

METEOROLOGY FOR JANUARY, 1870.

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.	
1	30·032	29·999	71	50	115·0	46·5	NW SE SW	1·04	1·71 0·06 0·02 0·29 1·53 0·14 0·74 0·05 0·03
2	29·971	29·829	70	51	117·0	48·5	NW SE	1·30	
3	29·657	29·320	86	58	122·5	56·0	NW ENW	1·04	
4	29·570	29·460	83	50	108·0	47·5	SW	8·33	
5	29·665	29·650	70	51	116·0	51·0	NW	1·04	
6	29·657	29·617	69	54	113·0	51·0	SW W NW	3·12	
7	29·837	29·710	67	47	107·5	44·5	NW SW	3·64	
8	29·433	29·317	68	48	110·0	46·5	NE W	10·41	
9	29·665	29·583	66	48	103·0	47·0	NW W SE	1·56	
10	29·684	29·504	76	49	106·0	43·5	NW SE NW	1·30	
11	29·769	29·617	73	55	116·0	52·0	NW SE W	1·04	
12	29·671	29·464	99	55	75·5	54·0	NW SE	·26	
13	29·540	29·483	62	51	67·0	49·0	S SE	·52	
14	29·954	29·842	64	48	108·0	46·0	SE SW	1·30	
15	30·094	30·070	63	48	110·0	45·0	SW SE	1·04	
16	30·107	29·935	68	46	108·5	43·0	NE SE	1·30	
17	29·826	29·795	69	55	114·0	52·5	SE	1·04	
18	29·535	29·240	82	58	122·0	55·0	NW	26·56	
19	29·765	29·575	78	53	106·0	47·0	NW SW NW	7·80	
20	29·977	29·800	69	55	112·5	50·0	NW SW W	1·04	
21	30·090	30·049	76	45	112·0	42·5	NW SE	1·30	
22	30·076	29·891	77	53	120·0	49·0	NW SE	1·04	
23	29·810	29·683	99	58	138·0	54·5	NW W	1·04	
24	29·852	29·817	78	61	99·0	59·5	SE	1·04	
25	29·663	29·604	69	60	90·0	59·0	E SE	·52	
26	29·874	29·684	67	49	109·5	46·5	S W SW	1·04	
27	29·842	29·715	66	46	101·0	44·0	NW	·78	
28	29·870	29·736	67	54	95·0	49·0	SW SE	·78	
29	29·926	29·779	78	54	119·5	51·5	NW W	5·99	
30	29·879	29·871	75	53	86·0	46·0	NW	3·38	
31	30·101	30·091	66	46	108·0	44·5	NW SE	1·04	
Monthly mean	62	62	107·60	49·08	Total Force ..	92·63	4·57		
	29·758								

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 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 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.

- 1st.—First apricot (royal) gathered.
- 8th.—Grevilea robusta in full flower.
- 9th.—Jargonelle pear ripe.
- 12th.—Mulberries commencing to ripen.
- 14th.—Veronica angustifolia in full flower.

Barometer mean, 29·758 in., being 0·031 in. above the average.

Temperature mean, 62·62°, being 0·22° below the ditto.

Solar intensity mean, 107·60°, being 2·04° below the ditto.

Dew point mean, 49·0°, being 1·55° below the ditto.

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

Elastic force of vapour mean, '361, being '012 per cent. below the ditto.

Total amount of rain, 4·57 in., being 3·2 lin. above the ditto.

Increase of spontaneous evaporation on rain fall, 0·23 in.

Mean amount of ozone, 5·85, being 1·02 of chromatic scale below ditto.

Electricity active on the 1st, 4th, 5th, 6th, 8th, 9th, 10th, 11th, 14th, 17th, 19th, 20th, 21st, and 29th.

Hot wind on the 3rd, followed by thunder, lightning, and rain. Hot wind on the 18th.

FRANCIS ABBOTT.

REMARKS ON OBSERVATORY RECORDS, WITH HEALTH REPORT
FOR JANUARY AND FEBRUARY, 1870, AND A COMPARISON OF
THE VITAL STATISTICS OF 1869, WITH THOSE OF PREVIOUS
YEARS. BY DR. E. SWARBRECK HALL.

The only striking variations from the usual January weather to be seen in the table are—First, the deficiency of ozone, the amount being much below the January average, and less than for any of the previous twelve years recorded; second: Windforce was much above the average with a great predominance from that point of the compass, N.W., most adverse to health; third: though the temperature mean was not in excess, the extreme range in the month was greatly so; fourth: Rainfall was most advantageously above the average, only one January in the twenty-nine years recorded having a greater fall, *i.e.*, 1849, with the small superiority of four-hundredths of an inch. On the other hand humidity mean was considerably below the average. The electrical condition of the atmosphere recorded shows nothing inimical to health, the positive indications as well as the tension, being an usually fair proportion of the whole. The Hobarton district deaths this month, so far recorded, 64, are 15 above the average of the previous 13 years, 23 more than 1869 had, and considerably higher than any year since 1860, when 72 deaths occurred. 1858, the highest of the 13, having had the maximum 74, and 1864 the minimum 24. This excessive mortality was not owing to the prevalence of any epidemic disease, and it fell heaviest on adults and very aged persons. Of the 64 deaths, 19 only were under one year old, while 1860 had 28, and 1858 had 32. From 1 to 5 years old the present January had only 3 deaths, while 1860 had 7, but 1858 had 10. From 5 to 20 years old the deaths were 3, while 1860 had 7, but 1858 3 only also. From 20 and all ages above the deaths were 33, while 1860 had only 30, and 1858 only 29. Above 60 years old January, 1870, had 17 deaths, 1860 only 9, 1858 only 8. December, 1869, however, had 6 deaths less than the December average, while December, 1859, had 17 more than the average, and December, 1857, 3 more.

The Hobarton Registration District had the smallest number of deaths, for the whole year of 1869, than any of the previous twelve, the number being only 472, while the average of the previous 12 is 568, and the least in the number, 492 in 1865. This is without reference to the increase annually of the population by excess of births over deaths. For the whole of Tasmania, too, the registered deaths, 1335, were the fewest in proportion to population, being 129 less than 1868 had, and 107 less than the average of the previous twelve years. 1869 was entirely free from epidemic diseases. Estimating the population of all Tasmania at 100,000, the death rate would be about $13\frac{1}{2}$ per 1000 per annum. The death rate of England and Wales is about 22 per 1000, and the Registrar-General of England considers 17 per 1000 a nominal death rate. So favourable a condition of health cannot be expected to continue long in Tasmania, seeing how wide-spread is the neglect of vaccination and other hygienic measures, which most civilised communities elsewhere are so energetically enforcing. The homely adage, "a stitch in time may save nine," is particularly applicable to Tasmania.

The deaths in February, registered up to the 6th March inclusive, were 48, being 6-13ths below the February average of the previous thirteen years.