

NOVEMBER, 1871.
PRIVATE OBSERVATORY, HOBART TOWN.

| Day of Month. | Bar. 37 feet abv. sea level corrected & reduced. | | Self-Registering Thermometers. | | | | Wind. | | |
|---------------|---|---------|-----------------------------------|------------------|-----------------|------------------|---|-----------------------------------|-----------------|
| | Highest. | Lowest. | Highest in shade. | Lowest in shade. | Highest in sun. | Lowest on grass. | Direction from three daily re- gisters. | Force in lbs. per square foot. | Rain in inches. |
| 1 | 29·834 | 29·808 | 63·42 | 87·0 | 30·0 | | NW SW W | 1·04 | |
| 2 | 29·834 | 29·691 | 63·43 | 104·0 | 33·0 | | NW | 3·04 | 0·02 |
| 3 | 29·725 | 29·696 | 63·44 | 103·0 | 40·0 | | SW NW NE | ·78 | 0·38 |
| 4 | 29·658 | 29·509 | 65·47 | 90·0 | 33·0 | | SW NW SE | 1·30 | |
| 5 | 29·744 | 29·703 | 59·41 | 98·5 | 40·0 | | NW SE SW | ·78 | |
| 6 | 29·869 | 29·845 | 66·45 | 94·0 | 42·0 | | NW W | 1·04 | |
| 7 | 29·834 | 29·613 | 68·47 | 94·0 | 41·0 | | NW | 21·35 | |
| 8 | 29·844 | 29·517 | 66·56 | 107·5 | 50·0 | | NW W | 10·41 | |
| 9 | 30·320 | 30·140 | 61·46 | 104·0 | 43·5 | | SW SE | 5·46 | |
| 10 | 30·347 | 30·163 | 60·44 | 83·0 | 40·0 | | NW NE | 5·40 | 0·19 |
| 11 | 29·937 | 29·749 | 70·50 | 76·5 | 45·5 | | NW | 0· | 0·26 |
| 12 | 29·863 | 29·795 | 70·54 | 73·0 | 51·0 | | W SE | 1·04 | 0·10 |
| 13 | 29·994 | 29·929 | 67·53 | 90·0 | 50·0 | | SE | ·78 | 0·02 |
| 14 | 29·824 | 29·485 | 68·54 | 93·0 | 54·0 | | SE E SE | ·78 | 0·18 |
| 15 | 29·789 | 29·651 | 68·49 | 74·0 | 41·0 | | SE | 3·64 | 0·34 |
| 16 | 29·959 | 29·934 | 55·45 | 65·5 | 42·0 | | SE | 1·30 | 0·06 |
| 17 | 30·045 | 30·025 | 59·43 | 89·0 | 40·5 | | SW SE | 1·30 | |
| 18 | 29·957 | 29·915 | 65·44 | 107·0 | 39·5 | | W SW SE | 2·86 | |
| 19 | 30·145 | 30·120 | 62·45 | 97·0 | 41·0 | | SE SW SE | 1·30 | 0·05 |
| 20 | 30·022 | 29·897 | 73·47 | 108·0 | 41·0 | | NW SE | ·78 | 0·17 |
| 21 | 30·026 | 29·984 | 63·51 | 63·0 | 48·0 | | SE | ·26 | |
| 22 | 30·034 | 29·972 | 67·52 | 104·0 | 49·0 | | NE N NE | ·78 | 0·60 |
| 23 | 29·677 | 29·462 | 66·53 | 91·5 | 49·5 | | SE | ·78 | 0·62 |
| 24 | 29·454 | 29·342 | 65·54 | 73·0 | 50·0 | | NW W SW | 1·04 | 0·08 |
| 25 | 29·521 | 29·351 | 69·47 | 102·0 | 40·5 | | NW SE NW | ·78 | 0·03 |
| 26 | 29·636 | 29·450 | 69·50 | 103·0 | 47·5 | | NW W | 3·38 | |
| 27 | 29·839 | 29·755 | 71·53 | 105·5 | 50·0 | | NW W | 1·04 | |
| 28 | 29·866 | 29·799 | 71·56 | 110·0 | 50·0 | | NW | 1·30 | |
| 29 | 30·002 | 29·921 | 68·49 | 94·0 | 45·0 | | NW | 1·04 | 0·04 |
| 30 | 30·104 | 30·074 | 72·52 | 107·0 | 50·0 | | NE SW SE | 1·04 | |
| Monthly mean | 29·832 | 29·832 | 58·39 | 93·2 | 44·38 | Total Force | 76·48 | 023· | |

The mean in all cases is taken from the sums of the three daily registers, and not from the maximum and minimum.
The direction of the wind is registered from currents moving at a height of 192 feet and the force according to Lind's Wind Gauge. The supposition, however, of a uniform velocity during the month is a very arbitrary one, and the results can be considered only approximately correct.
The relations of the quantities of rain which fell under the different winds are registered each evening at sundown.
The 25 years' standard tables are used for obtaining the difference from the average.

Leafing, Flowering, and Fruiting of a few Standard Plants in the Royal Society's Gardens during the month.

- 15th.—First strawberry ripe.
- 20th.—First cherry ripe.
- 22nd.—Black mulberry in blossom.
- 27th.—Pomegranate in flower.
- 28th.—First raspberry gathered (Antwerp).
- 30th.—Bougainvillea spectabilis in full flower.

Barometer mean, 29·832in., being 0·087in. above the average.
Temperature mean, 58·39°, being 2·73° below ditto.
Solar intensity mean, 93·20', being 10·77' below ditto.
Dew point mean, 46·6", being 2·42" below ditto.
Humidity of air mean, 69, being '01 per cent. above ditto.
Elastic force of vapour mean, 337, being '015 per cent. below ditto.
Total amount of rain, 3·02in., being 1·29in. above ditto.
Increase of spontaneous evaporation on rainfall, 0·49in.
Mean amount of ozone, 8·32, being 1·13 of chromatic scale above the average.
Electricity active on the 2nd, 3rd, 4th, 5th, 7th, 8th, 9th, 10th, 16th, 17th, 19th, 20th, 26th, and 29th.
Mount Wellington covered with fresh snow on the 5th.
Heavy storm of thunder, lightning, and rain on the 23rd.

NOTES ON THE METEOROLOGY AND MORTALITY OF THE MONTH OF NOVEMBER, 1871.

BY E. SWARBRECK HALL.

The deaths this month were considerably above the average, though no epidemic disease prevailed. There does not appear anything in the meteorological phenomena so adverse to health and life to have caused this excess in the death rate, except excess of ozone and deficiency of sunshine, and great elastic force of vapour.

Atmospheric pressure mean, 29·832, was +·111 above the 25 years' standard average. The extreme range of the month was 1·005 inches; the maximum, 30·347, having occurred on the 10th; the minimum, 29·342, noted on the 24th. The greatest range in any 24 hours was registered on the 9th, being —·467. On only nine other days were the mutations more than one-fifth of an inch. There was therefore nothing unusually remarkable in the barometrical movements to affect the death rate.

Wind force total was 76·48lbs., being — 35·85 below the average for November. The ozone bearing *south-east* winds were greatest in number, but the *north-west* with the reverse character were above twice as much in force. From the other points of the compass there was no remarkable deviation from the standard average. The strongest wind was a north-west on the 7th, having a pressure to the square foot, at the sunset observation, of 15·62lbs. *Calms* were 16 in number, being + 6·33 above the average.

Temperature had the mean of 58·39 degrees by the observed thermometers, but more than a degree and a quarter less by the self-registering. The former was only +·85 of a degree above the November average. The extreme was maximum 73 on the 20th, the minimum 37 in the night of the 4th. The latter was therefore the same as in October, while the former was 11 degrees less. The *wet-bulb* thermometer had the mean of 52·65 degrees, which is +·80 more than the average.

Daily-range of temperature mean, 17·70 deg., was — 1·38 below the average. The greatest range in any 24 hours was 28 degrees, noted on the 4th. On several days in the month fires were essential to comfort in sitting rooms.

Solar-intensity mean, 93·20 degrees, being — 8·61 degrees below the average. The numerous wet and cloudy days account for this. The hottest record was 110 degrees on the 28th.

Terrestrial-radiation mean, 44·38 degrees, was + 2·11 above the average. The coldest record was 33 degrees in the night of the 4th.

Elastic-force of Vapour mean, 337, was + 12 above the average. This condition of the atmosphere is adverse to health and life. The range was from minimum 224 to maximum 550.

Humidity mean, 69, was — 2 below the average.

Rain-fall amounted in the aggregate to 3·02 inches, being +·18 of an inch above the average of this the wettest month in the year. It fell on 16 days, which is + 3·18 above the average number. On the 23rd more than one-third of the whole was precipitated, but in so moderate a way as not to cause floods. The soil was kept moist during the whole month, greatly to the advantage of vegetation; and both the air and the surface of the earth were well washed from impurities.

Spontaneous Evaporation amounted to 3·51 inches.

Cloud mean was 7·69, being + 1·63 above the average, an unusual excess.

Ozone mean, 8·38, was +·82 above the average. At 12 observations saturation (10) was recorded. The excess of ozone did not, as in the previous month, tell so much on diseases of the organs of respiration, as the winds were not so high, or so dry.

Electricity had 12 positives, with tension ranging from 4·5 to 8·5. The negatives were 41, with tension ranging from 2·5 to 8·5. There were 7 *nils*. There was a heavy storm of *thunder, lightning, and rain* on the 23rd.

The *Snow* of the previous month continued on Mount Wellington until the 5th, when it received a very copious augmentation, but disappeared altogether after the 9th.

Deaths were 45, being + 7·6—14 above the average of the previous 14 years.

Under one year old there were only 5 deaths. From 1 to 5 there were 4. In the next three quinquennial periods there was one each. From 20 to 60 there were 13 deaths, and at 60 and all ages above, the oldest being a man at the Brickfields Invalid Depôt, aged 88, there were the very large number of 20 deaths. The month, therefore, was very auspicious to all under 20 years old, but very fatal to all above 20, and more especially to those above 60. In the *Zymotic* class of diseases there were 2 deaths from *Diarrhœa*. In the *Cachectic* class there were 4 deaths, 3 from *Cancer* of different internal organs, and one from *Consumption*, the latter not belonging to Tasmania, being a sailor from a ship in port and a native of the Sandwich Islands. In diseases of the *Brain and Nervous System* there were the unusually great number of 13 deaths. In diseases of the *Heart, &c.*, 5. Diseases of the *Lungs and Organs of Respiration* 5 also; *Stomach and Organs of Digestion* 7. Other classes a few only in each. At the *Hospital* there were 14 deaths, but five of them did not belong to the Hobart Town Registration District. At the *Brickfields Male Invalid Depôt* there were 4 deaths, but another was removed to and died in Hospital. At the *Cascades Invalid Stations* there were only 2 deaths, one male aged 60, one female aged 65. There were only two *Inquests*.