

the centre of the loch, where depths of 54 to 57 feet were found, with depths exceeding 60 feet to the north and south. The northern portion of the loch, beyond the narrows at Balnakeilly, is comparatively shallow. The area of the lake-floor covered by less than 25 feet of water is about 260 acres, or 66 per cent. of the total area of the loch; that covered by water between 25 and 50 feet in depth is nearly 100 acres, or 24 per cent.; and that covered by more than 50 feet of water is over 40 acres, or 10 per cent. of the entire area of the loch. It was surveyed on June 25, 1903, and the height of the surface of the water above the sea was determined, by levelling from bench-marks, as being 674.6 feet.

Temperature Observations.—Temperature observations taken in the deepest part of the loch gave the following results.—

Surface	55°.5 Fahr.
10 feet	55°.2 „
25 „	54° 0 „
50 „	52° 5 „
55 „	50° 8 „
60 „	48° 2 „
65 „	48° 0 „

This series shows a range of temperature from surface to bottom of 7° 5, the greatest fall being one of 2° 6 between 55 and 60 feet.

Loch of Forfar (see Plate XXXIII.)—The Loch of Forfar lies immediately to the west of the town of Forfar, surrounded by cultivated fields. It flows by the Dean water into the river Isla, the outflow being a broad ditch with no perceptible current on the date of the survey, the water in the loch being very low. It contains pike, perch, and trout. It trends almost east and west, and is over a mile in length, with a maximum breadth of nearly a quarter of a mile, the mean breadth being about one-seventh of a mile, or 14 per cent. of the length. Its waters cover an area of about 103 acres, or one-sixth of a square mile, and it drains an area 14 times greater—an area of over 2 square miles. Over 60 soundings were taken, the maximum depth observed being 29 feet. The volume of water is estimated at 51,232,000 cubic feet, and the mean depth at $11\frac{1}{2}$ feet, or 39 per cent. of the maximum depth. The length of the loch is 195 times the maximum depth and 494 times the mean depth. The Loch of Forfar is peculiar in conformation, due to the peninsula of Queen Margaret's inch jutting out into the loch about midway along the northern shore. From the extremity of Queen Margaret's inch a submerged causeway runs out, on which depths of 1, 2, and 3 feet were found. The deepest water in the loch lies to the north and west of the inch and causeway, approaching quite close to the end of the causeway, where a depth of 28 feet was recorded, the maximum depth of 29 feet being found a few hundred