

i.
METEOROLOGY.

MARCH, 1872.
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 on grass.		Direction from three daily re- gisters.	Force in lbs. per square foot.	
			°	°	°	°			
1	30-211	30-176	79	58	114-0	57-0	SE	1-04	
2	30-065	29-904	90	56	127-0	52-5	W SE S	1-04	
3	30-211	30-119	82	55	70-5	55-5	SE	·52	
4	30-270	30-129	86	56	118-0	52-5	NW SE	·78	
5	30-206	30-154	86	54	123-5	52-5	NW SW SE	1-04	
6	30-198	30-123	93	55	124-0	58-5	NW N	1-04	
7	29-997	29-840	96	64	126-5	62-5	NW	1-56	
8	30-007	29-913	90	59	95-0	59-0	SE	·58	0-05
9	30-115	30-087	85	47	100-0	43-0	NW SE	1-04	
10	30-124	30-117	81	45	95-0	41-5	NW SE	1-56	0-03
11	30-255	30-189	75	40	108-0	35-5	NW SE	1-04	
12	30-184	30-002	73	49	91-5	43-5	NW	·78	0-11
13	29-915	29-899	69	57	71-0	55-5	NW NE	·26	0-30
14	29-940	29-909	71	60	93-0	59-0	NW NE	·52	0-02
15	29-865	29-728	77	57	97-0	54-0	NW NE	·78	
16	29-701	29-687	73	56	73-0	53-0	NW NE	·26	0-45
17	29-874	29-815	72	58	107-0	55-5	S SE E	·78	0-03
18	30-130	29-982	72	50	100-0	48-5	NW S SE	·78	
19	30-275	30-227	69	54	75-5	52-0	NW S E	0	
20	30-229	30-097	69	47	99-0	44-5	NW NE	·78	
21	30-092	30-003	77	49	112-0	42-0	NW SE	·52	
22	29-974	29-914	74	52	94-0	48-0	NW SE	1-30	
23	29-915	29-829	80	57	109-0	54-5	NW S SE	·78	
24	29-879	29-832	76	50	108-0	46-5	NW SE S	·78	0-27
25	29-786	29-737	72	54	96-0	47-0	S SE	3-12	0-06
26	29-704	29-574	66	55	72-5	52-0	NW SE S	3-12	0-35
27	29-625	29-620	63	54	63-0	47-5	SE	1-04	0-08
28	30-029	29-834	64	50	99-0	48-0	SE SW	1-04	0-07
29	30-311	30-300	65	41	103-0	37-0	NW SE	1-04	
30	30-319	30-250	72	44	102-0	40-0	NW E SE	·26	
31	30-125	29-985	72	44	106-5	41-0	NW SE	1-04	
Monthly mean			63-68	53-68	99-15	49-65	Total Force	32-76	2-27
			30-018						

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, 30-018in., being 1-163in. above the average.
 Temperature mean, 63-68°, being 3-92° above the ditto.
 Solar intensity mean, 99-15°, being 10-04° below the ditto.
 Dew point mean, 53-08°, being 3-86° above the ditto.
 Humidity of air mean, 71, being the same per cent.
 Elastic force of vapor mean, 418, being 0-52 per cent. above the ditto.
 Total amount of rain, 2-27in., being 0-60in. above the ditto.
 Increase of spontaneous evaporation on rainfall, 5Sin.
 Mean amount of ozone, 7-32, being 0-31 of chromatic scale above the ditto.
 Electricity comparatively feeble through the month.
 Thunder, lightning, and rain on the 13th.

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

- 15th.—Coe's Golden Drop Plum ripe.
- 20th.—Seckle Pear commencing to ripen.
- 21st.—Tips of Elm turning yellow.
- 25th.—Leaves of Horse Chestnut turning brown.
- 28th.—Ash leaves commencing to fall.
- 30th.—Oak ditto ditto.

FRANCIS ABBOTT.

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

By E. SWAREBECK HALL.

The most marked phenomena in the weather this month were the high but tolerably steady atmospheric pressure; the warm mean, but very variable daily-range, of temperature; great elastic force of vapour; heavy rain-fall; small aerial movement; cloudy skies; pure air; and unusually defective electricity indications. The death rate total was above the average, but principally in children under one year old, and persons above 60 years old.

Atmospheric pressure mean, 30·018, was +·141 above the 30 years' mean for March. Minimum, 29·574, was registered on the 27th; maximum, 30·319, on the 30th, being a range in three days of ·745 of an inch. Within this period 10 deaths occurred, while in twice that number of days previously there were only 3 deaths. The greatest movement of the barometer in any 24 hours, from 1 p.m. to 1 p.m., was a rise of +·386 of an inch on the 29th. On eight other days there were movements exceeding one-fifth of an inch.

Wind-force, 32·76 lbs., was -21·89 below the average. Gentle sea-breezes from the *south-east* preponderated both in frequency and force. The wind from any quarter only attained the force of 2·60 lbs. pressure to the square foot, twice, on the 25th and 27th, one a *south* the other a *south-east* wind. *Calms* were 24, being -4·22 below the average. *Temperature* mean, 63·68 degrees, was +3·76 above the 30 years' average for March, and was as hot as the mean for February. The maximum, 96 degrees, was noted on the 7th, and the minimum, 40 degrees, in the night of the 11th, being a range in five days of 56 degrees. On these five days there were 13 deaths, but the effects of this rapid and extensive variation in temperature, with rain and cold winds, extended to the 13th inclusive, there being altogether within this period of the month 22 out of the total deaths of the month. The *wet bulb thermometer* mean, 57·99 degrees, was +4·04 above the average.

Daily-range of temperature mean, 23·61 degrees, was +3·77 above the average. Only March, 1856, had a higher mean, *i.e.*, 23·80. The greatest range in any 24 hours was registered on the 9th, being 38 degrees.

Solar-intensity mean, 99·15 degrees, was -4·35 below the average. There was, however, so great an excess in the cloud mean that the sun's rays when unintercepted were really unusually hot. The maximum was 126·5 degrees on the 7th.

Terrestrial-radiation mean, 49·65 degrees, was +1·72 degrees above the average. Of course this is usually the case with an excess of cloudy nights. The lowest record was 35·5in the night of the 11th.

Elastic-force of vapour mean, 418, was +61 above the 30 years' mean. March, 1856, only had a higher mean, *i.e.*, 450. The range was from maximum 598 at noon on the 5th, to minimum 215 at 7 a.m. on the 11th.

Humidity mean, 71, was exactly the March mean of the 30 years.

Rain fell to the aggregate amount of 2·27 inches, which is +·67' of an inch above the average. There were 12 days on which rain fell, being +3 above the average. On the 8th, 13th, 16th, 24th, 26th, enough fell to flush drains, sewers, &c.

Spontaneous evaporation exceeded rain-fall very slightly, being only 2·85 inches. This is a very small amount of evaporation for March, but of course in this month the small wind-force and the excess of cloudy weather account for it.

Cloud mean, 6·16, was +·74 above the average.

Ozone mean, 7·32, was +·21 above the average. *Saturation*, 10 was recorded five times. The prevalence of sea-breezes and the great rain-fall maintained high aerial purity.

Electricity was in a very unusual state this month. There were only 5 *positives* with tension from 4 to 5·5; *negatives* were 36, with tension only from 1 to 4. There were 21 *nils*. *Thunder* and *lightning* occurred with rain in the afternoon of the 13th.

The *deaths* were 58, being +3¹¹/₁₅ above the average for March of the previous 15 years. 1858 and 1864 alone exceeded the present month, having

respectively 66 and 73 deaths each. The smallest number in any month was 42 in 1869. Under one year old there were 16 deaths, several only a few hours or days old ; from 1 to 2 there were 3 ; from 2 to 3 the deaths were two ; from 3 to 4 one ; from 4 to 5 none ; from 5 to 10 one ; from 10 to 15 none ; from 15 to 20 two ; from 20 to 60 there were 13 ; at 60 and all ages above, the oldest being 92, there were 20. In the *Zymotic class of diseases* there were 14 deaths ; of these 11 were from *bowel complaints*, nearly all young infants. One, a girl of 18, registered *Common Continued Fever*, but with suspicion that sunstroke was the exciting cause. A young wife, aged 22, died from *Typhoid Fever*, and her only child, aged 11 months, died the day after, registered *Diarrhoea*, most probably typhoid also. In the previous month a woman, aged 21, died close to the above, registered *Enteritis*, but very likely the result of the typhoid poison. Intelligent neighbours report six cases with three deaths from this cause in a group of houses in Warwick-street, between Argyle and Campbell-streets. The drainage there is very bad, and at the back and on one side of these houses the soil in two paddocks is a swamp from sewage. From time to time deaths occur from this preventible disease in Hobarton, warning us to put our sewage in order, ere this disease becomes the terrible scourge that it is in the home country. If not thoroughly disinfected, the dijecta from typhoid patients become carriers of the disease to others in various ways of the most repulsive nature. The 14th death in the zymotic class was from *Thrush* in an infant. In the 2nd, or *Constitutional class of disease*, there were 12 deaths, 6 of them from *Consumption*. Two of these were natives of Tasmania, 2 Irish, one being a visitor from Victoria, 1 English, 1 a sailor, a native of the South Sea Island of Tanna. Diseases in the 3rd class, *Local Diseases*, need not all be commented on, but those of the *Brain and Nervous System* caused 10 deaths ; the *Heart and Organs of Circulation* 3 ; the *Lungs and Organs of Respiration* 3 ; *Organs of Digestion* only 1 ; *Urinary Organs* 3. Of the remaining classes it will suffice to state that *Old Age* caused 7 deaths ; *Atrophy and Debility* 3 ; *Premature Births, &c.*, 2 ; *Accident* only 1. No *Inquests* were held this month. In the *Hospital* there were 8 deaths, five of them belonging to other "Registration Districts." At the *Brickfields Male Asylum for Invalids* there were 3 deaths, [aged respectively 64, 66, 71. At the *Cascades Invalid Asylum* two men, aged 61 and 65, and one woman, aged 68, died.