

TABLE VII.

Exhibiting the Monthly Mean difference of Temperature in the Shade at Sunrise, from the Mean Maximum at 1 or 2 P.M.

Months.	Mean Temp. at Sunrise.	Mean Temp. at 1 or 2 P.M.	Difference of these two.	Mean Temp. of the Month.
1825.				
September,	+ 42.14	+ 44.82	2.680	+ 42.92
October,	+ 18.32	+ 23.75	5.430	+ 20.27
November,	+ 1.77	+ 4.33	3.064	+ 2.79
December,	—14.45	—12.05	2.405	—14.35
1826.				
January,	—24.86	—21.48	3.378	—23.77
February,	—14.79	— 7.72	7.072	—12.70
March,	—15.42	+ 1.71	17.129	— 8.27
April,	+ 7.47	+23.21	15.735	—15.20
May,	+26.27	+41.73	13.462	+36.33

Note.—The mean temperature in the third column is for the most part that at 1 P.M.; but when the temperature at 2 was greater, that is given.

Remarks on the Preceding Paper. By Professor FORBES.

Dr Richardson has, I think, fairly deduced from his observations, confessedly imperfect as they are, that his photometric apparatus was more affected by sunlight in March and April than during the summer months. Whether this be due to the greater intensity of the solar rays in spring, as he supposes, may perhaps be considered as not so fully proved. The principle of measuring the intensity of solar radiation by a blackened thermometer, is due to Lambert, and was ingeniously and elegantly applied by Leslie. Such instruments, *carefully sheltered by glass* (as in Dr Richardson's later experiments), are certainly capable of yielding valuable results, although we have not yet learned to interpret them aright. Their indications are, however, very different from the *sensible* effects of the sun's action on the animal frame for instance, and from the more direct measure of it which is obtained by means of Herschel's Actinometer.* Any measures sufficiently often re-

* It is a curious fact, which has only come lately to my knowledge, that in Sir J. Leslie's earliest paper, read to the Royal Society in 1793, but first published twenty-six years later in Thomson's *Annals of Philosophy*, vol. xiv., he has laid down with perfect clearness the principle of the actinometer, which he has described as the only true measure, and which yet he wholly overlooked in the final construction of his Photometer, which measures the statical maximum of temperature which a blackened ball is capable of assuming, instead of the momentary increment of heat which it receives. His words are: "The initial change on the thermometer is in