

about a quarter of a mile from the south-west end to about one-third of a mile from the north-east end, and is very nearly 14 miles in length. The 200-foot basin stretches from about $1\frac{1}{4}$ miles from the north-east end to about $2\frac{1}{2}$ miles from the south-west end, and is about 11 miles in length. The main 300-foot basin approaches to within less than two miles from the north-east end, and is over $7\frac{1}{2}$ miles in length; it is separated, by a slight shoaling of the bottom over an interval of about a mile, from a small subsidiary 300-foot basin (based upon soundings of 301 and 305 feet), which is over half a mile in length. The 400-foot basin is over $3\frac{1}{2}$ miles in length, lying in the northern half of the loch, and approaching to about $3\frac{3}{4}$ miles from the north-east end. The deepest part of the loch lies between Skiag on the south-eastern shore and Cragganruar on the north-western shore, about $5\frac{1}{2}$ miles from the north-east end of the loch, or about 6 miles by road from Kenmore, where there is a small basin over 500 feet in depth, two soundings of 508 feet being recorded about midway between the two shores.

The area of the lake-floor covered by less than 100 feet of water is estimated at about 1972 acres (over 3 square miles), or over 30 per cent. of the total area of the loch; the area between the 100-foot and 200-foot contour-lines is about 1532 acres (nearly $2\frac{1}{2}$ square miles), or $23\frac{1}{2}$ per cent.; the area between the 200-foot and 300-foot contours is about 1390 acres (over 2 square miles), or over 21 per cent.; the area between the 300-foot and 400-foot contours is about 1017 acres (over $1\frac{1}{2}$ square miles), or $15\frac{1}{2}$ per cent.; the area between the 400-foot and 500-foot contours is over 600 acres (rather less than one square mile), or over 9 per cent.; while the area covered by more than 500 feet of water is about 9 acres, or a small fraction of 1 per cent. of the entire area of the loch. These gradually decreasing areas between the contour-lines drawn in at intervals of 100 feet indicate that the average slope of the bottom becomes steeper and steeper on proceeding from the shore out into deep water; this is also clearly shown by a comparison of the two shallow zones on both sides of the 50-foot contour-line, the area between the shore and the 50-foot line being about 1161 acres, while the area between the 50-foot and 100-foot lines is about 811 acres, or respectively about 18 and $12\frac{1}{2}$ per cent. of the total area of the loch. The slope of the bottom of the loch is shown on the natural scale and exaggerated five times on the longitudinal and cross sections on the map.

Loch Tay was surveyed on April 29 to May 7, 1902, and the level of the surface of the water was determined by levelling from benchmarks as being 349.1 feet above the sea. The officers of the Ordnance Survey found the level to be 347.9 feet above the sea on August 12, 1899.

Temperature Observations.—Many surface temperatures were taken during the progress of the survey from April 29 to May 7, 1902, the readings varying from $41^{\circ}8$ Fahr to $47^{\circ}5$ —a range of $5^{\circ}7$. The higher