

a gradient of 1 in 4·2. The area of the lake-floor covered by less than 10 feet of water is about 52 acres, or 70 per cent. of the total area of the loch; that covered by water between 10 and 25 feet in depth is about 18 acres, or 25 per cent.; and that covered by more than 25 feet of water is about 4 acres, or 5 per cent. of the entire area of the loch. Loch Long was surveyed on June 24, 1903, and its elevation above the sea was determined, by levelling from bench-mark, as 724·0 feet.

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

Surface	...	...	..	...	...	...	...	58°·4 Fahr.
10 feet	..	...	..	...	...	...	...	57°·0 ..
15 ..	.	...	...	...	...	...	...	55°·4 ..
20 ..	..	...	...	.	...	..	...	54°·0 ..
40 ..	.	...	.	.	...	..	...	53°·2 ..

This series shows a range of temperature throughout the 40 feet of water of 5°·2, there being a fall of 3° between 10 and 20 feet.

*Pitlyal Loch* (see Plate XXX.).—Pitlyal Loch (or Round Loch, or Thripley Loch) lies about a quarter of a mile to the south-east of Long Loch, and is surrounded by gently sloping cultivated fields. There is a fringe of weeds all round the shore. Grebe and coots were seen, and there were swans on the small islet with bushes about 100 feet north-west of the boathouse. The outflow to the Dighty burn is by artificial dam and sluice; the water may rise 2 to 3 feet above its level on the date of the survey. The loch is well described by its name "Round Loch," for it is subcircular in outline, though rather longer from north to south than from east to west. It is over one-fifth of a mile in length, with a maximum breadth of about one-seventh of a mile, the mean breadth being about one-ninth of a mile, or 52 per cent. of the length, and its waters cover an area of about 15 acres. Thirty soundings were taken, the maximum depth observed being 19 feet. The volume of water is estimated at 5,347,000 cubic feet, and the mean depth at  $8\frac{1}{3}$  feet, or 44 per cent. of the maximum depth. Pitlyal Loch forms a simple basin, but the deeper water is found towards the western shore, so that the slope of the bottom is steeper off that shore than off the eastern shore; a sounding of 11 feet was taken about 100 feet from the western shore, and the maximum depth of 19 feet was recorded about 150 feet from that shore. The area of the lake-floor covered by less than 10 feet of water is nearly 10 acres, or 65 per cent. of the total area of the loch. Pitlyal Loch was surveyed on the same day as Long Loch (June 24, 1903), and its elevation above the sea was determined by levelling from bench-mark as being 606·5 feet.