

Mists, on the other hand, afford a direct indication that the air at the place and time of their occurrence is *loaded* with moisture—in this sense absolutely *humid*—but they happen neither so regularly nor so frequently in Yorkshire as to yield more than slight characters for its general climate. They, however, mark some periodical recurrences of particular conditions which deserve attention.

The most important information on the state of moisture in the air, is to be had by experiment on the *evaporation* which takes place from wet surfaces, and the *deposition of dew* on bodies which are cooled below the temperature of the air; and these are precisely the observations which till within a few years were much, and almost generally, neglected in England.

We had in fact no satisfactory basis to proceed upon, till Dalton's sagacity and Daniell's inventiveness gave us the Dew-point Hygrometer, and Apjohn's calculations showed us how to determine the degree of moisture in the air, from the mere power of cooling which is well known to accompany evaporation.

The average depth of the rain which falls in a year at York is found to be nearly 24 inches, the greatest observed depth being 36·02 inches (in 1848), the least being 15·93 inches (in 1834).

This quantity is pretty nearly the average of what falls on the eastern or flatter side of the island, from London, which receives 24·80* inches, to Edinburgh, which registers 23·50*. The quantity received near the *eastern coast* is perhaps generally less, as at Keyingham 18 inches; and that measured farther inland, or toward the *western mountains*, is always greater, the augmentation being the more marked the farther we go to the west and north-west, till round the Lake district it becomes above twice, and in certain parts of it six times as much as at York (see Mr. Miller's researches in the Phil. Trans.).

At Settle the mean annual depth being 43·3, from 1837 to

* The numbers marked thus are from Sir J. Clark's interesting work on Climate. 4th edition.