

ter indicating any extreme degree of cold as during our "*cold terms*," for the purpose of comparing observations here with those taken in any distant part of the world, and which may have a bearing on the theory of the formation of storms.

A seismometer has been added to the other instruments for the purpose of ascertaining the direction and amount of elevation of the earthquake wave. The more than usual frequency of late of earthquakes in this neighbourhood has led to the placing of the seismometer, so as to indicate and to estimate any such interesting phenomena.

Barometer.—The highest reading of the barometer during the year occurred at 9.30 p.m. on the evening of the 23rd of January, and indicated 30.687 inches; the lowest reading occurred on the 27th day of May at 1.45 p.m. and indicated 28.883 inches, giving a yearly range of 1.804 inches; several sudden and great changes occurred during the year both with a rising and with a falling column. The first remarkable wave was on the 4th of March, when a very sudden fall took place; at 6 a.m. the barometer stood at 30.454 inches, and it fell in 24 hours 0.780 of an inch and continued falling until 2 p.m. of the 6th day when it attained a *minimum* of 29.450 inches; it then continued to rise, and at 10. p.m. the 7th day attained a height of 30.398 inches, showing a sudden rise of 0.948 of an inch. On the 15th of March a rise of 0.342 of an inch took place in 8 hours, and a like sudden rise occurred on the 30th day of 1.230 inches in 24 hours. Another sudden rise took place on the 28th of September; at 6 a.m. the mercurial column indicated 29.276 inches, and in 24 hours it rose to 29.999 inches, showing a rise of 0.623 of an inch, and it continued rising until it attained a maximum of 30.315 inches; another sudden depression of 0.200 of an inch in 8 hours occurred on the 22nd of October, and a corresponding rise on the 24th day, also in 8 hours, of 0.409 of an inch. In November the mercury was as usual subjected to several fluctuations; the highest crest of the wave occurred on the 1st, 10th, and 20th days, and a corresponding trough took place on the 3rd, 16th, 24th and 30th days. In December, from the 12th to the 21st day, the mercurial column indicated great fluctuations, falling from 30.341 inches, to 29.746 inches, rising again to 30.137 inches and then again falling to 29.600 inches and again rising to 30.191 inches, again falling to 29.611 inches and attaining on the 21st a maximum of 30.269 inches; a sudden rise occurred on the 27th day, the column rising 0.293 of an inch in 8 hours. The mean barometric pressure for the year was 29.737 inches, showing a decrease of 0.046 of an inch compared with the mean of last year, but an increase of 0.061 of an inch when compared with a series of years. The following tables show the mean reading of each month and also the monthly range of the barometer in inches; the mean yearly range was 1.093 inches.

Monthly Means.

| | Inches. | | Inches. | | Inches. |
|-------------|---------|------------|---------|-------------|---------|
| January.... | 29.983 | May..... | 29.721 | September.. | 29.849 |
| February... | 29.750 | June..... | 29.720 | October.... | 29.876 |
| March..... | 29.878 | July..... | 29.734 | November... | 29.714 |
| April..... | 29.882 | August.... | 29.353 | December... | 29.892 |