

of the Duna, south of Dünaburg and Polotz. The surface covered by this swamp is perhaps not inferior to that of England. Some parts of it are wooded. We do not know what is the elevation of this swamp above the level of the sea, but we may conjecture that it is not less than 300 feet. Towards the northern extremity of the swamp the watershed turns due east, and is here formed by an undulating country which separates the upper courses of the rivers Duna and Dnieper. But where it approaches the sources of the Volga it turns first north-east and then north, and here it is overtopped by steep and rocky hills, called the Hills of Waldai, which rise highest in the neighbourhood of that town, where they attain an elevation of 1200 or 1300 feet above the sea. This seems to be the highest point of the watershed. It continues in a northern direction till it passes 60° N. lat. between the lakes of Onega and Bielo Osero, and then turns south-east to the sources of the Suchona, the principal branch of the Dwina: thence it proceeds in an east-north-east direction to the sources of the Petshora, which falls into the Arctic Sea, and of the Kama, a branch of the Volga, where it terminates in the Ural range. That portion of the watershed which is east of the hills of Waldai is covered with an immense forest, called the Forest of Volkhonsky.

The country north of the watershed is, in general, of moderate fertility; there are some districts which are covered with sand, while others have a rich soil. That series of small lakes which we noticed in the western part of the plain continues in this at nearly the same distance from the Baltic, forming likewise a subordinate watershed. East of 22° E. long., however, it stretches farther inland, approaching the northern extremity of the great swamp, and then continues north of it along the watershed to the hills of Waldai, and still farther in the Forest of Volkhonsky, where it terminates near 35° E. long.

The country north of 60° N. lat. is only in a few places fit for agriculture, partly on account of its cold climate, and partly on account of the sterility of the soil. That portion which lies west of the lake of Onega is rocky, and is mostly traversed by ridges of rocky hills, which lie in a north and south direction. These hills rise in some places to 500 or 600 feet above the sea. Most of them, as well as the level country between them, afford excellent pasture-ground. This region is remarkable for the numerous large lakes which cover nearly one-fourth of its surface, and are connected by short natural channels. The largest of these lakes are the Ladoga, Onega, Saima, and Enara.

There are only a few lakes east of the lake of Onega. It appears that the watershed here rises to a greater elevation, and that the slope of the country is more regular. Its southern districts are still covered with forests, and a few spots are cultivated; but the northern districts extend in immense plains, covered with moss, which by attracting the water of the melting snow renders them impassable for the greatest part of the summer. A few rocky ranges of hills occur on this plain, but we are not acquainted with their direction and elevation.

By far the larger part of the Great Plain extends to the south of the watershed. Contiguous to its southern declivity extends a country of great fertility, from 300 to 400 miles in width. It begins on the west near the foot of the Carpathian Mountains, and terminates on the east where the Volga begins to run south-south-west. The parallel of 49° forms its southern boundary as far east as about 40° E. long., whence it runs in a north-eastern line to the town of Simbirsk on the Volga. The town of Moskwa, situated nearly in its centre, is 480 feet above the sea. The country east of the Volga, as far as the Ural range, is mostly covered with hills, and is even mountainous, being traversed by the offsets of the great range: it is of moderate fertility in the valleys, which are frequently wide. The hills and lower parts of the mountains are covered with forests.

To the south of this region extend the deserts which are called the Steppes. They may be divided into the Higher

and Lower Steppes, the line of separation between them being the high ground which extends north and south between the Don and Volga. The Higher Steppes occupy the western part of the plain, extending south of the fertile region to the very shores of the Black Sea. Their elevation above the sea may be between 150 and 200 feet. They are without trees, produce only in some places a few shrubs, and are overgrown in the early part of the summer with a coarse grass, which makes very indifferent pasture. In the latter part of the summer and autumn their dry brown surface shows no sign of vegetation. Agriculture can only be carried on in the narrow bottoms along the rivers. The peninsula of the Crimea is connected with them by a low isthmus. Three-fourths of its surface resemble the Lower Steppes; but on its southern shores rises a mountain-range, whose highest summit, the Chatyr Dagh, is 5040 feet. The valleys of this range are fertile.

The Lower Steppes are at the eastern extremity of Europe, extending between the southern extremity of the Ural range and Mount Caucasus along the banks of the river Ural, and on both sides of the lower course of the Volga. They occupy a space more than twice as large as the area of the British Islands. The southern part is lower than the level of the sea. The town of Saratow on the Volga, more than 300 miles from the Caspian, is not above the sea level. We do not know how much higher the northern districts of these steppes rise, nor if their soil differs from that of the southern, which are covered with a fine sand, intermixed with shells, producing no trees nor shrubs, but at certain seasons a scanty grass. This soil is strongly impregnated with saline matter, and most of the lakes which occur here contain such a quantity of salt that it crystallises in summer, and supplies the greater part of the inhabitants of Russia. In no part of these steppes are any traces of agriculture visible except in the neighbourhood of Astrakhan.

We shall conclude this general survey of Europe by observing that the Ural range, which runs about 1500 miles, first south and then south-south-east, rises in its highest summit, the Pawdinskoi Kamen, to more than 6800 feet above the sea; that the Lower Steppes extend east of the river Ural far into Asia; and that Mount Caucasus, though only few of its summits attain the snow-line, rises in its highest summit higher than the Alps, Mount Elboorz attaining an elevation of 16,800 feet.

Seas.—Looking at the map of Europe we find that the coast-line is formed alternately by wide projecting promontories and deep bays, which divide them from one another. This peculiarity has led a large proportion of its inhabitants to a sea-faring life; and as the winds and weather in the waters that surround this continent are not regulated by the seasons of the year, but are subject to continual changes, this circumstance has given to them that boldness in maritime enterprise which forms the most distinguishing feature in their character, and raises them above most other civilised nations of the globe.

Europe, in fact, considered by itself, is only a large peninsula, which is further cut up into a great number of smaller peninsulas by the interior seas and gulfs which penetrate far inland into the main mass of the peninsula; consequently, in proportion to its surface, it presents a much greater extent of coast than any other of the great divisions of the globe, as will appear by the annexed table, which however must be considered only as a rough approximation:—

	Surface in square miles.	Coast-line. Miles.	Ratio of one mile of coast-line to area in square miles.
Asia	18,000,000	35,000; or, including the islands, 40,000.	500; or, including the islands, 420.
Africa	14,000,000	16,000	900
Europe	3,900,000	20,000	195
America	15,000,000	32,000 (without the coast of the Arctic Sea).	470