are rocky. The length, in a straight line joining the ends, is $1 \frac{1}{2}$ miles, the maximum breadth, near the upper end, a quarter of a mile. The eastern basin is largest and deepest, with stoep sides and nearly flat centre, and the maximum depth of 55 feet. The middle basin is similar, but smaller, and has a depth of 48 feet. Between these basins the depth is only 22 feet. The western basin is separated from the middle basin by a strait, in which the depth is only 12 feet-the slope is less steep, and the maximum depth is 36 feet. Another constriction, with a depth of 10 feet, separates a small expansion at the west end of the loch, with a depth of 23 feet. The area of the loch is about $14 t$ acres, or nearly a quarter of a square mile, the mean depth is over 18 feet, and the volume of water 116 millions of cubic feet. The drainage area is extensive, measuring $14 \frac{1}{4}$ square miles, and comprises the whole southern slope of the Merrick, the northern slope of the Lamachan, and a number of lochs to the north-east, which were not surveyed.

The principal streams fceding the loch are the Pulnabrick and Puchan burns on the north, and the Gairland and Glenhead burns, which unite and enter the head of the loch. The Water of Trool flows out to the south-west, and joins the Minnoch about 2 miles distant. There is a sluice at the outflow. The surface on August 14, 1903, was 246.35 feet above sea-level, or rather higher than the elevation determined by the Ordnance Survey on June 26, 1894, viz. $245 \cdot 9$ feet. The temperature varied over $2^{\circ}$ from surface to bottom, thus :-

| Surface .. |  |  | ... | ... |  |  | ... | 58.3 Fahr |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | feet |  | $\ldots$ | .. | . |  | .. | $58^{\wedge} \cdot 2$ |  |
| 20 | " | .. | .. | $\ldots$ | $\ldots$ | $\ldots$ | . | $57^{\circ} 0$ |  |
| 30 | , | ... | ... |  |  | .. | $\ldots$ | $56^{\circ} 8$ | " |
| 40 | , | $\ldots$ | $\ldots$ |  | ... | $\ldots$ | $\ldots$ | $56^{\circ} 5$ | " |
| 50 | " | ... | ... |  | ... | ... | ... | $56^{\circ} 0$ |  |

From the following table it will be seen that in the fifteen lochs under consideration 594 soundings were taken, and that the aggregate area of the water surface is over 2 square miles, so that the average number of soundings per square mile of surface is 280 . The aggregate volume of water containcd in the lochs is estimated at 527 millions of cubic feet. The area drained by these lochs is nearly $35 \frac{1}{2}$ square miles, or $16 \frac{1}{2}$ times the arca of the lochs.

