and several smaller streams. North of this there are several prominent headlands. The west coast terminates at Cape Grim, opposite which arc the group known by the name of Hunter’s Islands. Going eastward along the north coast Circular Head is met with, a narrow peninsula running out for six miles and terminating in a rocky bluff 400 ft. high. Further east are Emu Bay, Port Frederick, Port Sorell and Port Dalrymple, into which flows the Tamar river, on which Launceston is situated. In Bass Strait arc several large islands belonging to Tasmania; King's, Flinders, Cape Barren and Clarke Islands are the largest. Flinders Island has an area of 513,000 acres. Among the rivers flowing northward to Bass Strait are the Tamar, Inglis, Cam, Emu, Blyth, Forth, Don, Mersey, Piper and Ringarooma. The Macquarie, receiving the Elizabeth and Lake, falls into the South Esk, which unites with the North Esk to form the Tamar at Launceston. Westward, falling into the ocean, are the Hellyer, Arthur and Pieman. The King and Gordon gain Macquarie Harbour; the Davey and Spring, Port Davey. The central and southern districts are drained by the Derwent from Lake St Clair—its tributaries being the Nive, Dee, Clyde, Ouse and Jordan. The Huon falls into D’Entrecasteaux Channel. The main axis of the Great Cordillera—so termed originally by Sir Roderick Murchison— bordering the eastern coast-line of Australia, may be traced across Bass Strait in the chain of islands forming the Furneaux and Kent group, which almost continually link Tasmania with Wilson’s Promontory, the nearest and most southerly part of the Australian mainland. Tasmania is wholly occupied by the ramifications of this chain, and in itself may be said to embrace one and all of its characteristic features.

Taking a stand near Lake Fergus, to the east of Lake St Clair, the observer will find himself nearly in the centre of an ex­tensive plateau, with an elevation, especially on the northern side, of between three and five thousand feet above the sea-level. This elevated plateau extends from Dry’s Bluff in the north to the Denison Range in the south-west, and although often receding at points adjacent to the sources of the principal rivers, invariably presents a bold crested front to the north, west and east. At its greatest elevation it is comparatively level, and contains many extensive freshwater basins, such as Lake Augusta, Lake St Clair, Lake Sorell, Lake Echo, Lake Crescent, Arthur’s Lake and the Great Lake. The marginal crests of this mountain tableland, together with its upper surface, are known locally as “ Tiers,” and have a very com­manding aspect in the neighbourhood of Longford, Westbury, Delo- raine and Chudleigh. The extent of the principal elevated plateau is best appreciated when we consider that it maintains its general altitude in a westerly direction from Dry’s Bluff (4257 feet) on the north to Cradle Mountain (5069 feet) in the north-west, a distance of nearly 50 miles; from Dry’s Bluff in a south-westerly direction to Denison Range, a distance of over 60 miles; and from Dry’s Bluff to Table Mountain in a southerly direction, a distance of above 43 miles. This plateau itself again rests upon a more extended tableland, stretching westwards, and, with the Middlesex Plains, the Hampshire Hills and the Emu Plains, maintaining an altitude of 1200 to 2000 feet. Its limits follow the coast-line more or less closely, the space between it and the sea often broadening out into low-lying tracts not much raised above the sea-level. Here and there, rising abruptly from its surface, are to be seen isolated peaks, the most characteristic of which are Valentine’s Peak (3637 feet) and Mount Pearse. Ridges and plateaus of a similar character, but more or less isolated, such as Ben Lomond (5010 feet) and Mount Wellington (4166 feet), are to be found in the north-east and south-west of the island. Towards the extreme west and south, anticlinal and synclinal ridges trend north and south, the most characteristic being the Huxley, Owen, Sedgwick, Franklin and Arthur Ranges. Settlement of population has taken place princi­pally among the plains and lower levels of the north-western, midland and south-eastern parts of the island, following in the main the rocks of Tertiary and Mesozoic age. In the Recent Tertiary period the soils of these plains and valleys have been greatly enriched by extensive outbursts of basalt with accompanying tuffs. These basalts produce a very rich chocolate soil, and were it not for their influence, the greater part of what is now the most fertile part of the island would have been comparatively poor or altogether sterile.

The appearance of the island throughout is wonderfully beautiful, with its open plains, bordered by far-extending precipitous moun­tain tiers, its isolated shaggy peaks and wooded ranges, and its many noble rivers and lakes. Its coasts for the most part, especially towards the south, are bold, and frequently indented with splendid bays and harbours, affording ample shelter and safe anchorage for ships. On the western side one is reminded of scenes in the highlands

of Ross-shire and Inverness-shire in Scotland, from the picturesque character of the blue, white, and pinkish crystalline peaks and the fantastic outlines of the mountain ranges which rise abruptly to a height of from 2000 to nearly 3000 feet above the Button Grass Plains. (T. A. C.)

*Geology.—*Tasmania is, geologically, an outlier of the Australian continent. It is most intimately connected with Victoria, from which it was only separated by the foundering of Bass’s Strait in late Pliocene or early Pleistocene times. The precise date of the separation is fixed as later than the Miocene, since the fringe of the marine Miocene deposits along the southern coast of Victoria is broken, from Flinders to Alberton ; and this gap was no doubt due to the subsidence of the land, of which the islands in the Bass Strait are remnants, which then connected Tasmania with the continent. The latest date for the existence of this connexion is given by the absence from Tasmania of the dingo, the lyre-bird and the giant marsupials; so that the isolation of Tasmania was earlier than the arrival of those animals in south-eastern Australia. That it was not much earlier is shown by the fact that some still living species of mammals, such as the thylacine, existed before the separation.

The geological sequence in Tasmania is full, and the island contains a better series of Carboniferous rocks than is found in Victoria. The nucleus of the island is a block of Archean rocks, which arc not, so far as is known, extensively exposed. The most certain repre­sentatives of the Archean arc the gneiss and schists of the Dove river and the upper Forth, and the hornblende-schists, which are exposed in the river valleys on the margins of the central plateau. The Mount Lyell schists which underlie the West Coast Range, and the quartzites of Port Davey on the western coast, have also been regarded as Archean. The Lower Palaeozoic systems begin with the Cambrian, which are found in northern Tasmania near Latrobe, and contain Cambrian fossils as *Dikelocephalus Tasmanicus* and *Conocephaliles stephensi.* The Ordovician system has not been certainly' identified ; but probably many of the slates and quartzites in north-western Tasmania and of the mining field of Beaconsfield on the estuary of the Tamar, are Ordovician. The Silurian system, however, is well developed in north-western Tasmania, and is represented by slates, limestones and sandstones yielding a dis­tinctively Silurian fauna. The rocks are best known by the lime­stones in the lead mining field at Zeehan, and the slates, including the tin mine of Mount Bischoff.

The Devonian system is best represented by the massive con­glomerates and quartzites, which form the West Coast Range extending from Mount Lyell on Macquarie Harbour, through Mounts J ukes, Owen, Lyell, Murchison and Geikie, to Mount Black. These mountains consist of detached remnants of a sheet of quartz con­glomerates, interbedded with sandstones, containing crinoid stems and obscure brachiopods. They rest unconformably on the Silurian rocks on the King river and to the west are faulted against the schists by a powerful overthrust fault, traversing the Mount Lyell copper field. A northern extension of these conglomerates forms the Dial Range near Burnie. The Devonian period, as in Victoria, was marked by a series of granitic intrusions, which altered the older beds on the contact, while the quartz-porphyry dikes, which are intrusive in the Silurian rocks at the Mount Bischoff tin mine, doubtless belong to this period. The Carboniferous system begins with a series of marine limestones, shales and grits, including a rich Lower Carboniferous fauna. The Carboniferous rocks occupy the whole of the south-eastern corner of Tasmania; and one outlier occurs on the northern coast in the Mersey Valley. This formation helps to build up the central plateau, and a band outcrops around its edge. The Upper Carboniferous includes beds of shale and coal; but though the coal is good, the seams are thin and have not been much worked. The Coal Measures are covered by marine shales with numerous bryozoa ; and, on the horizon of the Greta Coal Measures of New South Wales, is a bed of Carboniferous glacial deposits.

The Mesozoic system is not well developed. It is usually regarded as beginning with a fresh-water scries containing the remains of fish and labyrinthodonts; but as it also contains *Vertebraria* it is probably Palaeozoic; and this series is covered by sandstones and shales which are probably of Triassic age. The most conspicuous member of the Mesozoic group is the sheet of diabase and dolerite, made up of laccolites and sills, which covers most of the central plateau of Tasmania. These rocks form the prominent scarps, known as the Tiers, on the edge of the plateau, and its outliers, such at Mount Wellington near Hobart, and the’ Eldon Range. This sheet of diabase has been regarded as Carboniferous; but, according to W. H. Twelvetrees, it is probably Cretaceous. The Cainozoic system includes at Table Cape an outcrop of marine beds probably of Oligocene age. Lower Cainozoic lacustrine beds with fossil plants, of the same age as those which underlie the older basalts of Victoria, occur in the valleys of northern Tasmania. The Cainozoic series includes many igneous rocks. The tinguaites and sölvsbergites of Port Cygnet, south of Hobart, may be of this age; they are intrusive in Carboniferous rocks, and there is no evidence of their precise date; but their resemblance to the rocks associated with the geburite-dacite of Victoria suggests that they may belong to the beginning of the Cainozoic volcanic period of south-eastern Australia. North-western Tasmania in Pleistocene times had an