

blows, (and the prevailing winds are from the west, or from some point near the W. or S.W. in this part of the ocean,) crosses the Gulf Stream and carries with it a portion of its heat, discharging it in its passage over Europe. The isothermal lines of 60° and 55° , starting from the parallel of 40° on the American coast, run in a north-easterly direction, retaining nearly the same oceanic temperature on the European side in latitude 55° and 60° as exists on the American coast in latitude 40° .

In the Pacific there are tropic and arctic currents like those in the Atlantic, and from similar causes. The Japan stream, or Kuro-Siwo—black stream—a name derived from the deep blue colour of its waters—flows from the south-east of Asia in a north-easterly direction, falling upon the western coast of North America. This stream, flowing many thousand miles further than the Atlantic tropic current, is not so hot nor its littoral waters so cold as those in the Atlantic, but it spreads over the entire pacific coast of Canada. These two currents in the Pacific—the arctic and tropical—produce similar effects to those in the Atlantic; the one warming the western coast of North America, in high latitudes, and the other cooling the eastern shores of Asia.

Through the agency of these two currents in the Atlantic, the western countries of Europe are much warmer than the eastern parts of America in similar latitudes; the difference being about eight degrees in latitude 41° ; eleven and a half in lat. 51° ; and twenty-five in lat. 58° . Similar causes in operation in the Pacific ocean give an equal elevation of the temperature of the western coasts of America over the eastern coasts of Asia in the same latitudes—the arctic currents chilling the one and the tropical currents warming the other.

From Vancouver in lat. 49° to Sitka in 57° , the summer temperatures are as high and as uniform as in the west of Europe, except where the vicinity of mountains may modify the normal conditions of climate. Sir John Richardson says "the climate of Sitka" [on the Pacific coast] "is much warmer than that of Europe in the same parallel." (Arc. Ex. Vol. 2 p. 279.) The isothermal of 60° for the three summer months rises as high as latitude 63° east of the Rocky Mountains in the valley of Mackenzie river. Youkon, west of Mackenzie river and within the Arctic circle, lat. 67° , has a July of $65^{\circ} 7'$, and an August of 60° .

In comparing the well known regions of the old world with the less known corresponding parts of the new; western coasts with western; eastern with eastern; and interior divisions with interior, we find a remarkable similarity in the climates of the two continents. The United States are similarly situated on the North American continent with China on the Eastern; in latitude, in position on the continents, they are the same, and in climates similar. Canton, in China, lat. 23° , has a summer temperature of 82° , and Key-West in Florida, lat. $24^{\circ} 32'$, a summer of 82° . Peking, lat. 40° , has a summer of 76° , which is only two or three degrees above that of Philadelphia, of the same latitude. Mangasaka, Japan, and Charleston in South Carolina, in the same latitudes, have summers of 80° . London, in the west of Europe, and Vancouver, in the west of North America in similar latitudes, have the same mean summer temperatures, about 61° and a half; Sitka in lat. 57° , Sir John Richardson says has a climate much warmer than Europe in the same latitude. The climates of the interior are warmer in summer and colder in winter than those on eastern and western coasts, but are somewhat similar on both continents, being, however, warmer on the Red, Saskatchewan and Mackenzie rivers, than in the same parallels on