HUMIDITY OF THE AIR.

|  | Minster. | Museum. | Ground. |
| :--- | :---: | :---: | :---: |
|  | inches. | inches. | inches. |
| Three summer months... | $66 \cdot 35$ | $85 \cdot 83$ | 100 |
| Five warmer months | .. | $64 \cdot 82$ | $84 \cdot 50$ |
| Five colder months ..... | $52 \cdot 60$ | $73 \cdot 62$ | 100 |
| Three winter months $\ldots$. | $49 \cdot 94$ | $70 \cdot 26$ | 100 |

Here it appears very clearly that the greatest disproportion is in the coldest season, and the least in the warmest months. If we take the differences between the numbers which express the rain on the Minster and Museum, and 100, we have the column marked $d+d^{l}$ in the table below. In the column next to this, the mean temperature of the seasons is placed ; that of the whole year being $48^{\circ} \cdot 2$. Thus it clearly appears that as the mean temperature rises, the difference between the high and low gauges diminishes. The third column is formed by multiplying together the numbers in columns I. and II. The near equality of these numbers shows the dependence of this curious phænomenon on temperature to be very close and essential. The mathematical computations to which the subject leads will be found in the original memoirs (Brit. Assoc. Reports for 1833, 34, 35).

|  | I. <br> $d+d^{\prime}$. | II. <br> Mean Temp. | III. |
| :--- | :---: | :---: | :---: |
|  | Three summer months ... | $47 \cdot 82$ | $60 \cdot 8$ |
| Five warmer months | $\ldots$ | $50 \cdot 68$ | $58 \cdot 5$ |
| Five colder months $\ldots .$. | $73 \cdot 78$ | $39 \cdot 3$ | $2907 \cdot 4$ |
| Three winter months $\quad .$. | $79 \cdot 80$ | $36 \cdot 3$ | $2899 \cdot 7$ |

It is only necessary to say here, that the theory to which the whole investigation appears to conduct is very simple. "The difference in the quantity of rain, at different heights above the surface of the neighbouring ground, is caused by the continual augmentation of each drop of rain from the commencement to the end of its descent. As it traverses successively the humid

