SIR .---

APPENDIX.

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

The MARINE ENGINEER to the SECRETARY, Marine Department.

Marine Department, 31st March, 1886.

I have the honour to forward, for the information of the Hon. the Minister having charge of the Marine Department, the annual report on works executed for new lighthouses, and on other works during the year, viz. :-

Light on Cuvier Island.-An order for the lantern and lighting apparatus for this lighthouse has been sent to England for execution.

Removal of Snags and Rocks from the Mokau River.-The amount voted for this work has been expended with a good result for a distance of twenty-seven miles from the mouth of the river. The work has been carried out with the view of securing a channel 35ft. to 40ft. wide, and 7ft. deep at low-water spring-tides; but this depth has not been attained, there being places yet where only 3¹/₂ft., 4ft., and 5ft. of water can be found.

Jackson's Head Beacon.—This is now being erected in the shape of a circular tower of solid concrete, and the work has progressed to a height of about 12ft. from the foundation-level, which corresponds nearly with the low-water line. The height of the tower will be 38ft., but the lateness of the season will prevent the whole of this being completed; enough, however, will be built to serve the purpose of a beacon meanwhile, and the remainder will be finished next summer.

Kaipara Harbour.-Some changes in the soundings in the channels and on the bar pointed to the necessity for a new survey : this is now being carried out, and a new chart will be prepared containing all the necessary information.

Nelson Harbour.—During a visit to Nelson in February I made a survey of the changes in the direction of the channel of the Waimea River, and the results of the survey will be described in a separate report. I have, &c.,

The Secretary, Marine Department.

JOHN BLACKETT. Marine Engineer.

ANNUAL REPORT ON INSPECTION OF MACHINERY.

The CHIEF INSPECTOR of MACHINERY to the SECRETARY, Marine Department.

Office of Chief Inspector of Machinery, Wellington, 5th June, 1886.

Sir,— I have the honour to submit the twelfth annual report on the working of the Inspection of Machinery Acts for the year ended the 31st March, 1886.

The number of boilers inspected during the year was 1,682, being an increase over the previous year of 207. Of this number, 36 boilers were found to be in a dangerous state, and 140 were more or less defective. The reports of the Inspectors will fully explain the nature and extent of such defects.

I have again much pleasure to report that no boiler explosion has taken place during the year. This fact continues to show the advantages of the system of Government inspection as being preferable to, and affording a safer guarantee against explosion than, the voluntary system which is carried out in Great Britain, where, during the past year, 41 steam-boiler explosions took place, killing 30 persons, and injuring 54 others, in addition to 19 miscellaneous explosions, killing 15 persons and injuring 22 others.

Accidents to life or limb to men working about machinery continued to decrease in number during the year as compared with last year and former years; and such accidents will, I feel sure, continue to become less numerous, as all dangerous parts of machinery are being carefully fenced. I have to report that, as in last year, no accidents to persons working about machinery have taken place in the Wellington, Hawke's Bay, Taranaki, Nelson North, Nelson South, or Marlborough Districts; but in Auckland there have been one fatal, and three not fatal; in Canterbury, one not fatal; and in Otago, two not fatal.

A constantly-increasing demand is made upon the time of the Inspectors in regard to the con-struction of new boilers, as it is found to be of great importance, not only to examine the boiler when made, and to witness the hydraulic test, but also to inspect the work in progress. Attached hereto are the annual reports of the Inspectors, which give further and full informa-

tion as to the details of the inspections made, tables showing the number of boilers and machinery inspected in each district, and particulars of the special kinds of defects found in boilers.