with an altitude of from 1500 to 2000 feet and covered by a thick ice-sheet, occupies the north. Several fjords— Horn Sound, Bel Sound, Ice Fjord (15 miles wide and 80 long), and the double fjord of King’s Bay and Cross Bay on the west, and Liefde, Wiide, and Lomme Bays on the north—deeply penetrate the island. One of the ramifica­tions (Dickson Bay) of the beautiful Ice Fjord, 150 fathoms deep, nearly reaches the head of Wiide Bay, so as almost to divide the island. A long narrow island, Prince Charles’s

Foreland, with peaks of nearly 5000 feet high, runs parallel to part of the west coast of West Spitzbergen, from which it is separated by a narrow strait. The broad Stor (Great) Fjord, or Wiide Jans Water, separates the main island from two others to the east,—Stans Foreland (2500 square miles) and Barents Land (580 square miles). Formerly these were considered as one, and named Edge Island, until the narrow Walter Thymen Strait which parts them was discovered. A few peaks, estimated at from 1600 to 2000 feet high, protrude above the snow and ice by which these two imperfectly explored islands are covered. To the north-east of West Spitzbergen, separated from it by Hinlopen Strait (7 to 60 miles in breadth) lies North-East Land, with an area of about 6200 square miles. Its western and northern coasts are indented by several bays and fjords; the southern and eastern shores, on account of the masses of ice by which they are constantly girt, remain unexplored. This island appears like a broad plateau covered by an ice- sheet 2000 to 3000 feet in thickness, from which a few peaks protrude. Slowly moving towards the east, this immense sheet of ice discharges into the sea by a huge ice-wall, unbroken by promontories for 150 miles, thus forming the broadest glacier known,—Dickson’s glacier. Eastwards from this group of islands, 100 miles to the north-east of Stans Foreland, rises another island, measur­ing 90 miles from west to east. Marked either Gillis’s Land or Wiche’s Land in earlier maps, it was seen from Spitzbergen as a snow-clad mass mingling with the fogs of the sea by a Swedish expedition, and later on by Heuglin and Zeil; but it was not until 1872 that the Norwegian whalers Altman, Johnsen, and Nilsen reached it from the east and nearly circumnavigated it. After some discussion about its name, it has received from Pro fessor Mohn the name of King Charles Land, which is now generally accepted. The wide strait which separates it from Spitzbergen is called Olga Strait. It is now established that Gillis saw Gillis’s Land to the north-east of the archi­

pelago, and this land, which may perhaps be a link between the Spitzbergen archipelago and that of Franz-Josef, has been again sighted by Norwegian seal-hunters. Numerous small islands lie around the larger :—the Danes and Nor­wegians Islands on the north-west, the Seven Islands on the north, Outger Reps, Brock, and Charles XII. Island on the north-east, Waygat Islands and William I. Island in Hinlopen Strait, the Ryk Yse Archipelago, Hope Island, and the Thousand Islands (about a hundred small rocks) to the east and south of Stans Foreland, and many other smaller ones. Many of these small islands rise to a height of 1500 to 1700 feet.@@1

The archipelago, which has the Greenland Sea to the west and Barents Sea to the east, rises from a submarine platform that extends from Bear Island north-eastwards to Franz Joseph Land, and probably was an immense arctic continent connected with Greenland during the middle of the Tertiary period. The sea around Spitzbergen has a depth of less than 100 fathoms. Owing to this circumstance the ice readily accumulates round the shores; and, although the glaciers of Spitzbergen do not give origin to icebergs so huge as those of Greenland, the smaller icebergs and the pack-ice are thick enough to prevent access to the shores except for a few months in the year. Happily the Gulf Stream, which washes the shores of Norway, after sending a branch to the east, flows north to the western shores of Spitzbergen, moderating its climate, and leaving an open passage which permits whalers to approach the western coast even under the most unfavourable conditions of ice in the arctic regions. Drift-wood brought from lower latitudes, glass-floats of the Norwegian fishermen, and even the large seeds of the *Entada Gigalobium,* carried by the Gulf Stream from the Gulf of Mexico, are found at the northern extremity of Spitzbergen. On the other hand, a cold current charged with ice descends from higher latitudes along the eastern coast, rendering approach extremely difficult. On this account King Charles Land remained unknown until 1872, and the eastern coast of North-East Land still continues unexplored.

Owing to the warm current, the climate of Spitzbergen is less severe than in the corresponding latitudes of Greenland and Smith Sound. The isotherm of 23° Fahr. (-5° C. ), which crosses the middle of Eastern Siberia, touches its southern extremity, and only the north-east coasts of West Spitzbergen and North-East Land have an average yearly temperature so low as 14° to 10°∙5 (-10° to-11°·9 C.). At Mussel Bay (79° 53') the average yearly tem­perature is 16° (January 14°∙l, July 39°·3). Bear Island, notwith­standing its more southerly position, has a lower temperature, as the Gulf Stream does not touch it. Even in the coldest months of the winter a thaw may set in for a few days ; but, on the other hand, snow sometimes falls in July and August. Spring conies in June ; the snow becomes saturated with water and disappears in places, and scurvy grass and the polar willow open their buds. By the end of June the thermometer has ceased to sink below the freezing-point at night ; July, August, and September are the best months. In September, however, autumn sets in on shore, though the whalers continue cruising until the end of the month and even reach the highest latitudes. By the end of September the pack-ice rapidly freezes into one solid mass. To move on this mass, however, is exceedingly difficult, for the ice, owing to its contraction and expansion, is either intersected by large fissures or broken up and piled into heaps, which puts insuperable difficulties in the way of sledge expeditions.

Glaciers are largely developed. On the high grounds the snow under a level of from 1200 to 1500 feet disappears every year ; but on the plateaus it continually accumulates, so as to cover them with an immense ice-sheet, like that of Greenland, which slowly discharges by the valleys towards the sea in the form of immense glaciers. All North-East Land and the interior of West Spitz­bergen are covered with such ice-sheets, which descend to King’s

@@@1 Bear Island, half-way between the North Cape and Spitzbergen, can hardly be reckoned to the Spitzbergen archipelago. It was for­merly renowned for its hunting grounds, but is very seldom visited now. Lying outside the course of the Gulf Stream, it is almost entirely ice-bound.