PRIVATE OBSERVATORY, HOBART TOWN.

<table>
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<th>Day of Month</th>
<th>Bar. 37 feet abv. sea level corrected &amp; reduced</th>
<th>Self-Registering Thermometers</th>
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Monthly Mean 66 81

Leaving, Flowering, and Fruiting of a few standard plants in the Royal Society’s Garden during the month.

8th.—First apricot gathered (Roman).
11th.—Jargonelle pear ripe.
12th.—Veronica angustifolia in flower.
15th.—Grevillea robusta in full flower.
18th.—Mulberries commencing to ripen.

Barometer mean, 29 822in., being 0 95in. below the average.
Temperature mean, 66 81°, being 0 03° below the average.
Solar intensity mean, 111 06°, being 1 42° above the average.
Dew point mean, 52 6°, being 2 05° above the average.
Humidity of air mean, 64, being 0 03 per cent. below the average.
Elastic force of vapoar mean, 419, being 946 per cent. above the average.
Total amount of rain, 1 72in., being 1 30in. above the average.
Increase of spontaneous evaporation on rainfall, 2 80in.
Mean amount of ozone, 7 09, being 0 22 of chromatic scale above the average.
Electricity active on the 1st, 2nd, 4th, 11th, 12th, 15th, 16th, 23rd, and 24th. Thunderstorm on the 6th.

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

By E. Swarbreck Hall.

The meteorology of this month is quite peculiar, and had not some of the
phenomena most adverse to health and life been counteracted by others of
the opposite character, the health of the community would have been
seriously affected, and the death-rate have been much in the excess of the 15
years' mean for January. As it was, the excess of deaths is scarcely appreci-
able, being only the fifteenth of one, and no epidemic disease became prevalent.

From the commencement of this year the meteorological standard of com-
parison for my monthly notes will be (in most of the phenomena) for 30 years
instead of for 25 years as before. By the conjoint labours of Mr. Francis
Abbott, F.R.A.S., Mr. Robin, Curator of the Royal Society's Museum, and
myself, tables for the longer period have been compiled, thus extending our
Meteorological Records from 1841 to 1870 inclusive. They will soon be in
the hands of the Government printer, and available for all interested in the
subject.

Atmospheric-pressure mean, 29.822, was only + 078 above the 30 years'
mean. The maximum, 30.351, occurred on the 24th, the minimum, 29.170,
on the 22nd, so that the whole range of the month was 1-211 inches, and
recorded within two days. This is by far the highest range in any January
since 1855, except 1856. Between the morning observations of the barometer
on the 22nd and 23rd the mercury rose + 364 of an inch. In January, 1856,
it was 1914, but no other January approached to anything near that of the
present month. On 13 other days the variations of atmospheric-pressure were
above one-fifth of an inch. The lethal influence of this, conjoined with great
heat, and wide alterations of temperature, was exemplified in the heavy
death-rate from diseases of the brain, &c.

Wind-force total, 77 52 5 lbs., was + 176 lbs. above the mean. The
carbogyneal, health-promoting, gentle sea breezes from the South East
were the greatest in number, but those of the opposite character from the
North West were the greatest in force. The four strongest winds recorded
had 5-21 lbs. pressure to the square foot each, three were from the North
West on the 2nd, 16th, and 17th, the other a South West on the 22nd, when
the barometer attained its minimum. Hot winds were recorded on the
9th, 16th, 21st, 22nd. Calms were 19, being — 2-10 below the average.

Temperature mean, 66.813 degrees, was + 4.12 above the 30 years' mean for
January. Only January 1856 had a higher mean, i.e., 71.10. The greatest
high-day temperature was 96 degrees on the 9th. The smallest low-night
temperature was 40 degrees on the 3rd, giving the extreme range for the
month of 56 degrees, the same as in the month of December preceding.
Only January 1849 had a wider range, the maximum being 105—(the highest
ever recorded here)—the minimum 43. The wet bulb thermometer mean
was 59.31 degrees, being + 3.41 above the 30 years' standard.

Daily range of temperature had the mean of 25.00 degrees, being + 4.36
above the 30 years' standard average. Three years only had higher means,
i.e., 1862, 25.63; 1856, 25.13; 1841, 25.50. The greatest range in any
twenty-four hours was 34 degrees on the 9th.

Solar intensity mean, 111.96, was + 3.04 above the mean of the 15 years
recorded in the standard tables. The years 1856, 1857, 1863 only had higher
means. The maximum was 126 degrees on the 9th, this has been exceeded
in nine years out of the 15.

Terrestrial radiation mean, 50.69 degrees, was —10 below the 15 years'
average. The maximum was 62 degrees in the night of the 22nd, the
minimum 36 degrees in the night of the 3rd.

Elastic force of vapour mean, 419, was + 46 above the 30 years' average.
In only three years was this mean exceeded, i.e., in 1856, 1859, 1861. The
range of the month was from minimum 214 on the morning of the 3rd, to
maximum 675 at 1 p.m. on the 16th.

Humidity mean, 64, was —3 below the 30 years' standard.

Rain fell to the aggregate amount of 1.72 inches, which is +15 of an
inch above the 30 years' mean for January. The greatest part of it (1.31 inches) was precipitated in 26 hours following the hot-wind on the 9th. This was a most beneficial event on sanitary grounds, as it gave a thorough cleansing to the gutters, drains, sewers, &c., which, from the previous long continued dry weather, were full of decomposing organic matters, and very offensive. The death records give one instance at least of the effects of such filth accumulations; a boy of 16 died in Hospital from Pythogenic or Typhoid fever, or more expressively filth-fever, taken from a bad street in the centre and lower part of the city. Every year's delay in properly sewerizing the city is causing an increased saturation of the soil with the seeds of this and other zymotic diseases, as well as adding to the ultimate expense which will be entailed upon the citizens. Fortunately our water supply is not liable to be contaminated with the soakage of these pestilential products, but it behoves every family to pay great attention to their water butts and cisterns, for the dust which is so great in dry windy weather is loaded with animal ordure and other organic matters, and settles abundantly in the uncovered receptacles of water, and there rapidly ferments and decomposes.

Every water-cask ought to be thoroughly cleansed at least once a week. I demonstrated to the Royal Society some years ago how full of living creatures water long stored in casks, &c., became. Our mountain supply of water could not at its origin be of a purer quality; but no pains or expense should be spared to deliver it uncontaminated to the citizens. Too much obnoxious dust settles in the reservoirs at the Cascades, and even in the covered one in Hill-street, owing to the opening in the latter's gables not being screened with gauze wire as I long ago suggested should be done. The proposal before the Municipal Council to convey the water from the "Springs" to the "bower" in pipes, instead of the open channels, is in every sanitary respect highly desirable, but there should be no union of different metals in their construction. Nevertheless, I must repeat what I have said heretofore, that since the new waterworks came into operation deaths from Diarrhoea in the city have been much diminished, though liable to augment again from the increasing accumulations in the vile cess-pits and cloaca so prevalent in the city. The dread penalty paid by so many towns in Great Britain for this sort of sanitary neglect and mismanagement ought to warn the authorities of all the young cities and towns of the southern hemisphere, how they overlook these most important matters. Pure as is the air we receive in our happily situated island, it can, and will be polluted by local neglect of scavenging, sewerizing, and ventilating, and human lives will have to pay the penalty of such want of hygienic forethought. The rain fell on 6 days, which is — 2.95 below the average of 16 years.

Snow was never seen on Mount Wellington this month. Spontaneous Evaporation amounted to 5.52 inches, thus for exceeding precipitation, as was sure to be the case with so much wind and heat.

Cloud mean, 492, was — 82 below the average.

Oxone had the mean of 7.09, which is + 16 above the January average for the 13 years of the new standard tables. On four observations saturation (10) was recorded.

Electricity had 23 positives with tension from 3 to 8.5, and 32 negatives with tension from 1.5 to 5.5. Nils were 7. Thunder and lightning were observed on the 8th. There were 50 deaths during the month, being +1/12 above the January average for the previous 15 years, and only + 3 more than 1871 had. Under one year old there were 18 deaths—being one only more than January 1871 had. From 1 to 5 there were 4 deaths; 1871 had not any. From 5 to 10 one death; 1871 also one. From 10 to 15 no deaths; 1871 the same. From 15 to 20 two deaths; 1871 none. From 20 to 60 there were 18 deaths, being + 4 more than in 1871. At 60 and all ages above, the oldest being 94, there were only 7 deaths, while 1871 had 15. In the Zymotic class of diseases there were 13 deaths, being + 7 more than in the previous month, December 1871. Typhoid fever 1; croup 1; crysipelas 1; pyemia, after wound in the hand 1; diarrhoea 9, mostly very young infants. In the Cachectic or constitutional class there were 7 deaths, 2 of them from Consumption, one of them a girl of 20 being a native of Tasmania, the other a sailor from a ship in harbour, a half-caste native of New Zealand, aged 21. In diseases of the brain and nervous system there were
14 deaths, being twice as many as in the previous month of December. In diseases of the heart, &c., only one death. In diseases of the lungs, &c., only one, which is remarkable with such wide daily ranges of temperature, and verifying the remark I have often had occasion to make, that mere alterations of temperature do not cause diseases of the organs of respiration to the extent that they do in the British Isles. In the other classes there was nothing unusual. In the Hospital there were 13 deaths, 5 of them not belonging to the Hobart Town registration district. There was only one Inquest, a suicide from poisoning with strychnine. At the Cascades Invalid Asylum there was only one death of a man aged 94, but a child of one of the officers of the House of Correction there died at the age of 4 months, as its fellow-twin did on the 24th of December previous, but which was not entered into my report for that month, as the death was not registered until the 11th January, notwithstanding the penalty the Act provides for such neglect. At the Brickfields Male Invalid Asylum there were two deaths, one aged 75 the other 77.