measured, is about 50 degrees 4-10ths. The frost of the year 1788 was so severe that the Thames was passable on the ice; the mean temperature of that year was 50 degrees 6-10ths, being within a small fraction a degree of the standard. In 1796, when the greatest cold ever observed in London occurred, the mean temperature of the year was 50 degrees 1-10th, which is likewise within a fraction of a degree of the standard. In the severe winter of 1813-14, when the Thames, Tyne, and other large rivers in England were completely frozen over, the mean temperature of the two years was 49 degrees, being little more than a degree below the standard. And in the year 1808, when the summer was so hot that the temperature in London was as high as 93½ degrees, the mean heat of the year was 50½, which is about that of the standard.

The same numerical indications of the constancy of climate at the same place might be collected from the records of other instruments of the kind above-mentioned.

We shall, hereafter, consider some of the very complex agencies by which this steadiness is produced; and shall endeavour to point out intentional adaptations to this object. But we may, in the meantime, observe how this property of the atmospheric changes is made subservient to a further object.

To this constancy of the climates of each place, the structure of plants is adapted; almost all vegetables require a particular mean temperature of the year, or of some season of the year; a particular degree of moisture, and similar conditions. This will be seen by observing that the range of most plants as to climate is very limited. A vegetable which flourishes where the mean temperature is 55 degrees, would pine and wither when removed to a region where the average is 50 degrees. If, therefore, the average at each place were to vary as much as this, our plants with their present constitutions would suffer, languish, and soon die.