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1877.

SESSION II.

T A S M A N I A.

HOUSE OF ASSEMBLY.

OFFICER OF HEALTH.

REPORT ON THE TOWNS OF NEW TOWN, SANDY BAY, AND
WELLINGTON.

Laid upon the Table by the Colonial Secretary, and ordered by the House to be
printed, April 24, 1877.

On examination of the foregoing table it will be seen that the last five years have added to the average mortality of all the months except February and July. November still retains its position as the least fatal to life of any of the twelve months; but May, which on the 15 years' average stood second, has now given place to September. March continues to have the greatest average number of deaths, and July the next; but, in proportion to the number of deaths to its number of days, February is still really, as before, the most fatal to life. Estimating the population of the Hobart Town Registration District in round numbers at about 25,000, without regarding the changes that have taken place in the relative proportions in the groups of ages, the 20 years' average of 566 $\frac{5}{6}$ deaths will be at the rate of a little over 22 $\frac{1}{2}$ per 1000 per annum, which is about that of all England and Wales. It is, however, to be borne in mind that the relative proportions in the Tasmanian population of those under 20, from 20 to 60, and all over 60 is not the same as in England, and less favourable to the death-rate, as the following Table indicates:—

DEATHS in Hobart Town Registration District, 1876, in Groups of Ages.

MONTHS.	Under 1.	1 to 5.	5 to 10.	10 to 15.	15 to 20.	Total under 20.	20 to 60.	61 and above.	TOTAL AT ALL AGES.
January	12	5	0	1	2	20	18	15	53
February	12	3	0	0	1	16	15	17	48
March	13	3	1	1	1	19	13	16	48
April	5	2	1	0	2	10	10	12	32
May	10	5	3	1	3	22	16	25	63
June	9	1	0	1	0	11	14	22	47
July	11	2	1	0	1	15	22	24	61
August	4	2	1	1	2	10	12	22	44
September	3	2	1	1	1	8	17	19	44
October	6	7	6	2	3	24	18	21	63
November	7	6	7	3	2	25	15	18	58
December	6	10	5	0	2	23	13	16	52
	98	48	26	11	20	203	183	227	613

The deaths in the Table 2 during the last four years far exceed the 15 and 20 years' averages. The enormous mortality in 1875, of 30 per 1000 per annum, was principally caused by the measles epidemic. The 613 deaths of 1876 would give the rate per 1000 per annum of about 24 $\frac{1}{2}$, which excessive rate was caused in a great measure by the prevalence of scarlet fever and diphtheria. In the 20 years only 1858, 1860, 1875 had a greater number of deaths than 1876; and in all of them there were epidemics of diseases in the miasmatic order of the zymotic class.

The deaths registered in all Tasmania during 1876 were 1730,—Hobart Town Registration District having 605 of that number; Launceston Registration District, 337; and the country districts, 788. In 1875 Hobart, &c., had 753; Launceston, &c., 336; country districts, 989: a total of 2078. The comparative numbers in 1874 were—Hobart, &c., 586; Launceston, &c., 322; country districts, 781: total, 1689. It will be observed that, while the mortality in the Hobart Town and country districts have fluctuated extensively during the three years, the Launceston District has deviated very slightly. Nevertheless the latter, in proportion to population, has had a much heavier death-rate than Hobart Town.

The unsanitary conditions existing in almost every part of the Hobart Town Registration District are numerous; but in this report I am necessitated to confine my observations to the three suburban townships.

Efficient sewerage is much wanted in all the three townships. The greater part of the sewage at New Town soaks into the surface soil or evaporates, polluting the air; and but a small portion, after a long open course in the natural drainage channels, reaches the New Town Bay, where ultimately, as population increases, it will become a great nuisance and difficult to abate. Similar, also, is the condition of the sewage channels of Sandy Bay. In the Wellington Township, from opposite Glen House, where Upper Macquarie-street, the Cascades-road, Arthur-street and Washington-street meet, there is no efficient means for the sewage to reach the Hobart Town Rivulet,—now, and for a long time past, the filthy and noisome *cloaca maxima* of Hobart Town. The south side of the Cascades-road is usually a ditch of sewage filth, putrefying and poisoning the air with noxious gases.

Pigsties abound in all the three townships, and mostly in a condition offensive to sight and smell, and injurious to public health. The existing law regarding them is so defective that the most vigilant oversight of them by the authorities is unavailing to prevent them being disgusting and injurious nuisances. Pigs are no longer allowed to be kept in Melbourne and Geelong.

The greatest nuisances everywhere, however, are the privy cesspits, where human excrement is often kept for years without removal, saturating the adjacent soil, and polluting the atmosphere with their pestilent emanations. Were the dry system of conservancy adopted with respect to the disposal of human excrement, not only would public health be freed from one of its most potent enemies, but agriculture and horticulture would be greatly benefited. This system has been carried into effect so successfully at the Cascades Establishment as to prove both its practicability and utility. There are moveable closets on the principle of Moule's patent earth-closets. A hopper filled with dry earth has a shoot, and, with machinery similar to that of a water-closet, a shower, or repeated showers if necessary, of the earth is made by the user of the closet to cover all that the galvanised iron receptacle had received, and thoroughly to saturate both solids and liquids. By this means putrefaction is prevented as well as faecal and urinous odour. When I visited the Hospital ward of the male invalids, where there were about fifty patients using two of the closets placed in the centre of the ward, there was no offence either to sight or smell. The receptacles are emptied daily. This system ought to be enforced in all public establishments. In private houses, where as good oversight cannot be obtained, a simple but equally efficient plan can be adopted. A galvanised iron receptacle being placed under the seat, in such a manner as to be easy of removal, there should be a vessel of any kind, with a scoop, kept in a corner of the closet, in which the screened dry ashes of the house fires should be deposited. A few scoopfuls of the ashes, thrown over the evacuations by the user of the closet, speedily removes all offence to sight or smell, and prevents the decomposition of the faeces and urine. The receptacle can be emptied into a trench in the garden, where there is one, as often as is necessary. In most households once a week would suffice. Nightmen will empty them and take away the manure once a week for three-pence each; or public provision could be made for the purpose, as the Police Law of 1865 provides for. A mistaken notion exists that nothing but earth dried by artificial heat will answer the purpose. I have experimented with artificially dried loam, clay-dust, burnt earth, clay, and bones, &c., wood ashes, &c.; but I find the coal and wood ashes of ordinary house fires answer as well as any. In the *Lancet* advertisements of Moule's patent earth-closets earth or ashes are named for filling the hopper. In Dr. Wynter Blyth's Dictionary of Hygiene and Public Health (1876) it is said—"Coal ashes, mixed with excrement, besides disinfecting the latter, make an excellent manure." This manure can be removed in open carts in the day-time, without offending either sight or smell; and thus farmers, who are loath to remove such matters (as the law requires it to be done in the night), would readily purchase it. I have proved that a galvanised iron commode pan, a truncated cone measuring 18 x 14 inches at the top, was large enough for three weeks' use of an adult family of eight persons; and that the contents at the end of that time were still in an unoffensive condition. The principle of this disposal of human excrement is now compulsory in Melbourne, &c.; and, as I am informed, with the most satisfactory results. Privy cesspits are now forbidden to be made. I have induced many hundreds of persons to adopt the plan I advocate; and all who have done so are delighted with the results. Voluntary efforts in all sanitary matters, however, are not to be relied upon; and it will require legal compulsion to make this plan general, so as to relieve one of the (naturally by climate and position) most healthy places in the world from its greatest obstacle to public health.

I have elsewhere urged on you the necessity of legal steps being taken to prevent the pollution of all streams that supply people with potable water. The principle was adopted by the enactment of a law in 1841 for the New Town Rivulet, but which is still more necessary elsewhere throughout the Island.

The contrast between the number of deaths in groups of ages in all Tasmania, in 1876 and 1875, were as follows:—

	1875.	1876.	
Under 5 years old	684	453	less by 231
5 to 20 years old	250	215	.. 35
20 to 60 years old.....	541	507	.. 34
All ages above 60	603	555	.. 48
	<u>2078</u>	<u>1730</u>	.. <u>348</u>

It will be observed that, while the reduction of the number of deaths under 5 years old was very large, those in the subsequent three groups were comparatively small.

I have the honor to be,
Sir,

Your obedient Servant,

E. SWARBRECK HALL, *Officer of Health.*

To the Hon. THOMAS REIBEX, *Esq., M.H.A.,*
Colonial Secretary, Tasmania.