Annual report of the Commissioner of Public Health / Queensland.

1915.

QUEENSLAND.

ANNUAL REPORT

OF

THE COMMISSIONER OF PUBLIC HEALTH

TO

30TH JUNE, 1915.

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY COMMAND.

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TO THE UNDER SECRETARY, HOME DEPARTMENT.

29th July, 1915.

SIR,—I have the honour to submit the following report upon the work of the department under my control for the year ended 30th June, together with certain comments and details relating to the public health of the State of Queensland.

I.—STATISTICAL.

The statistical information furnished in the various tables herein still continues to support the claims of this State being one of the healthiest places in the world. This gratifying feature can only be regarded as a national asset of which we may justly be proud.

The estimated mean population for 1914 was 674,932, and for 1913, 652,555, an increase of 22,377.

The crude birth rate (births per 1,000 of the mean population) for 1914 amounted to 29·46, as against 30·26 for the preceding year. This shows a slight decrease on last year, but compares more than favourably with the other countries appearing in the following table, compiled from the latest figures available:—

CRUDE BIRTH RATE.

Country.	Year.	Birth Rate.
Queensland	1914	29·46
Commonwealth	1914	28·05
German Empire	1912	28·3
Netherlands	1912	28·1
New Zealand	1913	26·1
Norway	1912	25·4
Scotland	1912	25·9
Switzerland	1911	24·1
England and Wales	1912	23·8
Ireland	1912	23·0
Canada	1912	22·4
France	1912	19·0

The crude death rate (deaths per 1,000 of mean population) for 1914 was 9·97. This compares favourably with the other Australasian States.

Queensland has one of the lowest death rates in the world, as shown by the following table taken from the "Official Year Book of Australia" (No. 8, 1914):—

Country.	Death Rate.	Year.
Canada	12·4	1912
Norway	13·4	1912
Denmark	13·0	1912
Sweden	14·2	1912
Netherlands	12·3	1912
England and Wales	13·3	1912
Scotland	15·3	1912
Switzerland	15·8	1911
Ireland	16·5	1912
German Empire	15·6	1912
France	17·5	1912
Italy	18·2	1912

The infantile mortality rate (deaths under one year per 1,000 born) for 1914 was 63·87, a slight increase of 0·62 on the figures furnished for the previous year.

The following table of rates of infantile mortality shows Queensland to be one of the lowest of the various countries quoted:—

RATES OF INFANTILE MORTALITY IN VARIOUS COUNTRIES.

Country.	Year.	Infant Mortality Rate per 1,000.
Queensland	1914	63·87
New South Wales	1914	69·7
Victoria	1914	78·3
South Australia	1914	76·0
West Australia	1914	68·2
Tasmania	1914	71·6
Sweden	1911	72
Ireland	1912	86
Switzerland	1911	123
Denmark	1912	93
Scotland	1911	112
France	1912	78
Canada	1912	110
England and Wales	1912	95
Belgium	1911	167
Netherlands	1912	87
Italy	1911	153
German Empire	1912	147

The marriage rate for 1914 was 8·73. This is slightly higher than that for the previous year (8·68), and higher than that of any other part of the decade, except 1912 (8·91).

The following table, supplied by the Government Statistician, summarises the principal vital statistics of Queensland for the last decade:—

SUMMARY OF PRINCIPAL VITAL STATISTICS OF QUEENSLAND FOR DECADE 1905-1914.
(Furnished by Government Statistician.)

—	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.
1. Estimated Mean Population	525,728	532,783	541,204	555,171	571,044	592,201	614,352	631,577	652,555	674,932
2. Number of Births	13,626	14,019	14,542	14,828	15,554	16,173	16,991	18,758	19,747	19,883
Rate per 1,000 Mean Population	25·92	26·31	26·87	26·71	27·24	27·31	27·66	29·70	30·26	29·46
3. Deaths under 1 Year	1,029	1,047	1,122	1,043	1,119	1,020	1,112	1,340	1,249	1,270
Rate per 1,000 Born	75·5	74·7	77·2	70·3	71·9	63·1	65·44	71·44	63·25	63·87
4. Deaths all Ages	5,563	5,095	5,599	5,680	5,530	5,145	6,544	6,921	6,783	6,731
Rate per 1,000 Mean Population	10·47	9·56	10·35	10·23	9·68	9·70	10·65	10·96	10·39	9·97
5. Deaths in Public Institutions	1,661	1,565	1,744	1,796	1,705	1,865	2,127	2,270	2,344	2,414
6. Number of Marriages	3,173	3,588	4,105	4,009	4,542	4,769	5,169	5,628	5,662	5,895
Rate per 1,000 of Mean Population	6·04	6·73	7·58	7·22	7·95	8·05	8·41	8·91	8·68	8·73

II.—COMMUNICABLE DISEASES.

The total number of cases for each proclaimed disease during the year under review is shown in Appendices J and K.

Notifiable Infectious Disease.

During the year the question of Local Authorities fulfilling their obligations under section 117 of the Health Acts, in respect to providing hospital accommodation for the treatment of cases of notifiable infectious disease, has received attention at the hands of this Department.

Communications have been addressed to Councils throughout the State, requesting them to arrange with the various public hospitals in their respective areas to enter into an agreement for the reception of all such cases, at a cost of £2 2s. per week whilst actually confined to bed and £1 5s. per week whilst convalescent, unless the cost of treatment per patient is more than the sums quoted. In the past many Local Authorities endeavoured to evade their responsibilities in the above respect, with the result that the funds of the hospitals suffered considerably, and their committees were obliged to have recourse to the public for assistance in meeting their obligations. In some instances, in order to meet deficiencies, donations in lieu of payment for treatment were obtained as a means of securing the Government bounty of £2 to £1, and many Local Authorities, instead of recouping the hospital for the actual cost, merely paid a small annual sum, and when the number of cases admitted to hospitals increased, through an unforeseen outbreak, the amount donated proved entirely inadequate in covering the cost to the institution, consequently the Local Authority had the advantage at the expense of the hospital funds.

Under the present system of agreement it is expected that hospitals will in a large measure be placed in an improved financial position, whilst the Local Authority will be held responsible for payment for the treatment of each individual case.

Another advantage which it is hoped this arrangement will afford will be that Local Authorities will give consideration to the old maxim, "Prevention is better than cure," by paying closer attention to public health matters and improved sanitary conditions.

Typhoid Fever.

It is gratifying to note that during the past year there has been a decrease in the number of cases of typhoid throughout the State.

The decrease shown principally favours the metropolitan area, and may be attributed in a large measure to the general wave of prosperity being enjoyed by the wage-earner, who, instead of residing as of old in overcrowded portions of the city, now possesses his own home with ample ground-space and improved surroundings.

The decrease in outside areas may be attributed to the fact that Local Authorities generally have been made to recognise their responsibilities in regard to the treatment of infectious disease, and it is pleasing to relate that certain local governing bodies are showing a very keen interest in the matter of protecting their areas by prophylactic measures. As an instance deserving of special comment is the case of the Kargoolnah Shire Council, which of its own accord has issued a special pamphlet (*see* Appendix N) recommending persons in the area to take advantage of free anti-typhoid vaccine, which this Department prepares and supplies free of cost. It is much to be desired that other Councils will follow the good example shown by this progressive body.

The value of anti-typhoid vaccination cannot be too highly recommended, especially in the case of bush workers, who naturally are exposed to danger of infection to a greater extent than others who enjoy the advantages of efficient sanitary services. The forces of the Empire are now benefiting from the use of typhoid inoculation, as has been recently reported from the front, and where outbreaks of typhoid have occurred among the troops inoculation has been resorted to, in checking widespread outbreaks of the disease. In this State the military authorities fully recognise the importance of this prophylactic measure, and all troops are inoculated before leaving for the front.

Every assistance is given to the public by the Department in the way of providing typhoid vaccine; supplies prepared by the Department's Laboratory are always available for distribution, and I cannot urge too strongly the benefits to be derived by inoculation. During my recent extended tour throughout the State I interviewed Local Authorities, and fully explained to them that in adopting these measures they were not only protecting the individual ratepayer as well as the nomad, but were also taking preventive measures in safeguarding expenditure of large sums of money in stamping out extensive outbreaks, that might at any time occur.

Unfortunately the personnel of local governing bodies is ever changing, and those members who are desirous of following advice on these matters pass out of office before anything definite is done, and their successors have frequently to be educated so that they may appreciate the benefits explained to their predecessors.

It is regrettable to note that many cases of enteric fever have occurred in centres which should, by their situation, be recognised as health resorts, but instead have, through lack of attention to sanitation, lost some claim in this respect. On the other hand, there are certain places in the State where cases of typhoid were frequently recurring that have in a measure successfully coped with the trouble by providing improved sanitary conditions and better hygienic surroundings. Inspections of these areas are made periodically by officers of the Department, and the various recommendations made to the Councils are generally adopted. Cesspits, which formerly existed in some centres, are now practically a thing of the past; this improvement needs no comment, as it is well known that these abominations formed dangerous breeding centres for flies, which are responsible for transmitting typhoid to humans. When it is considered that one fly is capable of producing 500 to 600 flies in a month, each capable in turn of producing a like number for the same period, the seriousness of destroying this disease carrier is paramount.

Diphtheria.

Two thousand one hundred and fifty-three cases of diphtheria, the majority of which occurred amongst children, were reported this year, which shows an increase of 553 on that for 1914.

This is attributed to severe outbreaks occurring at Nanango, Harrisville, Many Peaks, and a recurrence at Mackay; but the action taken by the Local Authorities, also the Mackay Joint Hospital Board, in dealing with the disease is to be commended, as by their timely efforts widespread outbreaks were prevented. Regularly every week swabs were received at the Department's Laboratory for examination from each of these places, and, as many of the specimens proved to be carriers, this necessitated the retention of the patients until declared to be free from the bacilli. Hospitals which possess but limited accommodation are at times severely taxed in being unable to discharge cases until three consecutive negative swabs have been obtained, and, although this may be regarded as rather a burden by these institutions, this precaution is considered by the Department as the only safe means in protecting public health.

In country places, where there is limited hospital accommodation, the use of tents as temporary expedients to accommodate cases of diphtheria is resorted to, and in one instance where the local hospital was overtaxed with patients the Department rendered assistance by supplying emergency hospital tents.

Unfortunately parents, when children suffer from feverishness and sore throats, are inclined to treat the matter lightly as being due to a cold, and show neglect in obtaining medical advice, with the result that before the disease is recognised as diphtheria it has spread widely and requires strong measures being taken to check the trouble. When such a phase arises this Department, on receipt of the notifications, considers the question of extending to the particular area affected the Diphtheria Regulations, which provide complete authority for the examination, isolation, and treatment of cases and suspect cases. The advantages obtained from this course enable the Local Authority to detect cases that under ordinary circumstances might purposely be kept unknown. Moreover, steps are taken to at once notify the schoolmasters, who in turn exclude all children coming in contact with the infected from attending school, and by this means the health of the other pupils is as far as possible safeguarded. These measures also ensure proper disinfection being carried out by the Local Authority, as well as securing a close supervision over any sanitary defects met with, when these are immediately attended to.

The Laboratory of Microbiology and Pathology continues to render signal service in connection with diphtheria, by supplying cultures to medical practitioners and Local Authorities for obtaining swabs from throats, and examining the media submitted.

Phthisis.

The notifications received under the heading "Pulmonary Tuberculosis" show a decrease, but this cannot be accepted as of much import, as it is feared that medical practitioners are inclined not to notify such cases, out of consideration for the patient. For sentimental reasons the diagnosis is frequently kept secret, as it is feared that if the patient became aware of the true facts of the case it would have a bad effect on his general health.

A strange feature of this disease is the difficulty frequently experienced in inducing the patient to realise that he is really suffering from consumption, whilst he in his turn is inclined to regard his complaint as one necessitating the strictest secrecy being observed, as if it were occasioned through some reprehensible excesses on his part. These factors unfortunately lead to cases not being discovered in their incipient stages, and to the spread of the disease to others who might otherwise have been spared the danger of coming in close contact with the afflicted.

The question of dealing with this disease is one that has occasioned much consideration on the part of public health officials, who fully recognise the futility of merely having cases notified haphazardly, without subsequent control of the disease to ensure that all cases are dealt with on modern scientific lines. Notification in itself is useless unless it is followed by a well-defined line of procedure dealing with the prevention of the disease and the relief of the sufferer. Any scheme on curative lines presents many difficulties, both in regard to cost and interfering with the liberty of the patient, but the welfare of the community must be the first consideration.

The time now appears opportune for a clearer course of action being taken to fight this fell disease, and measures should be adopted on lines similar to those in vogue in older countries. In the first place, attention should be directed to the affected individual, his surroundings, and those in contact with him. His house conditions, social conditions, his conditions of work and relaxation, in fact all circumstances, should be carefully weighed. Each case should be considered on its own individual merits, and while home treatment on hygienic methods might be advisable in one case, sanatorium treatment with the same precautions might in another case be a *sine quâ non*.

It must be understood that the ultimate success of the action taken against tuberculosis depends to a great extent on the efficacy of the preventive measures adopted. Cases, even though regarded as cured, require to be constantly kept under close supervision, and unless this is done the good results obtained whilst the patient has been under treatment frequently become negative, causing a relapse and making him believe his complaint to be hopeless, and thus he makes no further effort to fight the disease.

In Queensland we have two sanatoria, Dalby and Diamantina, both doing excellent work, but it now appears necessary to establish a central depôt through which all cases should pass before being admitted to a sanatorium, and that all discharged cases should in like manner pass through the central depôt. In the first instance the onus of selecting the best means of dealing with the individual case

would be a matter for special consideration, and it would enable a close investigation being made of the family environments, when the examination of the whole of the inmates and relatives may possibly lead to tracing latent cases.

With regard to discharged patients, it is absolutely essential that these be kept under strict surveillance, otherwise they are prone to relapse into their former habits, when the whole of the benefits derived from treatment become neutralised. The departmental staff nurse continues to visit cases she becomes aware of in the metropolitan area, and instructs the patients, when advice has not been already given by the medical attendant, as to the best methods to be adopted, both to the advantage of themselves and those they come in contact with.

When the surroundings in advanced cases are such that the health of others is endangered, steps are immediately taken when practicable to remove the patient to the Diamantina institution, and, generally speaking, this is carried out without opposition, but in one case where strong objections were raised recourse had to be made to section 124 of the Health Acts, which provides the necessary powers to deal with this difficulty.

The following table from the "Official Year Book of the Commonwealth of Australia," No. 8, shows the position of the other States in comparison with Queensland, in regard to the death rates from consumption for the year 1913:—

State.	Death Rates (a) from Tuberculosis.			Percentage on Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales ...	0·88	0·67	0·78	7·30	7·04	7·19
Victoria	0·89	0·85	0·87	7·31	8·54	7·86
Queensland	0·69	0·49	0·60	5·79	5·64	5·73
South Australia ...	0·86	0·94	0·90	7·33	9·34	8·29
Western Australia ..	0·89	0·54	0·74	8·59	6·75	7·91
Tasmania	0·68	0·80	0·74	5·80	8·07	6·80

(a) Number of deaths from tuberculosis per 1,000 of mean population.

Chicken Pox.

Chicken pox shows a large increase over that of the preceding year, but this disease is only a minor complaint, and was continued as notifiable owing to the presence of smallpox in a neighbouring State; the early stage of smallpox being much akin to chicken pox, it was deemed prudent to closely watch these cases, but many of them were so slight as not to be discernible when visited by the health officer.

Acute Anterior Poliomyelitis.

When absent from Brisbane on my Northern tour of inspection towards the end of 1914, an outbreak of acute anterior poliomyelitis (infantile paralysis) occurred in the metropolitan area, which was investigated by my deputy (Dr. Thomson), who furnishes full details of the matter in his report marked Appendix A.

Venereal (Enthetic) Diseases.

During the year under review some 1,414 notifications of cases of venereal disease in the metropolitan area were received, as against 1,090 cases during the preceding year, and were as follows:—Primary syphilis, 213; secondary syphilis, 80; gonorrhœa, 1,121.

The increase in the number of cases may be principally ascribed to the large collection of men at the military camps, and the information available points to the disease not having been locally contracted, but imported in many instances from outside centres.

The satisfactory working of the Enthetic Diseases Regulations to a great measure is nullified owing to the difficulty experienced in dealing with prostitutes, as, although there may be no reasonable doubt about women living by prostitution, it is next to impossible to obtain evidence to support the fact; and were it not that these particular women recognise that everything possible, by diagnosing and curing the disease, is being done in their interests, the attendance for examination and treatment would be most discouraging. The notifications furnished by medical practitioners, as pointed out in my last report, seldom contain information as to the source of infection, as patients invariably decline to assist in this direction.

Section 132c of the venereal clauses of the Health Acts, which is in force throughout the State, requires two medical practitioners to certify that a person is suffering from venereal disease, before a police magistrate may issue an order for the person's detention to admit of investigations being made in the case. At outside places where only one medical practitioner resides this particular section is practically useless, and, in order to overcome the difficulty, requires amendment, allowing for one certificate to suffice; this course would facilitate matters generally, as a patient found to be suffering could, if necessary, be compulsorily detained for treatment.

The free treatment of venereal disease provided by the Department in the metropolitan area has been largely availed of, and it was found necessary to recommend the erection of a special enthetic diseases ward, so as to enable the medical officer examining at the William street rooms to retain full control, as well as the treatment of cases met with in their first infective stages and until their ultimate discharge. Previously cases were treated by the various members of the Brisbane General Hospital staff, the personnel of which was frequently changing, and naturally these officers could not be expected to possess complete details of the individual cases passing through the hands of the examining medical officer. The Government provided the necessary accommodation at the grounds of the Brisbane General Hospital, but owing to the wards of that institution being overtaxed, through the admission of general cases from the expeditionary camps, the enthetic diseases wards were temporarily requisitioned by Government authority to meet the contingency. However, these will shortly be available for their intended purpose, and the necessary equipment for twenty beds will be obtainable immediately the wards are taken over.

The reports of Dr. Walsh, Medical Officer for Enthetic Diseases, appear in Appendix C.

III.—FOOD INSPECTION AND FOOD ADULTERATION.

The administration of the provisions of the Health Acts dealing with foods and drugs has been energetically carried out. The various traders, including bakers, milk-vendors, hotel-keepers, smallgoods shopkeepers, &c., have been kept under close supervision.

Many lines of foodstuffs upon the local market have been overhauled, with the result that large stocks of deteriorated goods have been condemned and withdrawn from consumption. In addition, many defects met with at places where foodstuffs are stored and exposed for sale have been rectified, and in some instances extensive new premises have taken the place of old, dilapidated, and overcrowded buildings, and thus cleaner methods in the preparation of foodstuffs have obtained.

Active steps have been taken to secure for the public a reliable milk supply, and although an improvement has been obtained it has been found necessary to frame draft regulations to strengthen the hands of the Department against the unscrupulous milk trader, who has, as shown by the Government Analyst's report (*see* Appendix D), succeeded in victimising the public by retailing water as milk to the value of some £4,000. The amount of fines secured against these offenders amounted to only £389. This small sum, when compared with the profits shown above, certainly encourages offenders to accept the risk of detection. The licensing of milk vendors, as well as prohibiting the carrying of water in milk-carts, will materially assist in coping with the trouble when the regulations become law.

Full particulars as to the number of samples obtained and foodstuffs destroyed, as well as other interesting information, appear in the Chief Food Inspector's report (*see* Appendix G).

IV.—PLAGUE AND RAT DESTRUCTION AND SANITARY ADMINISTRATION.

Again it is my pleasing duty to report that there has been no reappearance of plague during the twelve months under review, which to a large extent is due to the precautions taken by the Commonwealth Quarantine Department in respect to oversea shipping, in providing an efficient maritime defence against the possibility of infected rats coming from foreign ports where plague exists. This, coupled with the good work of the Department's metropolitan rat-gang and rat-men at Northern centres, as well as the extensive ratproofing of premises, can safely be claimed as the chief factors responsible for the present immunity. Undoubtedly the first line of defence rests principally in dealing with shipping, and when it is understood that, through the present dislocation of trade occasioned by the war, many opportunities are afforded for the introduction of infected rats from centres that are daily being opened up and which are recognised foci of the disease, the importance of closely guarding our shores is paramount. The strict enforcement of the Quarantine Regulations, and the care bestowed in respect to ship fumigation with its consequent destruction of rats, have so far proved an effective barrier.

The never-ceasing efforts of the rat-men, both in the metropolitan area and in the Northern centres, may be regarded as the second means of defence against plague. Constant efforts against rodents is the only safeguard against the disease, which is well known to be transmitted by the rat and kindred species of rodents. The necessary expenditure incurred on this all-important work is infinitesimal when compared with the enormous sums required to deal with even a small outbreak.

The present increase of rats is unfortunately apparent in the metropolitan area, and this particular feature now requires drastic steps being taken by providing additional statutory powers to compel Local Authorities to co-operate with the Department in making continuous warfare against the rat. The unprotected rubble walls used in building up footpaths adjacent to buildings, stores, &c., where rats obtain unlimited supplies of food, prove the main difficulty by affording harbourages where they take refuge and defy the efforts of the gang; the baits laid do not appear sufficiently attractive to this well-fed, intelligent, and elusive rodent. The same difficulty is met with in old lines of underground sewers, which afford a still safer retreat and have for years past proved one of the greatest obstacles in the efforts of the rat-gang. The river walls may, on the other hand, be claimed to form an equally safe shelter for the rat, but this is not the case to the extent that might be expected, inasmuch as the walls are not so convenient to the sources of food supplies. Moreover, the rise and fall of tides tend to prevent the walls being used as breeding-grounds, which frequently become inundated by "king" tides.

The extensive ratproofing operations carried out in many of the city warehouses, stores, &c., have had the effect of driving the rats out, when they have migrated to the more open and unprotected premises, but as ratproofing work becomes more widespread the result will be that the rodents will be more readily kept under subjection.

The importance of ratproofing is not generally understood by the ordinary layman, who often regards the necessary expenditure required in carrying out the work as sheer waste of money, but those whose duty it is to act as custodians of public health fully recognise that this is the only sure method of protecting man from the agents responsible for transmitting plague, and there is no fallacy in saying that any city that has been rendered ratproof need have little cause for alarm.

The eradication of plague from the city of New Orleans (United States) has already cost the nation, the state, and the municipality upward of 400,000 dollars, exclusive of the large sums of money which corporations and private individuals have laid out in ratproofing. The 400,000 dollars expended for epidemic measures would have gone a long way towards building permanent fortifications against rats. In addition it should be pointed out that the business losses which the presence of an epidemic produces are so great as to be beyond computation.

In the areas defined in the Rat Destruction Order in Council of 1912, the operations of the Department during last year in rendering premises ratproof amounted to £1,150. Eighty-four premises were attended to, but they do not include those of which the owners had the work carried out by private contract.

Much useful work has been done in the examination of rats at the Laboratory of Microbiology and Pathology, and the Department have instituted a new system at outside centres by obtaining smears from the rodents, which are submitted for examination, instead of the work being carried out as heretofore by the local health officers. Should the local rat-catcher, however, have reason to suspect that the rat spleen is affected, he immediately brings the matter under the notice of the health officer, who would then take whatever steps were necessary.

It is pleasing to record that many sanitary improvements have been carried out by Local Authorities at the instigation of the Department, as the result of the various reports submitted by the sanitary inspectors. Numerous sanitary depôt-sites have been selected and plants inspected, and where requested the Sanitary Conveniences and Nightsoil Disposal Regulations have been enforced in certain areas, thus giving the Local Authorities increased powers in securing better sanitary conditions.

Complaints from householders where Local Authorities have failed to take action have been forwarded to this office, and inspections have been made, resulting in the Local Authorities being called upon to remedy the nuisances. Some 1,588 visits of inspection have been made by the sanitary staff, resulting in the service of notices where sanitary improvements have been required.

V.—MOSQUITO REDUCTION OPERATIONS.

During the year the work in connection with mosquito destruction in the metropolis has not made progress, owing to a reduction in the staff. The services of the men engaged on oiling operations were dispensed with on instructions from the Home Office, and this stultified the good results that would have otherwise been manifest had the work been continued without a break.

Only two men are now employed, and they are occupied in seeing that the provisions of the Order in Council dealing with mosquitoes are carried out. It is now more than ever necessary that the full squad be re-engaged, as malaria may at any time be brought to Queensland by returning members of the military and naval forces garrisoning the Empire's recently acquired colonies, situated in the South Pacific, and where malaria at present exists.

Moreover, the question of yellow fever, which is another disease that the mosquito is responsible for conveying to man, can only be dealt with by active mosquito operations. Now that the Panama Canal has been opened, the danger of this disease gaining admission to this State must not be lost sight of, and it is desirable that the necessary means be placed at the Department's disposal to deal with the question. It is with reluctance, in view of the present disturbed financial conditions of the world, that any increase of expenditure is recommended, but the matter is of such importance that I feel I would be failing in my duty were I to omit bringing it under special notice.

The number of premises inspected and work carried out as the result of notices served by this Department appear in Inspector Cooling's third progress report on the campaign against mosquitoes in Brisbane (*see* Appendix H).

VI.—PROTECTION OF WATER SUPPLIES.

It is a recognised fact that water is the channel by which many diseases are spread, and in rural places, where water-tanks are the main sources of supply, these cisterns practically never receive attention. Accumulations of decaying vegetable and animal matter find their way to these receptacles, and become putrescent, and in turn are doubtless responsible for causing much sickness.

Although the Department was approached with respect to the framing of by-laws rendering it obligatory upon householders to periodically cleanse their tanks, it was considered impracticable, owing to the uncertainty of our rainfalls, to adopt the suggestion, yet at the same time the proposition is deserving of consideration at places where the residents, should their tanks be empty, have other temporary sources of water supply to depend on.

Another matter deserving of consideration is the question of underground wells, which are met with at many places throughout the State. Where sanitary requirements are in a primitive stage, the risk of pollution of wells is of serious moment, and unfortunately the provisions of the Health Acts contain no power to compel their being filled in or otherwise dealt with, though section 133 (xi.) provides for the making of regulations for prescribing measures for the protection and purification of domestic water supplies, &c. This course has, however, not been adopted, for the reason that it is considered that such an important matter would be better dealt with by an amendment of the Health Acts.

Whilst on this subject it is worthy of note that many of our watercourses, which in time of drought become the only source of supply, are polluted by the establishment of noxious trades—butter factories, tanneries, &c.—discharging their wastes into them. This matter raises a big question in respect to large business establishments which have been promiscuously erected on positions likely to contaminate water supplies, but it is only a matter of time when special centres will probably be proclaimed noxious trades areas, and all waste water and matter will require to be specially treated before being disposed of.

The control of the Brisbane water supplies appears to be satisfactorily safeguarded by the Metropolitan Water and Sewerage Board, which takes full precautions in having samples chemically tested and bacteriologically examined at regular periods, and it is pleasing to record from the reports obtained that the water supply is of good quality.

Local Authorities are generally assisted by this Department in the examination of doubtful water supplies, when samples are submitted by their Medical Officers of Health and examined by the Director of the Laboratory of Microbiology and Pathology free of charge. Chemical analysis is, however, carried out by the Government Analyst, for which service a fee is charged, as the latter officer is under the control of another Department.

VII.—NORTHERN OFFICE.

Since my last report on this sub-office, the vacancy in the position of medical inspector has been filled by the appointment of Dr. J. King Patrick, who took up duty at Townsville on 19th March. During the year a complete change has been made in respect to the staff of this office, by a system of decentralisation, in transferring two officers from Townsville and stationing them respectively at Cairns and Rockhampton, leaving the medical inspector and one senior inspector at Townsville.

The results obtained have already proved most advantageous, both from an administrative and economical point of view, each officer being now required to attend to both food and sanitary work within his area, without having as previously to travel long distances from Townsville, necessitating prolonged and frequent absences from headquarters, together with heavy travelling expenses. The fact of the Northern staff having so satisfactorily carried out the combined offices of food and sanitary inspection work now raises the question of adopting a similar course in respect to the various Southern centres, and thereby abolishing the present existing positions held by separate sanitary and food inspectors.

A report on the working of the Northern office appears in Appendix I.

VIII.—LABORATORY OF MICROBIOLOGY AND PATHOLOGY.

The Laboratory of Microbiology and Pathology continues to render much valuable assistance to medical practitioners throughout the State, in making examination of pathological specimens as well as sputa for the tubercle bacillus. An increased number of bloods was examined in respect to typhoid, and in connection with this disease it is worthy of mention that 14,000 doses of anti-typhoid vaccine have been issued.

A very large increase in the number of throat-swabs examined for diphtheria is noticeable, the increase being over 4,000 on that of the preceding year, which has necessitated the staff working late and early and on many public holidays. The value of this particular work is of much importance, and is being freely availed of by medical officers of health in determining cases and "carriers" of diphtheria, and is the only safe means of checking the spread of the disease.

All specimens in connection with venereal diseases obtained at the examining rooms and enthetic diseases wards are regularly examined, as well as blood for the Wassermann test. During the present year the number of the latter submitted showed a slight increase on the previous year.

Medico-legal work performed shows a marked increase, and as one exhibit may include several articles requiring minute attention it can be readily understood that much time has to be devoted to these special examinations.

I take this opportunity of expressing my appreciation of the good services rendered by the staff of the Laboratory, and especially of the indefatigable efforts of the Director (Dr. J. J. Harris), whose report appears in Appendix B.

IX.—PERSONNEL OF STAFF.

During the year the following changes in the personnel of the staff have taken place:—

Dr. J. King Patrick, Ch.B., B.Sc., D.P.H., was appointed Medical Inspector of North Queensland on 23rd November, 1914. This position was unfilled since October, 1913, owing to the difficulty in finding a suitable officer.

Dr. C. H. Clatworthy, Assistant Health Officer, Brisbane, resigned on 25th July, 1914, and was succeeded by Dr. F. E. Cox, M.B., B.S.Melb., D.P.H.London, who in turn resigned on 21st November, 1914, to take up a position in the local Commonwealth Quarantine Service. The position has since remained vacant.

Dr. G. P. Dixon, M.B., M.Ch. (Sydney), Medical Officer to the Enthetic Diseases Dispensary, left with the Imperial Expeditionary Forces on the 1st September, 1914, and was succeeded by Dr. E. D. Ahern, who resigned on 16th March, 1915. Dr. H. S. Walsh was appointed to the vacancy as from the 25th March, 1915. He was also appointed Medical Officer in charge of the Enthetic Diseases Ward at the Brisbane Hospital as from 1st July, 1915.

Mr. R. H. Walsh, Senior Clerk, left with the Expeditionary Forces on the 14th January, 1915.

Inspector W. McNeil and Food Inspector A. N. Young also left with the Imperial Expeditionary Forces in August and November, 1914, respectively.

Senior Inspector S. B. Cottle, of the Northern sub-office, resigned on 14th November, 1914, and was succeeded by Inspector C. M. Cato, of the Head Office staff.

Miss Mabel Webb resigned from the position of Assistant Staff Nurse on the 16th February, 1915. Nurse Cruise was appointed to the vacancy from 24th April, 1915.

Acting Inspectors M. Plumb and J. Quinn were appointed Inspectors as from 10th October, 1914, and 1st April, 1915, respectively.

Mr. E. W. Buhôt was temporarily appointed Inspector during the absence of Inspector A. N. Young.

The headquarters staff at the end of the year under review comprised the following:—A Commissioner, a health officer, a secretary, a senior clerk, a chief sanitary inspector, a chief food inspector, twelve inspectors, two assistant inspectors, a staff nurse, an assistant staff nurse, two typistes, three clerks, and a messenger.

A rat-gang consisting of eighteen men was employed for the metropolitan area, and a rat-catcher was stationed at each of the following places:—Maryborough, Bundaberg, Rockhampton, Mackay, Townsville, and Cairns.

There were two disinfectors for the metropolitan area, and two men were engaged on mosquito operations for the city.

The staff of the Laboratory of Microbiology and Pathology consisted of a Director, one principal assistant, two assistants, one clerk, and an attendant.

The staff of the Northern Office, Townsville, consisted of a medical inspector and one inspector.

The Lazaret at Peel Island, which is administered by this Department, had stationed there the following officers:—A superintendent, an assistant superintendent, two cooks, two assistant cooks, one dresser, three attendants, one housekeeper, and two labourers. Inmate labour comprised one carpenter, two laundrymen, and three attendants.

Officers at the Front.

It is my pleasing duty to invite attention to the following officers of the Department who are now serving at the front:—

Dr. G. P. Dixon;

Major R. H. Walsh;

Quartermaster-Sergeant A. N. Young;

Sergeant L. A. Potter;

Privates W. McNeil, E. C. Julian, J. Critchley, and E. F. Scott.

CONCLUSION.

Public health administration has long since recognised that its special sphere of utility is in catering for the requirements of the worker rather than for those of the more favoured members of society, whose utopian aspirations would claim for them an exclusive right to an elixir for longevity. Its greatest usefulness is in safeguarding the health and the strength of the worker, and more especially those who are less able to help themselves. Its operations may be regarded as distinctly democratic.

A legacy of health is of more value than worldly possessions, and the cultivation of the former secures a most valuable asset to the community. Too great an effort, therefore, cannot be made in protecting and maintaining public health, and the fact that Queensland to-day may claim to be one of the healthiest places in the world is a factor largely responsible for our State being generally regarded in this respect as one of the most favoured of the Commonwealth.

During the year the endeavours of the Department have, as usual, been directed in protecting the general health of the public as well as preventing, as far as possible, outbreaks of epidemic disease, and it is my pleasing duty to state that the efforts made have proved satisfactory.

As will be apparent from the reports submitted by the various officers, no line of public health work, as far as limitations would allow, has been neglected. Of great assistance to a department are the services rendered by a whole-hearted and willing staff, and I desire to place on record my appreciation of every officer under my control.

I wish to tender my thanks for the assistance rendered by the Government Analyst and his staff in connection with the analysis of food samples. Mr. Henderson's advice on technical matters relating to food and drug administration has proved most useful, especially as that officer has the advantage of having attended the various Interstate Food and Drug Conferences, whereat important questions were fully discussed before being finally adopted. (See Appendix D, Government Analyst's Report.)

The State during the last decade has made much progress owing to the splendid opportunities for advancement it offers, and naturally has attracted much additional population and settlement. To cope with the extension it is necessary that the scope of the Health Department should correspondingly be increased. The carrying out of the provisions of the Health Acts requires special technical ability to satisfactorily deal with the many intricacies involved, and good results can only be attained by the Department being controlled by professional officers who have made it their special study.

Progress is the gauge by which good administration is measured, but unlimited power and scope are the necessary essentials to attain this result.

I have, &c.,

J. I. MOORE,

Commissioner of Public Health.

APPENDICES.

APPENDIX A.

REPORT OF HEALTH OFFICER.

12th July, 1915.

SIR,—I have the honour to submit my report for the year ended 30th June, 1915.

METROPOLITAN AREA.

Typhoid fever and diphtheria have been the two communicable diseases which have been chiefly prevalent during the current year in the metropolitan area.

The incidence of attack in diphtheria was pretty uniformly distributed over the months July to December, 1914, September and October being the heaviest rate, when there was a gradual recession during the months of January and February, 1915, with a recrudescence during the months of March, April, and May of the present year, and another gradual recession to the end of June this year.

The heaviest rates of incidence of attack for typhoid fever were in the months of November and December, 1914, followed by a well-marked recession during the months of January and February of the present year, which again gave way to an augmentation of the rate during the months of March and April, since which there has been another gradual return to the normal rate (*see* Appendix L).

As regards diphtheria, the earlier discovery of clinical cases and other adequate isolation would tend to reduce the number of carriers. It has been frequently shown that "missed" cases result in the multiplication of other clinical cases in the same household; the longer one case is insufficiently isolated, the greater is the number of positive contacts discovered.

Prompt action on the part of the public to obtain medical advice regarding all cases of sore throats, and especially mild ones, would tend to reduce the number of cases, while local education authorities could further restrict the spread of infection by such administrative supervision as would ensure that no child away from school suffering from a sore throat, however slight, would miss bacteriological investigation. While the trend of modern administrative procedure is towards the detection of the bacillus in all of its many ramifications, the removal of predisposing causes to the disease should be kept in mind, and all general prejudicial influences which lower the body's resistance should be prevented as far as practicable.

With regard to typhoid fever, with the advent of a modern water carriage disposal of sewage, which is now in course of execution, this disease should become practically eliminated in the urban district, but in outside areas of the State remotely situated from any of the centres, where these installations are not likely to be met with for some time to come, the method of prophylaxis by anti-typhoid inoculation should become a routine measure, and should be adopted by every individual community throughout the State, as under existing conditions it is practically impossible to ensure proper control and supervision of the various carriers of the disease, who, as a result of temporary employment and other causes, are free to roam about from town to town and community to community in the wide areas of the State away from the centres of civilisation, and various endemic centres for the disease are generated at every place they stay at.

ACUTE ANTERIOR POLIOMYELITIS (Infantile Paralysis).

There was a sharp outbreak of acute anterior poliomyelitis of epidemic character during the months of October, November, and December, with a total of 207 cases, with 29 deaths, the month of November bearing the heaviest rate of incidence. Three or four sporadic cases occurred at intervals between the months of July and September, but it was not until the end of September that the disease assumed proportions indicating anything approximating epidemic form, but from then onwards it suddenly developed in intensity and character. Investigations were set on foot, but owing to shortness in the staff all the cases could not be visited, and it was manifest after a few days' investigation that no further information was to be gleaned, as to the chief factor in the causation of the disease, than had resulted from the inquiries instituted in several preceding epidemics, and notably in the United States and some parts of the United Kingdom.

The cases examined were 31 altogether, and were distributed in the following areas:—

Toowong	1
Ithaca	3
Balmoral	2
Hamilton	3
South Brisbane	8
Brisbane	6
Windsor	2
Stephens	6
	31

Amongst these cases the diagnosis was regarded as doubtful in 9 cases. This shows a somewhat higher rate of doubtful diagnosis, representing something under 30 per cent. of the cases. These doubtful cases appeared to be those of rachitis, as it is a well-known fact that children often cease walking for longer or shorter periods during an acute attack of rickets, and

recover gradually without any of the stigmata usually met with in acute poliomyelitis—*e.g.*, paralysis and paresis accompanied with more or less atrophy of the affected limb. In practically every instance of these doubtful cases both limbs were affected, whereas in cases of true anterior poliomyelitis the distribution of the paralysis is nearly always unilateral.

Of the remaining 22 cases the sex and age distribution were as follows:—

	Males.	Females.	Both.
0 to $\frac{6}{12}$	0	1	1
$\frac{6}{12}$ to 1 year	1	0	1
1 to 2 years	7	5	12
2 to 3 years	4	1	5
3 to 4 years	1	0	1
Over 4 years	1	1	2
	14	8	22

The male children, as will be seen from the table, were affected in the ratio of nearly 2 to 1, and that the greatest incidence falls in both sexes in the age group 1-2 years, over half of them falling in that section. In no instance was more than one case noted in any family; the number of other children in the family was as follows:—

In 2 cases	5
In 3 cases	4
In 1 case	3
In 4 cases	2
In 3 cases	1

In 9 cases the patient was the only child in the family.

Initial Symptoms.—In all the cases observed there was a striking similarity in the premonitory symptoms—*e.g.*, rise of temperature, sickness, malaise, and some times twitching and convulsions, headache and drowsiness, which were suggestive of influenza or gastritis, followed in the course of one to four days by paralysis of a limb, or in some cases both upper and lower limb of the same side. The limbs affected were—

Right arm	5
Right arm and leg	1
Right leg	8
Both legs	1
Left arm and leg	1
Left leg	6
	22

Sanitary Conditions.—In no instance was there any gross departure found from reasonable standards of sanitation, either as regards the cleanliness of the house, person, or state of the premises. In one case a leaking drain from the kitchen waste was discovered under the house; in another the drain from the bath waste was insufficient, being merely an earthen grip with stagnating water attracting large numbers of flies; and in another street the watertable was continued into a dug-out further with the same defects; and in each instance the Local Authority's attention was directed to the matter. In one or two cases the houses were not as clean as they might have been.

The feature of this outbreak did not differ in its main characteristics and similarity from those in other countries and States, but seemed to be made up of a series of small outbreaks succeeding each other at different intervals. The first evidence of its explosive nature occurred in South Brisbane towards the middle and end of October (1914). It then seemed to cease abruptly there without any apparent cause, and break out with renewed activity in the East Brisbane and Logan road districts, where it raged during the month of November, gradually yielding in intensity in that district in December, and extending by two fresh localised centres, abrupt in their commencement, in the north-west and north-eastern portions of the town, reaching out to the Clayfield district, where it remained during December and January, to gradually die away in intensity from February onwards; not reappearing in any of the districts that had been previously visited by it at the commencement, which is a well-marked feature of the disease everywhere.

As regards the causes of the outbreak not much was gleaned which could tend to explain the etiology of the disease, wrapped up as it still is at present in a great deal of obscurity. Numerous causes, lay and scientific, have been advanced to explain its origin, all of them equally facile but none of them satisfactory or confirmatory so as to enable the health authorities to grapple definitely with the malady. One factor, however, stands forth rather conspicuously, and that is that the relationship of acute anterior poliomyelitis to the specific fevers has been too frequent to allow of any doubt that there is a distinct significance in the connection. It has been observed to follow scarlet fever, measles, influenza, pneumonia, and diphtheria, and previous to this outbreak influenza and diphtheria had been prevalent and were so at the time of its sudden appearance in epidemic form in the metropolis. Another noteworthy fact in support of this connection between the specific fevers and this disease is that a previous outbreak of the same malady which took place in this State in the months of October, November, and December of 1904, and extending into January of the year 1905, was preceded by a severe epidemic of influenza and an outbreak of mumps. The seasonal incidence has been virtually the same in both instances, with the exception that in the latter outbreak it extended itself rather more into the months of February and March of that year (1904) than that of the present year, when it began to taper off quickly in January and from that onwards.

It was evident that the milk supply could not be considered the agent of infection, nor the food, because most of the victims were children under school age. There was no definite proof either of personal carriage of infection, as, with the exception of one house in South Brisbane, there was not a single example of multiple cases in the same house. There was no similar disorder noticed in domestic animals or pets. As regards its suggested transmission by flies and dirt, there was no special significance attaching it to either of these two causes, as it was a striking fact that most of the cases did not happen in the poorest and dirtiest streets, as one would expect if these causes were operative in that direction, but in the most of instances were in the better class of streets and dwellings where the patients were surrounded by all the careful

influences which could be naturally looked for under modern conditions of civilisation.

Nevertheless, from the experimental researches of Flexner, Lewis, and Noguchi at the Rockfeller Institute, N.Y., on monkeys, it has been shown that the virus is present in the nasal and pharyngeal discharges. It passes through all known filters and is refractory to considerable degrees of cold, according to their experiments. It has been grown on suitable media, and the organism shows itself microscopically as a globoid body occurring in chains, pairs, or masses according to the conditions of growth and multiplication. They, however, do not venture to say to which class in the living place of things these globoid bodies belong; and on inoculation this organism produces the experimental disease in monkeys, and can be recovered from them in pure culture. (Journal of Experimental Medicine, New York, 1913, xviii. 461.)

Measures taken to Prevent the Spread of the Disease.—Matter for printed circulars was drawn up, giving the necessary instructions to be carried out in dealing with the disease both with regard to patients and possible contacts, and sent out to all Local Authorities and medical officers of health, and supplied to anyone else requesting them.

After the discontinuance of medical inspection, in every case the staff nurse was directed to visit all cases of the disease immediately on receipt of notification, and to report regularly on all the circumstances of the case; to leave also a copy of the circular at each house visited, and to avail herself of the opportunity of personally emphasising the salient points contained in them to each household.

Lazaret, Peel Island.

The total numer of inmates remaining on 30th June, 1914, was		50
Admitted during the year ending 30th June, 1915—		
Whites, 3; Coloured, 7		10
		60
Died during the year ending 30th June, 1915—		
Whites 3 (male 3; female 0)	9	
Coloured 6 (males 5; female 1)		
Discharged during the year ending 30th June, 1915	4	
	—13	
		47

Leaving a total of 47 inmates on 30th June, 1915, made up as follows:—

White males	15	18
White females	3	
Coloured males	27	29
Coloured females	2	
		47

The male coloured inmates are as follows:—
S.S. Islanders, 12; aboriginals, 8; kanakas, 1; half-castes, 5; Chinese, 2; Japanese, 1 = 29.

The varieties of the disease amongst the patients were—

(1) Nodular leprosy;
(2) Mixed leprosy.

Several cases have been under continuous treatment during the year with Chaulmoogra oil and its refined derivative Antileprol, with beneficial results in both whites and natives. In 4 whites, viz., 3 men and 1 woman, the results were striking, the course of the disease being apparently arrested, so much so that in each instance three specimens taken from each patient at three separate intervals of four months proved on bacteriological examination to be negative as regards the presence of the *Bacillus Lepræ*, the clinical symptoms attenuated to such a degree so as to be unnoticeable, and in one instance completely disappeared, so that they were able to be discharged upon quarantine supervision, and to report themselves at this Department for further bacteriological examination.

The treatment shows the efficiency of Chaulmoogra oil and its refined product Antileprol as a specific remedy in this complaint, and the results, although on a small scale, correspond closely with those obtained on a larger scale in the treatment of leprosy in the Philippine Islands, the results of which were recently demonstrated by the Director of Public Health for that country in the "American Journal of Tropical Diseases," and also in other parts of the world where this treatment is adopted as a routine measure, and reference may be made to the success achieved with it by Dyer, of New Orleans, as far back as 1907. Combined with the Chaulmoogra oil treatment is the frequent use of hot baths with other tonic measures.

Visits to Outside Districts.

A visit was made by me to Mt. Crosby, four miles from Ipswich, on 2nd July, 1914, from a complaint of the Metropolitan Water and Sewerage Board due to the continued presence of diarrhœa amongst the workmen employed on the waterworks system there. The usual conditions of primitive camp life were noticeable on arrival, which sufficiently accounted for the presence of this complaint amongst the men. Suggestions were given in a special report upon the subject as to the choosing of fresh ground, proper interspacing of tents, cleansing and disposing of garbage of every description, and a proper supervision of the same, which was effectively carried out.

Nanango was visited by me on 29th March ultimo, to inquire into an outbreak of diphtheria which had got beyond the control of the authorities, and here again, owing to a breach of the ordinary rules of common hygiene, together with a laxity in the application of certain sections of the Public Health Acts which should have been enforced, there was sufficient to account for the prevalence of the epidemic, although the commencement was instructive as showing how the disease was probably introduced into the town by a carrier case from outside, where it originated a definite focus of the disease, and from whence it irradiated itself out all over the place. A special report was drawn up. Prompt measures were taken for the isolation of patients and contacts, and swabbings from the throats of all patients, contacts, and suspicious and mild cases of sore throat for the diphtheritic bacillus, curative and prophylactic injections of antitoxin, disinfection of premises, gazetting of the Diphtheria Regulations to the town and district, and an effective removal and disposal of accumulated

garbage and filth of every description, soon made themselves felt in the speedy collapse of the epidemic.

A visit was also made to Thargomindah and Eromanga, in the far western district of the State, on the 23rd April of the current year, to investigate a reported outbreak of beri-beri occurring amongst the population in that area, for which there was no medical man available locally. Three cases were seen by me in the Thargomindah Hospital, and four further cases out in the Eromanga district, between 90 and 100 miles from Thargomindah. There were none in the town of Thargomindah itself; those in the hospital seen by me came in from some distance from the outside districts, chiefly in the Eromanga direction. The several cases seen by me were beri-beri of the dropsical, hypertrophic variety, and presented symptoms of a peripheral neuritis, with preliminary prickling and tingling in the tips of the fingers and toes, with subsequent symptoms of muscular feebleness and paresis giving rise to the well-known pseudo-ataxic gait characteristic of this complaint. There was also intense tenderness of the calf muscles on pressure, with general œdema, præcordial distress, and breathlessness, scanty urine, which was high-coloured and of high specific gravity. The patellar reflexes were absent in five of the cases on both sides and in the two other cases were absent one side completely, and very much modified on the other, being almost imperceptible but still able to be elicited to some extent. The appetite was, however, good, the tongue clean, and temperature normal.

There were other cases reputed to be in the district, but these were at such widely separated points that with the limited time at my disposal there was not sufficient time to visit them individually. The cause in each instance seemed to be due to a deficient dietary. In every case the diet consisted of damper, rice, meat, and tea, with rice preponderating, no vegetables or fruits of any kind being obtainable by these people, owing to the long-continued drought, others being far removed from the centres of any form of civilisation, however small. From the observations and experiments carried out with reference to the disease in various places—notably by Frazer and Stanton in the Federated Malay States, and Funk of the Lister Institute, London—it is pretty well established that beri-beri is a deficiency disease. The cases seen by me were all those of men; no report of any women suffering from the complaint came under my notice. Circulars were drawn up giving a synopsis of the disease, symptoms, treatment, &c. A similar notice was inserted in the local paper which circulates throughout the district. These were issued by the Bulloo Shire Council to all residents of the outside district, detailing the most prominent symptoms, with the necessary measures for prophylaxis and treatment, and instructions left at the hospital as regards drugs, &c., should further cases make their appearance.

Visits were also made by me on the return journey to Cunnamulla, Charleville, and Roma, and addresses given in each place to the town councillors with regard to their duties in reference to the more important sections of the Health Acts. Inspections of those towns, including the local hospitals, &c., were made, and advice given with regard to public health matters.

Rat Gang.

During the fiscal year the number of rats destroyed by the rat-gang in the metropolitan area amounted to 15,008, an increase of 3,003 from the preceding year of 1914, of which 6,568 were submitted for bacteriological examination. Notwithstanding the strenuous and united efforts of the gang with regard to the suppression of these rodent pests, they were still increasing in numbers in the metropolitan area and have been for some time now; and, without laying oneself open to the charge of pessimism or causing undue alarm, the situation as regards the possibility of the introduction and spread of plague in the State in the future cannot be viewed from an epidemiological point of view without some degree of uneasiness. It is almost universal knowledge that plague is an epizootic disease of rodents, and may exist in these animals in either the acute or chronic form, and it is by the latter variety that it entrenches itself locally and its distribution to distant parts of the world is rendered easy. It is possible to examine several thousand rats before one suffering from chronic plague may be detected, and, what is of more importance, its detection may escape even the experienced eye of the expert.

Plague is widely distributed at the present time all over the world, and its pandemic curve is increasing. It exists at Port Said, which is one of the chief maritime highways of the world, connecting international maritime commerce between Occident and Orient and *vice versâ*. It also exists in some of the inland provinces of Egypt, viz., the provinces of Assiout, Fayoum, and Minia. It exists in the port of Alexandria, Egypt, in the ports of Bombay, Karachi, Madras, and Colombo; Rangoon in Burma; Hong Kong; Queenstown, South Africa; Batavia and Surabaya in Java; Singapore, Mauritius, Zanzibar; and Dakar in French Senegal, West Africa. It is present at such widely separated points as Yokohama on one side of the Pacific and Seattle in British Columbia on the other, in California on one side and Shanghai on the other. It exists along the Mediterranean littoral in Turkey, Greece, and Tripoli; extends up the Persian Gulf, invading the city of Bagdad and its environs. It does not require much elasticity of thought or stretching of the imagination to conceive how easily it may be imported, by means of the chronic plague rat, from either of the above infected points to any of the ports on the Queensland littoral, and especially from the Asiatic and Indian ports of endemicity in juxtaposition to those of this State, where, once it has gained a footing, it would find the climatic factors of moisture and heat and the local conditions eminently suitable for its development and propagation, as it is in tropical and sub-tropical countries that the disease flourishes vigorously; therefore Brisbane and the ports of the Queensland littoral can afford to take no risk in this respect.

The only efficient method for dealing with this problem is the uniform ratproofing of all premises in which man works and lives, combined with a preliminary destruction of the rodents themselves. The Order in Council of 1912 dealing with the suppression of rats only applies to certain specified metropolitan areas; beyond these localities the rats are allowed to breed in an unlimited manner. Ratproofing work has been carried out all the year round, but as this method does not incorporate the whole of the city and outside adjacent areas, this has the effect of driving them into the premises and dwellings where no ratproofing work has been carried out, or into the many old disused sewers which many of the streets contain, and which are a veritable stronghold for rodents and vermin of every description. Some people raise the objection to rat destruction on their own premises on the ground that, while they are willing to pay for the destruction of rats, they consider that their neighbours should be compelled to do the same thing, and not remain inactive, as many of them do, towards the eradication of these pests.

Vaccination.

With the exception of a few individuals and groups of individuals occasionally who seek the services of this Department in quest of the above previous to proceeding to New Guinea and the islands, this prophylactic against smallpox has virtually dropped into abeyance as regards the general population in the metropolitan area. The fact that the precautionary measures established in New South Wales against smallpox have been recently raised, all help to nurse and foster the usual self-complacency and false security indulged in by the public when they think that all source of immediate danger has been removed from their midst, and as the popular mind is always swayed by immediate events and not by possible ultimate consequences, nothing would be gained here by belabouring the point, except to remark in conclusion that it is a regrettable incident, viewed from a public health point of vantage should the disease appear in a more virulent form at any time, where it would find an almost non-immune population eminently suitable as a medium for the establishment and development of the causative virus, with speedy infection of susceptible units, the far-reaching results of which would not be pleasant to contemplate.

Yours, &c.,

J. E. THOMSON, Health Officer.

The Commissioner of Public Health,
Brisbane.

APPENDIX B.

REPORT OF DIRECTOR, LABORATORY OF MICROBIOLOGY AND PATHOLOGY.

SIR,—I have the honour to submit the following report of the work done in the Laboratory during the year ended 30th June, 1915.

PLAGUE.—The number of rats examined for plague lesions during the year shows a decided falling-off. If this is due to any slackening in the anti-rat measures, it follows that if another outbreak of plague occurs it will probably be more general and severe (in proportion to the slackening off) than it would otherwise be. All the rats examined proved to be free from plague. Spleen smears from rats from the Northern coastal towns were examined, but none showed the presence of the causal organism.

TUBERCULOSIS.—An increased number of sputa was examined for the tubercle bacillus, and a number were found positive out of proportion to this increase.

TYPHOID FEVER.—An increased number of bloods were examined for Widal's agglutination test. The number of waters examined for the bacillus shows a large decrease. This seems to show an increased knowledge on the part of the public of how enteric fever is conveyed in this country.

LEPROSY.—An average number of smears from the lazarette and from patients or suspected patients in the State were examined.

DIPHTHERIA.—A largely increased number of throat-swabs were examined. No attempt to classify the diphtheria bacilli found was made, because the staff is so small that there was early in the year an uneasiness that time to do it would not always be available. As the year passed this uneasiness proved to be well founded, batches of cultures having to be examined under high-pressure conditions.

GONORRHŒA.—The Enthetic Diseases Dispensary supplied an increased number of vaginal smears for examination. In spite of the increased number examined, a decrease occurred in the number in which the gonococcus was found. If this decrease is supported by a decrease in the number of males notified, it is, from a public health point of view, satisfactory.

SYPHILIS.—The number of bloods examined by the Wassermann test was little more than last year. It would be of interest if information could always be obtained as to whether any blood was examined before, and the result of examination. In the bloods received from the Enthetic Diseases Dispensary I have noticed that a particular blood, after giving the varying degrees of a positive blood, suddenly gave a negative reaction.

CLINICAL WORK.—An average amount of clinical work was done for medical men during the year, but nothing of general interest resulted.

MEDICO-LEGAL WORK for the year showed a considerable increase, not so much due to the number of exhibits, but to the number of articles submitted.

The amount of work done in relation to the Pure Foods Act was very small. This small amount of work done was not for lack or opportunity, but was because the laboratory staff was too busy with routine work to allow of pure foods specimens being examined with any hope of thoroughness in the results.

AUTOGENOUS VACCINES.—A gratifying increase occurred in the number of vaccines made during the year. As before, attempts were made to persuade medical men to fill in and return a form giving results of treatment, but I regret that the small number of forms returned (less than 6 per cent) gives too little information from which to form conclusions.

STOCK VACCINES.—As a result of the efforts of the Health Department to educate the people regarding the protective action of vaccine inoculation against typhoid fever, there has been a large increase in the amount of vaccine prepared and sent to the country towns and districts. Nearly 14,000 doses were so sent out.

During the last two or three months inquiries have been made as to whether the laboratory could manufacture tuberculin (variety not mentioned) and anti-meningococcus serum. On consideration I find that this work can be done here, provided the necessary equipment can be obtained.

A tabular summary of the work above referred to will be found appended.

Yours, &c.,

JOHN J. HARRIS,
Director.

TABLE GIVING PARTICULARS OF SPECIMENS EXAMINED AT LABORATORY OF MICROBIOLOGY DURING YEAR ENDING 30TH JUNE, 1915.

A.—Specimens Examined with view to Diagnosis.

Disease Suspected.	Nature of Specimen.	Number.	Positive.
Plague	Rats	6,060	..
	Mice	866	..
	Townsville Smears	2,223	..
	Bundaberg Smears	2,050	..
	Cairns Smears	928	..
	Mackay Smears	566	..
	Rockhampton Smears	298	..
	Cat Smears (Cairns)	2	..
Tuberculosis	Sputum	587	252
	Urine	7	..
	Tissue	2	..
	Prostatic Discharge	1	..
	Bronchial Cast	1	..
	Fluid from Knee-joint	1	..
	Fluid from Pleural Cavity	1	..
	Pus	2	..
	Cerebro-Spinal Fluid	1	..
Typhoid	Blood	560	188
	Water	10	..
	Faeces	15	..
	Urine	12	..
	Pus	1	..
Leprosy	Serum	71	31
	Tissue	1	..
	Smears from a Tumour of Ulnar Nerve	1	..
	Rats (Peel Island)	2	..
Diphtheria	Throat-swabs	6,433	881
	Nasal Swabs	4	1
	Teeth Swabs	4	..
	Fluid from Nose	1	..
	Agar Culture	1	..
	Larynx	1	1
	Fluid	1	..
Gonorrhœa	Pus	726	38
	Urine	2	..
	Fluid from Knee-joint	2	..
	Sputum	1	..
Syphilis	Blood	555	217
	Cerebro-Spinal Fluid	2	..
Malaria	Blood	2	1
Pneumonia	Sputum	1	..
	Pus	1	..
Ringworm	Scrapings of Finger-Nails	1	..
	Hair and Crusts	2	1
Bilhazia Hæmatobia	Urine	2	..
Ankylostomiasis	Faeces	3	..
Filaria	Urine	1	..
Meningitis	Cerebro-Spinal Fluid	6	..
	Tissue	1	1
	Urine	1	..
	Swabs	26	5
Anæmia	Blood	6	1
Actinomycosis	Discharge from Lung	1	..
Medico-Legal	A shovel, an iron bar, a tuft of hair for human blood stains	3	1
	Articles of clothing for human blood stains	23	3
	Articles of clothing for spermatozoa	28	2
Malignancy	Tissues	141	..
		22,251	..

B.—Statement of Vaccines Made.

Disease Suspected.	Nature of Specimen.	Organism.	No.
Autogenous Vaccines	Pus from Boil	Staph-Aureus	9
	Pus from old Nephrectomy Wound	Staph-Aureus	1
	Pus from Empyema Case	Staph-Aureus	3
	Pus from Boil on Leg	Staph-Aureus	1
	Pus from Arm	Staph-Aureus	3
	Pus from Face	Staph-Aureus	1
	Pus from Multiple Pus Tubes	Staph-Aureus	1
	Pus from Sinus of Rib	Staph-Aureus	1
	Pus from Left Thigh	Staph-Aureus	1
	Pus from Furunculosis Case	Staph-Aureus	2
	Pus	Staph-Aureus	1
	Discharge from Leg	Staph-Aureus	2
	Sputum	Staph-Aureus	4
	Pus from Abscess	Staphylococcus	1
	Urine	Staphylococcus	1
	Sputum	Staphylococcus	2
	Carried forward	..	34

TABLE GIVING PARTICULARS OF SPECIMENS EXAMINED AT LABORATORY OF MICROBIOLOGY DURING YEAR ENDED 30TH JUNE, 1915—*continued.*

B.—Statement of Vaccines Made—continued.

Disease Suspected.	Nature of Specimen.	Organism.	No.
	Brought forward	..	34
Autogenous Vaccine—*continued*:	Pus from Gums	Streptococcus	2
	Swabs from Teeth	Streptococcus	3
	Urine	Streptococcus	1
	Sputum	Streptococcus	8
	Urine	Coliform Bacillus	17
	Sputum	Coliform Bacillus	4
	Pus (Acne case)	Staph-Albus	4
	Urethral Pus	Staph-Albus	1
	Pus (Empyema case)	Staph-Albus	1
	Pus from Eye	Staph-Albus	1
	Blood	Staph-Albus	1
	Pus from Eye	Diplococcus	1
	Sputum	Diplococcus	21
	Pus, Abscess of Arm	Pneumococcus..	1
	Sputum	Pneumococcus..	1
	Pus from Right Ear	Diphtheroid Bac.	1
	Pus from Face	Diphtheroid Bac.	1
	Pus, Chronic Sinus	Diphtheroid Bac.	1
	Sputum	Diphtheroid Bac.	1
	Sputum	Strept. and Diph. Bac. ..	1
	Pus (Acne case)	Staph-Albus and Stock Acne..	1
	Pus from Abdominal Wound	Strept. and Diplo. mixed ..	1
	Sputum	Strept. and Diplo mixed ..	3
	Sputum	Staph-Aureus and Diplo. mixed	1
	Sputum	Staph., Strept.,and Diplo. mixed	1
	Urine	Staph-Aureus and Coliform Bac. mixed	1
	Pus (Acne case)	Staph-Albus and Stock Acne mixed	2
	Sputum	Diplo., Staph., and Coliform Bac.	1
	Pus Compound Fracture of Leg ..	Coliform Bac. and B. Pyocyaneous mixed	1
	Pus, Cellulitis of Face	Staph-Albus and Citreus mixed	1
	Pleural (exudate)	Staph-Albus and Citreus mixed	1
	Sputum	Staph-Citreus	1
	Pus from old Empyema Incision ..	Bac. Pyocyaneous	1
	Sputum	M. Catarrhalis and Strept. and Staph. mixed	1
	Sputum	M. Catarrhalis and Staph. and Diph. Bac. mixed	1
	Cerebro-Spinal Fluid	Meningococcus	1
	Sputum	Mixed Organisms	1
Stock Vaccine	..	Gonococcus (doses)	325
		B. Typhosus (doses)	13,932
	Total	..	14,383

C.—Miscellaneous.

Disease Suspected.	Nature of Disease.	Number.
Miscellaneous	Water	65
	Blood, Leucocyte Count	4
	Stomach Contents	1
	Urine for Pus, Casts	3
	Urine for Blood, Pus, Albumin	1
	Urine, Chemical Examination	1
	Urine, for Malignant Cells..	1
	Urine, General Examination	7
	Urine for Albumin	1
	Urinary Calculi Chemical Examination	1
	Disinfectants	4
	Filters	8
	Examination for Bacteria.	
	Bronchial Cast	1
	Sputum	34
	Material passed by Bowel	1
	Cocaine Solution	1
	Blood	2
	Faeces	3
	Urine	5
	Pus	4
	Cerebro-Spinal Fluid	2
	Pleuritic Fluid	3
	Fluid from Lung	1
	Fluid from Knee-joint	1
	Fluid from Bowel	1
	Fluid..	1
		157

APPENDIX C.

REPORTS OF MEDICAL OFFICER FOR ENTHETIC DISEASES.

Enthetic Diseases Hospital,
30th June, 1915.

SIR,—I have the honour to submit a report on the work done at the Enthetic Diseases Dispensary during the year ended 30th June, 1915. For the last half of last year the work was done by Dr. G. P. Dixon and Dr. E. D. Ahern respectively, and was taken over by me in March, 1915.

The total number of attendances at the Dispensary was 3,233, an increase of 347 as compared with the number for the previous twelve months

New Cases—			
Gonorrhœa—Males	396		
Females	2		
	—	398	
Syphilis—Males	95		
Females	11		
	—	106	
Both Gonorrhœa and Syphilis—Males	22	22	
Total new cases		526	

The number of new cases treated thus shows an increase of 128 as compared with the number for the previous year.

By the courtesy of Drs. McLean, Hardie, and Lilley as successive Superintendents of the Brisbane General Hospital, most of the cases of syphilis and many of the more severe cases of gonorrhœa have been treated as in-patients in the General Hospital.

During the year 59 patients, 42 males and 17 females, received treatment by Salvarsan, with immediate good results and without any ill effects. The number so treated would have been considerably larger but for the difficulty in obtaining Salvarsan since the outbreak of the war. We have only a small number of tubes of Salvarsan remaining, and these are being reserved for the most severe cases. The work at the Dispensary is hampered to some extent by the shortage, but this of course is unavoidable. After receiving Salvarsan the patients undergo a course of mercurial treatment for twelve months. The Wassermann test is made at intervals, and if it is persistently negative the patient is discharged as cured at the end of twelve months. Patients who have not had Salvarsan undergo the usual mercurial treatment, which is very slow in showing its effects, and must be spread over a longer period of time—two years at least.

As mentioned in last year's report, the number of females attending the hospital remains small. Of the number of new female cases treated the great majority were prostitutes who have had treatment in hospital, and who attended at the Dispensary for further treatment after their discharge from the hospital. Up to the present the treatment of these prostitutes has not been satisfactory, owing to hospital limitations, but a special ward under my own supervision is to be opened in a few days, and it is hoped that in this way the treatment will be more satisfactorily carried out.

My thanks are due to Drs. McLean, Hardie, and Lilley and the resident medical staff for their courtesy and assistance, and also to the Director and staff of the Laboratory of Microbiology and Pathology for their assistance in making diagnoses. I also wish to thank the dispensers of the Hospital and Nurses Webb, Perry, and Cruise for the help they have given during the year,

Yours, &c.,

H. S. WALSH, M.B.,
Medical Officer to the Dispensary for Enthetic Diseases.

Examination Rooms,
William street, Brisbane.

SIR,—I have the honour to submit a report on the work done at the Examining Room during the year ended 30th June, 1915.

Total number of cases examined	580
Total number of blood examinations made ..	300

The total number of women who attended for examination was 130, and of these 85 had not previously attended.

On examination, any women who show undoubted evidence of gonorrhœa or syphilis are immediately sent into hospital for isolation and treatment. An order is obtained from a police magistrate ordering their isolation in hospital for a period of two weeks. If at the end of two weeks they are still suffering from the disease, an order from the Governor in Council is obtained, ordering their further detention in hospital until they are certified as free from the disease from which they were suffering.

The conduct of the women at the Examining Room has been uniformly good, and the work has been carried out without any discord or unpleasantness whatsoever.

Yours, &c.,

H. S. WALSH, M.B.,
Examining Officer.

The Commissioner of Public Health,
Brisbane.

APPENDIX D.

REPORT OF GOVERNMENT ANALYST.

SIR,—I have the honour, in accordance with section 31 of "*The Health Act of* 1900," to submit the following report of work done in the Government Chemical Laboratory for the Health Department during the financial year 1914-15.

The number of samples examined during the year was 1,769, an increase on the previous year of 118 samples, which was easily the largest since the establishment of the Health Department.

The work done during the year is shown in the following table:—

Food or Drug.	Total No. of Samples.	Samples Passed.	Samples Failed.
Baking Powder	14	3	11
Beverages and Cordials	90	72	18
Bread	1	1	..
Butter	4	4	..
Cheese	1	..	1
Cocoa	2	1	1
Coffee	5	5	..
Colourings and Dyes	16	12	4
Condiments	3	3	..
Confectionery	19	16	3
Cream of Tartar	15	13	2
Custard Powders	15	12	3
Disinfectants	4	3	1
Drugs and Medicines	93	72	21
Essences	22	18	4
Fish (tinned)	413 (1,327 tins)	174 (561 tins)	239 (766 tins)
Flours	15	15	..
Fruit (dried)	16	4	12
Fruit (tinned)	36	28	8
Ice Cream	2	1	1
Jams and Jellies	29	28	1
Infant's Food	5	3	2
Margarine	2	2	..
Meats (tinned)	2	2	..
Meats (minced)	26	10	16
Milk (condensed)	12	7	5
Milk (dried)	2	2	..
Milk, fresh (legal samples)	609	513	96
Milk, fresh (non-legal samples)	12	5	7
Miscellaneous	59	51	8
Rice	19	19	..
Salt	3	3	..
Sauces	2	2	..
Soap	2	2	..
Spices	4	4	..
Spirituous Liquors	78	11	67
Tea	8	8	..
Toilet Preparations	6	5	1
Vinegar	6	4	2
Wine	21	21	..
	1,693	1,159	534
Water (for potability)	25		
Water (W. & S. Board)	45		
Water (bore)	6		
Total	1,769		

The fact that 31 per cent. of the total samples failed to reach the prescribed standard is not to be taken as in any sense suggesting that 31 per cent. of the foods on the market are below standard. In many cases, notably with tinned fish and with spirituous liquors for strength, the samples have already been sorted out by inspectors, and only those which fail or are of doubtful quality are submitted for analysis. These two classes provided considerably more than half the total failures, the tinned fish giving 58 per cent. failures, the spirituous liquors 86 per cent. As stated in previous reports, the rising percentage of failures shows that the inspectors are becoming increasingly successful in determining those classes of foods likely to be adulterated, and, in cases where inspection by appearance is of value, are becoming more expert in sending along only doubtful and bad samples.

The "survey" samples, those taken generally to get the quality of the foods and drugs in every-day use, show that there has been a distinct advance of late years in the quality of foods and drugs manufactured on the large scale. But the labelling provisions are still being more honoured in the breach than in the observance. In spite of the changes already achieved there is still, particularly in the cases of patent medicines, a very long way to go ere the labelling is reduced to a true statement of facts. The standard of honesty obtaining in the labelling of patent foods and patent medicines by manufacturers is unfortunately very much lower than exists in other walks of life. The enormous profitable trade in these goods depends to a very great extent on a campaign of lies, on claims for virtues mostly non-existent, and on the fact that a confiding public believes these claims to be true. The enforcement of the labelling clauses will undoubtedly do much to prevent the public being exploited by dishonest patent medicine manufacturers. The strenuousness of the fight made by those who have so far been required to reduce their labels and claims to statements of fact show how keenly they feel that their profits depend largely on their misstatements. It is noteworthy that in the United States of America there has been an enormous decrease in the sale of patent medicines since the enforcement of the labelling provisions which are similar to those existing in Queensland.

Of the total number of samples submitted 762 were "legal" samples taken by inspectors strictly in accordance with the provisions of the

Health Act. The results are summarised in the following table:—

Food or Drug.	No. Vendors.	No. Samples.	Passed.	Failed.	Prosecutions.	Convictions.	Fines and Costs.
							£ s. d.
Alloys	1	2	..	2	..	..	..
Baking Powder	2	2	..	2	..	..	..
Beverages, etc.	7	31	28	3	2	2	6 5 6
Brandy	12	20	1	19	11	11	37 11 5
Chewing Gum	1	1	..	1	..	..	..
Cream of Tartar	3	3	2	1	..	..	..
Egg Substitutes	2	2	..	2	1	..	..
Essences	6	10	6	4	3	3	15 0 0
Fish	3	9	4	5	..	..	..
Flour	1	1	1	..	..	..	..
Gin	2	2	..	2	1	1	3 8 6
Meat	1	1	..	1	1	1	13 6 6
Milk (condensed)	1	1	1	..	..	..	..
Milk (fresh)	500	609	513	96	46	45	474 11 4
Pepper	1	1	1	..	..	..	..
Rum	6	6	2	4	6	6	35 18 5
Spices	4	4	4	..	..	..	..
Whisky	24	39	1	38	24	24	125 9 1
Wines	7	18	18	..	..	..	..
Totals	584	762	582	180	95	93	711 10 9

Of the 762 legal samples 180 failed to pass. Many of these were close to standard, and a warning only was issued by the Department. In 95 cases prosecutions were instituted, with the results shown. In the case of the spirituous liquors, 67 were submitted by the inspector as of doubtful quality, and 63 were found to be below standard. All of these were condemned for adulteration with water which varied from 1·5 per cent. to 35 per cent., and no other adulterant was found. The number of legal samples of milk taken, 609, is by far the largest yet submitted, but is still very much below what should be done in Queensland. The position with regard to these legal milk samples is as follows:—

——	No. of Samples.	Percentage of Total.
In conformity with the standard	500	82·1
Genuine samples below the standard	12	2·0
Adulterated with water	61	10·0
Deficient in fat	35	5·7
Unfit for analysis	1	0·2
	609	100·0

The following table shows the results of the milk inspection (legal samples only) set out according to localities:—

Locality.	No. Samples.	Failed.	Percentage Failed.	Average % of Added Water.
Atherton	4	..	..	..
Brisbane North	154	21 (18 watered ; 3 deficient in fat)	11·6	20·0
Brisbane South	106	12 (watered)	11·3	11·6
Brisbane Railway Stations	201	15 (8 watered ; 7 deficient in fat)	7·4	4·0
Brisbane Restaurants	23	10 (2 watered ; 8 deficient in fat)	43·4	32·0
Cairns	7	2 (1 watered ; 1 deficient in fat)	28·5	4·5
Charters Towers	8	4 (watered)	50·0	30·0
Herberton	5	4 (2 watered ; 2 deficient in fat)	80·0	16·0
Hughenden	9	5 (watered)	55·5	33·0
Innisfail	6	3 (1 watered ; 2 deficient in fat)	50·0	6·6
Ipswich	16	4 (1 watered ; 3 deficient in fat)	25·0	14·5
Rockhampton	22	5 (1 watered ; 4 deficient in fat)	22·7	5·0
Townsville	41	9 (5 watered ; 4 deficient in fat)	21·9	22·0
Toowoomba	2	1 (deficient in fat)	50·0	..
Wynnum and Manly	5	1 (watered)	20·0	12·7
	609	96 (61 watered ; 35 deficient in fat)	15·7	17·4

It is noteworthy that the mean percentage of adulterated samples has again slightly risen, while the mean percentage of added water has risen considerably, going from 13·5 per cent. last year to 17·4 per cent. this year. It is also noteworthy that, even in such a climate as Queensland, legal samples of milk have been taken all over this huge State and sent from the far north and the far north-west to Brisbane and arrived in Brisbane in perfect condition. These samples are packed in ice immediately they are taken, and sent to Brisbane in cold storage, and in only one instance during the year did a sample reach Brisbane in a "sour" state.

The average proportion of added water found in adulterated samples in the various districts varies remarkably. In the metropolitan area north of the river it is 20 per cent.; south of the river, 11·6 per cent.; in the restaurants,

32 per cent.; and in the farmers' milk at the station, only 4 per cent. The proportion of samples which failed in each district shows North and South about equal at 11 per cent.; the farmers' milk at the stations, although much better than the town milk, shows a marked rise from last year to over 7 per cent.; while the restaurants show over 43 per cent. of adulterated samples. Outside of Brisbane the milk supply is only inspected casually. The Local Authorities have left food inspection practically a dead letter, and so far there have been no references from Local Authority analysts to the State analyst. The following table shows the progress of the attempt to get a pure milk supply during the last eight years, the results being those obtained from legal samples:—

Year.	No. of Samples.	No. of Samples Failed.	Percentage Failed.	Average % of Added Water.
1907-1908 ..	66	37	56	8·7
1908-1909 ..	158	64	40	10·0
1909-1910 ..	78	19	24	8·3
1910-1911 ..	122	28	23	7·9
1911-1912 ..	265	69	26	12·0
1912-1913 ..	419	60	14	14·0
1913-1914 ..	385	57	15	13·5
1914-1915 ..	609	96	16	17·4

Although the number of samples taken has materially increased, ensuring a better average, the proportion both of samples which failed and of water added has increased, and this increase would be much more marked but for the fact that one-third of the total samples this year were railway station samples with less than half the average proportion of adulterated samples. It is quite evident from the above table that the methods now adopted to ensure a good supply of milk have failed, and the reason is not far to seek. It pays to water the milk and risk the fine, hence the dishonest milkmen (one in seven is dishonest if the figures are a correct indication) continue the practice of adding water.

As in previous years, I give the financial aspect of the milk adulteration question, and that is evidently the only aspect which appeals to a small section of the dairymen. I take, as before, an annual milk supply to the metropolitan area of 2,000,000 gallons. Of this amount, calculated on the analysis of samples from that area, 226,000 gallons were adulterated, and the water in this adulterated milk must have cost the community almost exactly £4,000. As the fines and costs in the metropolitan area for the adulterated samples now in question amounted only to £389, there is a splendid margin for profit. As to the chances of being caught, the proportion of samples taken to vendors works out at about one inspection per vendor every seven months. Supposing one of these dishonest dairymen delivers, say, 50 quarts per day—a small supplier—if he consistently adds the average proportion of water found he will have received for water (which cost him nothing) £45 in seven months. As the average fine is £10, the risk is well worth taking. And if he adds 63 per cent. of water, as in one case recorded during the year, then he indeed reaps a golden harvest. It is quite evident that other means must be taken than those now in use to end this form of fraud, which is so dangerous to infant life. Licensing of milk vendors, with power to revoke, should be enforced, and imprisonment as well as fine for repeated offences. The practice is unfair to the great majority of milk vendors who are honest, as well as to the general public.

The mean composition of samples (not adulterated) during the year is practically identical with that of previous years, as shown in the following table:—

——	1911-12.	1912-13.	1913-14.	1914-15.
Total solids ..	12·6	12·7	12·7	12·8
Fat	3·9	4·0	3·9	4·0
Solids not fat ..	8·7	8·7	8·8	8·8

The addition of preservatives to food is always objectionable and sometimes dangerous. Hence the almost universal law prohibiting the use of preservatives except where specifically permitted, and in such cases strictly limiting the proportion which may be added. Complaints of certain minced meats were received by the Department, and a general examination showed that of the samples examined 12 contained excessive proportions of preservative, varying from 9 per cent. to 620 per cent. in excess of the maximum proportion permitted.

Owing to the war there has been a great shortage of cream of tartar, with a resultant crop of bad samples of baking-powder. Cream of tartar has evidently no equal as the acid constituent of a baking powder. Acid phosphate of calcium, tartaric acid, and other so-called "substitutes" are too hygroscopic or too quick-acting, and fail to give such good results in practice. Of 14 samples tested 11 failed to reach the standard of 10 per cent. available carbon dioxide, varying from 0·3 per cent. to 8·8 per cent. with an average of only 5·4 per cent., mostly through the fact that baking powder made from "acid phosphate" will not keep. One baker supplied his formula and material. A sample was made up, and yielded on mixing the calculated proportion of 12·1 per cent. available carbon dioxide. It was then put in a wide-mouthed glass-stoppered bottle, and samples were withdrawn and analysed at intervals with the following results:—On making, 12·1 per cent; first day after, 11·8 per cent.; second day, 11·5 per cent.; fourth day, 10·6 per cent.; fifth day, 10·0 per cent.; eighth day, 8·9 per cent.; tenth day 8·7 per cent.; thirteenth day, 8·0 per cent.; eighteenth day, 7·9 per cent.

In the beverages it is still a common practice to dilute up lemon syrup, lemon squash, and limejuice with water, 11 samples failing for that reason. One sample of pure soluble cocoa essence contained 25 per cent. of added starch—a distinct fraud. Of the 21 samples of drugs and medicines which failed, 10 failed to reach the British Pharmacopœia standard (shortage of camphor was again noticeable in 5 samples), 5 others contained restricted drugs, and 6 samples of "effervescent citrate of magnesia"

were not according to label. During the year 1,327 tins of fish were examined, all being opened so that any contained gas could be measured off and analysed if desired. At first only distinctly blown tins were submitted, hence the high proportion of "fails." Later on promiscuous samples were taken, the proportion of condemned tins then falling to very small dimensions. Certain manufacturers have a far larger proportion of blown tins than others, even when brought out on the same ship. Certain tins show a small amount of gas and yet are not definitely blown, and so far no definite line can be discerned between the good tins, the small proportion which show a little gas, and those few which are fully blown. The matter is at present under investigation, and it is hoped that some means may be found of distinguishing between the tins which are in the early stages of becoming blown and those which are good.

Owing to the fact that the State Analyst's certificate is almost invariably accepted without question, I have only had to give evidence once (then as referee) in Court on health matters during the year. Mr. McCall has not had to appear, and Mr. Meston, who does practically all the legal analysis, has only given evidence twice.

A further marked increase in the analytical work for the Health Department cannot be achieved with the present inadequate space at command in the Laboratory, except in one direction. The provision made for milk analysis has not yet been seriously taxed, and a much larger number of milk samples could be put through in the course of the year.

I have, &c.,

J. BROWNLIE HENDERSON,
Government Analyst.

The Commissioner of Public Health,
Brisbane.

APPENDIX E.

REPORT OF NURSES' REGISTRATION BOARD.

Nurses' Registration Board,
13th July, 1915.

SIR,—I have the honour to furnish the Annual Report of the Nurses's Registration Board for the year ended 30th June, 1915.

During the period under review 7 general and 2 special meetings were held, and the following members of the Board were present:—

——	General.	Special.	Total.
Dr. Halford	4	1	5
Dr. McLean	4	2	6
Dr. Ellerton	7	1	8
Miss Macdonald	6	1	7
Miss Chatfield	7	2	9
Dr. J. M. Thomson	1	..	1

On the 28th February, 1915, the term of office for which the Board were appointed expired, and it became necessary to select new members, and those of the late Board signified their willingness to accept reappointment, with the exception of Dr. Halford, who filled the position of chairman and whose resignation was accepted with regret.

Nominations were invited from all registered nurses for two positions on the Board, and the Misses Macdonald and Chatfield were unanimously selected to represent the nurses. The Medical Board nominated Drs. McLean and Thomson, and Dr. Ellerton was nominated by the Government as medical representatives for the mental nurses. Drs. Ellerton, McLean, and Thomson were duly appointed on the 22nd April, and Misses Macdonald and Chatfield on the 29th of the same month. The personnel of the Board being complete, the first meeting was called for the 10th June.

The following registrations were granted during the year by examination:—General, 47; midwifery, 26; mental, 4; total, 77; as against 74 for the preceding twelve months. To these may be added registrations made under section 154E of "*The Health Acts*, 1900 *to* 1911," viz.:—General, 10; midwifery, 16; mental, nil; total, 26, as against 58 for the preceding twelve months. In addition, 1 general nurse and 4 midwifery nurses were registered by the Board under Regulations 28 and 33 respectively of the Nurses' Registration Regulations, making a grand total of 108 registrations as compared with 132 for last year.

During the year under review two examinations for qualification for registration as nurses have been held—namely, on the 29th and 30th September, 1914, and 2nd and 3rd March, 1915.

Examining centres, with examiners for the practical and oral sections, were selected from the medical and nursing representatives of the various towns in connection with the examinations at the following places:—

General.	Midwifery.	Mental.
Brisbane	Brisbane	Goodna
Toowoomba	Rockhampton	Toowoomba
Rockhampton	Bundaberg	Ipswich
Bundaberg		
Townsville		
Charters Towers		
Mackay		
Cairns		

The undermentioned table shows the number of candidates who applied for permission to sit for examination, as well as those who actually sat and passed in each category:—

——	General.	Midwifery.	Mental.	Total.
Entered	52	32	30	114
Present at examination	50	32	30	112
Passed	47	26	19	92

The official list of nurses registered in this State was published in the *Government Gazette* of the 15th January, 1915. The annual reports from the various recognised training hospitals show that there are 398 general nurses, 42 midwifery nurses, and 127 mental nurses now in training. Particulars as to the number of nurses undergoing training in each hospital at the present time appear hereunder.

GENERAL HOSPITALS.

Alexandra Private Hospital	4
Brisbane General Hospital	75
Bundaberg General Hospital	10
Chillagoe General Hospital	4
Charters Towers General Hospital	10
Cairns District Hospital	13
Diamantina Hospital for Chronic Diseases ..	23
Gladstone General Hospital	3
Gympie General Hospital	6
"Hillcrest" Private Hospital (Rockhampton) ..	4
Hospital for Sick Children (Brisbane)	52
Hospital for Sick Children (Rockhampton) ..	7
Ingham General Hospital	1
Ipswich General Hospital	17
Leinster Private Hospital (Rockhampton) ..	4
Longreach General Hospital	6
Mackay District Hospital	22
Maryborough General Hospital	9
Mater Misericordiæ Hospital	21
Mount Morgan General Hospital	12
Rockhampton General Hospital	14
Roma General	2
"St. Denis" Private Hospital (Toowoomba) ..	4
"St. Helen's" (South Brisbane)	7
Dalby General Hospital	3
Townsville General	23
Toowoomba General	29
Warwick General Hospital	9
	398

Midwifery Hospital.

Lady Bowen (Brisbane)	18
Lady Chelmsford (Bundaberg)	5
Lady Musgrave (Maryborough)	6
Women's Hospital (Rockhampton)	13
Mother's Hospital (Toowoomba)	6
	48

Mental Hospitals.

Goodna	63
Ipswich	24
Toowoomba	40
	127

The list of recognised training hospitals was published in the *Government Gazette* of 13th March, 1915.

The total collections for fees amounted to £96 odd.

The cost of purchasing and engraving badges during the year amounted to £18 2s. 11d.

The personnel of the Board consists of Dr. McLean (Chairman, now absent at the Front), Dr. Ellerton (Acting Chairman), Dr. J. M. Thomson, and Nurses Chatfield and Macdonald.

At a meeting of the Board held on 10th June, 1915, it was decided to communicate with other places where registration under Government authority is in vogue, for a reciprocal arrangement to be made by which nurses registered by one authority may be recognised by another. Nothing definite has as yet been done, but it is hoped that the question will be satisfactorily arranged. Another question considered by the Board is the recognition of hospitals situated outside the State of Queensland, but nothing has as yet been done in the matter.

Yours, &c.,

H. BYRAM ELLERTON,
Chairman

The Commissioner of Public Health.
Brisbane.

APPENDIX F.

REPORT OF CHIEF SANITARY INSPECTOR.

Department of Public Health, Queensland,
Brisbane, 10th July, 1915.

SIR,—I have the honour to submit herewith the annual statement of the work done by the sanitary division of the Department for the fiscal year ended 30th June, 1915.

The year has been one of steady progress, and much useful work has been accomplished in all parts of the State.

METROPOLITAN AREA.

Matters viewed from a public health standpoint continue to improve. Considerable activity in the building trade has manifested itself, along with the cutting up of large tracts of land for residential purposes.

The construction of drainage facilities has not kept pace with the migration of the populace to suburban areas, and complaints continue to be received regarding the unavoidable nuisances created through this much-felt want. In some of the older and more thickly populated areas where nearly all the natural storm-water channels have been converted into common sewers, the Local Authorities as a rule do not have the money to construct the necessary sewers out of revenue, and when they take a poll of the ratepayers for the purpose of raising a loan wherewith to carry out the work it is generally promptly turned down. Nevertheless, this does not stop the ratepayers from lodging complaints, either individually and occasionally by petition or through their progress associations, with this Department, requesting the Commissioner to take drastic measures and compel the Local Authorities to do their duty, while they themselves may have been responsible, by their votes, for permitting the nuisances complained of not being abated. Some of the Local Authorities have consistently endeavoured to prevent the discharge of household waste water into formed and unformed street water-channels, and compel occupiers and owners to dispose of their wastes on their own allotments. The latter method of disposal is only satisfactory with proper appliances and when the soil is of a permeable nature; where water is not laid on from the main the question of disposal is simplified.

The construction of the Brisbane main drainage scheme is being pushed ahead, and as the branch sewers are extended it will be the means of improving the sanitary circumstances of the whole area. Septic tank installations for the treatment of domestic and other drainage are being fitted in increasing numbers both in Brisbane and suburbs, together with the most modern sanitary appliances, which proves that those who are able to afford the expense demand a more rational method for the disposal of effete matter than that in vogue at present within the metropolitan area of Brisbane and suburbs.

The Municipal Councils of North and South Brisbane either have completed or have in course of construction public lavatories of neat design, on the water-carriage principle, to meet the ever-increasing needs of a growing population.

One thousand five hundred and eighty-eight visits of inspection have been made, and seventy-one intimations-of-nuisances notices have been forwarded to Local Authorities directing their attention to matters requiring remedial measures at their hands. The number of notices served does not indicate the actual number of nuisances the staff have actually dealt with, as, by a mutual co-operation between the inspectors of the City Councils, acute nuisances are remedied in numerous instances long before they otherwise would be if the ordinary official routine were observed.

All the seaside camping resorts have been inspected during the holiday seasons, and action taken where necessary to provide for the sanitary betterment of the various camps. The sanitary sites and rubbish depôts used by suburban shire councils who dispose of their sanitary matter by land burial have been inspected during the year, and it is gratifying to note that the methods of conduct were on the whole satisfactory.

INSPECTION OF DRAINAGE SCHEMES, ETC.

The following suburban Local Authorities have had plans of main drainage schemes prepared for their respective areas, and submitted to this Department for approval and subsequent inspection of the proposed routes and the districts to be drained.

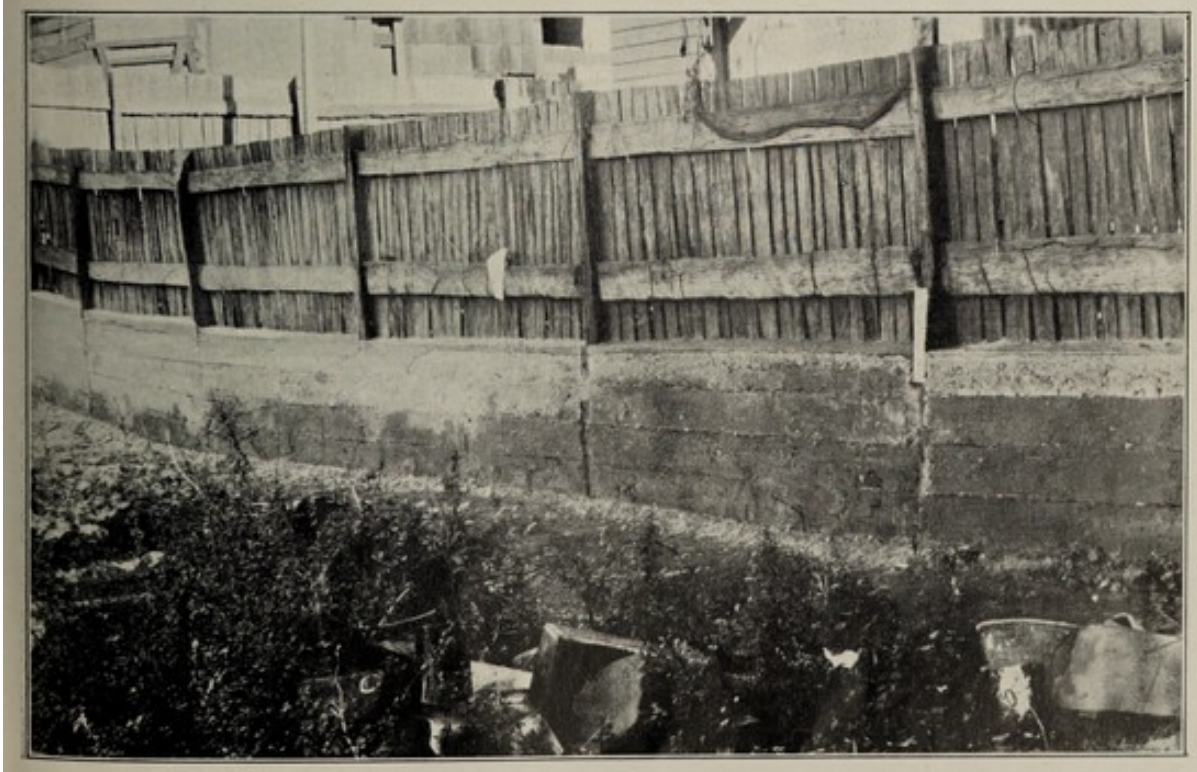
The Local Authorities are—Ithaca Town Council, Sherwood Shire Council, Toowong Town Council, Windsor Town Council, and Wynnum Town Council.

The pollution of running streams of water by the continued discharge of trade wastes from woolscours, fellmongeries, meatworks, and kindred industries have received the attention of the Department from time to time. Meanwhile this matter is under observation with a view to the furnishing of some scheme whereby the contamination may be prevented. Special inspection of the streams referred to have been made, and in one instance samples of water have been taken for analysis.

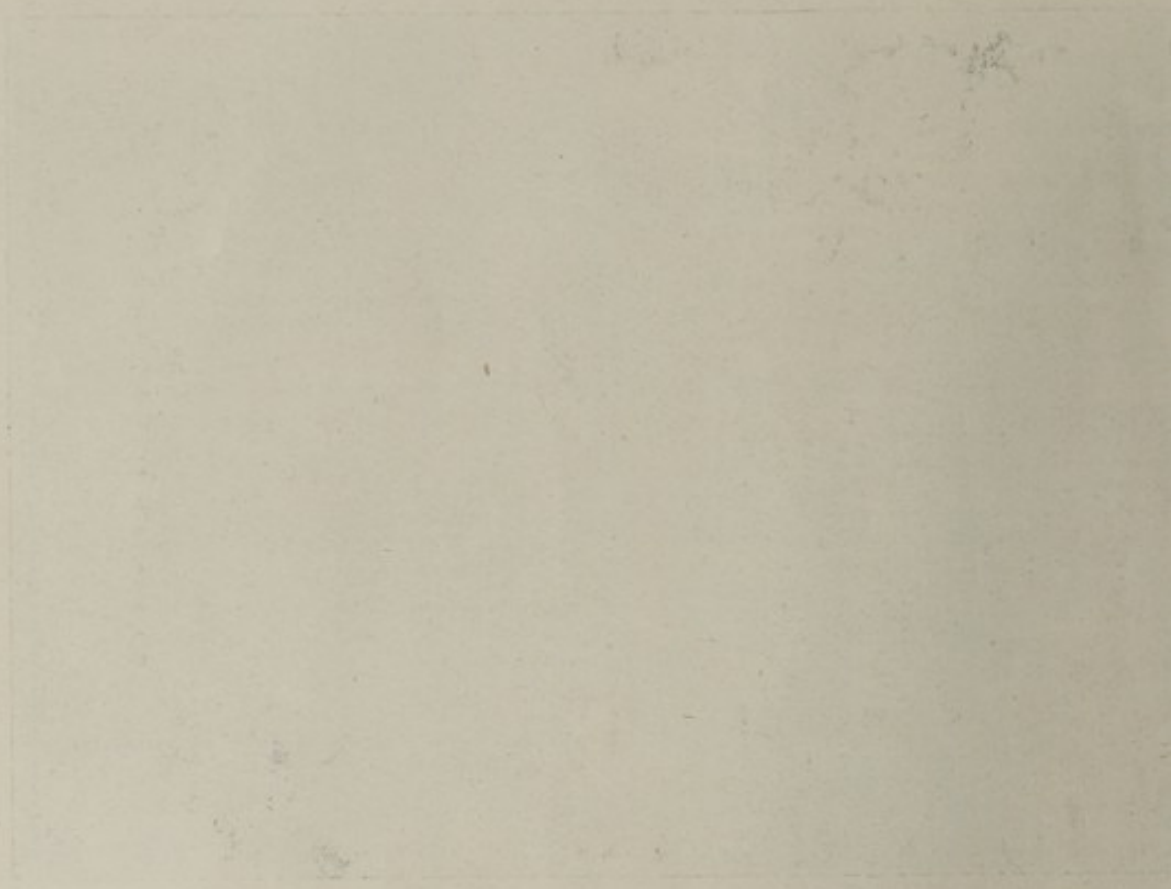
SANITARY DISINFECTION AND INFECTIOUS DISEASE.

One thousand seven hundred and seventy-eight cases of infectious disease were notified to the Department during the year as having occurred within the metropolitan area, showing an increase in the grand total to that of the previous year, due principally to the increased incidence in infantile paralysis and chicken-pox. Outbreaks of diphtheria have also occurred among scholars attending schools and in institutions. Prompt measures were taken to isolate and prevent its spread, and officers detailed to take swabs from the throats of scholars and others for the purpose of detecting "carriers."

Rat Harbourage in Rubble Wall and Made-up Ground, consisting of all kinds of Rubbish.



Cement Concrete Baffle Wall, Sunk 2 Feet into Ground, Protecting the above Embankment.



Special measures have also been taken in the transport of leper patients from country districts connected with Brisbane by rail, and an inspector detailed to attend to the comfort of the patients from the time they left their homes until comfortably settled in the Lazaret on Peel Island.

One thousand five hundred and six premises have been disinfected by the officers of the Department for various Local Authorities where cases of infectious disease occurred, the majority of whom prefer us to relieve them of this duty.

The total number of premises disinfected shows an increase of 343 to that of the previous year.

The following special disinfections have also been carried out:—Forty-eight railway carriages used for the conveyance of leper and other cases of infectious disease, and in addition three steamers used for the transport of leper patients to Peel Island from Northern centres have been disinfected. A total of nine vessels, consisting of six dredges and three steamers, have also been cyanided for the destruction of rats and other vermin on board ship.

The following State schools have also been thoroughly disinfected in consequence of outbreaks of diphtheria among the scholars:—Toowong, Indooroopilly, Loganlea, and Leichhardt Street.

The military encampments at Enoggera have been kept under observation, and advice and assistance tendered when necessary. One hundred and sixty-five complaints in writing have been received during the year and attended to.

Plague Prevention.

The continuous policy of rat destruction, as in previous years of the Department's existence, has been consistently pursued. In this connection, 15,008 rats and 936 mice have been accounted for during the year by the departmental headquarters gang. Of this number 6,568 rats and 850 mice have been submitted for examination at the Laboratory of Microbiology and Pathology, none of which were found to be plague-infected.

During the year 201 default notices have been served, in accordance with the provisions of the Noxious Vermin Order of 1912, calling upon occupiers and owners of property to clear their premises of rats. In this connection the departmental working gang has been actively engaged in the work of ratproofing.

The following is a summary of the nature of the work performed by them during the year in rendering premises ratproof which were formerly overrun by these vermin. A large amount of this class of work has also been carried out by private contractors and architects, who have been deputed by property-owners to attend to this matter. All the work has been done under the supervision of an officer of this Department.

The attached photographs will serve to show some of the typical rat harbourages dealt with during the year.

Work carried out by Departmental Gang.

Concrete baffle walls sunk 2 ft. into the ground and carried up to support embankments in made-up ground, and also sunk around cement floors and other paved surfaces where formerly rats harboured—6,103 sq. ft.

Concrete floors laid to replace defective floors and other constructional defects—1,169 sq. ft.

Iron sunk 2 ft. in the ground around temporary or dilapidated structures subject to alteration or demolition to prevent rats burrowing under same—158 lin. ft.

Holes and other defects in hotel cellars and other basement walls built up and pointed with cement—125 sq. ft.

Rubble retaining walls faced up with cement where formerly rats found a harbour—180 sq. ft.

Earthwork embankment temporarily protected with 6-ft. sheets of iron—100 lin. ft., at a building to be demolished at an early date.

Dividing fencing raised, and posts set in cement baffle walls—30 lin. ft.

Dividing fencing renewed and fixed on top of cement walls supporting embankment on made-up ground—100 lin. ft.

Earth closets raised 1 ft. clear of the ground to prevent rats harbouring under same—13.

Windows screened to prevent ingress of rats into buildings—23.

Fruit pantry screened with ½-in. mesh galvanised wire netting at a city club—180 sq. ft.

Door ledges protected with iron where rats had gnawed an entrance—3.

Drains disconnected from sewer properly trapped and relaid—60 lin. ft.

Work carried out by contractors.

Concrete baffle walls sunk 2 ft. into the ground around bricked asphalt and cement floors laid on the surface of the ground where rats burrowed and harboured underneath same—3,023 sq. ft.

Concrete baffle retaining walls supporting embankments of made-up ground—2,870 sq. ft.

Cement floors and areas concreted—9,125 sq. ft.

Galvanised iron sunk 2 ft. into the ground around the basements of old wooden buildings built on the ground affording rat harbourage underneath—188 sq. ft.

Rubble walls faced with cement where rats found harbourage in the interstices of the stonework—1,550 sq. ft.

New earth closets erected in place of old and dilapidated ones, and raised 12 in. clear of the ground, where formerly rats harboured—8.

Earth closets raised up 12 in. clear of the ground, that formerly afforded rat harbourage under same—9.

Earth closet floors laid in cement—4 .

Defective drains lifted and relaid through which rats found a highway from the main sewer —24 lin. ft.

Holes in dividing walls of cellars and basement built up, through which rats had ingress and egress to the buildings—220.

Holes ironed over on wooden floors to prevent ingress after the rats had been destroyed—10.

Windows protected and screened to prevent the ingress of rats—2.

Filling-up material used to level up depressions underneath buildings affording rat harbourage—200 cubic yards.

Various harbourages, 23 loads of lumber removed, and a large amount of material, such as packing cases and other matter, stacked 12 in. clear of the ground so as to afford cat and dog access under same.

Poison Used, Sold, and in Stock.—During the year from July, 1914, to June, 1915, 1,144½ lb. of poison have been made for departmental use by members of the rat-gang. Of this quantity 804½ lb. have been used in the manufacture of baits, 111 lb. have been sold in tins to the public, 193 lb. have been forwarded to the various Government health officers at Northern centres for use by the departmental rat-catchers stationed at seaport towns, and 36 lb. remain in stock.

Cash collected for poison sold to the public—Poison baits, £6 7s. 6d.; poison in tins, £4 12s. 6d.; total, £11.

It is worthy of mention that a system of mutual co-operation between the officers of this Department and those of the Brisbane Councils has widened its operations. When officers of the Department, in the course of their duties, discover structural conditions or defective drainage which facilitates rat harbourage or the transit of rats from one haunt to another, these conditions are usually brought under the notice of the Councils, either by official correspondence or verbally. The proper remedies to be undertaken are the subject of frequent interviews, and conjoint inspections by the officers concerned when such a course is found desirable, and a great deal of structural work, including drainage, has been carried out, such work being of a permanent value and effect. The officers of the Local Authorities convey to us particulars of rat-infested premises which come under their notice, and clashing and overlapping are both avoided by a mutual knowledge of and respect for each other's obligations. As a result of this friendly and harmonious co-operation, the following works of which I am cognisant have been carried out under the direction of the Brisbane City Council:—

Dilapidated and rat-infested premises demolished and other sources of rat infestation remedied by order of the Brisbane City Council—

Houses demolished	19
Shops demolished	22
Sheds demolished	6

Defective drains and sewer connections forming highways for rats from main sewers to the premises connected therewith repaired—59.

Earth closets resting on the ground forming rat harbourage now raised 12 in. clear off the ground—11.

Earth closets constructed of brick having concrete floors now made ratproof, which formerly afforded harbourage—11.

Earth closets demolished and new ones erected—Wooden, 4; brick, 9.

Brick chimney and cement floor forming a rat harbourage repaired—1.

Defects on main sewers repaired—88.

Sectional sewers overhauled and defects made good—2.

Under orders for demolition—Dwelling-houses, 7; shops, 18.

The ratman employed by the South Brisbane Municipal Council has carried on an active crusade, and for the past twelve months has accounted for 3,975 rats single-handed, besides the large number of rats there is no possible hope of recovering killed as the result of poisoning operations. The number of rats submitted by the North Brisbane Council's ratman was so small as not to be worthy of mention.

OTHER PARTS OF THE STATE.

Accompanied by the Commissioner of Public Heath, a tour of inspection of the towns situated in the Northern and Central portions of the State was carried out, and matters of sanitary executive inquired into.

The decentralisation of the Northern Office, situated in Townsville, was given effect to in the month of December, and two inspectors were transferred, one to Cairns and the other to Rockhampton, the senior inspector remaining at the Townsville headquarters. It is expected that the new arrangement will prove satisfactory, as a competent officer of the Department will now be stationed within easy reach of all centres of population in case of emergency.

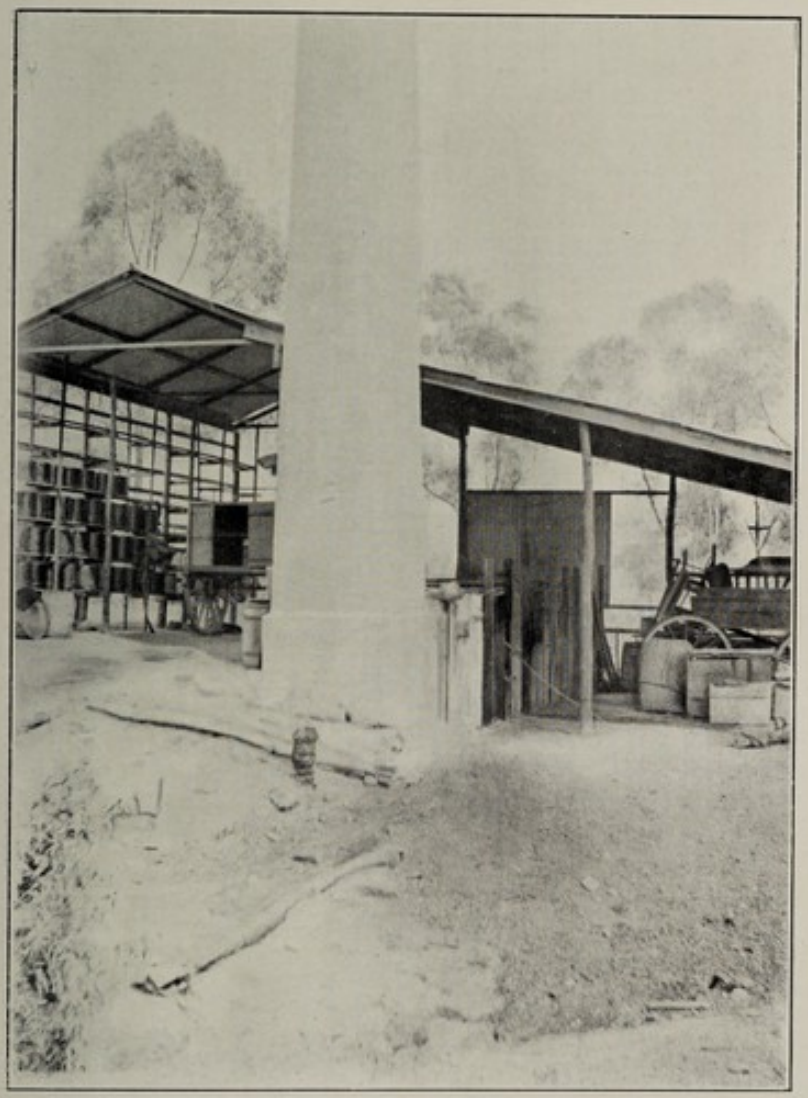
Visits of Inspection.

Two thousand four hundred and sixty-seven visits of inspection have been made by the officers of the Department in the course of their tours of inspection, independent of the numerous re-inspections undertaken in order to ascertain whether the departmental instructions have been given effect to or completed. Nine hundred and twenty notices concerning breaches of the Health Acts and local by-laws have been forwarded to Local Authorities concerned.

The drainage schemes proposed for Barcaldine, Emerald, Stanthorpe, Oakey, and St. George, as well as numerous plans and specifications for biological plants for the treatment of sewage for hospitals and other institutions, have been reported on, and advice and suggestions offered where necessary to the Local Authorities and institutions concerned. Numerous sanitary by-laws for Local Authorities have also been revised and corrected. During the Commissioner's tour, supplies of literature dealing with infectious disease and general sanitation, as well as posters giving a concise life-history of disease-bearing flies and mosquitoes, were distributed at all centres inspected, as well as to numbers of the State schools off the beaten track in outlying centres.

Anti-Plague Work.

The operatives employed by the Department in the work of rat destruction at following stations along the coast—viz., Bundaberg, Cairns, Mackay, Maryborough, Rockhampton, Townsville—continue to do good work. Gladstone having been practically cleared of rats, the man engaged there has been withdrawn some time. As the result of operations



Incinerating Plant at the Sanitary Premises of a Rural Local Authority.

25,326 rats and 893 mice have been accounted for. All rats in a condition fit for dissection are examined, and smears of their blood forwarded to Brisbane every week for examination by Dr. Harris, Director of the Laboratory of Microbiology and Pathology. By this means the headquarters office is kept informed, and able to act promptly should an epizootic of plague in rats occur at any of our important seacoast towns.

Atherton.

In accordance with instructions I made an inspection of this town, which was found in a fairly clean condition. Nevertheless, a properly organised service for the collection and disposal of household and trade refuse is required, and proper arrangements made at the existing garbage depôt. Improvements were also required in connection with the sanitary service. The local inspector was instructed in the methods of disinfection, and a demonstration given in the use of the various apparatus used in this work. A reinspection has been made by the departmental district inspector, and the Tinaroo Shire Council instructed to exercise more strict supervision in connection with these matters. I understand the Council has decided to take the above franchises into their own hands instead of letting the work to contractors, and a marked improvement in sanitary matters may be expected.

Augathella.

Repeated complaints having been received by this Department regarding the alleged contamination of well-water at a hotel in this township, advantage was taken of an opportunity that offered to inquire into this matter whilst I was on a visit of inspection in the neighbourhood. A house-to-house sanitary survey of the town was made at the same time, all of which have been the subject of a special report.

Alpha.

A reinspection of this township was made in order to ascertain whether the Tambo Shire Council had carried out the requirements of the Department in connection with the establishment of their conservancy system. The Council deserve credit for the manner in which they have equipped their sanitary depôt. Suggestions have been made for further improvements in sanitary executive, which, if carried out, will leave little to be desired in the sanitary circumstances of this community.

Ayr.

An opportunity was taken while in the neighbourhood of this town to make a cursory inspection, and at the same time to select a sanitary site for the growing township of Homehill a few miles distant. The town of Ayr required a thorough clean-up, and improvements in other matters of sanitary executive, to which the Council's attention has been directed.

Aramac.

An inspection was made of this town. Cesspits were found to be in general use, closets in numbers of instances in a ruinous and dilapidated condition, and, in consequence of the want of a proper garbage removal system, rubbish in considerable quantities is scattered about the town. The Shire Council have been directed to take the necessary steps to initiate the franchises required.

Blackall.

A cursory inspection of this town was made and it was found to be in a fairly satisfactory condition. Advice was given regarding matters of detail in connection with the working of the sanitary and garbage removal system, which, if adopted, will prove of benefit to all concerned.

Bundaberg.

The question of the main drainage of this town has been the subject of a considerable amount of correspondence between the Town Council and this Department for a lengthy period, resulting in numerous inspections. Some improvement has resulted, but much yet remains to be accomplished before this matter can be satisfactorily settled. The new sanitary depôt has been in use for some time, and is one of the best conducted within the State. Generally speaking, this town is kept in a clean condition, mainly due to an energetic inspector.

Blair Athol.

A visit of inspection was paid to this rising township for the purpose of selecting a sanitary site for use in connection with their sanitary service. A conveniently situated and suitable depôt was approved of, and a cursory inspection of the town was made so far as the time would permit. The necessity for the initiation of a garbage removal system was apparent by the large accumulations of garbage found in numbers of the yards in the town, to which the attention of the Shire Council has been directed.

Barcaldine.

Acting under instructions I made an inspection of this town. The service for the collection and final disposal of nightsoil was not well carried out. The depôt was found to be in a most unsatisfactory condition. No organised garbage removal system has yet been initiated, consequently accumulations of household and trade refuse were found in many of the yards in the town. The drainage problem for this town has assumed an acute form, and demands the earnest attention of the Local Authority. A sewerage scheme has been designed for the town, but so far action has not been taken by the Council to initiate same.

Bogantungan.

At the request of the Emerald Shire Council, an officer of the Department was deputed to investigate the cause of an outbreak of typhoid fever at an hotel in this small community. The origin of the fever was found to be due to fly-infection. At the time flies were very numerous, and were travelling from adjoining closet cesspits to the food on the dining-room tables, contaminating milk, butter, sugar, cakes, &c. The Council were instructed in the necessary measures to adopt in order to cope with this and similar outbreaks.

Bowen.

A reinspection of Bowen was undertaken during the year. Owing to an inadequate garbage removal system the town was found to be in a dirty condition. Men and drays were placed at my disposal, and a crusade of cleaning carried out while I remained in town. A large amount of garbage was removed. The local inspector, new to this work, was instructed in the proper methods, and I believe continued the operations

after my departure. The tipping at the garbage depôt was properly arranged before I left. Other matters governing the conduct of the sanitary service that required attention were also brought under the notice of the Council, all of which have been the subject of a special report.

Babinda.

The sanitary circumstances of the new township springing up around the new central sugar-mill were inquired into by Inspector Wright, in charge of this district. A sanitary site for the service about to be initiated was selected, and the Shire Council advised in matters of sanitary import.

Brassall.

In consequence of continuous attacks of diarrhœa among the workmen and residents of Cabbage-tree Creek dam, at the request of the Shire Council an inspector was despatched to inquire into the sanitary circumstances of the encampments, which in many respects were found to be most unsatisfactory. Remedial measures were drawn up on the matter for the Council's guidance, and forwarded to them. Prior to the inspector's visit, Dr. Thomson, Health Officer of the Department, had inquired into the origin of the trouble.

Cloncurry.

A reinspection of this Western town was made, and the general sanitary circumstances found to be satisfactory. Matters requiring attention at the hands of the Council regarding the collection and disposal of nightsoil and garbage were brought under their notice per medium of a special report on this subject.

Charters Towers.

On my return journey from the West a cursory reinspection of this mining centre was made. The sanitary circumstances of the town were found to be fairly satisfactory. The sanitary service is well carried out, and the conduct of the depôt excellent. The attention of the Town Council was directed to matters of detail in connection with the sanitary service, which was calculated to further improve matters.

Cairns.

A remarkable improvement was observed in this important Northern city during my recent reinspection. The principal streets and roadways have been properly formed, together with street water-channels and the necessary underground storm-water sewers. However, by raising the level of the streets in many instances, allotments are now below the permanent street levels, consequently drainage nuisances have become numerous. The working conditions of the conservancy system were inquired into and suggestions offered to the Council for improvements. My inspection has already been the subject of a special report. Since the departmental district inspector took up his duties here a house-to-house inspection has been carried out, and the Council notified of matters requiring remedy.

Chillagoe.

On our arrival here this mining centre presented a very dull and deserted appearance, a marked contrast to its former busy life. But that is no reason why the Council should neglect their obligations. This town has been scavenged on two previous occasions by this Department, and judging by the amount of garbage lying about it may have to be taken in hand again. The sanitary service is not being attended to by the contractor as it should be. The Council's attention has been directed to these matters, and when more prosperous times return it is expected they will have more encouragement to attend to health matters. At the present juncture the town is in a decadent condition.

Clermont.

In compliance with instructions I made an inspection of this town. The time at my disposal did not permit of a detailed inspection, but I saw sufficient to justify action being taken for the sanitary betterment of the place. There was no properly organised garbage removal system in force, and in consequence accumulations of refuse were found in almost every yard in the town, encouraging the breeding in large numbers of the ubiquitous disease-spreading fly. The sanitary depôt was being well looked after by the man in charge, but improvements were needed in the conduct of the service, to which the Council's attention has been directed. Reports concerning these matters have already been submitted.

Capella.

An opportunity was taken while in this vicinity to inspect the sanitary depôt selected by the Peak Downs Shire Council for use in connection with the sanitary service at this small community. The site has been approved of, and the Council advised as to the proper arrangements of the depôt.

Charleville.

On various occasions outbreaks of typhoid fever have been reported from this Western centre, which have been the cause of considerable alarm among the residents. Numerous letters complaining of the apathy of the Council have reached this Department regarding the alleged insanitary conditions prevailing.

I was directed to make an inspection in February last. A reinspection was made in the month of April, when it was found that the subject-matter of my first report had not been dealt with by the Council. A house-to-house inspection of the town was made, sanitary defects noted, and the Council's attention again directed to these matters. The question of drainage, especially at hotels, where large volumes of waste water have to be disposed of, is a problem that the Council seem disinclined to press to an issue. They have been fully advised as to the proper measures to adopt in this connection.

The incidence of fever seems to be due to the large number of cases coming in for treatment to the district hospital from outside areas. The patients frequently stay at a hotel for a day or two before going to the hospital or calling a doctor, and, owing to the unsatisfactory sanitary service and constructional defects in closets, any cases that may occur among the residents in town may be set down to fly-borne infection.

Two separate reports on this subject have already been submitted to you.

Coolangatta and Currumbin.

A general sanitary survey was made by an officer of the Department of these popular seaside summer resorts, and attention paid to the sanitary requirements of the large number of campers and other visitors.

How Rat Harbourages are Formed—Vacant allotment being filled in with all manner of rubbish against "K" wire fencing nailed to stumps of adjoining building.

Sanitary Convenience—Showing how typhoid fever may be transmitted by flies, and which was condemned by the Department.

Duchess.

Complaints having reached the Department that the alleged drainage from the sanitary depôt contaminated the soaks in the bed of the Bourke River, where travellers and others obtain water, I was instructed while in the vicinity to inquire into this matter. The few hours at my disposal did not give time to follow the natural depressions draining the surroundings of the sanitary site down to the river, fully one mile distant. A new depôt was selected, pending a detailed survey of the storm-water drainage to be verified by the Mackinlay Shire Council's clerk and medical officer, which was accordingly carried out, and the natural drainage shown to empty into the Bourke River 1½ miles below the waterholes, proving no contamination could take place, thus allaying the fears of the travelling public.

Emerald.

Acting under instructions I made an inspection of this town. The usual defects in closet construction were noted. No deodorant in the form of dry earth or other suitable material was being supplied in connection with the sanitary services, both of which encourage the breeding of flies. All the town garbage was being tipped into depressions on the banks of the Nogoa River, a short distance above the pumping station, where the water supply for a large portion of the town and railway is obtained. This also has been the subject of a special report. A subsequent inspection of the town has been made by the departmental inspector stationed at Rockhampton, in consequence of an outbreak of typhoid fever in the district. Recommendations were made and the Council's attention drawn thereto. Steps have been taken by the Council to initiate a properly organised garbage removal system. Old accumulations of refuse have been removed to the proper depôt, and action taken to repair and replace dilapidated closets, and arrangements made for an increased water supply for the inhabitants.

Friezland.

As instructed, I made a reinspection of this mining township accompanied by the shire inspector. There is a decided improvement in the sanitary circumstances of this town to that which formerly obtained.

Gayndah.

A cursory inspection of this old township was also made. Notwithstanding that the Council has been repeatedly called upon to initiate a garbage removal system, they have failed to do so; in consequence, a considerable amount of garbage has accumulated in the town, large deposits being found on the banks of the Burnett River. Improvements are also required in connection with the sanitary service. I have already submitted a report on this matter.

Gympie.

I was instructed to make a reinspection of Gympie in December last. The main drainage of the town has been vastly improved in recent years, and further improvements are to be carried out as money becomes available. The sanitary service is well carried out, and the depôt well conducted.

The Council have been at divers times requested to initiate a comprehensive scheme of garbage removal and disposal, but so far have ignored the Department in this connection. Constructional defects in closet buildings were observed and the Council notified of the fact. A report concerning these matters has been submitted.

Gladstone.

I found this town to be in a clean condition. The sanitary service is being well carried out. The garbage depôt requires more strict supervision. This is usually the case where the removal of household and trade refuse is in the hands of householders and traders. Private carters and draymen tip the rubbish promiscuously all over the place. In some respects the drainage question presents difficulties for its final disposal. The Council have been advised how to economically deal with this problem.

Grantham.

Repeated complaints having been received by this Department regarding the contamination of Sandy Creek by pigsty drainage and by the inhabitants emptying their closet-pans on the banks of the creek, an officer was detailed to inspect and report. The investigations made established the truth of this reprehensible practice. A survey of the township was then made, and sanitary matters shown to be most unsatisfactory. The pigyard nuisance, I understand, has been promptly dealt with, and the Local Authority directed at the same time to take the necessary steps for the initiation of a sanitary service on the duplicate pan principle.

Hughenden.

Notwithstanding the repeated inspections that have been made from time to time, and the suggestions offered to the Council by this Department for the improvement in matters appertaining to public health, Hughenden is still in the same insanitary condition as when first it came under the notice of the Health Department.

I feel that it is incumbent upon me to express surprise at some of the councillors cavilling at the statement of facts that appeared in the report of my recent inspection of the town, and which have been fully borne out by a subsequent reinspection made by the departmental district inspector.

Herberton and Nigger Creek.

A revisit of inspection was made of these townships in October last. Prior to this, at the request of the Shire Council, an officer was detailed to supervise the cleansing of the town, but owing to departmental exigencies the inspector had to be withdrawn, after which the Council promptly discontinued the cleansing operations, even though they agreed to carry on to completion; some of the heaps of rubbish remained on the ground at the time of my inspection that had been collected for removal by the cleansing squads. The sanitary matter is disposed of by incineration. This part of the operations appears to be well carried out. Some improvements could with advantage be introduced in the conduct of the service as a whole. Recommendations covering matters of sanitary executive have been already the subject of a special report.

Innisfail.

On my recent reinspection of this township I found the position of affairs to be exactly the same as when first I inspected and scavenged the town some years ago. There is still an absence of an organised garbage removal system, and the Council still cling to the antiquated dump-cart with all its attendant evils for the collection of nightsoil. The methods of disposal at the depôt were most unsatisfactory.

A reinspection has recently been made by the Department's inspector in charge of this district of the State, in order to find out what action the Council had taken as the result of the visit of the Commissioner.

These visits of inspection have been the subject of special reports, which have resulted in the Local Authority initiating proper sanitary and garbage removal services, and generally adopting more up-to-date methods all along the line.

Jericho.

Correspondence having passed between the Kargoolnah Shire Council and this Department regarding the sanitary condition of Jericho, I was instructed to make a sanitary survey of the township. Cesspits were found to be in general use. The usual structural defects in closets were common, sides of cesspits caving-in exposing the contents. Owing to these facilities providing means for multiplication of flies, the spread of disease by their agency is an ever-present danger to the community. A report has been furnished on the matter.

Kingsthorpe.

A revisit of inspection was made of this township during the month of March by the departmental health officer, accompanied by an inspector. The general state of affairs in the town was evidently much improved to that obtaining when the previous inspection was made in October last. A survey of the town was made, and the usual defects in closet construction were in evidence. A new sanitary service on the duplicate pan principle was being prepared for about this time, consequently the town was in the transitory stage between the old bad system and the more modern sanitary one. It is expected, when next an officer visits the district, everything will be found in accord with the Department's requirements.

Longreach.

Acting under instructions from the Commissioner, I made a reinspection of Longreach. I found the town in a fairly clean condition. The collection and disposal of sanitary matter is well carried out, but the service requires to be amplified. No deodorant in the form of dry earth is provided for use in the closets in the town. Structural defects are common in closets, which encourage the breeding of flies, which are responsible for the spread of disease.

The question of the disposal of drainage is an urgent one which the Council has been considering for some considerable time, but so far as I am aware no forward movement has been made.

Morven.

Recurring outbreaks of typhoid fever having taken place in this wayside township and numerous cases proving fatal, I was directed to make the necessary inspection and inquiry. As a result I ascertained that the Local Authority had failed to carry out the recommendations made to them arising out of previous inspections; in consequence, the fever continued to manifest itself from time to time. The Local Authority, having become seized with the gravity of the situation, are arranging for the initiation of a complete conservancy system for the township, and particulars in connection therewith, including schedules of contract, specification, &c., together with the cost of installing the necessary service, have been supplied to the Council.

Malbon.

As you are doubtless aware, an opportunity was availed of to make a cursory inspection of this township whilst journeying to and from Mount Elliott. The place was found to be in a clean condition, having recently been cleaned up by the residents as directed by the Shire Council's inspector. However, the refuse removed from the several premises in town had simply been tipped on vacant land, forming a fringe of rubbish all round the town, instead of being removed to the proper depôt. The attention of the Council had only to be directed to this when immediate steps were taken by them to give this matter their attention. Cesspits are in use, and the closets were found to be in a good state of repair. Flies were rather numerous. Mosquito and fly posters and literature bearing on the subject of disease were supplied to the local schoolmistress for demonstration purposes and the instruction of the school children.

Maryborough.

The main drainage of this important centre has for many years been in a most unsatisfactory state, and has been the subject of much correspondence between the Department and the Town Council. I was directed to make a reinspection of these sewers on my return journey from my Northern tour of inspection. Some improvements of a minor character had been effected, but the main portion of the sewers, and the most insanitary, remains in exactly the same state as formerly. This has been the subject of a special report, and the Council have been impressed with the necessity for immediate action.

Mackay.

While in this district making an inspection of the plague hospital and inquiring into an outbreak of typhoid fever at the Racecourse Sugar-mill, time permitted of an inspection of the town being made. Much improvement has taken place in drainage matters. Sectional sewers have been laid in various parts of the town where formerly all household waste waters were run into unformed water-tables, which with their rapid tropical growth of weeds and grass were little better than elongated cesspools. Properly formed street water-channelling has also been largely carried out, all of which comprises works of permanent value and effect. The conservancy system, both for the collection and disposal of nightsoil and garbage, is well carried out. Nevertheless, where it was found that improvements could be effected, the attention of the Council has been directed to the matter by the Department.

Mareeba.

On my return journey from the landward districts west of Cairns, I made a reinspection of Mareeba, in the month of October last. The Council has not yet initiated a properly organised garbage removal system, though as far back as the year 1908 they informed the department that steps were being taken to this end.

It is evident that they are still considering the question, judging by the amount of garbage noticed in town. The sanitary service seems to be well carried out, but the depôt could not be very well inspected, owing to a violent bush fire that was sweeping the whole area where it is situated. At the time of my inspection, the wagon sheds, stables, &c., were burning fiercely and practically reduced to ashes.

The hospital drainage is discharged untreated into the Barron River, which should not be tolerated in view of the danger to public health by contamination of the water, which may be used for domestic purposes below Mareeba.

Mount Larcom.

While in Gladstone, in December last, a flying visit was paid to this small township, in order to select a sanitary site for use in connection with their proposed conservancy system.

Mount Garnet.

The Commissioner having deemed it advisable to include this township in the itinerary of the Northern tour of inspection, no officer of the Department having ever visited it, I was accordingly instructed to make the necessary sanitary survey for record purposes.

The township is in a decadent condition, though there are evidences of a numerous population having been resident here at some time. The usual sanitary defects were found which are common to most country towns. Garbage was plentifully scattered about. The Herberton Shire Council has been advised to send their road party, when next in the vicinity, to scavenge the place. They have also been advised on other matters of sanitary executive.

Mount Morgan.

A slight misunderstanding having occurred regarding a matter of drainage between the Calliungal Shire Council and that of Mount Morgan, I was instructed to make an inspection before leaving the Rockhampton district. The matter referred to was amicably arranged. The sanitary circumstances of Mount Morgan show considerable improvement. The Council's notice has been drawn to various matters of sanitary import requiring attention, as a result of this inspection.

Nambour.

Dissatisfaction having arisen among residents in the vicinity of the premises where the nightsoil of this township was being deposited, and the manner of its disposal, an officer was deputed to investigate the matter. It was found that the sanitary matter was being used on a sugar-cane farm instead of being deposited at the assigned depôt, and a nuisance was thereby created. The Council was directed to revert to the original depôt, and advised to use it both for the townships of Nambour and Woombye. A satisfactory solution of the question has been arrived at to all parties concerned.

Nanango.

An outbreak of diphtheria occurred here in the month of March, and was beginning to assume serious proportions. Inspector Burton was despatched to take the necessary action to trace its origin and assist in stamping out the disease. This was happily accomplished. Forty premises were disinfected during the operations. Some seventy-six cases in all, including "carriers," were dealt with, and a temporary hospital equipped for the treatment of patients. With the assistance of the Council's officers, the town was thoroughly cleansed, and eighty loads of garbage removed to the rubbish depôt.

Oxley.

A scheme for the disposal of the drainage of this district was examined and reported on by an officer of this Department, the Council having taken the necessary action to prevent the discharge of household and other wastes into the unformed water-tables.

Oakey.

The unsatisfactory condition of the drainage of this township is one of the problems exercising the minds of the Local Authority. Owing to the lack of fall and all waste water discharging into water-tables, there is a marked tendency for the sewage to stagnate, and cause a nuisance which ultimately finds its way into a creek, the water of which is used for dairying and domestic purposes. At the request of the Shire Council, an inspector accompanied by a health officer was despatched to investigate the matter. Representatives of the Council were met on the ground and the whole question thoroughly gone into. Alternative schemes were submitted for their consideration. Other matters relating to the sanitation of the town were attended to, all of which have been dealt with in a special report.

Prairie.

On my return journey to the coast, and by prior arrangement with the Dalrymple Shire Council, I met the chairman of the Shire Council, accompanied by their ranger, and made a house-to-house inspection of this small township with a view to the initiation of a sanitary service. The paucity of population does not warrant the service being established, as the cost would be prohibitive if it were to be carried out as it should be. However, a sanitary depôt was selected in case the service should be put into operation. The inspection disclosed numerous cesspits full to overflowing, defective closets which permitted the ingress and egress of flies to the fœtid pit contents. Large accumulations of garbage were met with.

Numbers of blue notices were served on the Council regarding sanitary defects, which will serve as a guide to the Council's ranger, who acts as sanitary inspector as well, when he comes to deal with similar cases. Suggestions were offered to the chairman on the spot for effecting improvements in the sanitary circumstances of the town. He seemed to be impressed with their necessity. It is reasonably expected that, when next an officer visits Prairie for the purpose of inspecting the town, matters will have improved.

Senior Inspector Cato, the departmental officer in charge of the Townsville district, was despatched about the middle of January to the

Prairie district for the purpose of selecting the most suitable site from a hygienic standpoint for a shearing-shed.

Peel Island.

The sanitary circumstances of the leper lazaret have been kept under close observation, and at various times during the past year First Senior Sanitary Inspector Dudley has been deputed to arrange for the reconstruction of the drainage, and to attend to matters affecting the water supply of the institution, as well as attend to the comforts of the afflicted on their journeys to the island.

Queenton.

Though this Shire Council has been repeatedly called upon to initiate a garbage removal service they have failed to do so. The sanitary matter is destroyed by fire. The works are kept in a scrupulously clean condition, and are a credit both to the Council and to the officers in charge. By a conscientious discharge of his duties, the foreman has completely eliminated countless myriads of flies that formerly infested the works and surrounding areas.

Richmond.

As instructed, I made an inspection of this township. Some improvement is required in connection with the conduct of both the sanitary and rubbish removal systems. The town requires a thorough clean-up, and a weekly sanitary service instead of the present fortnightly one. The question of drainage disposal is a matter that should receive the earnest attention of the Council. The sanitary condition of the town has already been reported on.

Ravenswood Junction.

This small township is peculiarly situated; one portion of it is within the Shire of Dalrymple and the other part within the Ravenswood Council's area. Numerous complaints have been received by the Health Department regarding matters connected with public health. Endeavours have been made by the Department for joint action to be taken by the respective Shire Councils to improve the sanitary conditions, but so far without result. When I inspected the place last October I found years' accumulations of garbage lying about everywhere, earth-closets in ruinous and dilapidated conditions, with full and overflowing cesspits even of common occurrence. The natural fall of the land is mainly towards the public dam, where the inhabitants obtain water for all domestic purposes, especially during dry spells.

Both of these Local Authorities have again had their attention drawn to the unsatisfactory state of affairs. This is a perfect example of divided authority, and disinclination to perform the functions for which they as councillors were elected.

Ravenswood.

While in the vicinity I was ordered to make a reinspection of Ravenswood. This town appears to be in a decadent condition, and is still in a very dirty state, there being no difference in this respect to that in which I found it a number of years ago. The sanitary depôt seems to be well conducted, though some improvements could with advantage be introduced in connection with the conduct of the service, as also with the garbage removal system. I have already presented a report to you in connection therewith.

Surat.

I was instructed, whilst in the south-western part of the State, to make a sanitary survey of this town. As a result of this inspection the Warroo Shire Council has been called upon to abolish cesspits and initiate a complete conservancy system for this part of their area.

Springsure.

In sanitary matters I found this town in the transition stage between that of cesspits and a duplicate pan service. The premises at the depôt were in the hands of the tradesmen, and appeared to be satisfactory so far as one could judge by the state of completion. The best type of airtight pans was on the ground, and everything indicated that the Council intended to have an up-to-date sanitary service. Suggestions and advice have been tendered to the Local Authority for their guidance in carrying on their new venture in a successful manner.

Selwyn.

By direction I made a reinspection of this mining centre during the month of September, and found everything in a satisfactory state as far as the general appearance of the town would indicate. The existing depression of the metal markets owing to the war has had a marked effect here, as nearly all the workmen have left, and smelters shut down; consequently the production of waste matter had practically ceased. Matters requiring the attention of the Council were duly brought under their notice.

Stanthorpe.

Recurring outbreaks of typhoid fever having taken place in this much frequented health resort, the Local Authorities appealed to this Department for assistance. A health officer accompanied by an inspector was sent to investigate. As a result of this inquiry the inspector was instructed to assist the Council in placing the town in a sanitary condition. Accompanied by the local inspector, a house-to-house inspection was undertaken, and as the result of their endeavours 150 earth-closets were repaired and reconstructed, 5 were demolished and rebuilt; 183 loads of rubbish were removed, independent of the large quantities consumed by fire on the premises where it was collected. Advice in other directions was given by the Department for the future guidance in matters of sanitation.

Torrens Creek.

While on duty within the Shire of Dalrymple, I was instructed to make an inspection of Torrens Creek, in order to ascertain whether the Department would be justified in enforcing a sanitary service. A sanitary system on the duplicate pan principle, as also a garbage removal service for the collection and disposal of household and trade refuse, is warranted and an urgent necessity. Bag-and-sapling closets without roofs were common, and a large number of closet buildings found to be in a ruinous and dilapidated condition. Large accumulations of garbage were found in the yards in the town and scattered about everywhere. The fullest information regarding the initiation of the required services was furnished, and the Local Authority directed to take the necessary steps to comply with the departmental requirements.

Townsville.

While passing through this Northern city, I made a reinspection of their sanitary service. The same old unsatisfactory conditions were found to prevail, even though the subject had been the source of much correspondence between the Council and this Department. Since Dr. J. K. Patrick, Medical Inspector of North Queensland, has taken up his duties in Townsville, improvements have been effected by persistent efforts on his part, and further good results may be expected now that a permanent officer has taken up duty there.

Winton.

In accordance with instructions, I made a revisit of inspection of this Western town, and found everything to be in a satisfactory condition. No drainage nuisances were met with, or accumulations of household garbage. A fully qualified inspector had matters well in hand, even the streets were well scavenged and presented a clean appearance; and the Council are to be complimented on the live interest they now manifest in health matters.

Yeppoon.

An inspection of this seaside watering place was made in December last, and shows evidence of rapid expansion. The situation of the sanitary depôt is too near the town, and was being conducted in a most unsatisfactory manner, and liable to be swept with flood-waters from an adjoining creek. The rubbish depôt was also found to be in an unsatisfactory state. Defects in closet construction were common, and drainage nuisances in evidence. Ample sanitary accommodation has been provided along the seafront for excursionists and campers. Matters of detail for improvements in connection with sanitary executive have been placed before the Shire Council, and will be kept under the observation of the district departmental inspector stationed at Rockhampton.

VISITS OUTSIDE METROPOLITAN AREA BY SANITARY INSPECTING STAFF.

1914 and 1915.	Place.	Purpose of Visit.	Inspector.
24 October ..	Atherton	General inspection	Chief Inspector
12 April ..	Atherton	Sanitary service inspection	R. Wright
28 March ..	Augathella	Sanitary survey, inspection of wells ..	Chief Inspector
30 November ..	Alpha	General reinspection	Chief Inspector
6 October ..	Ayr	General inspection	Chief Inspector
31 October ..	Alligator Creek Meat Works	Inspection sanitary circumstances ..	Chief Inspector
26 November ..	Aramac	Sanitary survey	Chief Inspector
20 July ..	Blackbutt	Investigating nuisance complaint ..	S. Dudley
22 July ..	Brassall	Inspecting sanitary circumstances camp, Cabbage Tree Creek reservoir	S. Dudley
2 December ..	Blair Athol	General inspection selecting sanitary depôt	Chief Inspector
24 November ..	Barcaldine	General inspection	Chief Inspector
27 November ..	Blackall	General inspection	Chief Inspector
17-18 December ..	Bundaberg	Inspection sewers and drainage ..	Chief Inspector
6 March ..	Bogantungan	Infectious diseases enquiry	J. Wiseman
4-5 November ..	Bowen	Cleansing crusade general inspection ..	Chief Inspector
30 December ..	Burleigh Heads ..	Inspection of camps (seaside)	H. Burton
30 December ..	Babinda	Sanitary survey, selecting sanitary depôt	R. Wright
22 December ..	Corinda	Drainage survey	H. Burton
19-21 September	Cloncurry	General reinspection	Chief Inspector
1-2 October ..	Charters Towers ..	General reinspection	Chief Inspector
13-16 October ..	Cairns	General reinspection	Chief Inspector
27 October ..	Cairns	House to house inspection	R. Wright
18-19 October ..	Chillagoe	General reinspection	Chief Inspector
5 December ..	Capella	Selecting sanitary depôt	Chief Inspector
4 December ..	Clermont	General inspection	Chief Inspector
13-15 February ..	Charleville	Infectious diseases enquiry	Chief Inspector
30-31 March ..	Charleville	Reinspection	Chief Inspector
29 December ..	Coolangatta	Inspection seaside camps	H. Burton
7-8 January ..	Coolangatta	General inspection	H. Burton
9 January ..	Currumbin	General inspection	H. Burton
18 September	Darra	Selecting sanitary depôt	S. Dudley
18 September	Duchess	General inspection	Chief Inspector
2 December ..	Emerald	Sanitary survey	Chief Inspector
7-8 March ..	Emerald	Infectious diseases enquiry	J. Wiseman
1 April ..	Englesburg	Selecting sanitary depôt	C. W. Beaver
17 September	Friezland	General reinspection	Chief Inspector
3 October ..	Gordonvale	Selecting sanitary depôt	R. Wright
21 December ..	Gayndah	General reinspection	Chief Inspector
23 December ..	Gympie	General reinspection	Chief Inspector
16 December ..	Gladstone	General reinspection	Chief Inspector
25-26 February ..	Grantham	Sanitary survey	H. Burton
21 June ..	Hughenden	Sanitary inspection	C. Cato
28 September	Hughenden	General reinspection	Chief Inspector
23 October ..	Herberton	Sanitary inspection	R. Wright
6 October ..	Homehill	Selecting sanitary depôt	Chief Inspector
3 December ..	Homehill	Sanitary inspection	C. Cato
29 October ..	Innisfail	General reinspection	Chief Inspector
8 June ..	Innisfail	Selecting sanitary depôt	R. Wright
31 August ..	Ipswich	Inspecting garbage depôt	S. Dudley
26-28 November	Jericho	Sanitary survey	Chief Inspector
25 February ..	Kingsthorpe	Sanitary survey, selecting sanitary depôt	H. Burton
26 October ..	Kingsthorpe	General reinspection	S. Dudley
22-23 November	Longreach	General reinspection	Chief Inspector

VISITS OUTSIDE METROPOLITAN AREA BY SANITARY INSPECTING STAFF—*continued.*

1914 and 1915.	Place.	Purpose of Visit.	Inspector.
31 August ..	Laidley	Inspecting pigyard sites	S. Dudley
12 January ..	Landsborough ..	Selecting sanitary depôt	S. Dudley
18 September	Malbon	General reinspection	Chief Inspector
24-25 March ..	Morven	General survey and infectious diseases enquiry	Chief Inspector
19-20 December	Maryborough	General reinspection drainage	Chief Inspector
7-9 November	Mackay	General reinspection	Chief Inspector
23 October ..	Mareeba	General reinspection	Chief Inspector
15 December ..	Mount Larcom ..	Selecting sanitary depôt	Chief Inspector
20-21 October ..	Mount Garnet ..	Sanitary survey	Chief Inspector
12 December ..	Mount Morgan ..	Inspection of drainage	Chief Inspector
11 January ..	Nambour	Selecting site, sanitary depôt	S. Dudley
16-21 March ..	Nanango	Diphtheria outbreak enquiry	H. Burton.
22 December ..	Oxley	Drainage survey	H. Burton
25 February ..	Oakey	Drainage survey	H. Burton
26 October ..	Oakey	Drainage survey	S. Dudley
29 September	Prairie	Selecting sanitary depôt	Chief Inspector
23 January ..	Prairie	Inspecting site for shearing shed ..	C. Cato
25 August ..	Peel Island	Inspecting water supply	S. Dudley
17 November	Peel Island	Drainage inspection	S. Dudley
23 September	Richmond	General reinspection	Chief Inspector
21-22 August ..	Rockhampton ..	Conveying leper patients to Peel Island	S. Dudley
9-10 December ..	Rockhampton ..	General reinspection	Chief Inspector
11 December ..	Rockhampton North	General reinspection	Chief Inspector
3 October ..	Ravenswood Junction	General inspection	Chief Inspector
4-5 October ..	Ravenswood	General inspection	Chief Inspector
1 July ..	Redcliffe	General sanitary inspection	S. Dudley
3 July ..	Salisbury	Inspection slaughter yards	Chief Inspector
4 April ..	Surat	Sanitary survey	Chief Inspector
7-8 December ..	Springsure	Sanitary survey	Chief Inspector
16 September	Selwyn	General reinspection	Chief Inspector
22 December ..	Sherwood	Drainage survey	H. Burton
21 December ..	Southport	Inspection seaside camps	H. Burton
19-20 December ..	Stanthorpe	Drainage survey	H. Burton
11-14 January ..	Stanthorpe	Typhoid fever enquiry	H. Burton
19 April to 24 May	Stanthorpe	Cleansing crusade, selecting sanitary depôt, supervising constructional alterations closets	H. Burton
29 September	Torrens Creek ..	Sanitary survey	Chief Inspector
21 January ..	Torrens Creek ..	Selecting sanitary depôt	C. Cato
31 Oct.-1 Novem.	Townsville	General re-inspection	Chief Inspector
27 October ..	Toowoomba	Overhauling smallpox camp equipment	S. Dudley
24 February ..	Toowoomba	Drainage survey	H. Burton
28 December ..	Tweed Heads	Inspection seaside camps	H. Burton
12 February ..	Tolga	Sanitary service inspection	R. Wright
10 July ..	Virginia	Drainage survey	H. Burton
25-27 July ..	Winton	General reinspection	Chief Inspector
2-4 May ..	Wallangarra	Drainage inspection	H. Burton
28 October ..	Weinert's Creek ..	Sanitary inspection	R. Wright
12-13 December ..	Yeppoon	Sanitary survey	Chief Inspector
30 January ..	Yeppoon	Selecting sanitary site	J. Wiseman

JOHN SIMPSON,
Chief Sanitary Inspector.

Food and Drugs Section—Government Analyst's Laboratory, Brisbane.

APPENDIX G.

REPORT OF CHIEF FOOD INSPECTOR.

Department of Public Health, Queensland,
Brisbane, 30th June, 1915.

SIR,—I have the honour to submit the following report of the work performed by the division of food inspection of this Department for the fiscal year ending 30th June, 1915.

STAFF.

The staff employed in the duties of enforcing the provisions of the food sections of the Health Acts and of the Food and Drug Regulations during the period under review has consisted, as in the year previous, of the following officers:—

1 Chief Food Inspector ..	Full time food work
2 Senior Food Inspectors ..	Full time food work
2 Food Inspectors	Full time food work
1 Assistant Food Inspector ..	Full time food work
1 Liquor Inspector	Full time food work
3 General Inspectors ..	Part time sanitary, part food

SCHEME.

The general duties of the officers of the food division have consisted in the supervision of all places in which food and drugs intended for human consumption are stored, manufactured, prepared, or offered for sale, including inspection of all classes of food material—raw and finished—methods and appliances used, personal cleanliness of employees, and surveillance in order to ensure that food is protected during transportation, and is purveyed in shops and other places so as to be protected from contamination by flies, dust, and vermin, and unnecessary human contact.

Labels describing foods are also subjected to close scrutiny in order to note if the requirements of the Acts and Regulations are being observed by packers and vendors, and particularly to see that restricted articles are declared thereon, as well as to check the weight or measure of the contained material; the main object borne in mind being so far as possible to obtain for the public a reasonably clean and safe product, properly described and decently handled.

Samples of food and drug products are also procured unofficially for investigation purposes, officially for legal purposes for both chemical and bacteriological examination as the case demands.

DISTRICTS VISITED.

Owing to lack of funds, the movements of the members of headquarters staff were sadly restricted during the year, and country tours were confined to a couple of brief runs by Inspector Plumb along the railway line from Brisbane to Southport in July, and Brisbane to Maryborough in December; a tour of towns on the railway line between Brisbane and Laidley by Inspector Young in August, which occupied about six weeks; a run along the Brisbane Valley line in May; and the Western line towns on the railway route to Cunnamulla by Inspector Mason in August.

In North Queensland and the Central Division a like shortage of the "sinews of war" has cramped operations, with the result that officers at Cairns, Townsville, and Rockhampton have not been able to stray far from their respective centres.

This is not as it should be, for if the work of food inspection is to be properly carried out the officers entrusted with it should have access at all times to every quarter of the State in which food is sold, and whether a town is on or off a railway line it should be visited at least once a year by an officer of this Department.

The food inspectors should, in my opinion, be provided with all-lines railway passes, and be kept moving over the whole State thoughout the entire year, if the interests of the consuming public in outside areas are to receive the consideration they are entitled to; besides which at least two motor-cycles could be profitably employed for work in and around the metropolitan area and in picking up towns lying off railway lines.

The following lists show the outside towns visited by officers on food work during the year:—

North Queensland.

Previous to the establishment of a sub-office at Cairns, visits upon food inspection duties had been paid to that town and Atherton by Inspector Wright, and after the opening of the new branch this office commenced a systematic food survey of Cairns and the adjoining district.

Since then further visits have been made to Atherton, Herberton, Innisfail, Ravenshoe, Tumoulin, and Tolga have also received attention at the hands of Inspector Wright, whose records show that much useful work has been accomplished therein.

In Townsville and the immediate vicinity Inspector Cato has enforced the provisions of the Food and Drugs Regulations energetically, and has visited the city of Charters Towers and the towns on the railway line running west to Cloncurry, taking in from the latter centre the towns of Duchess, Friezland, and Selwyn, and the places lying between. Although by no means perfect, it is evident from Inspector Cato's reports that considerable improvement in the sanitary conduct of food businesses in these areas has been effected since initial inspection, and that more care is being exercised by traders to protect food material from pollution by flies and dust now than was formerly the case.

Bread-weighing and liquor-testing were performed in each town, and milk-sampling whenever possible.

In this latter connection it is interesting to note that milk samples forwarded by the Department's inspectors invariably reach the Government analyst in perfect condition.

Rockhampton.

From the inception of the Rockhampton sub-office, the officer in charge, Inspector J. G. Wiseman, in addition to his sanitary duties, has been kept fully occupied in that city dealing with stocks at wholesale and retail stores, as well as in supervising food-factories, ice-cream shops, eating-houses, &c.

As an important distributing centre, it is imperative that stocks in wholesale warehouses in Rockhampton shall be kept under close observation if outside areas are to be kept clean. Perusal of Inspector Wiseman's list of articles of food disposed of in a satisfactory manner will show that this fact has not been lost sight of. One of the latest reports from this centre shows that Inspector Wiseman has a firm grip of the situation in regard to food supplies in the city of Rockhampton.

Milk-sampling has been conducted in this centre also, and specimens received have reached the Government analyst in excellent condition.

Western Line.

Inspector A. E. L. Mason's reports of his re-inspection of the towns on the railway line between Toowoomba and Cunnamulla show that marked improvements have been effected in the various food factories and stores since the previous visit.

The stores, though not yet in perfect condition, were with few exceptions found in a very good order, as were also the stocks held. Deteriorated food lines and old stock were scarce—a result due to previous overhauling of these places, and the careful supervision over wholesale stocks maintained at the principal centres of supply.

The most marked improvements were observed at aerated water and cordial factories, the proprietors of which are now generally working under sanitary conditions in suitable premises. Nearly all cordial-makers were found using filters of approved design for the treatment of the water entering into the composition of beverages, while the labelling requirements of the Acts and Regulations were being more closely observed.

The proprietors of several small factories which were visited for the first time were instructed concerning certain phases of the law which affect their particular trade.

In connection with the testing of spirits, Inspector Mason found that the manner of his visit did not permit of any degree of secrecy in his movements, and that as a consequence he frequently found publicans ready to receive him. Beer-pipes in use at hotels were found in nearly every instance to be of block tin, very few of the proprietors having failed to comply with notices previously served requiring removal of lead fittings.

Hotel kitchens throughout were found in good conditions, and with provision made for the adequate protection of foods prepared and kept for table use.

Bakeries, butchers' shops, restaurants, refreshment rooms, ice-cream and ice makers' premises were upon reinspection all found showing distinct improvement.

Brisbane Valley District.

Inspector Mason's report upon a visit of re-inspection to the Brisbane Valley district in May of this year shows very gratifying results on the whole.

A few large stocks of old and deteriorated goods were discovered in some of the stores, and were disposed of to the satisfaction of that officer.

Bakers' premises were for the most part very satisfactory, only two instances of short-weight bread being disclosed, while a higher standard of cleanliness obtained.

The presence of lead in chopping blocks was a feature of the inspection of butchers' shops. Wherever found, however, it was removed immediately by the responsible party. All of the offenders pleaded ignorance of the law in this particular connection.

The need for more frequent inspection was demonstrated in the aerated water and cordial factory section, where several manufacturers were found using, in the preparation of their beverages, water which had not previously been filtered or treated in compliance with the Health Acts.

South-Western Line.

Inspector A. N. Young covered nearly 1,000 miles of rail upon his tour of the South-Western Railway from Brisbane to Dirranbandi. In the towns called at on this trip general food inspection was conducted by that officer, who, in addition to routine supervision of stocks, premises, and labelling conditions, tested liquors at hotels and weighed bread at bakeries.

At a number of licensed victuallers' premises along this line, evidence of the objectionable practice of refilling bottles was obtained. In every such instance the responsible parties were given plainly to understand they were committing an offence against the law, and were advised that in the event of future breaches of a similar character being detected prosecutions would follow.

In this connection I would remark that Inspector Young's actions were considerably restricted by the decision in the case "Plumb *v.* Tritton," in which it was held by the Full Court that an officer taking or obtaining a sample of food must divide the sample into three parts, for in the majority of cases that came under that officer's notice division of the sample into three parts would not have furnished a sufficient quantity for purposes of analysis in each instance, the bottles being invariably "broken."

On the whole, however, marked improvement in the conduct of businesses handling food lines and in the condition and upkeep of the premises was noted.

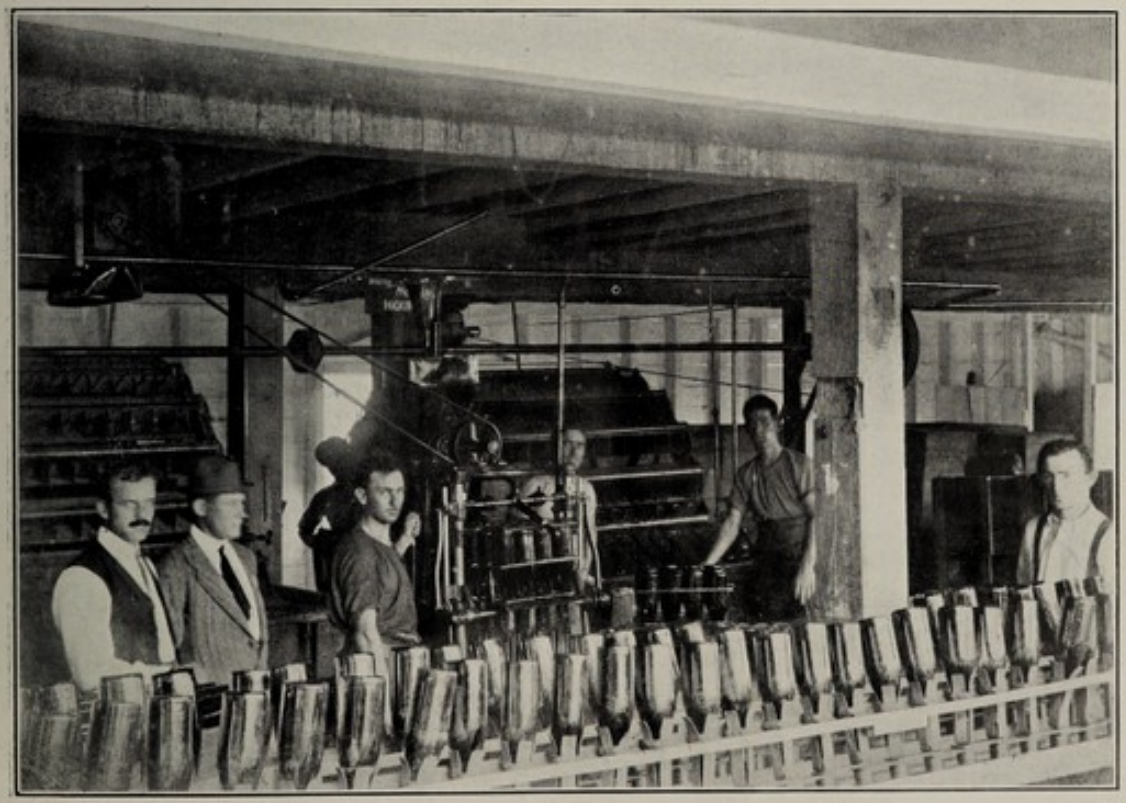
Aerated water and cordial makers were found to be exercising more care in the use of preservative substances, labelling conditions, and in the use of potable water for manufacturing purposes.

Storekeepers generally had their stocks in better order and provisions protected. Hotelkeepers' kitchens were cleaner, and more care is being exercised to safeguard foods for the table from pollution by flies and dust.

Cordial Factory and Aerated Water Works—Poorly lighted and with faulty floor.

Cordial Factory Well Lighted and with an Excellent Floor Throughout.

Old Time Bottle Washing and Hand Filling.



Bottle Washing and Filling by Machinery—Modern method.

Butchers' premises also showed signs of improvement, and lead-filling had been eliminated from meat-chopping blocks, and it is a pleasure to record that very few of the butchers on this line found the use of preservative substances necessary in the manufacture of mincemeat.

North Coast Line.

Inspector Plumb's tour of the North Coast line took in the principal towns and cities lying between Brisbane and Rockhampton and including the last-named place.

Upon this trip 161 hotels were visited and inspected, and liquor tested at each. The total was made up as follows:—

Bundaberg	21 hotels visited
Rockhampton	53 hotels visited
Gladstone	8 hotels visited
Childers	6 hotels visited
Cordalba	3 hotels visited
Gin Gin	3 hotels visited
Maryborough	32 hotels visited
Torbanlea	1 hotel visited
Howard	3 hotels visited
Tiaro	3 hotels visited
Gympie	28 hotels visited
	161

At the majority of these places the spirits vended were found in a fairly satisfactory condition, but at certain of them considerable evidence existed of the misuse of proprietary line bottles.

Maryborough was the worst offender in this respect, and Inspector Plumb's observations indicate the need of an early reinspection of the spirits vended at certain hotels in this centre.

Inability to employ the provisions of section 102 of the Health Acts as heretofore considerably hampered Inspector Plumb's operations, but in five instances it was found possible to secure a sufficient quantity of spirits to enable purchase of samples in accordance with the requirements of section 103.

At Rockhampton draught spirits were very good, but here also there was evidence of refilling proprietary bottles.

Gympie—considering the number of hotels—was found in a fairly satisfactory condition so far as spirits are concerned, and there did not appear to be the same amount of refilling that was observed in other towns.

Bundaberg draught spirits were on the average fairly good, but our officer's figures indicate that refilling was also in vogue in this city.

In connection with the misuse of proprietary containers, letters were addressed to the licensees of premises upon which the practice was found to exist, and as a result it is likely that more care will be exercised in future.

At each hotel visited, beer-drawing apparatus and connections, glass-washing arrangements, kitchens, &c., were inspected. Hotels found with lead pipes or portions of lead pipes still remaining in use were given final instructions to remove same forthwith, and those having inadequate safe accommodation required to provide same at once.

Subsequent reinspection of a number of hotels at which defects were observed revealed that licensees had attended to instructions, and that bottles containing special brands were apparently true to label.

As a result of this tour, five publicans on the North Coast line were proceeded against for selling adulterated liquor, a conviction being obtained in each instance.

METROPOLITAN AREA.

Much work of a solid character has been performed by the Department's officers in the Brisbane metropolitan area during the past twelve months. In the cities of Brisbane and South Brisbane this work has consisted mainly in inspection of stocks and inquiry into conditions obtaining at wholesale warehouses, bond and free stores, food factories of every description, aerated water and cordial works, breweries, mills, canneries, cold stores, markets, auction marts, retail stores, bakeries, restaurants, refreshment rooms, &c., &c.

In addition to this, the various river wharves have been kept under surveillance, milk and food sampling performed, liquor-testing carried out, and special investigations of various descriptions conducted.

It will be evident that it is not possible to observe "office hours" on work of the above nature, and the officers employed upon it fortunately have displayed no desire to keep them. The inspectorial staff has turned out early and late whenever called upon, without demur or hesitation, and have performed the duties entrusted to them with energy and tact.

In the city and surrounding areas considerable improvement is noticeable in every line of business dealing with the preparation or storage of food for sale, and during the period under review many valuable alterations and additions to premises and plants have been effected.

Wholesale Warehouses.

The work of warehouse supervision has been entrusted to Senior Inspector C. W. Beaver, who during the entire year has applied himself diligently to the work, and kept in close touch with the merchants controlling these businesses.

As a result of that officer's sustained efforts, the conditions of wholesale grocery and other stocks and methods of holding same have undergone marked improvement, while a considerable quantity of deteriorated and unsound food material has been precluded from the possibility of going on to the retail market.

Primary inspection revealed in numerous instances an unsatisfactory state of affairs in ullage and packing rooms, where broken stocks were found on shelves together with damaged and deteriorated articles, probably not intended for sale, but without any apparent effort at differentiation; floors covered with packing débris, broken containers, &c.

Emphatic reference to the heads of firms to the requirements of the sections of the Food and Drug Regulations concerning protection of foodstuffs from contamination had the desired effect, and brought about radical changes in these departments.

It is gratifying, however, to record that such conditions have been relegated to the past, and that those in control now realise that it pays to keep and protect stocks in a proper manner, and that an experienced storeman is worth more than two or three inexperienced youths.

A negligent system of storage will cover up lines which do not possess long-keeping qualities, and where this obtains the annual stock-taking is certain to reveal something which has been rendered valueless thereby, the ultimate fate of which can only be the garbage tip.

Bond-keepers, until quite recently, had a habit of passing on material of this description to auction rooms for disposal "with all its faults." A warning administered in this direction, however, has had the desired effect, with the result that foodstuffs—good, bad, or indifferent—are seldom offered to an auctioneer without reference to the Department.

A matter that has received considerable attention by Senior Inspector Beaver during the year is that of the condition of bottles used by wine merchants and bottlers to contain wines and spirits.

An objectionable system obtained in certain instances of using bottles already washed by dealers without further treatment by the bottler —whereby dust collected in transit from the marine store or during storage at such premises was overlooked. Another insanitary practice consisted in the rinsing of the bottles as they were received from the bottle merchant with the spirit used in filling, the spirit rinsings afterwards being passed through the bottle filter and ultimately going into consumption.

Discontinuance of both practices has been required, and the provision of adequate bottle-washing apparatus insisted upon in such businesses.

Large stocks of canned and packed goods have been examined in warehouses and bond stores during the year, and samples of various food lines submitted to chemical analysis and bacteriological examination.

Aerated Water and Cordial Factories.

Aerated water and cordial makers' premises in above area have received visits of inspection at intervals during the fiscal year, the main points to which attention has been directed being supervision of water supply, description and condition of filtering apparatus, preservatives employed, materials used in manufacture of beverages, labelling provisions, sanitary condition of premises, and personal cleanliness of employees.

A distinct upward tendency in the conduct of this class of business in Brisbane metropolitan area is noticeable. The premises generally have been kept in better order, greater care has been exercised in the choice of materials, and proprietors have evinced a desire to bring their labels into conformity with the law. On the water question, too, it has been found that the importance of preliminary treatment and careful storage after filtration has become more generally recognised and appreciated by the trade.

Numerous alterations to premises have been effected and others are contemplated in the near future. A few old factories are in existence that it is to be hoped, however, will disappear entirely during the course of the next few years.

Ice-cream Factories.

A number of old-time factories for the manufacture of ice-cream and ices have gone out of action during the past two years. A few others still remain that could well be spared. On the whole, however, the ice-cream business has been conducted on more sanitary lines than in the past, while the product itself has been of better quality. Unfortunately, a number of individuals engaged in this class of trade have but elementary notions of hygiene, and it is, therefore, hard to make them appreciate the necessity of maintaining the conditions which food laws exact.

Registration of vendors and licensing of premises is a scheme which might be followed with advantage, while the street vendor, in my opinion, should be eliminated.

Most of the small shops and refreshment rooms in and around the city have ceased manufacturing their own ice-cream and ices, and are obtaining their supplies from the large factories.

It is intended during the forthcoming year to conduct a series of bacteriological examinations of the products issued from these premises.

Confectionery Factories.

As in the ice-cream business, the tendency in the confectionery trade is for the smaller class of factory to drop out, while the large type of factory expands, and in so doing makes provision for the conduct of the work on a more up-to-date and sanitary system. This is occurring in the Brisbane metropolitan area, and we have had the pleasure during the past year of witnessing numerous improvements in the lolly trade.

One firm in particular is worthy of mention, as in the erection of its new premises it considered not only the conveniences of its business but also the comfort of its employees. At this factory lighting and ventilation are excellent, and first-class change-rooms and dining-hall are provided for the workers, as well as a pleasant roof-garden having a fine view over the river.

Systematic inspection of premises and material has been performed during the year, and samples of the finished product, as well as of the several substances used in its preparation, submitted to analysis.

It is a hard matter—when facilities are provided—to get employees to refrain from keeping articles of personal clothing in workrooms, but observance of this requirement has been insisted upon, and the inspectors now find little to complain of in this direction.

Bakehouses.

Senior Inspector Stewart has put in a lot of useful work in the city and suburban bakehouses, as a result of which more care is being taken by proprietors in the upkeep of premises, protection of material, storage of yeast, and methods of working. The work, however, has been difficult to handle without inflicting hard-

SALOON BAR OF A CITY HOTEL.—Bar fitted with approved water filters and glass washers; covers provided for jugs, etc.

ships upon a number of the small bakers, who in many instances have carried on business in their present premises for lengthy periods.

Many of these bakeries do not fit in with the requirements of the existing code, and to make them do so would be like putting new wine into old bottles, and as a matter of fact the majority of such places are not worth the expense. Considerable latitude has had, therefore, to be shown, and provided the cardinal requirement, cleanliness, has been observed, Senior Inspector Stewart has overlooked other shortcomings.

In certain cases, however, it has been found possible to effect improvements to bakehouses, and where such have been contemplated advice has been readily tendered as to the shape it should take. Wherever possible, Senior Inspector Stewart has endeavoured to secure provision being made for separate employees' change-rooms, together with adequate sanitary and ablutionary accommodation. The existing Food and Drug Regulations make no provision in this regard, but the proposed uniform standards, which in all probability will be in operation during the forthcoming year, contain specific and detailed provisions for such in all food factories.

Bread-weighing has been performed by our officer at a number of city bakehouses.

Hotels.

Inspector Plumb's records show that officer to have paid 281 visits of inspection to hotels in the Brisbane metropolitan area, and at each one of these premises liquor-testing was performed.

In this area very great improvement has been noticed in the class and quality of spirits vended by licensed victuallers, due, doubtless, to sustained inspection.

Greater care, too, has been exercised at all hotels in the matter of glass-washing arrangements, and in a number of instances special washing appliances have been installed in bars. These apparatus, which work on the spray principle, have proved most effective, ensuring that each and every glass is thoroughly cleansed both inside and out.

A strong endeavour has been made to induce all hotelkeepers to install running water in their bar-sinks for glass-washing purposes, whenever such is obtainable. In cases where running water has not been available, Inspector Plumb has impressed upon responsible parties the necessity of continually changing the water in the sinks so as to ensure that all glasses shall be washed in clean water only.

In summarising his work over the period under review, Inspector Plumb, in dealing with general conditions at hotels, states that bars generally have been found clean and that an all-round improvement in conditions is evident. A large number of hotelkeepers are effecting big alterations to their premises, and the bars are being modernised.

In his inspections Inspector Plumb found the majority of hotel kitchens clean, but he expresses the opinion that, owing to the close proximity of closets to such places in numerous instances, it is desirable, in the interests of guests, that regulations should be framed compelling licensees to protect kitchen door and window openings by means of flyproof wire gauze, in order to minimise the risk of fly-pollution of the food prepared and stored therein.

Concerning hotel employees, Inspector Plumb reports that in the metropolitan area he has found bar attendants cleanly in their persons and clothing.

In dealing with the class of liquors vended, our officer remarks that since the elimination of threepenny spirits a marked improvement in the general quality of liquor sold is observable. The refilling-of-bottles evil does not exist to anything like the extent it did a year or so back, though upon occasions it is still met with. A number of licensees spoken to upon the subject have admitted the error of refilling, and promised to abstain from the practice in future.

During the course of his inspections, Inspector Plumb has endeavoured to assist all publicans who were novices at the business. Some of these through ignorance have been selling liquor from 30 o.p. to 30 u.p. As that officer points out, both errors are equally bad, and the very strong spirit has often been responsible for the reports received by the Department to the effect that liquor is being "doctored" at certain hotels. In such cases it has been found that the publican has not been able to use a testing apparatus, and whenever possible Inspector Plumb has made it his business to give such person a thorough grounding in the use of the hydrometer.

In this connection Inspector Plumb expresses an opinion which I consider an excellent idea—namely, that before any publican is granted a license he should be required to pass an examination in "breaking down" and in testing spirits with a hydrometer.

During the year Inspector Plumb issued five prosecutions for adulteration against publicans in the metropolitan area, all of which were successful.

In addition to hotel inspections, regular visits have been paid to publicans' booths on showgrounds and racecourses. At both classes of premises it was found upon initial inspection that arrangements provided for glass-washing, &c., were totally inadequate, and in certain instances nothing short of disgraceful. As the result of representations made to club secretaries and others, a most beneficial change has been effected, and with the knowledge that these places are now sanitary, and that the quality of the liquor vended thereat is beyond suspicion, the general public can attend such resorts with an easy mind.

UNSOUND FOOD.

During the twelve months under consideration the Department's food inspectors have witnessed the destruction of 60 tons 16 cwt. 16 lb. of deteriorated food material which was unfit for human consumption. A detailed description of the articles so dealt with will be found appended to this report. Upon being dissected

the total weights credited to the respective centres are as follows:—

	Tons	cwt.	qr.	lb.
Cairns	10	16	3	15
Townsville	4	11	1	23¾
Rockhampton	7	5	3	1½
Brisbane	38	2	0	4
Total	60	16	0	16¼

With but few exceptions, inspectors' rulings have been accepted by traders without demur, but, in cases where a doubt has been expressed as to the fairness of an opinion delivered by an officer, the particular stock concerned has been held up pending receipt of a report from the Government Analyst upon a sample taken from same; final action being delayed pending the result.

In other instances, where considerable quantities have been involved and the officer has been desirous of confirming his opinion as well as of giving the owner a "square deal," samples representative of the whole have been taken and submitted to the Chemical Laboratory before proceeding further.

It is a very great pity—more particularly in the present crisis—that so considerable a quantity of expensive food material should have to be rejected from the market. I am compelled, however, to state that in numerous instances the owners have had only themselves to blame for losses due to lack of proper attention, careful storage, and very often through overstocking.

Canned foods, dried fruits, cereals, spices, infants' foods, confectionery, &c., will not under any circumstances keep indefinitely, but when such lines are stored under adverse conditions—as by exposure in sunny and unprotected shop-windows, on shelves directly under galvanised-iron roofs, or in unventilated cellars and basements, &c.—it is not to be expected they will hold good even for a reasonable period.

Deteriorated articles affected by grubs, moulds, weevils, &c., if allowed to remain for any time in contact with sound material, speedily contaminate such, and it is probably within the mark to estimate at many hundreds of pounds per annum the loss wholesale and retail traders occasioned by such means.

So far as canned fish is concerned, the lines with which the Department's officers had most trouble were herrings and sardines. The former line was met with principally as old stock and was in extremely bad condition. Herrings in tomato sauce was one of the worst affected articles, and in this form—that is, packed with a vegetable substance—the keeping quality of the fish in a climate such as Queensland's appears to be limited. The storekeepers are recognising this fact, as are also the packers, and I was informed by representatives of two large foreign canning concerns that in future they will refrain from placing on the Queensland market fish packed in vegetable sauces.

Sardines, of which some 46,000 odd tins were destroyed during the year, was the line that caused the Department the most trouble. In every instance where an adverse decision was delivered concerning such, the inspector has been backed up by an analyst's certificate showing that the contents of tins were unsound and unfit for human consumption. The great majority of the tins were "blown," and contained gas under pressure ranging in quantity from 2 cubic centimetres to 22 cubic centimetres—that is to say, every degree of change from initial symptoms to the final bursting point was met with during the course of investigation.

Every trader has been prepared to admit that the contents of a "blown" tin are unfit for food, and has informed us that it is the invariable rule of the trade to throw such out whenever met with. Accepting this statement as correct, it is difficult to understand why storekeepers and wholesale merchants are at times so hard to convince that the "blown" tin they acknowledge to contain bad contents must have a starting point from which, by a series of further stages, the final condition is arrived at, and during any one of which the contained material may be equally unsafe to consume as food.

So far as ill consequences resulting from the consumption of unsound fish is concerned, one must admit that certain races consume fish in a putrid or semi-putrid condition as a regular article of diet without any apparent ill effects; on the other hand, cases are on record where individuals partaking of exceedingly small quantities of tainted fish and meat have been poisoned, and in certain instances have died as the result.

Dixon Mann, in his "Forensic Medicine and Toxicology" (fol. 657), quotes a case recorded by Stevenson in the British Medical Journal, 1892, of a man who ate six sardines for breakfast; a few hours later he complained of feeling unwell and vomited. Next morning there was slight pain in the stomach, the abdomen was tense but not enlarged, and the patient was perspiring. Shortly after noon collapse rapidly set in, and death occurred almost immediately. Stevenson obtained alkaloidal extracts from four of the remaining sardines, from the contents of the stomach, and from a portion of the vomit, all of which were highly toxic and respectively killed three rats, to which they were administered subcutaneously.

In the case of tinned salmon, numerous instances are on record of serious illness and death occurring from the consumption of unsound fish of this description.

Although these features have been discussed, it is well to note that the Department has no need to consider the question of injury to health in connection with food material, as under the Queensland Health Acts, section 90 (viii.), a food is deemed to be adulterated if, amongst other things, "it consists wholly or in part of a filthy, decomposed, or putrid animal or vegetable substance." Such being the case, when an article of food is shown by the Government Analyst to be unsound it cannot lawfully be offered for sale, and the Department fortunately has not to prove that it would or might poison a consumer before it can prevent its sale.

During the year consignments of tinned fish were examined in bond and at the river-side, as well as in warehouses and retail storekeepers' premises. The work, which is laborious, has required the exercise of a considerable amount of patience and discretion.

A Well Equipped City Soda Fountain and Refreshment Room—Tables protected by means of plate glass tops, which prevent absorption of spilled liquids and ensure hygienic conditions. Each table provided with automatic deliverer of drinking straws. All food containers covered.

Food Exposure.

The food inspectors during the year have made an earnest attempt to enforce the regulations dealing with the protection of food from contamination by flies and dust. As the result of their efforts, storekeepers generally throughout the metropolitan area have ceased from hanging and placing perishable food articles outside their shop-fronts, and have provided facilities within the shops for the protection of such lines of provisions as bacon, cheese, butter, &c. More care is also being taken in storing cereals, dried fruits, &c., so as to safeguard them from attack by insects and vermin.

Nearly all bakers' carts are provided with top covers, while delivery from cart to customer is effected by means of a basket. The objectionable practice of carrying bread upon the footboards of carts has likewise been discontinued.

Up to the present, fruit-shops have not been required to close in their fronts, as most of the lines exposed therein are usually decorticated before use. Under the new regulations, however, it is proposed to insist upon adequate protection of all soft fruits such as cherries, strawberries, &c., offered for sale in such places.

The class of business requiring the most careful supervision in the matter of food protection is undoubtedly the "smallgoods" or "ham and beef" section. Here we have a variety of food substances peculiarly liable to contamination by dust and flies, as well as from the immediate surroundings, the hands of the vendor, and methods of storage.

Upon occasions when food inspectors have "shaken up" smallgoodsmen on the question of leaving windows open to flies, &c., it has been asserted that it is "a pity that the officers had not something better to do than wander round town looking into shop-fronts." If any time put in on food inspection duties is well spent, it is in my opinion that which is utilised in keeping these places up to the mark.

Scientific investigation during recent years tends to show that the majority of cases of illnesses attributed in the past to "ptomaine poisoning" were in all probability caused by the consumption of food containing certain pathogenic organisms, and in the most recent cases inquiries into the identity of the particular micro-organism responsible for the trouble has been fixed. It is now established beyond dispute that in the majority of cases of meat-poisoning investigated the vehicle of infection has been brawn, meat pies, or other form of made-up meat, while investigation into the condition of premises in which such material was prepared or stored has shown that definite opportunities for contamination have existed.

Numerous cases of poisoning due to the consumption of corned beef, ham, &c., have occurred in the State and city during the past few years, and if the Department is to safeguard the public from further risk it must insist that all places in which cooked viands are vended are so situated and kept that foods prepared and stored therein are protected from pollution by flies, dust, and other possible sources of contamination, and that when facilities are provided the responsible persons make proper use of them. It is certainly the height of absurdity to require wire-gauzing of shops and shop-windows and to afterwards allow the shopkeeper to keep both open.

Food and Drug Sampling.

The total number of samples of food and drugs submitted to the Government Analyst during the period under review was 1,769, and consisted of 762 official and 1,007 unofficial specimens. The former were obtained for survey and confirmatory purposes, while the latter were purchased formally for purposes of legal procedure.

These samples were supplied from the undermentioned sources:—

—	Official.	Unofficial.	Total.
Brisbane office	599	939	1,538
Rockhampton branch ..	23	26	49
Townsville sub-office ..	71	23	94
Cairns branch	69	19	88
TOTALS	762	1,007	1,769

Particulars concerning the various articles included in above figures will be found in detailed list appended.

As these will be dealt with by the Government Analyst in his report I shall not attempt to discuss results here, but would draw attention to the fact—as I did in my previous annual report—that the percentage of food (other than milk) and of drugs reported as adulterated does not imply that this is the actual percentage of all foods and drugs upon the market that are below standard—as the samples handled by the Government Analyst were collected mostly from suspicious sources—but indicate only the ratio of adulteration of the specimens examined in the Government Laboratory.

I mention this in order that a false impression may not be conveyed, and to illustrate my meaning would refer to headquarters figures, which show that of fifty-eight samples of whisky and brandy submitted therefrom only one specimen of each satisfied requirements. Judged on bare results with no explanatory particulars, this would appear to indicate a most alarming state of affairs. Concerning these particular samples of spirits, however, the facts are that each specimen, before being submitted to the Analyst, had previously been tested by an officer of the Department by means of the hydrometer, and had been found wanting. In order to give the owner a "fair deal," action is not taken upon the results of an officer's reading, but only upon the evidence furnished by analytical examination of the product concerned.

I have purposely omitted milk from inclusion in this connection, for the reason that the position here is different. Milk samples are purchased on the open market without previous handling, and the percentages of adulteration recorded by the Analyst are likely to afford a correct view of the situation.

During the year and in spite of the heavy fines inflicted, the adulteration of milk has apparently been on the increase. Shortage of supplies has doubtless been to a large extent responsible for this state of affairs, but not

entirely, and the fact remains that so long as milk-vendors are permitted to carry water upon their vehicles the Department's officers are not likely to be able to prevent fraudulent manipulation. A cart may be pulled up and a sample of milk obtained from each can while the milkman smiles serenely, knowing full well he has nothing to fear, for so long as he has his trusty water-can on board he is not at a loss for means to augment his milk supply if he is so inclined, and as a rule he is able to do so without much fear of being caught if he is careful how and when he performs the act.

The Department has now in the hands of the Justice Department for revision a code of regulations controlling milk-vendors, which it is anticipated will be gazetted at an early date. These regulations provide for the licensing of premises and registration of vendors, and prohibit the carrying of water upon a milk-cart. To enforce them as they should be, however, the appointment of a few additional inspectors is essential, so that the Department may be able to place at least one inspector in the metropolitan area and two inspectors in the country districts on full-time duties in connection with the control of the public milk supply.

Nothing short of sustained attention—seven days a week—is likely to produce lasting improvement in the quality of milk vended in town and country districts, and this, backed up with the support of police magistrates, should have the effect of convincing milk sophisticators that the game is a risky one and not likely to pay in the long run.

I am pleased to say that police magistrates generally throughout the State appreciate the enormity of this class of offence, and are inclined to inflict substantial penalties. A certain type of offender, however, is not to be deterred by the infliction of a monetary penalty, no matter how heavy it may be; and terms of imprisonment meted out to such individuals would be likely to have a most salutary effect upon the trade as a whole. In the words of a local scribe who recently discussed this phase of the question—

> This sort of thing we're reading in the papers every day,
> Yet the milk adulterators pursue their wicked way;
> There's money in the business, and so they're blythe and gay,
> And roll up prompt and cheerfully their penalties to pay.
> But something more is needed than a paltry little fine;
> A few months of seclusion might make the scoundrels whine.
> From this common-sense suggestion the Bench may take a line,
> Then perhaps we'd get our cow-juice directly from the kine.

Prosecutions.

The Department, through its offices at headquarters and sub-offices, conducted during the twelve months 125 prosecutions against individuals and firms contravening the provisions of the Health Acts and the Food and Drug Regulations made thereunder.

These cases were apportioned as follows:—

Headquarters staff	.. ..	65 prosecutions
Townsville staff	.. ..	32 prosecutions
Cairns staff	.. ..	25 prosecutions
Rockhampton staff	.. ..	3 prosecutions
Total	.. .. ..	125 prosecutions

The total penalties inflicted amount to £855 18s. 6d., made up of fines £562 10s. 6d., and costs £293 8s., which works out approximately at an average fine per case over all cases of £4 10s., with average costs per case over all cases of £2 6s. 11d.

Classified roughly into four main divisions, under the headings of "Milk," "Alcoholic Liquors," "Miscellaneous," and "Obstructions," results of prosecutions may be summarised as follows:—

Milk.

Headquarters proceeded against thirty-two milk-vendors, thirty of whom were charged with selling adulterated milk and two with selling milk below standard. Adulteration in each instance consisted in the addition of water in amounts ranging from 5 per cent. to 42 per cent., while the two milks below standard were deficient in fats to the extent of 21 per cent. and 25 per cent. respectively.

Convictions were obtained in thirty-one instances, and one case was dismissed on a legal technicality. Total fines imposed amounted to £305 2s. 6d., and total costs £84 6s. 2d. The average fine imposed works out at the rate of £9 10s. 8d. per case.

Townsville proceeded against nine milk-vendors for adulteration and deficiencies in fat, and secured a verdict in each instance. Total fines imposed amount to £37 15s., and costs £21 14s. 2d., average fine inflicted £4 3s. 10d. per case.

Cairns instituted proceedings against three milk-vendors and secured three convictions. Total fines inflicted £8, and total costs £10 8s.; average fine per case, £2 13s. 4d.

Rockhampton.—One prosecution; convicted, fined £5.

Obstruction.—One milkman at Toowoomba and another at South Brisbane were charged with refusing to supply an officer of the Department with a sample of milk, whilst a third vendor at North Brisbane was charged with definite obstruction.

A conviction was recorded in each case, and penalties inflicted of fines totalling £32, and costs £6 16s. The average fine per case works out at the rate of £10 13s. 4d.

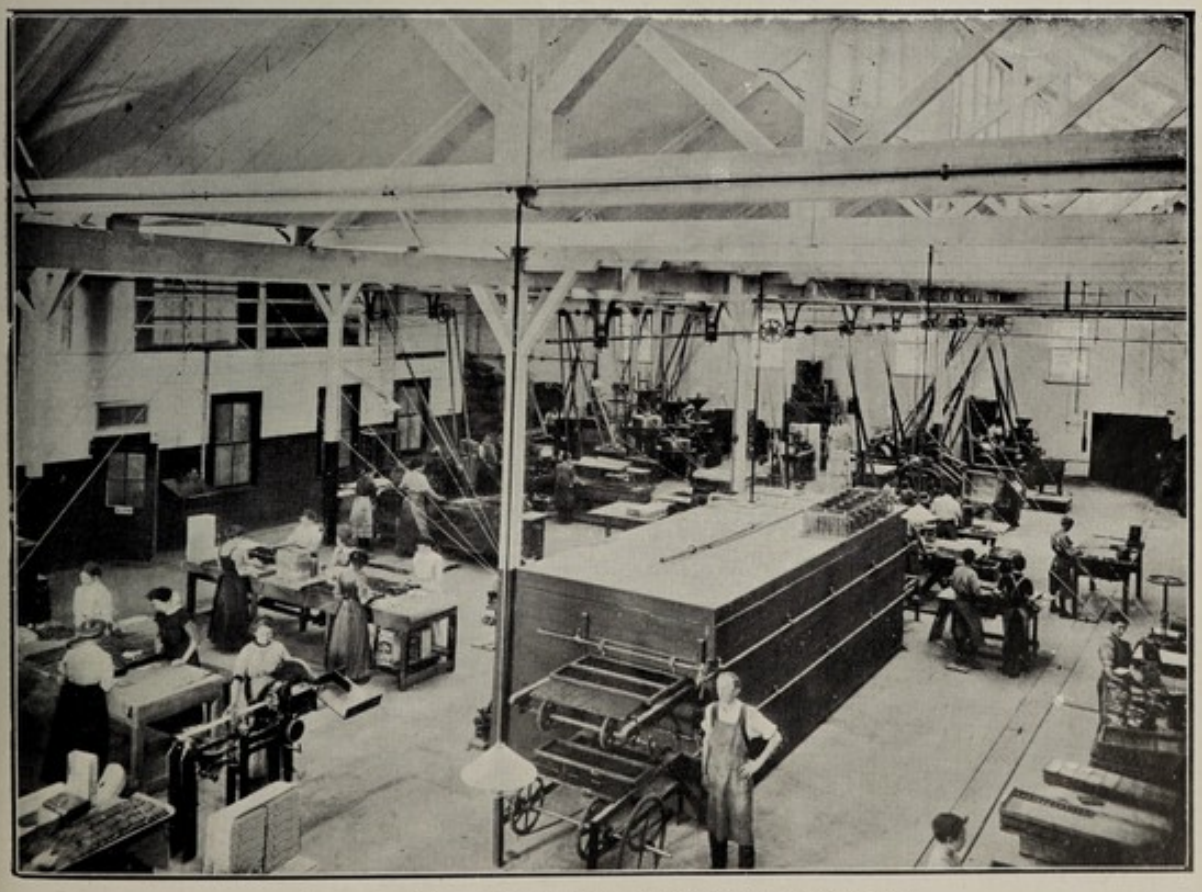
Judging from these figures, it will be seen that there is less risk entailed in supplying an inspector with a poor specimen than in refusing absolutely to serve him or in emptying the contents of a can over him or on to the ground.

In one of the above cases the full penalty of £20 was imposed by the police magistrate.

Alcoholic Liquor.

Headquarters prosecuted seventeen publicans for selling adulterated liquor, and obtained a verdict in each instance. Total fines inflicted, £47 6s. 6d., and costs £32 18s. 6d. The average

Jelly, Gum, and Cream Goods—Room in an up-to-date City Confectionery Factory.



Chocolate Making Department in the same Establishment.

fine works out at the rate of £2 15s. 8d. per case —a poor penalty, considering the nature of the offence and the profits resulting from the practice.

Townsville took eight cases and was successful in each one. Total fines £19, and total costs £22 9s. 3d.; average fine working out at £2 7s. 6d. per case.

Cairns proceeded against fourteen licensed victuallers in the far North and secured fourteen convictions. Total fines imposed £34 1s.; total costs £47 12s. 8d., or an average fine per case of £2 8s. 7d.

In one instance at Cairns a special case was stated against a publican for forfeiture of certain liquor that was alleged to be adulterated, with the result that some 36 gallons of brandy were forfeited to the Crown by order of the police magistrate.

In almost every instance where a conviction has been obtained against a licensed victualler for the sale of adulterated liquor, placarding of the vendor's premises and the insertion of a notice in the public Press has been ordered by the police magistrate hearing the case, together with endorsement of the hotel license.

The form of adulteration met with in the above-mentioned cases has consisted without exception in the addition of water over and above the legal limits. From time to time complaints have been received alleging the use in spirits by certain publicans of various chemicals and injurious substances, but in no single instance, upon investigation, has the presence of such ingredients been detected by the Government Analyst in the samples submitted to him for examination.

Regarding what may have occurred in the past I am unable to speak—except from hearsay —but concerning the present, as the results of my own experience and the labours of the food inspectors during the past three years, I feel no hesitation in asserting that such practices no longer obtain, and that the liquors vended in this State generally need not fear comparison, so far as quality is concerned, with those of any other State in the Commonwealth.

The question of labelling is of course another matter, but even in that respect also I believe the public is probably as well, if not better, served here as elsewhere.

Miscellaneous Prosecutions.

Under this heading I have included thirty-two prosecutions by the Department at Headquarters, Rockhampton, Townsville, and Cairns, for various breaches of the Health Acts and of the Food and Drug Regulations. Those taken under the Health Acts were a more serious class of offence than the cases stated under the Food and Drug Regulations. In the former section are included adulterations of meat, essences, cordials, oysters, &c., as well as light-weight bread and false description or "misbranding"; whilst under the latter were taken such cases as filthy premises, unprotected foods, ice-cream made under prohibited conditions, the use of rag to close milk-can lids, wrapping of meat in newspaper, exposure of milk to contamination, dirty refreshment saloon, &c., &c.

Headquarters Staff prosecuted in thirteen instances and secured a conviction in each. Total fines, £46 15s. 6d.; total costs, £15; average fine per case, £3 12s.

Townsville took fifteen prosecutions and secured fifteen convictions. Total fines obtained, £5 19s.; total costs, £24 12s. 4d.; average fine per case, 7s. 11d.

Cairns prosecuted eight offenders and obtained eight convictions. Total fines, £17 1s.; total costs, £18 8s. 5d.; average fine per case works out at £2 2s. 7d.

Rockhampton proceeded against four individuals and firms for breaches of the Health Acts and Food and Drug Regulations, securing a conviction in each instance. Total fines recorded, £9 10s., and costs £9 2s. The average fine inflicted works out at £2 7s. 6d. per case.

Preservatives.

A few odd cordial-makers and a number of butchers were the only persons discovered during the year employing preservative substances in quantities which were in excess of the maximum proportions prescribed in the Food and Drug Regulations. All other sections of the packing and manufacturing industries whose goods were examined were observed to be exercising considerably more care and discretion in this direction than was formerly the case. At the present time it is rare to meet a prohibited preservative in an article of food, and those who employ antiseptics which are permitted, as a rule, take care to keep well within the prescribed limits.

In connection with the butchering trade it was found that excess quantities of sulphur dioxide and preparations of sulphur dioxide were being employed in the manufacture of mincemeat and sausage meat, and after an interview with the president and secretary of the Queensland Meat Traders' Association it was decided to issue a final note of warning in the shape of a circular letter addressed to the individual members of that body.

It was pointed out to the association in this circular that the proportion of sulphur dioxide allowed is quite sufficient, provided the meat is properly handled and that only sound materials are employed, and that after this first and final warning on the subject no further consideration would be extended to traders overstepping the legal limits.

Polluted Oysters.

A report received from Townsville suboffice early in the year disclosed the existence of extremely unsatisfactory and insanitary conditions in connection with the sale of oysters in that city, as a result of which a Chinese vendor of Flinders lane, who was alleged to be supplying a number of hotels and restaurants in the Northern centre with oysters, was required to forthwith cease the collection and sale or preparation for sale of shellfish obtained from certain sources.

It appears that Wong Tye, the vendor concerned, was obtaining his supplies of oysters from aboriginals and Malays, who were gathering them from the breakwater and from Ross

Creek at low-tide, points exposed to pollution by sewage from the city.

Specimens of these oysters, and a bottle of shelled oysters obtained at Wong Tye's premises, were submitted for bacteriological examination and reported upon by Dr. Harris, the Director of the Laboratory of Microbiology and Pathology, as follows:—

1. *Examination of the Water with the Oysters.*

Sample Labelled.	No. of Micro-organisms per c.c. grown on Agar at 37° C.		No. of Organisms with Cultural Characters of Colon Group present per Litre.	No. of Streptococci present per Litre.
	24 hrs.	48 hrs.		
No. 1	375,370	Innumerable	1,000	1,000

The search for the typhoid bacillus by Ficker's precipitation process with plating on Conradi-Drygalski's medium was negative.

Conclusions.—The presence of streptococci and colon group organisms in 1 c.c. of the water, together with the high bacterial count, would make anything soaked in that water, and not necessarily requiring cooking, unfit for food.

2. *The Examination of an Unaltered Oyster.*

The examination of an unaltered oyster was made by washing an oyster in four separate vessels of sterile distilled water. After washing, the oyster was dropped into a flask of broth, and this broth, after incubation at 37° C. for forty-eight hours, was examined for organisms of the typhoid colon group, for streptococci and staphylococci. The result was that streptococci, staphylococci, and colon group organisms were found, and also an organism of the intermediate group. The sugar reactions of this organism show that it is closely allied to the enteritidis group.

3. *Examination of an Oyster after Grinding to a Pulp.*

The examination of an oyster ground to a pulp was done by just washing it in sterile distilled water in four separate vessels, and then grinding it to a pulp in a sterile pestle and mortar. The pulp was then thinly smeared over Conradi-Drygalski and ordinary agar plates. After incubation at 37° C. these plates were examined, and on them were found streptococci, staphylococci, colon group organisms, and the same enteritidis (?) organism that was isolated from the unaltered oyster.

Conclusions.—The oyster contained micro-organisms which might possibly cause a serious illness if the oysters were eaten raw, so the oysters were certainly unfit for food.

On Dr. Harris's report, Wong Tye was charged at the Townsville Petty Sessions Court with the offence of handling food under prohibited conditions, and was convicted and fined.

Representations to the Harbour Master and Inspector of Fisheries resulted in instructions being issued by that gentleman to the officers of his Department to seize all oysters taken from the places in question, and also to prevent as far as possible aboriginals, Malays, and others collecting oysters from these sources.

Regulations controlling the collection of oysters from polluted beds have since been framed for inclusion with the proposed uniform standards for food and drugs.

Filters.

The Health Acts require that no filter other than one of a type approved by the Commissioner of Public Health shall be employed in the treatment of water used in the manufacture or preparation for sale of aerated waters and other beverages. In order to obtain such approval it is necessary that a complete specimen of the filtering apparatus for which authority is desired shall be submitted to the Department for testing. If it satisfies requirements the name is included in the official list of approved types.

At the present time a fairly extensive and comprehensive list of filters which have proved satisfactory is on hand. During the year eight tests of new filters were conducted by the Director of the Bacteriological Institute, which resulted in two additional makes being passed.

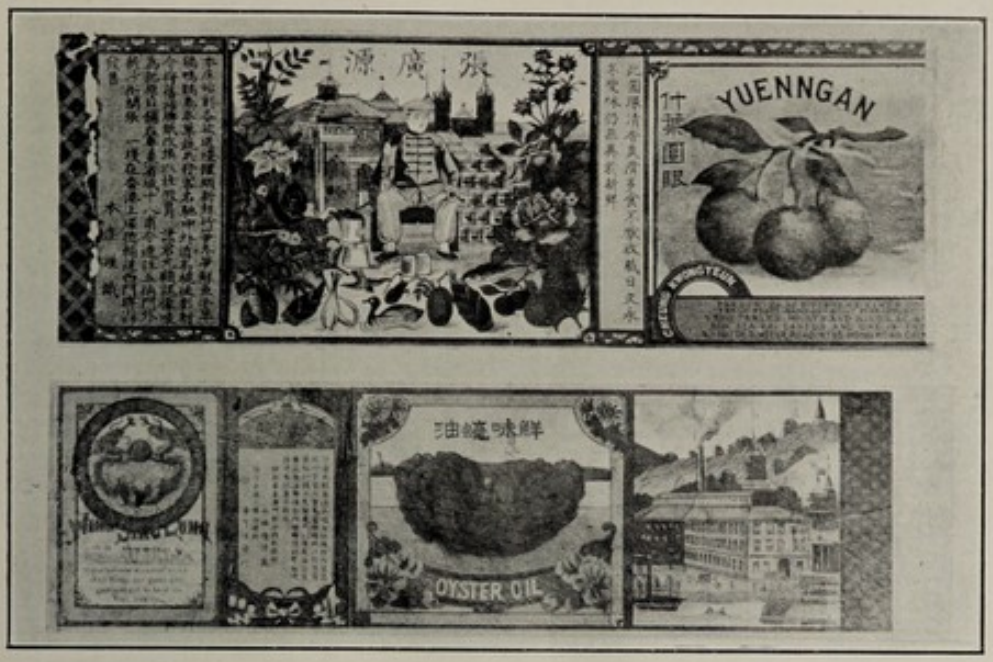
One "filter" submitted, and which was described as "absolutely germ-proof," failed to produce anything like a satisfactory purification of water, and was unable to keep back a known organism for more than three minutes.

A second "filter," described as "the fastest and most up-to-date," failed to produce an 85 per cent. purification of ordinary water over a period of twenty-four hours, and when used as the makers recommended it allowed a known organism to pass through it in from five to twenty minutes after starting the test.

A third "filter" was unable to produce much more than 80 per cent. purification after the first hour, and after the first hour the purification diminished to the vanishing point, while in the second position of the test the "filter" was unable to keep back a known organism for more than three minutes.

In the case of another apparatus tested it was found that, although the candles themselves proved satisfactory when tested separately, it was impossible to obtain similar results when they were tested in battery form in the completed apparatus, owing to the existence of faulty joints between the filter plate, the body of the case, and the dome. In view of the fact that it is in the "battery" form that filters are principally used in food-manufacturing processes over which the Department has control, and that it was in this particular form the apparatus proved ineffective in the bacteriologist's tests, the manufacturers were advised that it could not be accepted until such time as defects indicated were corrected and a final satisfactory test obtained.

The majority of filter-cases opened up by the Department officers in beverage factories, refreshment rooms, &c., during the year were found to contain approved candles in serviceable condition. In a few instances, however, faulty candles and candles of unknown brands were discovered and removed, notices being served upon the responsible parties to immediately substitute.



Quaint Labelling Conditions—Specimens from North Queensland.

One highly polished metal case in the bar of a soda fountain upon being taken apart was found to contain no filtering medium whatever, so that water emerged from the apparatus in the same condition as when it left the tap.

Another individual dispensing "cool drinks" was located using a candle of approved design in his filter, but with the addition of a large hole bored through the apex to facilitate passage of water through the medium. The Department's inspector removed this improvised "filtaire rapide" there and then and saw it replaced by a sound candle of the right sort. In numerous cases filter candles were found to be worn away to such an extent as to be useless, and had to be replaced.

Wherever met with, "filters" of sandstone, charcoal, wadding, &c., are rejected, but in the matter of domestic filters the Department at present has no control.

Labelling.

The Department is in complete accord with the opinion expressed by an eminent United States jurist, to the effect that the primary aim of pure food law is to secure accurate and serviceable nomenclature for articles of food, and it is in this spirit it has approached the labelling question.

From the inception of the regulations, it has been the Department's earnest endeavour to obtain, upon all articles of food and drugs offered for sale, labels which honestly describe the contents of packages in which such are contained, which carry all information concerning the product which the Acts and regulations provide shall be conveyed to consumers, and which contain no false or misleading statements, designs and devices.

The question has not been a simple one to handle, for the reason that packers of food products and designers of labels have had so free a hand for generations that it is almost impossible to make them realise the present position speedily.

During the past two years, however, much good has been accomplished in this direction, and goods upon the local market are commencing to carry the class of label calculated to gladden the hearts of pure food advocates.

In order to prevent a deadlock on the labelling question, the representatives of Queensland at the Interstate Conference upon Uniform Standards for Foods and Drugs conceded a point upon the question of a "principal label" which is specified on the existing Food and Drug Regulations, so that, when the proposed uniform standards come into operation, Queensland, in common with the other States of the Australian Commonwealth, will not insist upon required particulars appearing upon the main label, but will accept the same if contained upon a separate label, *provided* such label is placed in a position equally prominent with that of the name of the substance or product and of the name of the manufacturer. Upon this portion of the label it is laid down there shall be no other words than the actual words required by the Act or regulations.

The intention is that the purchaser of a food or drug product shall have confronting him when he views the article the substantial information concerning its nature, weight or measure, manufacturer, &c., which the law requires to be stated, and concerning which, as the user, it must be conceded he has a perfect right to be informed.

Certain packers who have availed themselves of the labelling conditions prescribed in the uniform code have displayed a singular desire to place this information slip upon some remote position on containers, such as the side or back. In such instances, however, they have been firmly requested to give the label its proper place, the front of the package.

During the year discussions upon points connected with labelling conditions have been of daily occurrence, and representatives of many large British and foreign packing concerns have called upon the Department on the like business.

Labels printed in a foreign language have caused a considerable amount of trouble, and the services of an interpreter have at times had to be requisitioned in connection therewith. Many of these labels, particularly those of Asiatic origin, are of unique design and quaintly worded.

Colouring Matters in Foods.

The cordial trade and packers generally have confined themselves to the list of "harmless colourings" specified in the Food and Drug Regulations, and appear satisfied that the list is sufficiently comprehensive.

Confectionery manufacturers, however, still complain that the official list does not allow them sufficient scope in their particular line of business, and ask that it be extended to include a number of colours concerning which the trade is unable to afford the Department any information further than that they are guaranteed to them as harmless by the manufacturers or their agents.

Whether or not dyes are harmful can only be determined by experimental evidence, and so far as the Department can ascertain in no single instance has a colour which it has been desired to have added to the list been subjected to investigation to determine the point. Until such time as evidence of this nature is forthcoming it will not be possible for the Department to accept such substances.

The following is the list of substances considered harmless colouring matters within the meaning and for the purposes of the regulations at present in force:—

Caramel, Cochineal, Saffron, Chlorophyll, and every innocuous vegetable colour extractive. And the following coal-tar dyes:—

Red Shades—107 Amaranth, 56 Ponceau 3R, 517 Erythrosin;

Orange Shades—85 Orange 1;

Yellow Shades—4 Naphthol Yellow S;

Green Shades—435 Light Green S.F. yellowish;

Blue Shades—Indigo-carmine disulphonic acid.

The above list of coal-tar dyes is identical with the list of dyes recommended for use in

food and foodstuffs by the United States authorities, and is also the official list in force in a number of other countries at the present time.

The Great War is likely to have a serious effect upon the dyestuff output during the forthcoming year, owing to the German producers being cut off from the world's markets. As a result it may be found necessary to relax existing restrictions, until such time as British manufacturers are in a position to supply us with the particular dyes specified.

As none of the dyes mentioned in the list I have quoted are patented, their manufacture is open to all, and if British firms can turn them out in a pure state, with the world-wide application this range of coal-tar food colours has, there should be a splendid future before the industry.

Weight of Contents of Packages.

Numerous complaints have reached the Department relative to the actual weight of contents of food containers of "nominal" one-pound and two-pound capacity. Upon investigation such complaints have been found warranted, but unfortunately it has not been possible for the Department to remedy the matter, owing to the fact that the packer is within the law.

In requiring declaration of weight of contents to be stated upon a package of food the regulations specify that the statement shall be made in six-point type—a size so small that the information is completely overshadowed by the large capital letters in which other particulars upon the label invariably appear.

A customer asks the storekeeper for "a pound" or "two-pound" tin of jam and is supplied with a one-pound or two-pound (gross weight) tin. Had he, however, scanned the label closely he would have observed upon it, in small letters, the legend "net weight of contents 13 ounces" or "27 ounces," according to whether a small or large tin was demanded; and such has been the custom of the trade for years.

The *Sydney Bulletin* explains the matter in this fashion:—

"The reason 'reputed' measures and 'nominal' weights are so prevalent is because the public thinks in money and not in avoirdupois. A tin of jam is a tin of jam to the housewife, and the robber who offers a tin of jam for eightpence to the other fellow's ninepence is the one who delivers the goods.

"The one tin may be 26 ounces to the other's 32; it may boldly say so on the label, but that won't influence Mrs. Buying Public. Once upon a time, probably, all 'quarts' were two pints, and all 'pounds' 16 ounces.

"Then some immoral genius thought of offering 30 fluid ounces at twopence less than was charged for the imperial 40. He was rushed, and retired on the hypothecated ounces. His competitors, knowing their public, didn't give him a free advertisement by holding him up to reprobation; they countered with 26 ounces at threepence reduction and *they* got the rush. And so on."

The *Bulletin* skit succinctly and pithily expresses the situation, and I regret to state that the tendency on the part of certain packers is to still further reduce the weight of contents of "reputed" weight packages.

In order to assist the public and to encourage packers who desire to do the right thing, it would appear essential that joint interstate action to standardise the size of all packed foods into ¼ lb., ½ lb., 1 lb., 2 lb., &c., net weight, and to prohibit—as is done in the case of loaves of bread—the use of intermediate sizes.

Until such time, however, as another Interstate Foods Conference meets it would be well, I think, to make such alteration in labelling requirements as will ensure purchasers being made readily aware of the actual weight of the apparently cheap "small" or "large" package of food they contemplate buying.

Upon checking the weight of contents of a number of jam samples recently submitted to analysis it was found that on the whole they were fairly accurate. It was noted, however, that in no single instance did a reputed "1-lb." or "2-lb." tin contain 16 or 32 ounces of material, the actual weight of contents of the former ranging between 13 and 14½ ounces, and of the latter between 27 and 29 ounces. In each instance statement of net weight of contents appeared upon the package, but in the usual small-sized regulation type. Variation in price was explained by the difference in weight.

In these hard times the housewife who is compelled to consider her purse is advised to make a study of labels, and to think in avoirdupois in place of in money when making her purchases. In the case of spirits put up in flasks having blown into the glass the words "Imperial Quart," and which upon investigation were found in certain instances to contain quantities of liquor so much as 5 ounces short of the 40 fluid ounces—a matter mentioned in my annual report of last year—I am pleased to say that all faulty bottles of this description have since been removed from the local market.

Drugs.

The work of the Department during the year has of necessity brought it into closer intimacy with the wholesale than with the retail side of the drug trade, although the latter section has also received a fair share of attention.

The majority of the drug samples handled by the Government Analyst were obtained unofficially for survey purposes, and much useful information has been obtained along these lines.

In the drug as in the food section the labelling question has been of supreme importance, and those classes of the regulations requiring declaration to be made on the label describing any article containing natural, synthetic, hypnotic, or analygesic or antipyretic substances insisted upon.

In this connection certain retail chemists who were found issuing preparations containing such substances without making declaration in the required form were cautioned against a repetition of the offence, and a circular on the subject issued to the trade by the secretary of the Pharmaceutical Society.

Certain samples of paraffin oil which were submitted to the Department during the year

Roof Garden Provided for the Use of Employees at a City Food Factory.

View over the Brisbane River from Roof Garden.

were found not to comply with the requirements of either the B.P. 1898 or the B.P. 1914, and consequently could not be accepted as being suitable for sale for internal use by man. These oils were mostly of American origin, the supply of Russian oils being curtailed owing to the War.

The new British Pharmacopœia which the General Medical Council decided to bring into force in Great Britain on 31st December, 1914, has been gazetted to become official and come into operation in this State on the 1st January, 1916—by which time, also, it is anticipated the proposed uniform standards for foods and drugs will have been brought into operation.

In addition to drugs for internal use, the Department has commenced investigations of toilet preparations, and a considerable amount of useful work is likely to be accomplished in this direction during the forthcoming year. The Commissioner has required, concerning these particular products, that labels describing them shall contain truthful information regarding the preparation and its manufacturer, and intimation of the presence of any of the restricted drugs; fictitious firms' names to be obliterated.

Tobacco, which is also a drug within the meaning of the Health Acts, is a product that has upon occasion called for attention at the hands of the Department's officers.

Special Investigations.

Numerous investigations of a special character have been performed by the officers of this division during the period under review. These investigations, which have covered a wide range of subjects and have been far-reaching in their scope, have entailed at times a considerable amount of extra work. Included in the programme, amongst other items, have been special inquiry into cases of suspected pollution of water and food supplies, concerning the genuineness of products issued from certain factories, the alleged use of prohibited and injurious ingredients in foods, the condition of the milk issued from certain dairies and by certain milk-vendors, inquiry into cases of alleged food-poisoning, &c.

As affording some idea of the amount of labour involved in conducting some of these investigations, I would instance a case in which it was alleged that a certain country aerated water manufacturer, who obtained his supply of water from a deep well in the vicinity of his factory, had driven a tunnel from the lower portion of this well to a creek situated some distance away, and was augmenting his supply by such means. As the water in this creek was of doubtful quality it was necessary to ascertain the exact position, and in order to do so the visiting inspector had to bear a hand in pumping the well dry before he was able to descend the shaft to investigate for himself.

In connection with inquiries conducted into the alleged causes of cases of food-poisoning, information as a rule reaches the Department at so late a stage that it is seldom possible to procure specimens or to obtain reliable information.

Seeing that the subject is one of vital importance to the public generally, I consider that medical practitioners throughout the State should be required—as in the case of infectious diseases—to immediately notify to the Department all cases of illness suspected to be due to food poisoning. The knowledge so obtained would be invaluable in enabling the cause to be ascertained and in possibly preventing other persons from being attacked from a similar source.

Where the cause was attributed to the consumption of canned foods it would enable the Department to hold up stocks of the suspected "brand" until examination determined their condition, and in cases where prepared foods were concerned an immediate inspection of the factory would be possible.

Medical officers reporting such cases would of course retain and submit specimens of the particular food implicated for bacteriological investigation. Such a step would go far towards throwing light upon the large number of "ptomaine" cases that come under the Department's notice during each year, principally per medium of the public Press.

Under the heading of "Special Investigations" may also be included the inspection of stores on military transports and enemy ships, as well as of the inspection of foods at military encampments—work in which directions has been carried out by the Department at the request of the Commonwealth Government and of the military authorities during the year.

Conclusion.

In concluding this rough summary of the work of the food division during the fiscal year under review, I would express my satisfaction with the manner in which the inspectors have performed the duties entrusted to them, as well as my keen appreciation of the ever-ready assistance accorded to myself and the inspectors of the staff by the Government Analyst, Mr. J. B. Henderson, and the officers of his Department.

I desire also to acknowledge the assistance afforded by Mr. Earle, secretary of the Brisbane Traders' Association, and Mr. R. C. Cowley, secretary of the Pharmaceutical Society, with both of whom the work of the Department has brought its officers into close contact during the year.

The Brisbane Merchants' Association also is entitled to an acknowledgment of the invariably courteous treatment extended by its members to the officers of this Department in the discharge of their duties, and I take this opportunity of expressing my thanks on their behalf for same.

Appended to this report will be found detailed lists and tables covering the various phases of food work throughout the State during the twelve months.

Photos are by Assistant Inspector R. P. Sanderson, of the food staff.

I have, &c.,

H. W. PETHERICK,
Chief Food Inspector.

The Commissioner of Public Health.

RECAPITULATION.

Class of Premises.	Inspections.	Remarks.
Bakehouses	224	Includes Cake and Biscuit Factories and Bread Weighing
Butchers	151	Includes Small-goods Rooms and Meatworks
Beverage Factories	267	Includes Breweries, Aerated Water and Cordial Factories
Chemists' Shops	52	Includes Wholesale and Retail Establishments
General Stores	684	Includes large and small Grocers, &c.
Hotels	762	Includes Town and Country Clubs (Liquor Testing)
Markets	53	Includes Fish, Fruit, and Vegetable Markets and Cold Stores
Refreshment Rooms	408	Includes Fruit and Confectionery
Restaurants	182	Includes Fish and Oyster Saloons, Boarding-houses, and Pie Stalls
Special	343	Includes Auction Rooms, River Wharves, Night Patrols, and Cold Stores
Warehouses	459	Includes Bond Stores and Wholesale Distributors
Food Factories	227	Includes Meal Mills, Condiment, Preserving, Curing, Canning, and Confectionery Works; Ices and Ice Cream Factories
	3,812	Includes Dairies, Milk Carts, and Shops

PROSECUTIONS FOR MILK ADULTERATION FROM 1ST JULY, 1914, TO 30TH JUNE, 1915 (HEADQUARTERS).

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs.
				£ s. d.	£ s. d.
1	6th July, 1914	South Brisbane	Added water	1 0 0	3 11 6
2	6th July, 1914	South Brisbane	Added water, 5·4 per cent.	2 0 0	1 9 6
3	6th July, 1914	South Brisbane	Added water, 5·8 per cent.	2 0 0	1 4 6
4	7th July, 1914	North Brisbane	Added water, 5·4 per cent.	11 8 6	3 11 6
5	13th July, 1914	South Brisbane	Added water, 11 per cent.	5 0 0	1 4 6
6	30th July, 1914	Toowoomba	Added water	7 0 0	3 6 6
7	30th July, 1914	Toowoomba	Added water	7 0 0	3 6 6
8	7th August, 1914	North Brisbane	Added water, 19 per cent.	10 0 0	1 4 6
9	18th August, 1914	North Brisbane	Added water, 25 per cent.	17 18 0	3 6 6
10	18th August 1914	North Brisbane	Added water, 24 per cent.	Dismissed	..
11	18th August, 1914	North Brisbane	Added water, 9 per cent.	10 0 0	3 6 6
12	23rd October, 1914	North Brisbane	Added water, 24 per cent.	15 0 0	3 6 6
13	29th October, 1914	South Brisbane	Added water, 22 per cent.	10 0 0	1 4 6
14	3 November, 1914	North Brisbane	Added water, 27 per cent.	20 0 0	1 4 6
15	19 November, 1914	South Brisbane	Added water, 14 per cent.	15 0 0	3 6 6
16	19 November, 1914	South Brisbane	Added water, 7·7 per cent	7 0 0	3 6 6
17	24 November, 1914	North Brisbane	Added water, 17 per cent.	19 11 6	5 8 6
18	3 December, 1914	North Brisbane	Added water, 31 per cent.	6 13 6	3 6 6
19	22 December, 1914	North Brisbane	Added water, 5·0 per cent.	1 0 0	3 6 6
20	5 January, 1915	North Brisbane	Added water, 7 per cent.	10 0 0	1 4 6
21	14 January, 1915	Ipswich	Added water, 14 per cent.	4 0 0	3 8 4
22	18 March, 1915	North Brisbane	Deficient milk fats, 25·8 per cent.	2 0 0	6 16 4
23	18 March, 1915	North Brisbane	Added water, 21 per cent.	5 0 0	1 4 6
24	30 March, 1915	North Brisbane	Deficient milk fats, 39·3 per cent.	10 0 0	3 6 6
25	29 April, 1915	South Brisbane	Added water, 5.4 per cent.	10 0 0	3 6 6
26	29 April, 1915	South Brisbane	Added water, 23 per cent.	10 0 0	3 6 6
27	13 May, 1915	South Brisbane	Added water, 16.5 per cent.	12 0 0	1 4 6
28	13 May, 1915	South Brisbane	Added water, 12 per cent.	12 0 0	3 6 6
29	8 June, 1915	North Brisbane	Added water, 36 per cent.	18 15 6	1 4 6
30	22 June, 1915	North Brisbane	Added water, 42 per cent.	18 15 6	1 4 6
31	23 June, 1915	South Brisbane	Added water, 12·7 per cent.	5 0 0	1 4 6
32	24 June, 1915	North Brisbane	Added water, 33·9 per cent.	20 0 0	3 6 6
			TOTALS	305 2 6	84 6 2

PROSECUTIONS FOR BREACHES OF SECTION 107, HEALTH ACTS 1900-1911, FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs
				£ s. d.	£ s. d.
1	30 July, 1914	Toowoomba	Refusing to sell	20 0 0	2 5 6
2	19 November, 1914	South Brisbane	Refusing to sell	2 0 0	2 5 6
3	30 June, 1915	North Brisbane	Obstruction	10 0 0	2 5 6
			TOTALS	32 0 0	6 16 6

Two Pictures showing Piles of Unsound Canned Goods—Deposited on wharf prior to dumping at sea. All tins are punctured to preclude the possibility of them afterwards going into consumption.

PROSECUTIONS FOR ADULTERATION OF ALCOHOLIC LIQUORS FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

No.	Date.	Place.	Class of Liquor.	Basis of Prosecution.	Fines.	Costs.
					£ s. d.	£ s. d.
1	21 July, 1914 ..	Harrisville ..	Brandy ..	Added water, 3 per cent. ..	5 0 0	1 4 6
2	21 July, 1914 ..	Harrisville ..	Whisky ..	Added water, 12 per cent. ..	0 15 6	1 4 6
3	3 August, 1914 ..	Brisbane ..	Brandy ..	Added water, 17·3 per cent. ..	0 10 0	2 19 0
4	3 August, 1914 ..	Brisbane ..	Brandy ..	Added water, 11 per cent. ..		
5	19 August, 1914 ..	Ipswich ..	Rum ..	Added water, 47·8 per cent. ..	7 0 0	1 4 6
6	19 August, 1914 ..	Ipswich ..	Whisky ..	Added water, 28·1 per cent. ..	1 0 0	1 4 6
7	19 August, 1914 ..	Ipswich ..	Whisky ..	Added water, 24·6 per cent. ..	1 0 0	1 4 6
8	20 August, 1914 ..	South Brisbane	Rum ..	Added water, 22 per cent. ..	5 0 0	1 4 6
9	10 September, 1914	South Brisbane	Brandy ..	Added water, 20·4 per cent. ..	5 0 0	3 6 6
10	10 December, 1914	Maryborough ..	Whisky ..	Added water, 12·1 per cent. ..	2 0 0	2 5 6
11	10 December, 1914	Maryborough ..	Whisky ..	Added water, 24·4 per cent ..	2 0 0	2 5 6
12	16 December, 1914	Bundaberg ..	Whisky ..	Added water	5 0 0	3 6 6
13	17 December, 1914	Howard ..	Whisky ..	Added water, 13·6 per cent. ..	2 0 0	3 6 6
14	22 December, 1914	Gympie ..	Whisky ..	Added water, 12·8 per cent. ..	3 0 0	2 5 6
15	20 April, 1915 ..	Woodford ..	Rum ..	Added water, 14·2 per cent. ..	4 0 0	1 4 6
16	22 April, 1915 ..	Caboolture ..	Whisky ..	Added water, 4·7 per cent. ..	4 0 0	1 4 6
17	24 June, 1915 ..	North Brisbane	Gin ..	Added water, 7·4 per cent. ..	0 1 0	3 7 6
					£47 6 6	£32 18 6

MISCELLANEOUS PROSECUTIONS FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs.
				£ s. d.	£ s. d.
1	22 July, 1914 ..	South Brisbane ..	Adulterated Meat	10 0 0	3 6 6
2	17 November, 1914	North Brisbane ..	Adulterated Essence	3 15 6	1 4 6
3	17 November, 1914	North Brisbane ..	Adulterated Essence	3 15 6	1 4 6
4	17 December, 1914	North Brisbane ..	Adulterated Essence	3 15 6	1 4 6
5	17 December, 1914	North Brisbane ..	Misbranding	Dismissed	..
6	4 January, 1915	South Brisbane ..	Dirty Milk Can	5 0 0	1 4 6
7	15 April, 1915 ..	North Brisbane ..	Bread short weight	4 0 0	0 3 6
8	27 April, 1915 ..	North Brisbane ..	Adulterated Lemon Squash	3 19 0	1 4 6
				£34 5 6	£9 12 6

PROSECUTIONS FOR BREACHES OF FOOD AND DRUG REGULATIONS FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs.
				£ s. d.	£ s. d.
1	22 July, 1914 ..	South Brisbane ..	Breach Regulation 16 (3)	5 0 0	2 5 6
2	3 November, 1914	North Brisbane ..	Breach Regulation 16 (3)	3 0 0	2 5 6
3	25 February, 1915	South Brisbane ..	Breach Regulation 18 (9)	0 10 0	0 8 6
4	22 June, 1915 ..	North Brisbane ..	Breach Regulation 18 (9)	2 0 0	0 4 0
5	22 June, 1915 ..	North Brisbane ..	Breach Regulation 18 (9)	2 0 0	0 4 0
				£12 10 0	£5 7 6

SAMPLES SUBMITTED FOR ANALYSIS FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

No.	Food or Drug.	Total.		Official.		Unofficial.	
		Passed.	Failed.	Passed.	Failed.	Passed.	Failed.
1	Alloys	..	2	..	2	..	..
2	Baking Powders	3	11	..	2	3	9
3	Beverages and Cordials	72	18	28	3	44	15
4	Brandy	1	19	1	19	..	..
5	Butter	4	..	..	..	4	..
6	Bread	1	..	..	..	1	..
7	Cheese	0	1	..	..	0	1
8	Cocoa	1	1	..	..	1	1
9	Coffee	5	..	..	..	5	..
10	Colours and Dyes	12	4	..	..	12	4
11	Condiments	3	..	..	..	3	..
12	Confectionery	16	3	..	..	16	3
13	Cream of Tartar	13	2	2	1	11	1
14	Custard Powders	12	3	..	..	12	3
15	Chewing Gums	..	1	..	1	..	..

SAMPLES SUBMITTED FOR ANALYSIS FROM 1ST JULY, 1914, TO 30TH JUNE, 1915—*continued.*

No	Food or Drug.	Total.		Official.		Unofficial.	
		Passed.	Failed.	Passed.	Failed.	Passed.	Failed.
16	Disinfectants	3	1	..	..	3	1
17	Drugs and Medicines	72	21	..	..	72	21
18	Essences	18	4	6	4	12	0
18A	Egg Substitute	..	2	..	2	..	..
19	Fish	1 (561 tins)	.. (766 tins)	1 (48 tins)	.. (60 tins)	.. (513 tins)	.. (718 tins)
20	Fish, Canned	174	239	4	5	170	234
21	Flour	15	..	1	..	14	..
22	Fruit, Dried	4	12	..	..	4	12
23	Fruit, Canned	28	8	..	..	28	8
24	Gin	..	2	..	2	..	..
25	Ice Cream	1	1	..	..	1	1
26	Jams and Jellies	28	1	..	..	28	1
27	Infant's Foods	3	2	..	..	3	2
28	Margarine	2	..	..	..	2	..
29	Meats, Canned	2	..	..	..	2	..
30	Meat, Minced	10	16	10	16	..	..
31	Meat	..	2	..	1	..	1
32	Milk, Condensed	7	5	1	..	6	5
33	Milk, Dried	2	..	..	..	2	..
34	Milk, Fresh	518	103	513	96	5	7
35	Miscellaneous	59	8	..	..	59	8
36	Pepper	1	..	1	..	..	..
37	Rice	19	..	..	..	19	..
38	Rum	2	4	2	4	..	..
39	Salt	3	..	..	..	3	..
40	Sauces	2	..	..	..	2	..
41	Soap	2	..	..	..	2	..
42	Spirit Liquors	11	67	11	67	..	..
43	Tea	8	..	..	..	8	..
44	Toilet Preparations	5	1	..	..	5	1
45	Vinegar	4	2	..	..	4	2
46	Wine	21	..	18	..	3	..
47	Water (Potability)	25	..	25	..	..	..
48	Water (bore)	6	..	6	..	..	..
49	Spices	4	..	4	..	..	..
		1,203	566	634	225	569	341

FOODSTUFFS CONDEMNED AND DESTROYED AS UNFIT FOR HUMAN CONSUMPTION FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

No.	Article.	Quantity.	Weight.			
			Tons	cwt.	qr.	lb
1	Beverages	73 bottles	0	1	0	16½
2	Cake	11 parcels	0	16	1	2
3	Confectionery	265 parcels	0	18	1	12
4	Condiments	179 bottles	0	1	1	19½
5	Cocoa	1 parcel	0	0	1	22
6	Cheese	270 jars	0	0	2	15
7	Curry Powder	3 cases	0	1	3	0
8	Dates	103 parcels	0	4	0	9
9	Fruit, Dried, Assorted	608 parcels	5	8	3	18½
10	Fish, Canned, Assorted	1,074 tins	0	8	2	7
11	Fruit, Canned, Assorted	975 tins	0	16	3	19
12	Fish, Canned, Herrings Assorted	40,082 tins	10	14	3	6¾
13	Fish, Canned, Sardines Assorted	46,514 tins	4	18	0	15¾
14	Fish, Canned, Salmon Assorted	6,404 tins	2	15	0	22
15	Fish, Smoked Salmon	4 cases	0	4	0	0
16	Fish, Salmon in Brine	8 kegs	0	8	0	0
17	Fish, Ling	1 case	0	1	0	0
18	Fruit	1 case	0	0	0	10
19	Food, Infants'	32 tins	0	0	1	3
20	Honey	1 parcel	0	0	0	1
21	Jams, Assorted	1,549 tins	1	4	1	4
22	Nutmegs	3 parcels	0	0	0	10
23	Meat	8 parcels	0	0	1	14
24	Oats	1 parcel	0	0	0	5
25	Tea	46 parcels	1	2	0	2
26	Vegetables	34 parcels	5	13	1	0
27	Vegetables, Canned	130 tins	0	1	0	20
28	Milk, Condensed	320 tins	0	2	3	13
			38	2	0	4½

Specimens of Asiatic Food and Drug Lines—Submitted by food inspectors for analysis from Thursday Island.

VISITS BY INSPECTORS TO COUNTRY TOWNS FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

Date.	Place.	Inspector.	Purpose of Visit.
1 July, 1914	Redcliffe	Plumb	Hotel inspection
1 July, 1914	Scarborough	Plumb	Hotel inspection
18 July, 1914	Beenleigh	Plumb	Hotel inspection
21 July, 1914	Harrisville	Beaver	Prosecutions
28 July, 1914	Coolangatta	Plumb	Hotel inspection
28 July, 1914	Mudgeeraba	Plumb	Hotel inspection
29 July, 1914	Nerang	Plumb	Hotel inspection
30 July, 1914	Southport	Plumb	Hotel inspection
31 July, 1914	Waterford	Plumb	Hotel inspection
31 July, 1914	Toowoomba	Beaver	Prosecutions
24-26 Aug., 1914	Laidley	Young	Food inspections
24-26 Aug., 1914	Oakey	Mason	Food inspections
28 Aug., 1914	Goodna	Plumb	Hotel inspection
26-29 Aug., 1914	Helidon	Young	Food inspection
26-29 Aug., 1914	Dalby	Mason	Food inspection
29 Aug. to 1 Sep., 1914	Wyreema	Young	Food inspection
29 Aug. to 1 Sep., 1914	Chinchilla	Mason	Food inspection
1-3 Sept., 1914	Clifton	Young	Food inspection
1-2 Sept., 1914	Yuelba	Mason	Food inspection
2-7 Sept., 1914	Roma	Mason	Food inspection
3-5 Sept., 1914	Hendon	Young	Food inspection
5-9 Sept., 1914	Allora	Young	Food inspection
7-9 Sept., 1914	Morven	Mason	Food inspection
9-12 Sept., 1914	Charleville	Mason	Food inspection
9-13 Sept., 1914	Goondiwindi	Young	Food inspection
12-17 Sept., 1914	Cunnamulla	Mason	Food inspection
13-15 Sept., 1914	Thallon	Young	Food inspection
15-18 Sept., 1914	Dirranbandi	Young	Food inspection
18-22 Sept., 1914	Inglewood	Young	Food inspection
17-21 Sept., 1914	Charleville	Mason	Food inspection
21-23 Sept., 1914	Mitchell	Mason	Food inspection
18-24 Sept., 1914	Bundaberg	Plumb	Hotel inspection
22-26 Sept., 1914	Killarney	Young	Hotel and food inspection
23-24 Sept., 1914	Roma	Mason	Food inspection
24-25 Sept., 1914	Wallumbilla	Mason	Food inspection
25 Sept., 1914	Gin Gin	Plumb	Hotel inspection
26-29 Sept., 1914	Nobby	Young	Food inspection
25-28 Sept., 1914	Miles	Mason	Food inspection
28 Sept. to 1 Oct., 1914	Rockhampton	Plumb	Hotel inspection
28-29 Sept., 1914	Warra	Mason	Food inspection
29 Sept. to 1 Oct., 1914	Greenmount	Young	Food inspection
29 Sept. to 1 Oct., 1914	Dalby	Mason	Food inspection
1-3 Oct., 1914	Jondaryan	Mason	Food inspection
2 Oct., 1914	Lake's Creek	Plumb	Hotel inspection
3 Oct., 1914	Rockhampton	Plumb	Hotel inspection
1-3 Oct., 1914	Cambooya	Young	Food inspection
14 Oct., 1914	Gladstone	Plumb	Hotel inspection
3-7 Oct., 1914	Gatton	Young	Food inspection
7-9 Oct., 1914	Forest Hill	Young	Food inspection
9-10 Oct., 1914	Rosewood	Young	Food inspection
16 Oct., 1914	Isis Junction	Plumb	Refreshment rooms
16-17 Oct., 1914	Childers	Plumb	Hotel inspection
17 Oct., 1914	Cordalba	Plumb	Hotel inspection
19-27 Oct., 1914	Maryborough	Plumb	Hotel inspection
27 Oct., 1914	Howard	Plumb	Hotel inspection
28-29 Oct., 1914	Maryborough	Plumb	Hotel inspection
30 Oct., 1914	Tiaro	Plumb	Hotel inspection
30 Oct. to 6 Nov., 1914	Gympie	Plumb	Hotel inspection
6 Oct., 1914	Ipswich	Stewart	Food inspection
6 Oct., 1914	Ipswich	Chief Food Inspector	Food inspection
16 Nov., 1914	Beenleigh	Plumb	Hotel inspection
3 Dec., 1914	Ipswich	Beaver	Milk sampling
3 Dec., 1914	Ipswich	Sanderson	Milk sampling
8 Dec., 1914	Wynnum and Manly	Mason	Food inspection
8 Dec., 1914	Wynnum and Manly	Sanderson	Food inspection
14-15 Dec., 1914	Maryborough	Plumb	Hotel inspection
15-16 Dec., 1914	Bundaberg	Plumb	Hotel inspection
16-17 Dec., 1914	Howard	Plumb	Prosecutions
17-21 Dec., 1914	Maryborough	Plumb	Hotel inspection
17 Dec., 1914	Wynnum and Manly	Mason	Food inspection, hotel inspection
21-23 Dec., 1914	Gympie	Plumb	Prosecutions
12 Jan., 1915	Sandgate	Plumb	Hotel inspection
15 Jan., 1915	Cleveland	Plumb	Hotel inspection
18 Jan., 1915	Yatala	Plumb	Hotel inspection
18 Jan., 1915	Beenleigh	Plumb	Hotel inspection
20 Jan., 1915	Redcliffe	Plumb	Hotel inspection
20 Jan., 1915	Scarborough	Plumb	Hotel inspection
8 Feb., 1915	Woodford	Plumb	Hotel inspection
9-11 Feb., 1915	Kilcoy	Plumb	Hotel inspection
12 Feb., 1915	D'Aguilar	Plumb	Hotel inspection
12 Feb., 1915	Caboolture	Plumb	Hotel inspection

VISITS BY INSPECTORS TO COUNTRY TOWNS, FROM 1ST JULY, 1914, TO 30TH JUNE, 1915—*continued.*

Date.	Place.	Inspector.	Purpose of Visit.
16 Feb., 1915	Bald Hills	Plumb	Hotel inspection
2 Mar., 1915	Wynnum	Mason	Food inspection
4 Mar., 1915	Ipswich	Mason	Food inspection
4 Mar., 1915	Ipswich	Plumb	Hotel inspection
5 Mar., 1915	Ipswich	Mason	Food inspection
5 Mar., 1915	Ipswich and Bundamba	Plumb	Hotel inspection
5 Mar., 1915	Goodna and Bundamba	Mason	Food inspection
5 Mar., 1915	Goodna	Plumb	Hotel inspection
19 Mar., 1915	Redbank	Plumb	Hotel inspection
27 Mar., 1915	Goodna	Plumb	Hotel inspection
27 Mar., 1915	Bundamba	Plumb	Hotel inspection
31 Mar., 1915	Ipswich	Plumb	Hotel inspection
20 Apr., 1915	Caboolture	Plumb	Prosecutions
23 Apr., 1915	Woodford	Plumb	Prosecutions, hotel inspection
27 May, 1915	Ipswich	Plumb	Hotel inspection
4 May, 1915	Esk	Mason	Food inspection
6-8 May, 1915	Toogoolawah	Mason	Food inspection
8-11 May, 1915	Blackbutt	Mason	Food inspection
11-12 May, 1915	Benarkin	Mason	Food inspection
12-13 May, 1915	Linville	Mason	Food inspection
13-14 May, 1915	Moore	Mason	Food inspection
14 May, 1915	Harlin	Mason	Food inspection
14-17 May, 1915	Lowood	Mason	Food inspection
17-18 May, 1915	Fernvale	Mason	Food inspection
18-19 May, 1915	Harrisville	Mason	Food inspection
19-21 May, 1915	Boonah	Mason	Food inspection
21-24 May, 1915	Grantham	Mason	Food inspection
24-25 May, 1915	Helidon	Mason	Food inspection
25-27 May, 1915	Gatton	Mason	Food inspection
27-28 May, 1915	Forest Hill	Mason	Food inspection
28-31 May, 1915	Granchester	Mason	Food inspection
1-3 June, 1915	Rosewood	Mason	Food inspection
3-5 June, 1915	Marburg	Mason	Food inspection
15 June, 1915	Sandgate	Plumb	Hotel inspection
16 June, 1915	Capalaba	Plumb	Hotel inspection
16 June, 1915	Capalaba	Stewart	Food inspection
16 June, 1915	Cleveland	Stewart	Food inspection
16 June, 1915	Cleveland	Plumb	Hotel inspection
16 June, 1915	Wellington Point ..	Stewart	Food inspection
16 June, 1915	Wellington Point ..	Plumb	Hotel inspection
16 June, 1915	Wynnum and Manly ..	Stewart	Food inspection
16 June, 1915	Wynnum and Manly ..	Plumb	Hotel inspection

Rockhampton (Sub-Branch.)

FOODSTUFFS FOUND TO BE ADULTERATED WITHIN THE MEANING OF THE ACT AND DESTROYED.

Article.	Quantity.	Weight. Tons	cwt.	qr.	lb.
Apples, Dried	15 cases	0	7	2	0
Bananas	1 crate	0	4	0	0
Cheese	112 tins	0	0	2	6½
Cheese	6 whole cheese	0	1	3	24
Chocolate	87 packets	0	0	0	5
Fish, Tinned	7,183 tins	2	13	2	26
Fish, Smoked	17 casks	0	9	0	0
Fish, Salt (Ling)	2 bags	0	1	0	0
Fruit	416 tins	0	9	0	9
Jam	103 tins	0	1	1	13
Meat, Tinned	16 tins	0	0	0	16
Meat, Potted	2 tins	0	0	0	0½
Meat Sausages	10 pounds	0	0	0	10
Milk, Condensed	6 tins	0	0	0	6
Oatmeal	9 bags	0	0	3	0
Pickles	70 bottles	0	0	2	12½
Prunes	87 boxes	1	0	3	16½
Potatoes	23 bags	1	14	2	0
Peas	5 tins	0	0	0	5
Raisins	6 packets	0	0	0	6
Sauce	3 bottles	0	0	0	1¼
Tea	1 chest	0	0	1	12
TOTAL	..	7	5	3	1½

Faulty Filter Candles—Removed by food inspectors from alleged "filtering" apparatus at certain soda fountains.

NOTICE.

"THE LIQUOR ACT OF 1912."
(Section 100).

JOHN - - - - - - - - - -

Licensee of the Cafe Royal Hotel, Kent
, was, on the twenty-sixth day of FEBRUARY, 1914, convicted at under the provisions of "The Health Acts of 1900 to 1911," of the offence of SELLING LIQUOR, to wit: RUM, BRANDY, and WHISKEY, WHICH WAS ADULTERATED WITH WATER, thereby reducing the strength of such liquor below the standard prescribed for such liquor.

Given under my hand at
this twenty-sixth day of February, 1914.

Police Magistrate.

Specimen of Placard—Posted in a conspicuous position for fourteen days on the premises of an hotelkeeper who has been convicted under the Health Acts of selling adulterated liquor.

PROSECUTIONS, ROCKHAMPTON (SUB-BRANCH), FROM 20TH NOVEMBER, 1914, TO 30TH JUNE, 1915.

No.	Date.	Basis of Prosecution.	Fines.	Costs.
			£ s. d.	£ s. d.
1	5 February, 1915 ..	Breach of Regulation 16	2 0 0	2 5 6
2	5 February, 1915 ..	Breach of Regulation 16	2 0 0	2 5 6
3	5 February, 1915 ..	Breach of Regulation 16	0 10 0	2 5 6
4	30 March, 1915	Adulteration of milk, 5 per cent. added water ..	5 0 0	2 5 6
		TOTALS	£9 10 0	£9 2 0

Northern Sub-Office, Townsville.

PROSECUTIONS FOR MILK ADULTERATION FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

No.	1914-1915.	Place.	Basis of Prosecution.	Fines.	Costs.
				£ s. d.	£ s. d.
1	15 September, 1914	Townsville	Added water	5 0 0	2 5 6
2	15 September, 1914	Townsville	Added water	5 0 0	2 7 4
3	15 September, 1914..	Townsville	Added water	10 0 0	2 7 4
4	15 September, 1914..	Townsville	Added water	2 15 0	2 5 6
5	14 May, 1915 ..	Townsville	Added water, 20·9 per cent. ..	10 0 0	2 5 6
6	14 May, 1915 ..	Townsville	Deficient milk fat, 8·5 per cent. ..	1 0 0	2 5 6
7	14 May, 1915 ..	Townsville	Deficient milk fat, 19·6 per cent...	2 0 0	3 6 6
8	14 May, 1915 ..	Townsville	Deficient milk fat, 13·3 per cent...	1 0 0	2 5 6
9	14 May, 1915 ..	Townsville ..	Deficient milk fat, 10·9 per cent...	1 0 0	2 5 6
			TOTALS	£37 15 0	£21 14 2

PROSECUTIONS FOR USING RAG TO TIGHTEN MILK-CAN LIDS.

No.	1914-1915.	Place.	Fines.	Costs.
			£ s. d.	£ s. d.
1	13 August, 1914	Hughenden	0 1 0	3 15 2
2	13 August, 1914	Hughenden	0 1 0	3 15 2
3	13 August, 1914	Hughenden	0 1 0	3 15 2
4	2 October, 1914	Townsville	0 5 0	0 14 0
5	5 March, 1915	Townsville	0 5 0	0 15 10
6	14 May, 1915	Townsville	0 5 0	0 14 0
		TOTALS	0 18 0	£13 9 4

OTHER PROSECUTIONS.

No.	1914-1915.	Place.	Basis of Prosecution.	Fines.	Costs.
				£ s. d.	£ s. d.
1	13 August, 1914 ..	Hughenden	Adulterated spirits	3 0 0	3 13 11
2	13 August, 1914 ..	Hughenden	Adulterated spirits	3 0 0	3 13 11
3	13 August, 1914 ..	Hughenden	Adulterated spirits	3 0 0	3 13 11
4	25 August, 1914 ..	Townsville	Ices made under prohibited conditions	1 0 0	1 4 6
5	18 September, 1914	Townsville	Milk exposed to contamination ..	0 5 0	0 14 0
6	29 September, 1914	Townsville	Refreshment saloon in dirty condition	Convicted	but not fined.
7	2 October, 1914 ..	Townsville	Preparing food (oysters) under prohibited conditions	2 0 0	1 4 6
8	19 October, 1914 ..	Townsville	Fish exposed to contamination ..	0 5 0	2 5 6
9	3 November, 1914	Townsville	Adulterated oysters	0 10 0	1 15 0
10	3 November, 1914	Townsville ..	Oysters prepared under prohibited conditions	0 10 0	0 14 0
11	20 November, 1914	Townsville	Food wrapped in newspaper ..	0 10 0	2 4 6
12	30 March, 1915) 6 April, 1915)	Townsville	18 bottles of adulterated brandy forfeited to the Crown	..	..
13	23 April, 1915 ..	Townsville	Adulterated lemon squash	0 1 0	1 1 0
14	27 April, 1915 ..	Townsville	Adulterated brandy	1 0 0	2 5 6
15	27 April, 1915 ..	Townsville	Adulterated rum	1 0 0	2 5 6
16	30 April, 1915 ..	Townsville	Adulterated brandy	1 0 0	2 5 6
17	14 May, 1915 ..	Townsville	Adulterated rum	5 0 0	2 5 6
18	28 May, 1915 ..	Townsville	Adulterated whisky	2 0 0	2 5 6
			TOTALS	£24 1 0	£33 12 3

OFFICIAL SAMPLES—FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

No.	Article.	Number Adulterated.	Number Submitted.
1	Brandy	4	4
2	Lemon Squash	1	1
3	Meat (fresh)	1	1
4	Milk (fresh)	18	58
5	Oysters	1	1
6	Rum	3	3
7	Sardines	1	1
8	Whisky	2	2
	TOTALS	31	71

UNOFFICIAL SAMPLES SUBMITTED FOR ANALYSIS FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

No.	Article.	Number Submitted.
1	Anchovy Paste	1
2	Citro-chloric Acid	1
3	Custard (condensed)	1
4	Baking Powder	1
5	Herrings in Oil	10
6	Herrings and Tomato Sauce	1
7	Eucalyptus Oil	1
8	Sardines in Oil	6
9	Sardines and Tomato Sauce	1
		23

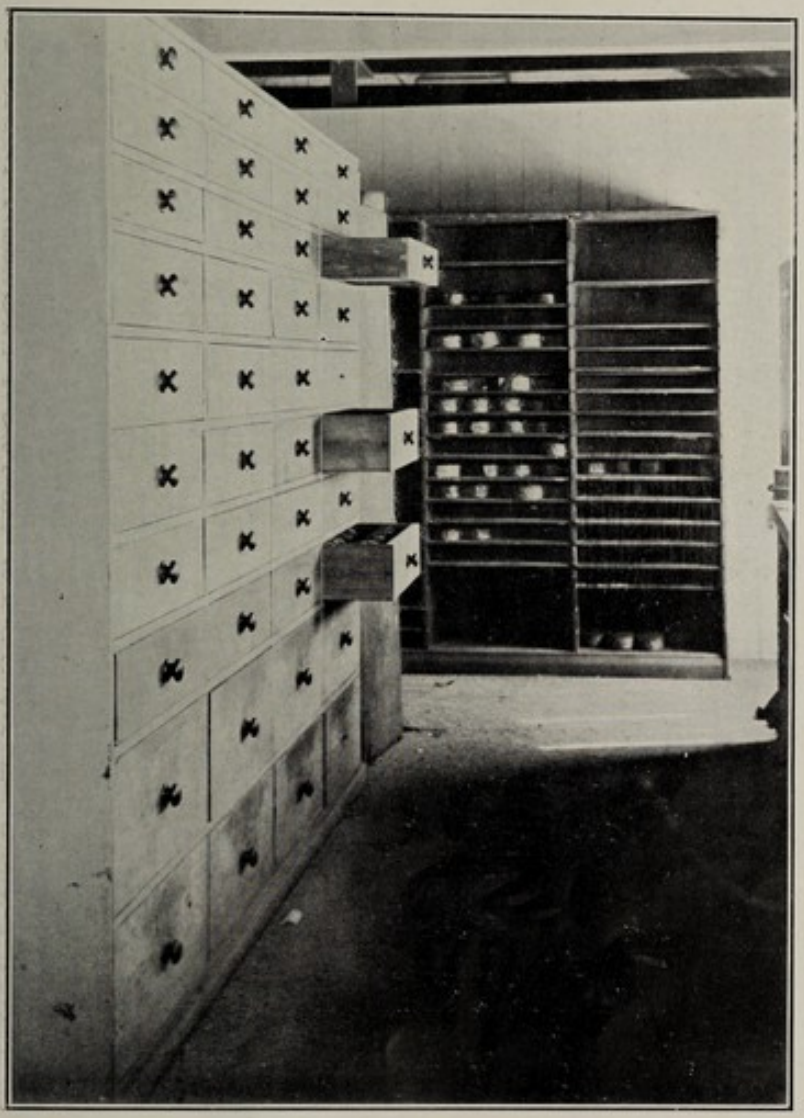
Northern Sub-Office, Townsville.

FOODSTUFFS CONDEMNED AND DESTROYED AS UNFIT FOR HUMAN CONSUMPTION FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

No.	Article.	Quantity.	Weight. Tons	cwt.	qr.	lb.
1	Baking Powder	4 tins	0	0	0	2
2	Cabbages	3 crates	2	2	0	0
3	Cocoa	96 tins	0	0	0	24
4	Dates	1 box	0	0	1	2
5	Dripping	20 tins	0	0	1	12
6	Fish (Herrings)	360 tins	0	2	0	2¼
7	Fish (Herrings and Tomato Sauce)	581 tins	0	1	3	16
8	Fish (Kippers)	51 tins	0	0	0	26
9	Fish (Salmon)	61 tins	0	0	2	2
10	Fish (Sardines)	4,249 tins	0	14	0	19½
11	Fish (Sardines and Tomato Sauce)	455 tins	0	1	0	3¾
12	Fish (Sprats)	7 tins	0	0	0	1¾
13	Fruit	91 cases	0	17	2	11
14	Fruit (preserved)	394 tins	0	7	0	4
15	Jam	8 tins	0	0	0	16
16	Prunes	17 cases	0	3	3	12
	Total weight	..	4	11	1	23¾

INSPECTORS' VISITS OUTSIDE TOWNSVILLE (NORTHERN STAFF ON FOOD INSPECTION).

Date.	Place.	Inspector.	Purpose of Visit.
26 Oct., 1914	Atherton	R. A. Wright	Food inspection
22 Oct., 1914	Cairns	R. A. Wright	Prosecutions
27 Oct., 1914	Cairns	R. A. Wright	Food inspection
31 Oct., 1914	Cairns	R. A. Wright	Food inspection and liquor testing
31 May, 1915	Charters Towers	C. M. Cato	Food inspection, milk sampling, bread weighing and liquor testing
15 June, 1915	Cloncurry	C. M. Cato	Food inspection, bread weighing, and liquor testing
14 June, 1915	Duchess	C. M. Cato	Food inspection, bread weighing, and liquor testing
11 June, 1915	Friezland	C. M. Cato	Food inspection, bread weighing, and liquor testing
29 Oct., 1914	Gordonvale	R. A. Wright	Food inspection
30 Oct., 1914	Hambledon Junction	R. A. Wright	Food inspection
29 Oct., 1914	Harvey's Creek	R. A. Wright	Food inspection
23 Oct., 1914	Herberton	R. A. Wright	Food inspection
11 Aug., 1914	Hughenden	R. A. Wright	Food inspection
5 June, 1915	Hughenden	C. M. Cato	Food inspection, milk sampling, bread weighing, and liquor testing
30 June, 1915	Ravenswood	C. M. Cato	Food inspection, bread weighing, and liquor inspection
29 June, 1915	Ravenswood Junction	C. M. Cato	Food inspection and liquor testing
19 June, 1915	Richmond	C. M. Cato	Food inspection, bread weighing, and liquor testing
9 June, 1915	Selwyn	C. M. Cato	Food inspection and liquor testing
26 Oct., 1914	Tolga	R. A. Wright	Food inspection
26 June, 1915	Torrens Creek	C. M. Cato	Food inspection and liquor testing
28 Oct., 1914	Weinert's Creek	R. A. Wright	Food inspection
23 June, 1915	Winton	C. M. Cato	Food inspection, bread weighing, and liquor testing
31 Oct., 1914	Woree	R. A. Wright	Liquor testing



A Satisfactory Method of Storing Cakes, Etc.—This bakehouse has its outer door and window openings protected; cakes and pastry are first cooled in racks, and afterwards packed in drawers.

PROSECUTIONS FOR MILK ADULTERATIONS FROM 1ST JANUARY, 1915, TO 30TH JUNE, 1915.

No.	Date.	Place.	Basis of Prosecution.	Fines.	Costs.
	1915.			£ s. d.	£ s. d.
1	2 February ..	Herberton	Added water 16·5 per cent. ..	3 0 0	3 8 4
2	2 February ..	Herberton	Added water 15·5 per cent. ..	3 0 0	3 13 4
3	19 March	Cairns	Added water 4 per cent.	2 0 0	3 6 4
			TOTALS	£8 0 0	£10 8 0

PROSECUTIONS FOR USING RAG TO TIGHTEN MILK-CAN LIDS.

No.	Date.	Place.	Fines.	Costs.
	1915.		£ s. d.	£ s. d.
1	12 March	Cairns	0 10 0	2 5 6
2	12 March	Cairns	0 10 0	2 5 6
3	19 March	Cairns	0 10 0	2 5 6
		TOTALS	£1 10 0	£6 16 6

PROSECUTIONS FOR LIGHT-WEIGHT BREAD.

No.	Date.	Place.	Fines.	Costs.
	1915.		£ s. d.	£ s. d.
1	2 February	Herberton	6 7 6	2 5 6
2	2 February	Herberton	1 13 6	2 5 6
3	4 February	Tolga	2 18 6	2 5 6
4	28 January	Cairns	2 4 6	2 5 6
5	28 January	Cairns	2 7 0	2 10 11
		TOTALS	£15 11 0	£11 12 11

PROSECUTIONS FOR ADULTERATION OF ALCOHOLIC LIQUORS FROM 1ST JANUARY, 1915, TO 30TH JUNE, 1915.

No.	Date.	Place.	Class of Liquor.	Basis of Prosecution.	Fines.	Costs.
	1915.				£ s. d.	£ s. d.
1	28 January ..	Cairns	Whisky ..	Added water	1 0 0	3 6 6
2	28 January ..	Cairns	Whisky ..	Added water	1 0 0	3 6 6
3	28 January ..	Cairns	Whisky ..	Added water	1 0 0	3 6 6
4	28 January ..	Gordonvale ..	Whisky ..	Added water	1 0 0	3 9 2
5	2 February ..	Herberton ..	Whisky ..	Added water	3 0 0	3 6 6
6	2 February ..	Herberton ..	Whisky ..	Added water	3 0 0	3 6 6
7	2 February ..	Herberton ..	Brandy ..	Added water	3 0 0	3 6 6
8	2 February ..	Herberton ..	Whisky ..	Added water	3 0 0	3 6 6
9	4 February ..	Tolga	Whisky ..	Added water 15·6 per cent. ..	0 1 0	3 5 6
10	1 February ..	Tolga	Whisky ..	Added water 15·8 per cent. ..	1 0 0	3 6 6
11	15 June	Ravenshoe ..	Bot. Whisky	Added water 22·8 per cent. ..	2 0 0	3 6 6
12	15 June	Ravenshoe ..	Bot. Whisky	Added water 23·8 per cent. ..	5 0 0	3 6 6
13	15 June	Ravenshoe ..	Bot. Whisky	Added water 17·6 per cent. ..	5 0 0	3 6 6
14	15 June	Ravenshoe ..	Whisky ..	Added water 23·6 per cent. ..	5 0 0	3 6 6
				TOTALS	£34 1 0	£47 12 8

APPLICATION FOR FORFEITURE OF ALCOHOLIC LIQUORS FROM 1ST JANUARY, 1915, TO 30TH JUNE, 1915.

No.	Date.	Place.	Class of Liquor.	Basis of Application.	Quantity.
1	3 February, 1915	Cairns	Brandy ..	Added water	36 gallons.

UNOFFICIAL SAMPLES SUBMITTED FOR ANALYSIS FROM 1ST JANUARY, 1915, TO 30TH JUNE, 1915.

No.	Article.	No. Submitted.
1	Curry Powder	1
2	Baking Powder	2
3	Herrings in Tomato Sauce	117
4	Essence of Vanilla	2
	TOTAL	122

OFFICIAL SAMPLES—FROM 1ST JANUARY, 1915, TO 30TH JUNE, 1915.

No.	Article.	No. Adulterated.	No. Submitted.
1	Brandy	7	7
2	Baking Powder	1	1
3	Milk (fresh)	7	22
4	Mince Meat	..	2
5	Whisky	36	36
6	Rum	1	1
	TOTALS	52	69

FOODSTUFFS CONDEMNED AND DESTROYED AS UNFIT FOR HUMAN CONSUMPTION FROM 18TH DECEMBER, 1914, TO 30TH JUNE, 1915, FROM CAIRNS AREA.

Article.	Quantity.	Weight.			
		Tons	cwt.	qr.	lb.
Anchovy Paste	1 jar	0	0	0	1
Cordials, Assorted	201 quart bottles	0	4	1	26
Cream of Tartar	1 cask	0	1	0	0
Fruit (Fresh)	248 cases	3	16	3	0
Fruit (Dried)	3 cases	0	1	3	19
Fish (Sardines)	417 tins	0	3	2	18
Fish (Herrings and Tomatoes)	6,754 tins	1	8	3	14
Fish (Various)	407 tins	0	4	3	5
Fruit (Canned)	843 tins	0	1	2	2
Jams	3 tins	0	0	0	6
Potatoes	88 bags	4	11	2	18
TOTAL	..	10	16	3	15

VISITS TO COUNTRY TOWNS FROM 1ST JANUARY, 1915, TO 30TH JUNE, 1915.

Date.	Place.	Inspector.	Purpose of Visit.
1915.			
4 February	Atherton	R. A. Wright	Prosecution and milk sampling
31 March to 1 April	Atherton	R. A. Wright	Prosecution and general inspection
9-12 February	Babinda	R. A. Wright	Selection sanitary site and food and general inspection
4-5 February	Babinda	R. A. Wright	Food and general inspection
25 May	Freshwater	R. A. Wright	Liquor testing
7 May	Gordonvale	R. A. Wright	Liquor testing and food inspection
14 June	Herberton	R. A. Wright	Prosecution
29-31 June	Herberton	R. A. Wright	Prosecution
27 May to 8 June	Innisfail	R. A. Wright	Selection sanitary site, food and general inspection
1-2 February	Ravenshoe	R. A. Wright	Liquor testing
3 February	Tumoulin	R. A. Wright	Liquor testing
5 February	Tolga	R. A. Wright	Liquor testing and general inspection
3-4 April	Tolga	R. A. Wright	Food and general inspection

ANTI-MOSQUITO OPERATIONS.

In presenting the third progress report of the work carried out by the Department in its campaign against mosquitoes in and around Brisbane I would draw attention to the fact that Assistant Inspector Cooling, the officer in charge of field operations, has not this year had the opportunity to compile a voluminous return owing to military duties claiming a considerable portion of his time during this period. At the present time Assistant Inspector Cooling is in camp with the Expeditionary Forces at Enoggera, where he is acting in the capacity of Pioneer Sergeant in charge of camp sanitation.

In view of these circumstances, therefore, I would supplement Mr. Cooling's report to the extent of explaining the reason for the discontinuation by the Department of a certain section of the scheme adhered to previously, as mentioned in the introductory portion of that officer's return.

Anti-mosquito measures were commenced by the Department in January, 1913, under the terms of an agreement entered into with certain Local Authorities in the Brisbane metropolitan area, whereby a sum of £420 was promised by the said authorities as their combined contribution towards the expenses of the campaign.

The Shire of Stephens subsequently repudiated its obligations, leaving a sum of £367 10s. available.

The actual cost of the work during the year 1913 amounted to £792 2s. 11d., made up of wages £615 15s. 2d. and material £176 7s. 9d. Deducting the Local Authorities' contributions of £367 10s. and refunds by certain owners of private properties, &c., amounting to £112 4s. 7d., there remained a sum of £312 8s. 4d., which was paid by the Department as its monetary contribution to the scheme.

In 1914, acting under the impression that the agreement with the Local Authorities concerned still held good, the Department commenced operations as usual, and continued same for a period of four months up to 30th April, 1914, at a cost of £382 5s. 9d., of which £279 6s. was expended in labour and £102 19s. 9d. for material.

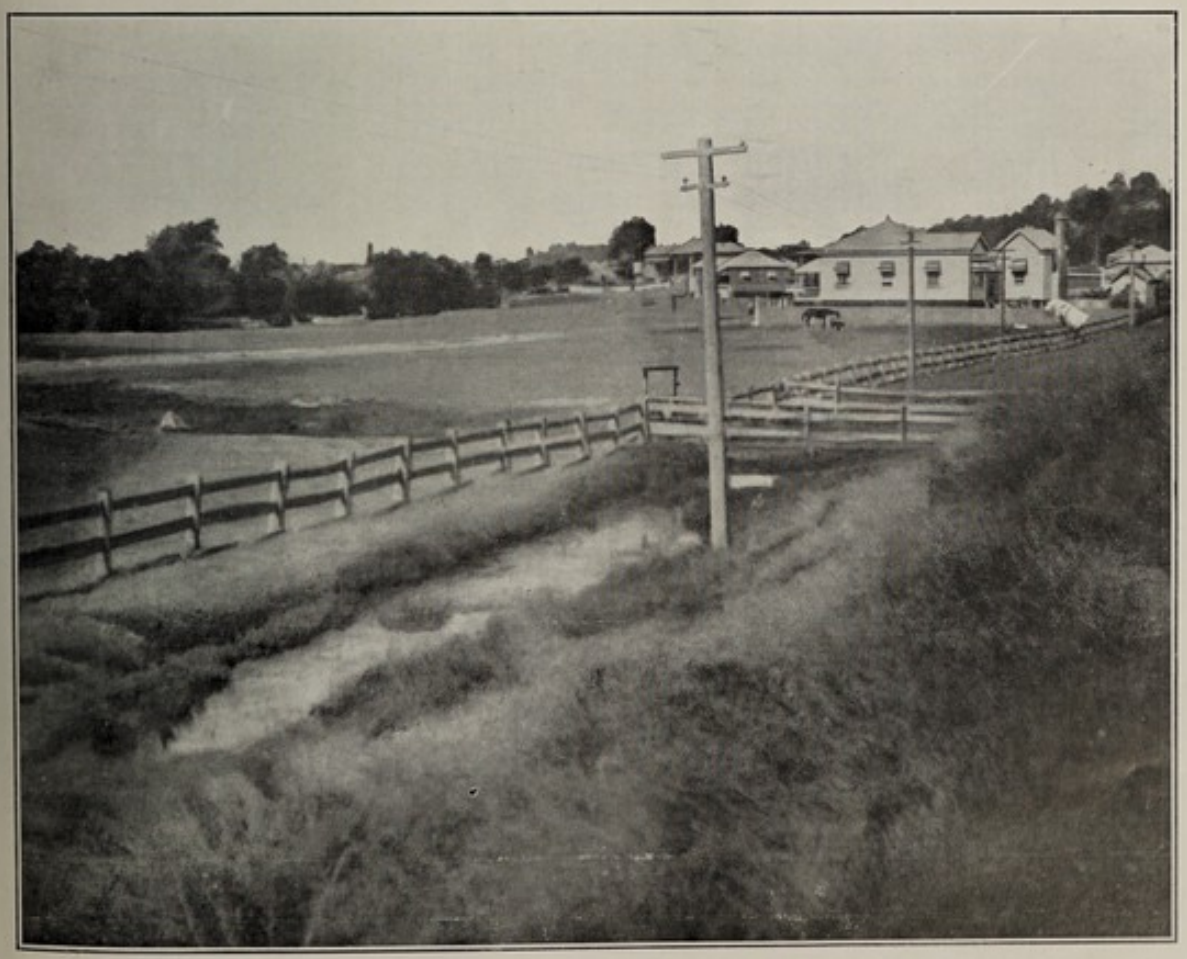
It was estimated, were the work to be continued upon the same lines, that the total expenditure for the year would amount to £1,000—the increase over the amount spent in the previous year being accounted for by the necessity for continuing the work during the winter months—a step which upon the inception of the scheme was not appreciated as essential, but which later experience showed was imperative if the work was to be kept under complete control.

As the Local Authorities made no move to come forward with their contributions, it was

Process of Petrolization of a Salt Marsh at New Farm (against C. vigilax)—This particular marsh has since been filled in.

Another Salt Marsh at New Farm, which has also been filled in—Reclamation in each instance has afforded relief to residents in the vicinity.

A Row of Railway "Borrow Pits" at Mayne—These are flooded with salt water at spring tides and constitute the typical breeding ground of *Culicelsa vigilax* and *Mucidus alternans*.



Another Row of "Borrow Pits" in the Same Locality—Also a favourite resort of *C. vigilax* and *M. alternans*.

at this stage decided to remind them of their obligations, and a meeting was convened by the then Mayor of Brisbane, at which the Department was represented by the Commissioner, Secretary, Chief Food Inspector, and Inspector Cooling. At this meeting, which was held at the Brisbane Town Hall on 19th May, 1914, it was suggested that if the Local Authorities between them contributed two-thirds of the estimated total cost of the full year's operations the Department would be prepared to advance the remaining one-third. Estimating the total cost at £1,000 and allowing for refunds £100, a sum of £900 would remain to be met—£600 of which it was suggested the Local Authorities should defray, while the remaining £300 would be borne by the Government.

The Local Authorities' representatives present at this meeting included the Mayors of Brisbane, South Brisbane, Hamilton, Toowong, Ithaca, and Windsor, and Councillors for Balmoral and Stephens.

After consideration of the minutes of the previous meeting and the reading of correspondence, His Worship the Mayor of Brisbane opened the business by explaining the reasons that necessitated the meeting, and invited the Commissioner to give them his views, and to express his wishes as to what was required by the Local Authorities represented.

Details of the cost of the previous year's operations were furnished, and the scheme of the work undertaken by the Department outlined.

It was also pointed out that the Department was prepared to meet the estimated total cost of the operations, proceeding on a one-third basis, leaving the Local Authorities to make good the two-thirds balance of £600.

His Worship the Mayor of Brisbane, who responded to the Commissioner, expressed dissatisfaction with the manner in which operations had been conducted by the Department from the inception of the scheme, and spoke strongly against a continuance of anti-mosquito measures; and the attitude of His Worship was reflected in the remarks passed by most of the other speakers who succeeded him. The result was that the majority of those present declared against a continuance of the scheme, for the reasons that they were not satisfied with results achieved, and did not favour the continued expenditure of ratepayers' money in such a direction.

Following this the Department, through lack of the necessary funds, was obliged to reduce its mosquito gang, retaining only those of its members who were employed on the "domestic" or *Stegomyia* squad. The two men engaged on this work have continued the special duties of tank inspection and house-to-house visitation up to the present.

The discontinuation of street gully work and swamp treatment was an unfortunate decision on the part of those responsible, for not only did the step result to a great extent in nullifying initial efforts in handling the problem, but, as after events have proved, removed the main precautionary measure against the species of mosquito calculated to work mischief in the event of cases of malaria being imported into the Brisbane metropolitan area from countries where this disease is prevalent.

As a matter of fact, from remarks passed at the meeting, it was evident that none of the local representatives present had given the matter serious consideration from a health point of view, and the apparent readiness with which they were prepared to drop the scheme forthwith can only be accounted for by the theory that they were desirous of avoiding further expenditure in a direction which was distasteful to them.

From a business point of view the move was ill-advised, as, having already expended a certain sum upon the work, it was necessary that operations should continue if each Local Authority was to derive its share of the final good results which must inevitably have been experienced had operations been continued. As it was, the city of Brisbane benefited to the greatest extent, receiving, in return for its contribution of £52 10s. a return in labour and material amounting to over three times that sum.

The extraordinary feature is that none of the other parties to the agreement appear to have considered this phase of the question, and, instead of objecting when the Mayor of Brisbane declared his intention of withdrawing, accepted the opportunity as favourable to follow suit and back down also.

Since the discontinuance of fieldwork in and around Brisbane the breeding places of *Culex fatigans* and other varieties of mosquitoes have remained untouched, with the result that in certain areas these insects are increasing in prevalence, and at a time, too, when more than ever in the public interests a rigorous campaign should be proceeding against them, not only in Brisbane but in every other part of the State which is closely inhabited. The reason for the necessity of precautionary measures at the present time lies in the fact that closer communication between this State and other countries, brought about recently through war conditions, is resulting in the return to Queensland of soldiers and sailors suffering from malaria—a disease which is likely to be gazetted at an early date as compulsorily notifiable under the Health Acts.

With visions before us of what has occurred in other parts of the world when this particular disease has become prevalent amongst the inhabitants, the matter has now become of too serious a nature to be left to the choice of town councillors and city aldermen as to whether or no steps shall be taken to deal with the insects responsible for its spread. In the interests of the health of ratepayers residing within their respective areas, every Local Authority must be prepared to bear its share of responsibility, and to undertake each for itself the class of campaign against mosquitoes which the nature and surroundings of its particular area demands.

The entire question is one which requires serious consideration by the Department at an early date.

I have, &c.,

H. W. PETHERICK,
Chief Food Inspector.

APPENDIX H.

THIRD PROGRESS REPORT OF THE CAMPAIGN AGAINST MOSQUITOES IN BRISBANE.

The progress made in connection with mosquito reduction work during the year ending 30th June, 1915, has involved a radical change in its organisation. The most important feature in this connection is that during the early part of January of this year, acting under the measures adopted by the combined Councils of the metropolis as to the desirability of continuing mosquito destruction operations upon which this Department entered three years ago, the work in connection with the petrolisation of swamps and street gully traps has been discontinued.

The limitations imposed on the propagation of *Stegomyia fasciata*, F., by screening and other such measures which are the most efficient barriers against an invasion of yellow fever, have been pursued with vigour. It must be, therefore, at present to a thinking person a matter of equal wonder and satisfaction when he contemplates how nearly this pest is eradicated, and observes that this species in the neighbourhood of screened tanks is now a rare sight. This change has originated and been continued from the screening of tanks, &c., from the clearing of roof gutters, and from the removal of water-holding rubbish so common about many houses.

In connection with *Stegomyia* operations, the number of premises inspected consists of 8,371. Of these 1,962 tanks were observed to be effectively screened and 7,013 unscreened; 95 wells were noted as well as the following others:—36 pools breeding or likely to breed mosquitoes; 23 barrels, 111 roof gutters of defective construction or choked with débris and thus holding water, and 26 open gutters in a similar condition. One horse-trough was seen to be breeding larvæ—a rather extraordinary occurrence.

The wells examined during the year were mostly those used for washing purposes and not for drinking, so that, on the whole, both shallow and deep ones are in use. In the presence of a pipe-borne water service, these wells are subjected to very much neglect, and thus they remain open or partly covered. The fouling of these wells is quite apparent. Notwithstanding these conditions, it may be invariably stated that, unless these wells are contaminated by the discharge of sewage, they have absolutely no connection with mosquito-breeding. In a couple of wells where larvæ of *Culex fatigans* were noticed the water was found to be so polluted as to be event unfit for washing purposes. A few wells were noticed to be used as rubbish tips and cesspits, and were dealt with by filling in. Although the water of clean wells contains no larvæ, it is quite possible that it may be used by *Stegomyia* when all other collections of water are screened or otherwise treated. Notices, however, were served to have them screened, which has been accomplished in various ways, viz., by boarding them over and asphalting the boards, or by covering the boards with ruberoid roofing, or by encasing with sheet iron. In cases where required, mosquito-proof manhole covers have been provided.

The action taken against householders was to issue notices in accordance with the Mosquito Order in Council under section 132F of "*The Health Acts*, 1900 *to* 1911." Some 6,004 notices have thus been served; and of 9,810 reinspections made, 6,261 tanks were found to be screened, and 474 removed or destroyed so as to effectively prevent them from holding water and thus acting as breeding-places; 78 wells have been screened and 26 filled in; 6 barrels screened and 26 removed; 44 pools filled in; 137 roof gutters cleaned or reconstructed; 32 surface gutters cleaned, and 154 rubbish accumulations removed. In addition, 5 cesspools found to be breeding larvæ of *Culex fatigans* were treated by screening all inlet and outlet openings.

Work in connection with the other two species of mosquitoes—to wit, *Culex fatigans*, W., and *Culicelsa vigilax*, S.—terminated during the early part of January this year. Thus up to 15th January, 1915, there were 3,429 1-6 gallons of petrolite used in spraying polluted watercourses, salt marshes, &c. Since that date the destruction work against these species has been "ascidianised," if we may use the term, for it has followed in the footsteps of the *Ascidian* (sea-squirt) with its retrogressive metamorphosis.

The abolition of the breeding-places of *Culex fatigans* about Brisbane is a work which will take some time to accomplish, for, as pointed out in a previous report, its typical haunts are the polluted watercourses. During the year under review nothing has been done on the part of Local Authorities to diminish this species, in the way of sewering, although a few attempts have been put forward in a perfunctory manner by scraping out alluvial gutters and wayside ditches. Accordingly, we see that the destruction of *C. fatigans* in the city is a work which intimately concerns Local Authorities.

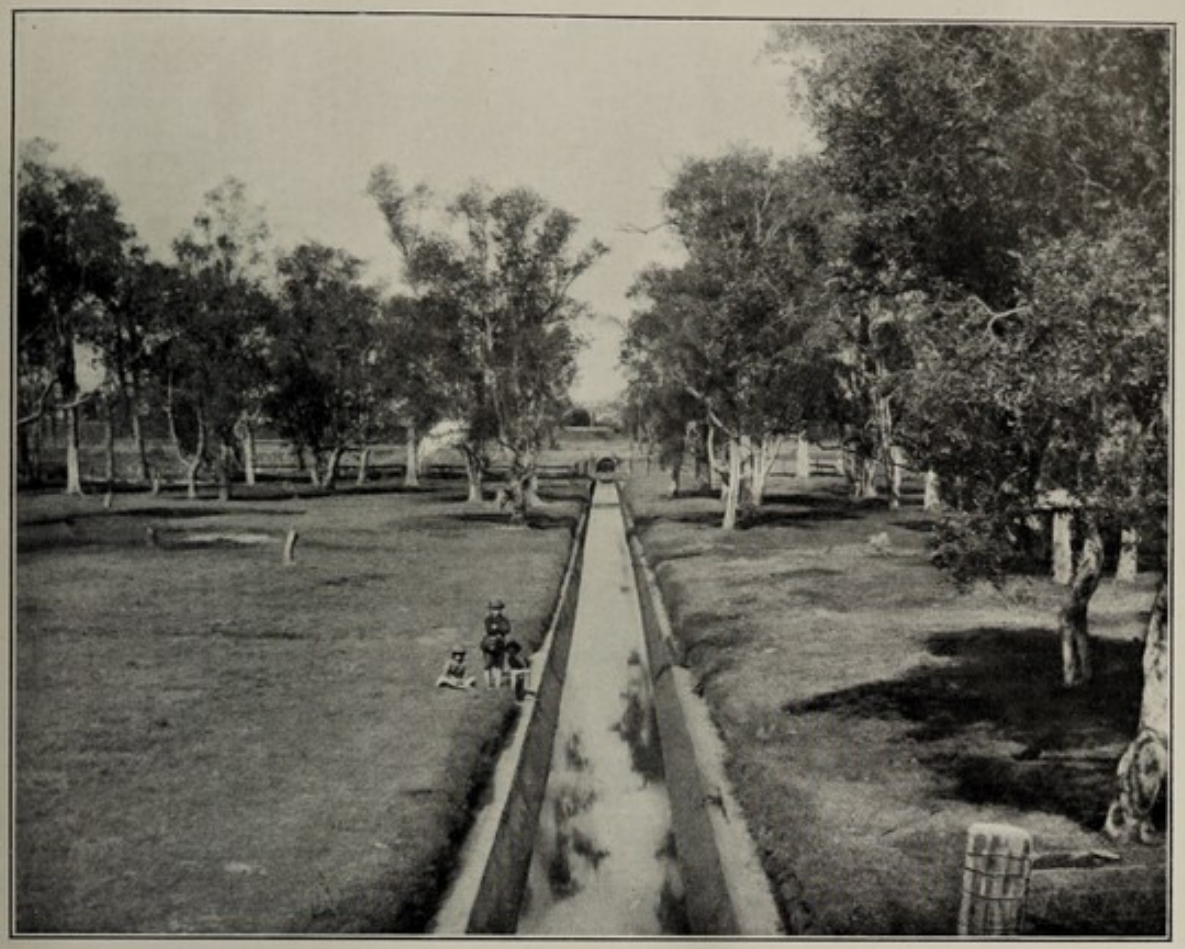
The highly sewage-contaminated watercourses, water-tables, and street gully traps, which contain multitudes of larvæ of *C. fatigans*, save for the few vain attempts at clearing them, remain untouched. Thus Tennyson is even immortalised in Brisbane to-day by our polluted brooks, &c., for we find—

> "Men may come and men may go,
> But I go on for ever."

While the reduction of *Culicelsa vigilax* has reached its excellence through swamp petrolisation and filling, yet there are several other swamps to be filled; these, probably, will be filled in the course of time. The chief breeding-places for *C. vigilax* lie at Albion Park Racecourse and Mayne Railway Yards. The "filling"

Process of Filling in a Swamp at Mayne—The work is now completed and much valuable land reclaimed.

Salt Marsh at New Farm—A breeding place for *Culicelsa vigilax* and also for *Culex fatigans* about the rubbish tip. Since filled in.



A Well-laid Invert at Milton—Which carries off sewage as well as flood water from the ti-tree swamp it drains.

An Example of a Small Creek, serving to illustrate how Watercourses become Contaminated by Sewers Emptying into Them—The invert shown above discharges into this creek at the flood valve, part of which is illustrated in the foreground.

of the former, being a work of great extent, is still progressing, while the latter swamp has of late been treated by rough canalisation; this has had the effect, not of keeping spring tidal waters from flooding the land, but of throwing them off after tides have receded. The work cannot be classed as wholly satisfactory, for the only way of dealing with such is that of "filling." It must not, however, be forgotten that large tracts of salt marsh land at Mayne have already been filled in. It is estimated that no less than 40,000 square yards of swamp land have been reclaimed in this way.

Large volumes of water have been evacuated from the swamps at Norman Creek by the simple measure of cutting channels through the swamp beds. This measure, too, cannot be classed as a permanent one, inasmuch as there is comparatively a large amount of water which is too low-lying to admit of drainage and thus "filling" is at once called for.

Altogether the measures which have been directed against *C. vigilax* demonstrate the feasibility of controlling this mosquito. Owners of all private lands within the metropolis were, under clause 3 of the Mosquito Order, compelled to raise their swamp lands by filling in.

At Bowen Hills, about an acre of swamp land has been converted into a building site, now the property occupied by the buildings of the British Oil Company. Combined methods of filling and draining have been accomplished by the Colonial Sugar Refining Company on its swamp at New Farm.

Other minor works in regard to the filling of small marshes and pools have been carried out.

L. E. COOLING,

Assistant Inspector in Charge of Mosquito Operations.

APPENDIX I.

REPORT OF NORTHERN OFFICE.

Department of Public Health,
Northern Sub-office,
Townsville, 22nd June, 1915.

SIR,—I have the honour to submit the following statistical report on the work of the Northern Sub-office for the year ended 30th June, 1915.

My appointment as Medical Inspector, North Queensland, was gazetted on 26th November, 1914, and for nearly four months thereafter my services were utilised at the Brisbane Head Office as Acting Health Officer. I eventually arrived in Townsville on 19th March and took up my duties in connection with the Northern Sub-office.

In view of the fact that I have had no opportunity so far of becoming acquainted with conditions as they exist in country districts, and having regard to the short term of my residence in North Queensland, it would be premature for me to offer any general observations on the work of the Northern Sub-office.

PERSONNEL OF STAFF.

A complete change in the personnel of the staff during the year was brought about by a decentralisation scheme, in which Inspectors R. A. Wright and J. G. Wiseman were stationed in charge of sub-offices at Cairns and Rockhampton respectively, and by the subsequent resignation of Senior Inspector S. B. Cottle. On the 27th November, 1914, Inspector C. M. Cato was transferred from the Head Office staff, and on the 19th March, 1915, I took over the control of the sub-office. The staff at the end of the year under review thus consisted of a medical inspector and one inspector.

A ratman is employed in connection with the poisoning and trapping of rats.

PLACES VISITED.

The following towns were visited by the inspectorial staff of this office in respect of general sanitary matters and also in connection with the supervision of food supplies:—Atherton, Cairns, Charters Towers, Cloncurry, Duchess, Friezland, Gordonvale, Hambledon Junction, Harvey's Creek, Herberton, Home Hill, Hughenden, Prairie, Ravenswood, Ravenswood Junction, Richmond, Selwyn, Tolga, Torrens Creek, Weinert's Creek, Winton, Woree.

SANITARY INSPECTIONS.

Some 952 premises were visited and 103 notices issued in connection with breaches of the sanitary clauses of the Health Acts.

FOOD INSPECTION.

Special attention has been given to this branch of the work, and 984 premises were inspected and 106 notices served where breaches of the Health Acts and Food and Drug Regulations were found.

Over 4 tons of various descriptions of foodstuffs have been destroyed as unfit for human consumption, detailed particulars of which appear on page 56.

MILEAGE TRAVELLED BY STAFF.

The total mileage covered by inspectors of this sub-office during the year amounted to 2,800 miles.

RAT DESTRUCTION.

The number of rats destroyed at Townsville numbered 868. Special attention is given to rat destruction at the wharves, with a view to minimising the risk of the introduction of rat-borne disease by the agency of coastal and oversea vessels. During the months of August, September, and October, 1914, the Department's ratman was absent on active service, and from the 29th January to the 17th April, 1915, Townsville was without the service of a ratman.

A full time ratman is also employed by the City Council.

The species of the rats destroyed and examined were as follows:—*Mus rattus*, 140; *Mus decumanus*, 2,005; *Mus alexandrinus rufus*, 145. Total, 2,290.

INFECTIOUS DISEASES.

The total number of cases of infectious diseases throughout the North was 748. Of this number 438 cases were diphtheria and 177 typhoid fever.

An outbreak of acute bacillary dysentery in a lighthouse station on the North Queensland coast is of some interest, in view of the fact that acute dysentery is not frequently met with in North Queensland, and also because of the comparatively isolated and self-contained nature of the community it affected. The facts of the outbreak were shortly as follows:—The lighthouse station is tenanted by nine persons (six adults and three children), comprising three families living in separate cottages. The first case (female about forty-nine years) developed in the middle of March and was removed to Townsville Hospital. A week after the removal of the first case two children developed similar symptoms, and were treated at home, making slow recoveries. A few days after the onset of the children's illness their mother developed a similar illness, although considerably less in severity. The final case (a male aged forty-nine) developed symptoms similar to the others, on 13th May. In this case the symptoms were of some severity, and the patient was removed to Townsville Hospital on 16th May, the day of my visit to the station.

The facts as related show that, out of a total population of nine persons living as a remote self-contained community, five persons developed illness similar in type and varying in severity,

the symptoms in all of the cases being such as are usually associated with acute bacillary dysentery. That this diagnosis was justified is fully borne out by the report of Dr. Henry Priestly, of the Australian Institute of Tropical Medicine. With reference to the last case, the clinical manifestations of the case while in hospital were typical of the disease, and bacteriological examination established the presence of bacilli which, according to Dr. Priestly, "belong to the mannite fermenting group of dysentery bacilli, and resemble most closely the typical Flexner type, except in the agglutination reactions."

The particular day on which the original case became infected is somewhat difficult to determine, and must be largely a matter of speculation, but in view of the microbic nature of the infection and the important part played by water, food, insects, dust, &c., in the transmission of the infection, a very thorough examination of the station was made, and instructions were framed and distributed to the families concerned and certain recommendations were made, and it is satisfactory to note that no further cases of dysentery have occurred up to the present time.

I have, &c.,

J. KING PATRICK,
Medical Inspector, North Queensland.

The Commissioner of Public Health.

PROSECUTION FOR SPITTING ON FOOTPATH.

No.	1915.	Place.	Fine.	Costs.
			s. d.	£ *s. d.*
1	5 March, 1915	Townsville	5 0	1 6 8

DISTRIBUTION OF CASES OF INFECTIOUS DISEASES FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

	Typhoid Fever.	Diphtheria.	Phthisis.	Puerperal Fever.	Erysipelas.	Infantile Paralysis.	Varicella.	Membranous Croup.	Ankylostomiasis.	Continued Fever.	Total.
Ayr	..	3	1	1	..	..	..	..	..	1	6
Barron	5	..	1	..	..	..	..	..	..	..	6
Bourke	1	..	..	..	..	..	..	..	..	..	1
Bowen	5	3	..	..	1	..	5	..	..	..	14
Cairns	2	9	..	..	..	..	..	..	..	..	11
Charters Towers	9	55	..	..	2	..	19	..	..	..	85
Chillagoe	1	5	..	..	..	..	..	..	..	..	6
Cloncurry	20	14	..	..	..	..	..	..	..	..	34
Croydon	1	..	2	..	..	1	..	..	..	..	4
Dalrymple	4	..	..	..	..	..	..	..	..	..	4
Eacham	4	..	1	..	..	..	..	..	..	..	5
Einasleigh	2	..	..	..	..	..	2	..	..	..	4
Flinders	6	2	..	..	..	..	..	..	..	..	8
Herberton	4	8	..	..	..	..	1	..	..	..	13
Hinchinbrook	..	..	..	..	..	..	27	..	4	..	31
Hughenden	3	..	..	..	..	..	..	..	..	..	3
Ingham	..	..	..	..	..	..	1	..	..	..	1
Johnstone	..	1	..	..	..	..	..	..	..	..	1
Mackay	25	212	3	..	7	..	1	..	2	..	250
Mackinlay	2	..	..	..	..	..	..	..	..	..	2
Mirani	5	18	..	..	1	2	..	..	..	..	26
Pioneer	15	50	4	..	..	..	..	..	..	..	69
Queenton	1	28	1	..	..	1	8	..	..	..	39
Sarina	9	1	2	..	1	..	..	..	..	..	13
Thuringowa	..	5	..	..	..	..	..	..	..	..	5
Tinaroo	9	1	1	..	..	..	..	..	..	..	11
Townsville	18	22	2	..	..	..	9	1	7	..	59
Walsh	4	1	..	..	..	..	1	..	3	..	9
Winton	18	..	1	..	..	..	..	..	..	..	19
Woothakata	2	1	..	..	..	..	..	..	..	..	3
Wangaratta	1	..	1	..	..	..	4	..	..	..	6
TOTALS	177	438	20	1	12	4	78	1	16	1	748

Rats Destroyed and Examined 1st July, 1914, to 30th June, 1915.

Townsville.

1914-1915.	Destroyed.			Examined.		
	Rats.	Mice.	Total.	Rats.	Mice.	Total.
July	80	4	84	355	..	355
August	170	7	177	144	..	144
September	177	..	177	122	..	122
October	198	3	201	233	..	233
November	103	3	106	356	..	356
December	125	4	129	254	..	254
January	395	..	395	124	..	124
February	137	..	137	152	7	159
March	143	..	143	144	5	149
April	144	..	144	133	10	143
May	221	..	221	122	..	122
June	257	..	257	151	..	151
Totals	2,150	21	*2,171	2,290	22	*2,312

* Also includes rats and mice caught by ratman employed by Local Authority.

Note.—The departmental ratman was absent on active service during the months of August, September, and October, 1914, and during the period 29th January to 17th April no ratman was stationed at Townsville.

Inspectors' Visits outside Townsville (Northern Staff on Sanitary Inspection).

Date.	Place.	Inspector.	Purpose of Visit.
27 Oct., 1914	Cairns	R. A. Wright	Sanitary inspection
29 Oct., 1914	Gordonvale	R. A. Wright	Sanitary inspection
23 Oct., 1914	Herberton	R. A. Wright	Sanitary inspection
3 Oct., 1914	Home Hill	C. M. Cato	Sanitary inspection
21 June, 1915	Hughenden	C. M. Cato	Sanitary inspection
23 Jan., 1915	Prairie	C. M. Cato	Inspection of site for shearing shed
21 Jan., 1915	Torrens Creek	C. M. Cato	Selection of sanitary depôt site
28 Oct., 1915	Weinert's Creek ..	R. A. Wright	Sanitary inspections

APPENDIX J.

INFECTIOUS DISEASES NOTIFIED DURING THE YEAR.

DISTRIBUTION OF CASES OF INFECTIOUS DISEASES NOTIFIED FROM THE BRISBANE METROPOLITAN AREA, 1ST JULY, 1914, TO 30TH JUNE, 1915.

Local Authorities.	Typhoid Fever.	Scarlet Fever.	Puerperal Fever.	Diphtheria	Erysipelas.	Phthisis.	Ankylostomiasis.	Infantile Paralysis.	Cerebro-Spinal Meningitis.	Chicken-pox.	Total.
Brisbane	79	8	8	182	27	79	Nil	32	..	46	461
South Brisbane	71	12	8	156	16	56	Nil	47	2	36	404
Balmoral	2	2	Nil	14	2	4	Nil	8	..	10	42
Belmont	Nil	Nil	Nil	Nil	Nil	1	Nil	..	..	2	3
Coorparoo	8	1	4	14	1	5	1	4	..	3	41
Enoggera	19	Nil	Nil	12	Nil	4	..	2	4	6	47
Hamilton	3	1	7	11	Nil	2	..	7	..	7	38
Ithaca	23	3	2	91	8	14	..	24	..	32	198
Indooroopilly	2	Nil	Nil	Nil	Nil	Nil	..	..	1	1	2
Kedron	5	1	Nil	11	3	4	..	1	..	Nil	25
Sandgate	1	1	Nil	7	Nil	3	..	8	..	4	24
Sherwood	8	2	2	10	Nil	4	..	4	..	Nil	30
Stephens	10	2	Nil	32	3	8	..	15	..	7	77
Taringa	3	2	2	19	2	5	..	5	..	6	44
Tingalpa	Nil	Nil	Nil	Nil	Nil	Nil	..	Nil	..	Nil	..
Toombul	5	Nil	2	27	3	7	..	15	..	16	75
Toowong	11	3	2	35	1	7	..	9	..	6	74
Windsor	28	1	2	35	6	13	..	16	..	9	110
Wynnum	12	2	Nil	30	2	5	..	5	..	10	66
Yeerongpilly	6	Nil	Nil	5	Nil	1	..	5	..	Nil	17
Total	296	41	39	691	74	222	1	207	7	201	1,778
1st July, 1913, to 30th June, 1914	377	46	10	624	70	257	3	3	1	43	1,434

APPENDIX K.

INFECTIOUS DISEASES NOTIFIED FROM OUTSIDE METROPOLITAN AREA.

FROM 1ST JULY, 1914, TO 30TH JUNE, 1915.

—	Notifications Received.
Typhoid Fever	887
Diphtheria	1,462
Erysipelas	66
Membranous Croup	2
Puerperal Fever	20
Phthisis	180
Scarlet Fever	175
Cerebro-Spinal Meningitis	15
Ankylostomiasis	26
Continued Fever	2
Infantile Paralysis	125
Chicken-pox	410
	3,370

APPENDIX N.

KARGOOLNAH SHIRE COUNCIL.

PREVENTION OF ENTERIC FEVER.

NOTICE TO STATION MANAGERS, SHEARING CONTRACTORS, AND OTHERS.

THE prevention of Enteric Fever, commonly known as typhoid, is engaging the attention of all Shire Councils in Western Queensland, and the Kargoolnah Shire Council, in the public interest, now seeks your aid in the efforts being made to check the disease.

It is recognised by the Department of Public Health, and also by our local medical officer, Dr. McKillop, that you can do much to assist, and if the Council can depend on your active co-operation, a vast amount of good will result.

It is well to point out that the ratepayers, by their Shire Council, bear the actual cost of treatment, at the local hospital, of patients from the stations, &c., and it follows, therefore, that you will receive financial as well as hygienic benefit from any preventive steps taken by you in the matter.

You are fully aware of the great inconvenience and general loss caused by sickness on a station, especially during shearing, and from a purely economical point of view, it should pay you handsomely to instil into the minds of employees the benefits to be derived from compliance with the suggestions made by Dr. McKillop as detailed hereunder.

The doctor's proposals, with which the Council heartily agrees, are, mainly—

1. That all station managers, at least a fortnight prior to date of commencement of shearing, notify the Clerk to the Kargoolnah Shire Council, by letter, of the proposed date, and that the doctor proceed to the shearing site and inspect the premises and make suggestions, if necessary, for the improvement of the sanitary conconditions.

2. That every shearer, shed hand, musterer, and general station hand submit to inoculation against enteric.

3. That the operation for inoculation, which is practically painless and causes scarcely any inconvenience, be carried out at the shed or station quarters by the doctor, who, at the Council's expense, will provide vaccine and any dressings required.

You will kindly impress upon employees and others interested that this offer, which is indeed valuable, will involve the person treated in no expense and no harmful after-effects, and once the benefits to be derived are fully understood by the men, the general health of the district will be improved and much suffering and loss avoided.

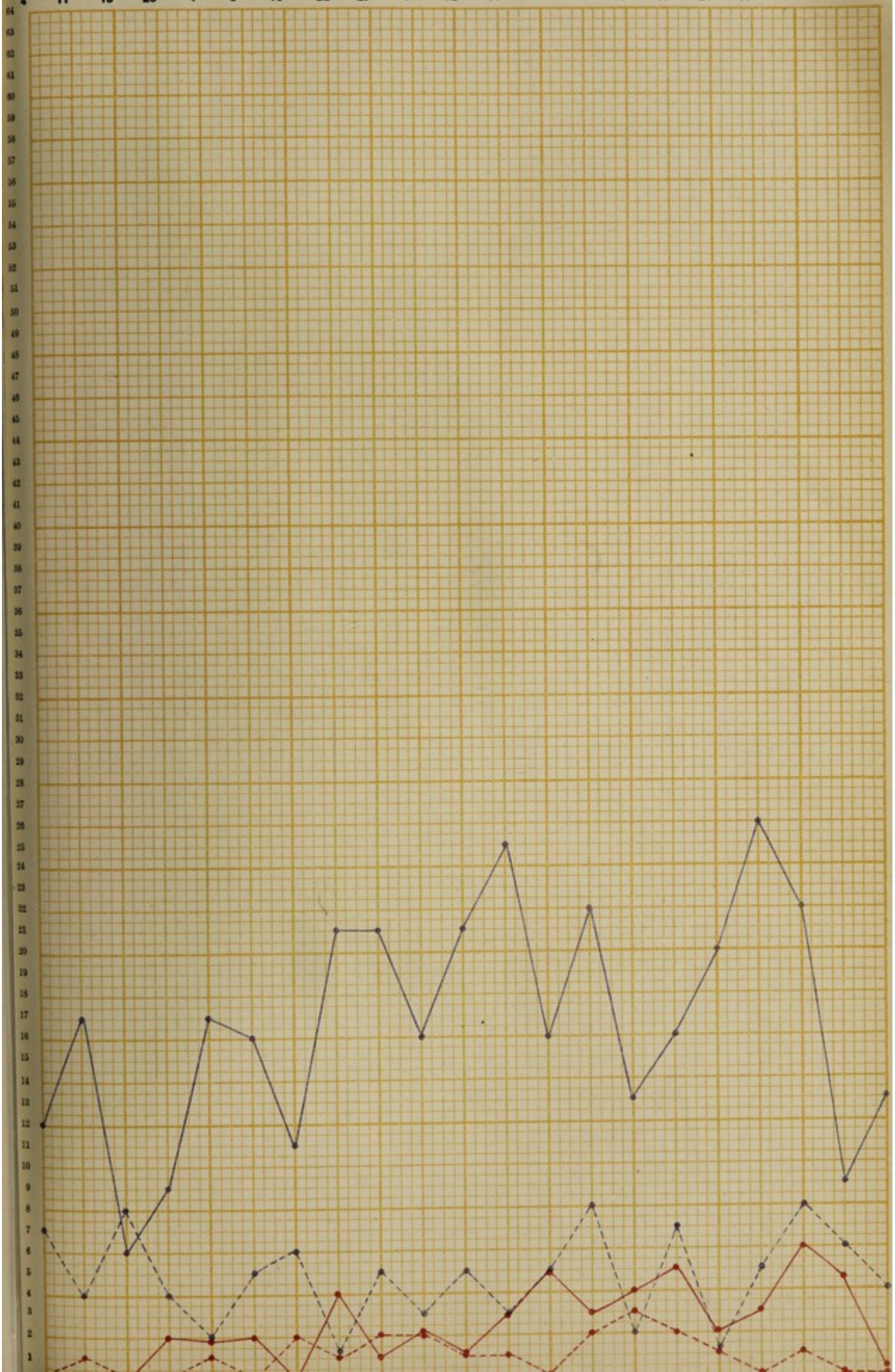
Price, 5*s*. 3*d*.

By Authority: ANTHONY JAMES CUMMING, Government Printer, Brisbane.

1914

INFECTIOUS DISEASES—METROPOLITAN AREA.

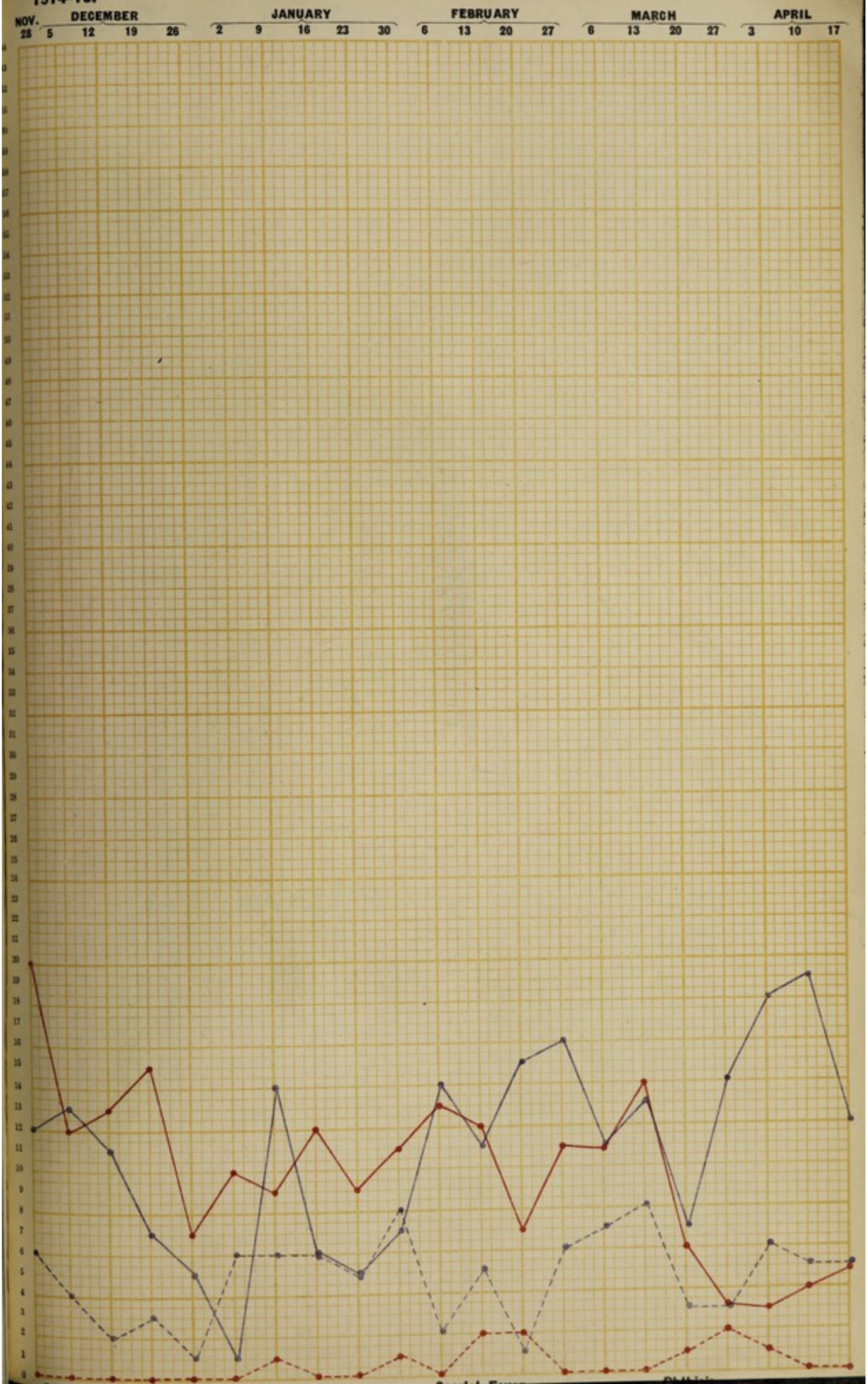
JULY				AUGUST					SEPTEMBER				OCTOBER					NOVEMBER		
4	11	18	25	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21



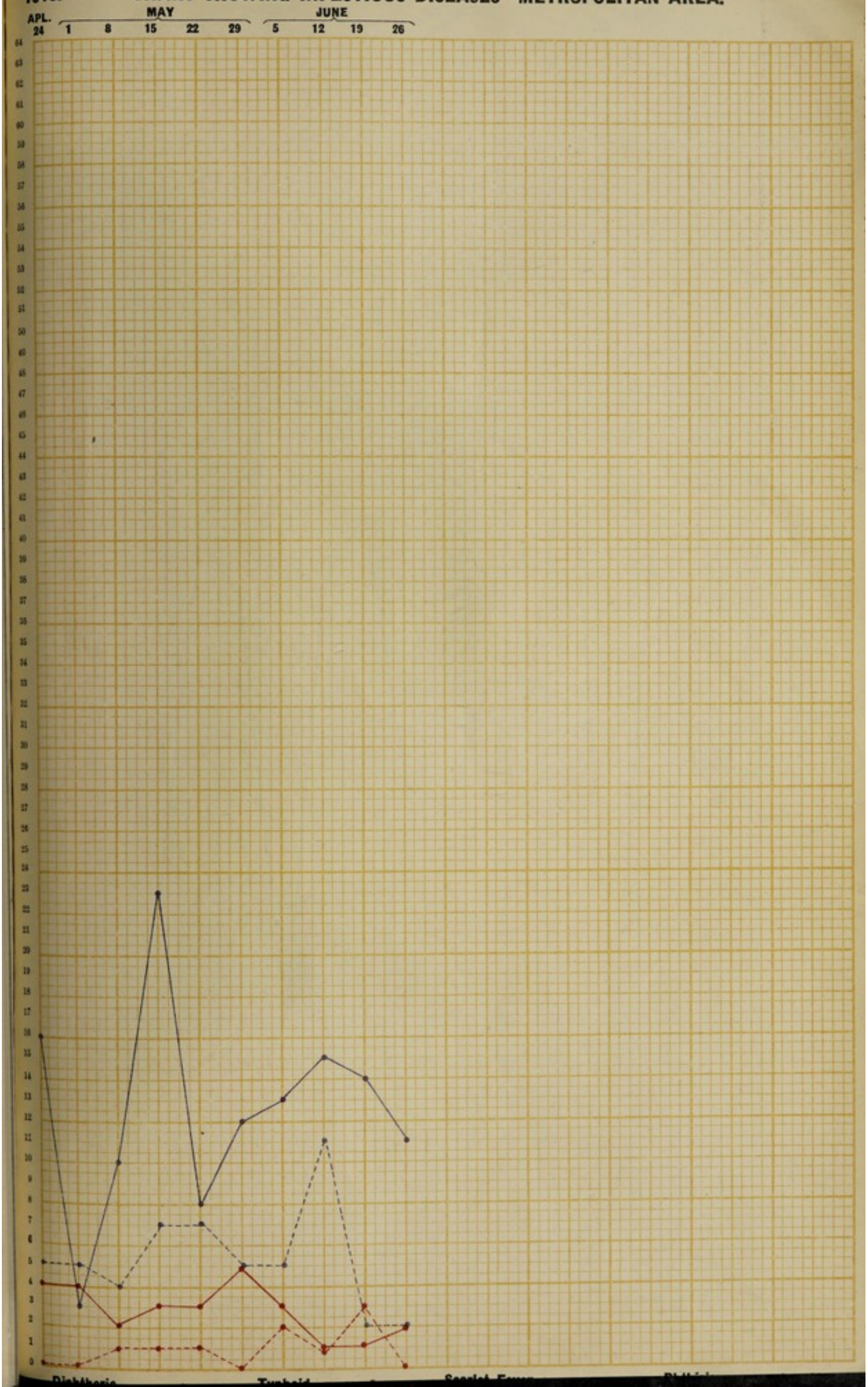
INFECTIOUS DISEASES—METROPOLITAN AREA.

1914-15.

Appendix L.

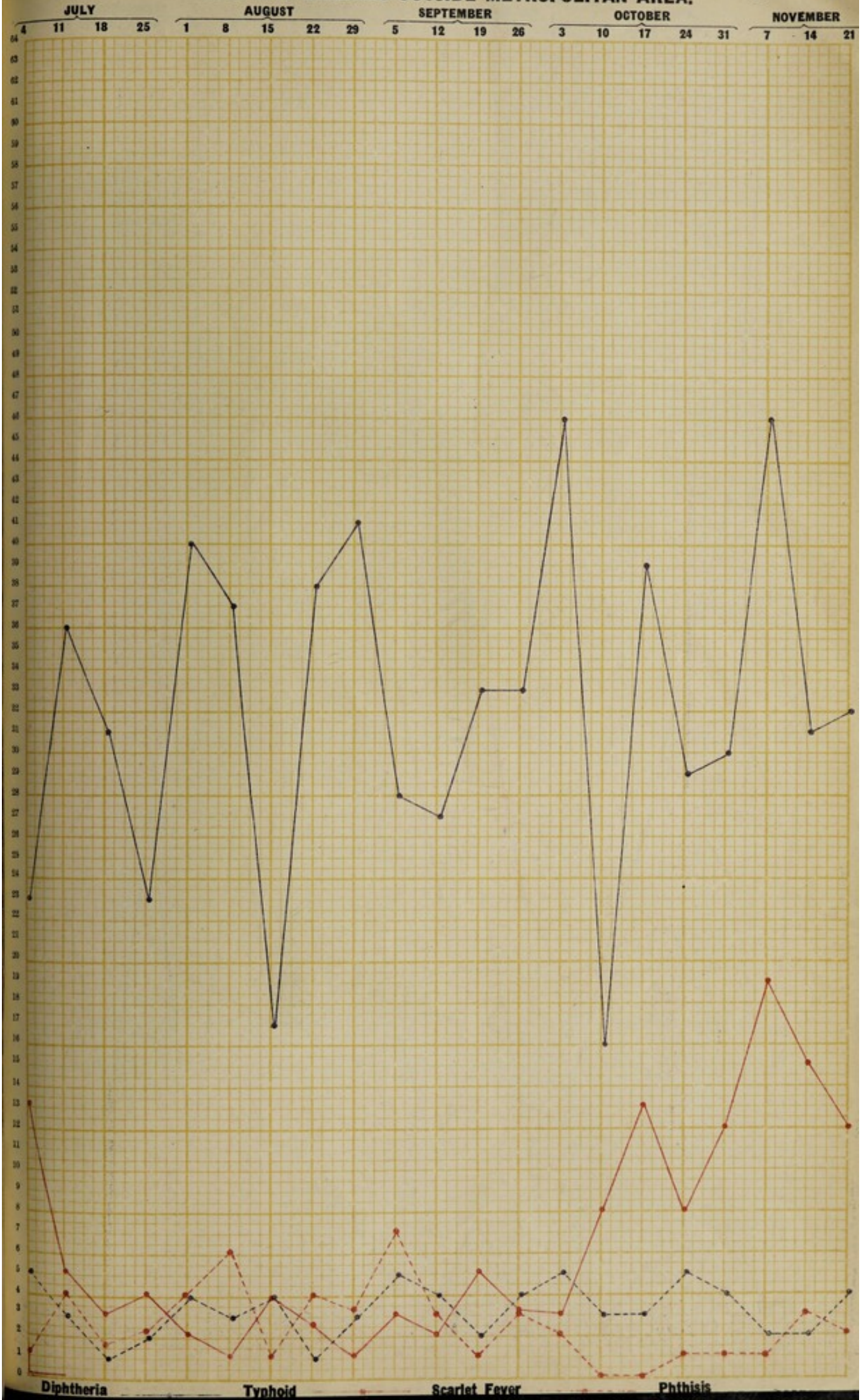


1915. **CHART SHOWING INFECTIOUS DISEASES—METROPOLITAN AREA.**



INFECTIOUS DISEASES OUTSIDE METROPOLITAN AREA.

Appendix M.



INFECTIOUS DISEASES OUTSIDE METROPOLITAN AREA.

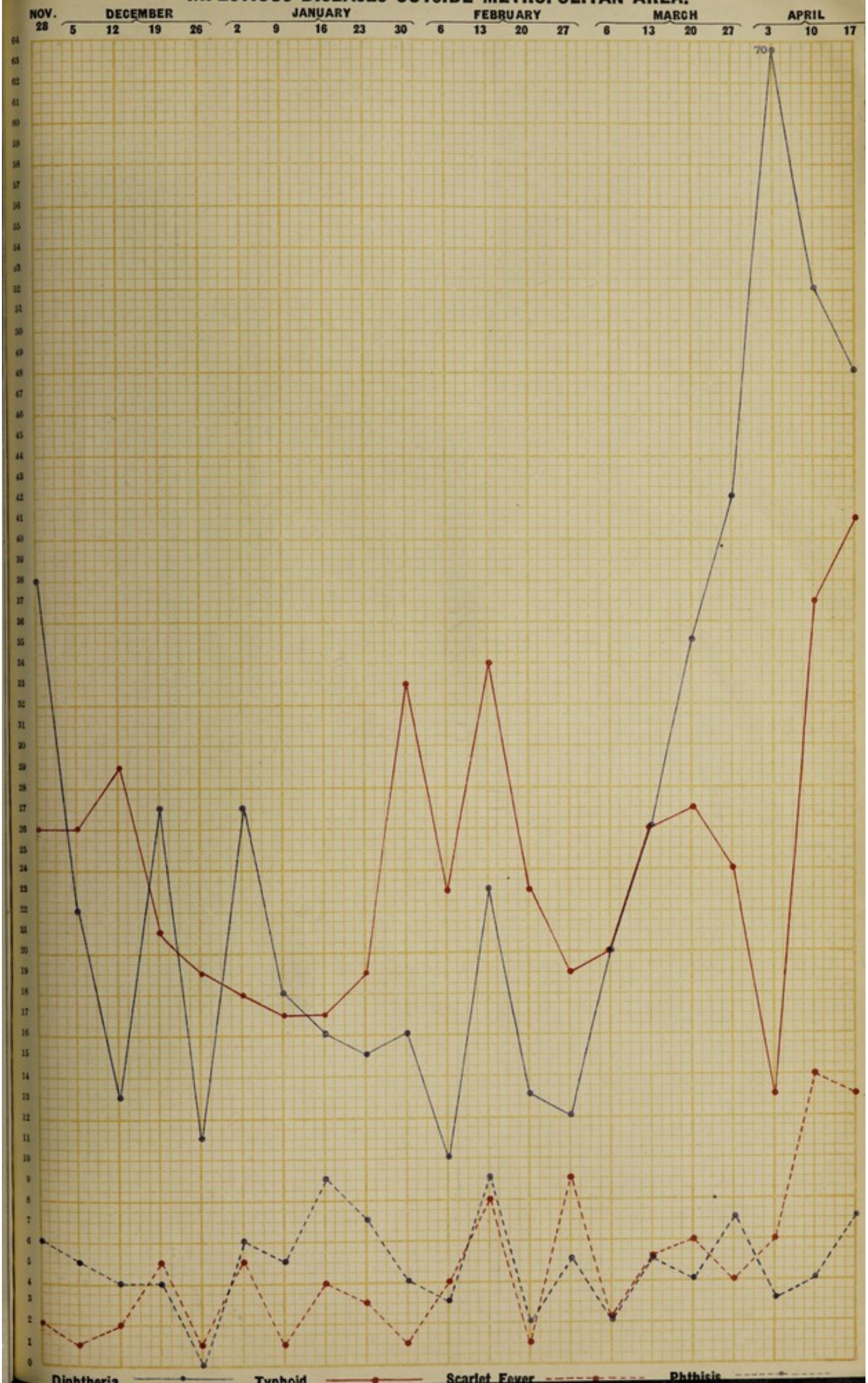


CHART SHOWING INFECTIOUS DISEASES OUTSIDE METROPOLITAN AREA.