

MAY, 1872.
PRIVATE OBSERVATORY, HOBART TOWN.

Day of month.	Bar. 37 feet abv. seal level corrected & reduced.		Self-Registering Thermometers.				Wind.		
	Highest.	Lowest.	Highest in shade.		Highest in sun.	Lowest on grass.	Direction from three daily re- gisters.	Force in lbs. per square foot.	Rain in inches.
			Lowest in shade.	Lowest in sun.					
1	29·638	29·591	64	66	66·5	43·5	SE NW SW	·26	0·20
2	29·822	29·803	64	67	87·0	33·0	NW SW	1·30	
3	29·976	29·892	66	32	91·0	30·0	SW NE SW	·52	
4	30·154	30·072	63	34	90·0	29·5	NW E	·78	0·02
5	30·181	30·134	62	33	83·5	33·0	NW	·78	0·09
6	30·328	30·260	63	40	87·5	35·0	NW SW W	·52	
7	30·421	30·326	68	34	92·0	30·5	SE NW	·26	
8	30·322	30·147	62	35	85·5	30·0	NW	1·56	
9	30·000	29·922	59	45	63·0	41·0	NW	·26	
10	29·992	29·729	57	47	79·0	43·5	NW SW	·26	0·24
11	29·642	29·533	68	47	91·0	42·5	NW N	·78	0·03
12	29·443	29·320	68	46	87·5	40·0	NW	·52	
13	21·721	29·593	65	45	93·5	42·0	NE NW E	·78	
14	29·893	29·834	59	46	79·0	42·0	NW NE SE	·52	0·02
15	29·603	29·431	57	44	68·0	42·0	NW	·78	
16	29·554	29·525	64	40	87·0	36·5	NW N NW	1·04	0·10
17	29·722	29·638	63	48	83·5	43·0	NW E SE	·52	
18	29·730	29·723	61	50	62·0	44·0	SE	5·72	0·45
19	29·402	29·302	54	43	60·0	43·0	SW S	7·80	0·42
20	29·606	29·312	51	39	53·0	34·3	NW NE SW	3·33	0·19
21	30·045	30·019	63	43	89·0	33·5	NW	1·30	
22	30·095	30·079	66	48	66·0	33·0	NW	3·64	0·12
23	30·040	29·727	65	48	89·0	46·5	NW	3·12	0·44
24	30·069	30·012	67	37	81·0	31·5	NW	1·30	
25	30·035	30·033	55	45	54·0	42·0	NW N	1·30	0·01
26	29·837	29·735	70	49	91·0	44·5	N NW	1·30	0·30
27	30·290	30·002	66	45	88·0	42·5	SE SW	1·30	
28	30·330	30·341	60	33	80·5	29·0	NW	·78	0·01
29	30·377	30·301	59	34	76·0	29·5	NW	1·04	
30	30·198	30·142	58	36	75·5	31·0	NW	·78	
31	30·093	30·002	57	36	80·0	32·0	NW	1·04	
Mean Monthly 29·905			51·19		79·50	37·21	Total Force		2·64

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.

Barometer mean, 29·905in. being 0·05in. above the average.

Temperature mean, 51·19°, being 0·91° above the average.

Solar intensity mean, 79·50° being 2·37° below the ditto

Dew point mean, 42·8°, being 0·63° below the ditto.

Humidity of air mean, ·78, being ·02 per cent. above the ditto.

Elastic force of vapour mean, ·294, being ·003 per cent. below the ditto.

Total amount of rain, 2·64in., being 0·83in. above the ditto.

Increase of rain fall on spontaneous evaporation, 1·25in.

Mean amount of ozone, 7·05, being 0·25 of chromatic scale above ditto.

Electricity active on the 4th, 6th, 7th, 8th, 13th, 14th, 21st, 24th, 26th, 27th and 31st.

Mount Wellington covered with snow on the 20th, with a fresh additional fall on the 21st.

Auroras on the 27th and 28th.

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

21st—*Coronilla glauca* commencing to flower.

25th—*Photinea serrulata* ditto

27th—*Diosma alba* ditto.

30th—*Spiraea prunifolia* ditto.

31st—*Ailanthus* leaves all shed.

FRANCIS ABBOTT.

NOTES ON THE METEOROLOGY AND MORTALITY OF THE HOBART TOWN REGISTRATION DISTRICT DURING THE MONTH OF MAY, 1872.

By E. SWARBRECK HALL.

The total deaths this month exceeded that of any May in the previous 15 years. Great fluctuations in atmospheric pressure, and very great daily variations of temperature, seem to have been the principal agents in causing the high death rate in previously diseased and debilitated persons. Deaths from zymotic and acute inflammatory affections were very small, and of young persons below 20 years old the deaths were at a minimum.

Atmospheric pressure mean, 29·905, only exceeded the 30 years' average for May by +·094 of an inch. The maximum, 30·421, occurred on the 7th; the minimum, 29·302, on the 17th, being an extreme range in the month of 1·119 inches. But the daily fluctuations were very great, the highest recorded being a rise of ×·565 on the 21st, and on 13 other days there were movements of the barometer above one-fifth of an inch. In all respects atmospheric pressure differed much from what it was in May, 1871.

Wind force.—Total 45·24lbs., was + 12·25 above the average, and nearly three times as much as May, 1871, had. Out of the 93 observations 60 were from the *North-west*, with nearly one-half of the total force. *South-west* came next, both in frequency and force, being 12 of the former, 10·66lbs. of the latter. The strongest winds had only 2·60lbs. pressure to the square foot, and were registered 7 times. *Calms* were registered at 20 of the observations, being 22·80 below the May average. Constant moderate winds prevailing principally from the quarter least favourable to health was therefore the wind character of the month.

Temperature mean 51.19 degrees was only +0·57 above the 30 years' average, and -1·29 less than in May, 1871. The maximum high-day temperature by the self-registering thermometer was 70 degrees on the 26th, and the mean of all the maxima was 62·06. The minimum of the low-night temperature was 32 degrees (freezing point) in the night of the 3rd. The mean of all the minima was 41·77 degrees. The Wet-Bulb Thermometer mean of the self-registering thermometers was 46·77 degrees.

Daily Range of Temperature had the mean of 20·29 degrees, being +4·94 above the 30 years' average. Only May, 1857, exceeded this, being 22·40. May, 1871, had only 16·32. The greatest range in any 24 hours was 34 degrees registered both on the 3rd and 7th.

Solar Intensity mean was 79·50 degrees, being 2·66 less than the average. The maximum was 93 degrees on the 5th and 13th.

Terrestrial Radiation mean 37·21 degrees, was -2·77 below the average. The minimum was 29 degrees in the night of the 28th. In 6 other nights it was below freezing point. In May, 1871, this thermometer never fell below freezing point, the minimum being 43 degrees.

Elastic force of vapour mean 294, was -10 below the average.

Humidity mean 78, was -2 below the average, notwithstanding the excess in rain-fall.

Rain-fall total was 2.64 inches, being +·87 above the average. It was recorded on 15 days, which is + 2·25 above the average. *Snow* appeared on Mount Wellington on the 19th, and never disappeared during the rest of the month, but received some additions.

Spontaneous Evaporation amounted to 1·39 inches only.

Cloud mean, 6·58, was + 1·08 above the average.

Ozone mean, 7·05, was + 20 more than the average. Saturation (10) was recorded 8 times out of the 26 observations.

Electricity. There were 15 positive with tension from 3 to 6; negatives 31 with tension from 1 to 4, and 16 nils. No *lightning* seen or *thunder* heard. *Aurora-Australis* visible on the nights of the 28th and 29th.

The *Deaths* were 51 in number, being + 11 1-15 above the May average of the previous 15 years, one more than May, 1857, had, and 18 more than in May, 1871. The third week had the most deaths, 16; the first week the fewest, 6; the second and fourth weeks each 13; the last 3 days 3; on 3 days there were no deaths; on the 16th, 17th, 25th, there were four deaths each day. The

five days 15th to 19th inclusive had the greatest number (15) of consecutive deaths. Under one year old there were only 4 deaths, two of them accidentally suffocated in bed with their mothers, and respectively aged 6 weeks and two months; another only 14 days old died of "convulsions and general debility." The fourth, 5 weeks old, is supposed to have died from "some disease of the bowels." Between 1 and 5 years old, there was one death; none in the next quinquenium; one between 10 and 15; two between 15 and 20. Altogether there was only one more death this month under 20 years old than in May last year. At 20 to 60 years old there were 28 deaths, being an unusually large proportion of the total deaths, 1871 having only had 10 deaths. At 60 and all ages above, the oldest being 87, there were 15 deaths, being one less than May, 1871, had. In the *Zymotic* class of diseases there was one death, a man aged 40, registered "Dysentery." In the *Constitutional* class there were altogether 10 deaths, 6 of them from *Consumption*, of whom 3 were born in Tasmania. In one of these, however, I have reason to doubt the accuracy of the Diagnosis. One of the others was a gentleman lately from England, the other 2 born in Ireland. In the *Local* class of diseases, always the most numerous, the total deaths were 27: of these 11 were of the *Brain*, &c., mostly sudden deaths, from apoplexy and paralysis; 6 were from diseases of the Heart; &c., only 4 from Lung, &c., affections; 4 from organs of Digestion &c.; 2 from Kidneys, &c. In the *Developmental* class there were 6 deaths, two of young women a few days after childbirth; 4 only from old age. In the *Violent and Accidental* class, there were 7 deaths. In *Hospital* there died 9, two of them received from other Registration Districts, other 2 sailors. There were 7 *Inquests*, inclusive of 4 of the deaths in Hospital. At the *Brickfields Invalid Asylum* for men, there died 3, aged 48, 58, 74. At the *Cascades Invalid Asylum* for both sexes, there died 2 men aged 40 and 76, two women aged 55 and 61.