

(No. 41.)



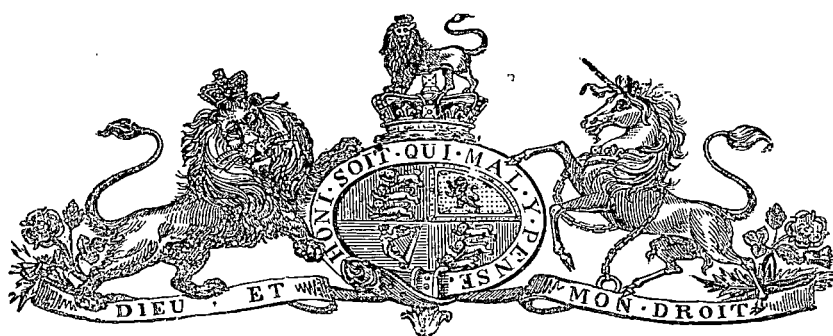
1892.

PARLIAMENT OF TASMANIA.

CENTRAL BOARD OF HEALTH:

REPORT FOR 1891.

Presented to both Houses of Parliament by His Excellency's Command.



CENTRAL BOARD OF HEALTH.

REPORT FOR THE YEAR 1891.

TO THE HONOURABLE THE CHIEF SECRETARY.

SIR,

WE have the honour to submit to you the following Report of the work of the Public Health Department, including the administration of the Public Health Acts, the Vaccination Act, the Quarantine Act, and the Chinese Immigration Act, during the year 1891.

CENTRAL BOARD OF HEALTH.

1. Messrs. W. Belbin and P. Barrett having resigned their seats at the Board, the Governor in Council was pleased to appoint Messrs. W. W. Perkins and F. J. Young to be Members in their places. There has been no change in the *personnel* of the administrative officers; but during the four months' absence of our Secretary in England, our clerk, Mr. T. R. Atkinson, was appointed *interim* Secretary by the Governor in Council, and fulfilled the duties of the office to our satisfaction.

SANITARY LEGISLATION.

2. During the Parliamentary Session of 1891 the following Acts, which have a bearing on the public health, were passed :—

The Hobart Sanitation Act (55 Vict. No. 26).

The Metropolitan Drainage Act (55 Vict. No. 27).

The Town Boards Act (55 Vict No. 41).

Reference is made to the provisions of the first two of these Acts in a subsequent part of this Report. By the provisions of the Town Boards Act the Governor in Council has power to proclaim areas to be towns for the purposes of the Act. Such towns will have Town Boards with rating powers, and which Boards, under the Public Health Acts, will be the Local Boards of Health.

Steps have been already taken for proclaiming such towns at Beaconsfield, Burnie, Invermay, Latrobe, New Town, Queenborough, St. Helen's, Waratah, and Wynyard—places that ought long since to have accepted local self-government—as well as the new communities of Dundas and Zeehan. Hitherto the Local Boards of these important towns have been hampered in their sanitary work by want of funds and power to raise money. We hope that in the future, with increased powers and opportunities, there will be a corresponding increase of efficiency.

Noxious Trades.

3. The necessary arrangements for the proclamation of a Noxious Trades Area in the neighbourhood of Launceston are not yet completed, but are in progress. The necessity for having such an area has been still further demonstrated by applications received from Messrs. Miller & Co. and from Mr. L. E. Ditcham for permission to establish soap and candle works and bone-mills in the neighbourhood of Launceston. These applications had to be refused or held over. It is also evident that provision will have to be made for a similar area in the neighbourhood of Hobart, as complaints are being made of the nuisance arising from the noxious trade establishments in the city.

Sanitary Condition of Inns and Public-houses.

4. During the year the work of the Central Board in connection with the 42nd Section of the Licensing Act of 1889 greatly increased, chiefly owing to the large number of new inns and public-houses built at the mining settlements of the West Coast, in places where this Board is acting as Local Board of Health under the provisions of the 6th Section of "The Public Health Act, 1887." Thirty-eight certificates were thus granted after due inspection by officers of the Board, fifteen of them being for houses at Zeehan and six at Dundas. The various Local Boards in the country also had inspections made prior to the granting of certificates in their respective districts.

Public Buildings.

5. The Board, after due inspection, having been satisfied with the provision made for public safety and sanitary requirements, has approved, under the 114th Section of "The Public Health Act, 1885," of the opening of public buildings at Brighton, Hobart, New Norfolk, Ross, and Zeehan.

Metropolitan Drainage.

6. With the view of forwarding matters in connection with the work that a Metropolitan Drainage Board would have to undertake, we gave the Engineering Inspector instructions to have prepared a plan of a portion of the city of Hobart from actual survey, and containing all the details required to design and carry out the sewerage of the portion selected and the drainage of every house therein. This has been done, and the plan and levels handed over to the Board appointed under the provisions of "The Metropolitan Drainage Act, 1891." This Act was passed on the 26th of October, and came into force on the 1st November last, and a Board has been appointed to carry out its enactments. For the present these refer to the preparation of plans and estimates for the sewerage and drainage of the Metropolitan Area, which comprises the entire district under the jurisdiction of the Local Boards of Health of the city of Hobart, of the towns of Glebe Town and Mount Stuart, and the Health District of New Town, and parts of the districts under the jurisdiction of the Local Boards of Health of Glenorchy and Queenborough.

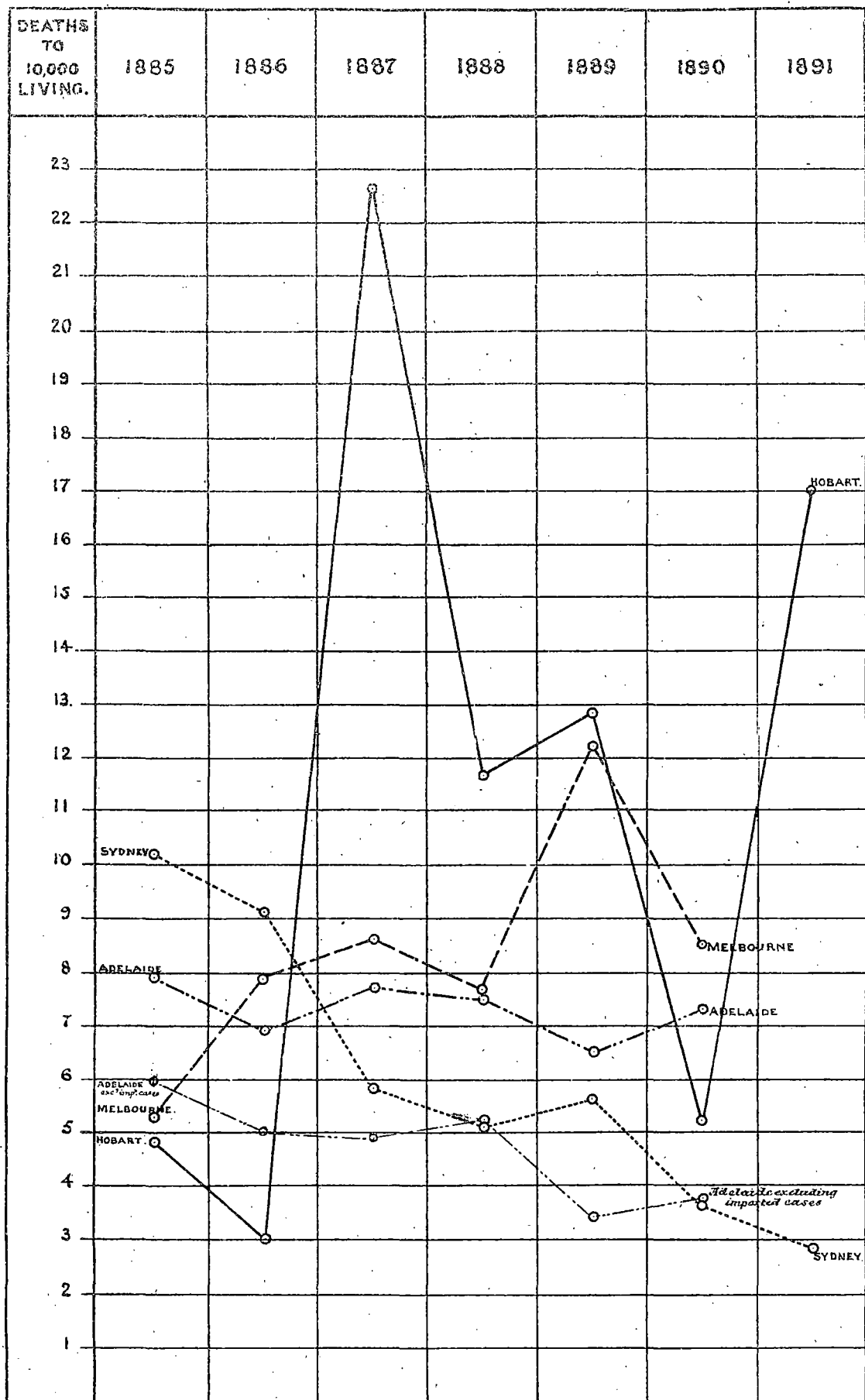
INFECTIOUS DISEASES.

Notification of Cases.

7. We have to repeat our regret at the manifest incompleteness of the returns sent to us under the provisions of the 10th Section of "The Public Health Act, 1887," by medical practitioners in charge of cases of infectious disease. Nothing has so greatly contributed to the success of the measures taken in Great Britain to prevent the spread of those diseases as the completeness of the notification and the timeliness in which it is given, which allows of the early and effective working of the Sanitary Department in each case. With respect to typhoid fever, the growing disposition to send cases for treatment in the public hospitals makes the notification more complete than it was; but even in typhoid cases the registration of the death is often the earliest and only notification of the disease, and had the case not ended by death its occurrence would not have been known. It is therefore probable that dozens of cases occur of which we know nothing—that is, nothing as to whether any measures have been taken to destroy the germs of the disease or to prevent its spread. We therefore again appeal to medical men to help us in our efforts to cope with preventible diseases by giving early notification of their occurrence.

Typhoid Fever.

8. The following table shows the number of cases of typhoid fever notified to the Board during each month of the year, as compared with those of the three preceding years, and the deaths registered, as taken from the monthly Returns of the Registrar-General, and also the temperature and rainfall:—



COMPARATIVE DEATH-RATES FROM TYPHOID FEVER.
(To face Par. 9)

MONTHS.	TEMPERATURE.				RAINFALL.				CASES.				DEATHS.			
	1891.	1890.	1889.	1888.	1891.	1890.	1889.	1888.	1891.	1890.	1889.	1888.	1891.	1890.	1889.	1888.
	F.°	F.°	F.°	F.°	In.	In.	In.	In.								
January	62.1	66.8	65.6	65.2	2.85	0.96	0.13	1.23	22	46	119	61	4	5	5	12
February	62.5	67.3	65.2	63.9	0.49	2.51	1.15	0.14	48	60	136	112	9	6	18	14
March	65.0	62.2	61.4	58.6	0.60	2.89	0.75	0.58	65	73	171	85	6	9	21	14
April	55.7	56.2	58.1	55.7	0.11	1.96	2.51	1.19	50	34	156	60	6	5	19	12
May	52.4	51.6	52.5	50.8	2.73	1.02	1.74	1.59	37	32	144	57	8	5	13	10
June	48.5	50.4	48.9	48.6	0.96	5.83	7.00	3.55	42	12	61	33	8	3	9	5
July	47.2	44.5	46.5	45.1	2.68	3.47	1.48	2.27	61	21	34	29	10	6	5	3
August	50.2	47.7	48.3	47.6	1.55	3.45	2.35	2.02	42	6	23	21	11	1	8	1
September ...	52.8	51.9	50.6	52.2	1.40	2.33	2.34	2.81	35	8	26	13	7	3	4	5
October	56.2	52.6	56.1	54.3	3.93	3.33	3.49	1.08	19	10	22	14	4	0	5	1
November ...	58.2	57.1	59.2	59.7	1.53	1.75	3.73	1.76	13	15	17	14	4	3	0	2
December ...	60.4	58.9	61.1	64.9	4.99	1.21	2.60	1.38	12	19	16	48	4	3	6	5
TOTAL...	55.9	55.6	56.1	55.6	23.82	30.71	29.27	19.60	446	336	925	547	81	49	113	84

It will be seen that the number of cases reported, and of deaths registered in 1891 are greatly in excess of those for 1890. The deaths are also greatly in excess of the average yearly number for the ten years ending 1891, which was 65.60. The temperatures and amounts of rainfall given in the above table are, as before, the means of those occurring in Hobart and Launceston. It will be noticed that the period of greatest mortality occurred later in the season than usual, being in midwinter instead of the end of summer. This winter mortality was accompanied by a higher temperature and a smaller rainfall than usual. We are glad to note that for the current year typhoid fever promises to be far less prevalent than during 1891.

9. While all experience is showing more and more conclusively that the prevalence or non-prevalence of typhoid fever does not arise from climatic or other conditions beyond human control, it is satisfactory to note that in the colonies of Australasia the public bodies charged with the safeguard of the health of the community are more earnestly accepting their responsibility as such responsibility is pointed out by the proved connection between lack of drainage and prevalence of the fever. Adelaide and Sydney have accepted the responsibility for some years, and their drainage works have told upon the fever-rate in the same manner as everywhere else ; and the work about to be undertaken at Melbourne and Hobart will doubtless have the same result. The accompanying diagram shows the death-rate from the fever in the four cities for the last six or seven years (the returns from Adelaide and Melbourne for 1891 not being to hand), and it evidently indicates that there is a controlling influence present at Adelaide and Sydney that is absent from Melbourne and Hobart. Of the four cities, the conditions and circumstances of Sydney and Melbourne on the one hand, and of Adelaide and Hobart on the other, may be best compared. Sydney and Melbourne are both such large cities that the effect upon their death-rates of what may be called imported disease—that is, the disease from which people are suffering who are brought in from the country to be treated at the hospitals—is comparatively very small. Consequently the result of the work done for the prevention of disease in the cities, if effectual, is soon apparent, that result not being much affected by the imported disease. The drainage work done at Sydney thus shows what has resulted from it in connection with typhoid fever by a descending curve, of the happiest significance of the success that has attended the fight against disease, and of the controlling influence at work. The climatic and other influences that used to there, and still do elsewhere, send the rate up and down by leaps and bounds, now have but little effect. But at Melbourne these influences are evidently still dominant and uncontrolled, and make the lines connecting the yearly death-rate a zigzag rather than a curve ; but the curve, such as it is, has an upward tendency.

Adelaide and Hobart are much smaller cities, and the effect of imported disease upon their death-rates is decidedly marked. In the case of Adelaide, the diagram shows also what the curve would have been if the typhoid cases brought in from Broken Hill and elsewhere outside the registration district had been eliminated. It will be seen that the imported disease thus accounts for a considerable proportion of the death-rate from typhoid fever at Adelaide (exactly one-half in 1889 and 1890). At Hobart the imported disease would also account for part of the typhoid mortality, but probably not nearly so much of it as in Adelaide, for in 1889—the only year for which the calculation has been made—the imported cases accounted for only one-twentieth of the deaths from the disease that occurred here. But, apart from the consideration of imported disease, the diagram shows in a still more marked manner than in the case of Sydney and Melbourne the difference in rates of mortality and in the control of typhoid fever between Adelaide, a drained city, and Hobart, an undrained one, and affords every encouragement to the vigorous prosecution of the proposed drainage works here.

In looking at the diagram it should not be forgotten that Sydney and Hobart have been longer settled than Adelaide and Melbourne, and that consequently it is likely that the unhealthy influence of sewage-sodden soil would be more marked than in the newer settlements. Even in country

places that have been long settled in Tasmania this influence is becoming more and more noticeable. It certainly was existent in Sydney, and the manner in which drainage has checked it is very remarkable. In the ten years from 1876 to 1885 the death-rate from typhoid fluctuated considerably, but with an ascending tendency from 4·6 in 10,000 in 1876 to 10·2 in 10,000 in 1885; the curve in the diagram shows what drainage has since effected.

Diphtheria.

10. The following table shows the comparative number of cases of diphtheria notified and deaths resulting from the disease for each month of the years 1891, 1890, 1889, and 1888, the deaths being taken from the monthly statistics of the Registrar-General:—

MONTH.	CASES.				DEATHS.			
	1891.	1890.	1889.	1888.	1891.	1890.	1889.	1888.
January	2	31	9	12	0	6	1	2
February	13	25	4	9	1	8	2	2
March	2	13	14	13	1	6	0	0
April	10	12	9	17	1	1	2	6
May	5	16	17	31	5	7	8	4
June	9	16	18	12	3	2	3	4
July	14	8	12	7	0	0	4	4
August	4	14	27	12	2	3	5	6
September	7	11	21	20	3	7	7	4
October	5	29	15	7	1	2	5	5
November	6	18	21	9	0	3	1	1
December	2	9	23	6	2	4	5	1
TOTALS	79	202	190	155	19	49	43	39

11. The above table shows a very satisfactory diminution in the death-rate, especially as compared with the preceding three years. It is also less than the mean rate for the ten years ending 1891, which was 27·30; the only years in which there was a lower rate being 1882, 1883, and 1886. Probably the diminished rainfall during 1891 accounts for the diminished death-rate.

Scarlet Fever.

12. One hundred cases of scarlet fever were notified during the year, and three deaths from it were registered, being about three times the number of cases and of deaths recorded in the preceding year. The average number of deaths for the ten years ending 1891 was 5·4.

Whooping-cough.

13. The severe visitation of whooping-cough noticed in our last Report has happily ceased, and only five deaths from it were registered, as compared with 41 for the preceding year. The average yearly death-rate for the ten years ending 1891 was 14·7.

Influenza.

14. At the beginning of the year it seemed as if the outbreak of influenza which characterised 1890 had spent its force, and for the first nine months of the year only three deaths from the disease were registered. But as spring advanced, the disease, beginning at Hobart and the south-eastern district, broke out with greater virulence than ever. In October 24 deaths from it were registered, nearly all occurring in the localities just mentioned. In November the outbreak arrived at its maximum of severity, and 50 deaths were registered. By this time the disease had spread over most of the Colony, and the deaths registered were in most localities about proportionate to the population. In December the worst of the visitation was over, but there were 18 deaths registered, chiefly in the country districts. It will be seen that there were thus in all 96 deaths from influenza registered—an unprecedented number in this Colony, being nearly three times as many as had occurred in all the ten preceding years together, the average death-rate of which was only 3·7. In common with the other colonies we have issued instructions and suggestions for the treatment of patients suffering from the disease, and for the prevention of the spread of the infection.

Distribution of Infectious Disease.

15. The following table shows the distribution of Typhoid Fever, Diphtheria, and Scarlet Fever in Tasmania during the years 1888, 1889, 1890, and 1891, as far as the cases have been notified to us under the provisions of the 10th Section of the Act of 1887:—

In the District of the Local Board of	Typhoid Fever.				Diphtheria.				Scarlet Fever.				TOTAL.			
	1888.	1889.	1890.	1891.	1888.	1889.	1890.	1891.	1888.	1889.	1890.	1891.	1888.	1889.	1890.	1891.
Beaconsfield	5	46	3	4	...	31	48	5	7	4	...	...	12	81	51	9
Boobyalla .....	...	3	...	1	...	2	6	...	...	...	...	...	...	5	6	1
Bothwell	1	...	5	4	...	...	...	...	...	...	...	...	1	...	5	4
Brighton	7	6	5	1	8	...	...	...	7	...	...	...	22	6	5	1
Burnie .....	...	...	6	1	...	...	1	1	...	...	...	...	...	...	7	2
Campbell Town	4	11	4	4	3	...	29	...	...	...	...	...	7	11	33	4
Carnarvon .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Clarence	3	1	...	8	1	...	...	...	3	...	...	...	7	1	...	8
Deloraine	9	11	10	6	9	8	3	11	6	1	1	58	24	20	14	75
Derby	12	17	3	1	...	...	3	1	...	...	...	...	12	17	6	2
Devonport	3	5	1	...	2	...	12	1	2	...	...	...	7	5	13	1
Ellesmere .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Evandale	3	7	2	...	2	...	...	1	...	...	...	...	5	7	2	1
Fingal	6	6	...	1	6	...	8	3	...	3	...	...	12	9	8	4
Franklin .....	...	1	1	11	1	19	1	9	10	...	...	...	11	20	2	20
George Town	2	1	1	2	...	...	6	...	...	...	...	...	2	1	7	2
Glamorgan .....	...	...	1	1	...	15	...	...	...	...	...	...	...	15	1	1
Glebe Town	2	1	3	6	1	...	...	...	3	...	...	...	6	1	3	6
Glenorchy	4	33	2	6	3	3	2	...	2	1	...	...	9	37	4	6
Gordon	3	4	...	3	2	2	1	...	5	5	...	...	10	11	1	3
Gould's Country .....	...	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...
Green Ponds	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...	1
Hamilton .....	...	3	2	...	5	...	1	1	1	2	...	...	6	5	3	1
Hamilton-on-Forth and Don	1	...	...	...	...	5	...	...	...	1	...	...	1	6	...	...
Hobart	149	184	86	197	18	12	6	5	60	16	1	2	227	212	93	204
Invermay	9	23	7	5	1	5	10	1	...	...	1	...	10	28	18	6
Kentishbury .....	...	...	...	...	6	...	3	5	...	...	...	...	6	...	3	5
Kingston	6	1	...	1	...	3	6	...	...	...	...	...	6	4	6	1
Latrobe	3	1	1	...	...	...	...	...	...	...	...	...	3	1	1	...
Launceston	190	291	105	87	31	43	33	18	144	47	8	3	365	381	146	108
Lefroy .....	...	5	...	1	3	...	2	...	...	...	...	...	3	5	2	1
Leven .....	...	2	...	...	...	4	...	...	...	...	...	...	...	6	...	...
Longford	11	94	2	18	3	4	1	2	...	8	11	28	14	106	14	48
Mersey .....	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Mount Stuart .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
New Norfolk	10	8	11	3	...	1	...	...	2	...	...	...	12	9	11	3
New Town	8	14	5	6	1	4	...	...	17	...	...	...	26	18	5	6
Oatlands .....	...	1	4	5	3	...	1	...	...	...	...	2	3	1	5	7
Penguin .....	...	2	...	...	...	...	...	...	1	1	...	...	1	3	...	...
Port Cygnet	3	...	...	...	5	1	5	...	5	...	8	4	13	1	13	4
Queenborough	15	21	5	3	2	...	1	...	6	1	...	...	23	22	6	3
Richmond	6	6	2	2	2	1	...	1	...	...	...	...	8	7	2	3
Ringarooma .....	...	2	...	...	1	...	7	...	...	...	...	...	1	2	7	...
Ross	3	1	1	...	...	...	...	...	...	...	...	...	3	1	1	...
Russell .....	...	2	4	...	1	...	...	1	1	...	...	...	2	2	4	1
St. Helen's	1	26	14	5	...	...	...	...	...	...	...	...	1	26	14	5
St. Leonard's	7	48	9	3	4	12	3	...	17	2	...	...	28	62	12	3
Scottsdale	7	2	3	1	...	...	...	...	...	...	...	...	7	2	3	1
Sheffield	1	3	...	1	...	...	...	...	...	...	...	...	1	3	...	1
Sorell	5	2	2	4	2	1	...	...	8	...	...	...	15	3	2	4
Spring Bay .....	...	4	1	1	4	...	...	...	...	...	...	2	4	4	1	3
Strahan .....	...	...	4	1	...	...	...	...	...	...	...	...	...	...	4	1
Straits Islands .....	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Tasman's Peninsula	2	1	...	2	...	...	...	...	6	...	...	2	8	1	...	4
Trevallyn	2	1	3	...	...	2	...	...	...	2	...	...	2	5	3	...
Ulverstone	9	1	3	1	...	3	...	...	...	...	...	...	9	4	3	1
Upper Piper	25	4	1	1	12	5	1	2	...	...	...	...	37	9	2	3
Waratah	4	...	1	2	...	4	...	...	...	...	...	...	4	4	1	2
Weldborough .....	...	2	1	1	...	...	...	...	1	...	...	...	1	2	1	1
Westbury	8	14	3	4	7	4	8	...	3	13	1	1	18	31	12	5
West Tamar .....	...	1	3	2	8	1	...	...	...	...	...	...	8	2	3	2
Wynyard .....	...	...	11	1	1	...	...	1	...	...	...	...	1	...	11	2
Zeehan .....	...	...	...	15	...	...	...	...	...	...	...	...	...	...	...	15
TOTALS	547	925	341	432	164	195	208	69	317	107	31	100	1028	1227	580	605

Spread of Infection.

16. As doubts have been raised as to the competence of Local Boards of Health to make under the existing law such By-laws as those we have recommended for dealing with infected persons brought into the district of any Board, and with the conveyance of infected persons, we intend to apply to Parliament for the necessary powers to make such By-laws, and have in the meantime recommended to all Boards having such By-laws the advisability of allowing them to remain in abeyance.

Disinfection of Letters.

17. In connection with the occurrence of infectious disease in the households of post office keepers, we obtained information from the other Colonies of the methods of disinfection of letters adopted by them in like circumstances ; and at our request, through you, the Hon. the Postmaster-General has given instructions for the immediate notification of all such occurrence of disease so that steps may be taken for the proper disinfection of all letters passing through the office until arrangements are made for the transfer of its business, if necessary.

CONGRESS OF HYGIENE IN LONDON.

18. At our request the Government appointed our Engineering Inspector to be a Delegate from Tasmania to the Seventh International Congress of Hygiene and Demography that was held in London in August. Mr. Mault had already been appointed one of the Vice-Presidents of the Section of "Engineering in connexion with Hygiene" at the Congress. He took part in the proceedings, and on his return wrote a very full Report, embracing not only the action of the Congress, but also his observations on sanitary work and administration in Europe generally. This Report has been printed and presented to Parliament.

BOARDS OF HEALTH OF THE OTHER COLONIES.

19. The usual interchange of reports and other information has taken place during the year with Health Departments of the Governments of the other Australasian Colonies. In connection with the visit of our Engineering Inspector to Europe for the purpose of attending the Congress of Hygiene, an offer of his services was made to the other Colonies, and this offer was accepted by the Government of Western Australia, which requested that all available information should be collected on the subject of the more recent methods adopted in connection with the dry-earth system. A special report on this subject was accordingly made by Mr. Mault, and it has been duly acknowledged by the Government of Western Australia.

The increasing prevalence of hydatid disease in the Australian Colonies prompted the Board of Health of New South Wales to prepare and issue a set of instructions and warnings relative to the matter in a form of a public notification to be posted up at police offices, post offices, schools, and other public places. We gladly availed ourselves of the opportunity given us to make use of the work in a similar manner ; and you authorised the printing and issue of copies of the poster.

QUARANTINE ACT.

20. Notifications were received of the existence of cholera in the Dutch Netherlands, and of smallpox on board vessels that were placed in quarantine at Melbourne and Sydney, and the usual precautions were taken, but no interference with commercial intercourse became necessary.

LOCAL BOARDS OF HEALTH.

21. The various Local Boards of the Colony have heartily co-operated with us whenever circumstances rendered it necessary to carry out the provisions of the Public Health Acts. As their duties are not only ones involving grave responsibility, but often require great tact and consideration in their discharge, we bear willing testimony of our appreciation of the manner in which they have fulfilled them in many cases that have come under our notice.

Beaconsfield.

22. The table on the preceding page will show that during the year the health of the Beaconsfield District was in a much better condition than in 1890, only nine cases of infectious disease having been notified, against 51 in the preceding year, and 81 in 1889.

Boobyalla.

23. The district of Boobyalla had a fair bill of health for the year, only one case of infectious disease being reported.

Bothwell.

24. Four cases of typhoid fever occurred in the district during the year, as compared with five during 1890. There is no resident Officer of Health.

Brighton.

25. The health of this district showed a marked improvement on the preceding year, only one case of typhoid fever being notified. There is no resident Officer of Health.

Burnie.

26. The health of this district showed an improvement, only two cases of infectious disease being notified, as compared with seven in 1890. The Local Board framed By-laws, which were duly certified, sanctioned, and published in the *Gazette*. The Local Board was, in part, reconstituted during the year.

Campbell Town.

27. The health of this district showed a very marked improvement as compared with 1890, no further cases of diphtheria having occurred. In all, there were only four cases of infectious disease, against 33 in 1890. The Local Board appointed Dr. Tofft as Officer of Health in succession to Dr. Byrne.

Carnarvon.

28. No notifications of disease were received from the Town of Carnarvon. There is no resident Officer of Health.

Clarence.

29. In this district, as in the neighbouring metropolis, there was a marked increase in the number of notifications of typhoid fever—eight cases occurring, as compared with none in the preceding year. Otherwise the health of the district was good. There is no Officer of Health.

Deloraine.

30. A very extensive outbreak of scarlet fever occurred in this district, 58 cases being notified; and the three deaths from this disease that occurred in the Colony all took place here. There is no Officer of Health, but the two resident medical men recommended the closing of the public schools for a time.

Derby.

31. The Local Board of Derby appointed Mr. Granville Jackson to be Officer of Health of the district. There were only two notifications of infectious disease sent in, but in all probability others occurred, and were locally treated by unqualified persons. During the year the death and removal of various members of the Local Board threw the sanitary administration of the district into the hands of the Central Board, that is still exercising its powers under the Act of 1887.

Devonport.

32. Mr. J. W. Payne, M.R.C.S.E., was appointed by the Local Board to be the Officer of Health of the town, and the appointment was approved. The town is very efficiently inspected, but the Local Board is much hampered in its work by the want of funds to carry out the drainage of the place—a work urgently needed, as is continually being pointed out by the Inspector. At the request of the Local Board we obtained from the Government a promise that a sum in aid of the work should be placed on the Estimates for the year. Unfortunately the vote was not passed by Parliament. We hope it will be re-introduced and meet with a better reception, as the work is very urgently required. The health of the town was good, only one case of infectious disease having been reported.

Ellesmere.

33. The Town of Ellesmere had a clean bill of health for the year.

Evandale.

34. During the year the Local Board passed some additional by-laws relative to measures to be taken to prevent the spread of infection. Some of these have been subsequently confirmed. Only one case of infectious disease was notified. There is no Officer of Health appointed for the district.

Fingal.

35. The health of the district showed an improvement as compared with previous years, only four cases of infectious diseases being reported. There is no Officer of Health appointed for this Municipality.

Franklin.

36. The Local Board appointed Dr. Madden to be Officer of Health of the District, and the appointment was duly confirmed. During the year the Board lost the services of its Chairman, the late Mr. Boyd, Stipendiary Magistrate of the district, and we wish to record our appreciation of the very assiduous manner in which he carried out the sanitary administration of the locality. Unfortunately his death occurred at a time when there was much sickness prevalent, and to the prevention of the spread of which he was devoting much time and attention. Eleven cases of typhoid fever and nine cases of diphtheria were notified, and there is but small doubt but that other cases also occurred. Thus, at Shipwrights' Point, on information being received of the prevalence of diphtheria, the local Inspector reported that no medical man had seen the cases, but that the parents of the children affected in two families had told him that they had been suffering from colds and sore throats, but it was not diphtheria, but quinsy. The Inspector added that there was another family now suffering from the "same complaint." On a medical man being sent to see this family, he found that the complaint was diphtheria. In his report the doctor wrote—

"I found a four-roomed wooden house built on the side of a hill, kept clean internally, but with no drains for slops, &c. The surface-water from the hill behind percolates the ground under and around the dwelling. The sleeping rooms (two) are, in my opinion overcrowded, there being at present in the house the father and mother and six children, including two patients suffering from diphtheria. There is no closet or privy of any description attached to the dwelling. . . . These

facts, added to the circumstance that there is no escape for drainage and storm water, except under and around the house, would account for the place being a fertile ground for any contagious disease to thrive on. I am not prepared to state that the disease originated *de novo* in this house, but, through percolations of aqueous decomposing matter, the ground close to the sides and in front of the house has become of a dirty brownish-black colour, and is covered in great part with moss and a fungoid growth. The family removed from the house, and its occupation was forbidden until put into a properly habitable condition."

In consequence of the prevalence of influenza among the teaching staff and among the children, two of the public schools in the district had to be temporarily closed. The condition of the drainage of one of the public schools was brought under the notice of the Education Department.

The Health District of Franklin is found to be too large to be efficiently administered from one centre, and we propose taking an early opportunity of recommending its division into two districts.

George Town.

37. The health of this district showed a great improvement over the preceding year, as only two cases of fever were reported. There is no Officer of Health in the district.

Glamorgan.

38. The health of this district was very good during the year, only one case of fever being reported. The Local Board of Health passed a complete set of by-laws, which have been duly certified, sanctioned, and published in the *Gazette*. At the request of the Local Board the water of the Meredith River—the chief source of the supply of the town of Swansea in dry weather—was examined and reported on by the Government Analyst. In common with the water of many other Tasmanian rivers, that of the Meredith River contains a large quantity of ammonia derived from vegetable matter.

Glebe Town.

39. In common with Hobart and its neighbourhood, there was in Glebe Town a great increase in the number of cases of typhoid fever that occurred during the year. The Local Board very justly complained that the provisions of the Public Health Acts with regard to the notification of such cases were either altogether ignored, or only complied with too late for any effective action to be taken. The Board was advised, if further necessity arose, to take proceedings to enforce the law. The Local Board has no Officer of Health.

Glenorchy.

40. This district also suffered from a visitation of typhoid. As some of the cases occurred in connection with the South Bridgewater Post Office, the action was taken that has already been described in reference to the disinfection of letters. There is no Officer of Health appointed by this Board.

Gordon.

41. In connection with some cases of typhoid fever that occurred in this Health District it was found necessary to declare two houses unfit for human habitation, and they were closed. In connection with another case (probably several cases), the water of the Flowerpot Rivulet was analysed and found unfit for human consumption, except after treatment by boiling with a little carbonate of soda. The Local Board has appointed no Officer of Health.

Gould's Country.

42. This district had a clean bill of health, except as regards influenza. The Board asked for a medical report on the sanitary condition of the Public School at the Blue Tier, and Dr. Gormley visited the place and found that its bad condition arose rather from dilapidation than the existence of nuisances. There is no Officer of Health appointed by the Local Board.

Green Ponds.

43. Only one case of infectious disease was reported from this district. There is now no resident Officer of Health, as Dr. Gormley has removed from the Municipality. A complaint made by the Inspector as to the condition of the drainage of the Post Office was brought under the attention of the Works Department.

Hamilton.

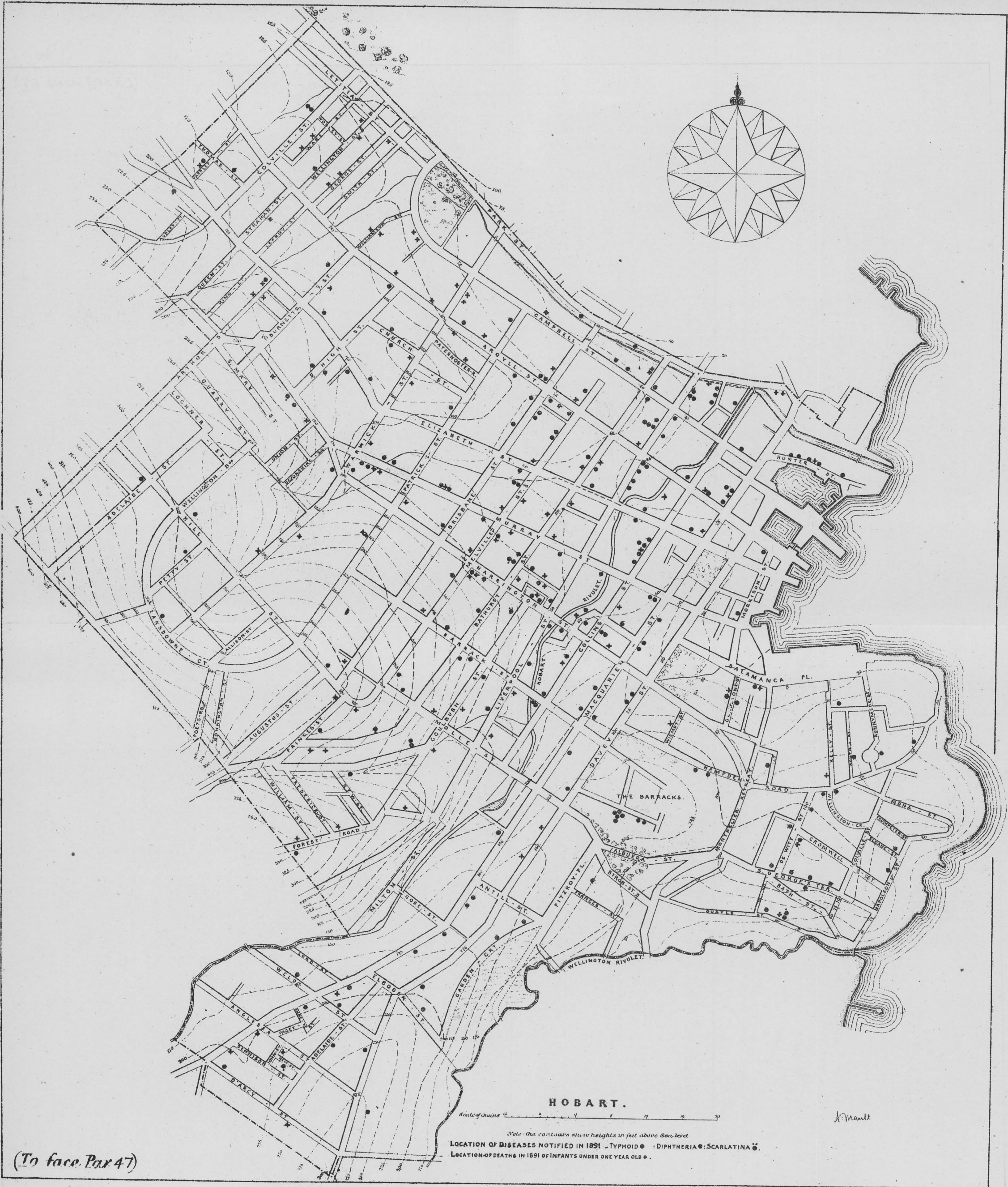
44. The health of this district was fairly good during the year; only one case of diphtheria and one of measles were notified.

Hamilton-on-Forth and Don.

45. This district had a clean bill of health for the year.

Hobart.

46. The year was marked by a greater prevalence of typhoid fever than has ever occurred previously since notification of infectious diseases became obligatory, 197 cases having been notified.



(To face Par 47)

Diphtheria and scarlet fever were not very prevalent. The accompanying chart shows the distribution of the notified cases by marking the place of residence of the patients, or the place from which they were removed to the hospital. The localities in which occurred the deaths of infants under one year of age are also marked as far as could be ascertained, but with respect to 24 of them it was not possible to ascertain the precise locality, partly owing to the refusal of one of the Hobart undertakers to give any information, and partly owing to the fact that the mothers of illegitimate children have frequently no fixed domicile that can be traced: and the mortality among such children is very great. By taking together the localities in which infectious cases occurred and those in which the deaths of infants occurred, a fair idea may be gained of the parts of the city where sanitary work is most needed.

The great prevalence of typhoid fever aroused the attention of the citizens generally, with the result that a Men's Sanitary Association and a Women's Sanitary Association were formed, and have been at work to try and ameliorate the condition of various parts of the city, and to spread among the people a knowledge of hygiene, especially in relation to the prevention of the occurrence of infectious disease and its spread. At the request of the Women's Association we had printed large numbers of copies of the instructions prepared by Dr. Giblin, the Officer of Health of the City, relative to the prevention of the spread of such disease, together with some simple "Rules of Health," and these the Association has widely distributed. Here, as elsewhere, we have no doubt but that the influence of women will be found to be the most potent means by which to incite the heads of households of all classes to pay proper attention to health matters.

The Engineering Inspector visited some of the larger hotels in the city, and inspected the arrangements made in regard to facilities for escape in case of fire. The attention of the Local Board was called to the matter of the want of a fire escape to be used in case of a fire occurring in any of the loftier buildings, and we are glad to note that such an escape is now provided.

On the boundary between the City and the Health District of New Town a great nuisance existed, caused by the drainage from houses in both jurisdictions. There was difficulty in dealing with it owing to the fact that the locality is at the head of a natural drainage basin that can only be effectually drained in connection with portions of the city lower down, and which will soon come under the operations of the Metropolitan Drainage Board. But by means of subscriptions from the inhabitants of the locality, aided by a small grant from the City Authorities, a temporary drain has been made that prevents much of the nuisance.

Invermay.

47. This district is still under the jurisdiction of the Central Board, acting as Local Board, under the provisions of the Act of 1887. The health of the district again showed an improvement, only six cases of infectious disease being reported, against 18 in 1890, and 28 in 1889. We again repeat our conviction that the urban portion of this district which immediately adjoins Launceston should, for sanitary purposes at least, be under the jurisdiction of the City Authorities. The condition and circumstances of this portion are identical with those of the adjoining urban district of Inveresk, and there are carried on within it trades that affect Launceston and should be controlled by it. We record with pleasure our appreciation of the care and attention of Superintendent Armstrong, who acts as our Local Inspector. The Board had to refuse applications for the establishment of noxious trades.

Kentishbury.

48. There was an outbreak of diphtheria in this district, and the public school at the Nook was closed for a time under the recommendation of Dr. Davis, the Officer of Health of the district.

Kingston.

49. The health of this district was good during the year, only one case of infectious disease being reported. There is no Officer of Health appointed for the district. The chief water supply of the district is taken from the North West Bay River, and steps were taken by the Local Board to prevent its pollution by the drainage of an hotel at Longley.

Latrobe.

50. The health of this district was fairly good during the year; no cases of infectious disease were notified, but it is known that several cases of diphtheria occurred. Improvements were effected in the drainage of many of the houses in Latrobe, and, at the suggestion of the Local Inspector, a considerable amount of such work was done at the hotels.

Launceston.

51. A still further improvement took place in the health of this city during the year, 108 cases of infectious diseases having been notified, against 146 in the preceding year, and 381 in 1889. Eight cases of typhoid fever having occurred in one family, the Sanitary Inspector was asked to report, and he gave the following graphic account of proceedings, that seem expressly calculated to spread disease:—"The family were in the habit of disposing of their excreta by burying it in the garden, and, the premises being undrained, no doubt became an additional factor in the production of the disease. One of the family suffered from the disease for a considerable time before he was

seen by a medical man, and during this time the excreta appear to have been left in the bedroom from night till morning, and subsequently buried as above described, without previous disinfection."

This is by no means an isolated case of propagation of typhoid fever by excrement buried in a garden.

The Local Board during the year took no definite action towards securing a site for a noxious trades area.

The sewerage and drainage of the city is always being proceeded with, the Sanitary Officer's last report showing that nearly three quarters of a mile of sewers and three and a half miles of house drains were laid during 1891.

The question of the purity of the milk supply has occupied much attention, 117 samples having been taken for analysis. The result of the analysis gave occasion to 16 prosecutions. The Local Board suggests that, as in large towns the milk supply is necessarily principally brought from country dairies, the urban authorities ought to have powers to control the condition of such dairies as if they were situated within their jurisdiction.

The Local Board passed a by-law relative to the basement of buildings, which was duly certified, sanctioned, and published.

Lefroy.

52. There was only one case of infectious disease notified in this district. There is no Officer of Health.

Leven.

53. This district had a clean bill of health for the year as far as infectious diseases are concerned. There is no Officer of Health appointed.

Longford.

54. There was a large increase in the number of cases of infectious diseases notified from this district, there being 18 cases of typhoid fever, 2 of diphtheria, and 28 of scarlet fever. The contagion of the last-named disease was probably conveyed from Deloraine. The public schools at Cressy and Iveridge were temporarily closed. In the town of Longford a house was certified by two medical men as unfit for human habitation, and as the condition of this house had already been reported on by our Engineering Inspector the Local Board was advised to have it closed. There is no Officer of Health appointed for this district.

Mersey.

55. This district, of which the sanitary administration is in the hands of the Central Board, had a clean bill of health for the year as far as infectious diseases are concerned.

Mount Stuart.

56. This township, which formed part of the New Town Health District, was proclaimed a town, and a Town Board elected, which is *ex officio* Local Board of Health. It has so far a clean bill of health. The district is included in the Metropolitan Drainage Area.

New Norfolk.

57. The health of this district showed considerable improvement during the year, only three cases of infectious disease being reported. A reported case of Asiatic cholera proved to be one of ordinary summer diarrhoea.

New Town.

58. Six cases of typhoid fever were notified from this district, being its share of the epidemic prevailing at Hobart. There were no other cases of infectious disease reported. The action taken by the Local Board in reference to the drainage nuisance on the boundary between its district and Hobart has already been alluded to. The delegates of the Board took part in the Conferences preceding the passing of the Metropolitan Drainage Act.

Oatlands.

59. There was a small increase in the number of cases of infectious diseases reported from this district. There is no Officer of Health appointed.

Penguin.

60. This district had a clean bill of health for the year as far as infectious diseases are concerned. During the year the Local Board lost by death the services of its late Chairman, Mr. Clerke, the Stipendiary Magistrate of the district, and Mr. J. H. Brown, J.P., was elected Chairman in his place. At licensing time the Local Board very properly refused to give the certificate required under the Licensing Act to the proprietors of one of the hotels in the place until the satisfactory completion of the sanitary work it had pointed out to be necessary. There is no Officer of Health appointed for the district.

Port Cygnet.

61. Four cases of scarlet fever occurred in one family in this district, and it was reported that the infection was brought in from a neighbouring district from which no cases had been reported. There were no other cases of infectious disease notified. There is no Officer of Health for the district.

13

Queenborough.

62. The health of this district showed a considerable improvement during the year, so far as notified cases are concerned. The condition of the cemetery on the Huon Road was brought under the notice of the Board, but no steps were taken to close it. The Local Board refused its consent to the establishment of a noxious trade on the Hobart Rivulet, near the Cascades. A petition from the inhabitants of Sandy Bay complaining of the condition of the Ashfield Rivulet was received, and work done to better the condition of things. Additional by-laws on the subject of building regulation were framed by the Local Board and duly certified and passed.

Richmond.

63. The health of this Municipality was fairly good during the year, only three cases of infectious disease being notified. There is no Officer of Health for the district.

Ringarooma.

64. This district had a clean bill of health for the year.

Ross.

65. This Municipality also had no case of infectious disease reported. There is no Officer of Health.

Russell.

66. This district is without a Local Board, and its sanitary matters have to be administered by the Central Board. Only one case of infectious disease was reported.

St. Helen's.

67. Mr. J. W. Gormley, L.R.C.S., was appointed Officer of Health of this district, and his appointment duly confirmed. The opinion of the Law Officers of the Crown was obtained for the Local Board in the matter of the procedure to follow to obtain the abatement of nuisances existing on unoccupied land belonging to a proprietor resident in another colony. The health of the district showed an improvement over that of the preceding year, only five cases of infectious disease being reported.

St. Leonard's.

68. There was a still further improvement in the health of this district during the year, only three cases being notified, as compared with 12 last year and 62 in 1889. The condition of the village of King's Meadows in this district was the subject of a special report by Dr. Macdonald, the Officer of Health of the Local Board, and the attention of Government was called to the condition of the main road drains in the village. The real source of the evil is the existence of old clay-holes in the disused brickyards. These have become full of stagnant water, polluted with house drainage, drainage from piggeries, &c. Steps should be taken to have them filled up under the provisions of the 121st Section of the Act of 1885.

In connection with a case of typhoid fever notified from Mount Pleasant, the Local Inspector found that the family in which it occurred consisted of 13 persons, eight of whom were over 14 years of age. The house was fairly well kept, but only contained four rooms, two of which were each 12 feet by 10 feet and 8 feet high, and the other two each 9 feet by 8 feet, with a sloping roof 7 feet high on one side and 5 feet on the other. Only two of these rooms were occupied as bedrooms, the father and mother occupying one and the 11 young people the other. What condition of physical or moral health can be expected in such circumstances?

Scottsdale.

69. Only one case of infectious disease was notified in this district, in which the Central Board is still acting as Local Board.

Sheffield.

70. Only one case of typhoid fever was notified from this town. There is no Officer of Health appointed.

Sorell.

71. Four cases of typhoid fever were notified in this Municipality, which claims to be one of the healthiest in the Island. In 1890 there were 11 deaths in a population of over 2600. There is no Officer of Health appointed.

Spring Bay.

72. In addition to the three cases of infectious disease given in the table as having been notified in this Municipality, there was an outbreak of whooping-cough at Woodsdale of such a character that the Central Board sent Dr. Willes to inspect and report, and have the proper precautions taken to prevent the spread of the infection.

Strahan.

73. The Local Board of this town framed by-laws, which have been since duly certified and published. One of our members, the Rev. J. Oberlin-Harris, M.A., paid a lengthened visit to this

town, and furnished us with a valuable report on its sanitary condition. Our Engineering Inspector also visited it, and reported in connection with a proposal to establish slaughter yards. Only one case of fever was notified in the town. There is no Officer of Health appointed.

Tasman's Peninsula.

74. Dr. Smith, the Officer of Health, reported that two cases of typhoid fever, two of scarlatina, and several cases of rheumatic fever, occurred during the year.

Trevallyn.

75. This town had a clean bill of health as regards infectious diseases. The sewerage of the town is about to be undertaken. There is no Officer of Health.

Ulverstone.

76. Only one case of typhoid fever was notified in this town, and the Officer of Health reported it as probably imported from Zeehan.

Upper Piper.

77. The health of the district was fairly good with regard to the usually notified diseases, but two of the public schools had to be closed on account of influenza. The Local Board passed by-laws with regard to the prevention of the spread of infection, but as the Attorney-General refused to certify them they were disallowed.

Waratah.

78. The Officer of Health reported that the two cases of typhoid fever notified were both contracted outside the district, one at Launceston and the other at Zeehan. There was an epidemic of influenza, the great majority of the inhabitants being attacked. In very few cases did complications arise, and there were no deaths. The Local Board was strengthened by the addition of three new members.

Weldborough.

79. The Local Board passed by-laws for the prevention of the spread of infection, one of which was certified by the Attorney-General and confirmed and published. The Local Inspector, in consequence of the occurrence of a case of typhoid fever among the comparatively large Chinese population of the place, made a special inspection of their camp, and had the principal nuisances abated. A great difficulty in the way of administering the law in Chinese camps arises from the fact that the privy accommodation is not private, but common property, and consequently no owner can be found.

Westbury.

80. There was more typhoid fever, but considerably less diphtheria, in this Municipality than during the preceding year. There is no Officer of Health appointed.

West Tamar.

81. Only two cases of infectious disease were notified in this district, in which there is no Officer of Health appointed.

Wynyard.

82. The Local Board here amended one of its by-laws, and the amendment was allowed. Only two cases of infectious disease were notified during the year. This is the only Local Board in country districts which has forwarded us samples for analysis under the food adulteration clauses of the Public Health Act.

Zeehan.

83. A large number of cases of typhoid fever were reported from this district, the natural result of the circumstances and conditions of life prevalent in a newly-established mining community. Early in the year the drainage works authorized by Government were set out, and were begun in May. They are now completed with respect to the older part of the settlement, and a detailed report upon them has been furnished by our Engineering Inspector and forwarded for the information of the Hon. the Minister of Lands and Works (see Appendix II). As far as we can learn the work has given universal satisfaction. We were indebted to our colleague, the Rev. J. Oberlin-Harris, for a valuable report on the condition of Zeehan, covering the time during which our Engineering Inspector was absent from the colony. We are sorry to record that, owing to the resignation of the Local Board of Health during this time, we have had to act in its place, and shall have to do till a Town Board is elected. The work to be done under the Licensing Act was exceptionally heavy here, no less than 26 inns having to be inspected and reported on.

BY-LAWS.

84. Thirty-six Local Boards have now more or less complete sets of by-laws under the Public Health Acts. It is very desirable that such Local Boards as are yet unprovided with such regulations should adopt them, to be ready in all cases of emergency.

CHINESE IMMIGRATION.

85. During the year ten Chinamen arrived in the colony, and were duly examined before landing. All had been in the colonies previously, and carried naturalization papers.

VACCINATION.

86. The effect of the suspension of the enforcement of the Vaccination Act was still more marked during 1891 than during the preceding year, as vaccination virtually ceased to be practised—not more than half a dozen children being vaccinated in all Tasmania either by public or private vaccinators. But, to be ready in case of any emergency caused by the introduction of smallpox from oversea, we felt it our duty to keep up our supplies of fresh calf lymph. We still hold a supply at the disposition of any medical men requiring it, and we again urge upon them the need of their doing all in their power to encourage the practice of vaccination in the families of their clients.

The Royal Commission on Vaccination in England.

87. The Royal Commission in England has issued five Reports, none of which, except the fifth, contain any expression of opinion relative to the desirability of any definite change in the law, as the Commissioners hold that as the examination of witnesses is not completed the time has not yet arrived for considering the whole case. But in the fifth Report they, without trenching upon the question of the ultimate conclusions they may have to report, advise certain modifications of the law in regard to cumulative penalties and the treatment of persons sent to prison for breaches of the Vaccination Act. This Report we give in an Appendix.

We have the honour to be,
Sir,

Your obedient Servants,

P. O. FYSH, *M.E.C., M.L.C., President.*

C. E. BARNARD, *M.D.*

C. HARBOTTLE.

J. OBERLIN-HARRIS, *M.A.*

W. W. PERKINS.

J. WEMYSS SYME.

F. J. YOUNG, *B.A.*

A. MAULT, *Secretary.*

Hobart, 30th June, 1892.



APPENDIX I.

ROYAL COMMISSION ON VACCINATION.

FIFTH REPORT.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY,

WE, the undersigned Commissioners appointed to inquire into the subject of vaccination, desire humbly to submit to Your Majesty a further Report of our proceedings.

In the First Report which we submitted to Your Majesty we stated that, considering it would contribute to clearness if the evidence on the several points submitted to us were kept distinct, we had decided to take evidence upon those questions as far as practicable in the following order :—

1. The historical and statistical case in favour of vaccination.
2. The arrangements made for vaccination under the existing law, and the mode in which the law is administered.
3. The case against vaccination, and especially against its continuing to be made compulsory.
4. The reply to these objections.
5. Any substitutes that can be suggested in place of vaccination for the purpose of preventing the spread of smallpox.
6. Any improvements that can be suggested in the present law or its administration for the purpose of removing objections to vaccination or making it more effective.

We have held ninety meetings and examined one hundred and thirty-five witnesses. The evidence we have taken hitherto has been mainly directed to the first three sub-divisions of our inquiry, but we have not yet completed the evidence bearing upon any of them. It is obvious, therefore, that we are not in a position to express any opinion upon the main questions submitted to us for inquiry and report. But it has been suggested that, though unable to pronounce an opinion upon those questions, it might be in our power, without prejudice to the inquiry which is still in progress, to make recommendations with reference to certain subsidiary questions to which our attention has been called.

Having carefully considered this suggestion we have come to the conclusion that we may properly make recommendations upon certain points to which we will now advert.

- I.—Under the existing law every parent or person having the custody of a child who, without reasonable excuse, neglects to take it to be vaccinated is rendered liable on conviction to a penalty not exceeding twenty shillings. In addition to this, where the Vaccination Officer gives information to a Justice of the Peace that he has reason to believe that a child under fourteen years of age has not been successfully vaccinated, and that he has given notice to the parent or person having the custody of such child to procure its being vaccinated, and that this notice has been disregarded, the Justice may make an order directing the child to be vaccinated within a certain time, and if the order is not complied with and no sufficient ground shown for non-compliance the person on whom such order has been made is rendered liable to a penalty not exceeding twenty shillings. And this enactment has been held by the Courts to warrant repeated orders in respect of the non-vaccination of a child and the imposition of a penalty for the disobedience of each of such orders notwithstanding that previous penalties have been inflicted. We think that the imposition of repeated penalties in respect of the non-vaccination of the same child should no longer be possible. In the year 1875 the Local Government Board wrote a letter to the Guardians of the Evesham Union, which was afterwards sent to many other Boards of Guardians and made public, pointing out that by Article 16 of the Board's General Order, 1874, it was provided that in any case in which a magistrate's order had been obtained and summary proceedings taken under section 31 of the Vaccination Act, 1867, no further proceedings should be taken by the Vaccination Officer without the express instructions of the Guardians. The letter further stated that the intention of this provision was that the Guardians should carefully consider with regard to each individual case the effect which a continuance of the proceedings would be likely to have in promoting the vaccination of the individual child, and in ensuring the observance of the law in the Union generally. Although the publication of this letter has no doubt had a considerable effect in diminishing the number of cases in which repeated penalties have been inflicted it has by no means put an end

to them. We think that they should cease to be inflicted altogether. We have arrived at this conclusion quite independently of the question whether vaccination should continue to be compulsorily enforced. Whatever be the conclusion which we may have to submit to Your Majesty upon this part of our inquiry, and even if it should ultimately appear that we are not able all to agree in the same conclusion, we have had no difficulty in agreeing upon the recommendation which we now submit.

It is unnecessary to state at any length our reasons for the recommendation. Those who favour the view that vaccination ought not to be compulsory are naturally opposed to repeated convictions in respect of the failure to vaccinate a particular child; whilst those who incline to the opposite view believe that any advantage which may arise from the tendency of repeated convictions to increase the number of the vaccinated is more than counterbalanced by the resentment and active opposition to vaccination which they engender.

II.—Our attention has been especially directed to the treatment to which persons are subjected who have been committed to prison by reason of the non-payment of penalties imposed under the vaccination laws. It appears that in the case of one person so committed, he was shortly after his commitment removed to the debtors' ward. The Governor apparently entertaining a doubt as to the mode in which the prisoner should be treated, applied to the Home Office for instructions. In reply to this application instructions were given "that he should be treated as a 'simple imprisonment prisoner,' i.e., as a convicted criminal prisoner not sentenced to hard labour." He was accordingly removed from the debtors' ward, and returned to a cell, and received for the remainder of the term the treatment indicated in the instructions from the Home Office.

The 38th section of the Prisons Act, 1877, empowers the Secretary of State to make rules with respect to the classification of prisoners imprisoned for non-compliance with the order of a Justice or Justices to pay a sum of money, or imprisoned in respect of the default of a distress to satisfy a sum of money adjudged to be paid by order of a Justice or Justices, so that such rules are in mitigation and not in increase of the effect of such imprisonment as regulated by the Prisons Act, 1865. We understand from answers given in Parliament that the Secretary of State for the Home Department is of opinion that this section does not enable him to provide that persons imprisoned under the Vaccination Acts should not be subjected to the same treatment as criminals. We do not consider that it is within our province to express any opinion upon this point. But we have no hesitation in saying that we think the power ought both to exist and to be exercised, and that persons imprisoned under the Vaccination Acts should no longer be subjected to the same treatment as criminals. Many of those whose imprisonment arises from their contravention of the laws relating to vaccination regard the practice as likely to be injurious to the health of their children and are well conducted and in other respects law-abiding citizens. Even those that consider that the course which such persons adopt is a mistaken one may nevertheless well be of opinion that they ought not during their imprisonment to be subjected to the treatment awarded to criminals, such a proceeding not being calculated to secure obedience to the law or to add to the numbers of the vaccinated.

All which we humbly submit for Your Majesty's gracious consideration.

Signed by all the Commissioners and by

BRET INCE, *Secretary.*

21st April, 1892.

APPENDIX II.

*The Honourable the Chief Secretary, President of the
Central Board of Health.*

SANITARY WORKS AT ZEEHAN.

SIR,

I HAVE the honor to report to you, for the information of the Honourable the Minister of Lands and Works, that I have inspected the work done at Zeehan under his authority, at the recommendation of the Central Board of Health, according to plans and instructions prepared by me.

The work may be described best under four heads:—I. Sewerage works; II. House Drainage Work; III. Land Drainage Work; and IV. Sanitary Service Work.

I. The sewerage work was undertaken to serve for what, at the time the plans were prepared, was the occupied part of the town, being the residence areas on each side of the main street from the Silver Queen claim to the Brick-yard road. The drainage of every house on these areas has been effected; but house-building progressed so fast that nearly double the number of junctions originally provided for had to be laid. The whole of the sewers are working very well, although the exceptionally dry weather of the summer prevented the use of flushing apparatus provided near the Silver Queen end of the sewer, the stream supplying it having ceased to flow. To prevent the recurrence of this lack of flushing power, I ask permission to lay down a drain from this end of the sewer to the Silver Queen rivulet, where there is an unfailing supply. This drain will be about 13 chains in length, and will cost, as the needful pipes are in stock, about £70; and it will serve to drain several houses in passing.

The following account shows the cost of the work already done under this head:—

	£	s.	d.
Messrs. Climie & Bridley, work under contract	942	3	7
Mr. C. Davis, account for pipes and junctions	524	10	3
Messrs. Reynolds & Co., freight of pipes	164	3	10
Mr. A. Phegan, cartage of pipes	185	0	0
Messrs. Swan & Co., agency at Trial Harbour	12	15	5
Tramway freight	1	1	0
Advertising	7	4	6
A. G. Farnsworth, proportion of salary as Clerk of Works...	80	0	0
	£1916	18	7

II. The house-drainage works were carried on coincidently with the sewerage works. As soon as the sewer junction was laid that was intended to receive the drain from any property, the owner of the property was served by the then existing Local Board of Health with a notice under the 118th Section of "The Public Health Act, 1885," ordering him to construct a drain as described in the notice. As in the event of non-compliance with this order the Local Board would have had to do the work and recover the cost thereof from the owner, and as the only material available was the pipes in possession of the Board, it was thought desirable to make use of this material and of the contract in existence with Messrs. Climie & Bridley, provided the owners gave a written request to the Local Board to have the work so done. This was nearly universally accepted by the owners, and the work has thus been accomplished under proper conditions, and at a far less cost to the Board for supervision, and in a better manner than if each proprietor had done his own work. In order to arrive at the cost of the pipes to be charged to the owners of property for these works, I estimated as fairly as I could at the time their value on the spot, including previous cost in Hobart, freight, cartage, and all other charges beyond the contractor's price for laying.

The following account shows the cost of the work done under this head:—

	£	s.	d.
Climie & Bridley, contract work	875	15	2
Reynolds & Co., freight	151	13	8
C. Davis, pipes	615	9	3
Tramway freight	11	0	0
Phegan, cartage	144	4	0
Swan & Calder, agency at Trial Harbour	12	6	2
Proportion of salary of Clerk of Works	80	0	0
	£1890	8	3

On account of the above there have been charged:—

	£	s.	d.
To owners of premises drained.....	1552	3	10
To Government for work on streets (as authorised).....	308	6	11
And the cost price of pipes, &c., in stock is	248	0	0
	<u>£2108</u>	<u>10</u>	<u>9</u>

III. The land drainage work consisted in the clearing out of the rivulet called the Main Creek, and the cutting of definite open channels for the various small water-courses that, for want of such definite channels, were spreading their water over the surface, and making it impossible to keep the sites of the houses and yards dry. This work is not quite complete, and I should wish to be authorised to complete the clearing of the Main Creek, and to re-clear the portion of it that has been encumbered with trees felled into it by the workmen employed in making the new cattle track. This I estimate would cost £45. The ground in the neighbourhood of Smith and Frederick streets is very swampy and should be drained by an open channel, except part in Smith-street that would require a box drain. This would cost altogether £36. A small open drain on Section S4, would cost £1 5s. An open channel to drain the swampy land along Wilson-street (the channel petitioned for by the residents and supported by the Central Board of Health) would cost £18; and a much needed open channel to drain the water from the swampy land about Gellibrand, Westwood, and Grant streets would cost about £23. The total cost of these works is £123. The work already done under this heading has cost as follows:—

	£	s.	d.
Messrs. Climie & Co., contracts.....	820	13	0
Farnsworth, Clerk of Works, (proportion)	36	14	0
	<u>£857</u>	<u>7</u>	<u>0</u>

IV. In connection with the Sanitary Service, a road was made to the depositing place, and sanitary pails were supplied to the Local Board, and the following account shows the amount expended:—

	£	s.	d.
Climie & Co., contracts for roads.....	337	13	6
C. Davis, pails	143	15	0
Reynolds & Co., freight.....	34	2	6
Phegan, cartage.....	20	10	0
Leary, ditto.....	4	18	0
Calder & Swan, agency	5	16	0
Farnsworth, Clerk of Works	14	0	0
	<u>£560</u>	<u>15</u>	<u>0</u>

To resume: the whole of the sanitary work done at Zeehan has thus cost:—

	£	s.	d.
Sewerage work	1916	18	7
House drainage work.....	1890	8	3
Land drainage work.....	857	7	0
Sanitary service work.....	560	15	0
TOTAL.....	5225	8	10
From which should be deducted for private and public drainage charged to owners.....	2108	10	9
	<u>3116</u>	<u>18</u>	<u>1</u>
If the works I recommend be done, their cost will be.....	193	0	0
Making a total net cost of.....	<u>3309</u>	<u>18</u>	<u>1</u>

Of the above £5225 8s. 10d., there have been paid the following sums:—

	£	s.	d.
Climie & Co., on account of contracts.....	2835	1	7
Davis, on account of pipes.....	1000	0	0
Farnsworth, Clerk of Works.....	210	14	0
Freight, cartage, and agency.....	392	12	7
Advertising.....	7	4	6
	<u>£4445</u>	<u>12</u>	<u>8</u>

Leaving due the following amounts, for which I enclose certified accounts :—

	£	s.	d.
Climie & Co., contract works.....	141	3	8
C. Davis, pipes	283	14	6
Reynolds & Co., freight.....	350	0	0
Leary, cartage.....	4	18	0
	<hr/>		
		779	16 2
		<hr/>	
		£5225	8 10
		<hr/>	

Of the £1552 3s. 10d. of "Private Improvement" accounts, there have been collected £316 13s. 5d. from private owners, and £91 19s. is the value of the work for which various Government Departments (Post Office, Police, &c.) are chargeable, leaving £1143 11s. 5d. to be collected. The cost of collection has been £30 17s. 3d.

I think the works I have suggested should be done before the winter sets in, as they are chiefly needed in very swampy places.

I have the honour to be,

Sir,

Your faithful Servant,

A. MAULT, *Engineering Inspector.*

Hobart, 13th May, 1892.