10 tons measurement which are now exempt from survey, and for this purpose small amendments to the legislation will be necessary. The application of the tonnage limit, as is done with fishing-vessels to decide when a vessel comes under survey, works out unsatisfactorily in that owners will, if at all possible, keep their vessels below the limit in order to escape the inconvenience (and the small fee) resulting from the annual laying-up of the vessel for survey purposes. This has the undesirable result of perpetuating a fleet of smaller and, consequently, less seaworthy vessels than would otherwise be the case.

The main lights on the New Zealand coast follow the world-wide practice of using incandescent oil-burners, and to ensure that they function correctly the constant attendance of a keeper is necessary. The most desirable improvement in working-conditions that could be brought about in the light-house service is the elimination of this night-watching, and if this can be done without impairing the reliability of the lights, and this reliability must be maintained at any cost, a great advance will have been made. The use of electricity offers great possibilities, and when the new light at Baring Head was erected in 1935 an electric system was installed. There is automatic protection against the failure of a generating-unit, also automatic replacement of a burnt-out lamp, and the keeper is warned of any failure by an alarm automatically sounded in his house. This plant has worked satisfactorily for the past two years, and the Department is now satisfied that a light of this type—that is, lens fixed, lamp 1,000 watts, and characteristic obtained by make and break of circuit—can give the reliable service required at a lighthouse without the attention of a keeper on watch. Almost the whole of the major lights, however, have fixed lights, the flashing characteristic being obtained by revolution of the lenses. This introduces a complication in the introduction of an electric system, but it is thought that a practical solution is possible. The light at Cape Campbell is of this type, and plans have been prepared for its electrification and the order for plant placed. If the expected reliability can be obtained here the programme of general electrification of coastal lights will be put in hand.

It was intimated in last year's report that radio beacon equipment was being ordered from England for Baring Head and Cape Campbell lighthouses on specifications prepared by Post and Telegraph Engineers who had investigated systems in Great Britain. The installation of these two beacons is going on simultaneously with the electrification of the lights, power being generated on the spot by Diesel-engined generating-sets. There were unforeseen and unavoidable delays in the delivery of these equipments, but they have now arrived, and by the time this report is in print Baring Head beacon will be in operation under test. Provision is made on the estimates for a vote of £20,000 to continue the programme.

At the time of the submission of this report His Majesty's Surveying Ship "Endeavour" has arrived in New Zealand waters to undertake the resurvey of the New Zealand coast-line. Work was commenced without delay in the vicinity of Auckland in completion of charts commenced by His Majesty's Surveying Ship "Penguin" in 1905. The major portion of the cost of this work is generously provided by His Majesty's Government in Great Britain, the contribution of the New Zealand Government being the provision of coal, stores, and the cost of docking, refitting, &c.; also the provision of drawing-office accommodation at the Naval Base in Auckland.

Financial.

The following statement summarizes the revenue and expenditure of the Department for the past four years in comparison with the figures for 1922–23.

These figures exclude Westport Harbour, which is summarized separately later :—

Branch.	1922–23.	1933–34.	1934–35.	1935–36.	1936–37.
		Revenue.			
Shipping Branch—	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Light dues	39,688 16 8	89,075 6 0	91,108 3 3	94,020 10 10	98,717 2 4
Engagement and discharge fees	3,179 11 0	1,712 19 6	1,711 13 6	1,793 8 6	2,140 13 0
Survey fees	3,095 9 0	3,542 5 9	3,500 12 0	3,625 5 10	3,731 0 5
Examination fees, &c.	395 12 6	229 12 6	194 14 10	202 3 0	235 2 6
Lighthouse tender—					
Freight, passage-money, &c.	1,785 0 7	719 4 0	4,464 17 0	642 3 8	1,105 1 6
Miscellaneous	1,289 0 4	1,370 19 10	1,305 7 9	1,416 6 10	1,806 3 10
Harbours—					
Pilotage, port charges, &c.	764 14 6	1,806 3 0	1,711 15 1	2,044 0 11	1,855 13 10
Foreshore revenue	1,126 14 1	2,192 8 1	1,963 13 11	2,203 17 10	2,474 2 6
Inspection of Machinery—					
Inspection fees, &c.	17,126 19 6	19,529 12 2	19,331 14 10	19,566 5 8	20,082 15 6
Examination fees, &c.	667 0 0	313 2 6	359 4 6	422 14 6	592 10 0
Fisheries—					
Sale of oysters	7,702 9 6	5,359 16 9	5,925 8 4	3,765 6 8	4,984 13 11
Fishing-boat license fees, &c.	324 9 6	613 7 6	513 17 1	555 8 9	612 13 11
Rental of toheroa-beds	10 0 0	320 1 9	316 0 0	313 0 0	376 0 0
Fresh-water Fisheries: Fees, &c.	..	..	..	..	1,066 15 9
Ross Sea revenue	..	1,000 7 6	600 0 0	500 0 0	100 0 0
Miscellaneous revenue	2,800 11 4	14 8 10	525 11 8	516 19 1	528 17 11
Totals	79,956 8 6	127,799 15 8	133,532 13 9	131,587 12 1	140,409 6 11