

OCTOBER, 1871.
PRIVATE OBSERVATORY, HOBART TOWN.

Day of Month.	Bar. 37 feet abv. sea level corrected & reduced.		Self-Registering Thermometers.				Wind.		Rain in Inches
	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.	
	In.	In.	°	°	°	°			
1	29.812	29.775	57.33		91.0	34.5	NW SE	.78	0.32
2	30.075	29.939	49.38		56.5	34.0	SW S	3.12	0.05
3	30.072	30.024	57.38		95.0	32.0	NW SE SW	.52	
4	29.976	29.865	62.42		97.0	40.0	SW SE	.52	0.05
5	29.853	29.763	62.42		101.0	33.5	SW SE	.78	0.07
6	29.954	29.853	55.44		66.5	41.0	SE	1.56	0.06
7	30.003	29.976	55.45		67.0	40.0	SW SE	3.12	
8	30.124	30.065	62.44		107.0	42.0	SW SE	1.56	
9	30.164	30.099	63.38		104.0	35.5	NW SE	.78	0.02
10	29.950	29.667	79.44		112.0	42.0	NW	5.73	0.02
11	29.752	29.721	56.45		90.5	40.5	SE	.52	0.09
12	29.348	29.233	57.45		94.0	40.0	NW	7.81	
13	29.614	29.570	62.42		91.0	40.0	W SE NW	5.99	
14	29.692	29.669	63.47		99.0	40.5	NW	5.72	0.31
15	29.576	29.545	67.48		1.00	41.0	NW W NW	10.94	
16	29.655	29.559	66.50		99.0	47.0	NW W SW	8.33	0.03
17	30.065	29.953	61.41		97.5	33.0	W NW W	8.33	
18	30.112	29.939	63.48		102.0	40.5	NW	6.25	
19	30.161	29.995	60.46		97.5	40.0	SW	8.33	
20	30.266	30.202	63.37		106.0	34.0	NW NE SE	.52	
21	30.170	30.126	61.42		75.5	39.0	NW SE	.52	
22	30.160	30.152	66.45		106.0	42.5	NW SE	1.04	
23	30.198	30.031	73.43		110.0	40.0	W SE	1.04	
24	29.926	29.782	84.50		117.0	47.5	NW NE	5.46	
25	29.892	29.821	80.46		90.5	46.0	SE E NW	3.64	0.47
26	29.920	29.857	64.42		99.5	33.0	NW W NW	3.64	
27	29.950	29.915	60.43		87.0	39.5	NW NE E	.26	
28	29.912	29.871	64.47		92.0	45.5	NW SW SE	3.33	
29	29.937	29.899	63.47		103.0	45.0	NW	1.04	
30	29.890	29.825	71.43		105.0	44.0	NW W	3.33	
31	29.782	29.551	72.50		103.0	45.0	NW W	21.35	0.03
Monthly mean			55.33		95.71	40.42	Total force	126.74	1.52
			29.891						

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.

- 8th.—*Carpinus betulus* commencing to leaf.
18th.—*Ailanthus glandulosa* ditto ditto.
24th.—*Tilia Europea* (Lime) ditto ditto.
27th.—*Morus niger* ditto ditto.
23th.—Elm seeds commencing to fall.
31st.—*Melia azederach* commencing to leaf.

Barometer mean, 29.891in., being 0.107in. above the average.

Temperature mean, 55.33°, being 1.39° above the ditto.

Solar intensity mean, 95.71°, being 0.11° above the ditto.

Dew point mean, 43.2°, being 1.20° below the ditto.

Humidity of air mean, .67, being .06 per cent. below the ditto.

Elastic force of air mean, .287, being .013 above the ditto.

Total amount of rain, 1.52in., being 0.45in. below the ditto.

Increase of spontaneous evaporation on rainfall, 2.02in.

Mean amount of ozone, 8.47, being 0.55 of chromatic scale above the ditto.

Electricity active all through the month, with 17 positive, and 45 negative.

Snow never absent from Mount Wellington during the month, with a fresh deposit on the 16th.

FRANCIS ABBOTT.

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

BY DR. E. SWARBRECK HALL.

The extreme purity of the atmosphere, very great aerial movement, with strong tension and great prevalence of electricity, were the peculiar characteristics of this month. Deaths were slightly below the average, and fell principally upon adults and old people, the deaths under 20 years old being only about one-fifth of the total at all ages.

Atmospheric-pressure mean, 29.891, was +.107 above the 25 years' adopted standard mean for October. The minimum was 29.233 on the 12th; the maximum was 30.242 on the 20th; consequently the extreme range in the month was 1.009 inches. The greatest movement of the barometer in any 24 hours was a fall of $-.519$ of an inch on the 12th. On seven other days the movements exceeded one-fifth of an inch.

Wind-force total, 126.74lbs. was +26.79 above the average for October, and also above the average of any other month. *North West* had the greatest number and the greatest force, though it is evident many recorded for this point of the compass were really deflected West winds. 29 *South East* winds out of the 93 observations were registered, but with only a total force of 12.74lbs.; nevertheless this is considerably in excess of the average from this point of the compass, which in Hobart Town is the purest wind, and most conducive to health. *North, North East, and East* winds were scarcely appreciable; but *South West* and *West* were above the average number and strength. There was only one *South* noted, but it had the force of 2.60lbs. to the square foot. The strongest wind was a gale from the *West* on the evening of the last day of the month, with a force of 15.62lbs. to the square foot. *Hot winds* of a moderate character were noted on the 10th, 24th, 31st. *Calms* were 12 in number, being 3.22 below the average.

Temperature, mean, 55.33 degrees, was +1.39 above the average, according to the three daily observations, but more than one degree less by the self-registering maximum and minimum thermometers. The extremes were: maximum, 84 on the 24th; minimum, 37 in the night of the 20th. The *wet bulb* thermometer had the mean of 40.22 degrees, which is only +.03 above the average.

Daily range of temperature mean, 20.39, was +1.72 above the average. The greatest range was on the 10th, being 35 degrees.

Solar-intensity mean, 95.71 degrees, was only +00.11 above the average. The hottest record was 117 degrees on the 24th.

Terrestrial-radiation mean, 40.42 degrees was -1.57 degrees below the average. The coldest record was 32 degrees (freezing point) in the night of the 3rd. On the day following four deaths occurred, being double the number for any other day of the month.

Elastic force of vapour mean, 287, was -13 below the average, ranging from minimum 179 at the evening observation on the 4th, to maximum 413 on the evening of the 23rd.

Humidity mean, 67, was -6 below the average. The highest record was 93 on the morning of the 25th, but saturation (100) was never noted.

Rain-fall amounted to 1.52 inches, which is $-.45$ less than the October average. There were 12 days on which rain was recorded, being -2.90 less than the average. On three days the rain fell sufficiently to cleanse water-courses, sewers, &c., the heaviest fall being .42 of an inch on the 25th. *Snow* was never absent from Mount Wellington during the month, and received frequent additions, so copiously on the 3rd as to coat the mountain to its base. There was a smart hail storm in the city on the 2nd.

Spontaneous-Evaporation amounted to 3.54 inches.

Cloud mean, 5.90, was +.20 above the average.

Ozone mean, 8.47, was +.55 above the average. At 17 observations saturation (10) was registered, which is without parallel in the Hobart Town records. Deaths from diseases of the organs of respiration, consequently, were above the average.

Electricity had 17 positives, with tension from 5 to 8.5; and 45 negatives, with tension from 4 to 9; no nils.

Deaths were 41 in number being—27-14ths less than the October rate. The October range is from minimum 29 in 1861, to maximum 59 in 1869. Under one year old there were 6 deaths, one being only 3 days, the second two weeks, the third 3 weeks old. October, 1871, had the same number. From 1 to 5 there were 2 deaths, last year had twice as many. From 5 to 10 there were no deaths. October, 1870, had one. From 10 to 20 there was one death, while last year had 2. From 20 to 60 there were 17 deaths, while 1870 had only 6. At 60 and all ages above there were 15 deaths, the oldest being a woman of 82, last year had 16 the oldest a woman of 84. In the *zymotic* class of diseases there was not a single death. In the *Cachectic* or *Constitutional* Class there were 7 deaths, three from cancerous affections of various organs, three from *Consumption*, two of them natives of Tasmania, the third a German man, one from *Dropsy*. In diseases of the *Brain and Nervous System* there were 10 deaths; from diseases of *Heart and organs of Circulation* there was only one death. From diseases of the *Lungs and organs of Respiration* there were 9 deaths. From old age, &c., 5. The remainder do not require particularizing. At the *Hospital* there were only 5 deaths, two of them not belonging to the Hobart Town Registration District. At the *Brickfields Male Invalid Asylum* there was only one death at 55 years old. At the *Cascades* there were three men aged, one 69, two 70, and one woman aged 47. There were two *Inquests*, one returned “manslaughter,” the other “found drowned,” the poor Orphan Asylum apprentice Claravance Barker.