From what has been already said respecting the extreme variation in the breadth of Scotland at different places, the fact may be inferred, that the outline on the sea-coast is exceedingly irregular, and of great extent, the sea penetrat­ing to a great depth, both on its eastern and western sides. Of these arms of the sea, the most considerable are the Firths of Forth and Tay, and the Moray and Dornoch Firths, on the east; and the Firth of Clyde and the Luce and Wigton Bays, on the west and south-west ; whilst there are a very great number of smaller inlets, called lochs, such as Loch Fyne, Loch Long, Loch Etive, Loch Lynnhe, Loch Broom, &c., which indent the country in all directions, to an extent vary­ing from ten to seventy miles. With this irregularity of out­line is combined a surface generally rugged and mountainous. With the exception of narrow tracts along its principal rivers, there is very little of the country flat or level, or what would be regarded as productive land in more favoured regions. “ To such a degree,” says Mr. M'Cullocb, “ is this the case, that, estimating the whole extent of the country, exclusive of lakes, at 19,000,000 acres, it is doubtful whether so many as 6,000,000 be arable ; whereas, taking the extent of England and Wales at 37,000,000 acres, the arable land certainly exceeds 29,000,000 ; so that, while in Scotland, the proportion of the cultivable to the entire land is less than one-third, in England it exceeds three-fourths. With the exception, indeed, of a few tracts of rich alluvial land, (carses), Scotland has no very extensive vales ; the surface of the rest of the country being, even where most level, considerably varied with hill and dale.”@@1 In the south of Scotland, a tract of mountainous country, known by various names, stretches in a south-west direction, from the Cheviot hills in Roxburghshire, on the borders of England, to the Irish channel, sending off branches on both sides, whilst de­tached hills prevail over the whole of the contiguous districts. These high grounds, however, are for the most part clothed in green, almost to their summits, and have little of that wild, romantic, and desolate character, which distinguishes many of the mountains of the Highlands. Northward from the isthmus formed by the Firths of Forth and Clyde, the low grounds constitute but a small proportion of the whole. Here, in latitude 57°, the Grampians extend from sea to sea, with a breadth of from forty to sixty miles ; and parallel to them, to the south, is another chain, called the Siedlaw, Ochills, and Campsie hills. Between these two ranges lies the fer­tile valley of Strathmore ; whilst, farther north, cultivation is mostly confined to the sea-coast, the banks of the larger rivers, and the narrow glens between the mountains. On the north-west, beyond the line of the Caledonian canal, the country is, with few exceptions, singularly rugged and sterile ; consisting of lofty mountains, cither covered with heath, or presenting a mass of naked rocks, interrupted only by deep and dark ravines, lakes, and precipitous streamlets. But the eastern coast of Ross-shire is comparatively level and fertile ; and Caithness, the north-eastern county of the mainland of Scotland, is generally low, marshy, and un­productive.

Scotland is divided into Highlands and Lowlands. “ Those countries, whose inhabitants speak a different language, and wear a different garb,” says Mr. Home, in his *History of the Rebellion,* 1745,@@^ “ are not separated by firths or rivers, nor distinguished by northern or southern latitude. The same shire, the same parish, at this day, contains part of both ; so that a Highlander and Lowlander (each of them stand­ing at the door of the cottage where he was born) hear their neighbours speak a language which they do not under­stand.” The line which separates the Highlands from the Lowlands is by no means well defined ; but it may be de­scribed as beginning at Dunbarton, on the Firth of Clyde, and proceeding northward by Crieff, Dunkeld, and Blair­

gowrie, it runs through the forest of Morven, in the heights of Aberdeen, to Carron, in Banffshire; from Carron it stretches due west by Tarnoway, in Morayshire, to the town of Nairn ; from Nairn the line is continued to Inverness ; and from this latter place, it proceeds in a tortuous direc­tion, to Dunistra, on the south side of the Firth of Dor­noch, where the line of separation may be said to terminate, the country to the north of this firth being altogether High­land, except a narrow stripe of land along the shores of the German Ocean, which washes the east coast of Sutherland and Caithness. To the west of this line lie the Highlands, which, including the Hebrides, constitute in superficial ex­tent nearly one-half of Scotland, although the inhabitants of this division do not form an eighth part of the population of that kingdom. The face of the country is wild, rugged, desolate, and mountainous. In almost every strath, valley, or glen, there glitters a stream or lake; and numberless firths, or arms of the sea, penetrate the land. The *passes* into the Highlands lie in deep ravines or glens, so narrow, and soover- hung by mountains, that they admit of being very easily de­fended, and till recently, when roads have been made, they were impracticable almost to every one except the natives. To this must principally be ascribed the successful resistance opposed by the Highlanders to the attacks of the Romans and the Saxons ; and hence, also, these northern people still form a distinct race, the lineal descendants of the ancient Celtic inhabitants of the country, and differing essentially in language, dress, and manners, from the Lowlanders..

The climate of Scotland, as may be expected, from its insular situation and high latitude, is cold, cloudy, and humid. This is its general character, as compared with the greater part of England ; yet, even in the south of England, frost is sometimes more intense, and snow falls more copiously than in Scotland. Corn, however, and most of the fruits and vegetables common to both divisions of Great Britain, attain maturity about three weeks earlier in the south of England than in Scotland ; and some plants, such as hops and a few others, cannot be profitably cultivated at all in the latter country. The mean annual temperature of Scot­land is very high for the latitude, being about 461/2° in places near the level of the sea. In the more southerly parts of the kingdom, the climate differs but little from that of the northern parts of England. Sir David Brewster states the mean annual temperature to be 48 36 at Leith. At Edin­burgh, which is elevated from 300 to 400 feet above the level of the sea, and situated two miles from it, the annual tem­perature is 47∙8, and this may be taken as a near approxi­mation to the general average of Scotland ; the mean tem­perature of winter being 38∙6, of spring, 46∙4, of summer, 58∙2, of autumn, 48∙4, the coldest month being 38∙3, and the warmest 59·4.@@3 The observations published in the *New Statistical Account of Scotland,* and in the *Transac­tions of the Royal Society of Edinburgh,* closely approxi­mate to the above estimate. In the parish of Inch, Wigtonshire, the mean temperature for the year 1837 was 48∙41. At Applegarth Manse, in the interior of Dumfriesshire, the average annual temperature for seven successive years, ending in 1831 inclusive, was 47Ί2; that of the spring being 40∙31, of the summer, 56∙86, the autumn, 54∙18, and of winter, 39·92. At Wick in Caithness the mean annual temperature is 46∙7, that of the winter being 40∙35, the spring, 44∙4l, the summer, 5377, and the autumn, 48·82 ; whilst at Sumburgh-head, the most southerly promontory of the Shetland Islands, in latitude 59° 52', the mean annual temperature is 45 ∙5, that of the winter being 40, the spring, 43·29, the summer, 50∙60, and the autumn, 47∙48. The range of the barometer is 2∙82 inches, or from 30·92 to 28· 10 inches; and in the Orkney and Shetland Islands it is somewhat more, or about three inches. The fall of rain is very diffcr-

**@@@, Statistical Account of Great Britain, vol. i. p. 239.**

**@@@, Home’s Works, vol. iii. 385, 386.**

**@@@5 Ibid.**