SUMMARY OF WEATHER AND HEALTH IN 1865.

[BY E. SWARBRECK HALL.]

The weather generally in 1865 was of the most favorable character.

Atmospheric mean pressure for the year was 29·848, which is only + ·040 above the 20 years' mean of the adopted standard. February, May, September, December, had means below the average, but all the other months were above it. The greatest pressure noted was 30·566 on the 8th August, and the lowest was 28·885 on the 14th May, the extreme range for the year, therefore, being 1·681 inches.

The total *wind-force* of the year was 754·96 lbs., being—12·84 lbs. less than the average of the previous eight years. The strongest winds recorded had a pressure to the square foot of 10·42 lbs., and were registered three times, all in November—only two *hot winds* were noted in the twelve months, on the 31st October and 11th November.

The *mean temperature* of the year was 54·60 degrees, being only —·32 less than the average of the 20 years. March had the hottest mean, being 60·90 degrees—July, the coldest, had 49·15 degrees. The maximum temperature of any day in the year was 95 degrees, on the 11th November; and the minimum was 30 degrees in the night of the 10th July.

The year's mean of the *daily range of temperature* was 20·24 degrees, being + 2·08 above the mean of the 20 years. November had the highest mean daily range, 22·73 degrees, and February the lowest, 18·50 degrees. The greatest range on any day was 42 degrees, on the 11th of November.

Solar intensity had a mean for the year of 93·90 degrees, November having the maximum 117·73 degrees, and July the minimum 77·00 degrees. The highest single record was 129 degrees on the 11th November. This year's November has taken a very unusual position as to temperature in comparison with other months and years.

Terrestrial radiation mean for the year was 42·60 degrees; February had the highest mean, 48·28 degrees; June the lowest, 35·65 degrees. The minimum temperature was recorded on the 10th July, being 27·00 degrees.

Elastic force of vapor mean for the year was 3, 15, being —2 less than the 20 years' mean. February had the maximum, 393 ; July the minimum, 251. February had the highest record for any day in any month of the year, 628, on the 27th ; the minimum was 160 on the 12th June.

Humidity mean for the year was 73·08, being—1·75 less than the 20 years' average. May had the highest mean, 79 ; November the lowest, 66. Saturation, 100, was frequently recorded.

The year's *rain fall* amounted to 23·07 inches, being + 1·55 above the twenty years' average. It was distributed throughout the twelve months with more than the average equality. December had the maximum, 3·43 inches ; January the minimum ·63 of an inch. It is noteworthy, however, that, while the former was twice exceeded in quantity in the previous twenty-four years, it had had a minimum as low as ·11 of an inch in 1842, and in nine other years less than one inch ; the mean of the 20 years for December being 1·32 inches. January had a minimum of ·03 of an inch in 1841, and in eight other year less than one inch, the 20 years' mean being 1·50 inches. There were 146 days out of the 365, on which more or less rain fell, the minimum being 0·1 frequently, the maximum 1·22 inches on the 9th of October. Agriculturists, therefore, as well as sanitarians had no just grounds for complaint on this score in 1865, presuming that the Hobarton records is a fair mean for the whole island. Many parts of the colony had certainly a much greater deposit of rain, possibly others, however, had much less.

The year's *spontaneous evaporation* exceeded precipitation by + 14·30 inches.

Cloud mean for the year was 6·20, being + 55 more than the average of the 20 years. January, September, and October were the cloudiest months, and almost identical in their means. June, August, and November were the least cloudy, and scarcely differed in their means.

The year's mean for *Ozone* was 8·17, considerably exceeding any other of the eight years recorded. Every month had a mean above its average.

Electricity was more than usually abundant, but without any violent disturbances.

Deaths.—Every month of the year, except May, had a *death* record below
the mean of the previous eight years. The total, 492, being 76 less than 1864
had, and 95 4-7 less than the average of the previous seven years, and far below
any one of the number.

Under "one year of age" the seven years' average of deaths is 138 6-7—
while 1864 had 124, the year just passed had only 95. At the same time the
births registered during the year, amounting in number to 835, were only 3 less
than 1864 had.

At "1 to 5 years of age" only 27 died in 1865, while 1864 had 67, and the
average of the previous seven years is 87 5-7. Never before in Hobarton dis-
trict did infantile deaths prove so few, all and sanitarians and statisticians admit
that their mortality affords the surest test of the salubrity of any climate or
season. Perhaps no country in the world could exhibit such favorable returns
for children under five years old as the foregoing.

At "5 to 20 years of age" the total mortality of the year 1865 amounted to
37, while 1864 had 44. and the seven years' average is only 35 5-7. In this
group of ages, and in those above 60 only, was the average exceeded.

At "20 to 45 years of age" the deaths were 83; they were 113 in 1864, and
the seven previous years gave the average of 126.

At "45 to 60," 90 dea hs occurred, 1864 had 113, and the average of the
seven years was 97 4-7.

At "all ages above 60" the deaths were 160, while 1864 had only 107, and
the seven years' average was 101 5-7. So large a proportion of deaths in this
group is quite abnormal, and its relative amount to those under five years most
remarkable. The ordinary rate is for the deaths above 60 years old, and under
five, to be nearly alike, so that this relative mortality greatly enhances the
favorable character of 1865.

In the first, or *Zymotic class* of diseases, the deaths for the whole year were
only 61, while in 1864 they were 111, and the average of the previous seven
years was 128 3-7ths.

In the 2nd, or *Constitutional class* of diseases, 86 were tabled for 1865, while
1864 had 95, and the seven years' average is 90 4-7ths.

In the third, or *Local class* of diseases, 240 deaths were recorded, to 266 in
1864, and a seven years' average of 272 2-7ths.

In the fourth, or *Developmental class* of diseases, there were 70 deaths; 1864
had 69, while the seven years' average is only 563-7ths. This class includes
death from "old age," which accounts for the excess, as was shown in the
group of "all ages above 60."

The fifth, or *Violent and Accidental class*, had 34 deaths, being seven more
than 1864 had, but 5 6-7ths less than the seven years' average.

In the registration district of Hobarton it is probable that the numerical
amount of the population in 1865 did not deviate much from the census total of
1861, when it was 24,773, but for calculation it may be approximately estimated
in round numbers at 25,000. The death-rate would, therefore, be somewhat less
than 20 per 1000. It must not be forgotten that had the death-rate of the
Queen's Asylum for Destitute Children—which on an average of the 19 years
1841-1859, out of an average daily strength of about 430, had upwards of 15
deaths per annum—continued, the total would have been increased by 17, the
average daily strength in 1865 of the institution being about 550 children.
During the last four years the deaths altogether have been only 7; in no other
consecutive four years since 1841 were there less than three times as many
deaths, out of the much smaller number of children.

The mortuary returns for all Tasmania in 1865 are nearly as favorable as
that for the Hobarton registration district alone. Launceston had 214 deaths,
which is 37 less than in 1864. The rural districts had 569 in 1865, to 601 in
1864. The total deaths in all Tasmania for 1865 is after adding one death of
a convict, and another of a man executed—1,277, being less than 1864 by 158,
and below the average of the eight previous years by 205 2-8ths; 1862 had
previously the smallest mortality, 1 362, and 1860 the largest, 1,749.

Births.—The total of births registered in all Tasmania in 1865 was 3069, being
38 more than 1864 had. The birth-rate, therefore, was about one in 31 of the
population. A much greater rate existed for a few years after the gold disco-
veries, but with the diminished prosperity of late years, marriages have not

been so numerous, and the great curse of the European world—the "social evil"—has augmented rapidly amongst us.

Population.—To the 31st December 1864, I computed the inhabitants of Tasmania to amount to about 95,000. For the year ended 31st December 1865, I caluclate an addition of 2,000 thus :—Registered births 3,069, unregistered births 121, "arrivals" to the colony, 3,596, altogether 6,786—less by 4,786, being 1,277 deaths and 3,509 "departures" from the colony. It is worthy of special note, that in 1865, as in 1864, the "arrivals" in the colony of *adult males* exceeded the "departures" from the island, by 505 and 666 respectively. For many years previously "departures" were much more numerous than "arrivals." This important fact seems to be very generally unknown or misunderstood. Nevertheless it has l ad a very depressing effect on the labor market, and added no little to the demands on charitable institutions. It is not laborers, but employment for them that is scarce.

1277 deaths out of 97,000 persons—or taking the medium between the two years is—about one death, to 76 living, or at a rate of about 13¼ per 100. The normal death-rate calculated for a standard by the Registrar-General of England, is 17 per 100. The healthiest rural-districts in England and Wales have 15 per 1,000, while the death rate for all England and Wales, is about 9 per 1000 more than that of all Tasmania in 1865.

Two causes principally, seem to have operated in producing the annually decreasing rate of mortality in Tasmania, the first being :—the constantly increasing proportion that those born in the colony bear to the imported inhabitants. At the same time, by the ordinary laws of mortality a disproportionately large share of children adds to the death-rate. The second seems to have arisen from climatic improvements, the meteorological phenomena of late years having certainly been more auspicious to health and life. Though as these changes are usually cyclical in their character, we must expect a return to the old type for another period of years, ere long. Sanitary improvements, moreover, and specially the enlarged and much purer water-supply in both the southern and northern capitals, has doubtless improved the health and reduced the deaths of their citizens. Were as valuable a change effected in the sewerage of the two towns, in the ventilation of our houses, in the abolition of intra mural interments, in more watchfulness over the purity of our food-supplies, and last, though by no means the least, less intemperance in drink, the mortality rate might be reduced to an amount, which the most sanguine of sanitarians have never yet ventured to predict, and which no country in the world has so far exhibited. If we we will only take all the advantage science affords, to utilize and improve the blessings the Giver of all good has conferred upon our beautiful island, there will indeed be a happy future for little Tasmania amongst the great nations of the southern hemisphere.