

METEOROLOGY FOR JANUARY, 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	30.149	30.090	57.46	92.0	43.0		E	1.56	0.05
2	30.222	30.191	63.48	99.0	45.0		NW SE	.78	
3	30.315	30.283	63.50	101.0	47.5		SE	1.56	
4	30.286	30.242	59.50	70.5	48.0		SE	1.56	
5	30.149	30.002	68.54	89.0	52.0		NW SE E	.78	
6	29.979	29.909	74.56	110.5	54.0		N SE	1.04	
7	30.065	30.054	67.55	77.5	55.0		SE	1.04	
8	29.974	29.859	72.53	114.5	50.5		NE SE E	.78	
9	29.874	29.844	73.50	107.0	49.0		NE SE	.78	
10	29.871	29.839	77.52	118.0	51.0		NW SE	1.04	
11	29.845	29.719	76.56	87.0	54.0		NW	1.04	0.19
12	29.426	29.408	80.60	120.0	59.0		NW	5.46	
13	29.484	29.381	74.58	99.0	54.5		NW W	3.12	
14	29.465	29.380	62.48	84.0	42.0		NW W	3.33	0.04
15	29.765	29.692	62.43	97.0	40.0		NW SW	3.12	0.02
16	29.857	29.807	68.48	106.0	46.0		NW SW	1.30	
17	30.130	30.086	71.43	110.5	38.5		NW SE	1.04	
18	30.169	30.033	82.48	120.0	46.5		NW SE	1.04	
19	29.987	29.875	95.63	130.0	55.0		NW NE SE	1.04	
20	30.217	30.195	73.56	111.0	50.5		SE	1.56	
21	30.194	30.073	86.54	125.0	53.0		NW SE	.78	
22	30.059	29.853	92.54	130.0	57.0		NW N	1.30	
23	29.847	29.783	89.54	120.5	59.0		NW SE S	3.64	0.71
24	29.895	29.868	68.54	72.0	49.5		SE	.78	0.02
25	29.871	29.756	81.53	123.0	50.0		NW SE	1.04	
26	29.810	29.623	86.57	120.5	51.5		NE NW SE	1.04	0.18
27	29.825	29.562	76.57	108.0	50.0		NW SW	3.64	
28	30.015	29.764	75.43	114.0	41.5		NW SE NW	1.04	
29	29.638	29.554	77.61	112.5	56.0		NW	1.30	
30	29.774	29.651	80.51	116.5	48.5		NW W SE	1.04	
31	29.734	29.639	58.56	115.5	50.0		NW	1.04	0.04
Monthly mean			64.90	106.45	49.71		Total force	49.66	1.25
29.877									

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.

- 10th.—Veronica angustifolia in flower.
 11th.—First Apricot (Roman) ripe.
 12th.—Grevillea robusta in flower.
 14th.—Jargonelle Pear commencing to ripen.
 19th.—Black Mulberries ditto ditto.
 Catalpa syriaciflora not flowering this year.

Barometer mean, 29.877 in., being 0.160 in. above the average.

Temperature mean, 64.90, being 2.06° above the ditto.

Solar intensity mean, 106.45, being 3.19° below the ditto.

Dew point mean, 51.2° being 0.05° above the ditto.

Humidity of air mean, 64, being .03 per cent. below the ditto

Elastic force of vapour mean, .393, being .020 per cent. above the ditto.

Total amount of rain, 2.25 in., being 0.11 in. below the ditto.

Increase of spontaneous evaporation on rainfall, 2.94 in.

Mean amount of ozone, 5.43, being 1.44 of chromatic scale below the ditto.

Electricity active on the 1st, 2nd, 3rd, 13th, 14th, 15th, 16th, 17th, 22nd, 27th, 28th, 30th, and 31st.

14th.—The apex of Mount Wellington covered with snow.

19th.—Thunder; 23rd, thunder, lightning, and rain; 26th, much thunder and lightning, both sheet and fork, with rain.

FRANCIS ABBOTT.

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

BY E. SWARBRECK HALL.

The year 1871 opened with weather of a very anomalous character, there being a considerable covering of snow on Mount Wellington, and a fresh cold south-east wind, with sprinkles of rain. Nevertheless, the mean temperature of the whole month was above the average, and nearly every other of the records departed more or less from the adopted mean. On the whole, this month—following the very dry one of December—was not very favourable to health and life, the deaths being within a trifle of the 14 years' average.

Atmospheric pressure had the mean of 29·887, being +·160 above the 25 years' adopted standard. With the exception of 1868, when the mean was 29·918, the present year's January was the highest of 31 years now on record. The maximum, 30·315, was registered on the 3rd; the minimum, 29·380, on the 14th, the extreme range of the month being '935 of an inch. The greatest movement of the barometer in any 24 hours, was a rise of +·458 on the 1st, and there were only seven other days on which it exceeded one-fifth of an inch—so that, tolerably steady, but high atmospheric pressure, may be deemed characteristic of the present month.

Wind-force total was only 49·66lbs., which is—28·63lbs. less than the average for January. Both in number and force, the ozone-bearing sea breezes from the south-east to west far exceeded all from the other four points of the compass, and, no doubt, to a great extent counteracted other phenomena less favourable to health. At no one record was a stronger pressure to the square foot recorded than 2·60lbs. There were 15 *calms*, being—1·90 less than the average. The 19th, 22nd, 26th were *hot-winds*, very weak in point of wind-force, but very hot as to temperature.

Temperature mean, 64·90 degrees, was + 2·06 above the 25 years' average, and hotter than any January since 1863. The extremes of temperature were:—Maximum, 95 degrees on the 19th (only one other above 90), and minimum, 43 on the 15th, 17th, 28th. The *wet-bulb* thermometer mean was 57·56, being + 1·18 above the average.

Daily range of Temperature mean was 21·71 degrees, being +·95 above the average. The greatest was 38 degrees on the 22nd.

Solar-intensity had the mean of 106·45 degrees, being—3·19 below the average. This is singular enough, for the cloud mean was but a trifle above the average, and the month was not a hazy one. The maximum was 130 degrees, on the 19th and 22nd.

Terrestrial-radiation mean, 49·71 degrees, was—1·53 below the average; the coldest night being the 17th, when this thermometer fell to 38·5 degrees.

Electric-force of vapour, 393, was + 20 above the average, and the highest noted since January 1863. It ranged from minimum 245 on the morning of the 15th to maximum 592 at noon on the 25th.

Humidity mean was 64, and—3 below the average.

Rain fell on 8 days being—·64 below the average. The quantity gauged was 1·25 inches, being—·11 less than the average. More than half of it (·71) fell on the 23rd, being a thunderstorm. *Snow*, to a considerable amount, covered the summit of Mount Wellington on the morning of the 1st, but did not last long. A frost deposit appeared again on the 14th.

Spontaneous Evaporation amounted to 4.19 inches.

Cloud mean was 5·89, being +·19 only above the average.

Ozone mean, 5·43, was—1.44 less than the average. It is the lowest record ever made for January. The maximum was 8 on the 1st and 24th, with south-east breezes. The minimum was 3 on the 21st.

The *Electricity* records were, 18 positive, with tension ranging from 2 to 8; Negative 44, with tension from 1 to 6. No "nils." *Thunder and Lightning* were observed on the 23rd and 26th, both grand displays, and of rare occurrence of late years. *Lightning* only was seen on the 15th. *Thunder* only heard on the 19th.

The *deaths* in the month were 47, being—3 2-14th less than the average of the previous 14 years, but 17 less than 1870 had. Under one year old there

were 17 deaths, many of them only a few days old. From nine months of age to 21 years, there was only one death, and that from accident to a girl 7½ years old, run over on Regatta Day. This is a very remarkable and unusual exemption at this season of the year in this group of ages. From 20 to 60 the deaths were 14 ; and from 60 and all ages above, 15, the oldest being 82. There were six deaths in hospital, four of them being from other registration districts. There were six inquests. At the Cascades invalid establishment there were two deaths, but none at the Brickfields. In the zymotic class of diseases there were 12 deaths, one from diphtheria, all the rest from diarrhœa. Pulmonary consumption caused two deaths, both aged persons, respectively born in England and Ireland.
