

# PHYSICAL AND GEOLOGICAL STRUCTURE OF LORD HOWE ISLAND.

## I.—Physical Structure.

THE geographical position of Lord Howe Island has been already described, and it has been shown that under this name are included a number of outlying rocks. Chief amongst these are the Admiralty Islets to the north; Mutton Bird Island to the east; Rabbit or Goat Island, within the Lagoon, on the west; and the solitary pinnacle, Ball's Pyramid, away to the south-east.

The outline of Lord Howe Island itself is roughly crescentic, or, as very appropriately termed by Mr. H. T. Wilkinson, J.P., "boomerang-shaped."\* The length, as the crow flies, is six or seven miles, or, taking into consideration the inequalities of the surface, probably nearly double that distance. The average width is one mile, but at the southern end of the island it is considerably more. The island has been estimated, by Mr. Charles Moore,† to contain 3,220 acres, 2,000 of which would be capable of cultivation. Personally I do not think that much more than a third of this amount will ever be fit for the agriculturist, and then only under certain conditions.

On approaching from seaward its bold, and in many places, rugged outline becomes apparent; whilst the close and intricate growth of the vegetation on the hill slopes obscures its really heavily timbered condition.

Lord Howe Island is practically formed of three high volcanic ridges, the most striking physical features of which, says ‡ Mr. H. T. Wilkinson, "are the mountains known as Mount Gower and Mount Ledgbird. The former rises in cliffs from the sea to an altitude of 2,840 feet and the latter to a height of 2,504 feet, together forming the southern and south-eastern portion of the island and presenting a coast-line of rugged cliffs inaccessible from the sea." The most northerly of these masses forms the northern extremity of the island, and is known as the North Ridge; the central mass forms Mount Lookout; and the southern, and by far the largest is composed of the two large hills before mentioned, with a few subsidiary eminences, such as the North Hummock and Intermediate Hill. These form the back-bone, as it were, of this most interesting spec of oceanic land, aptly termed the "Madeira of the Pacific," § and are visible at sea for a distance of at least fifty miles. The intermediate depressions are formed of low undulating rises; and the shore frontages, when not precipitous, are flat and usually open, but sometimes like the low rises densely wooded. Nearly two-thirds of the west coast, or the concave side of the boomerang,

\* Report on the Geology of the Island, *Lord Howe Island. Report on Present State*, &c., p. 4.

† Hill's *Lord Howe Island*, *Loc. cit.*, p. 17.

‡ *Op. cit.*, p. 4.

§ The Island of Lord Howe: "The Madeira of the Pacific." By "Linnaeus" (12 mo. Sydney, 1882).