

(No. 136.)



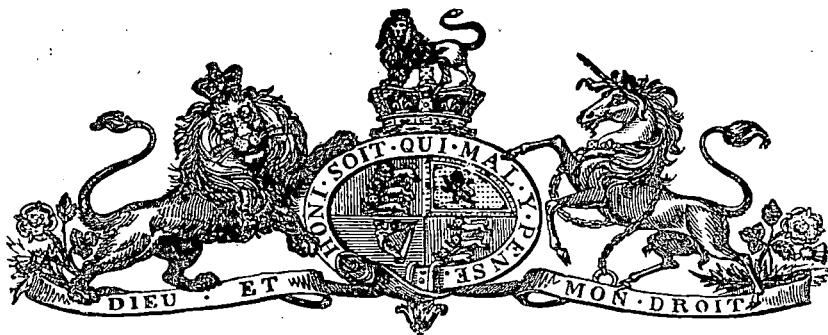
1887.

PARLIAMENT OF TASMANIA.

OUTBREAK OF SMALLPOX AT LAUNCESTON :

REPORT BY MR. MAULT, ENGINEERING INSPECTOR UNDER
THE PUBLIC HEALTH ACT.

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



SMALLPOX AT LAUNCESTON.

To the Honourable the Chief Secretary.

SIR,

1. I HAVE the honour to report to you that, in accordance with your instructions, I went to Launceston on the 8th of October, and put myself in communication with, and tendered my services to, the Local Board of Health, in order to further its measures to prevent the spread of Smallpox in the town. At Launceston.

2. Since the adoption in 1869 of a system of registration specifying the causes of death, no death from Smallpox has been recorded in Tasmania; nor does there appear to be any evidence that the disease had occurred in the Island before the present outbreak of it. First recorded outbreak of Smallpox in Tasmania.

3. All attempts to directly connect the first known case of the present outbreak with any precedent case, either here or in the other colonies, have hitherto failed; but there can be no doubt that there was such a connexion, and that there were not wanting opportunities for it. During the year there have been repeated importations of Smallpox into the other colonies from the outside world, and especially from China; and though great precautions have been taken to confine the imported cases, and those subject to infection from them, within quarantine limits, the case of the *Port Victor* steamship shows that quarantine regulations cannot always be depended upon for excluding infection. Origin of outbreak.

4. As from a certain correspondence of dates it seems probable that there may have been some connexion between the *Port Victor* and the introduction of Smallpox into Launceston, it is worth while recalling the following circumstances:—The *Port Victor* arrived at Sydney from Singapore on the 20th or 21st of June. There was then no sickness on board, nor any record of infectious disease during the voyage; the vessel was accordingly granted pratique, and some passengers were landed, and she sailed for Melbourne on the 25th of June. On the 1st of July Smallpox showed itself in one of the passengers who had landed at Sydney, and intelligence of it was sent to the other colonies. In the meantime the *Port Victor* had arrived at Melbourne, and on the 30th of June transhipped a number of Chinese passengers to the *Pateena*, for Launceston, where they arrived on the 1st of July. These Chinese were all examined and kept under observation until all danger of development of Smallpox was considered to be past. During their short stay in Launceston it is not probable that they went to the house in which the first recorded case broke out; but the inmates of the house were in more or less direct communication with seafaring people, and probably received the contagion of Smallpox from some person or some article that had been in contact with the *Port Victor* case, just as the *Port Victor* passenger must have indirectly received the contagion. The *Port Victor* probably left Singapore, where Smallpox is nearly, if not quite endemic, between the 1st and the 5th of June; the passenger only showed Smallpox on the 1st of July, consequently he must have been infected after leaving Singapore, and the disease must have been transmitted intermediately to him. Furthermore, there were other sources from which the contagion might have been derived. At the end of August and beginning of September there were cases of Smallpox occurring at Sydney on board the Chinese steamer *Tsinan*, and persons and merchandise are continually arriving at The Steamship *Port Victor*.
Chinese at Launceston.

Launceston from many other infected parts of the world. From all these considerations it may be safely said that the disease was imported into the town, and was not a fresh development.

Neglect of due notification of outbreak.

5. There have been some differences of opinion between the medical men who attended some of the earlier cases that occurred. I have no intention to enter into the professional matters that have been debated and, therefore, in the following report accept without question the reports of the Officer of Health of Launceston, the responsible medical adviser of the Local Board, especially as his opinion on the main point at issue has been approved by the Central Board of Health. There is no need for me to record the universal regret that, owing to the neglect of those whose duty it was to give timely warning of the presence of so dread a disease amongst us, the contagion was allowed to spread unchecked, and people, who would naturally have taken precautions if forewarned of the risk they were running, were allowed to minister about the sick and carry the disease away with them to their own houses.

Earliest case.

6. The earliest of the reported cases of this outbreak appears to have been that of Mrs. Ann Blanchflower, of Trail's Buildings, Lower George-street, who appears to have been infected about the 15th of August. Neither she nor her husband have any remembrance of her having at any previous time encountered any one who had the slightest appearance of having smallpox. Her father kept the *Temperance Hotel* on the Wharf, and she often visited there, and may have there met some one who was unconsciously carrying the contagion, as such a person would be more probably met there than in her own house. But this is mere supposition. All attempts to trace the infection beyond Mrs. Blanchflower have quite failed. But from her case the course of the infection and the interconnexion of all the cases is singularly clear and uninterrupted,

Succeeding cases.

7. After Mrs. Blanchflower's, the cases appeared in the following order:—No. 2, her son William; No. 3, her nurse, Mary White, (these three lived in one house); No. 4, her mother, Mrs. Margaret Bishop, then living on the Wharf; No. 5, her next door neighbour in Trail's Buildings, Daniel Watson; No. 6, her washerwoman, Mrs. H. Pearson, living in Briant's Row, William-street; and No. 7, Mrs. Pearson's daughter, Emily Spiers; No. 8, her father, Thomas Hawkins; No. 9, Mrs. Blanchflower's father, Wm. Bishop; No. 10, her son, George Blanchflower; No. 11, a lodger at Bishop's, H. L. Murray; Nos. 12 and 13, children of Watson's; and No. 14, another child of Mrs. Pearson's, George Spiers—(see diagram No. 1). The four houses in which these fourteen cases occurred are situated in the low-lying part of Launceston, the floors being only five or six feet above ordinary high water. Otherwise, they do not seem to have been specially unhealthy in condition; the Sanitary Officer's record of annual house-to-house visitations showing that their sanitary arrangements had been improved. Trail's Buildings, where the Blanchflowers and Watsons lived, are two brick houses, each with six rooms, and having water-closets with an insufficient supply of water. The Bishops, at the time of the outbreak, lived in the Temperance Hotel on the Wharf,—an establishment said to have accommodation for 60 or 70 lodgers. The drainage and closet arrangements had been put in order under notices served by the Local Board.

Diagram No. 1.

Interconnexion of cases.

8. In the whole of the rest of the cases that have occurred the source of the infection is easily traced, except in the case No. 24. The cases numbered 15, 17, and 18 can be traced to No. 6, Mrs. Pearson's; cases No. 16, 19, 26, and 28 to No. 4, the Bishops'; cases No. 20, 21, 22, 23, 27, 30 to No. 5, Watson's; cases 25 and 33 to No. 22, Larter's; case 29 to No. 27, Storrers; case 31 to No. 24, Marshall's; and case 32 to No. 26, Mills's. As regards case 24, Marshall's, its connexion with the others is very real, though the infection was probably conveyed intermediately by Hodges, a relative of the family, who did not himself develop the disease till subsequently—(case No. 29). The accompanying plan and diagram, No. 2, show the connexion of these various cases with each other.

Plan No. 1, and Diagram No. 2.

First notification to Local Board,

9. The first notification of the presence of the disease was received by the Local Board of Health of Launceston on the evening of the 23rd September, when Drs. Pike and Hallows verbally informed the Sanitary Officer, Mr. Bushman, that two cases—those of Pearson (No. 6) and Watson (No. 5)—that had been previously notified on the 17th September as being cases of measles, were in reality Smallpox. This information led to the discovery of cases at the Blanchflowers' (Nos. 1, 2, and 3), and at the Bishops' (No. 4), that had not been notified at all to the Local Board. The four houses in which these cases were found were at once isolated, and all ingress and egress prevented; and the Government and the Central Board of Health were informed of the outbreak on the morning of the 24th September.

and to Central Board.

Orders of Governor in Council.

10. Immediately on receipt of the intelligence the Governor in Council made an Order under the 79th Section of "The Public Health Act," empowering the Mayor and

Sanitary Officer of Launceston, being the persons specially appointed by the Central Board of Health, to isolate the houses in which the cases occurred, and similar authority for isolation has been conferred as every subsequent case was reported. On Monday, the 26th September, an Order of the Governor in Council, under the 77th Section of the Act directed the enforcement of the provisions of the 78th Section in regard to the Town of Launceston; and on the 27th September a similar Order extended the enforcement to the whole of Tasmania. The Central Board of Health accordingly made Regulations, under the 78th Section of the Act, for the providing of Smallpox Hospitals and their management, for ambulance arrangements, and for general measures to be taken in order to prevent or mitigate the disease. These Orders of the Governor in Council and these Regulations were published in the *Gazette* and *Gazette Extraordinary* of the 27th September.

Regulations of
Central Board.

11. Meanwhile the Local Board of Launceston, assisted by Mr. Collins, the Chairman of the General Hospital Board, were doing all that was possible to provide the means for separating the sick and infected from the healthy. In view of an outbreak of contagious disease, the Hospital Committee had obtained a site for a special hospital at Glen Dhu, and a portable building had also been prepared; but the site at Glen Dhu was found unsuitable, and another had to be sought. The only one readily available was at the racecourse at Mowbray, at a distance of about a mile and a half from the town; and here a temporary hospital and quarantine were established and ready for occupation on the 27th, on which day nine patients, three convalescents, and thirteen persons who had been in communication with the patients, were removed into it, in charge of Dr. Pardy, Assistant House Surgeon, and Miss Lockhart, a nurse, both of the Launceston General Hospital.

Establishment of
special Smallpox
Hospital.

12. The accompanying sketch plan shows the general arrangements of the Mowbray establishment. The wards for men and women are wooden buildings each 24 feet by 18 feet, and 8 to 14 feet high, giving 432 square feet of floor space, and 4752 cubic feet. They were each intended for six patients, giving 72 square feet of floor and 792 cubic feet of air space to each. There were movable baths and covered nightstools in these wards. The suspected men's and women's wards are also wooden buildings, 30 feet by 21 feet and 8 to 14 feet high, and supplied with movable baths. On the 10th of October the men's side of these wards was occupied by nine adults, and the women's side by seven adults and four children. The rest of the main building is occupied by the nurses' quarters, stores, dispensing room, and doctor's quarters. The rest of the hospital staff, the convalescents, and the rest of the suspected persons were lodged in military bell tents, 12 feet in diameter, pitched, in some cases, on asphalt flooring, and in some cases on a floor of palings covered with straw. The kitchen was fitted with an American stove, and the wash-house with a large boiler. A water supply was laid on from the Town waterworks, and telephonic communication established with the Town Hall at Launceston.

Arrangements of
Hospital.
Plan No. 2.

13. The race-course is situated on the Tertiary drift, and its soil is very retentive. There was no time to effect any drainage work, so the surface in rainy weather must have been wet. No boarded gangways were provided, and therefore the ground was probably trodden into mud in the neighbourhood of the tents. Pits were dug to properly bury all excreta and refuse, including slops and bath water after disinfection.

Nature of Hospital
site.

14. In considering all these arrangements it must be borne in mind that possession of the land was obtained on Sunday, the 25th of September, and the place constructed and occupied on the Tuesday, the 27th. The position of things as regarded the patients at Launceston was such that their immediate removal was absolutely necessary, and what could be done forthwith was the urgent consideration rather than what should be done under other circumstances; these remarks also apply to the first arrangements made in relation to the removal of patients.

Rapidity of erection.

15. The Hospital staff consisted of the Doctor and Nurse above mentioned, two other nurses, a carpenter, a cook, and cook's assistant, a handy man, and a charwoman; nine persons in all.

Hospital Staff.

16. Altogether, twenty-nine cases of Smallpox have been treated at the Hospital, of whom nine have died, being 31 per cent. Two died on the fifth day after the development of the eruption, two on the sixth day, one on the eighth day, two on the ninth day, one on the eleventh day, and one on the fifteenth day. In the last named case the secondary stage of the disease had been reached before the removal of the case to the Hospital. Forty-seven persons who had been in direct communication with patients were interned as suspects, and of these four developed the disease, and are included in the twenty-nine cases before mentioned; so the total number of patients and suspects admitted into the

Cases at Hospital.

establishment was 72. The average number of inmates, exclusive of staff, was about 55; on the 11th of October these were thus classed:—Patients, nine; convalescents, nine; and suspects, thirty-seven.

Cases in town.

17. Four other cases of Smallpox also occurred in Launceston, two of which had ended fatally before the establishment of the Mowbray Hospital, and the other two were nursed in their own homes. There were, therefore, thirty-three cases in all, of which eleven, or 33 per cent., proved fatal.

Vaccination returns of the cases.

18. Of the 33 cases, ten were persons who had been vaccinated in infancy, one of whom died; four of persons who had been vaccinated or revaccinated after childhood, none of whom died; sixteen were of persons who had never been vaccinated, of whom seven died; and three were of persons whose record was doubtful, but who bore no marks of ever having been vaccinated, all of whom died. Thus, of cases of

Persons who had been vaccinated in infancy.....	10 per cent. died.
Persons who had been vaccinated after childhood.....	0 per cent. died.
Persons who had never been vaccinated.....	43 per cent. died.
Persons who bore no marks of having been vaccinated	100 per cent. died.
Or: of	
Persons who certainly had been vaccinated.....	7 per cent. died.
Persons who actually or virtually were not vaccinated...	52 per cent. died.

In regard to the single case of death among the vaccinated patients, it should be mentioned that the man was otherwise unhealthy, and his vaccination dated back more than 40 years.

Cases relatively to vaccination and non-vaccination.

19. There are no means in Tasmania of satisfactorily estimating the relative numbers of vaccinated and unvaccinated persons. But of the 76 people above mentioned (being the 72 admitted to the Mowbray establishment, and the four cases treated in Launceston), information as to vaccination has been furnished of 74, the number of vaccinated being 45, and of unvaccinated and unmarked, 29. Of the 45 vaccinated, 25 were vaccinated in infancy and 20 in after life. Taking 74 as the number exposed to infection, it appears that—

Of 25 people vaccinated in infancy 10 developed the disease, being 40 per cent.
Of 20 people vaccinated in after life, none developed the disease.
Of 29 unvaccinated people, 23 developed the disease, being 79 per cent.

And it must be borne in mind that the six unvaccinated people who did not develop the disease were all vaccinated as soon as practicable after it was known that they had been exposed to infection.

Vaccination Act of 1882.

20. Unfortunately, for some years past the Vaccination Act has been allowed to rest in abeyance, comparatively few children being vaccinated, and, practically speaking, no supply of lymph kept. One of the most pressing necessities attending the unexpected outbreak of smallpox at Launceston was to obtain a supply. The health departments of the other colonies were telegraphed to, and responded by sending all that could be spared, and the greater part of the limited stock at Hobart was also sent to Launceston. But it was not until the middle of October that the supply was anything like equal to the demand. All over Tasmania an attempt was made to atone for past neglect in the matter of vaccination. And the difficulties in the way of meeting the requirements of the public were greatly augmented by the ignorant preference given to calf lymph, many people declining to be operated on with any other. But, notwithstanding these difficulties, one good effect of this outbreak of smallpox has been the attention paid to vaccination. Probably before the outbreak the proportion of vaccinated to unvaccinated persons in Tasmania was similar to that given above in respect to the patients and suspects,—three-fifths to two-fifths. In England the proportion is probably 95 per cent. of vaccinated to 5 per cent. of unvaccinated. It seemed probable, from the continued inattention to the Vaccination Act, that the condition of things in Tasmania would go on deteriorating, for, from the returns that medical practitioners have been good enough to send in, it seems that during the six weeks ending the 19th September (the six weeks immediately preceding knowledge of the outbreak), the total number of vaccinations performed in Tasmania was about 179, whereas the number of births in the same period was about 650. But the impulse given by the outbreak was such that, during the six weeks immediately succeeding, while the number of births was about the same, the number of vaccinations rose from 179 to 6513, of which 2961 were primary, 1592 repeated, and 1960 not distinguished as being primary or repeated. Of the total number of vaccinations nearly 4000 were performed in Launceston.

Effect of outbreak on Vaccination Returns.

Isolation of houses in town.

21. While the patients and suspects were being kept in hospital and quarantine at Mowbray, their houses in Launceston were isolated. Many other persons were also isolated in their own houses in the town as having had some communication with infected

persons. In this latter category were the inhabitants of 27 houses. While too much attention cannot be paid to the separation of the sick from the healthy, I cannot help thinking that a great deal of useless precaution was taken in regard to isolation. I shall have something more to say on this subject, so will only record the fact that, while after the first batch of 13 cases were sent to the Hospital, 18 fresh cases developed in the town, not one of these cases occurred in a house that had been previously isolated as a matter of precaution.

22. One of the cases of Smallpox having occurred on board the barque *Lanoma*, the crew were all vaccinated, the vessel fumigated and sent into quarantine at Bryant's Bay. The steamship *Devon*, having carried a seaman suffering from the disease to the Don, was also, with its crew, served in the same way, and so was the ketch *Strathmore*, as a precautionary measure. V essels quarantined.

23. As a rule all the bedding in the houses of patients who had been removed to the Mowbray Hospital was burnt. A portion of the clothing was also burnt; the rest it was intended to disinfect, but the disinfection processes were so effected as to seriously injure the greater part. Disinfection and burning of clothing, &c.

24. Before the houses of the patients were allowed to be reoccupied the paper was stripped from the walls, the whole of the woodwork washed with mercurial solution, the walls and ceilings whitewashed, and the rooms with their furniture fumigated with sulphurous acid; and, lastly, all the woodwork washed with soap and water with five per cent. of carbolic acid. Disinfection of houses.

25. The patients who died in the Hospital were buried in a field to the eastward of the racecourse, on ground that will hereafter be consecrated as a cemetery. All the measures prescribed by the *Instructions* of the Central Board of Health for disinfecting the bodies were carried out. Special Cemetery.

26. Immediately upon receipt of the intelligence of the outbreak of Smallpox at Launceston the Central Board of Health telegraphed to the Boards of Health of the other Colonies to acquaint them with the fact, and at the same time with the precautions that were being taken in regard to the isolation of all infected persons. The immediate result was the issue of Orders by the Governments of all the Colonies imposing quarantine upon every vessel arriving from any Tasmanian port; in fact, as stringent measures were taken as if there were an epidemic all over the island and no precautions whatever being taken to prevent its spread. These measures being so unlike those adopted by the respective Governments in relation to outbreaks of Smallpox at Sydney, led to a correspondence, that had for effect the removal of quarantine restrictions by the Government of New South Wales on vessels from Hobart, and their modification on vessels from Launceston. The other Governments followed suit in regard to vessels from Hobart. Finally, on the 24th of October the New Zealand Government practically removed all quarantine on vessels carrying a surgeon and showing a clean bill of health. Quarantine regulations made by other colonies.

27. The practical lessons to be learnt from the outbreak of Smallpox at Launceston have been so dearly paid for that it is to be hoped they will not be allowed to become unproductive of good. First, in regard to vaccination, the experience here but tallies with that of every other part of the world as to its protective power against Smallpox. After so convincing a proof given in our own midst, a grave responsibility will be incurred if vaccination be allowed to be neglected as in the past. The present Vaccination Act (46 Vict. No. 19) contains all the provisions necessary for securing the safeguarding of the people from Smallpox. It only requires steady and continual enforcement. I would suggest that the reports of the public vaccinators should be published quarterly, and show not only all vaccinations performed, but also all action taken under the 21st and 22nd Sections of the Act; and, also, that the Registrar-General should be requested to include in his monthly publication of the Vital Statistics of the Colony the returns from the vaccination registers provided for in the 20th Section of the Act. Vaccination.

28. In the next place it is very undesirable that another outbreak of infectious disease should find the large towns unprovided with special hospital accommodation in a proper situation. The question of situation especially should not be left to what is immediately possible in the urgency of the moment of an outbreak. Great care should therefore be taken to secure a good site combining all the requisites of accessibility, water supply, distance from dwelling-houses, conformation and nature of ground, and other points that go towards the making of a suitable position for a hospital for infectious diseases. If such a site be obtained that has already upon it a building suitable for any part of the administrative department of a hospital, so much the better. The land should, if necessary, be at once drained, and any roads made that may be required to give proper access to the hospital, the site of which should be properly cleared. The water supply should be Provision of special Hospitals.

arranged, and if much work be needed to establish telegraphic or telephonic communication it should also be provided for. Beyond these works I would not recommend any immediate construction upon the ground. A plan of the proposed establishment should be prepared, and frame buildings constructed capable of being erected immediately and anywhere. These buildings should include two hospitals, each large enough for six beds, with bath, sink, and earth-closet complete; quarters for a doctor, two nurses, cook, and handy-man; kitchen, wash-house, latrines, ambulance shed and disinfecting chamber, and, separately, two small reception wards of two beds each. The nature and cost of such framed buildings may be seen in my report upon the Evandale case that will follow close upon this report. One set of such buildings being kept in store at Hobart and one at Launceston would probably meet the first requirements of any outbreak, and give time for the preparation of further accommodation, convalescent wards, &c.

Treatment of suspects.

29. In connection with such an Infectious Diseases Hospital, no arrangements should be made for the accommodation of suspects. When a case of smallpox is in such a stage that the patient cannot be removed, the other inmates of the house in which it occurs should certainly be. If they are healthy or in the incubation stage of the disease they should be vaccinated and closely watched, and should immediately, on the development of any premonitory symptoms, be removed to the reception ward of the hospital; but, up to the development of the infectious stage of the disease, they may be kept wherever most convenient, and preferably, in fine weather, in tents. If the patient can be removed, the other inmates should be isolated at home, with the above precautions, and everything that cannot be properly disinfected should be burnt, and the house itself thoroughly cleansed and purified. I make all these suggestions subject to correction by the medical faculty. They are found to be sufficient for the protection of the public at home, and are the only ones practicable in any extensive outbreak.

Removal of patients.

30. As regards the removal of Smallpox patients to a special hospital, it should be insisted on in every case where the circumstances are such that proper care, nursing, comfort, and isolation cannot be better secured at home; but in cases of the nursing of the sick at home, the same precautions ought to be insisted on as regards the isolation of the patient and the prevention of infection as if the case were treated at the hospital, and the same measures taken with the inmates of the house, as in the case of the suspects mentioned in the preceding paragraph.

Disinfecting stations.

31. The experience gained at Launceston shows also how absolutely necessary it is to have proper means of disinfecting clothing and other articles that have been exposed to infection, and of destroying those that are incapable of disinfection. Had such means existed many hundred pounds' worth of goods would have been saved, and at a less cost than has been expended upon their destruction. I would therefore strongly urge that the Local Boards of Health of Hobart and Launceston should each, in conjunction with the Boards of the General Hospital and of the mendicity establishments in each town, establish a disinfecting station. Experience at Home and on the Continent of Europe has shown that disinfection of clothing and bedding by heat is far more effectual than that by the use of chemical solutions, both as regards the destruction of the germs of contagion and of parasite life. The rival claims of superiority of steam and hot air are still debated. In the abstract there is no doubt but that disinfection by steam is the readier and more efficacious method with articles that are not spoiled by damp heat, and among the means of disinfecting by steam the best appears to be Lyons' Steam Disinfecter. But in practical application, especially where supervision by skilled persons would be very costly, disinfection by hot air as performed by Dr. Ransome's Disinfecting Stove seems to be preferable, especially if it be supplemented by a common copper boiler for linen and cotton goods. These stoves are worked with gas, and are automatic in their action as regards the keeping up of any wished for temperature, so that they can be left all day or all night without attendance. A station fitted up with one, together with a furnace for the destruction of articles not worth disinfecting, a boiler for white goods, and with sheds for infected and disinfected articles, would cost about £700. Full details and drawings of the above and other systems of disinfecting will be found in the Supplements to the Annual Report of the Local Government Board for 1881 and 1884.

Quarantine.

32. And, lastly, in regard to quarantine, it is certainly very desirable that some change be made in the system adopted in the Australasian Colonies. The manner in which that system has been carried out in relation to the outbreak of Smallpox at Launceston shows that it is not based on any scientific appreciation of the known facts connected with the infectiousness of the disease, and that it is administered rather in obedience to popular clamour than to the dictates of common sense. Some of the incidents occasioned by this ignorant obedience would be highly ridiculous were they not at the same time so serious in their consequences. Thus the New Zealand Post Office authorities, that receive without question mails from London

and other ports, where Smallpox is always present, refused to receive a mail-bag from Hobart, a port within 120 miles of which a case of smallpox had never been known. In fact, the quarantining of vessels from what are called infected ports, as distinguished from the quarantining of infected vessels, is a relic of old ignorance unworthy of perpetuation by English colonies. The example of the mother country may well be followed. She is the only European country where such quarantining has been abolished; and though she has a hundred times as much communication with cholera-infected ports as all the rest of Europe put together, she is the only country among them that has of late years kept free of epidemic cholera. The sanitary policy of quarantining countries is based upon the idea that the principal thing to do is to keep disease out: the sanitary policy of England is based upon the idea that the principal thing to do is to give disease no foothold, even should it come. The former policy has always failed in the past, and is in the present continually failing, with the result that when the feeble bulwark of quarantine is carried the whole population is more or less at the mercy of the enemy. In the matter of Smallpox, the only real protection of the various colonies is to be obtained by persistent carrying out of vaccination, and the sooner that fact is acknowledged by each the better for all. Such protection cannot be obtained by quarantine, as no quarantining could have kept the *Port Victor* case out of Sydney, nor the recent cases out of Launceston. By all means quarantine infected vessels. As for other precautions, those taken by the New South Wales Government were not unreasonable. So much cannot be said of the quarantine regulations of the other Governments. If precautions had to be taken outside their own territories, the most useful precaution of all was never asked for,—that of having all the passengers and crew vaccinated before leaving the port of departure.

33. In closing this Report I have to express my hearty thanks for all the kindness and courtesy I received from the Mayor and Local Board of Launceston and all their officers, and the many medical and other gentlemen with whom I was brought into contact.

I have the honour to remain,
Sir,

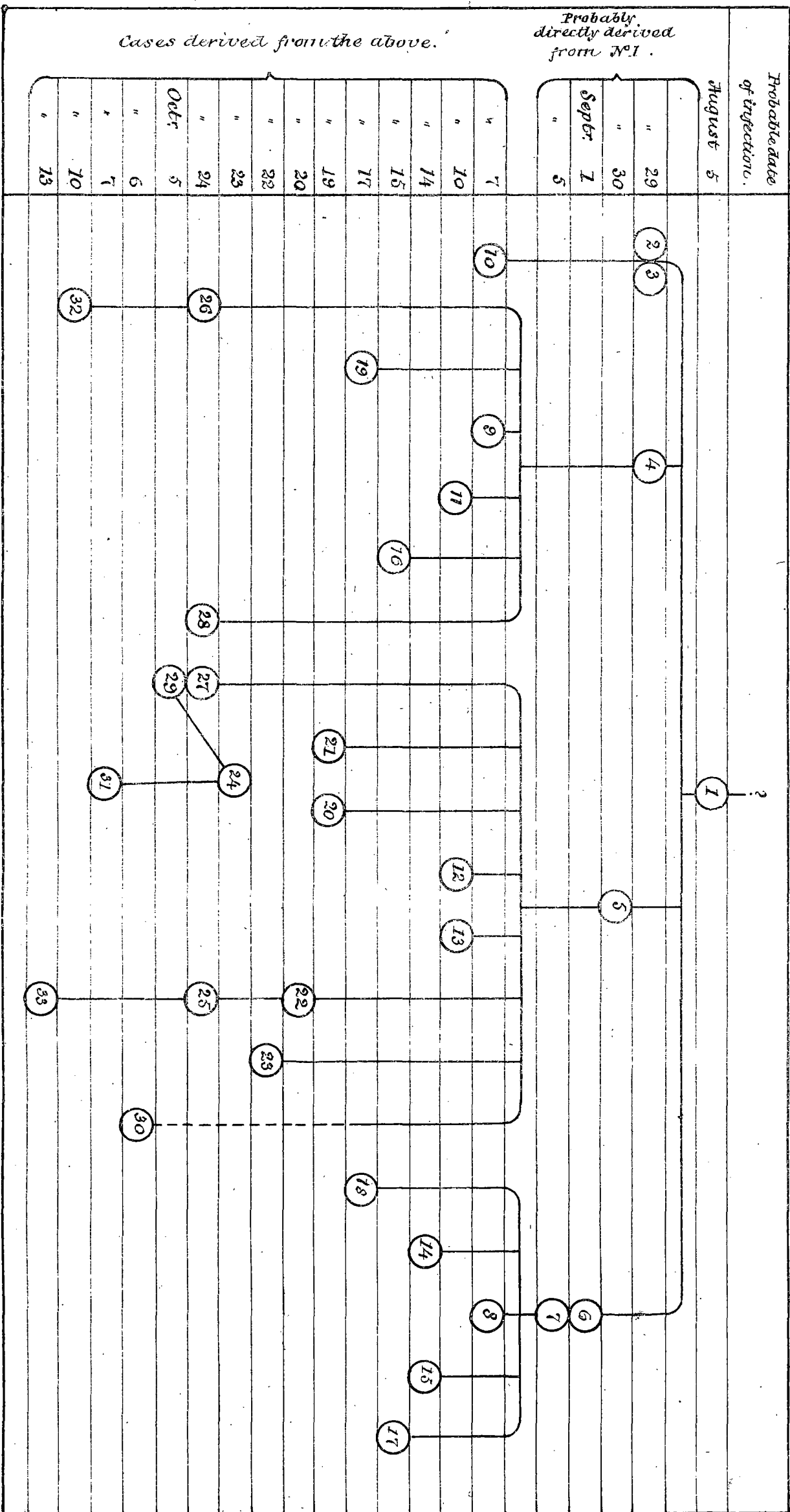
Your faithful Servant,

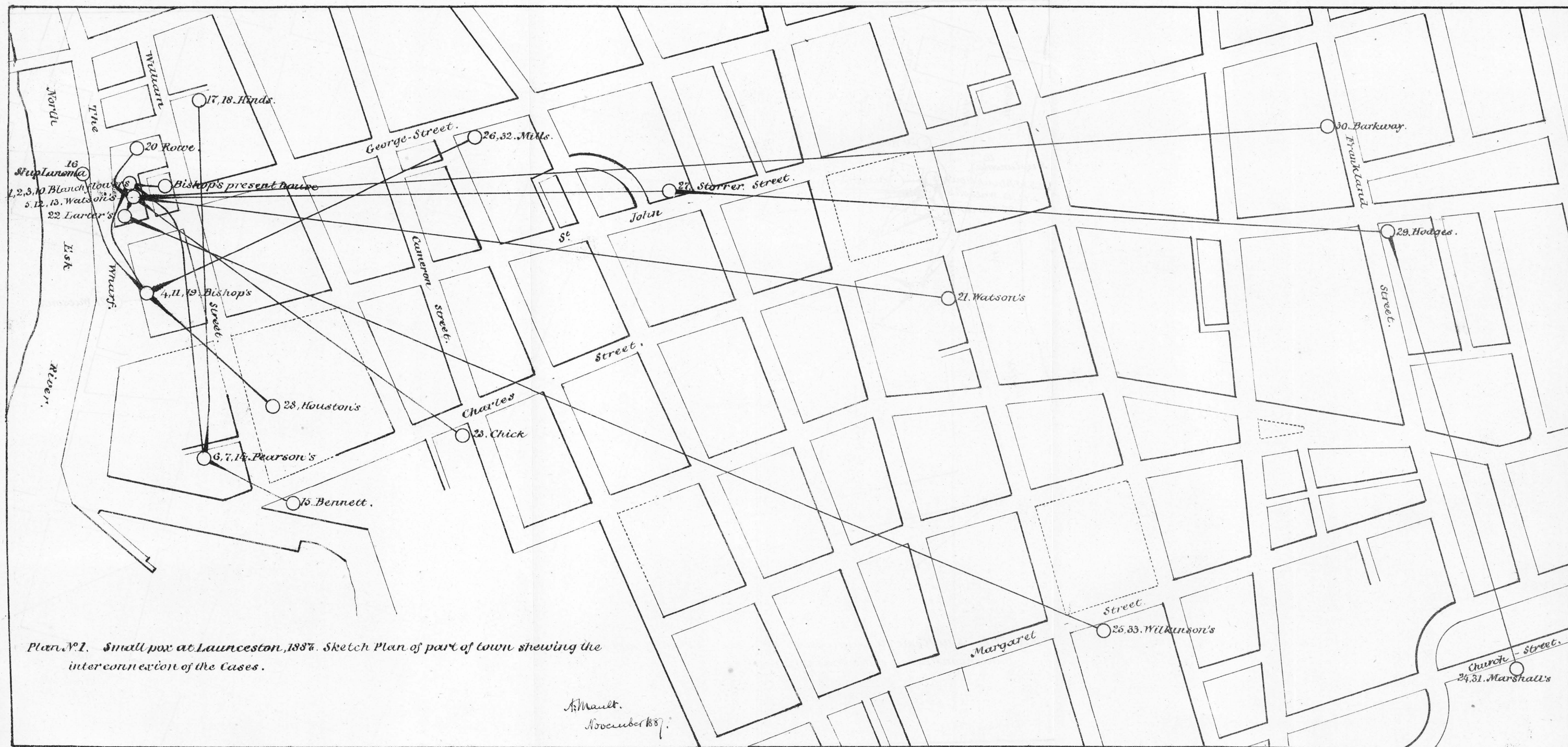
A. MAULT.

Central Board of Health, Hobart, 17th November, 1887.

Small pox at Lauceston, 1887. Diagram N^o 1.

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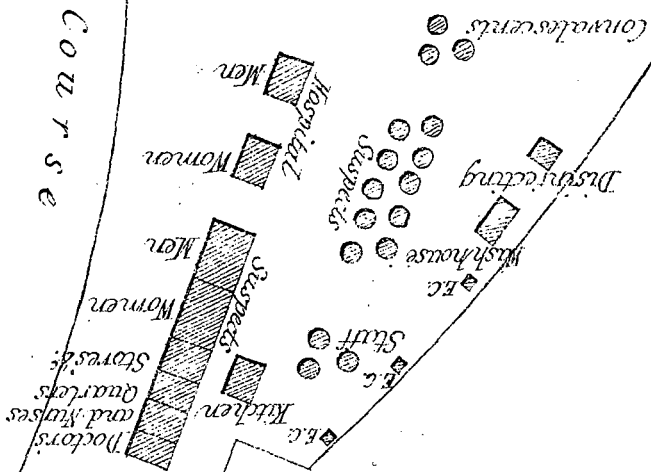




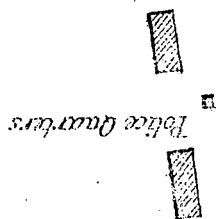
SKETCH PLAN OF LAUNCESTON SMALL POX HOSPITAL AND QUARANTINE, AT MOWBRAY.

Scale One Inch to 30 Yards.

Seadling Puddock



Outer Puddock



PLAN No 2

NOTE - The Hospital was arranged
by the Mayor of Launceston and
the Chairman of the Hospital Board.