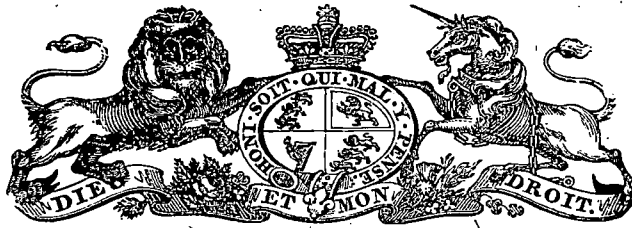


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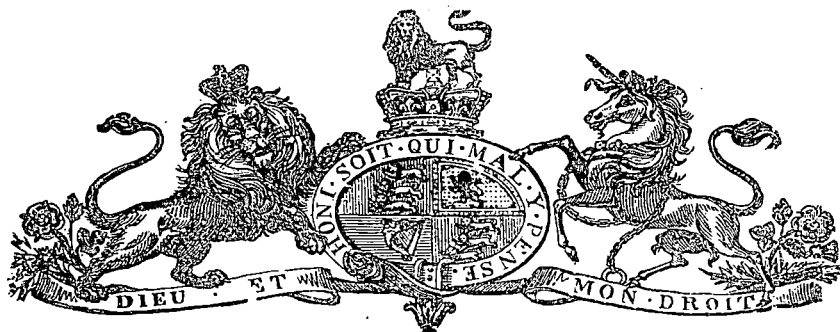
PARLIAMENT OF TASMANIA.

CENTRAL BOARD OF HEALTH:

REPORT FOR THE YEAR 1898.

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

Cost of Printing—£9 17s.



CENTRAL BOARD OF HEALTH.

REPORT FOR THE YEAR 1898.

TO THE HONOURABLE THE CHIEF SECRETARY.

SIR,

WE have the honour to submit to you the following Report of the work of this Department, during the year 1898, in carrying out the Public Health Acts, the Vaccination Act, the Quarantine Act, and such parts of the Cemeteries Acts, the Chinese Immigration Act, and the Licensing Act, as relate to the public health.

CENTRAL BOARD.

1. The Board was composed of the same members as during the preceding year, but at the end of the year the appointment of Sir Philip Fysh, K.C.M.G., to be Agent-General of the Colony in England necessitated his retirement from the Presidency of the Board. He had held that office continuously from the time of its reorganisation, in January, 1888, as a Board receiving no emoluments, and we gladly record here our high appreciation of the services he rendered to the Colony during the eleven years of his occupancy of the chair, of the business-like way in which he conducted our proceedings, and of the courtesy that marked all his intercourse with us. The place he vacated has been filled by the appointment of the Hon. W. Moore, Chief Secretary of the Colony. During the year our permanent staff has been increased by the appointment of Mr. T. O'Shea as Clerk.

LEGISLATION.

2. During the year, besides the Vaccination Act, 1898, to which we refer in a subsequent part of this Report, the Clyde Water Act and the Midland Water Act, in which we have taken much interest, were passed by Parliament. Trustees have been appointed under both Acts to carry out their provisions, and the River Clyde Trustees have already begun the necessary work to improve the water supply of the river. The Metropolitan Drainage Act was also passed, and under its provisions the much-needed drainage of the City and part of the Suburbs of Hobart may be begun.

HEALTH DEPARTMENTS OF OTHER COLONIES.

3. There was the usual interchange of Reports on sanitary matters with the Health Departments of the other Colonies. We have again received much valuable information, and have gladly taken every opportunity to reciprocate.

DEPARTMENTAL WORK.

Districts without Local Boards of Health.

4. The following Districts, being without resident Local Boards of Health, are still under our immediate jurisdiction under the provisions of the 6th Section of the Public Health Act, 1887:—Hamilton-on-Forth, and Don, Mersey, Russell, Rural Scottsdale, Selby, the Straits Islands, and Tasman Peninsula. The Town of Dundas is still in the anomalous position we pointed out in our last Report, but, thanks to the good offices of Dr. Kennedy, of Zeehan, some supervision of sanitary matters is still exercised.

Special Inspections.

5. During the year we had special medical inspections made, at the request of the Local Boards concerned, at Burnie by Mr. Rooke, M.R.C.S., Eng., at Lefroy by Dr. Joyce, and at Kentishbury by Mr. Davis, M.R.C.S.I. Special inspections, connected with sanitary matters were also made by our Engineering Inspector at Barnes Bay Quarantine Station, Beaconsfield (three), Bothwell, Campbell Town Waterworks, Charitable Institution, New Town, Glenorchy (three), Hamilton, Hobart (five), Kingston, Longford, Mathinna, Mount Wellington, New Norfolk (two), New Norfolk Hospital, New Town, Port Lempriere Quarantine Station, Rural Queenborough (three), Swansea, Trevallyn, and Westbury. Some of these inspections were made at the request of other Departments of the Government, and the rest at the request of the Local Boards concerned; and the Reports upon many of them were forwarded to you.

New Local Boards.

6. During the year the portion of the Health District of Macquarie surrounding Gormanston was proclaimed a New Health District, with the name of that town. The boundaries of the town of Queenstown were extended so as to include the Health District of Mount Lyell, which consequently has now no longer a distinct Board of Health. The whole of the Health District of Burnie was proclaimed as a town, and a Town Board elected, which is now the Local Board of Health, in place of the one formerly nominated by the Governor in Council.

Public Buildings.

7. The plans and specifications of seventeen public buildings were dealt with during the year, one being at Devonport, one in the Health District of Evandale, one in that of Gordon, four at Hobart, three in the Kingston district, three at Launceston, one in the Oatlands district, two at Queenstown, and one at Zeehan.

Supply of Disinfectants.

8. Fifteen Local Boards were supplied with disinfectants during the year.

THE PUBLIC HEALTH.

General Condition.

9. The general health of the Colony was greatly affected during the year by the prevalence of epidemics of measles, scarlatina, influenza, typhoid fever, and diarrhoea. There was also greatly increased mortality from developmental and local diseases. The death-rate rose from 11.53 in the 1000 living in 1897 to 13.51 in 1898. This is the highest rate since 1892, but lower than that of any year preceding 1893.

Notification of Diseases.

10. Under the provisions of the 10th Section of the Public Health Act, 1887, and the 4th Section of the Act of 1896, there were 2374 cases of infectious disease notified to us, and dealt with, being by far the largest number ever reported to the Board. Appendix I. to this Report shows the distribution of the typhoid fever, diphtheria, and scarlet fever cases included in the above number, and the attached plan has marked thereupon the location of the cases reported from the City of Hobart.

A few years ago we called your attention to the desirability of adopting the English system of encouraging the prompt notification of disease by medical practitioners by the payment of a small fee for each notification. At the instance of the Hobart and Launceston Medical Societies, as representing the whole Colony, we again recommend the adoption of this system, which is now in force in every Australian Colony, but, we are sorry to say, without success.

Typhoid Fever.

11. There were 802 cases of typhoid fever and continued fever notified, and 83 deaths resulting therefrom registered, as compared with 492 cases and 47 deaths in 1897. This is the largest number of cases of this disease reported since 1889, when 925 cases were notified, with 113 deaths. The incidence of the cases is shown in Appendix I., from which it will be seen that the disease was most prevalent at Hobart and its neighbourhood, Launceston, Beaconsfield, Queenstown, and Longford. In the registration district of Hobart 346 cases were notified (293 in the City and 53 in the suburbs), and 31 deaths registered, giving a case-rate of 8.6 to the 1000 living, and a death-rate of 8.9 to the 100 cases. In the Launceston district 71 cases were notified (65 in the City and 6 in the suburbs), and 9 deaths registered, giving a case-rate of 2.8 to the 1000 living, and a death-rate of 12.7 to the 100 cases. In the whole of the country districts 385 cases were notified, and 43 deaths registered, giving a case-rate of 3.5 to the 1000 living, and a death-rate of 11.2 to the 100 cases. At Beaconsfield the case-rate was probably about 50 to the 1000 living, and at Queens-

town about 20. Of the whole number of typhoid patients 379 were treated in the General Hospitals of the two cities; 302 being admitted into the Hobart Hospital, of whom 28 died, showing a death-rate of 9·23 per 100 cases; 77 into the Launceston Hospital, with 9 deaths, showing a death-rate of 11·87 per cent.

Diphtheria.

12. There were 98 cases of diphtheria notified, and 10 deaths attributed to it. The cases and the deaths are the lowest in number that we have recorded, and this is all the more satisfactory in view of the great increase in number during the year of all other notifiable diseases. Of the cases notified 17 were treated in the General Hospitals; 11 being treated in the Hobart Hospital, with one death, or 9·09 per cent. of the cases; 6 in Launceston, with no deaths.

Scarlatina.

13. There were 550 cases of scarlatina notified during the year, and 7 deaths from it registered. The cases were probably much more numerous, as in country districts many cases occurred that were not attended by medical men. Except the 49 cases notified from Hobart, nearly all the cases occurred in the northern and north-western parts of the Island—no less than 88 being reported from the thinly-peopled Police District of Russell. The type of disease was generally a very mild one, for as the death registration is probably far more complete than the case notification, it is likely that the death-rate did not exceed 0·5 per cent. of the cases.

Measles.

14. There was a general, and, in some parts of the country, rather virulent epidemic of measles. As isolation is more difficult to be insured with regard to measles than almost any other zymotic disease, we have not been so exigent in regard to notification as in connection with other diseases rendered notifiable by statute. Nevertheless, 912 cases were reported, with 45 deaths registered. Probably the cases notified from Launceston, 175; Deloraine, 106; Derby, 91; Westbury, 75; Hamilton, 51—were nearly correct; but the 75 cases reported from Hobart, and smaller numbers from other Health Districts, were manifestly below the true numbers. The Medical Officer of Health of Hobart repeatedly called attention to the impracticability of obtaining true returns. The death-rate from measles was higher in proportion to the population than in any year since 1881, though the year 1893 nearly equalled it.

Whooping-Cough.

15. There was an increase in the number of cases of whooping-cough—chiefly at Launceston and Strahan—and four deaths were registered as compared with none in 1897 and ten in 1896.

Influenza.

16. There was a large increase in the number of deaths registered as caused by influenza, being 53, as compared with 28 in 1897 and 24 in 1896. Only three of these occurred in Hobart, and three in Launceston, while 10 occurred in the north-eastern and 25 in the north-western Registration Divisions of the Colony.

Phthisis.

17. There was a considerable diminution in the mortality from phthisis during the year, 125 deaths being registered, as compared with 135 in 1897. The diminution principally took place at Hobart, though it was also marked at Launceston and in the Midland Registration Division. The death-rate from it in each 100,000 living was, in—

Hobart	78
Launceston.....	98
North-eastern Registration Division ...	94
North-western " " ...	62
Midland " " ...	29
South-eastern " " ...	94
South-western " " ...	67

The Midland Division is again the lowest in the scale, notwithstanding its West Coast population living in the wettest climate in the Island. In fact, no deaths from phthisis were registered at Mount Lyell or Strahan, and only two at Zeehan.

Cancer.

18. There were 99 deaths from cancer registered during the year, compared with 81 in 1897, and the rate of mortality in 100,000 living was 57, as compared with 48 in 1897, and 58 in 1896.

Lead-poisoning.

19. There were two cases of lead-poisoning reported in Tasmania during the year. At the request of a Board appointed by the Government of Queensland to report upon the subject of chronic lead-poisoning, we caused inquiry to be made in the mining districts and the hospitals as to the occurrence of any cases during the past five years—the period mentioned in the request. Happily, no such cases had occurred within that period. In the early times of lead-mining at Zeehan the workmen frequently suffered. The Government Health Officer there reported:—"In those times we had a small, incomplete smelter near here—it was nothing else than a death-trap, as every man who fed the furnace for about three or four weeks suffered from lead-poisoning. It is now very noticeable that we seldom or never see a case, although we have a much larger number of men employed. I do not think that any careful miner need suffer from poisoning, provided he takes the precautions now in use at almost all the mines."

Infant Mortality.

20. The deaths of 531 infants under one year of age were registered during the year, as compared with 411 registered the previous year. The infant death-rate this year was equal to 22.5 per cent. of all the deaths, and 12.4 per cent. of all the births. These were, in—

Hobart	116 such deaths	= 19.6 per cent. of all the deaths, and	12.4 per cent. of all the births there.
Launceston	113	" = 26.9	" " 20.6
Country Districts	302	" = 22.5	" " 9.5

Hobart being the only district in which there is any improvement in comparison with 1897. There, and throughout the Colony, the deaths from infantile diarrhoea were about twice as many as in the preceding year.

Hospitals for Infectious Cases.

21. In connection with the extraordinary prevalence of notifiable diseases, especially of scarlatina, our attention has been greatly directed to the altogether inadequate provision made for the isolation of infectious cases. Cases of typhoid fever and diphtheria were admitted into special wards of the General Hospitals, but with regard to scarlet fever, its highly infectious nature made it, in the eyes of the Hospital authorities, very dangerous to treat, except when completely isolated, both with respect to the patients and the Hospital staff. Yet the effect of isolation on the prevalence of scarlatina is more marked than it is in connection with any other disease. In England isolation hospitals for this disease were started about 20 years ago, and by 1881 more than 200 sanitary authorities had established them, and their establishment was immediately followed by very marked results. The death-rate from the disease, which was over 9 in the 10,000 living for the 10 years preceding 1881, and very much higher previously to that, fell to a little over 3 in 10,000 for the 10 years succeeding that date; and since 1891 has been less than 1½ in 10,000. The only cause assigned for this diminution is the establishment of isolation hospitals and the enforcement of isolation and disinfection. In most of the other colonies some provision is made for this isolation, usually jointly by Government and local sanitary authorities; and there was a time in the history of the epidemic of 1898 in Hobart in which the possession of proper means of isolating three or four cases would probably have checked the spread of the disease by removing the foci from which much of it certainly spread.

In Tasmania Local Boards of Health are empowered by the 93rd Section of the Public Health Act of 1885 to provide hospitals or temporary places for the reception of the sick, but so far they have in no single case done anything of the sort, preferring to ask the Central Board to get such work done by Government. We hold the opinion that it is as much the duty of Local Boards to provide this means of preventing the spread of disease as it is to provide Officers of Health or any other means to that end, especially as without such means of isolation all other means are to a great extent ineffectual; but we have no power to enforce this opinion. We fully admit that, with the comparatively small rating power of Local Boards, it is desirable that Government should come to their aid as in the other Colonies.

We therefore strongly urge that joint action be taken by Government and Local Boards of Health to establish special means of isolation and disinfection of such diseases as scarlatina, diphtheria, and measles.

LOCAL ADMINISTRATION OF THE PUBLIC HEALTH ACTS.

Local Boards of Health.

22. We are glad to again record the continual improvement that is taking place in the manner in which the Health Acts are being administered by nearly all the Local Boards of Health. The following record is the most complete we have ever been able to present to you, the only defaulting Board in the matter of making a return of its proceedings during the year being Ringarooma.

Officers of Health.

23. During the year the Local Boards of the contiguous Health Districts of Beaconsfield and Dalrymple appointed Dr. C. Joyce to be Officer of Health, and the Local Board of Health of Sorell appointed Dr. Walden. We again had occasion during the year to regret the modification

of the 17th Section of the Public Health Act of 1885, which rendered the appointment of Officers of Health obligatory upon all Local Boards, by the 7th Section of the Act of 1887, which relieved all Local Boards except those of Hobart and Launceston of this obligation. We are glad to note that nearly all the important Local Boards have, notwithstanding, appointed such officers. More particularly the suburban Boards adjoining Hobart have, with one exception, seen, that as the Hobart authorities were taking every precaution by medical inspection and skilled hygienic action to protect their neighbours as well as their own people, it was their duty to reciprocate by employing like means. The one exception is the Local Board of Health of New Town. In its district 27 cases of typhoid fever occurred in the year—a case-rate of nearly 12 in the 1000 of the population as compared with a case-rate of under 5 in the 1000 in Queenborough, the next largest suburb of Hobart. During the occurrence of these cases we called the attention of the New Town Board to the desirability of procuring expert assistance in dealing with them by the appointment of an Officer of Health. In one house four cases occurred consecutively, and the doctor in attendance suggested that a thorough examination of the premises should be made by a competent authority. This suggestion was forwarded to the Local Board, who replied that they thought it unnecessary, as their Inspector of Nuisances had made daily visits to the premises, “and that everything calculated to prevent the spread of the epidemic had been done.” In answer to this the Central Board wrote that the reason given by the Local Board for refusing to have medical advice was precisely the most cogent reason that could be given for obtaining it, adding—“the daily visits of your inspector to the premises have produced no effect whatever, since in these premises four consecutive cases of typhoid fever have occurred. The Central Board therefore again urges your Board to have proper advice as to how to deal with the matter.” The only reply to this was an acknowledgement of its receipt. As further cases of typhoid fever were continually occurring, the Central Board again wrote that as it considered the matter to be one of such vital importance to the people of New Town as well as to the larger community of whom they formed an integral part, it was indisposed to consider the reply to its last letter as intentionally discourteous, nor as expressing the final determination of the present members of the Local Board to give no further consideration to the matter. The letter went on—“Since the date of your letter seven more cases of typhoid fever have occurred in New Town. Had they occurred in Hobart or Queenborough the house in which they occurred would have been inspected by the Medical Officer of Health and the health of the neighbours and of the public generally safeguarded by all that specially-trained medical science could do. As it was, inspection was made by an officer who, however diligent and intelligent, cannot, and cannot be expected to, know what ought to be done. The prevention of disease requires at least as much medical skill as its treatment. And as your neighbours in the City take all means of protecting you from infection by cases originating in Hobart, they have the right to expect you to do the like for them.” And the Local Board was again advised to appoint an Officer of Health. It again refused, alleging that it considered the inspection and precautions taken quite sufficient.

We have called your attention to this matter in this detailed manner for the purpose of showing how, in what should be an educated community, such ignorance and prejudice survive as to the method of carrying out sanitary administration, and the disastrous results that follow upon such ignorance. The appointment of an Officer of Health might have entailed the expenditure of some ten guineas or more from the rates: the want of one certainly entailed the expenditure of ten times more in money alone out of the pockets of the ratepayers. It is surely time to re-enact the statutory obligation to appoint such officers—at least, in the suburbs of Hobart and Launceston; and in communities with more than 1000 inhabitants.

By-laws.

24. During the year we confirmed By-laws made by the Local Boards of Health of Hobart, Beaconsfield, Bothwell, Gormanston, and Strahan; and these By-laws have been duly presented to Parliament.

Food Supply.

25. The reported number of establishments connected with the bread, meat, and milk supply of the Colony, that were registered by the various Local Boards of Health, was 888, and the reported number of those unregistered, 214. It is probable that the registration of dairies in the towns is fairly complete, but in many parts of the country it is quite otherwise. There were 2833 inspections made of the registered premises, and in 12 cases proceedings were taken for breach of Regulations. Four proceedings were taken for milk adulteration; and in all cases in which infectious disease occurred in connection with a dairy business, the milk trade was temporarily stopped. In connection with the milk and meat supply of the Colony we again addressed the Local Boards on the necessity of continued vigilance, and we append a copy of our circular (Appendix II.).

Prevention of spread of Infectious Diseases.

26. The unusual prevalence of infectious disease greatly added to the work of the various Local Boards of Health. We received Reports of the inspection of 1375 houses in which such disease occurred, 430 of which were disinfected by or with the help of the authorities. There were 337 notices given for special sanitary work to be done, only two of which had to be enforced by legal proceedings. There were 59 schools closed temporarily, 26 isolation orders made, 8 public

conveyances disinfected (other than railway carriages, which are always disinfected after the known transport of infected persons), and 44 sets of infected articles destroyed.

Offensive and Noxious Trades.

27. There were 36 of the Offensive Trade Establishments scheduled in the 96th Section of the Public Health Act of 1885, registered.

During the year we advised the proclamation by the Governor in Council, under the provisions of the 15th Section of the Public Health Act, 1889, of Noxious Trades Areas at Argenton, near Zeehan, and at Rosebery. We appointed a Committee of the Board to consider the law relative to the establishment of these Areas, and hope to submit to you during the current year some suggestions on the subject of Regulations.

Abatement of Nuisances.

28. During the year, 1179 printed notices were issued for the abatement of nuisances, and in only 3 cases was it necessary to enforce them by legal proceedings. Of course, during the regular inspection of premises, a very large number of verbal instructions are given, and it is only when these are disregarded that formal notices are sent. As we have before pointed out, such facts as these show that with regular inspection a great deal of good can be done without calling in the aid of the Law.

House Sanitation.

29. There were 107 houses condemned during the year as unfit for human habitation, of which 48 were demolished or permanently closed; and 59 were allowed to be reoccupied after sufficient repair. There were 2013 yards of sewers constructed, 522 houses drained, 518 closets and privies reconstructed or repaired, 161 yards paved or repaired, and 17 polluted wells closed.

School Sanitation.

30. In connection with the extraordinary prevalence of scarlatina and measles we endeavoured to ascertain, in all cases of children notified, information as to the schools attended by them so that teachers might be warned to take special precautions and exclude from school all children from infected families. The Director of Education heartily seconded our efforts. We have already mentioned that 59 schools were temporarily closed on account of the prevalence of infectious diseases. This is a matter entirely in the competence of Local Boards of Health, and in which we cannot interfere, except with advice. This advice has been asked on several occasions, and that given has been based on the following general principles—that when the subject of the disease is the teacher, or in cases where the teacher's residence is contiguous to the school, a member of his family, the school had better be temporarily closed: that when the subjects of the disease are pupils, they and children living in the same houses with them had better be excluded from the school, and the school not closed. With regard to the duration of the exclusion from school of both teachers and children in cases where it is impracticable to obtain the medical certificate referred to in the 89th Section of the Public Health Act, 1885, we have recommended that it should last until at least, in the cases of diseases followed by desquamation, the lapse of twenty-one days after all skin-peeling has ceased; and in the cases of other infectious diseases, the lapse of a like period from the return of complete health and strength: and in all cases that none of the clothes worn during illness or convalescence should be brought to the school until they had been properly disinfected.

Water Supply.

31. Our Engineering Inspector has, at our request and at that of the Local Boards concerned, given his professional services in connexion with the water supply of Beaconsfield, Bothwell, Hamilton, and other towns. The Government Analyst has also greatly helped us with reports on the quality of the water of the proposed supplies, and also in regard to the pollution of wells, to the use of the water from which the causation of disease had been attributed. (Seven cases.)

Cemeteries.

32. Five cemeteries have been closed during the year, and we have advised you to grant permission for the exhumation, under specified conditions, of five bodies—two being those of Chinese for transport to their native country, and the other three being exhumations for the purpose of re-burial in other cemeteries in Tasmania.

The Work and its Results.

33. The reports received from the Local Boards show that, apart from the transmission to us of notifications of infectious diseases, more than 11,300 administrative acts were done under the Public Health Acts; and though the extraordinary prevalence of the diseases referred to in the 9th paragraph of this Report arrested for the year the almost continuous decline in the death-rate of Tasmania that has accompanied the action of the Central and Local Boards in the administration of the Health Acts, yet the results of that action were none the less marked. As previously mentioned, the death-rate rose nearly two per thousand above that of the preceding year, though it

was still less than that of any year preceding 1893; but had such epidemics as occurred in 1898 occurred in any previous year except 1897, with a death-rate similar to that of such previous years, the death-rate of 1898 would have been less instead of greater than that of those previous years. With regard to typhoid fever and scarlatina, there were 90 deaths recorded; had the mortality from those diseases been equal to the mean mortality from them in the five preceding years 112 deaths would have been recorded, and had it been equal to that of the years preceding 1893 there would have been 156 deaths recorded; so that, though we cannot yet, with the means at our disposal, prevent the occurrence of epidemics of these diseases, we can greatly lessen the danger attending upon their occurrence.

LICENSING ACT, 1889.

34. The usual inspections were made by the Local Boards of the inns and public-houses in their districts before granting the certificates required under the forty-second Section of the Licensing Act.

VACCINATION ACT.

Vaccinations performed.

35. There were only 41 children vaccinated during the year; 40 of the operations were successful, and one unsuccessful. There were also 178 adult Chinese vaccinated; 168 successfully, 10 unsuccessfully.

VACCINATION ACT, 1898.

36. The new Vaccination Act became law on the 7th of September. The Act provides that vaccination shall be performed in a *prescribed* manner and paid for at *prescribed* rates; that registers of vaccinations shall be kept by vaccinators in a *prescribed* manner; that registrars shall send returns of births, &c., to the Central Board on *prescribed* forms; and the word "prescribed" is interpreted to mean "prescribed by any Regulations made under this Act." The only Regulations referred to in the Act are those mentioned in the 23rd Section, which enacts that "The Central Board of Health may, subject to the approval of the Governor in Council, make and publish in the *Gazette* Regulations for the guidance of Vaccinators, Registrars, and Officers of Police, and generally for carrying out the objects and intentions of this Act; and may from time to time repeal, alter, or annul such Regulations; and shall furnish all prescribed forms and books necessary to be kept to comply with the provisions of this Act to all persons requiring the same." We therefore immediately prepared the necessary Regulations, and on the 7th of December forwarded them for the approval of the Governor in Council, with a certificate of the Solicitor-General that they were not *ultra vires* of the Act. We have subsequently again forwarded them, with an estimate of the probable yearly cost of administering the Act, but regret to state that up to the date of this present Report the Regulations have not been returned to us with the necessary approval. We are therefore unable to fulfil the duty imposed on us by Parliament, and the Act, so necessary to safeguard a country that is in constant communication with places in which smallpox is endemic, is so far a dead-letter. This is greatly to be deplored, especially as the new Act contains provisions that remove the three principal objections that have been made against previous Acts, both in Tasmania and all other countries—the compulsory vaccination of all children, the use of lymph that might communicate other diseases, and the compulsory attendance of children at public vaccination stations. These objections are removed by what is known as a "conscience clause" relieving children whose parents make a declaration in proper form from the operation of the compulsory clause; by the compulsory use, whenever demanded, of properly prepared calf lymph only; and by the provision that all children may be vaccinated in their own homes. We note that it is officially stated in England that though the "conscience clause" was expected to render the new Vaccination Act almost nugatory, it is found that the other new provisions have more than counterbalanced; for though about quarter of a million "conscientious" declarations were made during the year, the effect of supplying calf lymph and domiciliary vaccination has been such as to increase the total number of vaccinations.

QUARANTINE ACT.

Quarantine Stations.

37. The necessary repairs have been completed at the Southern Quarantine Station buildings and jetty at Barnes Bay, but the place is not yet furnished nor otherwise prepared for an emergency that may at any time arise in connection with passenger traffic from the Cape and elsewhere. There are still no buildings available for use at the Northern Quarantine Station in the Tamar, so that if any emergency arise, these infected passengers must be either kept on board ship, or the ship sent round to Barnes Bay.

The "Orizaba" Case.

38. The Orient Steam Navigation Company's vessel *Orizaba* arrived at Adelaide in April, and was granted pratique, and a passenger for Tasmania landed there, went on overland to Melbourne, and came on to Tasmania by one of the regular passenger steamers. On the arrival of the *Orizaba* at Melbourne a case of smallpox was found on board, and the vessel quarantined.

As the passenger, who had landed at Launceston, had landed from what was juridically a clean vessel at a clean port, and had come to Tasmania from a clean port in a clean vessel, we had no legal right to interfere with him. He, though in good health, nevertheless, wisely followed the Health Officer's advice, and allowed himself to be vaccinated and kept under observation for the requisite time. But to be prepared for cases in which so much wisdom and goodwill might not be shown, we took advantage of the passing of the Vaccination Act to insert provisions that, at least with regard to smallpox, will empower us to legally intervene in similar cases.

Hobart Weekly Health Returns.

39. We continue to send to the International Quarantine Bureau at Alexandria a weekly Health Return of the Port of Hobart, and to send a copy of it to the Hobart papers for publication.

CHINESE IMMIGRATION ACT.

40. There were 250 Chinese landed in the Colony during the year, and duly examined; 206 of them paid poll-tax, and, as before mentioned, 178 were vaccinated.

Conclusion.

41. We have again to heartily thank the officers of other departments, especially of the Law, Lands and Works, and Railway Departments, the Commissioner of Police and his officers, the Analyst and the Registrar-General, for constant courtesy shown and great assistance given.

We have the honour to be,
Sir,
Your obedient Servants,

WM. MOORE, *M.L.C.*, *President.*

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

T. BENNISON.

R. S. BRIGHT, *M.R.C.S.*, *Eng.*

E. J. CROUCH, *M.R.C.S.*, *Eng.*, *Government Medical Officer.*

E. M. FISHER.

C. HARBOTTLE.

W. W. PERKINS, *M.L.C.*

A. MAULT, *Secretary,*
Hobart, 23rd June, 1899.

APPENDIX I.

In the District of the Local Board of	Typhoid Fever.						Diphtheria.						Scarlet Fever.						TOTAL.					
	1893	1894	1895	1896	1897	1898	1893	1894	1895	1896	1897	1898	1893	1894	1895	1896	1897	1898	1893	1894	1895	1896	1897	1898
Beaconsfield.....	...	1	3	...	81	142	2	5	2	4	2	3	...	...	...	...	23	2	6	5	4	83	168	
Bellerive .....	...	...	...	2	1	2	...	...	...	1	...	3	...	...	...	...	1	...	...	...	3	2	5	
Beltana.....	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2	
Boobyalla.....	...	...	...	3	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	4	...	...
Bothwell.....	1	...	...	1	5	8	...	13	9	...	...	...	...	...	...	...	1	13	9	1	5	8	8	
Brighton.....	1	1	2	1	2	2	1	...	...	3	3	11	...	...	...	...	29	26	...	3	5	33	38	
Burnie.....	...	...	...	2	1	1	...	...	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Campbell Town.....	...	3	6	13	8	4	1	2	...	1	3	...	...	3	...	...	...	1	8	6	14	11	4	
Carnarvon.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Clarence.....	...	4	...	2	5	...	9	...	5	1	...	1	...	...	...	...	9	4	5	3	5	1	8	
Dalrymple.....	...	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Deloraine.....	5	6	9	...	3	6	18	48	3	...	...	2	6	8	...	1	6	30	29	62	12	1	9	38
Derby.....	3	...	3	...	4	6	...	...	...	...	...	...	...	...	...	...	5	3	...	3	...	...	11	8
Devonport.....	...	...	...	...	1	2	11	3	...	6	1	3	...	...	...	...	22	3	11	3	...	6	24	8
Dundas.....	...	...	3	...	3	...	...	...	1	2	...	...	...	...	...	...	...	...	...	3	1	2	3	3
Eyandale.....	...	1	1	2	1	5	2	1	...	...	4	...	...	3	...	...	9	7	2	5	1	2	14	12
Fingal.....	...	1	1	...	1	1	3	8	...	...	1	...	...	...	...	...	5	...	3	9	1	...	7	1
Franklin.....	1	1	...	1	2	3	43	8	3	2	9	3	...	3	...	1	...	44	12	3	4	11	6	6
George Town.....	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Glamorgan.....	...	3	1	12	...	...	3	4	1	...	...	...	...	...	...	...	...	3	7	2	12	...	...	...
Glebe Town.....	1	...	...	...	2	2	2	1	...	2	...	...	...	...	...	...	1	3	1	...	2	5	3	3
Glenorchy.....	6	...	...	5	...	8	4	7	2	1	7	1	...	...	...	...	10	7	2	6	7	7	9	9
Gordon.....	...	...	...	1	...	2	1	2	1	...	...	...	...	1	...	...	...	2	2	2	2	2	2	2
Gormanston.....	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Gould's Country.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Green Ponds.....	...	1	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	1	...	3	...	...	...
Hamilton.....	5	4	2	12	30	3	...	12	1	...	...	5	...	...	...	...	17	5	16	3	12	30	25	
Hamilton-on-Forth & Don.....	...	...	...	1	1	1	...	1	...	...	...	...	...	...	...	...	1	3	1	...	1	2	4	4
Hobart.....	62	95	116	80	116	293	49	36	20	45	30	8	4	2	1	4	20	49	115	133	137	129	166	350
Invermay.....	6	11	19	1	3	1	5	8	3	4	...	1	...	...	...	...	3	12	19	22	1	3	4	4
Kentishbury.....	...	...	...	...	...	3	10	...	...	...	1	...	...	...	...	...	...	3	10	...	...	...	1	1
Kingston.....	1	2	6	...	1	3	1	...	5	...	...	...	...	...	...	...	2	4	3	6	5	...	3	3
Latrobe.....	...	...	...	1	14	14	7	3	...	2	12	...	...	...	...	7	12	14	7	3	...	10	38	38
Launceston.....	44	47	101	46	55	65	21	10	9	3	4	13	7	7	...	1	32	56	72	64	110	50	91	134
Lefroy.....	2	...	7	19	17	1	...	...	2	...	...	...	...	...	...	5	56	2	...	9	19	22	57	57
Leven.....	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	16	1	...	...	...	...	...	...	17
Longford.....	13	15	3	17	8	32	7	1	3	3	...	2	...	1	...	16	44	20	17	6	20	24	78	78
Macquarie.....	...	...	2	...	15	11	...	...	1	...	...	...	...	...	...	1	...	...	...	2	2	15	11	11
Mersey.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mount Stuart.....	...	3	...	2	2	1	1	...	1	1	...	...	...	...	...	...	...	1	3	...	3	3	1	1
New Norfolk.....	11	7	4	9	12	23	...	1	6	1	14	9	...	...	...	...	11	8	10	10	26	32	32	32
New Town.....	2	4	8	5	5	27	...	5	3	...	5	1	1	1	...	...	1	3	9	11	8	11	28	28
New Town, Rural.....	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...
Oatlands.....	1	1	6	1	9	6	...	...	11	...	...	...	...	...	...	...	1	1	6	12	9	9	6	6
Penguin.....	...	2	...	...	...	...	12	...	...	10	...	...	...	...	...	1	10	...	14	...	11	10	10	10
Port Cygnet.....	...	...	...	1	2	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2	2	2	2
Queenborough.....	2	4	14	7	3	6	...	3	1	4	9	...	2	...	...	1	3	...	4	7	15	12	15	6
Queenborough, Rural.....	...	5	2	3	1	9	1	1	6	2	1	...	...	...	...	...	...	1	6	8	5	2	9	9
Queenstown.....	...	...	...	57	52	...	...	...	...	1	...	...	...	...	...	2	7	...	...	...	69	59	59	59
Richmond.....	...	3	1	...	8	...	1	...	...	...	...	...	...	...	...	1	...	1	3	1	...	3	3	3
Ringarooma.....	1	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...
Ross.....	...	3	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	4	...	1	...	1	...
Russell.....	1	1	...	...	1	1	1	...	...	...	...	...	...	...	...	1	14	88	2	2	...	1	15	88
St. Helen's.....	3	8	2	3	1	9	...	...	...	...	...	...	...	...	...	...	1	3	8	2	3	1	10	10
St. Leonards.....	2	9	5	6	1	2	3	...	...	...	1	...	...	...	...	2	1	5	9	5	6	3	4	4
Scottsdale.....	...	...	2	...	1	1	...	5	...	...	1	...	1	1	...	10	1	5	2	...	1	12	12	12
Scottsdale, Rural.....	...	...	1	1	...	...	5	...	1	...	1	6	2	...	...	2	...	7	...	2	1	...	6	6
Selby.....	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	1	...	1	1
Sheffield.....	...	...	...	...	...	4	...	9	...	1	...	...	...	...	...	2	...	4	...	9	...	3	...	...
Sorell.....	2	3	...	...	3	41	3	4	4	...	...	3	...	...	...	1	46	6	4	4	...	4	4	4
South Franklin.....	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
Spring Bay.....	...	...	...	...	...	1	25	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	1	1
Strahan.....	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	1	1	1
Straits Islands.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tasman's Peninsula.....	...	...	...	1	...	3	...	...	...	...	...	...	...	...	...	3	3	...	...	...	1	3	3	3
Trevallyn.....	...	...	...	2	3	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2	4	4
Ulverstone.....	...	1	1	...	7	13	1	7	...	2	...	1	...	1	...	19	14	13	3	8	...	26	23	23
Upper Piper.....	2	5	3	3	...	2	1	...	...	...	1	...	...	...	...	6	3	6	3	3	...	8	8	8
Waratah.....	1	...	1	1	...	3	1	...	...	3	...	...	...	...	1	18	2	...	1	2	...	24	24	24
Weldborough.....	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	4	...	4	...	4	...	4	4	4
Westbury.....	2	5	5	3	...	12	37	4	...	7	...	...	...	...	19	39	9	5	3	7	31	31	31	
West Tamar.....	2	...	1	...	2	...	1	...	...	...	...	...	...	...	3	...	1	...	...	...	2	...	2	2
Wynyard.....	1	...	...	...	...	...	7	...	...	28	5	...	...	1	...	12	1	7	1	...	29	17	17	
Zeehan.....	4	6	19	11	13	2	1	1	3	1	3	...	3	...	18	4	...	5	10	12	25	20	2	2
TOTALS.....	190	266	361	276	492	802	320	233	137	114	150	98	28	33	6	29	203	550	538	532	464	419	845	1450
DEATHS.....	25	33	47	43	47	83	50	46	23	13	12	10	1	1	...	5	7	76	80	70	56	63	100	100
Case Mortality per cent.....	13.2	12.4	13.0	15.8	9.6	10.3	15.6	19.8	16.8	11.9	8.0	10.2	3.6	3.0	...	2.5	1.3	...	...	...	...	...	...	...

APPENDIX II.

CENTRAL BOARD OF HEALTH.

MILK AND MEAT SUPPLY.

To the Local Board of Health of.....

THE Central Board of Health wishes to again call your attention to the necessity of adopting all practicable measures for preventing the originating and spreading of disease, both directly and indirectly, through the milk and meat used for food.

Milk.

It is well known that milk is very often the vehicle in which disease germs are conveyed into the human system. Probably in many, if not in most cases, the germs get into the milk after it has been drawn from the cow, and is the result of the unwholesome conditions to which it is exposed in dairies and in the public thoroughfares before it is brought into the consumer's house, and in the pantry or place it is kept in there. Dogs and cats can carry and spread the infection, and therefore they ought to be rigidly excluded from milking-sheds, dairies, pantries, and all places where food is kept. In all cases cleanliness is the best preventive against contamination, and boiling the milk the best means of killing the disease germs: this ought to be always done, and not only when typhoid fever or diphtheria prevail.

In other cases it is certain that the milk may contain the germs of disease before it is drawn from the cow. The milk from cows suffering from an eruptive disease, especially on the udders, is known to have caused diphtheria in persons who have used the milk. And probably the great cause of the continual dissemination and prevalence of tuberculosis in its usual forms of *phthisis* or *consumption* in adults, and *tabes mesenterica* and *tubercular meningitis* or *hydrocephalus* in children, is the use of milk from cows suffering from tuberculosis, especially tuberculous disease affecting the udder. These facts show how absolutely necessary it is to be particularly careful in seeing that all By-laws and Regulations made to secure the health of dairy cows are carried out. Frequent periodical inspections should be made, and all cows suffering in any way should be kept separate, and their milk either destroyed or given, after being boiled, to animals only. The whole of the directions given in the New South Wales Manual on Milk Supply (of which a copy was recently sent to you) should be carried out as far as practicable. The best preventive measures against tuberculosis in cows are the keeping of them in clean, well-aired, and well-lighted byres, and in immediately separating the diseased from the healthy.

Meat.

Meat also carries the germs of disease into the human system, but in most cases it is probable that the meat is infected by the germs while being taken through the streets, exposed in shops, or kept, after being cooked, in places open to the influence of contagion. In all these cases scrupulous cleanliness is the best precaution. It is probable that the meat of tuberculous cattle, if well cooked, may be disinfected; but, as such cooking cannot always be insured, it is especially necessary to see that the inspection of slaughter-houses is so carried out that such meat cannot be sold: it should be destroyed by fire, together with all diseased organs, which should not be allowed to be given to swine or other animals, as that but propagates the disease.

Still more essential is it to burn all animal matter infected with hydatids or bladder-worm. If these are not burnt, and dogs get at them, another generation of hydatids is the result, and it is thus, and only thus, that the disease is propagated. The germs voided by dogs and getting into human food and drinking water produce hydatids when swallowed. The directions for the prevention of hydatid disease prepared by the Health Department of New South Wales, and of which a copy was recently sent to your Board, contains full information on this disease. Your Inspector should, if necessary, exercise all the powers given to him under the 62nd Section of "The Public Health Act, 1885," with reference to diseased meat.

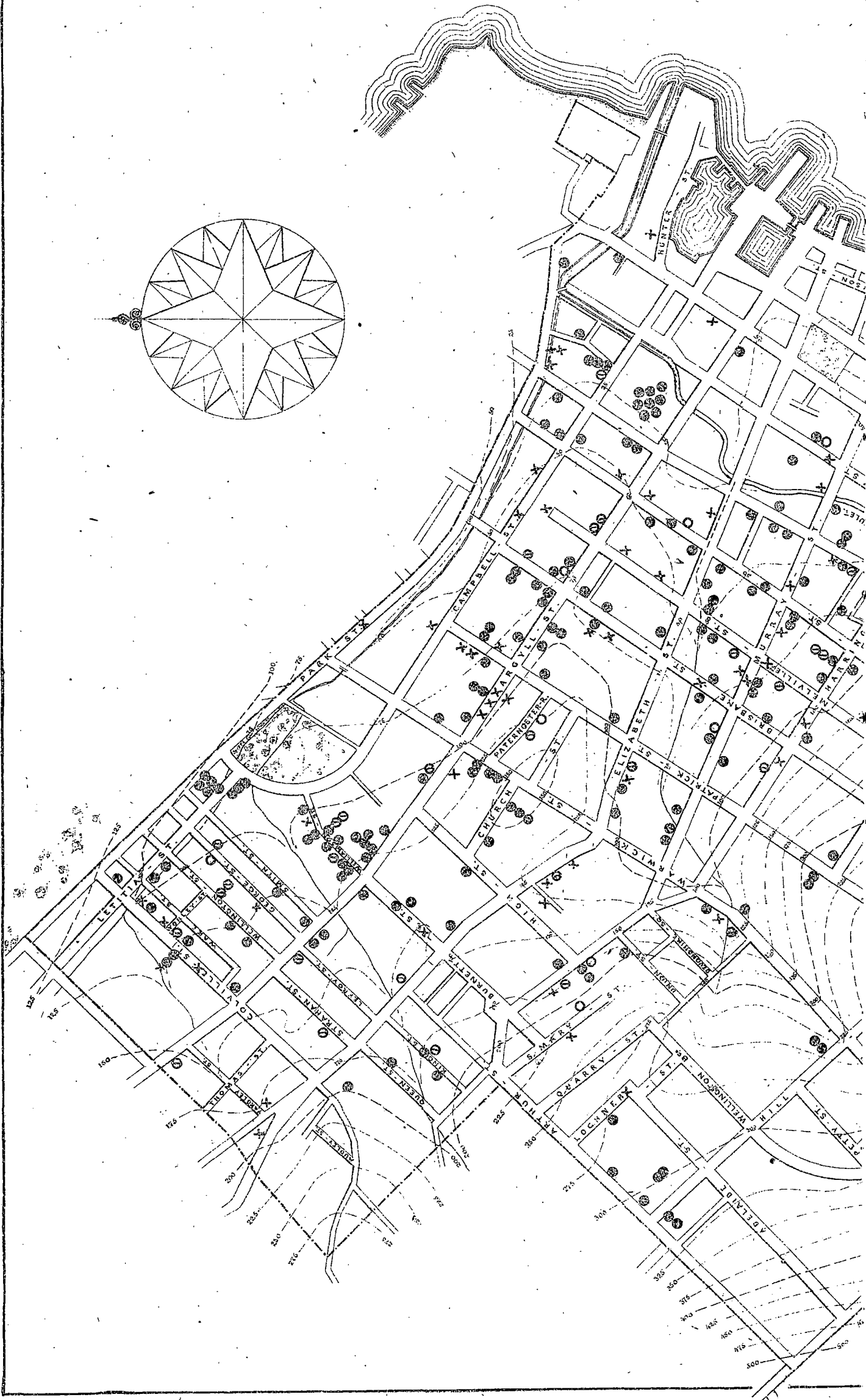
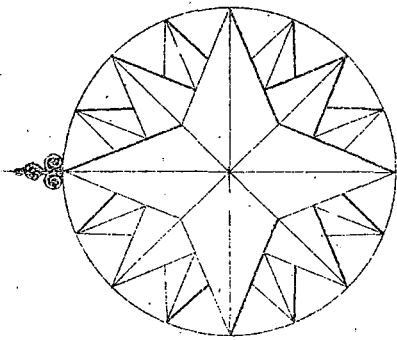
The facts above given show also the necessity that exists for exercising more control over dogs, especially in connection with dairies and butchers' establishments. They are often the general, and in one case the exclusive, carriers of infection. The Central Board is informed that their numbers are greatly in excess of what appears on their registration or taxing rolls. An universal insistence on registration and payment of tax would greatly diminish their numbers and bring what remained more easily under control. On the other hand, the manner in which meat is hung for sale, and milk left exposed in the pails in milking-sheds, causes much pollution by dogs that ought to be stopped by proper regulations.

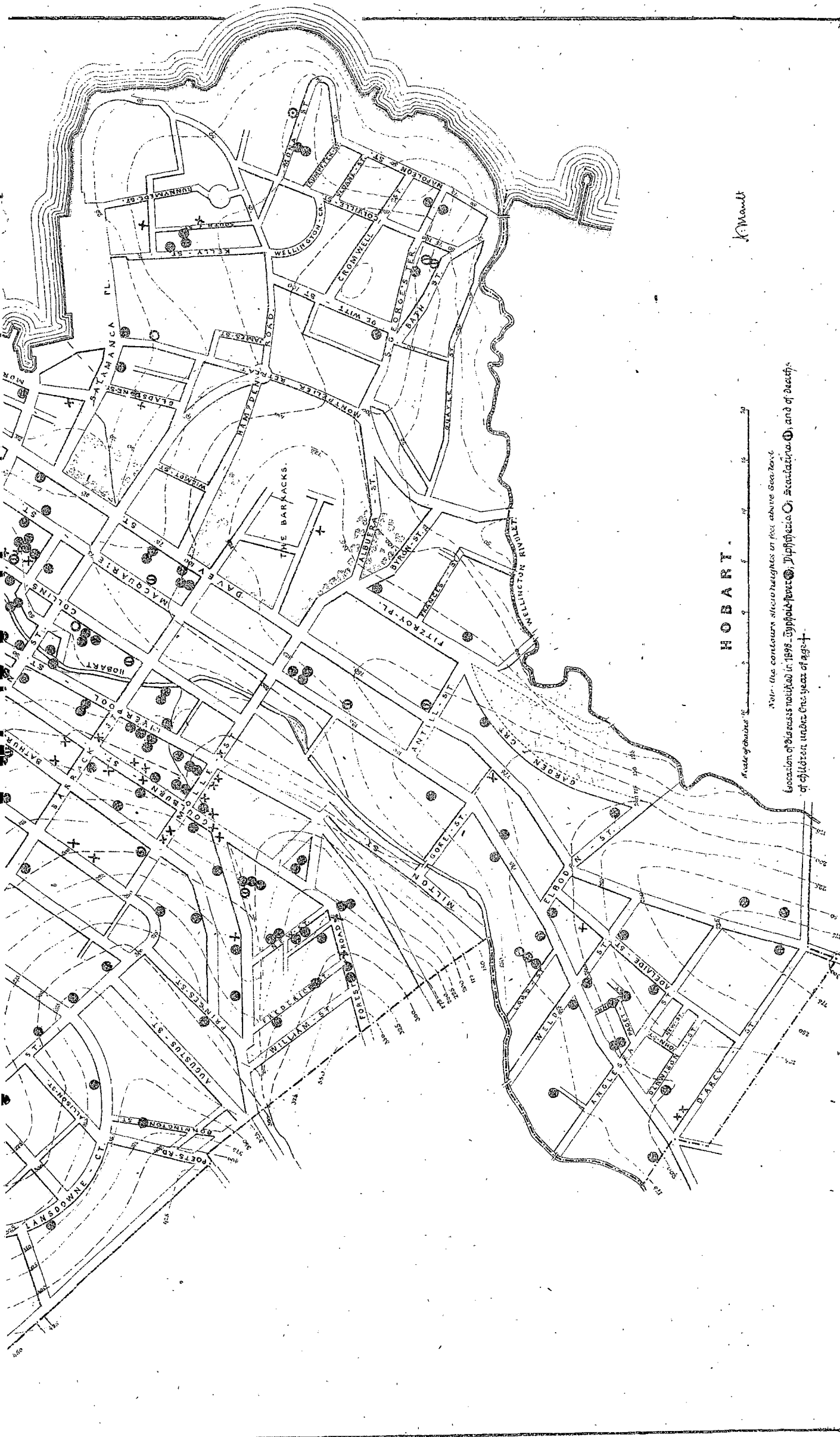
Commending all these matters to your consideration,

By Order of the Board,

A. MAULT, *Secretary.*

Hobart, 25th July, 1898.





HOBART.

Scale of feet 0 10 20 30

Note: The contours show heights in feet above sea level.
 Location of disease notified in 1898: Typhoid fever, Diphtheria, Smallpox, and of deaths of children under five years of age.

J. Mandt