

## METEOROLOGY FOR MARCH, 1865.

PRIVATE OBSERVATORY, HOBART TOWN.

Day of month.	Bar. 37 feet abv. sea level, cor. & reduced		Self-register- ing Thermo- meters.				Wind.		Rain in inches.
	Highest.	Lowest.	Highest in shade.	Lowest in shade.	Highest in sun.	Lowest on grass.	Direction from three daily registers.	Force in lbs. per square foot.	
	In.	In.	°	°	°	°			
1	29·955	29·874	67	56	114	50·0	N SW W	·78	
2	30·045	29·749	72	44	115	43·0	NW SE SW	·52	
3	29·702	29·657	73	50	117	48·0	NW NW SE	·78	
4	29·609	29·527	82	49	120	45·0	N NW NW	3·38	
5	29·707	29·467	76	56	111	51·0	NW NW W	10·41	0·73
6	29·933	29·879	70	51	90	46·0	N W W	·78	
7	29·994	29·992	75	50	118	47·0	NW SE SE	·52	
8	29·980	29·961	71	52	110	50·5	N SE S	·52	
9	30·006	29·947	78	49	114	46·0	NW N SE	·52	
10	29·826	29·715	73	53	73	48·5	N NW NW	·52	0·02
11	30·124	30·042	69	46	108	43·0	N SE SE	·78	0·04
12	30·127	30·010	71	51	93	50·0	NW NW NW	·78	
13	29·837	29·627	60	59	70	45·0	S SE SE	·26	0·14
14	29·635	29·625	63	57	95	51·0	S SE S	1·4	0·19
15	29·785	29·573	67	51	108	48·0	NE W SW	5·73	0·03
16	29·800	29·517	64	45	85	42·5	N NW N	10·68	
17	29·734	29·421	61	45	94	41·0	SW SW S	·78	0·09
18	29·828	29·763	62	44	72	40·0	N N N	8·07	
19	29·995	29·959	69	52	99	50·0	N NW S	·52	0·02
20	30·063	30·000	74	52	116	50·5	NW SW S	·78	
21	30·074	29·927	75	55	108	51·0	E SE S	·26	
22	29·995	29·932	68	48	82	47·0	N SE S	·52	
23	29·976	29·850	73	55	113	48·5	SW SE S	·26	0·02
24	29·891	29·864	68	54	103	49·0	SW ES	·52	0·07
25	30·130	29·937	68	51	99	44·5	NW S S	·52	
26	30·165	30·141	73	46	115	41·0	N E S	0·	
27	30·170	30·138	77	46	113	44·0	N E S	0·	
28	30·207	30·105	79	46	109	43·5	N S NW	0·	
29	29·987	29·926	78	61	105	58·5	S N E	·78	0·02
30	29·822	29·598	73	54	76	51·5	N N E	3·38	0·27
31	29·856	29·845	69	41	82	40·5	N N N	3·12	0·29
Total force 57·51 1·93									

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 the height of 192 feet, and the force according to Lind's Wind Gauge. The supposition, however, of an 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 twenty 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 :—*

- 11th. Seckle Pear commencing to ripen.
- 14th. Tips of Hornbeam turning yellow.
- 21st. Tips of Elm turning yellow.
- 28th. Horse Chestnut leaves turning brown.
- 28th. Ash leaves commencing to fall.
- 29th. Oak leaves commencing to fall.

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Barometer mean, 39·874 inches, being ·017 above the average.

Temperature mean, 59·02°, being 0·96° below the average.

Solar intensity mean, 100·87°, being 4·13° ditto.

Dew point mean, 49·5°, being 0·56° above ditto.

Humidity of air mean, ·76, being 5·5 *per cent.* ditto.

Elastic force of vapor mean, ·781° being ·023 *per cent.* ditto.

Total amount of rain, 1·93 inches, being 0·41 inches above the average.

Mean amount of ozone 7·65, being 0·92 of chromatic scale, above the average.

Increase of spontaneous evaporation on rain-fall 0·67 inches.

Mount Wellington was copiously mantled with snow on the 18th and 31st.

FRANCIS ABBOTT.

ANALYSIS OF THE OBSERVATORY RECORDS FOR MARCH,  
1865, IN CONJUNCTION WITH THOSE OF BIRTHS, DEATHS,  
&c. BY E. SWARBRECK HALL.

This March has been much more favorable to life than last year's, though singularly enough the total mortality is almost exactly that of the mean of the previous eight years. The diseases, however, which caused death were principally those of long standing, rendered fatal by sudden variations of the temperature and pressure of the atmosphere. The class depending mainly upon purity of the air, (zymotic) contributed far less than the usual average to the mortuary records.

*Atmospheric pressure* mean 29·874, differed little from the 20 years' adopted standard average, being only +·017 of a degree higher. The contrast, however, with the high mean of March last year, 30·109, is noteworthy in connection with its much heavier mortality. The extremes of the present month were, minimum 29·330, on the 11th; maximum 30·207, on the 28th. The range·877, though somewhat less than that of March 1864, was greater than that of the three preceding years. The daily perturbations were more numerous and wider in extent, than last year, there having been nine days on which the movements of the barometer exceeded one-fifth of any inch. The greatest range for any day was a fall of —·376 of an inch on the 13th. The most extensive rises were on the 6th and 11th, +·359 +·355 respectively, the latter having the greatest number of deaths of any day in the month.

*Wind force* had a total of 57·51 lbs. being +4·97 more than the March average of the previous eight years, and nearly the same excess over March, 1864. Nevertheless, the predominant winds in force and number. North and North West, were those least favorable to health. The number of faint South winds was unusual, 12 in excess, yet not reaching the average in strength; South-East, South-West, and West were all below the mean in both frequency; force the greatest pressure to the square foot, 5.21 lbs, was noted five times *i.e.* on the 5th, 15th, twice on the 16th and the 18th, one West, two each North and North-West. No hot winds occurred.

The mean *temperature* of the month was colder than that of any March since 1854, being only 59.02 degrees; which is—00.96 less than the 20 years' average. March 1864 was somewhat above the 20 years' mean, thus affording another datum to account for the superior health of the present month. The mean deduced from the self-registering thermometer is, 60·90 degrees, giving a rather wider discrepancy than usually occurs, and very different to what was remarked for February. The warmest day of the month, the 4th, had the maximum of 82 degrees; and the coldest night in the month was that of the 31st when the self-registering thermometer fell to 41 degrees. Last year the extremes were 81 and 43 respectively. Sixteen times in the previous 24 years has the maximum much exceeded that of the present year, four times being above 90 and the highest 99 degrees in March 1861. Seven times in the same period has the minimum fallen lower, the lowest being 36 degrees in March 1850. The mean of all the maxima exceeded both February and January, being 71.19 degrees; but the minima mean, on the other hand, fell below both those months, being 50·61.

The *daily-range of temperature* mean, was, 20·58 degrees; which is +·54 of a degree more than the 20 years' average, and even +·26 higher than in last March. The greatest range of any day was 33 degrees, noted on the 4th, and the 28th. March 1864 had four degrees less, and the two previous years were not so variable as the present one. The smallest variation was only 6 degrees recorded on the 14th. In 1864 the minimum was 13 degrees.

The *Solar-thermometer* mean was, 100·87 degrees, being —2·68 below the mean of the previous nine years, and —7·00 less than March 1864 had. The much greater number of wet and cloudy days in the present month accounts for this. The greatest heat was 120 degrees on the 4th. Last years' maximum was four degrees more, and the thermometer only marked below 100 degrees six times; while in the present month it has done so fourteen times.

The *Terrestrial radiation* thermometer had a mean of, 46·93 degrees, which is—1·36 less than the average of the previous nine years, and —·57 less than 1864 had. It would appear from this, that though the day time was so much more cloudy in the present March than in that of 1864, yet that in the night

time the sky was nearly as cloudless. The extremes were, maximum 58·5 degrees on the 29th; Minimum 40·5 on the 31st; the last being + 1·5 higher than the minimum of 1864.

*Rain* fell freely during the first half of the month, and on the last two days; but for the fourteen days, between the 15th and 29th inclusive, there were only sprinkles, insufficient to scour the surface channels, though cleansing and purifying to the air. The wet days registered, were + 4·10 more than the average of the previous ten years, being 13. On the 5th and 30th the streets and sewers got well flushed. The total precipitated during the month was 1·93 inches, which is, + ·41 more than the 20 years' average for March, and nearly three-quarters of an inch more than was deposited in March 1864. In that month the wet days moreover were only four. *Snow* covered Mount Wellington very low down on the 17th, but disappeared before 10 a.m., next day. Again on the 31st Mount Wellington was copiously mantled with snow.

*Spontaneous Evaporation* total was 2·60 inches, a very slight excess indeed over-rain fall, for the month of March.

*Elastic force of Vapor* notwithstanding so much rain, was + 23 more than the 20 years' average being 378.

*Humidity*, also, 76, was + 3½ above the 20 years' mean:

*Cloud* mean, 6·54, too, was unusually high; being + 1·13 above the 20 years' average, and + 2·49 more than March 1864 had.

*Ozone* mean, 7·65, was + 73 above the average of the previous 7 years, and + ·69 more than March last year had. The maximum was 9, and the minimum never fell below 5. With ozone-bearing winds so few and gentle, the influence of frequent though even slight showers, in purifying the air, is more thoroughly marked this month than usual.

*Electricity* was more abundant than in February, having twice as many, or 6 positive indications with maximum tension of 5, and 49 negative records with maximum tension of 5·5, "nil" was registered 7 times. In March 1864, electricity was both more abundant and stronger, and the positive indications, in proportion to negative, much greater. No *lightning* was observed during the month, but some heavy peals of *thunder* ushered in the commencement of the rain on the 30th.

The tables, following, show that the *deaths* in March 1865 were 56; being 17 less than in March last year, though a few fractions only below the average of the previous eight years:—

Mars., 1865	Ages.	Feb., 1865	Marchs.								Avg. 8 yrs. Marchs, 1857-1864.
			1864	1863	1862	1861	1860	1859	1858	1857	
12	Under 1	15	25	16	12	19	16	15	26	14	17 7-8
6	1 to 5	5	13	11	8	6	9	9	17	6	9 7-8
2	5 to 20	2	2	1	3	4	2	4	3	2	2 5-8
9	20 to 45	7	11	9	10	6	11	8	7	16	9 6-8
9	45 to 60	9	13	5	9	8	8	8	5	11	8 4-8
18	60 and above	15	9	11	10	7	7	4	8	6	7 6-8
56		53	73	53	52	51	53	48	66	55	56 3-8

In every group of ages below 45, the deaths were less than the eight years' average; but at all ages above 60, the mortality was much greater than in any year of the eight, and considerably more than double the average of the whole. The atmospheric causes conducing to this unusual high rate of senile deaths have already been referred to. It will be seen by an examination of the foregoing table, that the deaths under five years of age, were not quite half of those at the same age in March, 1864, while in that month the deaths at all ages above 60, were only half of those recorded for the present month. The



oldest noted in the registry for the present March, was a woman 98 years old, who retained her ordinary faculties to the last, tottering about until the very day of her death.

Mar., 1865	Classes of Disease	Feb., 1865	Marchs.								Average of 8 years' Marchs. 1857-1864.
			Min.				Max.				
			1864	1863	1862	1861	1860	1859	1858	1857	
10	1. Zymotic	11	35	21	15	15	15	16	25	9	18 7-8
9	2. Constitutional	11	8	8	1	11	8	5	10	6	8 2-8
29	3. Local	20	19	13	19	21	24	17	14	29	19 4-8
5	4. Developmental	8	8	9	5	2	5	6	11	7	6 -58
3	5. Violent, &c.	3	3	2	3	2	1	4	6	4	3 1-8
56		53	73	53	52	51	53	48	66	55	56 3-8

In the *Zymotic* class, the deaths were but little more than half of the eight years' average, and less than half of those in March, 1864. Nine out of the ten deaths were from *bowel complaints*, while last year these diseases caused 26 out of the 35, in the Zymotic class. The *Constitutional* class of the diseases had slightly more than the average. Five of the nine were from *Consumption*, and of those one was Tasmanian born, a boat-builder by occupation, and aged 22 years. The class of *Local* diseases was rather more than one third higher than the eight years' average, and a trifle more than that above the number in the same class in March 1864. The *Brain and Nervous System* had 11 deaths in the present March, but only eight last year. The *Heart and Circulatory System* five this year, four last. The *Lungs and Respiratory System*, seven in this month, 2 only in March 1864. The *Digestive System*, four this March, only two last year. The *Urinary System*, two deaths in both years. The *Reproductive System*, no death this year, but one in 1864. The *Developmental* class had considerably less deaths than the eight years' average, and a still smaller proportion to that of last year. Four, of the five deaths, were from old age; the other was a babe only four months old. In the class of *Accidental and Violent* deaths the number was a fraction below the average. Of the three, one, a babe of six months old, owed its death to *suffocation* from the fault of drunken parents; the second, an old woman of 74, died in Hospital from *burns*, caused by the ashes falling from the pipe she was smoking; the third, a man of 55, was killed by a spar falling and *fracturing his skull*, while he was kindly aiding others in lifting it out of a cart.

Eight (8) *Inquests* were held this month, March 1864 had only 5.

In *Hospital* the deaths were 16, including one of the inquest cases. Of these, three were brought to hospital from country districts; and one, a young South Sea Islander, from a whaler in the harbor. In March, 1864, the hospital mortality was only 12. At the Male Invalid Asylum, Brickfields, two died, aged respectively 50 and 66. In 1864 there was only one. A female invalid, aged 81 years, died at the Cascades establishment.

Of the 56 deaths, 26 were males, 30 females, a complete reversing of the ordinary proportions of the sexes. Of the 56 deaths, only two died in Glenorhey, and one in Queenborough, electoral districts, the rest in the city.

In the first week of the month 15 deaths occurred; in the second, 14; in the third, 10; in the fourth, 10; in the last three days, 7.

On the 9th, 13th, and 25th, no deaths took place. On any two consecutive days, the greatest number of deaths were 9, on the 11th and 12th. The most fatal period of the month was from the 10th to 12th inclusive, when 12 deaths took place.

The *births* registered were 70, while in March, 1864, only 58 were recorded.

For the first, and usually the most fatal quarter of the year, (though 1864 was

an exception), the deaths in the Hobartton Registration District amounted to 150; being 20 less than the average for the same quarter of the preceding eight years. Our more than usually cold summer, therefore, has been highly favorable to health and life, though at times not very agreeable to the feelings.

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For all the Registration Districts of the Island the *births* registered in the first quarter of 1865 were:—404 males, 348 females, total 752; being 32 more than in 1864, and the excess all in males.

The *deaths* during the same period were:—178 males, being 32 less than in 1864; 148 females, or 18 more than last year; total 326, being 14 less than the first three months of 1864, and 90 less than the average of the previous seven (7) years, and less than any one of them. The mortality has fallen off in every year's first quarter consecutively, though 1861-2-3 differed very slightly.