Even in the Färoë Islands, at 62° latitude, the inland waters never freeze, owing to the favoring influence of the west winds and of the sea. On the charming coasts of Devonshire, near Salcombe Bay, which has been termed, on account of the mildness of its climate, the *Montpellier of the North*, the Agave Mexicana has been seen to blossom in the open air, while orange-trees trained against espaliers, and only slightly protected by matting, are found to bear fruit. There, as well as at Penzance and Gosport, and at Cherbourg on the coast of Normandy, the mean winter temperature exceeds 42°, falling short by only 2°·4 of the mean winter temperature of Montpellier and Florence.* These observations will suffice to show the important influence exercised on vegetation and agriculture, on the cultivation of fruit, and on the comfort of mankind, by differences in the distribution of the same mean annual temperature, through the different seasons of the year.

The lines which I have termed *isochimenal* and *isotheral* (lines of equal winter and equal summer temperature) are by no means parallel with the *isothermal* lines (lines of equal annual temperature). If, for instance, in countries where myrtles grow wild, and the earth does not remain covered with snow in the winter, the temperature of the summer and autumn is barely sufficient to bring apples to perfect ripeness, and if, again, we observe that the grape rarely attains the ripeness necessary to convert it into wine, either in islands or in the vicinity of the sea, even when cultivated on a western coast, the reason must not be sought only in the low degree of summer heat, indicated, in littoral situations, by the thermometer when suspended in the shade, but likewise in another cause that has not hitherto been sufficiently considered, although it exercises an active influence on many other phenomena (as, for instance, in the inflammation of a mixture of chlorine and hydrogen), namely, the difference between direct and diffused light, or that which prevails when the sky is clear and when it is overcast by mist. I long since endeavored to attract the attention of physicists and physiologists† to this

* Humboldt, *Sur les Lignes Isothermes*, in the *Mémoires de Physique et de Chimie de la Société d'Arcueil*, t. iii., Paris, 1817, p. 143–165; Knight, in the *Transactions of the Horticultural Society of London*, vol. , p. 32; Watson, *Remarks on the Geographical Distribution of British Plants*, 1835, p. 60; Trevelyan, in Jamieson's *Edinburgh New Phil. Journal*, No. 18, p. 154; Mahlmann, in his admirable German translation of my *Asie Centrale*, th. ii., s. 60.

† "Hæc de temperie aeris, qui terram late circumfundit, ac in quo, longe a solo, instrumenta nostra meteorologica suspensa habemus. Sed