

1878.  
 —  
 QUEENSLAND.

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# REPORT

WITH

MINUTES OF EVIDENCE

TAKEN BEFORE

# THE BOARD

APPOINTED TO INQUIRE INTO

THE CAUSES OF THE PREVALENCE OF TYPHOID FEVER AT  
 TOOWOOMBA, AND THE BEST MEANS TO BE ADOPTED FOR  
 THE SUPPRESSION OF THE SAME.

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Board:

WILLIAM HENRY GROOM, ESQUIRE, M.L.A., CHAIRMAN.

JOHN THOMSON, ESQUIRE, M.B. | JOHN GARGET, ESQUIRE.

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PRESENTED TO BOTH HOUSES OF PARLIAMENT BY COMMAND.

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BRISBANE:

BY AUTHORITY: JAMES C. BEAL, GOVERNMENT PRINTER, WILLIAM STREET.

Colonial Secretary's Office,  
Brisbane, 26th April, 1878.

SIR,

I have the honour to inform you that His Excellency the Governor, with the advice of the Executive Council, has been pleased to appoint W. H. Groom, Esquire, M.L.A., Dr. Thomson, and yourself, to be a Board, for the purpose of enquiring into the causes of the prevalence of Typhoid Fever at Toowoomba, and also to report as to the best means to be adopted for the suppression of the same.

I have, &c.,

FRED. RAWLINS,  
Under Colonial Secretary.

The Worshipful The Mayor of Toowoomba.

[Letters of same tenor and date were sent to W. H. Groom, Esquire, M.L.A., and Dr. Thomson.]

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1878.

QUEENSLAND.

REPORT.

TO THE HONOURABLE THE COLONIAL SECRETARY, BRISBANE.

SIR,

We have the honour to inform you that, in accordance with the terms of your letter of the 26th April, we have met as a Board at Toowoomba, "for the purpose of inquiring into the causes of the prevalence of typhoid fever at Toowoomba, and also to report as to the best means to be adopted for the suppression of the same"; and we now beg to submit the following Report—

That there has been a great amount of sickness in Toowoomba and the surrounding district, and a corresponding increase in the death rate, is proved not only by the evidence of the medical witnesses, but also by the Registrar's returns.

Over one hundred cases of typhoid fever have been reported, and sixteen deaths registered, during the months of January, February, March, and April of this year. There has also been a corresponding increase among enteric diseases—diseases allied to typhoid, often induced by the same conditions, and sustained by the same factors, viz., diarrhoea and dysentery.

The number of cases of these diseases could not be learned, but twenty-five deaths are reported; and these, with the sixteen from fever, give a total of forty-one deaths from enteric disease, being a large (thirty-six) percentage: much larger than any former year can show. [*See Appendices A and B.*]

The greatest mortality from fever was in April, when eleven deaths are recorded, being very nearly a fourth of the death rate (forty-seven) for that month, and nearly three times greater than the death rate from the same cause during the same period in other years.

The causes of the prevalence of typhoid fever at Toowoomba are:—

- |        |     |  |
|--------|-----|--|
| First  | ... | Drought.                               |
| Second | ... | Well water contamination.              |
| Third  | ... | Total neglect of ordinary cleanliness. |
| Fourth | ... | Ignorance.                             |

THE DROUGHT.

The medical witnesses are of opinion that the continued dry weather was one of the causes of the prevalence of typhoid fever. The explanation of the theory is highly probable, and worthy of all credence. The wells at present are low from want of rain; the cesspits at present are full from carelessness and inattention. The ordinary soakage is not diluted as in times of plenty, but, owing to the scarcity of water, is highly concentrated and dangerous.

WELL WATER CONTAMINATION.

That a majority of the wells of Toowoomba, and especially in Ruthven street and surrounding neighbourhood, are contaminated by the introduction of sewage, there is every reason to believe, and none to doubt. It is the firm conviction of the medical witnesses, and it is the opinion of the few townspeople who very wisely have given up the use of well water and depend for their supply on other sources. It must surely be apparent to every one who has inspected the positions and contents of the wells and cesspits in Toowoomba. In fact, the relative situations of the two (wells and pits) make it imperative that there should be a connection between them, and it cannot be otherwise.

There

There are between seven (7) and eight (8) hundred dwellings within the municipality; and it may be taken that each one has a cesspit, and the great majority a well. To be quite within the mark, say five (5) hundred cesspits and three (3) hundred wells. From the evidence of the nightman it will be seen that, on an average, not more than fifty (50) pits are cleaned out in the course of a year, and many of them have not been disturbed for five (5) or six (6) years. During the inspection a good many of these pools were flowing over; and it seems that after heavy rains this overflow is more the rule than the exception. After a few days' dry weather this excess is gone; the usual contents of the pit have returned to their ordinary level. The pit is six (6) or eight (8) feet deep; the well, some twenty (20) feet distant (the distances of thirty (30) were measured, and twenty (20) feet found to be the average), has a depth of about twenty (20) or thirty (30) feet. Who can doubt that the deep well received some of the soakage from the shallow pit?

In Dr. Howlin's evidence, he showed that water from the well of his late residence always gave rise to a smart attack of diarrhoea after rain.

#### TOTAL NEGLECT OF ORDINARY CLEANLINESS.

It is hardly possible to imagine anything more filthy than the present condition of portions of Ruthven and Russell streets. This does not refer to hygienic errors which require the services of a sanitary engineer to correct, but to the neglect of the ordinary precautions, not for the preservation of health only, but for the maintenance of common decency. Even simple tidiness, for the sake of outward appearance, is disregarded.

A most minute inspection of these streets revealed, in many places, little else than overflowing cesspits, filthy pig-stys, dirty poultry houses, offensive middens—sometimes dry, but more frequently wet, and consisting of every possible kind of refuse—putrefying accumulations of fruit and vegetables, ill-kept drains, and stagnating slop-water and slime.

It might have been expected that public-houses, with their greater traffic, would have been most offensive, but in some instances they set a good example to the shops and warehouses.

Banks and offices, which ought to have been clean, were, in some instances, conspicuous from presenting a very different appearance. And, with the exception of the Gaol, which was in perfect order, most of the other Government properties were in a very neglected condition. The Immigration Depôt was simply disgraceful. It is a tumble-down dwelling, quite unfit for the use to which it is put, but a little attention on the warder's part would prevent that dirt and neglect which was everywhere apparent.

The wonder is, not that there has been so much fever, but that there has been so little; for from the unsatisfactory condition of several portions of the town, anything in the way of disease or death might most naturally be expected.

#### IGNORANCE.

This has shown itself in the disposal of the evacuations from typhoid fever patients, and has contributed not only to the extension of the disease but to the increase of the death rate.

In a house some distance from town (two miles), well ventilated and apparently free from all risk of the water being contaminated (the well is 115 feet deep) by the introduction of sewage, a case of typhoid fever occurred. That this was imported from town, where fever then existed, there is every reason to believe, for there is nothing at the house of the attacked to warrant the supposition that the disease could originate there *de novo*.

The evacuations of this patient were, without disinfection or desiccation, thrown into the common cesspit used by all the members of the family, and the effects of this were soon visible among others of the children who had not been exposed to the same risks, in town, as the first attacked. Four (4) suffered from typhoid and three (3) died, and it was not until after the scourge had left the house that the father knew that if he had properly disinfected the discharges—covered them with dry earth and buried them somewhere in the paddock—the chances of contagion would have been very materially lessened, and, possibly, death prevented. A similar ignorance was displayed in other houses, and with the same lamentable results.

The best means to be adopted for the suppression and future prevention of typhoid fever in Toowoomba, seem to be:—

- |         |     |   |
|---------|-----|---|
| First   | ... | The Proclamation of the district under " <i>The Health Act of 1872.</i> "   |
| Second  | ... | The nomination of a medical gentleman, either as a member or an officer of the Local Board of Health, and the appointment of a qualified Inspector. |
| Third   | ... | The total abolition of all cesspits.  |
| Fourth  | ... | The substitution of the dry-earth system.   |
| Fifth   | ... | The proper disposal of slop water.  |
| Sixth   | ... | The stopping of the present well-water supply, and the immediate use of reservoir water or rain water.  |
| Seventh | ... | The supervision of Chinamen's gardens.  |
| Eighth  | ... | The banishment of all pigs from within the municipality.  |
| Ninth   | ... | The registration of disease.  |
| Tenth   | ... | The instruction of the young at school.   |

APPOINTMENT

#### APPOINTMENT OF A LOCAL BOARD OF HEALTH.

"*The Health Act of 1872*" provides for this, and gives full power to the Board to provide for the frequent and effectual cleansing of streets; for the cleansing, purifying, ventilating, and disinfecting of houses, dwellings, &c.; for the removal of nuisances; for the preventing and mitigating of epidemic, endemic, or contagious disease; and for the general visitation and inspection of any dwelling or premises wherein is any filth or other matter dangerous to health, or where disease exists, or death has occurred.

#### THE NOMINATION AND APPOINTMENT OF A LEGALLY QUALIFIED MEDICAL PRACTITIONER, EITHER AS A MEMBER OF THE LOCAL BOARD OF HEALTH, OR AS PAID OFFICER OF THE BOARD.

It would be advisable that a medical expert be a member of the Board; his professional knowledge would be of infinite value to the other members, and his advice, co-operation, and assistance, would contribute materially to the successful working of the Board.

It might possibly be advantageous to pay for his services and retain him as an officer of the Board, but that would be a matter to be determined upon after a fair trial of the voluntary system.

#### AN INSPECTOR OF NUISANCES SHOULD BE APPOINTED.

He might act as secretary to the Local Board of Health, manager of the dry-earth system, and collector of the rates.

#### CESSPOOLS.

These are an abomination, no matter whether they be roughly dug pits or well-cemented tanks. They are opposed to all hygienic rule. Surely no one can dispute that the sooner all excretions, whether solid or fluid, whether of men or of animals, are removed from around our dwellings, the better; and yet, instead of removing them or destroying them, we store them up, we hoard as if they were treasures, and they putrefy and ferment, and a concentrated decoction percolates through the soil to contaminate our wells, while a poisonous gas is given off to pollute our atmosphere; and so, what between the water we drink and the air we breathe, we are charged with the germs of disease and death.

This may seem absurd, and the question may be asked, "Why then do we not all suffer?" Man is a pliable and accommodating animal, and he can become accustomed to filth, just as he can to alcohol, tobacco, opium, or arsenic.

It is admitted on all sides, that fæcal matter becomes very much more dangerous after it undergoes putrefactive change, and a great array of names can be brought forward to support the belief that typhoid fever can originate from the gases and matters generated during decomposition. If then the discharges of healthy subjects are productive of so much evil, how much greater must the danger be when the evacuations of typhoid patients, and the fluxes of those suffering from diarrhoea and dysentery, are stored up to rot and putrefy in our midst.

When cesspits are being abolished they should not be boarded over; they should be emptied, thoroughly cleaned, and then filled in with well-pressed dry earth.

This should be insisted upon in all cases.

#### DRY-EARTH SYSTEM.

This, while it does not dispose of slops or surface water, is—for the purpose of disinfecting and deodorising animal excrement, solid or fluid—most perfect.

Theoretically it is complete. Than dry earth nothing better can be had to destroy not only the contagion or infection of discharges, but the discharges themselves. It is the system sanctioned by the Mosaic law, as a reference to Deuteronomy, twenty-third chapter, thirteenth verse, will show; and it is in accordance with Nature, as the habits of the dog or cat can prove.

Economically it is successful. To initiate the system, no elaborate apparatus is required, as would be necessary were water employed. A couple of buckets or boxes, a quantity of dry earth, and a small scoop, are all that need be procured. Then the resulting manure is valuable, and very different from the diluted sewage of a water drainage.

Practically it is perfect. To make it so, however, the management should not be left to the discretion of the individual, but should be under the entire control of the Municipality, of the Local Board of Health, or of the Inspector of Nuisances.

They should provide, either through their servants or by contract, for a constant and plentiful supply of earth for each closet, and for the regular changing, emptying, and cleansing of the receptacles, and should make a small charge, sufficient only to defray expenses. If the manure can be disposed of by sale, so much the better.

The earth supplied should be dry—kiln-dried, if possible—and the same earth may be re-dried and used over again, even for five times; the smell of the soil is destroyed almost immediately. The quantity required is said to be about  $1\frac{1}{4}$  lbs. daily per head.

The receptacles should be emptied frequently—twice a week, or oftener, in summer.

If

If this is not done, the urine soon soaks the earth, and instead of a dry soil, a sodden dripping mass results—similar to what was seen at the Toowoomba Hospital, where the boxes had not been emptied for some time.

Iron buckets are preferable to wooden boxes. A change of buckets is recommended, in order that when one is removed for emptying it may be cleaned, properly scrubbed inside and out with ashes, sand, or earth, before being returned. Plans have been proposed for the purpose of separating the urine from the solid excrement; but this is quite unnecessary where there is plenty of earth and frequent change.

#### THE DISPOSAL OF SLOP WATER.

By slop is meant water from the kitchen, laundry, and bath-room, with possibly a small admixture of urine; also, water dirty with washing of shops, stores, &c., and water used in trades, viz., butchering, but quite free from all faecal or solid excrement of any kind.

The disposal of this slop water is an exceedingly difficult problem to solve. With the "wet method" it can be easily managed, but then a thorough and complete system of drainage and sewerage is necessary. The water supply must be sufficient, that is, at least twenty-five gallons per head daily; a good fall and velocity of current must be had; sewers must be efficient, well-constructed, well-trapped, and well ventilated; and, lastly, there must be a "somewhere" into which these sewers can empty.

At present the slop water stagnates where it falls, or flows along some narrow, half-choked gutter, or reaches the main street to be stopped by the rough ill-kept watercourses, and there dry up. If closed drains be not employed, much might be done by properly constructed water-tables, compact and smooth, reducing friction to a minimum, and communicating with the dwellings by small house-drains, either open or easily come-at-able.

With the water supply of Toowoomba, these surface drains might be kept constantly flushed, and the water-tables flooded as well. The slop water would then be so diluted that if allowed to flow into either the east or west swamp, no injury to health would result. If this, however, were objected to, a plan of earth filtration through a bank of ditch might be carried out.

Dr. Cornelius Fox, Health Officer of Essex, in his pamphlet on the disposal of slop water of villages, says:—"The difficulty of disposing of slops has been thought to be overcome by constructing the "outfall sewer parallel to and near to a field ditch of lower depth. The earth between the outfall and the ditch acts as a filter. The filthy water will pass into the ditch in a purified state. It is advisable to perforate the outfall drain with holes along its course, so as to distribute the slops as much as possible through the soil intervening between it and the ditch. Anything approaching concentration of slops on one small spot of ground is always fatal to success."

Or, with so much land at disposal, a system of sub-irrigation with downward subterranean filtration would prove efficient. A "weeping drain" is constructed, and the slops pass out at the open joints of the pipes into the soil. "These sub-irrigation drains consist of common two-inch agricultural pipes, laid about twelve inches below the surface. These pipes are laid on a continuous bed, formed by dividing larger pipes longitudinally into two equal parts, so that the two-inch pipes can be taken up, cleaned, and relaid by an ordinary labourer, with the certainty that they will be replaced in perfect line and level. If it should be determined to try the method in damp situations, the land should be underdrained, care being taken to lay the land drains so that the slop water from the sub-irrigation drains may not percolate direct to them, if not absorbed by the vegetation, but shall be compelled to pass through soil before reaching them." (Fox.)

However, these are questions about which a competent engineer should be consulted.

In connection with the Toowoomba Hospital is a huge slop-pit of stagnant putrescence. This certainly is contrary to all notions of public health. Laundry water from the clothes of healthy persons is quite bad enough, but when from the garments and soiled bed-clothes of the diseased, it is infinitely worse. The contents of this pit might easily be got rid of by the sub-irrigation method, for which the ground around is well adapted; or filtration by charcoal, coke-screenings, and ashes might be employed; or chemical precipitation, with alum and sulphate of iron, might be used under the immediate superintendence of the resident dispenser. By the chemical process, the water may be at once drained off as clear as it came from the well.

#### THE WATER SUPPLY.

By whatever other vehicle the poison of typhoid enters the system, it is beyond proof that when the germs are conveyed by water, the infection is much more certain. Pure water then is an absolute necessity, and perhaps even more so here than at home. In England, disease tendency is towards coughs and colds—pulmonary complaints; here it is towards disorders of the alimentary canal, to diarrhoea, dysentery, fever, &c. This being the predisposition, it is reasonable to suppose that the impurities of water would be likely to produce their greatest effect upon the membrane with which they come first in contact. And this is found to be the case.

It

It is quite unnecessary to argue whether for the production of typhoid, pre-existing typhoid has contaminated the water, or whether ordinary decomposing sewage in water is sufficient to produce the disease. Authorities are divided, and quite as many uphold the "emanation" theory as uphold the "transmission." It will be sufficient if it be shown that the wells of Toowoomba are rendered impure by the admixture of sewage.

And who can doubt this, when on examining between sixty (60) and seventy (70) wells, it was found that a greater number of cesspits surrounded the wells, and on taking distances of thirty (30), it was found that the average space between the well and the cesspit was but twenty (20) feet. With the exception of two of these wells, no others are cemented, and but two of the pits are so constructed. The wells are about twenty-five (25) feet deep, and the pits six (6) or eight (8), and roughly it may be said that one of each is to be found in almost every yard on either side of Ruthven street. The contents of the one must mix with that of the other, and as owing to the prolonged drought the wells were low, the sewage contamination from the (in some cases) overflowing cesspits would of necessity be somewhat more concentrated than in time of rain, when it might be diluted to innocuousness. This well water should never be used, or at least never for domestic purposes. The water supply now being brought by the Government and Corporation to the town is of excellent quality, and seems to be ample. It should, if possible, be laid on to each house, and people should depend upon it entirely for all drinking and cooking purposes. Rainwater is most excellent water, if well caught and well stored. In order to prevent impurities from getting to the tank, it is as well to allow the first flow to escape, but, as in times of scarcity this might entail a considerable loss, quite as good, if not a better plan, is to allow all the water before entering the tank, to pass through strata of gravel and charcoal: this filtration not only removes all dust or extraneous particles, but by breaking up the stream of water into the minutest portions, improves the quality by permitting free aeration. Underground tanks should not be used; they accumulate dirt, are difficult to clean, allow of no ventilation, and cause no circulation in their contents. Above-ground tanks are infinitely to be preferred.

When any doubt exists as to the purity or quality of a water, it should always be boiled and allowed to cool before being used for drinking purposes. If a good and clean filter is procurable, it is just as well to strain through the water after it has been boiled.

#### CHINAMENS' GARDENS.

These should be under the supervision of the Inspector, in order that any nuisance arising from the storage of ordure, or the manufacture of fluid manure, may be avoided. The use of this fluid manure, made from cesspit contents, is attended with considerable danger to health. It is not trenched into the soil or poured around the roots of plants—it is rained over the plants themselves, and its more solid particles may well be swallowed with the blades of lettuce or of salad, if not cooked vegetables, such as cabbage, cauliflower, &c.

It is advisable that the Corporation should prohibit the further establishment of these gardens in such close proximity to thickly populated portions of the town.

#### PIGS.

On no account should pigs be kept within the municipality, or where population centres.

Pigs are attacked by typhoid and by hog cholera, which may, perhaps, be a rapid form of typhoid: scouring, fever, and prostration are sufficient diagnostic marks. In 1864, a severe fever of this kind, with or without scouring, prevailed among the pigs in London (Parkes). Besides, the feeding of pigs is offensive. The animal and vegetable refuse and scraps, whether thrown into troughs or scattered on the ground, unless they be eaten by the swine, are seldom or never removed, but are allowed to decay just where they have been cast and left.

#### THE REGISTRATION OF DISEASE.

This is a subject which has received no attention in the colony, and but little at home, and yet it is of the very utmost importance, if any attempt is to be made to check or stamp out contagious or infectious disease.

Typhoid fever, scarlet fever, measles, small-pox, &c., are all preventable diseases. With the exception of typhoid—about which there is some doubt—none of the others can originate *de novo*. They are all propagated and extended by specific processes, which are transmitted from pre-existing elements. The contagium of scarlet fever will only breed scarlet fever; the germs of measles will only give rise to measles; the virus of small-pox will only beget small-pox. As is the seed, so is the crop.

In a healthy district these diseases cannot be produced—they must be imported. Among the teeming millions of India, scarlet fever was quite unknown until a few years ago, when the overland route opened up a rapid communication with Europe. Small-pox and cholera have, as yet, never visited Queensland.

It is then with the intention of maintaining this immunity, or, at least, of controlling and checking disease when it does occur, that registration is so necessary. Whenever any contagious or infectious disease shows itself in a district, or when any doubtful sickness is developing, it should be the duty of the medical attendant to immediately report such case to the Local Board of Health, or to the proper authority, in order that the necessary steps be taken to prevent the extension of the malady by isolation, disinfection, fumigation, &c.

#### INSTRUCTION.

## INSTRUCTION.

Children at the National or Grammar Schools should be taught the elements of physiology and the laws referring to public health, including the subjects of food, water, air, exercise, dress, ventilation, drainage, the dangers of excess or irregularity, and the absolute necessity of a most scrupulous cleanliness, not only as individuals, but in their houses, sheds, yards, drains, &c., as members of the community generally. Ignorance is at the root of a very great amount of the present sickness. The dangers of personal or collective filth are either unknown or forgotten, or unheeded; there was seemingly no danger in the past—why should there be in the future? There must be. Where population is, there are the elements of disease and death; and while it increases so must they, but at a very much greater ratio. Educate the children then, and let them know the risks they run if they set at defiance the well-established laws of health. This instruction seems all the more necessary from the practical neglect of sanitation at the Mort Estate Primary School. One small closet, with three seats over an open pit, is all the provision for from 150 to 200 boys, and the same with the girls. In the boys' ground this pit is on a much higher level, and about 122 feet distant from the well which supplies the school, and although the pit had not been in use for some time it was found to be in a very dejective and offensive condition on inspection. The grounds around the school are bare and unprotected. There are no shade-trees or sheds for shelter either from sun or rain, and no attempt has been made with a gymnasium to promote a healthy exercise among the scholars. A general impression holds good in Toowoomba that the present typhoid originated at the Mort Estate School, and many circumstances prove this opinion is not without good foundation; still, when so many places are in an equally unsatisfactory condition, it would be invidious to name any one particular spot as the birthplace of the disease.

In conclusion, it must be noted that Toowoomba has long enjoyed the reputation of being a healthy, salubrious town. For years past it has been free from contagious diseases of every kind, except in 1875 (the measles epidemic), and the recent outbreak of typhoid is entirely due to the causes set forth in this Report.

The Board made a house-to-house inspection, including fifteen hotels and most of the business premises, and also visited all the public institutions, the Chinese gardens, the tanneries, and public baths. Notes of such inspection are herewith appended. It was considered that the Board's duty would not be complete without examining the medical gentlemen practising in the town. These evidences are herewith appended, as also the evidence obtained from the Resident Dispenser of the Toowoomba Hospital, the Inspector of Police, the Inspector of Nuisances, and the nightman.

We have the honour to be,

Sir,

Your most obedient Servants,

WILLIAM H. GROOM.  
JOHN THOMSON, M.B.  
JOHN GARGET.

Dated at Toowoomba, the sixth day of May, 1878.

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NOTE.—Whatever medical opinions are expressed in this Report are those of Dr. Thomson, but as they are all connected with the preservation of the public health, we concur with them.

WILLIAM H. GROOM.  
JOHN GARGET.

**A.** RETURN showing the TOTAL NUMBER of DEATHS REGISTERED in ГОЛОВНОМЪ ДИСТРИКТ since the beginning of the Year 1874; also showing CERTIFIED CAUSES of DEATHS in the same District, and for the same period, under the headings ДИАРРЕА, ДИСЕНТЕРИ, and ТИФХОИ ФЕВЕР.

	1874.					1875.					1876.					1877.					1878.				
	ENTERIC DISEASES.					Total Deaths Registered from all Causes	ENTERIC DISEASES.					Total Deaths Registered from all Causes	ENTERIC DISEASES.					Total Deaths Registered from all Causes	ENTERIC DISEASES.					Total Deaths Registered from all Causes	
	Diarrhoea.	Dysentery.	Typhoid Fever.	Total Enteric Diseases.	Diarrhoea.		Dysentery.	Typhoid Fever.	Total Enteric Diseases.	Diarrhoea.	Dysentery.		Typhoid Fever.	Total Enteric Diseases.	Diarrhoea.	Dysentery.	Typhoid Fever.		Total Enteric Diseases.	Diarrhoea.	Dysentery.	Typhoid Fever.	Total Enteric Diseases.		
January	6	...	...	6	15	2	1	...	3	13	...	2	2	21	2	...	...	2	16	1	7	1	9	24	
February	2	...	...	2	14	...	1	...	1	15	...	1	1	9	1	...	...	1	12	1	2	2	5	16	
March	2	...	...	2	14	2	4	...	6	22	...	2	3	14	3	1	...	7	27	3	4	2	9	25	
April	...	...	...	...	7	2	2	...	4	11	...	1	3	14	2	4	...	8	22	4	8	11	18	47	
May	...	...	...	...	14	...	...	...	3	18	...	...	5	13	...	...	...	2	14	...	...	...	...	...	
June	...	...	...	...	6	...	...	...	3	11	...	...	1	13	...	...	...	3	18	...	...	...	...	...	
July	...	...	...	...	10	1	1	...	...	23	...	...	1	10	...	...	...	8	10	...	...	...	...	...	
August	...	...	...	...	9	...	4	...	4	14	...	...	2	11	...	...	...	1	12	...	...	...	...	...	
September	1	...	...	...	6	1	5	...	3	18	...	...	1	16	...	...	...	3	8	...	...	...	...	...	
October	3	...	...	...	16	2	10	...	12	27	...	...	1	15	...	...	...	4	16	...	...	...	...	...	
November	2	...	...	...	14	2	7	...	10	32	...	1	3	12	6	3	...	9	23	...	...	...	...	...	
December	4	...	...	...	15	2	8	...	10	25	...	...	3	12	1	2	...	3	16	...	...	...	...	...	
	20	1	3	24	140	14	43	8	66	229	1	13	10	173	19	15	6	40	189	9	16	16	41	112	

**B.**

RETURN showing Percentage of DEATHS certified as from ENTERIC CAUSES, in general DEATH RATE for the Months of January, February, March, and April, in each year.

	Four First Months.				Month of April only.
	1874	1875	1876	1877	
1874	...	...	...	...	0 per cent.
1875	...	...	...	...	36 "
1876	...	...	...	...	21 "
1877	...	...	...	...	36 "
1878	...	...	...	...	38 "

RETURN showing Percentage of DEATHS certified as from TYPHOID FEVER in general DEATH RATE, for the Months of January, February, March, and April, in each year.

	Four First Months.				Month of April only.
	1874	1875	1876	1877	
1874	...	...	...	...	2 per cent.
1875	...	...	...	...	0 "
1876	...	...	...	...	7 "
1877	...	...	...	...	9 "
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NOTES OF INSPECTION IN CONNECTION WITH THE BOARD OF ENQUIRY INTO  
THE CAUSE AND PREVALENCE OF TYPHOID FEVER IN TOOWOOMBA.

HOTELS.

No. 1.—Constant residents, 5.—Accommodation, 24.—Closet accommodation, 1.—The well in this yard is within 3 feet of fowl-house, in which is an accumulation of about 6 inches of guano. The slops and laundry water accumulating in yard. A very defective drain.

No. 2.—Constant residents, 4.—Accommodation, 10.—Closet accommodation, 2.—The water-supply of these premises is obtained from a slabbed well about 15 feet deep, quite close to the back of the house and within 25 yards of the closets, which are full and very close to the public lane at back. The yard was in a very filthy state, and an old fowl house containing a quantity of old bones. In the dust and rubbish heap in yard were seen both solid and fluid excrement.

No. 3.—Constant residents, 3.—Accommodation, 15.—Closet accommodation, 2.—The water supply from well close to back of house, and within 25 feet of the cesspit in the adjoining yard. There are five pig-stys in the yard, all very defective. A dust and rubbish heap of about 20 cubic yards.

No. 4.—Constant residents, 16.—Accommodation, 30.—Closet accommodation, 2.—In the outer yard an accumulation of about 8 cubic yards of rubbish and filth. A pig-sty near an unused well and cesspit closely attached, within 3 feet. In the yard, close to the back of house, there is an open back drain that conveys the drainage and water from bath-room and house, close round the main building, and within 10 inches of the well (the water supply of the house), into the channel of the main street.

No. 5.—Constant residents, 5.—Accommodation, 11.—Closet accommodation, 1.—The closet attached to these premises has two entrances; it is in a filthy state, about 4½ feet deep, and within 11 yards of the well—the water supply of the house. A slab-covered drain runs through the yard into the public lane at back; when opened, was found to be in a very dirty state, 1 inch of slime accumulated along the bottom. A five-stall stable attached to closet. Yard strewn with rubbish.

No. 6.—Constant residents, 8.—Accommodation, 12.—Closet accommodation, 1.—The kitchen of these premises is closely attached to the closet of the adjoining shop. There are about 20 cubic yards of accumulated rubbish, filth, and bottles in yard at rear.

No. 7.—Constant residents, 9.—Accommodation, 8.—Closet accommodation, 1.—Closet very dirty, wants immediate attention. The water supply of the house from iron tanks. Pig-sty close to closet. The drainage from yard runs into the paddock at back; this paddock is in a most disgraceful state, being evidently the place of deposit of all sorts of rubbish, manure, &c., from the neighbourhood. A very large and filthy heap of dirt and rubbish is collected in one corner of the paddock, apparently the accumulation of filth and dirt for years past having been thrown here. There are sale yards attached to these premises, with cattle pens.

No. 8.—Constant residents, 10.—Accommodation, 30.—Closet accommodation, 3.—A very filthy drain at the rear of house, and very dirty between house and kitchen. Water-supply from well, considerable distance from cesspits.

No. 9.—Constant residents, 8.—Accommodation, 12.—Closet accommodation, 1.—Closet on these premises has two entrances and has been cleaned about 5 weeks. The yard fairly clean. Well about 32 feet from cesspit, which is supposed to be cemented.

No. 10.—Constant residents, 6.—Accommodation, 20.—Closet accommodation, 1.—Two entrances to closet. Water-supply from well close to the house. Fowl-house close to kitchen. Cesspit wants immediately cleaning. Pigs kept on the premises. Yard fairly clean.

No. 11.—Constant residents, 5.—Accommodation, 20.—Closet accommodation, 1.—Two entrances to closet. The water-supply from well close to house, and within 12 feet of where all the dirty washing water and soap-suds were being emptied. Yard dirty with ashes, &c.

No. 12.—Constant residents, 7.—Accommodation, 8.—Closet accommodation, 2.—Water-supply from well close to house, and within 15 feet of cesspit on adjoining premises, and within 15 feet of a filthy drain that carries kitchen slops, &c., down the yard, and some distance from pig-sty. Yard excessively dirty.

No. 13.—Constant residents, 4.—Accommodation, 10.—Closet accommodation, 2.—The water-supply from well very near kitchen, and within 11 feet of a dust and filth heap.

No. 14.—Constant residents, 7.—Accommodation, 15.—Closet accommodation, 1.—Two deaths lately taken place from typhoid fever, and four cases of recovery from same. Two entrances to closet. Water-supply from well 25 feet deep, situated about 25 feet from back of kitchen. Yard very dirty. The house is built on sleepers on the surface of the ground; no air can possibly get under; no ventilation; in wet weather the rain soaks up into the floor.

No. 15.—Constant residents, 10.—Accommodation, 50.—Closet accommodation, 2.—Brick and cemented closets. Well of water (brick and cemented) within 24 feet of closet. A small accumulation of ashes and rubbish in yard, within 12 feet of well. The drainage from kitchen and yard runs through an open back drain under portion of outbuildings, and by the side of the hotel, into the main street.

PUBLIC BUILDINGS.—GAOL.

The precincts of the Gaol are in excellent condition, everything clean and tidy. Earth-closet system has been adopted, and the sanitary arrangements are exceedingly good. The water in the well was thick when inspected, but was accounted for by the water being very low, and part of the sides having fallen in.

GRAMMAR SCHOOL.

Everything appeared in excellent order, and the supply of water sufficient and well stored in a large overground iron tank, holding about 10,000 gallons. The proximity of a large cesspit to the well water in the yard is deemed objectionable. This cesspit is simply dug, without being bricked or slabbed; it is about 12 feet deep. A series of closets are built in an octagonal shape over it, and no apparent provision made for cleaning.

HOSPITAL.

## HOSPITAL.

Sanitary arrangements very defective. The whole of the refuse from kitchen and laundry is conveyed by open drain to a large hole about 10 feet square, in the centre of the paddock. Sundry heaps of ashes and rubbish considered very objectionable. The water from the bath runs by open brick drain into James street. Both dry-earth closet and the disused cesspit in a most defective state.

## IMMIGRATION DEPOT.

This building is in a most defective condition, and perfectly unfit for habitation. The building old and dilapidated. A great deal of dirt, &c., showing neglect of the warder. The quarters of the married people, especially those with families, are simply disgraceful.

## POLICE STATION.

Nine (9) men stationed here. Earth-closets for prisoners. 2 cesspits about 12 feet from kitchen. Well of water about 15 yards from post office closets, 10 yards from disused cesspit, 20 yards from cesspit attached to sergeant's quarters, and 15 feet from iron-covered closets on adjoining property. Great complaints have been made by the men, about the water from well.

## POLICE COURT.

Would be improved by a little attention to cleanliness.

## POST OFFICE AND RESIDENCE.

A very dirty heap of rubbish, ashes, &c., about 6 cubic yards. Large cesspit, two entrances, within 17 feet of well, which has been unused for house purposes (except sometimes for washing, &c.) for about 2 years. The well is within 7 feet of the drain for slop water. Water supply for house purposes from iron tank.

## RAILWAY STATION.

The accommodation attached to the ladies' department are 3 earth closets, all of which were broken and useless on the day of inspection. The earth boxes were partially filled; but one of them was found choked up with female underclothing.

The 2 earth closets for the male accommodation are in working order; but there was no earth in the boxes, nor evidence of any; and the closets emitted a foul smell.

## STATE SCHOOL, NORTH TOOWOOMBA, BOYS.

The water supply from a well within 122 feet of the one closet used by the boys of the school (about 200), and within 39 feet of an earth-closet on adjoining premises.

## GIRLS.

The water supply from tank off shingles only. One closet here, also with an average attendance of 200 girls and infants.

## TELEGRAPH OFFICE.

Well within 15 feet of cesspit, and unfit for use. Yard in a very dirty state from lumber and horse manure.

## BUSINESS PREMISES AND RESIDENCES.

No. 1.—Well within 15 feet of cesspit.

No. 2.—Public Baths.—Used water from bath flows into the swamp by a drain running under the road. This drain, from not having sufficient fall, has accumulated filth and emits noxious smells.

No. 3.—Water supply from iron tanks. Drainage, &c., runs through box drain into swamp.

No. 4.—Boarding-house.—Constant residents, 3; can accommodate 12. One closet. An unused well (except for scrubbing and washing purposes) 11 feet from closet. Drainage flows by an open channel into public lane. A quantity of dirt and rubbish collected in yard.

No. 5.—Boarding-house.—One death occurred here lately.—Constant residents, 4; can accommodate 18. One closet. Water supply from well some distance away at back. Two pig-stys on premises and stable close to part of house. A very large midden.

No. 6.—Yard at back of these premises in a most disgusting state. Well of water within 21 feet of two cesspits and filth heap, with a surface-drain running straight into well.

No. 7.—Two wells—one entirely unused and the other used only for washing purposes; sometimes used for drinking by Chinamen and others. Closet within 60 feet of well. Drain running from back of out-buildings into channel, Russell street.

No. 8.—A very objectionable open drain runs from the back of these premises into open space at rear of Post Office and Police Barracks. Great complaints are made of the stench arising from this open ground. Water supply from well on adjoining premises.

No. 9.—Well within 15 feet of cesspit.

No. 10.—Well of water about 30 feet distant from closet and rubbish heap, and an accumulation of ashes, &c., close round top of well.

No. 11.—Water supply from iron tanks. There is a large hole, about 11 feet 6 inches by 13 feet, 2 feet deep, in this yard, used as a receptacle for all refuse water, within 16 feet of closet. Considered very objectionable.

No. 12.—

No. 12.—Well within 15 feet of cesspit.

No. 13.—The back of these premises is in a filthy state. An open brick drain runs between these premises and the hotel adjoining, to convey all the surface, slop, and drainage water from hotel yard into the channel of the main street.

No. 14.—The back of these premises in a very filthy state from vegetable matter and dirt. A fowl-house close to the closet. Keep ducks, geese, and fowls. Closet very offensive. The water supply from iron tank. An overflow into the yard from the cesspit of hotel adjoining.

No. 15.—Yard at back of these premises in a filthy state from the accumulation of rubbish, old fruit cases, and a quantity of rotten onions.

No. 16.—The closet attached to these premises was found to be overflowing; the yard in a filthy dirty state from lumber, &c., and an accumulation of rotten fruit and onions strewn about. Three closets in corner of this yard for the use of these and adjoining premises, only 24 feet from the well—the water supply of an hotel and store adjoining.

No. 17.—A very extensive heap of filth and dirt at the rear of the building and bordering on public lane. Ground and yard in a very filthy state.

No. 18.—Water supply from well, with a pig-sty and fowl-house within 15 feet of it, and 1 cesspit within 20 feet, other cesspits about 3 feet further.

No. 19.—The well (the only water supply) is about 27 feet from 3 cesspits; a cemented drain from kitchen, &c., goes within about 6 feet of the well.

No. 20.—An earth-closet attached to these premises. A very objectionable heap of apparently ashes and dirt in the yard. Well of water, said only for use of an engine, about 18 feet distant from old cesspit; a drain out of yard into lane very objectionable.

No. 21.—The open space behind the above and adjoining buildings in a very filthy state from manure of all kinds.

No. 22.—The closet to these premises in a very filthy state. A large accumulation of rubbish and broken bottles in yard at back, and otherwise in a very filthy state. Stable at rear.

No. 23.—Premises undergoing repairs. Closet in corner of yard and bordering on right-of-way at rear, within 30 feet of well. It is understood that stables will be erected within the same distance from well.

No. 24.—No apparent closet for use of these premises, and great complaints from neighbours of the deposit of excrement in close proximity to hotel.

No. 25.—Closets apparently very recently cleaned out. Well about 40 feet from closets. Drain from back yard and kitchen in a very filthy state and emitting a very strong smell, and running out into the open space at back. Kitchen window used to throw out all kitchen refuse into open paddock.

No. 26.—One well supplies these premises and store adjoining, and is about 27 feet from cesspits attached to each establishment.

No. 27.—Water supply from well near house, and about 15 yards from closets.

No. 28.—The well of water very close to house. A covered-in drain runs close by the mouth of the well, and is in a very filthy state from soapsuds and decayed matter. It runs close under the windows of out-buildings and work-shop into public lane at back. One-stall stable attached to work-shop.

No. 29.—Water supply from well about 15 yards from closet.

No. 30.—TANNERY.—Yard and premises very clean and tidy, with a spring of water constantly running, keeping everything clean.

No. 31.—GARDENS—Certain previous mode of manuring dispensed with on account of complaints having been made. A cesspit in the garden in an unbearably filthy state.

No. 32.—A small quantity of rubbish under house, water supply from a slabbed well some distance from house, 107 feet deep, with a sandy rock bottom. Well about 78 feet distant from pig-sty, at a lower elevation of about 4 feet. 69 feet from cesspit, on a different fall. No apparent cause, at or near the house, to suspect the germs of fever. The closet used during the sickness has been since earthed up. Some of the well water has been sent in analysis.

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MEETING OF THE BOARD OF ENQUIRY INTO THE CAUSES OF THE PREVALENCE OF  
TYPHOID FEVER IN TOOWOOMBA, HELD AT THE ROYAL HOTEL, TOOWOOMBA,  
ON THURSDAY, MAY 2ND, 1878.

MINUTES OF EVIDENCE TAKEN.

DR. EDWIN ROBERTS :—

I am a legally qualified medical practitioner of Queensland; I have practised in Toowoomba about ten and a-half years; during that time I have found typhoid fever to prevail, more or less, during certain periods of each year; it has been much more prevalent during the present year; I have had about forty cases since January 1st, 1878, of which seven have proved fatal.

In my opinion, the cause of the increase this year has been the prolonged dry weather, particularly in so far as it has affected the water supply of the town, and caused increased drainage from cesspools into the wells. I have had about the same number of cases of diarrhoea and dysentery as usual in adults, but more than the average in young children.

The infant mortality from these diseases has also been increased, probably owing to the insufficient supply of milk. I consider typhoid fever to be communicable, and that one person suffering from the disease might infect a district. I consider that there is always more or less drainage into the wells; but that the prolonged dry weather has caused more direct contamination.

I do not consider the sanitary condition of Toowoomba satisfactory, very far from it. Diphtheria, diarrhoea, dysentery, and typhoid fever are diseases likely to occur from the present sanitary state of the town.

A proper

A proper organization for supervising the closet arrangements and preventing the accumulation of household refuse, would greatly mitigate the prevalence of this form of sickness. I consider it dangerous for families to use the well water of the town, almost without exception.

From my experience, I consider that an enforced abolition of cesspits, and the introduction of the earth system or an organized system of drainage, is necessary; and I should consider the well water unfit for drinking, even if the existing cesspits were abolished. I consider the closet accommodation at the Mort Estate School (boys and girls), totally inadequate for the number of children attending the schools, and I think it desirable that sheds should be erected to protect the children, during play time, from the sun or rain. As a resident near the above schools, I have suffered from the offensive condition of the school closets. On my own premises I use the earth-closet system.

I consider it would be desirable to banish pigs from within the boundary of the municipality. Pig-stys are nearly as bad as cesspits.

I should recommend supervision of the Chinamen's gardens.

I consider that if every medical practitioner reported the first appearance of contagious diseases to a Board of Health, the spread of such diseases might, in a great measure, be prevented.

I consider it necessary that a properly qualified Inspector of Nuisances should be appointed. I consider that all water used for washing out butchers' shops, &c., should be disinfected before being allowed to pass into the streets; and I do not consider that if a plentiful supply of water were available for flushing the streets, the passage of soap-suds, water used for household purposes, and slop water into the swamp, by such means, would be objectionable; but I do not at present know of any source from which such a supply could be obtained.

My opinion is, that considering the growing importance of Toowoomba, it is imperative that rigid sanitary regulations should at once be enforced, either by the municipal authorities or a Board of Health.

EDWIN ROBERTS.

STEPHEN FLOOD, M.B. :—

I am a duly qualified medical practitioner, and have been practising in Toowoomba for about 20 months.

From 1st of January to the present time, I have attended three cases of typhoid fever amongst my private patients, and eight cases at the hospital. I have had about six cases of dysentery. I do not consider this disease is increasing or more prevalent than usual.

During the same period last year, I had eight private cases of typhoid fever and three in the hospital.

None of my fever cases ended fatally.

I believe that in all probability the well water is in many instances contaminated by the leakage of sewage matter from the cesspits which are in common use here, and which are not cemented.

All the cases of typhoid fever have occurred amongst persons who have been in the habit of drinking well water.

I would consider it advisable to abolish all cesspits in favour of earth-closets. Even were cesspits abolished, I would not use the present well water.

I live in the vicinity of the Mort Estate State Schools, and do not consider the present closet accommodation sufficient; and I further consider that the arrangements for drinking water for the boys' school are bad. Sheds ought to be provided for the use of the children during play hours. I consider the town to be in a most deplorable sanitary condition. Typhoid fever is the prevailing disease. In my opinion there will very probably be another epidemic next Spring or Autumn, unless immediate sanitary improvements are carried out. I believe typhoid to be communicable and to be capable of dissemination, either by means of drinking water impregnated with sewage, or by breathing air rendered impure by sewage gases.

Cleanliness is essential in staying the spread of the disease. The recommendation of Drs. Murchison and Budd, for the immediate and thorough disinfection of the clothes used by patients suffering from enteric fever, ought to be carried out. The excreta should be disposed of in the manner pointed out by those physicians.

The whole town and the Chinamen's gardens ought to be under complete intelligent and compulsory sanitary supervision.

If the dry-earth system is made compulsory, and is efficiently carried out, then a surface system of drainage into the swamp will not injuriously affect its waters below the town, provided means can be devised of preventing anything finding its way into the surface drains, except the water used in household washing and in bathing. I have great doubts, however, if this is feasible in practice. I have no personal knowledge of surface drainage.

Taking into account the large rainfall at Toowoomba (averaging, I believe, about 43 inches annually), and seeing that a considerable portion of the town is necessarily built in the neighbourhood of the swamps, I consider that any sanitary measures adopted to improve the health of the inhabitants will, to a great extent, prove futile, whilst this constant prolific source of disease is left in its present unsatisfactory condition.

Stagnant water is generally admitted to be injurious, especially so in a semi-tropical climate, and Western Swamp is little better than a large open sewer, the emanations from which may, I think, be fairly credited with much of the preventable sickness which occurs in this town, such as diarrhoea, croup, bronchitis, diphtheria, dysentery, typhoid and intermittent fevers, scarlatina, &c., &c.

I would therefore advocate the thorough drainage of both swamps and subsoil drains in at least the lower-lying portions of the town.

The planting of trees along the margins of the swamps and in all the streets would be eminently useful for absorbing moisture, and probably they would have a tendency to render the climate more equable and agreeable.

The cesspit hole at the Hospital is very objectionable, and the sanitary arrangements of that institution are extremely defective.

I consider that the prevalence of pigs and cattle in the town may be one source of typhoid fever (at least it has been conclusively traced to this source in England by Dr. Murchison), and I would recommend the abolition of all pig-stys within the municipality.

I cordially approve of the registration of all contagious diseases.

STEPHEN FLOOD, M.B., T.C.D., F.R.C.S., &c.

Toowoomba, May 3, 1878.

**Dr. JAMES HOWLIN :—**

I am a duly qualified medical practitioner of Queensland ; I have resided and practised in Toowoomba about 2½ years. Have found an increase of sickness during the present year, particularly typhoid fever.

I have had about eighteen cases at private residences, and seven hospital cases, during the year, of which nine have proved fatal. I have also had about twenty cases of dysentery and diarrhoea. I attribute the sickness to the dry season, the state of the wells of the town, and the heat in the middle of the day at this season of the year.

The well waters in the town I consider unfit for use, from the proximity in general to closets, and the low-levels.

I believe there is a communication between wells and cesspits. I approve of the earth-closet system and the total abolition of cesspits.

While residing in Russell street, in a house belonging to Mr. Jas. Taylor, I have found after a heavy rain that the water had risen in the closet to within two or three feet of the seat, and after a week the whole would disappear ; and I further noticed that a good drink of water from the well (the water supply of the house), though not nauseous to the taste, would bring on a sharp attack of diarrhoea. I do not think the well water of the town would be fit for over six months after the cesspits had been filled up, and I would consider it advisable that the well water should at once be prohibited for drinking and cooking purposes.

I consider an efficient system of drainage necessary, and that if the water from kitchens and slop water was well slushed and washed into the swamp, it would be sufficient to dilute it and would not contaminate the creek water. I consider it imperative that a proper supervision of the Chinamen's gardens should be at once established, and that a proper qualified Inspector of Nuisances should be appointed, and rigid sanitary arrangements necessary.

Do not consider the accommodation described at the Mort Estate State Schools sufficient, the one closet to each school being altogether inadequate to the number of children attending them ; and I consider that sheds for outside protection should be provided. I should be in favour of registration to the proper authorities of the first symptoms of any contagious disease, with a view to isolation.

JAMES HOWLIN, M.D.

**CHARLES OAKLEY RICHARDSON :—**

I am the resident dispenser at the Toowoomba Hospital, and have been in the occupation for about fourteen months. I have had a great increase of local patients this year in comparison with last year. The greater portion of the local patients were suffering from dysentery and fever, in some cases dysentery accompanied by fever.

The number of patients with fever, within the months of February, March, and April, were about twenty-five ; of which three have proved fatal. Have had about four or five cases of diarrhoea and dysentery in that time, but none proved fatal. There were sixteen cases of typhoid fever in the hospital a few days ago, six males and ten females. All the males have been discharged but one, who is now convalescent ; but only one female discharged, the other nine being convalescent. These appear to be largely in excess of the local cases for the same time last year. I have also supplied outdoor relief to cases, which appear about double the number during the same term last year ; most of these cases being children suffering from nausea, vomiting, and diarrhoea.

The present hospital accommodation is totally inadequate to its requirements, there not having been sufficient beds for the male patients last month, and the same insufficiency has occurred to the female patients this month.

I will forward a report taken from the hospital books. The sanitary arrangements at the hospital are very defective, and the well (the only water supply), though clear, is bad to taste. The old closet stands on higher ground than the well.

C. O. RICHARDSON.

**WILLIAM HARRIS :—**

I am Inspector of Police stationed at Toowoomba ; the police have no instructions respecting the abatement of nuisances in the town, only as regards the streets and public places. I consider it would be advantageous if the police had authority to file information against nuisances in other places, but the Municipal bye-law does not give such power to the police off the public streets. The townspeople have often complained to me of nuisances arising from cesspits, but I am powerless to interfere. Two police officers have been sick, they were sent to the hospital. The medical officer informed me they were both typhoid fever. Both have recovered, though one is still at the hospital convalescent. Have been eleven years in Toowoomba, and have never heard of so much sickness as in the present year, except during the measles epidemic.

I do not know anything about the disposal of night-soil. I heard that the nightman had sold excrement to the Chinese gardeners ; so set police to watch, but they found it taken only to the Queen's Park.

Complaints have been made to me that the water in well at police barracks (the only water-supply) was unfit for use. I consulted the medical officer in consequence, and he informed me that if the men had to use the well water it was no wonder they had fever.

The soakage under the police barracks is sometimes 2 or 3 feet deep, from the fact that the house was originally built on piles elevated off the ground, since which it has been filled up all round with earth, &c.

The present police barracks and quarters are insufficient in a sanitary point of view.

The police on night duty have often complained of the offensive smells in the streets at night, particularly between Hodgson's buildings and Hennessy's Commercial Hotel. I know of cesspits in the town that require immediate attention, and also know of some that have not been cleaned out for five or six years.

The Municipal bye-laws and "The Towns Police Act" are not stringent enough, as regards private property, and I consider the time has arrived that some intelligent and properly qualified inspector of nuisances should be appointed. I have often wished the police had authority to quell nuisances.

I have only known of one instance of overcrowding, in which eight or nine of a family lived in a small place of about 6 feet by 8 feet. My attention was called to it by the death of a child, and the persons coming to me asking for a Government funeral. The above overcrowding was reported to me by one of the police officers.

WM. HARRIS.  
WILLIAM

WILLIAM THOMPSON :—

I am Foreman of Works and Inspector of Nuisances for the Municipality of Toowoomba. My duty as Inspector is to see that all closets and yards in the municipality are kept clean. I have never given notice to remove dry rubbish. Did not think there would be any harm come from it. The Corporation have places for depositing dry rubbish, in Herries and Margaret streets.

The water-closets are cleaned under orders from the Council, but they do not stipulate any particulars so long as the closet is emptied when ordered.

I have been Inspector of Nuisances about five years, but the nuisances having increased so much (quite three-fold), and the duties of the office so great, that I have asked to be relieved of it.

My particular attention has been to closets. I have not interfered much with dry earth.

Some closets in the town are emptied twice a year, some only once, and some not so often. Some, to my knowledge, have not been emptied for over three years.

I have one case of nuisance to come before the Police Court to-morrow.

The excrement deposit is supposed to be conveyed to the Queen's Park, but the nightman is not compelled so to take it, nor is there any particular regulation as to the cart or mode of conveyance.

A by-law does exist that pigs are not allowed within the municipality, but when no complaints are made I do not interfere. I have authority to order the removal of all pigs from the municipality.

his  
WILLIAM × THOMPSON.  
mark.

JAMES NATHAN :—

I am a nightman and chimney sweep, living in Toowoomba. I have no arrangements with the Corporation for the emptying of closets within the municipality. I make terms with the parties requiring my services; I charge from £3 upwards for emptying closets. I have charged as much as £6 for a double closet. It sometimes takes me two nights to empty a closet. I find all the appliances and labour required. I generally commence about 11 o'clock at night, and finish between 4 and 5 o'clock in the morning. I use a horse and dray, with 2 casks, covered over with bags, and I take it to the large hole in the Queen's Park made to receive it, and I always cover it over with earth to prevent any stench. I have taken it to the Queen's Park now about 6 years; cannot say how many I have emptied per annum. I do not empty on an average of one per week. Hotel closets are not emptied once a year, I know them sometimes go for 15 or 18 months. I am not the only man acting as nightman now in Toowoomba, though it is only very lately there has been another. I am not restricted from selling or giving nightsoil away. I have never given any away but about twice, to S. G. Stephens. I have never given or sold any to the Chinese gardeners. I have never heard of the Chinese having emptied closets; they might have done so without my knowing. I cannot say where they get their manure from.

I have emptied the closet attached to the Mort Estate State School about 3 times within the last 4 years; other persons have emptied it besides me. I know of about 12 earth-closets in the town. I have emptied some. I charge five shillings (5s.) each, and take the excrement to the Queen's Park.

JAMES NATHAN.

Price 7d.]

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