

the maximum depth, and 360 times the mean depth. The Loch of Lowes forms on the whole a simple basin, but with here and there minor undulations of the bottom. The maximum depth of 53 feet was observed approximately in the centre of the loch, but a short distance to the north of it a sounding of 42 feet was taken apparently surrounded on all sides by shallower water, and to the west a depth of 7 feet was observed with deeper water all round. Generally speaking, the slope of the bottom is gentle, there being no evidence of any steep gradients. The area of the lake-floor covered by less than 20 feet of water is about 120 acres, or 55 per cent. of the total area of the loch; that covered by water between 20 and 40 feet in depth is about 79 acres, or 26 per cent.; and that covered by more than 40 feet of water is about 19 acres, or 9 per cent. of the entire area of the loch. The Loch of Lowes was surveyed on June 2, 1903, the same day as the Loch of Craiglush, and the elevation of the two lochs above the sea was found by levelling to be identical, viz., 327·6 feet. When levelled by the Ordnance Survey officers on July 13, 1899, the elevation was found to be 327·9 feet above the sea.

Temperature Observations—Temperature observations taken in the deepest part of the loch at 1.15 p.m. gave the following results:—

Surface ..	..	...	...	60°·0 Fahr.
10 feet ..	..	.	..	59°·5 „
13 „ ..	.	.	.	57° 0 „
15 „ ...	..	...	..	52°·2 „
20 „ ..	..	...	...	51°·0 „
30 „ ...	...	..	...	50°·2 „
40 „ .	...	..	...	50° 0 „
50 „ .	.	.	..	50°·0 „

This series shows a range of 10° in the temperature throughout the 50 feet of water, the greatest fall being one of 4°·8 between 13 and 15 feet. Compared with the temperatures taken in the Loch of Craiglush earlier in the day, this series shows a smaller range (the temperature at the surface being lower and at the bottom higher, notwithstanding the greater depth), and the position of the greatest fall in the temperature was observed at a greater depth, viz., between 10 and 15 feet, as compared with between 8 and 10 feet in the Loch of Craiglush.

Loch of Butterstone (see Plate XXIX.).—The Loch of Butterstone (or Butterston) is, like the two neighbouring lochs, to a large extent surrounded by trees; its shores are sandy or weedy, and many coots nest among the weeds. It is almost circular in outline, the greatest diameter (or length) from north-east to south-west being about three-fifths of a mile, while the maximum breadth from north-west to south-east is about half a mile, the mean breadth being over a quarter of a mile, or 50 per cent. of the length. Its waters cover an area of about 108 acres,