gold was visible on the outside. Those who have explored this country are of opinion that it is decidedly rich in mi­nerals ; and. from the situation of the mines in a populous district, with a complete command of machinery of every description, there will be great advantages for working them. The gold mines on the Rappahannock are not above half a dozen miles from the city of Washington. The rich gold veins are said to be finely developed ; to be composed of quartz, commonly called white flint, from one to five feet in thickness, generally perpendicular in the earth, like a wall, supported on both sides by sort talcose slate; and to extend from the surface to an unknown depth. Gold has not un­usually been found in the broken veins of the fragments at the surface; and it has also been found at the depth of 160 feet, increasingly rich.@@1 Mercury and tin have not been found. Cobalt, antimony, manganese, and ores of zinc, occur in some few spots. Nitre is obtained in vast quantities from the limestone caves in Kentucky. On a general view, it may be said that the United States have a supply of coal, salt, iron, lead, and probably copper, adequate to their own consumption.

The United States have no considerable lake entirely within their territory, except Michigan. But a series of fresh-water lakes, by far the largest in the world (for the Caspian Sea is salt), and connected with one another by the St Lawrence, extends along the northern frontier. The following is their extent, and their elevation above the level of the sea.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Lakes. | Length. | Breadth. | Area. | Height in Feet. |
| Superior.. | 350 | 150 | 35,000 | 642 |
| Huron | 220 | 150 | 17,000 | 589 |
| Michigan | 310 | 70 | 18,000 | ... |
| St Clair | 30 | 30 | 900 | 570 |
| Erie | 230 | 55 | 10,300 | 560 |
| Ontario | 170 | 50 | 7,200  88,400 | 110 |

Reckoning from Quebec to the western extremity of Su­perior, these lakes afford a line of 1550 miles of inland na­vigation, which will be increased to 4500 miles if we include the whole extent of their shores. But Quebec is far from the open sea, and the shortest and best route to the Atlan­tic. from Lake Erie and the waters above will be by the New York Canal. Lake Erie is about twenty fathoms in average depth, Ontario eighty, and Lakes Huron, Michigan, and Superior are said to be still deeper. All these inland waters can be navigated with advantage ; and will be crowded with vessels at some future period, when an active population covers the North-West Territory. The principal interruptions at present are, lst, at the rapids between Montreal and Kingston, where it is proposed to cut a canal ; 2d, at the rapids and the great fall of Niagara, where a canal is also projected ; 3d, in the stream of the river between Lakes Huron and Erie, where there are also rapids, and in Lake St Clair, which is full of shallows ; 4th, at the falls of St Mary, between Huron and Superior, amounting to twenty-three feet in half a mile. All these obstructions, it is believed, can be surmounted by art. These various lakes evidently occupy the bottom of a raised plateau, the outer sides of which are not very distant ; and hence they receive very few rivers of any magnitude. Their shores are beset with ice for two, three, or four months in the year.

Lake George, thirty-six miles long and seven broad, pours its waters into Lake Champlain, which is 160 miles long and eighteen broad, and communicates by the river Sorelle with the St Lawrence. A canal, twenty two miles long, now nearly finished, connects Lake Champlain with the Hudson. We pass over the other lakes of smaller size.

The rivers of the United States belong to four different systems: 1st, those which water the Atlantic region ; 2d, the Mississippi and its branches, which water the great central valley of North America; 3d, those which flow into the St Lawrence ; and, 4th, the Columbia and its tri­butaries, which flow into the Pacific Ocean.

The rivers which fall into the Atlantic and the Gulf of Mexico, from Maine to the eastern boundary of Louisiana, all rise in the Alleghanies, except the Susquehannah and the Hudson, which pass entirely through the principal chains. Their length varies from 200 to 450 miles, increas­ing gradually with the breadth of the level country, as we advance southward. The tide-water ascends in all these rivers to the outer boundary of the primitive formations, where falls regularly occur, except on the Hudson. In this river the tide reaches to Albany, 160 miles from its mouth, to which point there is an uninterrupted navigation for sloops of eighty tons. This peculiar advantage has made the Hudson the scene of a more active inland trade than any river, perhaps, in the world, of the same magnitude. Tide navigation reaches a very short way up the great rivers in the northern states generally ; but in those south of the Susquehannah, it reaches generally from 100 to 130 miles. Boats ply on these rivers much farther up, but the navigation is seldom uninterrupted. The following are the principal rivers on the Atlantic side, with their computed lengths.

Miles. Miles.

Connecticut 290 Roanoke 230

Hudson 300 Pedee 290

Delaware 270 Santee 300

Susquehannah 350 Savannah 280

Potomac 2G0 Catahouche 400

James River 200 Alabama 440

The rivers that fall into the St Lawrence and its lakes are comparatively small, and probably do not carry off one tenth part of the water that falls on the cast side of the Mississippi. The most considcrable are the Fox River, which falls into Lake Michigan, the Miamie of Lake Erie, the Genessee, and Seneca of Lake Ontario, and the Sorelie or Richlieu, which joins the St Lawrence below Montreal.

The majestic Mississippi drains a greater surface than any river in the world except the Amazon, and in the magni­tude of its stream is only surpassed by the Amazon and the Plata. It has been computed to convey to the Mexican Gulf 1/38th of all the water which the ocean receives from the dry land. The extreme length of the Mississippi proper, includ­ing all its sinuosities, is generally computed to be 2500 miles, but reckoning to the head of the Missouri, which is the largest branch, it is nearly 4000. It has three bars at its mouth, the deepest of which affords only seventeen feet of water. (War­den, i. 114.) Sloops of this draught can navigate to Natchez, 350 miles from its mouth. There is depth sufficient at all times for sloops drawing six feet to the Ohio, and for vessels drawing three feet to the junction with the Missouri. (James’s Expedition, iii. 258.) But during the floods in May, June, and July, the waters rise fifty feet, and are then navigable by vessels of any size. The Mississippi, from its junction with the Ohio to the sea, is about 1000 yards, or two thirds of a mile, in width, and below Red River it is about 120 feet deep. From the junction of the Arkansas, its banks form an elevated ridge or platform, which support the stream at the height of ten or twenty feet above the level of the adja­cent lands. In its floods, it sometimes bursts the barriers which confine it, and inundates the flat country below. Οι the two great branches, the Missouri, and Mississippi proper, the former stream is the larger and more rapid, and also more turbid, from the quantity of travelled soil it transports ;

@@@1 See American Railroad Journal, p, 437.