

with trees and grass, and is said by Mr. Patrick Murray to be natural; the small island to the south is artificial, composed of stones, with a submerged causeway running eastward to the shore; the island in the south-western portion of the loch is also artificial, built on piles, and is said to have been used as a prison. Loch Monzievaird trends in a north-east and south-west direction, being widest and deepest towards the south-western end; there is a central constriction which divides the loch into two basins. It is over half a mile in length, with a maximum breadth of one-fifth of a mile, the mean breadth being over one-tenth of a mile, or 19 per cent. of the length. Its waters cover an area of about 37 acres, and it drains an area of $1\frac{2}{3}$ square miles—an area 27 times greater than the area of the loch. Over 60 soundings were taken, the maximum depth observed being 39 feet. The volume of water contained in the loch is estimated at 23,905,000 cubic feet, and the mean depth at nearly 15 feet, or 38 per cent. of the maximum depth. The length of the loch is 74 times the maximum depth, and 198 times the mean depth. The depth of water in the central constriction is 7 feet, with deeper water on both sides, the maximum depth observed in the north-eastern portion of the loch being 20 feet, while the maximum depth of the loch (39 feet) occurs in the south-western portion, comparatively near the western shore, where the Conalter burn flows in and the Downie burn flows out. The area of the lake-floor covered by less than 10 feet of water is about 15 acres, or 39 per cent. of the total area of the loch; that covered by water between 10 and 20 feet in depth is about 14 acres, or 37 per cent.; that covered by water between 20 and 30 feet in depth is about 4 acres, or 12 per cent.; and that covered by more than 30 feet of water is about 4 acres, or 12 per cent. of the entire area of the loch. Loch Monzievaird was surveyed on June 8, 1903; its elevation above the sea was not determined by levelling, but it is evidently slightly under 200 feet since the 200-foot contour almost coincides with the shore-line. The outflow is controlled by a sluice, and on the date of the survey the water in the loch was very low.

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

Surface	.	.	.	.	.	68°·0	Fahr.
5 feet	.	.	.	.	.	68° 0	„
10 „	..	...	...	...	...	60°·5	„
15 „	..	...	...	...	...	53°·0	„
20 „	.	..	.	.	...	51°·0	„
36 „	.	..	...	...	..	47°·4	„

This series shows a range of temperature from surface to bottom amounting to 20°·6, there being a fall of 7°·5 between 5 and 10 feet, and a similar fall between 10 and 15 feet—a decrease of 15° in the 10 feet of water, equal to 1°·5 per foot.