

other place. If we would determine the temperature of any day, and compare it with that of some other day, it would not be sufficient to have a record of the thermometer for some one period in each, but a series of observations would be taken, one every hour, for instance, and the sum of these, divided by the number of experiments, would give the mean temperature. So, in taking the annual mean temperature of a place, it will be necessary to make a number of observations, and the sum of these, divided by the number of experiments, will give the element required. The more frequently and regularly these observations are made, the more accurate will be the result; and we may be forgiven the wish, if it should appear enthusiastic or absurd, that the temperature could be constantly registered once in every six hours for a few years, throughout all the possessions of the British empire, and the difficulties which now surround this interesting branch of meteorology would soon disappear.

To a casual observer, climate appears to be the most irregular of all natural appearances; and to such a person it must seem almost impossible to reduce the phenomena into such a shape as to bear the semblance of a law. Those who have merely noted the atmospheric phenomena from day to day, or from month to month, may be able to inform us how much hotter or colder a particular day, month, or season, has been this year than it was at some one which is past; but they will probably fall into the error of supposing that the climate itself has changed, should it happen that the summer has for a consecutive period been hotter than usual, or the winter colder. But if, instead of dealing in these generalities, the measurement of the temperature be taken at fixed periods throughout the year, and the sum reduced to a mean, little difference will be found in successive years. The mean temperature of London is $50\ 4-10$, and it seldom or ever deviates much from this, even when there is an extreme degree of heat or cold at a particular season. In 1808, the summer was so hot that the thermometer stood in London at $93\frac{1}{2}^{\circ}$, but the mean temperature of the year was $50\frac{1}{2}^{\circ}$; and notwithstanding the severe winter of 1813-14, when all the large rivers of England were frozen over, the mean temperature of the years was $50\ 1-10$.

For the present state of our knowledge upon the subject of superficial temperature, we are chiefly indebted to Baron