to Port Robinson	..	Light	The steward, John F. Robertson, was lost overboard, but there is no evidence to show how or at what time accident occurred	James Wills.
" 22	Chittoor, s.s., 25 years	Barquentine	217	9	..	Coal	Stranded; no damage	2 miles from Picton, east side of harbour	S.E.	Moderate breeze with squalls	Vessel missed stays while going about, wind baffling and following her round. She was towed off by Government steamer "Hime-moa"	James Hamilton.
Mar. 24	Onslow, s.s., 11 years	Schooner	16	3	97	None	Collision; slight damage		..	Light	Collision caused by negligent handling of s.s. "Onslow," in bringing her too close to the port quarter of the "Moura." Master of "Onslow" severely reprimanded, and ordered to pay £2 10s., cost of inquiry	James Ramsay.
" 24	Moura, s.s., 1 year	Schooner	1246	Ballast	Collision; no damage	Upper part of Otago Harbour		

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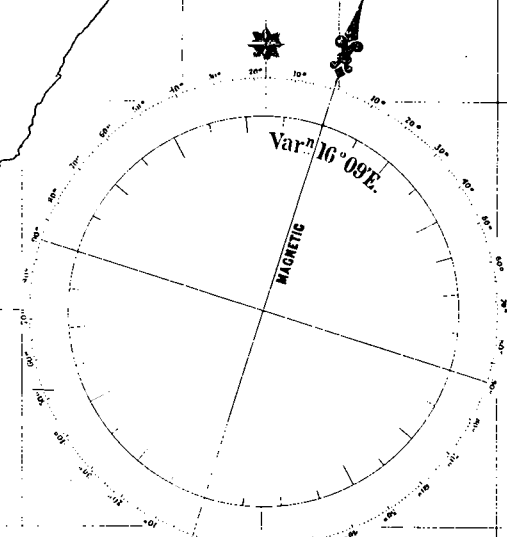
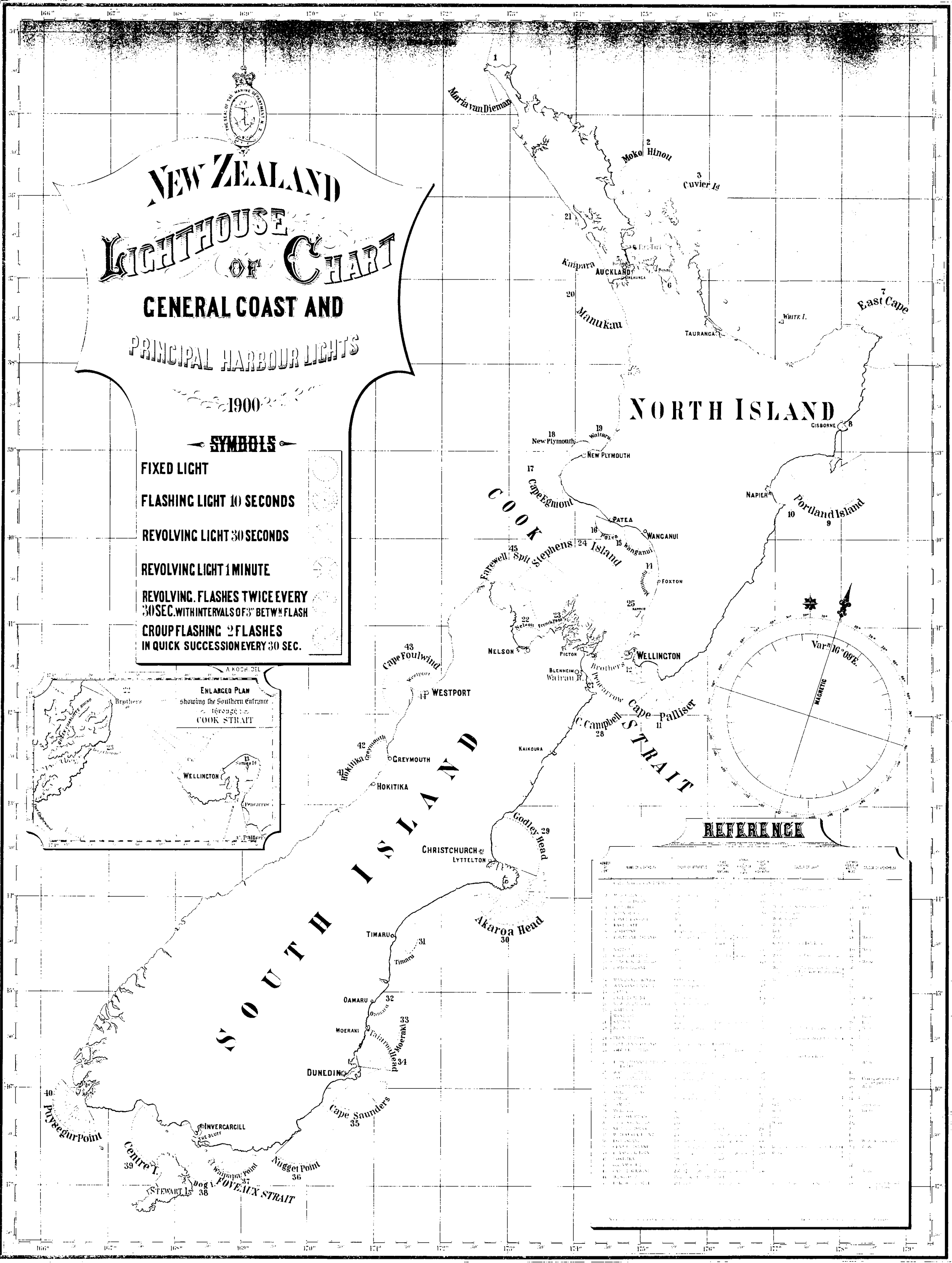
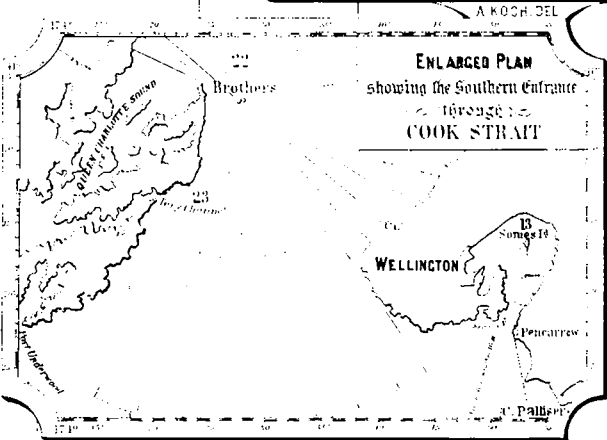
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NEW ZEALAND
LIGHTHOUSE CHART
 GENERAL COAST AND
 PRINCIPAL HARBOUR LIGHTS

1900

SYMBOLS

- FIXED LIGHT
- FLASHING LIGHT 10 SECONDS
- REVOLVING LIGHT 30 SECONDS
- REVOLVING LIGHT 1 MINUTE
- REVOLVING, FLASHES TWICE EVERY 30 SEC. WITH INTERVALS OF 3" BETW. FLASH
- CROUP FLASHING 2 FLASHES IN QUICK SUCCESSION EVERY 30 SEC.



REFERENCE

NO.	NAME OF LIGHT	CHARACTER OF LIGHT	HEIGHT	CLASSIFICATION	CLASSIFICATION	CLASSIFICATION	CLASSIFICATION	CLASSIFICATION
1	Maria van Diemen	Fixed	10	1st	1st	1st	1st	1st
2	Moko Hinou	Fixed	10	1st	1st	1st	1st	1st
3	Cuvier Id	Fixed	10	1st	1st	1st	1st	1st
4	Whangarei	Fixed	10	1st	1st	1st	1st	1st
5	Whangarei	Fixed	10	1st	1st	1st	1st	1st
6	Whangarei	Fixed	10	1st	1st	1st	1st	1st
7	East Cape	Fixed	10	1st	1st	1st	1st	1st
8	Gisborne	Fixed	10	1st	1st	1st	1st	1st
9	Forland Island	Fixed	10	1st	1st	1st	1st	1st
10	Napier	Fixed	10	1st	1st	1st	1st	1st
11	Patea	Fixed	10	1st	1st	1st	1st	1st
12	Wanganui	Fixed	10	1st	1st	1st	1st	1st
13	Wanganui	Fixed	10	1st	1st	1st	1st	1st
14	Wanganui	Fixed	10	1st	1st	1st	1st	1st
15	Wanganui	Fixed	10	1st	1st	1st	1st	1st
16	Wanganui	Fixed	10	1st	1st	1st	1st	1st
17	Cape Egmont	Fixed	10	1st	1st	1st	1st	1st
18	New Plymouth	Fixed	10	1st	1st	1st	1st	1st
19	New Plymouth	Fixed	10	1st	1st	1st	1st	1st
20	Manukau	Fixed	10	1st	1st	1st	1st	1st
21	Manukau	Fixed	10	1st	1st	1st	1st	1st
22	Nelson	Fixed	10	1st	1st	1st	1st	1st
23	Nelson	Fixed	10	1st	1st	1st	1st	1st
24	Island	Fixed	10	1st	1st	1st	1st	1st
25	Island	Fixed	10	1st	1st	1st	1st	1st
26	Island	Fixed	10	1st	1st	1st	1st	1st
27	Island	Fixed	10	1st	1st	1st	1st	1st
28	Campbell Strait	Fixed	10	1st	1st	1st	1st	1st
29	Godley Head	Fixed	10	1st	1st	1st	1st	1st
30	Akaroa Head	Fixed	10	1st	1st	1st	1st	1st
31	Timaru	Fixed	10	1st	1st	1st	1st	1st
32	Oamaru	Fixed	10	1st	1st	1st	1st	1st
33	Moeraki	Fixed	10	1st	1st	1st	1st	1st
34	Moeraki	Fixed	10	1st	1st	1st	1st	1st
35	Dunedin	Fixed	10	1st	1st	1st	1st	1st
36	Nugget Point	Fixed	10	1st	1st	1st	1st	1st
37	Waiapu Point	Fixed	10	1st	1st	1st	1st	1st
38	Stewart Is.	Fixed	10	1st	1st	1st	1st	1st
39	Centre I.	Fixed	10	1st	1st	1st	1st	1st
40	Pyeegur Point	Fixed	10	1st	1st	1st	1st	1st
41	Pyre Point	Fixed	10	1st	1st	1st	1st	1st
42	Pyre Point	Fixed	10	1st	1st	1st	1st	1st
43	Cape Foulwind	Fixed	10	1st	1st	1st	1st	1st
44	Westport	Fixed	10	1st	1st	1st	1st	1st
45	Island	Fixed	10	1st	1st	1st	1st	1st

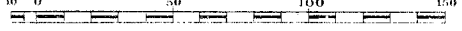
NEW ZEALAND WRECK CHART

1ST APRIL, 1899, TO 31ST MARCH, 1900,

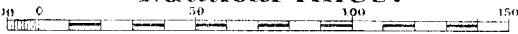
Compiled from Official Records

in the
Marine Department

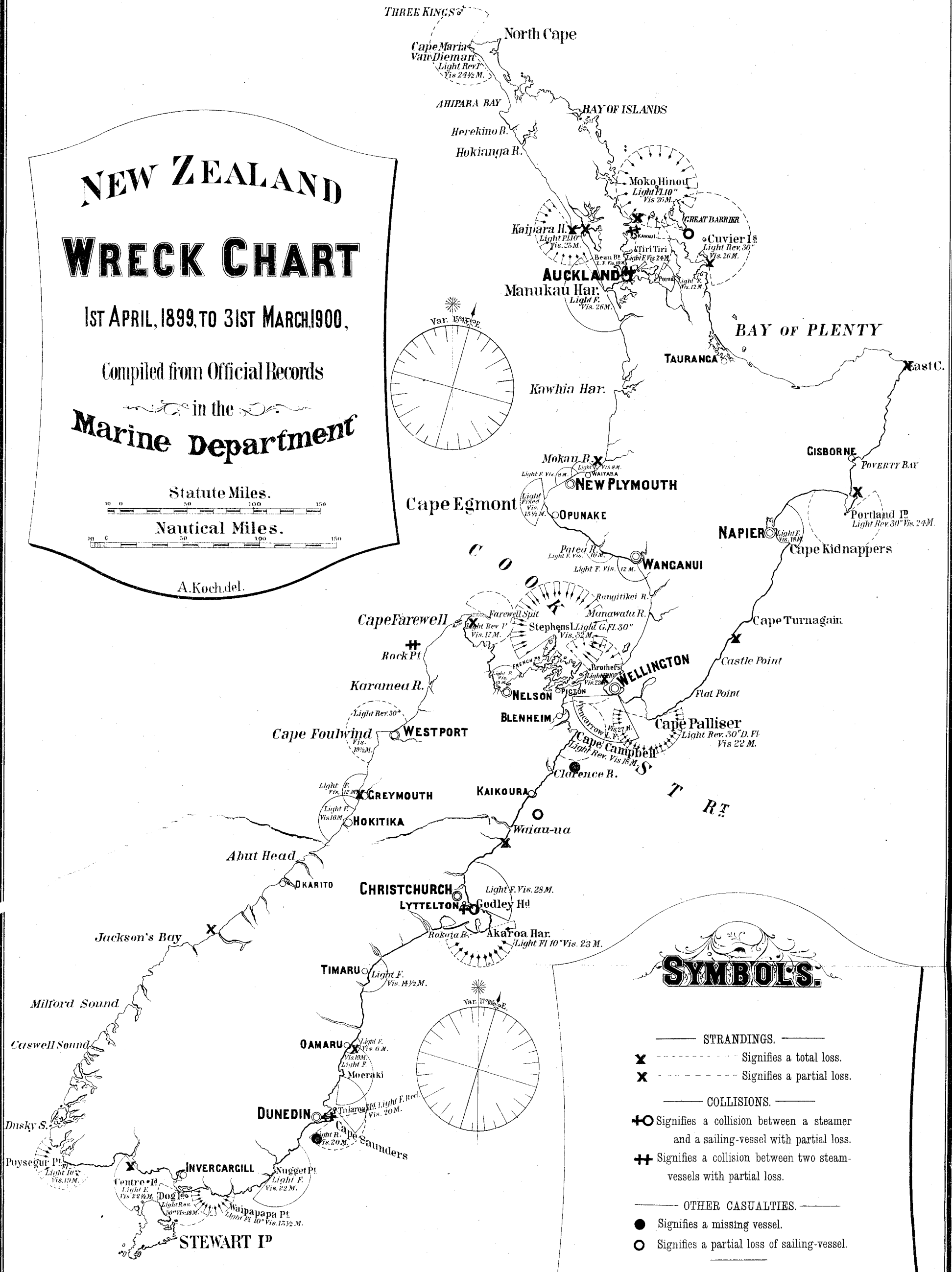
Statute Miles.



Nautical Miles.



A. Koch, del.



SYMBOLS.

- STRANDINGS. —
- X ————— Signifies a total loss.
 - X ———— Signifies a partial loss.
- COLLISIONS. —
- ⊕ Signifies a collision between a steamer and a sailing-vessel with partial loss.
 - ⊕ Signifies a collision between two steam-vessels with partial loss.
- OTHER CASUALTIES. —
- Signifies a missing vessel.
 - Signifies a partial loss of sailing-vessel.

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

○ SNARES

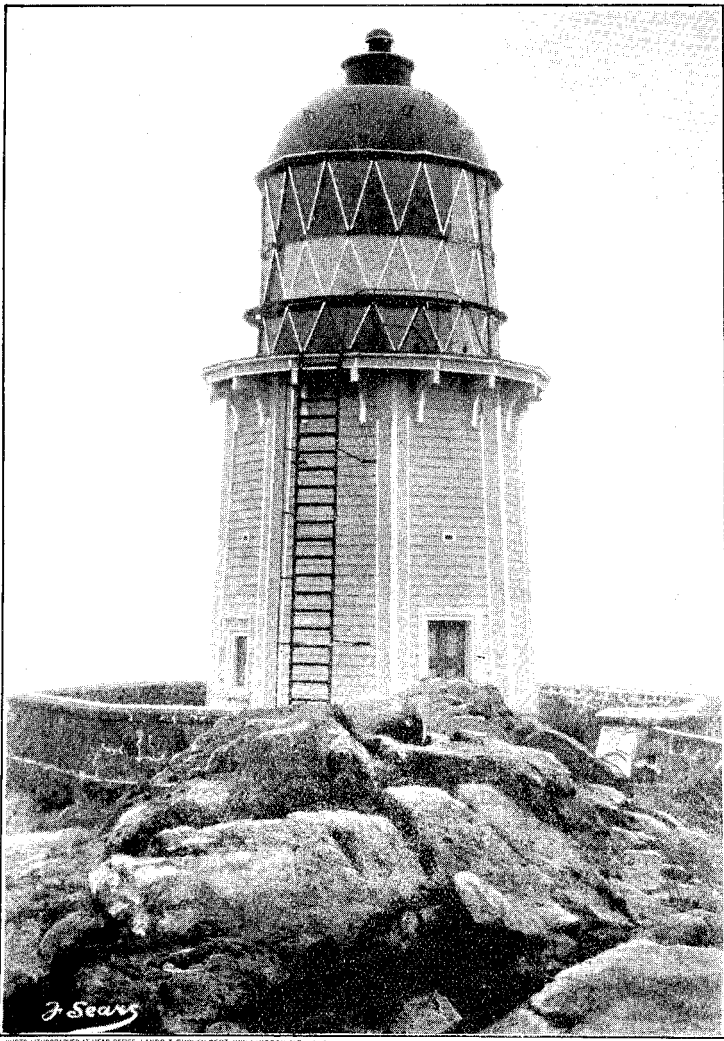


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Centre Island Lighthouse, Foveaux Strait.



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Lighthouse-keeper's Houses, Cuvier Island.

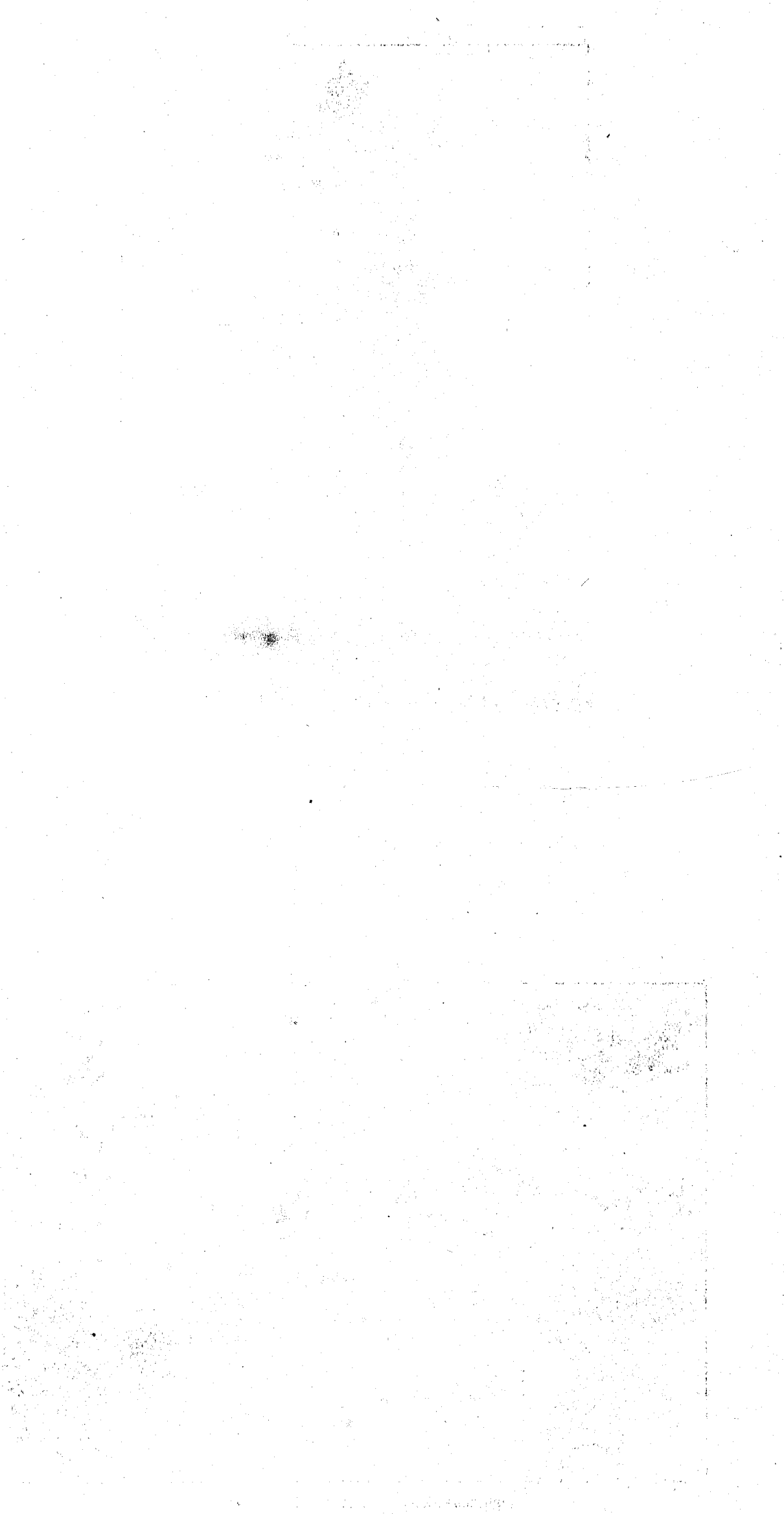




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Puysegur Point Lighthouse.

2000/19

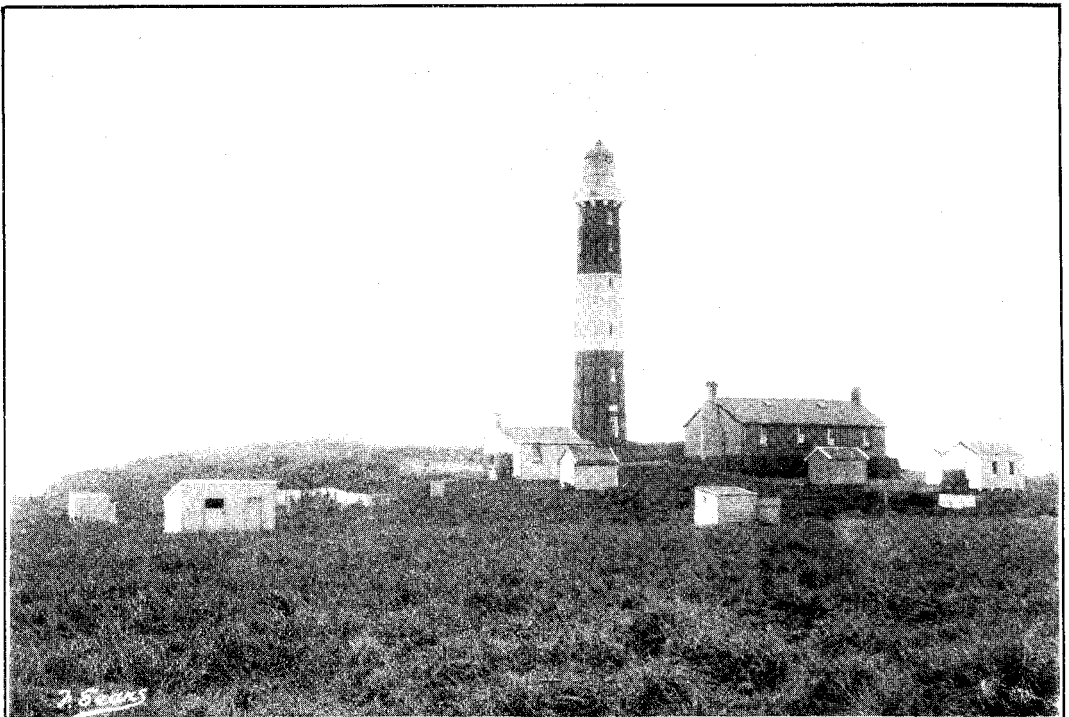


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Dog Island Lighthouse, Foveaux Strait.

2000/19

