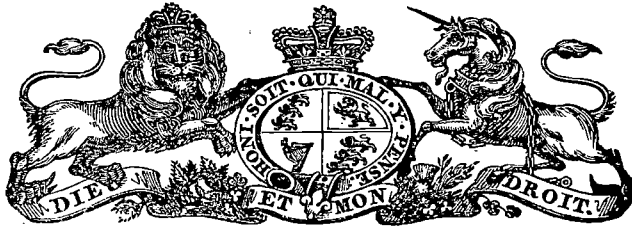


(No. 5.)



1901.

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PARLIAMENT OF TASMANIA.

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ROYAL COMMISSION ON MUNICIPAL GOVERNMENT  
OF HOBART AND SUBURBS:

R E P O R T.

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

Cost of printing.—£266 19s.

# ROYAL COMMISSION

ON

## MUNICIPAL GOVERNMENT OF HOBART AND SUBURBS.

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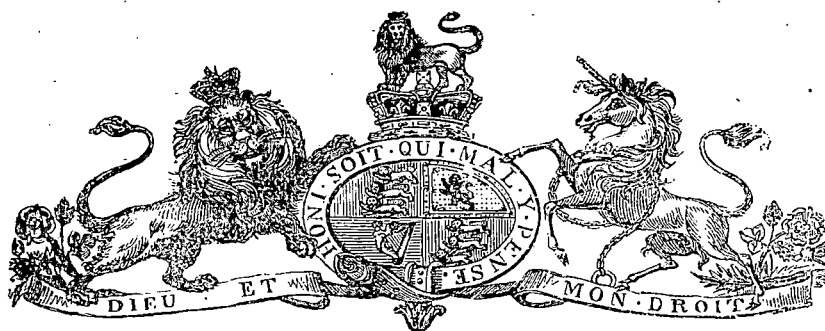
### R E P O R T

OF

## THE COMMISSIONERS,

WITH

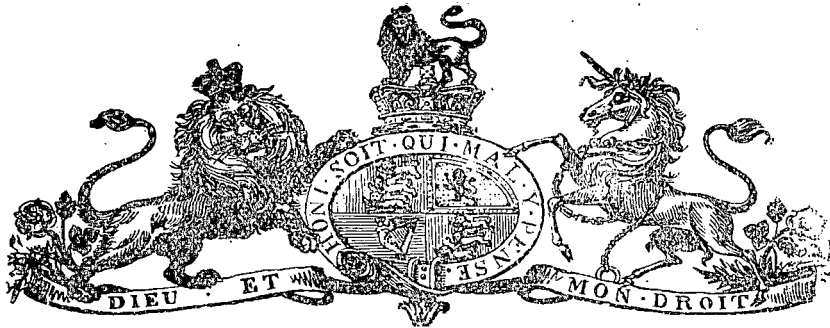
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Tasmania:

JOHN VAIL, GOVERNMENT PRINTER, HOBART,

1901.



*Premier's Office, Hobart, 7th February, 1901.*

SIR,

I HAVE the honour to forward herewith a Royal Commission, which has been issued by His Excellency the Administrator for the purpose of enquiring into and reporting upon the Constitution of the Hobart Municipal Corporation, and the Local Governing Bodies of New Town, Glenorchy, Moonah, Queenborough, Glebe, Mount Stuart, Bellerive, and Beltana; and the Administration by these Public Bodies of their Municipal affairs, and especially to make enquiry into the present system of water supply to the City of Hobart and surrounding districts, and as to any improved system of water supply, and administration thereof, which may recommend itself to the Members of the Commission for adoption. The Royal Commission is addressed to the undermentioned gentlemen :—

John George Davies, Esq., M.H.A.,  
William Algernon Guesdon, Esq., M.H.A.,  
John Hamilton, Esq., M.H.A.,  
The Honourable Edward Mulcahy, M.H.A.,  
Herbert Nicholls, Esq., M.H.A.,  
Robert Charles Patterson, Esq., M.H.A.,  
William Bispham Propsting, Esq., M.H.A.,  
And yourself, as Secretary.

You will be good enough to convene a Meeting of the Commissioners, at which they are to be requested to elect their Chairman.

I have the honour to be,

Sir,

Your obedient Servant,

N. E. LEWIS, *Premier.*

JOHN KIDSTON REID, *Esq.,*

*Clerk of the House of Assembly, Hobart.*

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EDWARD THE SEVENTH *by the Grace of God King of the United Kingdom of Great Britain and Ireland Defender of the Faith Emperor of India Supreme Lord in and over the State of Tasmania and its Dependencies in the Commonwealth of Australia.*

To Our trusty and well-beloved JOHN GEORGE DAVIES Esquire M.H.A. WILLIAM ALGERNON GUESDON Esquire M.H.A. JOHN HAMILTON Esquire M.H.A. The Honourable EDWARD MULCAHY M.H.A. HERBERT NICHOLLS Esquire M.H.A. ROBERT CHARLES PATTERSON Esquire M.H.A. and WILLIAM BISPHAM PROPSTING Esquire M.H.A.

GREETING—

WHEREAS We have thought it expedient to enquire into the Constitution of the Hobart Municipal Corporation and the Local Governing Bodies of New Town Glenorchy Moonah Queenborough Glebe Mount Stuart Bellerive and Beltana and the Administration by these Public Bodies of their Municipal affairs and further specially to enquire into the present system of supplying Water to the City of Hobart and surrounding Districts and as to any improved system of supply and the administration thereof which may recommend itself for adoption—Know ye that We reposing great trust and confidence in your fidelity discretion and integrity have authorised and appointed and by these presents do authorise and appoint you the said JOHN GEORGE DAVIES WILLIAM ALGERNON GUESDON JOHN HAMILTON The Honourable EDWARD MULCAHY HERBERT NICHOLLS ROBERT CHARLES PATTERSON and WILLIAM BISPHAM PROPSTING to make diligent enquiry into the Constitution of the Hobart Municipal Corporation and the Local Governing Bodies of New Town Glenorchy Moonah Queenborough Glebe Mount Stuart Bellerive and Beltana and the Administration by these Public Bodies of their Municipal affairs and further especially to make diligent enquiry into the present system of Water Supply to the City of Hobart and surrounding Districts and as to any improved system of supply and the administration thereof which may recommend itself to you for adoption—And for the better discovery of the truth in the premises We do by these presents give and grant unto you or any one or more of you full power and authority to call before you all such persons as you shall judge necessary by whom you may obtain information in the premises—And Our further will and pleasure is that you or any one or more of you shall reduce into writing under your hands what you shall discover in the premises and do and shall on or before the thirty-first day of May next report and certify unto Us in Our Executive Council in Tasmania in writing under your hands respectively your several proceedings by force of these presents together with what you shall find touching or concerning the premises upon such enquiry as aforesaid—And We further will and command and by these presents ordain that this Our Commission shall continue in full force and virtue and that you Our said Commissioners or any one or more of you shall and may from time to time proceed in the execution hereof and of any matter or thing herein contained although the same be not continued from time to time by adjournment—And We do hereby command all and singular Our loving subjects whomsoever within Our State of Tasmania in the Commonwealth of Australia that they be assistant to you in the execution of these presents—And We direct and appoint that JOHN KIDSTON REID Esquire of Hobart in Tasmania Clerk of the House of Assembly shall be Secretary to Our said Commissioners and We command that he be assistant in the execution of these presents—In testimony whereof We have caused these Our Letters to be made Patent and the Public Seal of Our said State of Tasmania to be hereunto affixed.

Witness Our trusty and well-beloved the Honourable SIR JOHN STOKELL DODDS Knight Companion of Our Most Distinguished Order of Saint Michael and Saint George, Chief Justice of Our said State of Tasmania and its Dependencies in the Commonwealth of Australia and Administrator of the Government of Our said State at Hobart in Our said State this seventh day of February one thousand nine hundred and one and in the first year of Our reign.

J. S. DODDS.

By His Excellency's Command,

N. E. LEWIS, *Premier and Attorney-General.*

---

KNOW ALL MEN by these presents that We will and command that the within-written Commission shall continue in full force and virtue until the thirtieth day of June next anything in the said Commission contained to the contrary notwithstanding—In testimony whereof We have caused the Public Seal of Our State of Tasmania and its Dependencies to be hereunto affixed.

Witness Our trusty and well-beloved the Honourable SIR JOHN STOKELL DODDS Knight Commander of the Most Distinguished Order of Saint Michael and Saint George Chief Justice of Our said State of Tasmania and its Dependencies in the Commonwealth of Australia and Administrator of the Government of Our said State at Hobart in Our said State this twenty-fourth day of May one thousand nine hundred and one and in the first year of Our reign.

J. S. DODDS.

By His Excellency's Command,

N. E. LEWIS, *Premier and Attorney-General.*

---



KNOW ALL MEN by these presents that We will and command that the within-written Commission shall continue in full force and virtue until the thirty-first day of July next anything in the said Commission or in the above endorsement contained to the contrary notwithstanding—In testimony whereof We have caused the Public Seal of Our State of Tasmania and its Dependencies to be hereunto affixed.

Witness Our trusty and well-beloved the Honourable Sir JOHN STOKELL DODDS  
Knight Commander of Our Most Distinguished Order of Saint Michael and  
Saint George Chief Justice of Our said State of Tasmania and its Dependencies in the Commonwealth of Australia and Administrator of the Government of Our said State at Hobart in Our said State this twenty-ninth day of June one thousand nine hundred and one and in the first year of Our reign.

J. S. DODDS.

By His Excellency's Command,

N. E. LEWIS, *Premier and Attorney-General.*

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KNOW ALL MEN by these presents that We will and command that the within written Commission shall continue in full force and virtue until the fourteenth day of August next anything in the said Commission or in the above endorsements contained to the contrary notwithstanding—In testimony whereof We have caused the Public Seal of Our State of Tasmania and its Dependencies to be hereunto affixed.

Witness Our trusty and well-beloved the Honourable Sir JOHN STOKELL DODDS  
Knight Commander of Our Most Distinguished Order of Saint Michael and  
Saint George Chief Justice of Our said State of Tasmania and its Dependencies in the Commonwealth of Australia and Administrator of the Government of Our said State at Hobart in Our said State this thirty-first day of July one thousand nine hundred and one and in the first year of our reign.

J. S. DODDS

By His Excellency's Command,

N. E. LEWIS, *Premier and Attorney-General.*

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*MINUTES of Proceedings of the ROYAL COMMISSION ON THE MUNICIPAL GOVERNMENT OF HOBART AND SUBURBS, 1901.*

MEMBERS.

JOHN GEORGE DAVIES, Esq., M.H.A.  
WILLIAM ALGERNON GUESDON, Esq., M.H.A.  
JOHN HAMILTON, Esq., M.H.A.  
THE HON. EDWARD MULCAHY, M.H.A.

HERBERT NICHOLLS, Esq., M.H.A.  
ROBERT CHARLES PATTERSON, Esq., M.H.A.  
WILLIAM BISPHAM PROPSTING, Esq., M.H.A.

JOHN KIDSTON REID, *Clerk of the House of Assembly, Secretary.*

SATURDAY, FEBRUARY 9, 1901.

The Commissioners met at 11.30 o'clock.

The Secretary read the Commission.

*Members present.*—Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, Mr. Patterson, and Mr. Propsting.

*Resolved*, That Mr. Patterson be Chairman of the Commission. (Mr. Nicholls.)

*Resolved*, That Mr. Frank Morton be appointed Shorthand-writer to the Commission. (Mr. Guesdon.)

*Resolved*, That the Chairman and Secretary wait upon the Honourable the Premier with regard to providing the necessary funds for the work of the Commission.

*Resolved*, That all Evidence taken before the Commission be on oath, and that the form of oath be as follows :—  
“I.A.B. solemnly swear that the Evidence given by me to this Commission shall be the truth, the whole truth, and nothing but the truth.”

The Commission adjourned.

TUESDAY, FEBRUARY 12, 1901.

The Commission met at 11 o'clock.

*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, and Mr. Nicholls.

The Minutes of last Meeting were read and confirmed.

Mr. Nicholls laid upon the Table—Report (dated 13th August, 1900), by the Town Clerk of Adelaide on the “Greater Adelaide” Scheme.

Apology was offered for the absence of Mr. Hamilton.

The Chairman reported that he and the Secretary had waited on the Hon. the Premier, and had arranged to have a sum of £100 provided, to go on with, to meet expenses incurred by the Commission.

The Commission proceeded to consider the lines upon which the inquiry should proceed.

*Ordered.*—That the Secretary write to the following gentlemen for information—

1. To Alderman J. D. Fitzgerald, of Sydney, for any Reports concerning the “Greater Sydney” Scheme, and also any further information which would assist the Commission.
2. To the Town Clerk of Melbourne, for similar information with regard to Melbourne, and as to what provision is made for renewals of pipes and mains.
3. To the Chairman of the Metropolitan Board of Works, Melbourne, for a statement showing how the Water Supply of Melbourne came to be handed over to the Board of Works, and contrasting and describing the former and existing management.
4. To the Engineer-in-Chief, Adelaide, for similar information relating to Adelaide.
5. To the Chairman of the Board of Works, Sydney, for similar information relating to Sydney.
6. To the Director of Waterworks, Hobart, for (a) Copies of all Reports and Estimates made by him to the Municipal Council *re* impounding Reservoirs on the Table-land of Mount Wellington; (b) All Reports and Estimates *re* cost of bringing water from the Upper Waters of the Derwent.

*Resolved*, That Mr. R. S. Milles, the Director of Waterworks, be summoned to give evidence to-morrow, at 11 o'clock.

*Resolved*, That the scale of remuneration to the Secretary and the Shorthand-writer be the same as in the case of the Royal Commission on Charitable Institutions, in 1888. (*Vide* Parliamentary Paper No. 166, of 1888-89.)

The Commission adjourned till 11 o'clock to-morrow.

WEDNESDAY, FEBRUARY 13, 1901

The Commission met at 11 o'clock.

*Present.*—Mr. Patterson (Chairman), Mr. Guesdon, and Mr. Nicholls.

The Minutes of the last Meeting were read and confirmed.

Apology was offered for the absence of Mr. Hamilton.

Mr. R. S. Milles, Director of Waterworks to the Municipal Council of Hobart, was called, sworn, and examined.

The Commission adjourned till 3 o'clock to-morrow.

THURSDAY, FEBRUARY 14, 1901.

The Commission met at 3 o'clock.  
*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, and Mr. Propsting.  
The Minutes of the last Meeting were read and confirmed.  
Apology was offered for the absence of Mr. Hamilton.  
Mr. R. S. Milles, Director of Waterworks to the Municipal Council of Hobart, was further examined.  
Mr. Milles, put in—(1.) Joint Report, dated 4th May, 1893, of Mr. R. S. Milles, Director of Waterworks, and Mr. C. W. S. James, on the subject of increasing the Water Supply from Mount Wellington, and (2.) Report, dated March, 1893, of Mr. R. S. Milles, on the subject of bringing water from the Upper Waters of the Derwent.  
*Ordered,* That the said Reports be printed. (Appendices A and B.)  
Mr. Davies took his seat.  
The Commission deliberated.  
*Ordered,* That the following Witnesses be summoned for Monday, 18th instant :—  
Mr. H. S. R. Wright, Chairman Glenorchy Water Trust, at 3 o'clock.  
Mr. R. G. McWilliams, at 3.15 o'clock.  
Mr. William Betts, of Longley, at 3.15 o'clock.  
Mr. John Baily, of Hobart, at 3.30 o'clock.  
Mr. T. R. Marsden, of Longley, at 3.45 o'clock.  
The Commission adjourned till 3 o'clock on Monday, the 18th instant.

MONDAY, FEBRUARY 18, 1901.

The Commission met at 3 o'clock.  
*Members present.*—Mr. Patterson (Chairman), Mr. Davies, Mr. Guesdon, Mr. Hamilton, and Mr. Propsting.  
The Minutes of last Meeting were read and confirmed.  
Mr. Harold S. R. Wright, Chairman of the Glenorchy Water Trust, was called, sworn, and examined.  
Mr. Wright withdrew.  
Mr. William Betts, was called, sworn, and examined.  
Mr. Betts withdrew.  
Mr. R. G. McWilliams was called, sworn, and examined.  
Mr. McWilliams withdrew.  
Mr. John Baily was called, sworn, and examined.  
Mr. Baily withdrew.  
The Commission adjourned till Wednesday, 20th instant, at 3 o'clock.

WEDNESDAY, FEBRUARY 20, 1901.

The Commission met at 3 o'clock.  
*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Propsting.  
The Minutes of last Meeting were read and confirmed.  
Mr. T. R. Marsden was called, sworn, and examined.  
Mr. Marsden withdrew.  
The Commission adjourned to meet at the Post Office to-morrow, at 9.15 o'clock, and proceed to Mount Wellington.

THURSDAY, FEBRUARY 21, 1901.

The Commission met at the Post Office, Hobart, at 9.15 o'clock, and, accompanied by Mr. R. S. Milles, the Director of Waterworks to the Municipal Council of Hobart, proceeded by brake to the Springs, thence to the top of Mount Wellington, where they inspected the proposed new Reservoirs.  
*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Nicholls, and Mr. Propsting.

FRIDAY, FEBRUARY 22, 1901.

The Commission met on Mount Wellington, and proceeded to further inspect the sites of the proposed new Reservoirs, and the sources of the North West Bay River.  
*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Nicholls, and Mr. Propsting.  
The Commission returned to Hobart.

FRIDAY, MARCH 1, 1901.

The Commission met at 3 o'clock.  
*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Nicholls, and Mr. Propsting.  
The Minutes of the last three Meetings were read and confirmed.  
Mr. Charles Gadd was called, sworn, and examined.  
Mr. Gadd withdrew.  
Mr. R. S. Milles was recalled and further examined.  
Mr. Milles withdrew.  
Dr. Gregory Sprott was called, sworn, and examined.  
Dr. Sprott withdrew.  
The Commission adjourned to meet at the Railway Station, on Tuesday next, 5th instant, and proceed by the 5 o'clock train to Glenora, for the purpose of inspecting the Rivers Styx and Russell's Falls.

### iii

TUESDAY, MARCH 5, 1901.

The Commission met, and proceeded by train to Glenora, for the purpose of inspecting the Styx and Russell Falls Rivers.

*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Nicholls, and Mr. Propsting.

WEDNESDAY, MARCH 6, 1901.

The Commission met at Glenora.

*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Nicholls, and Mr. Propsting.

The Commission, accompanied by Mr. R. S. Milles, Director of Waterworks to the Municipal Council of Hobart, proceeded to inspect the River Styx at several points above Glenora. A sample of water was taken from the river, and ordered to be forwarded to the Government Analyst, for analysis and report.

The Commission returned to Glenora.

THURSDAY, MARCH 7, 1901.

The Commission met at Glenora.

*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Nicholls, and Mr. Propsting.

The Commission, accompanied by Mr. R. S. Milles, Director of Waterworks to the Municipal Council of Hobart, proceeded up the Russell Falls River as far as Tyenna, and inspected the river. A sample of water was taken from the river, and ordered to be forwarded to the Government Analyst, for analysis and report.

The Commission returned to Glenora.

FRIDAY, MARCH 8, 1901.

The Commission met at 11 o'clock, at Glenora.

*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Nicholls, and Mr. Propsting.

Mr. Ebenezer Shoobridge was called, sworn, and examined.

Mr. Shoobridge withdrew.

Mr. W. E. Shoobridge was called, sworn, and examined.

Mr. Shoobridge withdrew.

The Commission adjourned, and returned by train to Hobart.

TUESDAY, MARCH 12, 1901.

The Commission met at 3 o'clock.

*Members Present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Nicholls.

The Chairman read a letter from Mr. Mulcahy apologising for his absence, as he had to proceed to Launceston on urgent departmental business.

The Minutes of the last four Meetings were read and confirmed.

The Secretary reported that he had forwarded the samples of water taken from the Styx and Russell's Falls rivers, to the Government Analyst, as directed, together with a letter requesting that the same be carefully analysed and reported upon.

The Secretary read correspondence from—

1. The Chairman of the Metropolitan Board of Works, dated 4th March, 1901, giving certain information asked for in the Secretary's letter of 14th February; also forwarding copies of the Chairman's Reports to the Board (4).
2. The Engineer-in-Chief of South Australia, dated 28th February, 1901, in reply to the letter of the Secretary of 14th February, asking for certain information, and forwarding (a) Report of the Barossa Commission, 1889; (b) Report of the Public Works Department of South Australia for the Year ended 30th June, 1900; (c) Acts of South Australia under which the waterworks and sewers management is conducted.
3. The Under Secretary and Commissioner for roads, New South Wales, acquainting the Secretary that his letter of 14th February had been forwarded to the Metropolitan Board of Water Supply and Sewerage for attention.

Mr. R. S. Milles, Director of Waterworks to the Municipal Council of the City of Hobart, was recalled and further examined.

Mr. Propsting took his seat.

Mr. Milles withdrew.

The Commission deliberated.

*Ordered,* That the following witnesses be summoned for to-morrow:—

Mr. F. G. Knight, Chairman of the Town Board of New Town, at 3 o'clock.

Mr. Arthur Eckford, Chairman of the Town Board of Queenborough, at 3.15.

Mr. M. W. Simmors, Chairman of the Beltana Town Board, at 3.45.

Mr. Silas T. Tinning, at 4 o'clock.

Mr. Peter Facy, Secretary of the Bellerive Town Board, at 4.15.

The Commission adjourned till 3 o'clock to-morrow.

WEDNESDAY, MARCH 13, 1901.

The Commission met at 3 o'clock.

*Members Present.*—Mr. Guesdon, Mr. Hamilton, and Mr. Nicholls.

The Secretary apologised for the absence of the Chairman, who was unable to be present, and also for Mr. Mulcahy, who was still out of town.

*Resolved,* That Mr. Nicholls take the Chair.

The Minutes of the last Meeting were read and confirmed.

The Secretary laid upon the Table the Report of the Government Analyst on the samples of water taken by the Commissioners from the River Styx and Russell's Falls during their recent visit of inspection.

*Ordered*, That the said Report be printed. (Appendix C.)

Mr. F. G. Knight, Chairman of the Town Board of New Town, was called, sworn, and examined.

Mr. Knight withdrew.

Mr. M. W. Simmons, Chairman of the Town Board of Beltana, was called, sworn, and examined.

Mr. Simmons withdrew.

*Resolved*, That the other witnesses summoned for to-day be excused, and that they be summoned to attend on Monday next, as under—

Mr. Arthur Eckford, Chairman of the Town Board of Queenborough, at 3 o'clock.

M. Silas T. Tinning, at 3.15.

Mr. Peter Facy, Secretary of the Town Board of Bellerive, at 3.30.

The Commission adjourned till 3 o'clock on Monday next, the 18th instant.

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MONDAY, MARCH 18, 1901.

The Commission met at 3 o'clock.

*Members present*.—Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.

The Secretary apologised for the absence of the Chairman, who had been called out of town by important private business.

*Resolved*, That Mr. Nicholls be appointed Vice-Chairman, and that he take the Chair whenever the Chairman is absent.

The Minutes of last Meeting were read and confirmed.

The Secretary read letter, dated 8th March, 1901, from the Metropolitan Board of Water Supply and Sewerage, Sydney, giving certain information asked for in the Secretary's letter of 14th February, and forwarding :—

(1.) Report of a Royal Commission which inquired into the working of the Board.

(2.) Last published Report of the Board.

(3.) Clauses proposed to be passed into Law relating to the establishment of a Sinking Fund by the Board.

The Secretary laid upon the Table :—Abstract of Accounts of the Town Board of Beltana for the Year 1900, which had been sent in by the Chairman of the Board.

Mr. Arthur Eckford, Chairman of the Town Board of Queenborough, was called, sworn, and examined.

Mr. Eckford withdrew.

Mr. Silas T. Tinning was called, sworn, and examined.

Mr. Tinning withdrew.

Mr. Peter Facy, Secretary of the Town Board of Bellerive, was called, sworn, and examined.

Mr. Facy withdrew.

*Ordered*, That the following witnesses be summoned for to-morrow—

Mr. W. A. Brain, Sanitary Engineering Inspector to the Municipal Council of Hobart, at 3 o'clock.

Mr. Spencer Waters, City Turncock, at 3.15.

Mr. E. Butterworth, City Inspector, at 3.30.

The Commission adjourned till 3 o'clock to-morrow.

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TUESDAY, MARCH 19, 1901.

The Commission met at 3 o'clock.

*Members present*.—Mr. Nicholls (Vice-Chairman), Mr. Guesdon, and Mr. Propsting.

The Secretary reported that, as directed, he had interviewed the Sheriff with regard to the payment of witnesses not set forth in the authorised scale, and that Mr. Ross had informed him that he frequently experienced difficulty through the scale being incomplete. Where the scale did not provide, the practice was to follow the spirit of it, always having regard to the station in life of the witness, and never exceeding the maximum allowed by the scale.

*Resolved*, That Mr. Peter Facy, skilled accountant, be allowed £1 1s., as loss of time, for attending as a witness before the Commission.

Mr. Propsting brought under the notice of the Commission the fact, that while the Commission was visiting the upper waters of the Derwent, he had invited Mr. George Leatham, the Member for the District, to accompany the Commission, and so afford Members the benefit of his long and intimate knowledge of the District, and that he had since learnt that, through some misunderstanding, Mr. Leatham had followed the Commissioners as far as Russell Falls, and had then been compelled to return to New Norfolk.

*Resolved*, That the Secretary write to Mr. Leatham, expressing regret that he had been put to so much trouble and inconvenience, and asking when it will suit him to come to town for the purpose of being examined.

The Secretary laid upon the Table :—

(1.) Abstract of Accounts of the Town Board of New Town for the Year 1900.

(2.) Abstract of Accounts of the Town Board of Bellerive for the Year 1900.

(3.) Abstract of Accounts of the Town Board of Queenborough for the Year 1900.

(4.) Notes by Mr. H. L. Roberts on the Water Supply of Hobart. (2 copies.)

Mr. W. A. Brain, Sanitary Engineering Inspector to the Municipal Council of Hobart, was called, sworn, and examined.

Mr. Brain withdrew.

Mr. Spencer Waters, City Turncock, was called, sworn, and examined.

Mr. Waters withdrew.

Mr. Edward Butterworth, City Inspector, was called, sworn, and examined.

Mr. Butterworth withdrew.

*Ordered*, That Mr. Milles be recalled for 3 o'clock on Friday, the 22nd instant.

The Commission adjourned till Friday next, 22nd instant, at 3 o'clock.

---

FRIDAY, MARCH 22, 1901.

The Commission met at 3 o'clock.

*Member present*.—Mr. Guesdon.

Mr. Guesdon took the Chair.

The Minutes of last Meeting were read and confirmed.

## V

Mr. W. A. Brain was recalled, and further examined.  
 Mr. Brain withdrew.  
 Dr. Hardy was called, sworn, and examined.  
 Dr. Hardy withdrew.  
 Mr. R. S. Milles was recalled, and further examined.  
 Mr. Nicholls took his seat.  
 Mr. Milles withdrew.  
*Ordered*, That Mr. George Leatham, M.H.A., be summoned for Monday next, 25th instant, at 3 o'clock.  
 The Commission adjourned till 3 o'clock on Monday next.

## MONDAY, MARCH 25, 1901.

The Commission met at 3 o'clock.  
*Members present*.—Mr. Nicholls (Vice-Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Propsting.  
 The Minutes of last Meeting were read and confirmed.  
 Mr. George Leatham, M.H.A., was called, sworn, and examined.  
 Mr. Leatham withdrew.  
 Mr. E. J. Rogers was called, sworn, and examined.  
 Mr. Rogers withdrew.  
*Ordered*, That Mr. William Duncan, Builder, and Mr. George Steward, Under Secretary, be summoned for Monday, 1st April, at 3 o'clock and 3.15 respectively.  
 The Commission adjourned till Monday next, 1st April, at 3 o'clock.

## MONDAY, APRIL 1, 1901.

The Commission met at 3 o'clock.  
*Members present*.—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Propsting.  
 The Minutes of last Meeting were read and confirmed.  
 Mr. William Duncan, Contractor, was called, sworn, and examined.  
 Mr. Duncan withdrew.  
 Mr. J. G. Shield, Inspector of Public Buildings, was called, sworn, and examined.  
 Mr. Shield withdrew.  
 Mr. John Maddison, Clerk of Works, Public Works Department, was called, sworn, and examined.  
 Mr. Maddison withdrew.  
*Resolved*, That Mr. George Steward, Under Secretary, a witness summoned for this day, be excused.  
*Ordered*, That the following witnesses be summoned for Wednesday, 3rd instant:—Mr. Spencer Waters, City Turncock, for 3 o'clock; Mr. J. W. C. Hamilton, Town Clerk of Hobart, for 3.15.  
 The Commission adjourned till 3 o'clock on Wednesday, 3rd instant.

## WEDNESDAY, APRIL 3, 1901.

The Commission met at 3 o'clock.  
*Members present*.—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.  
 The Minutes of last Meeting were read and confirmed.  
 Mr. J. W. C. Hamilton, Town Clerk of Hobart, was called, sworn, and examined.  
 Mr. Hamilton withdrew.  
*Ordered*, That Mr. Hamilton be recalled, to give further evidence, at 3 o'clock on Thursday, 11th instant.  
 The Commission adjourned till Thursday, 11th instant, at 3 o'clock.

## THURSDAY, APRIL 11, 1901.

The Commission met at 3 o'clock.  
*Members present*.—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Nicholls, and Mr. Propsting.  
 The Minutes of last Meeting were read and confirmed.  
 The Secretary read correspondence from—  
 1. Mr. John D. Fitzgerald, in reply to the Secretary's letter of 12th February last, and forwarding copy of the Report of the "Greater Sydney" Conference.  
 2. The Town Clerk of Melbourne in reply to the Secretary's letter of 13th February last.  
 3. Report by Dr. Hardy on the subject of Destructors. (Appendix P.)  
 Mr. J. W. C. Hamilton, Town Clerk of Hobart, was recalled, and further examined.  
 Mr. Hamilton withdrew.  
*Ordered*, That the following witnesses be summoned for to-morrow:—  
 Mr. F. Back, General Manager, Tasmanian Government Railways, for 3.30 o'clock.  
 Mr. R. S. Milles, City Surveyor, for 3.45.  
 Mr. Alan C. Walker, Architect, for 4.  
 The Commission adjourned till to-morrow at 3.30 o'clock.

## FRIDAY, APRIL 12, 1901.

The Commission met at 3.30 o'clock.  
*Members present*.—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Nicholls, and Mr. Propsting.  
 The Minutes of last Meeting were read and confirmed.  
 The Secretary read letter from the Town Clerk of Launceston, dated 11th April, 1901, conveying the information sought by the Secretary's letter of 10th April, and forwarding (a) Annual Report of the City Electrical Engineer, dated 27th March, 1901, on the Electric Lighting of Launceston, and (b) Statement of Accounts of the Municipality of Launceston for 1900.

The Secretary reported that he had been informed that the General Manager of Railways had left Hobart for Burnie this morning before he had received the summons to attend this day and give evidence before the Commission.

Mr. R. S. Milles, City Surveyor, was recalled, and further examined.

Mr. Milles withdrew.

Mr. Alan C. Walker was called, sworn, and examined.

Mr. Walker withdrew.

The following accounts were passed for payment :—

Hobart Corporation, visit of Commission to Mount Wellington, £22 9s.

Edward Chancellor, refreshments supplied for visits to Mount Wellington and the Styx and Russell Falls Rivers, £10 15s. 6d.

J. Walch & Sons, stationery, 18s. 6d.

*Ordered*, That Mr. F. Back, General Manager of Railways, and Mr. George Steward, Under Secretary, be summoned for the next Meeting.

The Commission adjourned.

#### WEDNESDAY, APRIL 17, 1901.

The Commission met at 3 o'clock.

*Members present*.—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Propsting.

The Minutes of last Meeting were read and confirmed.

Apologies were offered for Mr. Mulcahy and for Mr. Davies.

Mr. F. Back, General Manager of Tasmanian Government Railways, was called, sworn, and examined.

Mr. Back withdrew.

Mr. Edward Butterworth, City Inspector, appeared and stated that he desired to amend in certain particulars the evidence given by him before the Commission on the 19th March. Mr. Butterworth having handed to the Chairman particulars in writing as to how he desired to have his evidence amended, was informed that the Commission would take his request into consideration.

Mr. Butterworth withdrew.

*Ordered*, That Mr. George Steward be summoned to attend and give evidence on Friday next, the 19th instant, at 3 o'clock.

The Commission adjourned till Friday, 19th instant, at 3 o'clock.

#### FRIDAY, APRIL 19, 1901.

The Commission met at 3 o'clock.

*Members present*.—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Propsting.

The Minutes of last Meeting were read and confirmed.

Apology was offered for the absence of Mr. Mulcahy.

*Ordered*, That the Secretary write to Mr. Milles and draw his attention to the fact that the Report made by him to the Mayor on the subject of the Hobart Tramways had not been received, and requesting that the same be forwarded without further delay.

Mr. George Steward was called, sworn, and examined.

Mr. Steward withdrew.

The account of A. Smith, for hire of vehicle to convey the Commission from Glenora to Tyenna, £3, was submitted by the Secretary, and passed for payment.

*Ordered*, That Mr. J. F. Stump, City Accountant, be summoned to attend and give evidence on Wednesday, 24th instant, at 3 o'clock.

The Commission adjourned till Wednesday, 24th instant, at 3 o'clock.

#### WEDNESDAY, APRIL 24, 1901.

The Commission met at 3 o'clock.

*Members present*.—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.

The Minutes of last Meeting were read and confirmed.

The Secretary read letter from Mr. R. S. Milles, with reference to his Report to the Mayor on the subject of the Hobart Tramways ordered by the Commission to be produced, stating that he had applied to the Mayor for permission to forward a copy of the same, and that His Worship, through the Town Clerk, had replied that he could not sanction it being produced, as it forms part of a correspondence, and is a matter not yet completed.

*Ordered*, That the Town Clerk be summoned to attend before the Commission to-morrow at 3 o'clock, and then and there to produce the said Report.

Mr. James F. Stump, City Accountant, was called, sworn, and examined.

Mr. Stump withdrew.

Mr. Spencer Waters, City Turncock, was recalled, and further examined.

Mr. Waters withdrew.

*Ordered*, That Mr. F. Pedder, Superintendent of Police, be summoned to attend and give evidence to-morrow at 3-15 o'clock.

The Secretary presented a claim from Mr. R. S. Milles for attendance as witness, £11 11s., and the same was passed for payment.

The Commission adjourned till to-morrow at 3 o'clock.

#### THURSDAY, APRIL 25, 1901.

The Commission met at 3 o'clock.

*Members present*.—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Nicholls.

The Minutes of last Meeting were read and confirmed.

Mr. J. W. C. Hamilton, Town Clerk of Hobart, was recalled, produced the Report of Mr. R. S. Milles to the Mayor on the subject of the Hobart Tramways, and was further examined.

Mr. Hamilton withdrew.



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Mr. Frederick Pedder, Superintendent of Police, Hobart, was called, sworn, and examined.  
 Mr. Propsting took his seat.  
 Mr. Pedder withdrew.  
 The Commission adjourned.

## TUESDAY, JUNE 4, 1901.

The Commission met at 3 o'clock.  
*Present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Nicholls.  
 The Minutes of last Meeting were read and confirmed.  
 The Secretary presented a claim from Mr. J. W. C. Hamilton, Town Clerk of Hobart, for attendance as witness, and the same was passed for payment.  
 Mr. Guesdon submitted draft outline of Report, and the same was read and ordered to be printed for the use of Members.  
*Ordered,* That the following witnesses be summoned :—  
 Mr. R. M. Johnston, Government Statistician, for to-morrow, at 3 o'clock.  
 Mr. S. Rheuben, Inspector of Stock to the Municipal Council of Hobart, for to-morrow, at 3.15 o'clock.  
 Mr. A. C. Parker, Manager of Hobart Tramways, for Thursday, 6th instant, at 3 o'clock.  
 The Commission adjourned till to-morrow at 3 o'clock.

## WEDNESDAY, JUNE 5, 1901.

The Commission met at 3 o'clock.  
*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Nicholls.  
 The Minutes of last Meeting were read and confirmed.  
 Mr. R. M. Johnston, Government Statistician, was called, sworn, and examined.  
 Mr. Johnston withdrew.  
 Mr. S. Rheuben, Inspector of Stock to the Municipal Council of Hobart, was called, sworn, and examined.  
 The Chairman having an important engagement, Mr. Nicholls, the Vice-Chairman, took the Chair.  
 Mr. Rheuben withdrew.  
 The Commission adjourned till 3 o'clock to-morrow.

## THURSDAY JUNE 6, 1901.

The Commission met at 3 o'clock.  
*Present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.  
 Apology was offered for the absence of Mr. Davies.  
 The Minutes of last Meeting were read and confirmed.  
 Mr. A. C. Parker, Manager of the Hobart Tramways, was called, sworn, and examined.  
 Mr. Parker handed in Report of the Hobart Tramway Company, Limited, for the Year ended 31st December 1899.  
 Mr. Parker withdrew.  
 The Secretary read letter just received from Mr. Mulcahy, regretting his inability to attend in the past through pressure of public business, and expressing the hope that he would be able to attend when the Commission was preparing its Report.  
 The Commission adjourned.

## FRIDAY JUNE 14, 1901.

The Commission met at 3 o'clock.  
*Present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.  
 The Minutes of last Meeting were read and confirmed.  
 Apology was offered for the absence of Mr. Mulcahy.  
 The Secretary read letter from the Town Clerk of Hobart, dated 6th June, 1901, giving information regarding the Report of Mr. Milles on the Hobart Tramways, in reply to the Secretary's letter of the 5th instant.  
 The Chairman read letter from Mr. R. M. Johnston, Government Statistician, accompanying a Table showing the necessary Annual Contribution to a Sinking Fund to redeem the Principal and Interest of the Debt of the Municipality of Hobart.  
*Ordered,* That the said Table be printed (Appendix G.).  
 Mr. J. F. Stump, City Accountant, was re-called and further examined.  
 The Chairman, having an important engagement, left the Chair.  
 The Vice-Chairman, Mr. Nicholls, took the Chair.  
 Mr. Stump withdrew.  
 Mr. J. W. C. Hamilton, Town Clerk of Hobart, was re-called, produced the letter, dated 2nd May, 1901, from Mr. A. C. Parker, Manager of the Hobart Tramways, to the Town Clerk, in reply to his letter of 11th August, 1899, forwarding Mr Milles' Report on the Hobart Tramways.  
 Mr. Hamilton was further examined.  
 The Vice-Chairman, having an important engagement, left the Chair, and Mr. Propsting was called to the Chair.  
 Mr. Hamilton withdrew.  
*Resolved,* That the Commission proceed to Launceston on Monday next, 17th instant.  
 The Commission adjourned.

## MONDAY, JUNE 17, 1901.

The Commission met at the Railway Station, Hobart, and proceeded to Launceston.  
*Present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.

## TUESDAY, JUNE 18, 1901.

The Commission met at the *Brisbane Hotel*, Launceston, at 11 o'clock, and, accompanied by Mr. William Corin, C.E., City Electrical Engineer, Launceston, proceeded to the Generating Works on the South Esk River, and were shown over the same by Mr. Corin and Mr. Pennefather, Assistant Engineer.

The Commission having thoroughly inspected the same, returned to Launceston.

*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting. The Commission met again at 2.30 o'clock in the Municipal Council Chamber, Launceston.

*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting. The Minutes of last Meeting were read and confirmed.

The Chairman read letter from Mr. J. G. Davies, intimating that he had sent in his resignation as a Member of the Commission, to the Government, as he was unable to spare the time to devote to the work of the Commission.

Mr. St. John David, City Surveyor, Launceston, was called, sworn, and examined.

Mr. David withdrew.

Mr. W. Corin, C.E., City Electrical Engineer, was called, sworn, and examined.

Mr. Corin withdrew.

*Ordered*, That Dr. Wilson, City Health Officer, and Mr. C. W. Rocher, Town Clerk, Launceston, be summoned for to-morrow, at 11.30 and 12 o'clock noon respectively.

The Commission adjourned till 11.30 o'clock to-morrow.

## WEDNESDAY, JUNE 19, 1901.

The Commission met in the Municipal Council Chamber, Launceston, at 11.30 o'clock.

*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Nicholls.

The Minutes of last Meeting were read and confirmed.

Dr. Wilson, City Health Officer, was called, sworn, and examined.

Dr. Wilson withdrew.

Mr. C. W. Rocher, Town Clerk, Launceston, was called, sworn, and examined.

Mr. Rocher handed in form, "Memorandum of Instruction," from the Mayor to the Town Clerk.

Mr. Rocher withdrew.

Mr. Thomas Gladman, City Treasurer, Launceston, was called, sworn, and examined.

Mr. Gladman withdrew.

The Commission, accompanied by His Worship the Mayor and the Town Clerk of Launceston, proceeded to the Abattoirs, and inspected the same.

The Commission adjourned till 12 o'clock noon to-morrow.

## THURSDAY, JUNE 20, 1901.

The Commission met at 12 o'clock noon, in the Municipal Council Chamber, Launceston.

*Members present.*—Mr. Nicholls (Vice-Chairman), Mr. Guesdon, and Mr. Hamilton.

The Minutes of last Meeting were read and confirmed.

Mr. C. W. Rocher, Town Clerk, Launceston, was recalled and further examined.

Mr. Rocher withdrew.

Mr. Thomas Gladman, City Treasurer, was recalled and further examined.

Mr. Gladman withdrew.

The Commission adjourned, and returned to Hobart by express.

## MONDAY, JUNE 24, 1901.

The Commission met at 3 o'clock.

*Members present.*—Mr. Patterson (Chairman), Mr. Hamilton, and Mr. Nicholls.

The Secretary apologised for the absence of Mr. Guesdon, through indisposition.

The Minutes of last Meeting were read and confirmed.

The Chairman read letter from Mr. Davies addressed to the Hon. the Premier, resigning his seat as a Member of the Commission, owing to pressure of other business.

*Resolved*, That the Secretary write to the Government and request that the time for bringing up the Report of the Commission be further extended for fourteen days.

*Ordered*, That the following Witnesses be summoned for to-morrow:—

The Hon. C. H. Grant, M.L.C., Chairman of the Glebe Town Board, at 3 o'clock.

Mr. A. H. Cato, Chairman of the Mount Stuart Town Board, at 3.15 o'clock.

Mr. C. Ball, Chairman of the Moonah Town Board, at 3.30 o'clock.

The following Accounts were passed for payment:—

Edward Chancellor, 19s.

J. F. Stump, £7 7s.

The Commission adjourned till 3 o'clock to-morrow.

## TUESDAY, JUNE 25, 1901.

The Commission met at 3 o'clock.

*Members present.*—Mr. Patterson (Chairman), Mr. Hamilton, and Mr. Nicholls.

The Minutes of last Meeting were read and confirmed.

Mr. J. W. C. Hamilton, Town Clerk, Hobart, was called, and produced the Correspondence between the Auditor-General, the Mayor, and the Officers of the Hobart Municipality on the subject of hire of conveyances for bringing Corporation labourers from the works to vote at the last Municipal Election.

Mr. Hamilton withdrew.

The Hon. C. H. Grant, M.L.C., Chairman of the Glebe Town Board, was called, sworn, and examined.

Mr. Guesdon took his seat.

Mr. Grant withdrew.

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Mr. A. Hilmer Cato, Chairman of the Mount Stuart Town Board, was called, sworn, and examined.  
 Mr. Cato withdrew.  
 Mr. C. Ball, Chairman of the Moonah Town Board, was called, sworn, and examined.  
 Mr. Ball withdrew.  
 The account of Mr. F. M. Cognet, *Brisbane Hotel*, Launceston, amounting to £15 4s. 6d. for board, &c., during the recent visit of the Commission to Launceston, was presented and passed for payment.  
 The Commission adjourned till to-morrow at 3 o'clock.

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 WEDNESDAY, JUNE 26, 1901.

The Commission met at 3 o'clock.  
*Members present.*—Mr. Nicholls (Vice-Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Propsting.  
 The Minutes of last Meeting were read and confirmed.  
 Apology was offered for the absence of the Chairman, through indisposition.  
 The Commission deliberated.  
*Ordered*, That the Secretary write to Mr. Davies, in reply to his letter of 15th instant to the Premier, resigning his seat on the Commission, offering to afford him an opportunity of giving his views in evidence on any matters within the scope of the Commission.  
 Mr. Propsting laid on the Table, "Report on the Liernur System of Sewerage, with reference to [Madras Government Order, No. 2510, of December 13, 1899," by J. A. Jones, M. Inst. C.E., Sanitary Engineer to the Government of Madras.  
 The Commission adjourned till Monday, 1st July next, at 3 o'clock.

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 MONDAY, JULY 1, 1901.

The Commission met at 3 o'clock.  
*Members present.*—Mr. Nicholls (Vice-Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Propsting.  
 Apology was offered for the absence of the Chairman.  
 The Minutes of last Meeting were read and confirmed.  
 The Secretary reported that, in accordance with instructions, he had written to Mr. Davies, offering to afford him an opportunity of giving his views in evidence within the scope of the Commission, and that he had received a letter, dated 28th June instant, from Mr. Davies, stating that he would see whether he could fix a day suitable to all concerned. By direction of the Chairman, the Secretary reported that he had called on Mr. Davies, who said he was very busy this week, but that he had agreed to come before the Commission on Monday, 8th instant, at 3 o'clock.  
*Ordered*, That Mr. Davies be summoned to attend on Monday, 8th instant, at 3 o'clock.  
 The Secretary read letter from Mr. J. F. Stump, City Accountant, asking that the proportions of the Hobart Corporation Sinking Fund, given by him in his evidence, may be amended.  
 The Secretary reported he had received a reply from Mr. A. C. Mountain, C.E., City Surveyor of Melbourne, on the subject of destructors, and the same was read.  
 The Commission adjourned till Monday, 8th instant, at 3 o'clock.

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 MONDAY, JULY 8, 1901.

The Committee met at 3 o'clock,  
*Members present.*—Mr. Patterson (Chairman) and Mr. Hamilton.  
 The Minutes of last Meeting were read and confirmed.  
 Apology was offered for the absence of Mr. Mulcahy and Mr. Nicholls.  
 The Commissioner adjourned till to-morrow at 3 o'clock.

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 TUESDAY, JULY 9, 1901.

The Commission met at 3 o'clock.  
*Members present.*—Mr. Patterson (Chairman), Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.  
 The Minutes of last Meeting were read and confirmed.  
 Mr. John George Davies, Mayor of Hobart, was called, sworn, and examined.  
 At 5:15 o'clock, the examination of Mr. Davies being not concluded, the Commission adjourned till to-morrow at 3 o'clock.

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 WEDNESDAY, JULY 10, 1901.

The Commission met at 3 o'clock.  
*Members present.*—Mr. Patterson (Chairman), Mr. Hamilton, and Mr. Propsting.  
 The Minutes of last Meeting were read and confirmed.  
 Apologies were offered for the absence of Mr. Guesdon, and Mr. Nicholls.  
 Mr. John George Davies, Mayor of Hobart, was further examined.  
 Mr. Davies withdrew.  
 The Commission adjourned till to-morrow at 3 o'clock.

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 THURSDAY, JULY 11, 1901.

The Commission met at 3 o'clock.  
*Members present.*—Mr. Patterson (Chairman), Mr. Nicholls, and Mr. Propsting.  
 The Minutes of last Meeting were read and confirmed.  
 The Secretary read correspondence from—

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1. The Town Clerk of Hobart, dated July 10, 1901, intimating that the Mayor and Auditor-General had decided, after conferring, to close the correspondence *re* charge for hire of brakes at the first paragraph of the Mayor's letter on the 19th June last, ending with the words "deem my explanation satisfactory."
2. Mr. W. Corin, City Electrical Engineer to the Municipal Council for Launceston, transmitting report on the proposed electric transmission scheme for Hobart, and enclosing his account.

The preparation of the Draft Report was proceeded with.

*Ordered*, That Mr. R. M. Johnston, Government Statistician, be re-called.

Mr. R. M. Johnston was accordingly re-called, and further examined.

Mr. Johnston withdrew.

The Commission adjourned till to-morrow at 7.45 o'clock.

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FRIDAY, JULY 12, 1901.

The Commission met at 7.45 o'clock.

*Members present*—Mr. Patterson (Chairman), Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.

The Minutes of last Meeting were read and confirmed.

The preparation of the Draft Report was proceeded with.

At 11.30 o'clock the Commission adjourned till Monday next, 15th instant, at 7.45 o'clock.

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MONDAY, JULY 15, 1901.

The Commission met at 7.45 o'clock.

*Members present*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.

The Minutes of last Meeting were read and confirmed.

The preparation of the Draft Report was proceeded with.

At 10.30 o'clock the Commission adjourned till Wednesday next, 17th instant, at 7.45 o'clock.

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WEDNESDAY, JULY 17, 1901.

The Commission met at 7.45 o'clock.

*Members present*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.

Apology was offered for the absence of Mr. Mulcahy on account of indisposition.

Mr. Guesdon handed in Balance Sheet of the Hunter District Water and Sewerage Board, as a Model. (Appendix.)

The preparation of the Draft Report was proceeded with.

At 10.30 o'clock the Commission adjourned till to-morrow at 3 o'clock.

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THURSDAY, JULY 18, 1901.

The Commission met at 3 o'clock.

*Members present*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Propsting.

The Minutes of last Meeting were read and confirmed.

The Commission, accompanied by Mr. R. S. Milles, City and Building Surveyor to the Municipal Council of Hobart, and Mr. W. A. Brain, Engineering Inspector, proceeded to inspect the Theatre Royal, Campbell street, and the Temperance Hall, Melville street.

The Commission adjourned till 7.45 o'clock.

The Commission re-assembled at 7.45 o'clock.

*Members present*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.

The preparation of the Draft Report was proceeded with.

At 10.15 o'clock the Commission adjourned till to-morrow at 7.45 o'clock.

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FRIDAY, JULY 19, 1901.

The Commission met at 7.45 o'clock.

*Members present*—Mr. Nicholls (Vice-Chairman), Mr. Hamilton, and Mr. Propsting.

The Minutes of last Meeting were read and confirmed.

Mr. F. G. Knight, Chairman of the Town Board of New Town, was re-called and further examined.

Mr. Knight withdrew.

The Commission proceeded to revise evidence.

At 9.45 o'clock the Commission adjourned till Monday next, at 7.45 o'clock.

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MONDAY, JULY 22, 1901.

The Commission met at 7.45 o'clock.

*Members present*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Nicholls.

The Minutes of last Meeting were read and confirmed.

The preparation of the Draft Report was proceeded with.

*Ordered*, That Mr. Milles, City Surveyor to the Municipal Council of Hobart, and Mr. W. A. Brain, Engineering Inspector, be re-called to-morrow at 3 o'clock.

At 10.15 o'clock the Commission adjourned till to-morrow at 3 o'clock.

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## TUESDAY, JULY 23, 1901.

The Commission met at 3 o'clock.

*Members present*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Nicholls.

The Minutes of last Meeting were read and confirmed.

Mr. R. S. Milles, City Surveyor and Building Surveyor to the Municipal Council of Hobart, was re-called, and further examined.

Mr. Milles withdrew.

Mr. W. A. Brain, Engineering Inspector to the Municipal Council of Hobart, was re-called, and further examined.

Mr. Brain withdrew.

The claim of F. G. Kelly for typing six copies of the Draft Report to date, amounting to £6 9s. 6d., was passed for payment.

The Commission adjourned till to-morrow at 3 o'clock.

## WEDNESDAY, JULY 24, 1901.

The Commission met at 3 o'clock.

*Members present*—Mr. Patterson (Chairman), and Mr. Hamilton.

The Minutes of last Meeting were read and confirmed.

The Commission deliberated.

The Commission adjourned till to-morrow at 3 o'clock.

## THURSDAY, JULY 25, 1901.

The Commission met at 3 o'clock.

*Members present*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Propsting.

The Minutes of last Meeting were read and confirmed.

The preparation of the Draft Report was proceeded with.

The Commission adjourned till to-morrow at 3 o'clock.

## FRIDAY, JULY 26, 1901.

The Commission met at 3 o'clock.

*Members present*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.

The Minutes of last Meeting were read and confirmed.

The preparation of the Draft Report was proceeded with.

The Commission adjourned till Monday next, at 7:30 o'clock.

## MONDAY, JULY 29, 1901.

The Commission met at 7:45 o'clock.

*Members present*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Nicholls, and Mr. Propsting.

The Minutes of last Meeting were read and confirmed.

*Ordered*, That the Secretary write to the Honourable the Premier and request that the time for bringing up the Report of the Commission be extended for Fourteen days.

*Resolved*, That the Commission visit the Upper and Lower Reservoirs, and that the Secretary arrange with the Director of Waterworks as to the supply of conveyance, and as to fixing the day.

The preparation of the Draft Report was proceeded with.

At 10:20 o'clock the Commission adjourned till to-morrow, at 7:45 o'clock.

## TUESDAY, JULY 30, 1901.

The Commission met at 7:45 o'clock.

*Members present*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, and Mr. Nicholls.

The Minutes of last Meeting were read and confirmed.

The preparation of the Draft Report was proceeded with.

At 10:30 o'clock, the Commission adjourned till to-morrow, at 7:45 o'clock.

## WEDNESDAY, JULY 31, 1901.

The Commission met at 7:45 o'clock.

*Members present*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.

The Minutes of last Meeting were read and confirmed.

The Secretary reported that, in accordance with the Resolution of the Commission, he had written to the Honourable the Premier asking that the time for bringing up the Report of the Commission be extended for another fourteen days, and that he had received notification that the extension asked for had been granted.

The preparation of the Draft Report was proceeded with.

At 10:15 o'clock the Commission adjourned till to-morrow at 7:45 o'clock.

THURSDAY, AUGUST 1, 1901.

The Commission met at 7.45 o'clock.

*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Nicholls, and Mr. Propsting.

The Minutes of last meeting were read and confirmed.

The preparation of the Draft Report was proceeded with.

*Ordered,* That Mr. W. F. Ward, Government Analyst, be summoned for Monday next, 5th instant, at 7.45 o'clock.

*Resolved,* That the Commission proceed to inspect the upper and lower reservoirs to-morrow afternoon.

The Commission adjourned.

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FRIDAY, AUGUST 2, 1901.

The Commission met at the Post Office at 2 o'clock, and, accompanied by Mr. R. S. Milles, the Director of Waterworks to the Municipal Council of Hobart, proceeded by conveyances to the reservoirs, and inspected the same.

*Members present.*—Mr. Patterson (Chairman), Mr. Hamilton, and Mr. Propsting.

The Commission returned to Hobart.

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MONDAY, AUGUST 5, 1901.

The Commission met at 7.45 o'clock.

*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.

The Minutes of the last two Meetings were read and confirmed.

Mr. W. F. Ward, Government Analyst, was called, sworn, and examined.

Mr. Ward withdrew.

The preparation of the Draft Report was proceeded with.

At 10.15 o'clock, the Commission adjourned till to-morrow, at 9 o'clock.

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TUESDAY, AUGUST 6, 1901.

The Commission met at 8 o'clock.

*Members present.*—Mr. Patterson (Chairman), and Mr. Guesdon.

The Minutes of last Meeting were read and confirmed.

The preparation of the Draft Report was proceeded with.

At 5.39 o'clock the Commission adjourned.

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WEDNESDAY, AUGUST 7, 1901.

The Commission met at 4.15 o'clock.

*Members present.*—Mr. Patterson (Chairman), Mr. Guesdon, Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.

The preparation of the Draft Report was proceeded with.

*Ordered,* That the opinion of Messrs C. H. Westwood and John Hayle, two experienced professional accountants, be obtained, as to whether the conclusions arrived at relating to the Accounts of the Corporation of Hobart are sound.

At 5.40 o'clock the Commission adjourned.

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FRIDAY, AUGUST 9, 1901.

The Commission met at 6.30 o'clock.

*Members present.*—Mr. Patterson (Chairman), Mr. Hamilton, Mr. Nicholls, and Mr. Propsting.

The Minutes of last Meeting were read and confirmed.

The Chairman submitted the Draft Report, and the same was read.

*Resolved,* That the said Report be agreed to, and that Members attend at the Committee Room, House of Assembly, on Tuesday next, the 13th instant, at noon, for the purpose of signing the same.

The following Resolutions were unanimously agreed to—

*Resolved,* That the Members of this Commission desire to place on record their high appreciation of the great ability, the absolute impartiality, and the unwearied patience with which the Chairman has conducted the proceedings of the Commission.

*Resolved,* That they desire to acknowledge the very efficient services rendered to the Commission by the Secretary, and the Shorthand Writer.

The Commission directed that these Resolutions be entered on their Minutes, and published as part of their proceedings.

The Commission adjourned *sine die*.

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## R E P O R T.

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MAY IT PLEASE YOUR EXCELLENCY :

HIS Majesty's Commission, bearing date the seventh day of February, 1901, directed His Majesty's Commissioners to enquire into the constitution of the Hobart Municipal Corporation and the local governing bodies of New Town, Glenorchy, Queenborough, Glebe Town, Mount Stuart, Bellerive, and Beltana, and the administration by those public bodies of their municipal affairs ; and further, especially to enquire into the present system of supplying water to the City of Hobart and its suburbs, and as to any improved system of supply and the administration thereof which might recommend itself for adoption.

Since the date of the Commission we have devoted ourselves, in such ways as have seemed to us most consonant with the terms of our instructions, to the discharge of the duty laid upon us, and we have now the honour to submit the following Report :—

We met on the 13th day of February, 1901, for the purpose of considering the manner in which we might best conduct the enquiry submitted to our charge. Since then we have held in all 62 sittings, two of which were held at Glenora, and three at Launceston. We visited Mount Wellington, and examined the present sources of the Hobart water supply, the existing reservoirs, and the sites of the proposed impounding reservoirs upon the summit. We inspected also the upper waters of the Styx and Russell Falls rivers, and examined their respective watersheds, taking samples of the water of each for analysis. We have examined in all 43 witnesses, including landholders, professional men, officers of the Corporations of Hobart and Launceston, and of the various governing bodies administering the municipal affairs of the districts immediately surrounding the City of Hobart which are named in His Majesty's Commission.

### WATER.

The first question to which we gave our attention was the water supply of Hobart and its suburbs. We enquired into its present adequacy, and also its possibility of extension in order to meet the requirements of a growing population. We found that the average daily consumption of Hobart and its suburbs in the worst summer months is 2,200,000 gallons ; that the two existing reservoirs together hold fifty days' supply ; and that the lowest average quantity drawn from the mountain is 1,000,000 gallons a day. We also found that it was proposed to construct three impounding reservoirs upon the plateau of Mount Wellington, the first of which would hold 15,000,000 gallons, and would cost £17,000, while the two smaller reservoirs would cost about £12,000 each ; and that these three reservoirs would together provide an additional supply sufficient for seventeen days. The water that supplies the existing reservoirs is obtained from the creeks that flow down the south-east and south slopes of Mount Wellington, commencing with the Fern Tree Creek, and including all streams of importance between that water-course and St. Crispin's Well, some seven miles distant. In addition, by an Act of last Session (64 Vict. No. 64), the Corporation was given the power to temporarily divert one-half of the water flowing in the North-West Bay River, which drains the plateau of the mountain, and the intake from which is about two miles west of St. Crispin's Well.

Apart from the question of the adequacy of this supply, we found that a grave difficulty arose by reason of the fact that the streams which constitute the supply flow from that part of the mountain which is most popular with tourists. The number of persons that visit Mount Wellington is continually increasing, and since the construction of the carriage-drive to a point below the Springs, has become very great. From the evidence of Charles Gadd, Ranger for the Hobart Corporation on Mount Wellington, it appeared that in 1893, which was the last year during which he kept an accurate record of the number of visitors to the mountain, over 3000 people visited the Springs. He stated that there were several boarding-houses at the Fern Tree, which were all full during the summer, rooms being engaged months beforehand. That since that year the carriage-drive has been constructed. He also stated that when he was permitted to take in boarders at the Springs, numbers of invalids, advised by medical men to live there, applied to him for accommodation. From these facts, it appears clear that Mount Wellington can be made into a valuable sanatorium and tourist resort, and an asset of increasing value to the State. We found, however, that the medical and other skilled witnesses examined upon the subject were of opinion that if the Hobart water supply was to be obtained from Mount Wellington, the watersheds of that supply must be closed to the public. Dr. Gregory Sprott stated : "I have always contended that it is a very great risk, and I think that it creates a feeling of unrest in the

minds of many. The citizens should have a perfect sense of security as to the purity of their water supply, and they should not be left in a position to think, 'I may be taking in some infected material with this water, such as typhoid excreta.' At present that feeling is not unreasonable. People leave town in apparent health, that is to say, they feel 'out of sorts,' and do not know what is the matter with them. It is frequently typhoid in its early stage; and so they go up to these higher altitudes in search of fresh air. If such people go up the mountain, as I have reason to believe they do, what follows? Excreta, laden with typhoid-germs, is deposited on the watershed; a shower of rain follows, and the germs find their way into the reservoir. Under such conditions there is nothing to prevent people getting typhoid through the water supply; and I do not think the public should pay for water and have that feeling of unrest among them when they drink it. You ought certainly to do one of two things: you must either close your mountain against tourist-traffic and so have a pure and copious supply, or you must remove your water supply elsewhere and open the mountain for purposes of public resort." Mr. K. L. Rahbek, M.Dan. Assoc. C.E., with his report to the Government on the 5th October, 1900, furnished a plan of the mountain, and showed by red lines the portion which it was desirable to close. He suggested that this should be done by the erection of a barbed-wire fence. From the evidence of the Ranger, it appeared that the proposed fence would enclose the whole of the picnicking resorts near the Springs, and would shut the tracks to the Organ Pipes, the Wellington Falls, the Pinnacle, and other parts of the mountain that are attractive to tourists. We also found, from the evidence of Mr. Milles, the Director of Hobart Waterworks, that the completion of the carriage-drive to the Springs had been stopped on account of the risk of the contamination of the watershed, and that the drainage of a part of that road at present flows into the Hobart water supply.

Q. 322 *et seq.*Q. 419 *et seq.*Q. 358 *et seq.*

The next question that we considered was that of the adequacy of the water supply from the mountain. We found that the population of the City of Hobart and its suburbs increased but little between the years 1891 and 1901; but it should be borne in mind that the year 1891 was one in which the business and population of Hobart was in a state of abnormal inflation, and the fact that the population increased during the years named, points to the probability of a large future increase. It therefore appeared to us to be improbable that the present supply would be sufficient, in any circumstances, for more than a few years to come. The fact must also be noted that the supply now being drawn from the North-West Bay River has only been granted for a period of two years, and that the case made out by the riparian proprietors on that river so convinced Parliament, that the Act, 64 Vict. No. 64, bound the Corporation to cease taking water from that river at the end of two years from the 1st of January, 1901.

We were so impressed by the difficulties of obtaining an adequate, pure, and permanent supply from Mount Wellington, that we unanimously arrived at the conclusion, that, before any further money was spent upon water supply from the mountain, it was essential, not only in the interests of Hobart and its environs, but also in the interests of the whole State, that it should first be ascertained whether there was not some practicable alternative scheme whereby these difficulties could be removed.

Q. 606.

Appendix B.

Q. 613 *et seq.*

Our attention was thus directed to the River Styx, which we visited, and examined carefully up to an altitude of about 700 feet above sea-level. We found that the daily flow of the Styx in the driest months of the summer was 30,000,000 gallons, of which 5,000,000 gallons were used for purposes of local irrigation, leaving 25,000,000 gallons running to waste. This quantity of water would be sufficient to supply a population ten times as large as that of Hobart and its suburbs to-day. The whole of the watershed of the Styx above the 700-foot level, which would be the most advantageous point of intake, consists of unalienated, uninhabited, and mainly useless land, which could be withdrawn from selection and closed to the public without affecting private rights or the public convenience.

Q. 600 *et seq.*

The water of the Styx was unanimously described, by people who had used it all their lives, as the coldest and purest of that of any of the streams tributary to the Derwent. A sample of water was taken from the river, and handed for examination to the Government Analyst, who returned the following analysis:—

Appendix C.	Parts per million.		Grains per gallon.	
	Free Ammonia.....	0·01	Chlorine, in Chlorides .....	0·8
	Albumenoid Ammonia .....	0·03	Total Solid Matter.....	8·6
	Nitrogen, in Nitrates .....	—	Total Mineral Matter .....	7·4

We next examined the Russell Falls River. The supply that would be available from this River would be less than that from the Styx, and a large area of its watershed is inhabited; while the Great Western Railway survey passes through that water shed. A sample of the water of this river was also sent to the Government Analyst, who returned the following analysis:—

Appendix C.	Parts per million.		Grains per gallon.	
	Free Ammonia.....	0·01	Chlorine, in Chlorides .....	0·8
	Albumenoid Ammonia .....	0·02	Total Solid Matter... ..	9·6
	Nitrogen, in Nitrates .....	0·008	Total Mineral Matter .....	8·2



We thought it desirable to ascertain whether it was practicable to bring water to Hobart from the Styx, and, if so, at what cost. A scheme was submitted by the Director of Waterworks to the City Council for the conveyance of water from the 700-foot level of the Styx by means of a covered aqueduct-channel traversing the eastern side of the valley for three miles; thence taking a further easterly direction, crossing Dry Creek; and thence following the contour of the country to the valley of the River Plenty, crossing the Plenty, and, following further the slope of the Plenty valley, coming to Lloyd's Hill, where it would join the head of the proposed main pipe near the 25-mile post on the main road to Hobart; whence it would run to Hobart. Branches could be run off wherever required; for example, to North Bridgewater, and, at Cornelian Bay Point, across the Derwent to Beltana and on to Bellerive, where the water could be stored in small distributing reservoirs. From the evidence of the Chairman of the Beltana Town Board and an ex-Chairman of the Bellerive Town Board, it appeared that the people of Bellerive and Beltana were suspending all proposals for obtaining a local water supply, in the hope that they might have an opportunity of availing themselves of a metropolitan supply brought from the upper waters of the Derwent.

Appendix B.

Q. 889.  
Q. 986 *et seq.*

The rumour that goitre has existed in the neighbourhood of the Styx, among people habitually drinking the water of that river, was proved to be unfounded, inasmuch as no greater number of cases of goitre had occurred there than in any other district of equal population.

Qs. 510, 511,  
564, 629 *et seq.*

It was also shown that such few cases as had been known in the Derwent Valley were those of people who had either contracted goitre before going to the district, or who did not drink the waters of the Styx.

Qs. 1593 and  
1594.

Water from the Styx could be brought into the two existing impounding reservoirs, which, together, hold fifty days' supply; so that in the event of any break in the aqueduct channel, or in the line of main, there would be an ample storage capacity to fall back upon until the necessary repairs were effected. Between the Styx and Hobart from 8000 to 10,000 acres of land could be irrigated, and this land could afford to carry an irrigation rate of from 18s. to 20s. an acre.

Q. 665 *et seq.*

This scheme would involve the construction of 20 miles of covered channel; 25 miles of 24-inch and 30-inch diameter wrought steel pipes, all of which could be manufactured in the State; 13 miles of 3-inch to 12-inch diameter wrought and cast iron distributing mains, and a small branch main leading to the existing reservoirs, the length of which branch is not yet ascertained.

Appendix B.

The Director of Waterworks estimated the cost of construction of this work, excluding the small branch main before referred to, at £205,000, which included the sum of £18,000 for contingencies and minor works.

Appendix B.

Having considered the possibility of obtaining a larger and more permanent supply, we proceeded to consider the question of the administration of the existing supply; and we found that there were several matters to which attention should be drawn.

It was shown to us that in places leaks might possibly go on for months, and nothing be known of them by the City Turncock of the Hobart Corporation, until the water at last found its way to the surface; and that old mains opened up by the Corporation in cases of leakage had been found to be in "a terrible state." It was only by the water appearing on the surface now and again that those leaks could be located. There was an average each year of about ten leaks per day repaired by the Corporation in Hobart, as against one leak per month in Launceston. It is quite clear that there is an enormous quantity of water liberated from the reservoirs, and direct from the mountain, for which the Corporation receives no payment. There appears also to be no means of accurately gauging the amount of water actually supplied to the City; but we have it in evidence that the estimated amount is some 2,200,000 gallons per day during the worst months of summer. The evidence as to the quantity of water released from the reservoirs, as compared with the amount paid for, shows that about one-third of the water released disappears, and that its loss is unaccounted for. From the evidence of the Director of Waterworks it appears that where water is supplied by meter, the average price obtained is one shilling per thousand gallons; but that the price obtained by the Corporation for the whole of the water released by it into the mains averages about sixpence per thousand gallons. If the whole of the water released were paid for by meter, the consumption would probably be reduced by from 30 to 40 per cent.; but it follows that the amount actually consumed would be paid for, and the Corporation would obtain a revenue of about £20,000 per annum, instead of £15,000, as at present, while at the same time supplying 30 per cent. less water. The reason given to us for not adopting the meter system generally is that the Hobart Corporation cannot see its way to an immediate expenditure of £20,000 for that purpose; but it was stated that a sum sufficient to provide all the meters necessary could be borrowed at from  $3\frac{1}{2}$  to 4 per cent.; and a rental for the meters could be charged equivalent to 10 per cent. per annum upon their cost. In Adelaide, where 11,000 water meters are in use, maintenances and repairs cost 2s. 6d. per meter annually, their life being thus prolonged indefinitely. There appears, therefore, to be no sufficient reason why the necessary money should not be borrowed, and the meter system generally adopted.

Q. 1286.  
Appendix B.Q. 1287.  
Q. 1333.  
Q. 2966.Q. 760 *et seq.*Q. 378.  
Q. 766 *et seq.*Q. 774.  
Q. 778.Q. 3527 *et seq.*Q. 3533.  
Q. 3531 and  
3532.  
Appendix Q.

In Adelaide, a city with a sub-tropical climate, subject to long droughts, having an annual rainfall of about 20 inches and a system of deep drainage, the summer consumption of water is 57 gallons per head per day. In Sydney, a city also with deep drainage, but with a greater rainfall, the average daily summer consumption is 50 gallons. In Hobart the consumption per head per day was stated to be 60 gallons on the basis of a population of 41,040, but according to the Census taken in 1901 the population of Hobart, New Town, Queenborough, Glebe Town, and Mount Stuart is 30,006. As a matter of fact, therefore, the consumption within the Hobart Water Area is over 70 gallons per head per day.

From the evidence brought before us we consider the present system of management of the existing waterworks to be defective in several ways. For instance, the life of a cast-iron main is limited to a period of from 35 to 40 years. What is called the "new main" has been down for from 25 to 30 years. Some of the older pipes are badly corroded: indeed, to such an extent that their original capacity is reduced by three-quarters. Thus, in some instances it has been found that a 4-inch pipe is so badly corroded as only to have about a 1-inch bore. This corrosion involves a serious risk in time of fire, as, however great the pressure may be, the volume of water is insufficient.

Q. 1277.

Q. 1248 *et seq.*

We have it in evidence from the City Turncock that it will be necessary shortly to renew at least 15 miles of mains, at a cost of £16,500. The City Accountant stated that no provision had been made for a renewal fund. The inevitable result of this will be that the renewals will have to be provided for out of capital, or by the imposition of a heavy extra rate.

Q. 1269.

Q. 2332.

### DRAINAGE.

Next to the question of water supply, the question of greatest importance touched by the evidence was the allied question of drainage.

In addition to the pan system at present generally in use for removing sewage from premises in the City of Hobart, there are 521 water-closets discharging into the Hobart Rivulet, 194 into the Derwent from houses around the shores, 62 into the Park-street Rivulet, 40 into the Melville-street and Elizabeth-street Creek, three into the Goulburn-street Creek, and three into the Sandy Bay Rivulet. There are also some cesspits in the City. No provision is made to carry fecal and other sewage from these creeks in the summer months, except from that portion of the Hobart Rivulet which is paved, which portion stretches from the mouth of the rivulet as far as Harrington-street; but when any part of these sewers or dry creeks gets very foul, it is sometimes flushed, either with salt or fresh water. The lower paved portion of the bed of the Hobart Rivulet is now, however, a good deal broken, and solid matter going down this sewer lodges in the broken places. The General Hospital drains into this rivulet. The other creeks are in their natural state, and in one season, when complaints had been made by the public of the offensive smell arising, particularly from the Park-street Rivulet, disinfectants were used. It appears, however, to have been found that these disinfectants were useless. The water-closets in the Hobart Gaol drain into the Park-street Rivulet. It is stated in evidence that one man is employed in the Hobart Rivulet to sweep any solid matter that may lodge on the sides into the main channel; and another man is employed to overlook all the other creeks.

Q. 446.

Q. 458.

Q. 443.

Q. 444.

Q. 442.

Q. 1202.

Q. 1198.

Q. 1212.

Q. 1134.

Q. 1151.

Q. 452.

Q. 454.

Q. 455.

Q. 401.

Q. 736.

Q. 744.

Q. 1513.

Q. 2013.

The sewage conveyed from Hobart under the pan system is taken to Maria Point, Ralph's Bay, some nine miles down the River Derwent. This work is done by contract, subject to the supervision of the Local Boards of Health interested, at a cost of about 1 $\frac{7}{8}$ d. per pan per removal. The annual sanitary rate paid by householders with assessments of £24 and under is 12s.; with assessments of over £24, 6d. in the pound. This rate covers not only the cost of removal of pans and incidental expenses, but also the cost of the department, Health Officer, other officers of the department, supervision, and inspection of premises. In the great majority of cases where pans are used, the slops from the kitchens and bedrooms go into the surface cobble-stone gutters in the streets adjoining. These gutters become very offensive, particularly in the summer-time. Some of them are flushed once a week, others twice a week, according to their position and condition. Sometimes, however, no water can be spared for this purpose; but in any case, immediately after they are flushed, the like bad and offensive matter comes from the houses into the gutters again; so that the effect of such flushing is very slight. There are also, in and about the City, a few dug-out gutters without any construction at all. For instance, there are two gutters near the Mount Stuart district, and nearly the whole of the drainage in these gutters comes from that district. A dispute is now pending as to the question of the Corporation of Hobart having to do work at the ratepayers' cost in order to carry the drainage of another district through the City itself. It is shown that the citizens of Hobart have upon several occasions had to pay the whole of the expense of getting rid of nuisances that are not their own. Glebe Town, Wellesley, and a portion of Leslie, drain into the Hobart Rivulet, and Queenborough is partly drained by the Wellington Rivulet; while some fifty or sixty houses at Mount Stuart discharge sewage into a dug-out gutter at the Hobart boundary. Nothing is paid by these suburbs for the right of draining into the Hobart Corporation sewers, although some suburban Boards now offer certain compensation for this service. No proper sewer of sufficient capacity and length to convey the whole of the drainage from the Mount Stuart boundary to one of the Hobart sewers has yet been provided. The citizens of

Hobart are to some extent paying for the carrying out of the local government of adjoining Boards. For instance, the City Surveyor's estimate of the cost of Mount Stuart drainage improvements is £160, to which sum the Board of that suburb is expected to contribute £60. Q. 2017.

Objection has been raised by the Hobart City Council to the action of Glebe Town in sending its filth through the City at prohibited hours. Q. 2019.

At New Town there is practically no system of sanitation; such people as feel disposed to make use of the services of a man to remove nightsoil from their premises, can do so; but that is only done if householders have not sufficient area of land available for burying the nightsoil. The ordinary drainage of this suburb—household slops and so on—goes into the gutters, and thence into the New Town Creek, which discharges into shallow water in the New Town Bay. There is no current there. They have at New Town a network of surface drains into which all the houses are trapped; and the sewage discharged into these drains eventually finds its way into the New Town Rivulet. From Augusta Road and below the *Harvest Home Inn* there is a system of drainage, in connection with which the New Town Town Board has already expended upwards of £400. The drainage of New Town is said to be complete, and it is given in evidence that all the gutters are properly prepared, and no sewage remains in them. Power is vested in this Board to carry out the pan system, but hitherto the expense of establishing this system has been considered too great to enter upon. It is now however, proposed to establish a pan-system. No water is supplied to this Board for flushing gutters. Q. 818 *et seq.* Q. 867. Q. 834. Q. 3710 *et seq.*

At Queenborough there is a contractor who works privately, and who is not under the control of the Board. This man removes all pans in use; but the pan service there is very insufficient, and not by any means general. The Queenborough Town Board is contemplating a contract with the Hobart Corporation to carry out an efficient service. As regards household slops at Queenborough, they go into the drains, and are conveyed down the one underground sewer into the main sewer or rivulet of that town, and so discharged into Sandy Bay. The Hobart Corporation and the Queenborough Town Board have entered into a contract to put the Wellington Rivulet, which at present is in a very bad state, into a better condition. A number of water-closets used to discharge into that rivulet from the City; the nuisance became great, and the Town Board of Queenborough had these water-closets cut off. There are now only two or three water-closets discharging into this rivulet, and measures are being taken to have these removed. A continuous flush of water in this creek is not available. No sanitary rate is levied at Queenborough; those householders who avail themselves of the services of the man before referred to, pay him by private arrangement. The contract that is now proposed with the Hobart Corporation will confine the pan service to that part of the town that the Medical Health Officer requires to be so served. If any houses in his opinion have sufficient ground adjoining to enable nightsoil to be buried satisfactorily and safely, the Board will not interfere; it is not proposed to make a compulsory service. The new service will cost the ratepayers a halfpenny or more, and the payment of that will be a private contract that the ratepayers concerned will enter into. The Russell Crescent and Ashfield rivulets at Queenborough at times become very offensive, owing to the lack of available water for flushing them; and the drain on the "Blink Bonny" property, at the Butts, is sometimes very foul and becomes a menace to the public health. Q. 914. Q. 916. Q. 919. Q. 937. Q. 938 *et seq.* Q. 955.

#### GARBAGE.

The removal of house rubbish and garbage in the City of Hobart comes within the control of the department of the Engineering Inspector of the Corporation. Some householders have their rubbish removed by the Corporation; but the accumulation of rubbish is a common cause of complaint. Garbage is removed by householders in the City at their expense, except from the block within the limits of Argyle, Harrington, Brisbane, and Macquarie streets, where house refuse is removed by the Corporation almost daily. The majority of persons living within the confines of that block put rubbish out into the streets in boxes overnight, and these boxes are emptied by the scavengers on the following morning. Nothing is paid to the Corporation for this service. The Engineering Inspector has strongly advised the Corporation to undertake the removal of all rubbish, in addition to nightsoil, from all premises within the City. He states that, allowing for a weekly removal from every house, and, in addition to that, a daily removal in the centre of the City, the scheme would cost about £1000 annually. But there is about £150 now annually spent on the work of removing garbage in the centre of the City; so that the adoption of the scheme recommended would require an amount of about £850, in addition to the present expenditure per year. That amount would enable the Corporation to remove the whole of the garbage. One thousand pounds annually would entail about a 1½d. rate. It is stated that this sum would be sufficient for the work, because in many cases a fortnightly removal would serve. The Engineering Inspector is of opinion that the introduction of such a system would bring about a material saving to the public generally, because those ratepayers who now remove their own garbage would not pay nearly so much for that purpose as they pay at present. In his report the Engineering Inspector takes £30 as being about the average assessment of houses in the City. In the case of such a house a 1½d. rate would mean 3s. 9d. per year, and the refuse would be removed every week; whereas now ratepayers are Q. 1104 *et seq.* Q. 1352. Q. 1403 *et seq.* Q. 1104. Q. 1106. Q. 1107 *et seq.*

- charged 1s. or 1s. 6d. for every load removed from their premises. At present it practically costs, therefore, 3s. 9d. for removal of three loads, which means, where no more than that amount is expended per annum, that every load is an accumulation of four months or so. No such accumulation is permitted, if discovered. If an individual householder undertook now to have his garbage removed in strict accordance with the provisions of the Act, it would probably cost him at least 1s. a week, or £2 12s. per annum, as against an annual rate of 3s. 9d. under the scheme suggested by the Engineering Inspector. He has under consideration details as to the plan and cost of a suitable destructor, because it appears to him to be advisable that rubbish should not be disposed of by carting it out to tips, as at present.

- The ordinary inspection of premises within the City is almost entirely in the hands of one man, who already has a number of other duties to perform. He is Bailiff to the Corporation; all warrants are made out in his name; he is Inspector under the Health Act, Inspector of Weights and Measures, Inspector under the Roads Act, Inspector of Cabs and Delivery Carts; besides which, with other duties, he has the charge and collection of dog licences. The tips now used for the disposal of refuse appear to be conducted as well as such tips can be conducted, and some part of the rubbish is periodically burned. The tips form, however, harbours for rats; and it appears that in nearly every annual report the Health Officer has made to the Local Board of Health, he has advised that a destructor should be erected for the purpose of destroying City refuse, and doing away with these unhealthy and unsightly tips.

- At New Town people are left to do pretty well as they like with regard to removing refuse from their houses. If such refuse is put out into the streets, it is collected by scavengers in the employ of the Board. An inspector visits all properties and backyards, and if any complaint arises, he lays it before the Board.

- At Queenborough much the same condition of things prevails. The Inspector reports to the Board when cause of complaint arises; but it does not appear to have been found necessary to serve any notice on occupiers, beyond the mere formal notice giving warning, and complaining of the condition of their premises. Nothing is charged for the removal of house garbage by the Town Board, which renders this service to anybody who requires it. The Inspector has instructions to remove house refuse, when required, in any case.

### SUPERVISION OF PURVEYORS.

- There are in the City of Hobart four classes of purveyors practically under special supervision—the butchers, the dairy-keepers, and the keepers of fruit shops and fish shops. As showing the manner in which the Health Act, under which the business of these purveyors is regulated, is administered, the following excerpt from the evidence of the City Inspector is of interest:—

- See also page 111. 1341. As City Inspector, in whose department are you? I really don't know. I don't know whether I am master or man.
1342. To which department do you make your reports? I cannot tell.
1343. To whom do you make your reports? I should make them to the Town Clerk, if I had to make any report at all.
1344. Not to the head of a department? Well, there is no head of any department, so far as I know. Of course, an inspector is supposed to be master of himself, as it were; although I have no one under me.
- Q. 1353 *et seq.* Complaints have been made about the condition of some of the fruit shops; but the City Inspector states that he has found no ground for such complaints, on investigation. It appears that the surplus refuse fruit is chiefly conveyed out of the City by milkmen, in boxes placed in their milk-carts: a practice condemned by medical witnesses examined by us. These milk-sellers are subject to registration, and it is the duty of the Inspector to inspect the pastures where dairy cattle in the City are run; but it has been found, that where cattle which are driven into the City to be milked are depastured outside its boundaries, insufficient means exist for ascertaining the condition of the land upon which these cattle graze. For instance, cows driven into Hobart to be milked are known to be run on the North Hobart Recreation Ground. This ground is under the supervision of the Inspector at New Town, and though it appears that house drainage runs into the ground, the City Inspector would only stop cattle going there if complaints were made to him by the Inspector at New Town. There are some 140 to 150 milk vendors' licences issued, and there are in the City of Hobart some ten dairies. There is a regulation that cows must not be kept within 30 feet of a dwelling; but this regulation has not been enforced. A number of notices appear to have been served when the regulation was infringed; but when people concerned did not feel disposed to conform to the regulation, the City Inspector thought he had no power to make them do so. This position of affairs is, he states, to be remedied.

- Q. 3154 *et seq.* In Launceston the milk service is dealt with in a more satisfactory way than in Hobart. There, about once every three months, specimens of milk are taken by the Health Officer and sent to the Government Analyst, and whenever an unsatisfactory report is received the man from whom the specimen was taken is prosecuted. In Launceston, too, the Inspector visits the premises of all people who sell milk in and about that city, and inspects all dairies outside Launceston. All such vendors are registered, and watchful care is kept to maintain the cleanliness of the carts used for the

distribution of milk. To use such carts, as is sometimes done in Hobart, for the carriage of house-garbage and decayed vegetable or fruit matter, would be regarded as a distinct menace to public health by Dr. Wilson, the Officer of Health of Launceston.

### ADMINISTRATION.

We examined numerous witnesses as to the mode of administration by the City Corporation of Hobart and the various local governing bodies in the suburbs. From the general effect of the evidence we were led to the conclusion that in many respects there is room for improvement in the administration of the affairs of Hobart. In the case of several officers of the Corporation whom we examined there was noticeable a vagueness and uncertainty of statement that seemed to indicate that these witnesses were not precisely familiar with the exact duties and responsibilities of their offices. This was most obvious in the case of the City Inspector. This officer occupies an important position under the Corporation. He is City Inspector, Sanitary Inspector, Bailiff, Inspector of Weights and Measures, and Inspector under the Impounding Act. He has charge of Dog Licences, Milk Licences, and Licences issued to drivers of cabs, stage-coaches, and drays. "The City Inspector," he said, "has greater power than any of the other inspectors"; but when questioned as to whether he had time to attend to all his various duties satisfactorily, he replied: "No; not to carry them out properly; I could not possibly do it." It was plain from the evidence given by this officer that he had only an imperfect appreciation of the scope and nature of his duties. A similar uncertainty, differing only in degree, was occasionally noticeable in the evidence given by other officers of the Corporation, and we thought it was desirable that we should visit Launceston and take evidence there as to the administrative methods adopted by the Corporation of that city. In all, we examined nine officers of the Corporation of Hobart (including the Mayor), five officers of the Corporation of Launceston, and nine witnesses respectively representing the Town Board Districts surrounding Hobart, including the districts of Bellerive and Beltana.

Qs. 1338 and 2084.

Q. 1340.

Qs. 1345 and 2085.  
Q. 1341 *et seq.*

We found that there was no complete uniformity of administrative method among these various bodies; and that there was a marked difference of opinion between the officers of the Hobart and Launceston Corporations as to the scope of their duties and the extent of their responsibilities. The Town Clerk of Hobart has held his appointment since February, 1898. He stated in evidence that he had control of the whole of his department, but that he saw no necessity for re-modelling it when he took charge: in this office he succeeded Mr. George Steward, who had re-organised the whole of the offices. The Mayor of Hobart, however, stated in evidence that Mr. Steward did not re-organise the offices or make any material change in the methods of working, with the exception that he introduced a new system of recording correspondence, which had since been abandoned. The Town Clerk considered that he was the official head of all the departments of the Corporation, and that all communications must go through him; but we found that, as a matter of fact, communications of which he had no cognizance had passed between the various departments. A special charge for vehicles, struck out by the Finance Committee, afterwards placed irregularly without explanation on a sheet among amounts payable for carters' wages, and subsequently disallowed by the Auditor-General, was so charged and paid some considerable time before the Town Clerk heard of the payment being made or charged in that way. The Town Clerk of Hobart is also City Treasurer, but the latter seems to be almost an empty title. Asked, "Who has the Accountant under him?"—his reply was: "Then here comes a big anomaly. The Town Clerk is City Treasurer; this is, I suppose, the only place in the world where the Town Clerk is City Treasurer. I have really nothing to do with finance, but I have to sign the cheques as Treasurer. I think the Accountant should be termed 'City Treasurer,' as in Sydney and Melbourne." The Accountant of the Corporation of Launceston is City Treasurer. In Hobart the Accountant is not in charge of the Rates Office, which the Town Clerk, however, considers should be under his (the Accountant's) control. In Launceston, the City Treasurer has charge of the Rates Office.

Q. 1835 *et seq.*

Q. 3582 *et seq.*

Q. 1838.

Qs. 2881 and 3588.

Q. 2039.

Qs. 2382 and 3235.

Q. 2038 *et seq.*  
Q. 3182.

The Accountant of the Corporation of Hobart "forms a department by himself." We found it difficult to determine the extent of this officer's responsibility. He did not think that he had any authority to suspend payment of any account if he considered it an illegal charge; but the City Treasurer of Launceston held that he had that power, and stated that he would not hesitate to exercise it if necessity arose.

Q. 2038.

Q. 2860.

Q. 3211 *et seq.*

From the evidence given to us, it seems that the financial administration of the Hobart Corporation needs some re-modelling. The annual Statement of Accounts, as presented by the City Accountant, and published in the *Gazette*, is incomplete. The various accounts are so kept as to form simply a cash-book record of the amounts received and the amounts expended, and do not represent a true statement of the revenue and expenditure of the Corporation for the year. It appears to us that such a system of dealing with public accounts is imperfect and misleading. It was impossible for us to ascertain from the accounts submitted what was the actual revenue and the actual expenditure under the head of Water Account for any one year; and we therefore deemed

it necessary to obtain from the City Accountant a proper and specially-prepared Revenue Account for the years 1898, 1899, and 1900. From these accounts we found that there was a deficit of £816 14s. 4d. for 1898, and of £2654 15s. 5d. for 1900, while for 1899 there was a credit on the year's transactions of £410 16s. 2d. The large deficit for 1900 is explained by the fact that during that year a sum of £3863 7s. 7d. was spent on repairs of the upper reservoir; while, on the other hand, although the average expenditure on renewals of reticulation pipes and services for the previous two years had been large, amounting to £1741 3s. 5d., in the year 1900 only £60 was applied to that purpose. We consider that the object of issuing a statement of accounts is to make the financial position intelligible, not only to the aldermen, but to the public generally; and therefore, that the statement should be made in the simplest form. On page 6 of the Municipal Accounts for 1900 appears the following memorandum, showing the assessment of the City for rateable purposes during that year, and including a specification of the rates levied under the various heads of General, Sanitary, and Water:—

ASSESSMENT OF THE CITY FOR 1900 FOR RATEABLE PURPOSES, £173,565.

Rates Levied.—General, 1s. 4d. in the pound. Sanitary—Properties valued at £24 and under, 12s. each; properties valued at £25 and over, 6d. in the pound. Water Rate, £10 and under, 13s. each house; over £10, and not exceeding £40, 1s. 2d. in the pound; over £40, 1s. 2d. in the pound on £40, and 11d. in the pound on the remainder.

It would be impossible for any accountant, going upon that information alone, to ascertain the revenue of the Corporation. It appears to us to be desirable that the annual statement should show the actual total revenue for the year, classified under the various heads. We would submit, as a model worthy of imitation, the following form of account, adopted by the Hunter District Water Supply and Sewerage Board:—

REVENUE STRUCK.

Revenue struck for year ending 30th June, 1900.		Amount.		
		£	s.	d.
Rates—				
Water rate only.....		20,319	7	0
New assessments and new mains.....		118	4	3
Meters—				
Meters only .....		1383	12	0
Meter accounts in excess of rates .....		2925	8	8
Water supplied by measure (shipping) .....		891	1	7
Special fees—				
Live Stock.....		182	0	0
Trade purposes and gardens.....		57	6	3
Building purposes.....		81	8	10
Drilling fees .....		68	8	0
Re-connecting fees.....		2	17	6
Meter Hire—Rent of meters .....		270	14	8
Deferred payments—				
Supervision fees.....		17	15	0
Interest on instalments.....		16	14	11
Miscellaneous receipts .....		21	14	10
		26,356	13	6

REVENUE struck, collected, and outstanding for the year ending 30th June, 1900.

Head of Revenue.	Arrears from previous years.			Amount struck for year ending 30 June, 1900.	Total receivable.	Collections for the year. (Net.)	Amount outstanding at 30 June, 1900.
	Outstanding at 30 June, 1899.	Charges since cancelled.	Net Arrears.				
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Rates .....	9407 13 7	644 13 4	8763 0 3	20,437 11 3	29,200 11 6	24,338 14 0	4861 17 6
Meters.....	2011 10 4	5 18 7	2005 11 9	5200 2 3	7205 14 0	5194 6 4	2011 7 8
Special Fees .....	10 18 6	4 16 0	6 2 6	320 15 1	326 17 7	322 12 7	4 5 0
Other charges.....	35 1 0	0 4 6	34 16 6	398 4 11	433 1 5	396 11 5	36 10 0
TOTALS.....	11,465 3 5	655 12 5	10,809 11 0	26,356 13 6	37,166 4 6	30,252 4 4	6914 0 2

The Hobart Memorandum above cited also includes a schedule of debts owing to and owing by the Corporation, as follows:—

DEBTS OWING BY THE CORPORATION.			DEBTS OWING TO THE CORPORATION.		
	£	s. d.		£	s. d.
Huon Steam Ketch Co., Sanitary Contract .....	191	3 8	Outstanding Rates for 1899 .....	238	12 6
G. and C. Hoskins, Cast-iron Pipes .....	392	0 8	Ditto for 1900 .....	5484	17 9
Hobart Fire Brigade Board .....	65	6 7	Market Dues and Rents.....	130	4 0
Hobart Gas Company.....	559	0 10	Slaughter-house Fees .....	116	12 11
Accounts owing to sundry persons.....	644	11 10	Sanitary Fees .....	17	0 0
			Queenborough Town Board, on account of Wellington Rivulet .....	76	0 0
			Mount Stuart Town Board, on account of Jordan Hill Road .....	100	0 0
			H.M. Government, balance of Grant under 63 Vict. No. 41.....	433	16 8
	<u>£1852</u>	<u>3 7</u>		<u>£6597</u>	<u>3 10</u>

This memorandum shows a credit balance in favour of the Corporation of £4745 0s. 3d. In "Debts Owing to the Corporation" outstanding rates are not classified in any way so as to determine what proportion belongs to General Account and what proportion belongs to Water Account. Under the General Account there is a balance of cash in hand amounting to £3355 1s. 8d. The ordinary citizen examining this account would regard that as the actual balance under the General Account, whereas the sum of £4745 0s. 3d. should be distributed between the General and the Water Accounts in order to ascertain the true balance to the credit or debit of each. In fact, in the statement of Hobart Corporation balances, as under, the credit balance of £4745 0s. 3d., due under Outstanding Revenue, is not taken into consideration either under the General or Water Account, but is absolutely ignored.

[The following is a simple illustration of how misleading the present system is:—

The balance shown (in the published statement of Municipal Accounts) to the credit of the General Account on the 1st January, 1900, was ... £3266 10s. 0d.

The balance shown on the 1st January, 1901, was ..... £3355 1s. 8d.

This would make it appear that the Account had improved to the extent of £88 11s. 8d. on the year's transactions.

But the Memorandum of Debts owing by and owing to the Corporation, as published in the statement for 1899, showed a credit balance on the 1st January, 1900, of ..... £6295 0s. 8d.

Whereas the memorandum cited above for 1900 shows a credit balance on the 1st January, 1901, of only ..... £4745 0s. 3d.

Or a shrinkage of assets under this head of £1550 0s. 5d., as against the apparent improvement of £88 11s. 8d. under General Account.]

#### BALANCES.

L.F.	DR.	£	s.	d.	L.F.	CR.	£	s.	d.
656.	Debt of Municipality .....	234,100	0	0	385.	Debentures English Loan .....	200,000		
654.	Loan (Working Account) under 59 Vict. No. 47—Water Supply .....	7427	14	5	56.	Mortgages New Storage Reservoir ....	30,000		
466.	Hobart Water Account .....	4656	7	3	543.	Private Streets Loan	1000		
581.	Fixed Deposits, Markets Account .....	600	0	0	655.	Water Loan under Act 59 Vict. No. 47	3100		
631.	Cash at Commercial Bank...	206	13	4			234,100	0	0
					506.	Private Streets Construction Account .....	1000	0	0
					571.	General Account .....	3355	1	8
					144.	Market Wharf Transfer.....	471	6	3
					520.	Deposits on Contracts .....	132	10	0
					653.	Loan (Working Account) under 53 Vict. No. 30—Improvement of Streets.....	7931	17	1
		<u>£246,990</u>	<u>15</u>	<u>0</u>			<u>£246,990</u>	<u>15</u>	<u>0</u>

The Statement of Accounts should include a specification of the debentures, the purposes for which the money was borrowed, with full particulars as to the rates of interest, the

Q. 1884 *et seq.* Q. 2372 *et seq.* Qs. 1888 2379. Q. 1277. Appendix G.

dates of issue, and the periods that the debentures have to run. The evidence of the Town Clerk and the City Accountant as to the provision for the redemption of debentures by a sinking fund was certainly too vague to be satisfactory. Both officers seemed content to accept the ten shillings per cent. provided for in the Act, without attempting to satisfy themselves as to whether such a provision was adequate for the purpose for which the sinking fund was established. They both stated that they did not know the basis on which the calculation had been made fixing the annual contribution at ten shillings per cent.; that they did not know what relation that contribution bore to the life of the work for which the money to construct such work was borrowed; and that they did not know how long it would take the sinking fund, accumulating at ten shillings per cent. per annum, to redeem the money so borrowed. As it has been shown that there is no reserve put aside to provide for renewals of municipal works, the whole burden of renewing and reconstructing must be considered in fixing the annual amount to be set aside as a sinking fund; and the life of the work is the material factor. The evidence shows that the life of the reticulation pipes is from thirty to thirty-five years, and Mr. R. M. Johnston said that it would require an annual sinking fund of 1.18273 (say £1 3s. 8d.) per cent., to be invested at  $3\frac{1}{2}$  per cent., to cover the capital sum borrowed in forty years. It is also to be noted that the Sinking Fund shows a debit of £545 3s. 10d. for expenses. This is improper, as the Sinking Fund should be a clean account, and should not be depleted in any way, except to pay the specific obligations for which it was created.

A condensed statement should also be prepared, showing clearly the actual revenue and expenditure under the heads of General and Water Accounts. The Water Account is not credited with the value of the water used for watering streets and flushing gutters, nor with the large quantity used at the slaughter-houses. Owing to this fact the financial position of the Water Account is weakened.

Appendix T.

A schedule should be prepared of all Corporation assets, which should specify all land and buildings, the mileage of the City streets, of the surface drains, of the creeks and the underground drains, the mileage of the reticulation pipes, the services connected with the same, and a return of the meters in use, with cost of same. Particulars should be given of the number of years the various miles of reticulation pipes have been laid, and the extent and cost of each year's renewals.

As an illustration of how bare of information the Municipal Statement of Accounts is, we quote from a return specially prepared for the Commission by the City Accountant. This return shows:—

That the cost of *maintenance* of reticulation pipes was—

In 1898 .....	£1252	4	8
In 1899 .....	£1380	9	0
In 1900 .....	£1416	6	0

That the cost of *renewals* of reticulation pipes and services was—

In 1898 .....	£1473	4	0
In 1899 .....	£2009	2	10
In 1900 .....	£60	0	0

These disbursements, instead of appearing in this clear form in the Municipal Statement, are set out as "Wages and Cartage" and "Material" (unspecified, unclassified), *plus* whatever sum may have happened to be paid for the purchase of cast-iron pipes.

The extraordinary feature of the system is that, while trivial items of expenditure such as  
 Proportion of Town Clerk's robes,  
 " Town Hall Keeper's uniform,  
 " Messenger's uniform,  
 are specifically and separately set out, such important items of expenditure as maintenance, and renewals of reticulation pipes and services, instead of being clearly distinguished from each other, are lumped together with other items under the somewhat ambiguous heads of "Wages and Cartage," and "Material."

The General Account is open to the same criticism; for, while it will be found that the dog-catcher has a specific entry to himself alongside the cost of "repairing old piano," which is similarly favoured, the bulk of the public works of the year paid for out of revenue, appear, or rather disappear, under the general headings of "Wages," "Cartage," "Material," and "Domain Quarry."

Q. 3842 *et seq.*

A Stock Account and Plant Account should be prepared annually, as the fluctuation of the stock in hand would form an important factor in enabling discriminating citizens to form some estimate of the system of municipal financial administration. It is an established axiom that, in dealing with plant, a proper depreciation account should be established, which should make provision for ordinary wear and tear, and also for renewal when the life of the plant is



exhausted. There is no evidence of any such sound system having been adopted in connection with the accounts of municipal plant.

[Before finally agreeing to that portion of our Report relating to the Accounts of the Corporation of Hobart, we decided to place the same before Messrs. C. H. Westwood and John Hayle, two experienced professional accountants, for their opinion as to whether the conclusions arrived at by us were sound, and in reply we received the following letter:—

Hobart, 8th August, 1901.

DEAR SIR,

As requested by you under your letter of the 7th August inst., we have carefully examined and gone through the portion of the Report of the Committee relating to the accounts of the Corporation of Hobart. We have satisfied ourselves from the published statements of Municipal accounts, and from the data supplied to the Commission by the City Accountant, that the figures contained in the Report are correct. We consider the deductions are fair, and the criticisms legitimate.

We have, &c.,

C. H. WESTWOOD.  
JOHN HAYLE.

J. K. REID, Esq., Secretary Royal Commission on Municipal Government of Hobart and Suburbs, Hobart.]

The position of the City Accountant seems, from the evidence, to be generally unsatisfactory. Q. 2039 et seq.  
He has no clerks under him, and no authoritative control of the Rates Office, which, so far as we were Q. 2382 et seq.  
able to ascertain, is without a responsible head.

The Director of Waterworks, who is also City Surveyor, has charge of what is described as “an amalgamated department—Waterworks and Public Works.” The whole of the waterworks are Q. 2037.  
under his charge, and he also has the control of the construction of all public works of the Corporation. We found that there was some uncertainty as to the extent of his duties as City Surveyor. It was stated that he had nothing to do with the inspection of places of public amusement, as to the prevention of overcrowding and the provision of proper means of escape in case of fire. Such Q. 2049.  
inspection is clearly recognised as one of the duties of the City Surveyor of Launceston. Q. 2081 et seq.

As to the licensing of places of public amusement, we found it difficult to ascertain where Q. 1960.  
the responsibility lay in Hobart. The Corporation is responsible for the issue of these licences. The evidence of the Town Clerk as to the mode of licensing was not clear: “What precautions Q. 1961 et seq.  
are taken in issuing them to ensure the public safety? Every precaution.” “Do you instruct an official, then—Mr. Milles, for instance—to go down and examine the place of amusement, and satisfy the Corporation that that place of amusement is properly provided with means of escape in such a contingency as I have named—panic from fire? No; I think the Health Officer generally goes round and has a look at it.” “Does the Corporation instruct the Health Officer to do it? No; I think he does it voluntarily, as a matter of course.” The Town Clerk further said, “Mr. Milles, I may say, has never taken any part in the inspection of any places of public amusement, and has never been asked to. It is not his duty.” We found, however, Q. 1971.  
that such inspection is clearly recognised as forming one of the duties of the City Surveyor of Launceston. From the evidence, we were unable to ascertain that there was any Q. 2081 et seq.  
systematic and thorough inspection of places of amusement in Hobart as to their safety, and the completeness of their appliances for escape in case of fire or other emergency. The Engineering Inspector of the Corporation, who is in the Health Department, considered that he had nothing to do with such buildings except as regarded their sanitation: the duty of inspection as to safety, Q. 1159 et seq.  
means of escape, and so on, fell to the department of the City Surveyor. The City Surveyor, on the other hand, stated that he only dealt with places of public amusement in special cases; he did Q. 1530 et seq.  
not examine them as to their safety and means of escape, nor as to the inflammable nature of the materials of which they might be constructed. As concerns buildings generally, there seems to be considerable confusion of authority as between the City Surveyor and the Health Department; and owing to this uncertainty we are led to the opinion that some necessary work is neglected or overlooked. Thus, the City Surveyor considered that there was a great number of buildings in the City which should be demolished, but he had not made any full report on these buildings, and he did not consider it his duty to do so without special instructions, except in cases of urgent necessity. He was not clear whether such matters came distinctly within the province of his department; in most cases he thought the matter would have to go before the Health Officer. Q. 1532.  
On a view of the whole of the evidence bearing on this point, we feel that there is reason to doubt whether the various responsibilities of inspecting buildings in the City are clearly apportioned, as between the City Surveyor's Department and the Health Department.

We found that there was further evidence of uncertainty when we came to enquire into the organisation of the Health Department. Dr. Gregory Sprott, the City Health Officer, is the nominal head of this department; but we have it in evidence that he is really attached to “a sort of duplicate department,” with the Engineering Inspector. “The Health Officer is the official head, and the Engineering Inspector is the actual head.” From this it would seem that there is Q. 2031.

- divided responsibility in this department, and in cases of emergency it is conceivable that friction might arise from difference of opinion between the "official" and the "actual" heads of the department. Under the Engineering Inspector are a sanitary Inspector—better known as the City Inspector, and already referred to as the holder of numerous offices—and an Inspector under the Health Act. The Engineering Inspector stated that proposals to relieve the City Inspector of some of his present duties were under consideration by the Council. The Health Department has charge of the whole of the sanitary service of the City. There is evidence that the whole duty of sanitary inspection cannot, however, be satisfactorily carried out by the two subordinate inspectors employed in this department; and an arrangement has been made with the Commissioner of Police, whereby the constables on duty in various parts of the City make a regular visitation of premises, the result of which is conveyed in a weekly report to the Town Clerk. This inspection by police constables has been systematised, and where the men are conscientious in the discharge of this duty, the inspection seems to be thorough within its limits; but, in face of this, the Health Officer affirmed, and the Engineering Inspector agreed, that "there is a necessity for a more rigid inspection of premises and back yards." "The trouble is really," said the Engineering Inspector, "that we have not a sufficient staff to enable us to cope with all the nuisances that are reported by the police." With this statement the Mayor of Hobart agreed. Some two months ago, the constables employed in this duty were withdrawn (we understand temporarily) to assist in the collection of the dog tax. The Health Department is responsible for the supervision of existing buildings and buildings in course of erection, as to all matters connected with sanitation; but there is evidence that the work of preparing and supervising plans for new buildings takes up the time of the Engineering Inspector, and leaves him little leisure for other duties. He admitted that there was room for improvement in the administration of the Health Act. The evidence shows that the internal administration of this department is not entirely satisfactory. The City Inspector, who is a subordinate officer, can forward notices to ratepayers who may commit breaches of the By-laws—such as illegal accumulation of rubbish, and so on—without making any report of his action to his departmental heads. On the other hand, it was stated in evidence that if this officer noticed a bad gutter "he would either mention it" to the head of his own department, or to the City Surveyor, who is the head of a different department altogether. Various witnesses stated that certain gutters in the City were offensive in the hot months; but during last summer, the City Inspector made no report to his department regarding any such gutters.

After full consideration of the whole of the evidence, we are led to the conclusion that there is room for improvement in the organisation of this department. Under existing circumstances, the Health Officer—who is a medical man of high professional attainments, holding the Diploma of Public Health—has no thorough or absolute authority in the administration of the department he nominally controls. The present system of sanitary inspection has certain grave defects. A large part of it, as pointed out above, is carried out by men who are not under the control of the department, who are likely at any time to be removed from Hobart, and who have neither special knowledge of the Municipal by-laws, nor special training in sanitary matters. Apart from that, the Health Department may be deprived altogether of the services of these constables at any time, should the Commissioner of Police decide that it is not judicious that the system of police inspection should continue. The evidence points to the fact that in Hobart, where there is no modern system of deep drainage, where the Corporation does not undertake the regular removal of house garbage on an effective system, and where the gutters, very infrequently flushed, are in many cases imperfect as to construction, and in some cases dangerous to the public health, the duties of inspection, if properly fulfilled by the health authorities, could not fail to be very heavy, and could not possibly be carried out by a small department under divided control, and otherwise imperfectly administered. The heads of the department admit that their staff is not adequate to deal with the nuisances now reported, whilst admitting at the same time that the present system of inspection needs improvement. Improved inspection would obviously mean, at the outset, more frequent reports of nuisances.

In Launceston the ordinary conditions are more advantageous, and the system of sanitary inspection more thorough. When the Health Officer learns of any nuisance that constitutes a menace to the public health, he at once serves a notice on the landlord of the premises on which the nuisance exists. If the cause of complaint is not remedied in three days the necessary repairs are carried out by the Corporation at the landlord's cost. In Launceston, the authority as to the supervision of buildings for purposes of public amusement is clearly regarded as extending both to the department of the City Surveyor and the Health Department. If the City Surveyor reported unfavourably on any building as to "width of door exits, means of escape, staircases, ventilation, means of lighting," the licence would not be issued. The Health Officer, while considering that the whole matter comes properly under the department of the City Surveyor, believed that, with regard to buildings already constructed, he had power to intervene in case of any breach of the law. Thus, if his attention was called to a defect in any such public building, he would visit it; and if he found the means of escape inadequate on inspection, he would have the place closed up.

Q. 2032.

Q. 1083.

Q. 2487 et seq.

Q. 1082.

Q. 1084.

Q. 3574.

Q. 3872.

Q. 1128.

Q. 1433 et seq.

Q. 1438.

Q. 1439.

Q. 3134.

Q. 2967.

Q. 2986 et seq.

Q. 3146.

Q. 3148.

Q. 3152.

As to the general condition of municipal organization in Hobart, evidence was given by Mr. George Steward, recently Under Secretary of Tasmania, and sometime Town Clerk of Hobart. When he became Town Clerk he made a full enquiry into the working of the whole of the departments, and found the state of things unsatisfactory. He said: "When I say unsatisfactory, I should perhaps say that their system of what I may call decentralisation had been in existence for some considerable time, and that fact in itself had certainly weakened and hampered the administration of affairs generally—weakened them, that is, to the extent of placing the affairs of the Council under the severed control of about half-a-dozen officers in the place. I may say at once, that when I first went there I had very great difficulty in ascertaining exactly what I had to do. I found that there was no such thing as a Town Clerk in connection with the Corporation, as I understood the functions of a Town Clerk. . . . I found that the duties of the Town Clerk, as I understood those duties, were very largely carried out in Hobart by the aldermen. If I wanted any information on a particular point in connection with my duty, or in the discharge of it, I must confess that I sometimes had considerable difficulty in getting it. When I spoke to some of the officers of the Corporation I was met with such remarks as, 'This does not belong to you,' or, 'This is a professional matter, and as such, of course, it does not come within the scope of your duties or cognizance as Town Clerk.' " On this he attempted to put into force existing regulations, which provided that "The administration of the Council's affairs in the whole of the departments was in the hands of the Town Clerk," and that "The officers were distinctly called upon to render every assistance they could to the Town Clerk," and he met with considerable "antagonism and opposition" from other officers of the Corporation. He started a series of reports upon the management of municipal affairs, but the aldermen gave his first report scant attention. He found that the Director of Waterworks was in daily direct correspondence with consumers, exercising the power of refusing or granting applications as he thought fit. The Town Clerk knew nothing of what was going on in the office of the Director of Waterworks. Mr. Steward's efforts to bring about a better state of things aroused "antagonism"—active antagonism from the officers concerned, "silent antagonism" from the aldermen. He found that no record of correspondence was kept; "the whole administration of the Council was decentralised." The Committee meetings were conducted in an unusual manner: the Committee-book never signed: the minutes very imperfectly kept. "The Town Clerk was simply ignored by everybody." During the meeting of one committee he was told by the Chairman, "That will do, Mr. Town Clerk; the rest of the business is of a confidential character." The condition of things, in short, made it necessary for him to leave the Town Hall as quickly as he possibly could.

Q. 2247.

From the evidence of Mr. Steward, and from the general tendency of the evidence given by a number of other witnesses, we are drawn to the conclusion that there is urgent need of a scheme of reorganisation on modern lines in the Municipal offices. At present it is clear that certain of the officers are not precisely familiar with the exact nature and scope of their duties; while one officer—the Town Clerk—does not or is not permitted to exercise the full and proper responsibilities of his position. The rule that all communications on Corporation business shall go through the Town Clerk, although recognised, has apparently never been fully enforced. The Mayor has recently drawn attention to the regulation relative to the matter of enquiries, objecting to the action of certain aldermen who had gone for information direct to the departments; but there is evidence that the Mayor himself communicates directly with the various officers of the departments, and sometimes without the knowledge of the Town Clerk.

Q. 3584.

Qs. 2881;  
3588.

Administrative methods vary in the suburban Town Board districts. At New Town there are two permanent officers: a Secretary, who is also Secretary of the Town Boards of Mount Stuart and Moonah; and an Inspector, who is not controlled by the Secretary or answerable to him, and who also discharges the duties of Overseer of Works. Up to the present, sanitary methods have been imperfect in New Town; but it is now proposed to establish a duplicate sanitary system, under the control of the Town Board. From the evidence, we are of opinion that sanitary inspection at New Town is somewhat imperfect and desultory. The Chairman of the New Town Town Board stated that dairies were inspected quarterly, and that it was expected that the Inspector should visit all premises in the district at least twice a year; but he was unable to say definitely whether this was done, and he was uncertain as to what became of a part of the drainage from certain slaughter-houses. He admitted that nuisances had been made a subject of public comment in the district before the Inspector knew that there was cause for complaint. Slaughtering is carried on at New Town, within two miles of Hobart, in contravention of the law, but there is no evidence that any action to prevent this has been taken. The Queenborough Town Board has improved its system of sanitary inspection by securing the services of the City Health Officer, who now has general charge of sanitation in Queenborough as in Hobart. The Glebe Town Town Board employs a secretary and collector, who receives a small emolument. A member of the Board acts as Honorary Inspector. From the evidence it appears that the duties of inspection at the Glebe are light, as the district drains naturally into the Park-street Rivulet, which is controlled and supervised by the City Corporation at the cost of the ratepayers of Hobart. At Mount Stuart there is a Secretary, who is the only permanent officer of the Board. This Board also has overcome primary difficulties of inspection by making formed gutters to the City boundary, and there discharging sewage for the

Q. 3710 et seq.

Q. 3689 et seq.

Q. 3759.

Q. 3747 et seq.

Q. 3755.

Q. 3345 et seq.

- Q. 3389. Corporation of Hobart to deal with. At Moonah there is no sanitary inspection at all. There is a Secretary (also Secretary of New Town and Mount Stuart Town Boards), a Treasurer (to whom £5 was given last year), and a Collector (who works on commission).

### TRAMWAYS.

The construction, condition, and maintenance of the Hobart Tram system were enquired into at some length. We ascertained that the lines were in a defective state; that the track had been badly constructed; that the permanent-way was not properly maintained; and that the financial position of the company was such as to preclude any hope of improvement. We found that, although the Corporation had ample powers to compel the Company to maintain the tram-lines and streets, in accordance with the provisions of Sections 11 and 16 of the Act authorising their construction and working (The Hobart Tramway Company Act, 48 Vict., *Private*), yet no serious attempt had ever been made by the "local authority" to enforce the provisions of those sections, which provide that:—

"The tramway shall be constructed on the gauge of Three feet Six inches, and shall be laid and maintained in such manner that the uppermost surface of the rail shall be on a level with the surface of the road. (Sect. 11.)

"The Company shall at their own expense at all times maintain and keep in good condition and repair with such materials and in such manner as the local authority shall direct and to their satisfaction so much of any road whereon any tramway belonging to it is laid as lies between the rails of the tramway and so much of the road as extends eighteen inches beyond the rails of and on each side of any such tramway . . . . . Provided always that if the Company fail to comply with the provisions of this Section the local authority if they think fit may themselves at any time after seven days' notice to the Company open and break up the road and do the works necessary for the repair and maintenance or restoration of the road to the extent in this Section above mentioned and the expenses incurred by the local authority in so doing shall be repaid to them by the Company." (Sect. 16.)

- Q. 2176. The City Surveyor stated in evidence that the tram-lines were really, in a "miserable condition;" that no attempt had been made by the Corporation to enforce the provisions of the foregoing sections of the Act; and that he himself regarded Section 16 as of vital consequence.
- Q. 2178. The City Surveyor further stated that the tramlines had not only not been maintained in a fit and proper condition, but that he had explicitly reported the facts to the Mayor. He did not think that this report was ever given to the public through the Press. In this report, dated 7th August, 1899, two years ago, the City Surveyor stated that "owing to its peculiar construction and the heavy weight of the cars, it has not proved a success; with the result that repairs are continually being effected by relaying damaged rails and in repacking the sleepers, &c., which in some places has brought the tramway higher than the adjacent roadway. On inspection I find that in several places the space between the rails is 25 to 50 per cent. wider than that originally agreed upon, and by reason of the light nature of the rails and insufficient foundation, the running rail has sunk much below its guard-rail, thereby offering considerable danger to vehicular traffic." And in reply to questions the City Surveyor informed us that during the last two years he had deemed it useless to make any further report on the subject, as the report of the 7th August, 1899, was still in existence, and the condition of the lines to-day was practically the same as when he made the report, while all the facts were well known to the members of the various Corporation committees. He further stated that he went into the matter at the time when he made the report, and the only way he could see out of the difficulty was to "put down a complete new permanent-way throughout, and to improve the rolling-stock." The report above referred to was brought before the Public Works Committee of the Corporation, who referred it to the Tramway Company "for the Company's view on the matter." Twenty-one months afterwards, on the 2nd of May, 1901, the Mayor received a letter, written by the local Engineer and Manager, Mr. Parker, in which the Mayor was assured that he could "rely upon the permanent way of the tramway being maintained and improved to the fullest extent that is consistent with the financial position of the Company." And there the matter seems to have ended. The City Surveyor was asked:—"Then practically your report has been burked, so far as any practical issue is concerned?" He replied:—"Well, there is no outcome of it that I know of, so far as I am concerned." The Town Clerk stated:—"We have at times served notices on the Company to carry out certain repairs, and, as a general thing, we get back the answer, 'We have no money to do it at present; wait until next month,' or, it may be, 'next quarter.'" And in reply to another question, he said that, as a traveller on the trams, he did not consider that the lines were properly maintained. From the evidence it appears to us that the present defective condition of the tramlines and streets of Hobart is primarily due to the inactivity of the Mayor and Aldermen, and their neglect to exercise the powers conferred upon them by Sections Eleven and Sixteen of the Tramway Act, and in the next place to the adoption of a bad system of permanent way, as well as to the faulty construction of the lines.

- Q. 2613. The Tramway Engineer and Manager informed us that the total receipts for the three years 1898, 1899, and 1900, amounted to £41,161, and that the total expenditure for the same period was
- Q. 2615.

£41,028, or an average profit of £44 6s. 8d. per annum ; so that it had not been possible to pay a dividend. This profit was earned on a capital of £45,135.

The Tramway Engineer ended by agreeing that the time had arrived when something should be done in regard to getting new rolling-stock and putting the lines in proper order, stating that, "If the Company want to declare dividends, and make the thing pay, they certainly must do it. I myself have written to my Board at Home advising them to do it, because I believe the traffic would increase 25 per cent."

Q. 2632.

It is noticeable that in the Hobart Tramway Company's Acts, no provision exists for an adequate service, nor for the due maintenance of the rails and rolling-stock.

GREATER HOBART.

The next point that engaged our attention was that part of our Commission which related to the area covered by the Municipal Government of Hobart. We found that in Hobart and its suburbs there are nine local governing bodies, who are entrusted with the management of the Municipal affairs of 32,123 people. These bodies are the Corporation of Hobart, and the local governing bodies of New Town, Glenorchy, Moonah, Queenborough, Glebe, Mount Stuart, Bellerive, and Beltana, and their respective populations, according to the last census (April, 1901), were as under:—

Appendix R.

City of Hobart.....	24,654
New Town.....	2,314
Glenorchy.....	578
Moonah.....	732
Queenborough.....	1,821
Glebe.....	694
Mount Stuart.....	523
Bellerive.....	653
Beltana.....	251
Total.....	32,220

Each of these governing bodies has its separate Mayor or Chairman, Aldermen, or members of Town Boards, its Town or District Clerk. We came to the conclusion that a considerable saving in labour and expenditure could be effected if the suburbs immediately surrounding Hobart, some of which, sooner or later, will come under the jurisdiction of the Metropolitan Drainage Board, could be induced to unite for certain purposes under one Municipal administration. These would comprise Hobart, the whole of New Town, Queenborough, Glebe Town, and Mount Stuart, having together a population of 30,000 people out of the total population of 32,220, and leaving out for the present the more distant and sparsely-populated suburbs of Glenorchy, Moonah, Bellerive, and Beltana. If these bodies could be amalgamated under one administration, the troubles arising from the drainage of one district into the area of another, the irritation in the suburbs in respect of differential water rates, and other causes of conflict, would cease.

The unification of Hobart and the local bodies of the immediately surrounding districts would also clear the way for the adoption of an uniform system for the collection and disposal of household refuse, for the construction of modern abattoirs and destructors, and for concerted action as to the proper conduct and maintenance of the Hobart tram system.

It has been found that there is no uniformity in the mode of sanitation of Hobart and its suburbs; that trouble has arisen in consequence, as has already been indicated ; and that the power of inspection of each of the Municipal bodies ends at its boundaries.

The Town Clerk, when under examination, made the following statements with regard to drainage:—

"In the case of Mount Stuart . . . the drainage of 50 or 60 houses is dumped into a dug-out at their boundary. By that means they get rid of their responsibility, passing their filth on in such a way that the Aldermen of Hobart have to do the work that properly belongs to an outside Board. Q. 2013.

"The Corporation has been 'got at' over and over again by these small surrounding Boards, and in cases of conflict the outside Boards always seem to come out on top. Q. 2018.

"We have always objected to Glebe Town sending the whole of its filth through the City at prohibited hours. At ten o'clock at night you will find their carts going through the town. If we could compel them somehow to let our sanitary service do the whole of the work we could do the whole lot—New Town, Mount Stuart, Queenborough, Glebe Town, and the rest—with the same amount of supervision that we have now, and without nuisance or dissatisfaction to anybody. Q. 2019.

"Glebe Town drains directly into Hobart main sewer—so does Wellesley ; and so does a lot of Leslie, Queenborough, and Davey-street, by the Wellington Rivulet." Q. 2010.

Q. 3208. The Hon. C. H. Grant, on being asked if the Glebe Town Town Board had any difficulty with regard to its drainage, said, "No; we have no difficulty. The drainage of Glebe Town is discharged into the Park-street Rivulet, and we have availed ourselves of that right of natural drainage to put our sewage into that rivulet; perhaps we have not done so legally, but we had no option—it was the only possible means of getting rid of the sewage."

Q. 898. There is no general system of inspection of any sort outside the jurisdiction of the City. Except at Queenborough there is no inspection of suburban dairies. At New Town there is an Inspector who "visits all properties and back yards, and, if there is any complaint, he lays it before the board." At Moonah, on the other hand, there is no system of inspection whatever. At the Glebe there is an Honorary Inspector. The Queenborough Town Board has availed itself of the services of Dr. Sprott, the City Health Officer; but, with this exception, none of the suburban Boards possess a qualified professional officer. The absence of an uniform system of disposal of nightsoil, and the fact that this service is carried out in different localities by different small contractors, suggests that an improvement might be effected throughout the whole area covered by the City and its suburbs. At Queenborough there is a contractor who works privately, and who is not under the control of the Board. He removes all pans under his contract; but the service is not compulsory, is very insufficient, and not by any means general. The Queenborough Town Board proposes to enter into a contract with the Hobart Corporation for the carrying out of this service; but it is proposed that the service shall be confined to that part of the town which the Medical Health Officer requires to be so served; it is not proposed to make it a compulsory service. Q. 914. Certain defects are inevitable in the carrying out of this work by a number of small scattered bodies, and the action taken by the Queenborough Town Board indicates that this fact has already been recognised in that district. It is obvious, after perusal of the whole of the evidence given on this subject, that a service carried out by a central body, governing a large area and population, could be made more efficient; and that it could afford to adopt more modern means as they from time to time became available, while the adoption of such a scheme by a central body would be less costly to all the ratepayers concerned than would the carrying out of numerous kindred schemes by small boards working under separate control. It was generally admitted by the representatives of the suburban bodies that the suburbs and the City are mutually concerned in each other's health, and that an outbreak of disease in the suburbs is as much a danger and a loss to the City as if it occurred in the City itself, and *vice versa*. This appeared most clearly when we took evidence in regard to questions of drainage. Mount Stuart, New Town, and the Wellington Hamlets all drain into the City, and no scheme of metropolitan drainage could be really adequate and efficient which did not include these districts. An instance of the dangers arising from the present system is that, outside the City area, there is no proper provision for dealing with cases of typhoid. Quite recently an application for a typhoid-pan came to the City Corporation from the lower part of Sandy Bay; and the City Corporation found itself obliged, in the interests of the public health, to offer to remove the pan daily, free of cost, just as if the fever case had occurred within the City. The Hobart Corporation employs an Engineering Inspector, with two assistants, for the purpose of inspecting and supervising all drainage and sewerage work, including connections between private houses and public drains, the removal of rubbish, the inspection of buildings and of dairies, fish shops, fruit shops, butchers' shops, bakers' shops, milk coming into the City, and fruit sold therein. Q. 938.

From the evidence, we are of opinion that there is here the nucleus of a department which, if its scope were enlarged so as to cover the suburbs, would be able to supervise the sanitation of the larger area in a uniform way and upon a definite plan, varied only by the necessities of the different localities. This department would be able to dispose of the difficulties now arising from the drainage flowing through the City from the suburbs. The open creeks, which run through the City, and which have been such a fertile source of complaint and of disease during the last few years, are partly fouled by sewage from the suburbs. Under the existing system of separation the suburbs contribute nothing to the cost of maintenance and supervision of these creeks or sewers. It appears plain, also, that no system of underground drainage which is confined to the City can ever be effective. The jurisdiction of the Metropolitan Drainage Board is likely, eventually, to cover the City of Hobart, Glebe Town, Mount Stuart, New Town, Queenborough, Leslie, and Wellesley.

As to water, it was generally agreed that the supply was as much in need of central supervision as is the matter of drainage. The Corporation of Hobart at present supplies water to Hobart, Queenborough, Lower Sandy Bay, Wellington Hamlets, New Town, Mount Stuart, and Glebe Town. Much complaint has arisen from the fact that the suburbs pay higher rates than are paid in the City for this service, and we found that the representatives of the governing bodies in these localities, as well as those of Bellerive and Beltana, were in favour of the creation of a central body to administer the whole of the water system. On the other hand, a suggestion was made that the City of Hobart should sell water to the suburbs by meter, leaving them severally to deal with reticulation. Q. 944. Q. 963. *et seq.*

The debt upon the present waterworks amounts to £177,700, and it was pointed out by the Chairman of the Queenborough Town Board, that the consumers residing in the suburbs are

morally liable, jointly with the City, for this debt, and possibly legally liable; and that, therefore, they regard themselves as having an undoubted right to representation on the body administering the waterworks system. The suburbs are, to a slight extent, more interested than the City in obtaining a copious supply of water for gardens, inasmuch as the number of gardens in proportion to houses is greater in the suburbs. The Chairman of the Beltana Town Board stated that joint meetings of representatives of Beltana and Bellerive had been held with a view of making arrangements for an adequate water supply for those districts, but that the delegates disregarded the proposals made to them as not being satisfactory, seeing that, probably, sooner or later, a comprehensive system of supply would have to be established for Hobart, in which Bellerive and Beltana could share. It appears that water could be taken across the Derwent without any great difficulty, and Bellerive and Beltana thus brought within the Metropolitan water area. Both at Bellerive and Beltana the present water supply is that obtained by the inhabitants from the roofs of their houses. So far as the area supplied by Hobart with water is concerned, the Director of Waterworks and his staff already govern the whole of it, and as regards water supply, there exists already a Greater Hobart, with the important omission that the suburbs are not represented on the governing body.

### RECOMMENDATIONS.

Having thus summarised the evidence, and described the course of our proceedings, we desire to say, at the outset, that we found we had accepted no light task when we undertook an enquiry of so detailed and exhaustive a character, and that, owing to the fact that two members of the Commission had their time otherwise occupied, we were deprived of the services of the Hon. E. Mulcahy, who did not attend any of our meetings, and, to a large extent, also, of the services of Mr. J. G. Davies, who was able to be present at only two meetings, but who subsequently attended as a witness, and gave evidence before the Commission. It need hardly be said that we have, none the less, endeavoured to make the enquiry as full and far-reaching as possible; and having now completed our survey of the evidence, we desire to report to Your Excellency the general conclusions which this survey suggests, and also, to submit certain recommendations for legislative and administrative action:—

1. We are of opinion that, in view of the growing population of Hobart and its suburbs, and in view, also, of the necessity for providing an ample supply of water for the proposed system of underground drainage, and for the daily flushing of the malodorous cobblestone gutters of the City, the time has arrived when steps should be taken to procure an abundant and never-failing supply from some other than the existing sources; and we have been driven to the conclusion that the River Styx should be adopted as the source of the future supply of Hobart. This would release the watershed of Mount Wellington from the present restrictions as to the erection of a sanatorium, of hotels, and of other residences, and the whole mountain would be available to tourists and others for all time.
2. We recommend that the Government should make provision without delay for a preliminary survey of a line of pipe-track and aqueduct-channel, from a point on the River Styx, sufficiently far up to give the necessary elevation for the intake, so that a fairly accurate estimate might be made of the cost of the undertaking.
3. We further urge the immediate reservation of all the Crown lands on the watershed of the Styx, above the proposed point of intake, there being at the present moment no private ownership of land on either side of that river within any portion of that watershed. The importance of this factor in securing a pure water-supply can hardly be over-estimated, and it can be said with the utmost confidence that no other city in the Commonwealth is so advantageously placed in this respect, there being no habitation whatever on the whole course of this river from the proposed point of intake to where it rises high up on the western slopes of Mount Weld. The importance of securing such a magnificent water-supply for Hobart and its suburbs, not only for sanitary and domestic and other purposes, but also for the irrigation of suitable lands in the Derwent Valley, cannot be questioned; and if this work were to be undertaken and carried out in conjunction with the proposed scheme of underground drainage, it would make Hobart the cleanest, healthiest, and most attractive city in the Southern Hemisphere.
4. We have been led to the conclusion that it is of the highest importance that the control and management of water supply and underground drainage should be in the hands of one administrative body, as is the case elsewhere. In Melbourne, for example, the Metropolitan Board of Works has the sole control of these two important departments—departments which are so closely allied that they will not admit of any separate or divided responsibility in their administration, if proper regard is to be had to the interests of the public or to efficiency and economy in management and working. We therefore recommend that in the event of the approaching Poll of the Citizens of Hobart resulting in the adoption of a scheme of underground drainage, the Government should bring a Bill before Parliament on similar lines to the Acts now in force in other



States for the formation of a combined Drainage and Water Trust. In this event it would be necessary for such a Trust to acquire the existing Hobart Waterworks from the City Corporation, either upon valuation or upon such other equitable terms as might be hereafter determined.

5. We are of opinion that the Government should regard this question of the water-supply and sanitation of a Greater Hobart as a subject of national importance, and that it should be prepared to assist any Trust that may be formed to carry out the very important and onerous duties committed to its charge.
- 5A. We find from the evidence that there are many premises where a quantity of water is consumed for various purposes, in excess of what would be a reasonable quantity in proportion to the rates paid by the occupiers. We recommend, therefore, that the meter system be applied to all but premises of the annual value of £20 and under, where water is used for domestic purposes only. The water rate collected from all other premises would then, in no instance, be less than the price of the water consumed. This arrangement would tend to increase the revenue and to lessen the waste which now occurs, and at the same time would throw the burden upon those who have the greatest benefit from the general supply.
6. We are of opinion, from the evidence, that in the City of Hobart the present methods of disposing of faecal matter are imperfect, dangerous, and otherwise objectionable. We are strongly of opinion that the use of cesspits, in any circumstances, should be abolished. It is manifest to us that the water-closet system, wherever used in connection with an adequate and effective system of sewerage, lowers the death-rate from zymotic diseases, and improves the general health of a community. No such benefits can, however, be held or expected to result from the use of water-closets as such are at present installed in Hobart; because no measures are taken to do more in connection with these than to discharge the sewage flowing from them into the nearest creek. These creeks are dignified by the name of rivulets, but in fact they are, with one exception, unformed ditches, winding through populous parts of the City and suburbs, and in summer time containing but little running water. The one exception is the Hobart Rivulet, which at one time was formed for a portion of its length, but the bed of which is now becoming so broken and uneven that it can no longer be classified even as an efficient open sewer.
7. We are of opinion that, next to the filthy method once common in Hobart, of running the contents of all privies into cesspits in the town, nothing is more likely to prejudice the public health than the system now prevailing in and about Hobart, of discharging the contents of hundreds of water-closets into dug-out gutters and sluggish open drains, that wind among private houses and alongside and under public streets. It is, therefore, desirable that, until some complete and general system is established of dealing with the drainage of Hobart and its suburbs, means should be taken to convert these drains into properly constructed sewers, and to provide for effectually flushing them. Failing this, the use of such water-closets should be forbidden by a by-law of the Corporation.
8. We find that earth-pans are in general use, both in the suburbs and the City. This system is safe in theory, but in practice we have to deal with a large section of the public who do not take much interest in keeping the pans clean. Householders who go to their work early in the morning and get back at night practically never see the pan. Children who use it throughout the day will not use earth. Therefore, such householders cannot be expected to take much, if any, interest in the state of affairs. The existence of cesspits, the discharging of water-closets into ditches, and the inevitable imperfections of the pan system together furnish sufficient reason for the fact that the death-rate from typhoid fever is considerably higher here than in the other capital cities of Australia, notwithstanding that the general mortality of Hobart is lower than that of almost any other town of similar size.
8. We find that, in addition to these menaces to the public health, there is yet another scarcely less harmful, namely, the universal practice of discharging bedroom and household slops direct into the nearest cobble-stone gutter in the public street, thence to find a way alongside the footpath into one or other of the so-called rivulets of the town. These gutters are so made as to present an uneven surface, with thousands of interstices where drainage can lodge, and become breeding-grounds of fever, diphtheria, and like diseases. Should sufficient water be available to flush and cleanse such gutters two or three times a day in the hottest months of the year, they would still be a source of danger to the public health. But, as a matter of fact, they do not get any such frequent cleansing, as water can seldom be spared for that purpose. We are informed that there are twenty-two miles of these wet cobble-stone gutters in Hobart. In some of the suburbs they have been made even, and much improved, by the addition of a thin coating of tar-asphalt. We recommend that, wherever the streets have only a



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slight fall, these cobble stones should be removed, and replaced, in most of the streets, by such light concrete guttering as is now used in Launceston for that purpose, and which costs from about £2 15s. per chain, exclusive of the 6in. outside kerbing, costing about £2 a chain. A heavier pattern would be necessary in streets where there is considerable traffic. In Hobart and many of the suburbs the streets are mostly of a good gradient, and we recommend that the practice in force in Launceston of running tar down the cobble-stone gutters in such streets, and thickly sanding them, so that the sand and tar get into the interstices, and make a fairly even surface, preventing the drainage from lodging in such gutters and becoming a nuisance, should be adopted.

9. We are led to the conclusion, after hearing the evidence dealing with the present condition and the imperfect and unhealthy sanitation of Hobart and its suburbs, that the time has arrived when some uniform and effective scheme should without delay be instituted for dealing with the sanitation of as large a central area as possible. The necessity of such a change has, on frequent occasions, been advised by Dr. Gregory Sprott, who says that the experience of every city has been that a lowering of the typhoid death-rate follows the establishment of an underground drainage scheme; and that such a scheme, apart from the paramount consideration of public health, would be capital well invested.
10. We recommend that the means of preservation of the general health of the Metropolitan area, including the inspection of premises, the establishment and supervision of abattoirs and destructors (the erection of which we regard as urgently necessary), the removal of rubbish and other similar functions be assigned to the Water and Drainage Board, inasmuch as the present lack of uniformity causes, and will continue to cause, inefficient administration all round, and in some places a total neglect of the most elementary precautions.
11. We have to report from the evidence on the present condition of the Hobart Tram system, and from our own personal inspection of the lines, that the permanent way is in a most defective state, and that the Corporation of Hobart does not seem to have made any serious attempt to compel the Company to carry out the provisions of the Act requiring it to efficiently maintain the streets between the rails, and for the prescribed space of eighteen inches on either side of the outer rails. We consider that the Corporation has failed to carry out its duty to the citizens, with the result that the public have to put up with an extremely bad service, and that the unevenness and irregularity of the spaces between the guards and running-rails are a standing menace to the safety of vehicular traffic. The whole system is undoubtedly a discredit to the community. The permanent way, which is of an unsuitable and obsolete character, requires removal and relaying with proper steel tramrails of a modern pattern. The original capital of the Company is exhausted, and there does not seem to be any hope of the reconstruction of the line from that quarter. After paying working expenses and interest on debentures, the profits of the trams for the past three years have averaged £44 6s 8d.; so that the property, as it at present stands, is of little or no value, and year by year its condition is becoming worse, both in regard to its permanent way and its rolling-stock. In Sydney the street trams are the property of the Government, are worked by it, and are paying extremely well. We believe that if the Government could acquire the Hobart Tram system at a reasonable price, it would be to the best interests of the community for it to do so. The lines reconstructed in accordance with modern ideas, could be carried to the wharves and connected with the Railway Station, and would, we believe, ultimately bring in a good return.
12. We have carefully considered the evidence relative to the present methods of Municipal administration in Hobart, and we are forced to the conclusion that there is urgent necessity for improvement in the organisation of the various departments. We think that the duties of the Corporation officers should be rigidly defined and scrupulously performed; it should not be possible for a responsible officer to say, as the City Surveyor said in evidence, that he considers a large number of buildings in the City should be demolished as unfit for human habitation, but that he has made no report to the Council on the matter. This is only one instance; but it is sufficient to illustrate this point. We feel that it is necessary to good municipal government that each officer shall be intimately acquainted with the exact scope and limits of his duties, and on that knowledge shall discharge his whole duty fearlessly and impartially, without reference to the Mayor or Council in ordinary cases. If the City Surveyor, who is responsible in this regard, considers that any building should be demolished, he should at once, and as a matter of routine duty, recommend and give reasons for its demolition. And so in other matters, with other responsible officers of the Corporation.
13. We are of opinion that, as concerns the inspection of buildings, the present position of things is undesirable, and not conducive to the public health and safety. We found

it difficult to get precise and authoritative information from witnesses when we came to examine them under this head; but the duty of inspection of buildings is apparently allotted to two departments of the Corporation, and the responsibility is not perfectly understood by either. With regard to buildings used for purposes of public amusement, the position seems to us to be serious and disturbing. We went to considerable trouble in examining witnesses on the matter, but we have been unable to discover that there is any uniform and regular inspection of such places; and it has been made plain to us that the various officers of the Corporation are uncertain as to which department the duty of such inspection properly belongs. From the evidence, we think that it is necessary that all buildings used for purposes of public amusement should be under the strictest municipal supervision as to their sanitation, their means of escape in case of fire or other accident, and their general safety and convenience. The City Council does not seem thus far to have recognised the importance of this duty.

14. We found an unsatisfactory state of things existing when we proceeded to enquire into the organisation of the Health Department. Owing to some reason not made plain to us, this Department is at present under the dual control of the City Health Officer and the Engineering Inspector; and we were unable to ascertain which of these officers would be held responsible in case of serious emergency. We are of opinion that such a department—the department most immediately and intimately concerned in the preservation of the public health—should be under the sole charge of one responsible officer, who should be directly answerable to the Mayor and Council through the Town Clerk. The whole duty of inspection in matters of sanitation and drainage, and in other important matters already enumerated, falls to this department. The detail routine of such inspection is not the duty of the City Health Officer, nor of the Engineering Inspector, whose time is fully occupied with larger matters, requiring greater skill. Of the two subordinate officers employed in the department, one is overloaded with conflicting duties, and frankly admits his inability to satisfactorily discharge the duties of inspection. Practically, the whole work of sanitary inspection is done outside the department by unskilled men who are not under its control. Such inspection by police constables may cease at any moment, and, as a matter of fact, did cease temporarily some weeks ago; and we are persuaded that the work of the Health Department can never be thoroughly efficient and satisfactory to the citizens until the organisation of the department is so improved and extended that the whole duty of inspection is placed in the hands of competent men answerable directly to the department. We are compelled to the belief that at the present time the duty of inspection is at the best carried out intermittently and imperfectly; while at certain times it is in great part neglected. The measures taken for the inspection of milk, in particular, are so incomplete that the door is open to many dangerous abuses, and we therefore recommend that the system obtaining in Launceston be adopted in Hobart.
15. We believe that a great many of the defects of the present Municipal administration in Hobart are directly or indirectly due to the fact that the Town Clerk has never occupied his proper position as the permanent head of the Corporation staff; and we are of opinion that this officer's position and responsibility should be at once definitely recognised and secured. The state of things cannot fail to be prolific of undesirable results when the Mayor discharges some of the proper duties of the Town Clerk, and even upon occasion communicates (as do also some of the aldermen) directly with the departments of the Corporation without the Town Clerk's knowledge. We find that, by a further anomaly, the Town Clerk, whose duties are not concerned with finance, is also styled City Treasurer. He signs all cheques, but apart from that there is nothing to warrant the title. We think that the City Accountant should be appointed City Treasurer, and should at once assume the proper responsibilities of that position. We think that all communications between the Council and its officers should go through the Town Clerk.
16. We learned with some surprise that under the present system of administration the City Accountant works apart—a curiously isolated officer. His department consists of himself. He has no staff, and no real control, even of the Rates Office, over which branch, however, he exercises a sort of supervision. The position of this officer seems to us to be peculiar. We have a City Accountant with no staff, a Rates Office with no official head. The Accountant's position is rendered more difficult and unsatisfactory by reason of the fact that the Corporation accounts are kept in a fashion so imperfect and misleading that, as we have already pointed out, it is practically impossible for any observer to form a clear idea of the financial position of the Corporation. The Accountant apparently holds the position of a subordinate. He is of opinion that he has no power to challenge any item of expenditure, however illegal and undesirable he may regard it. This we consider unwise and improper. The Accountant should be made City Treasurer, and should be forthwith entrusted with all the duties and responsibilities of that office, including the control of the Rates Department.

17. We think that the method now followed in the election and retirement of the aldermen is defective. It appears to us that the affairs of the Corporation are not administered to the best advantage of the community, and that it is impossible to radically alter the condition of affairs under the present system of piecemeal retirement of aldermen. It would be more in conformity with the interest of the citizens if the whole of the aldermen retired at the same time. Further, in view of the fact that the Mayor exercises such large administrative powers, we think it would be advisable, in the public interest, that he should be directly elected by the citizens.

R. C. PATTERSON, *Chairman*.

HERBERT NICHOLLS, *Vice-Chairman*.

W. B. PROPSTING.

WILLIAM A. GUESDON.

JOHN HAMILTON.

J. K. REID, *Secretary*.

*Committee Room, House of Assembly,*  
13th August, 1901.

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## EVIDENCE.

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WEDNESDAY, FEBRUARY 13, 1901.

ROBERT S. MILLES, C.E., *called and examined.*

Mr. Milles was sworn.

1. *By the Chairman.*—Your full name, Mr. Milles? Robert Sydney Milles.

2. What are your positions under the Hobart Corporation? Director of Waterworks, City Surveyor, and Building Surveyor.

3. We have asked you to come here this morning, Mr. Milles, in order that we may deal, principally, with formal matters, in the absence of the Mayor of Hobart, who is a member of this Commission. Have you brought in all the documents we asked for, and the reports? I have brought some, Mr. Chairman; but it has been rather short notice you gave me to get them together into any order which I think would be suitable for presentation to this Commission.

4. Well, perhaps you would rather wait until you can present them in a complete form? I would sooner do so, if it is possible, and you can give me a little longer notice. Some of the reports we have not got copies of, and these we cannot present, except by making copies from the minutes of the City Council. I would like to understand on what special points or matters you want the reports.

5. The first point, I think, is this: you have made an estimate of the cost of constructing two impounding reservoirs on the plateau of Mount Wellington, have you not? Well, I have not given complete estimates for those reservoirs yet. I have only given provisional estimates.

6. You can give us those? Yes.

7. Then there is the cost of bringing in water from the Styx, or waters higher up the Derwent. Have you made estimates as to that? Yes.

8. Well, we want those estimates too. Can you produce them? I think you will find a copy of that estimate attached to the report of the Select Committee of the Legislative Council.

9. Yes; but, of course, we want to get it in evidence from you here, and to examine you upon it. You can produce it, you say? Yes, and I have other reports in connection with water supply, made when I first took charge, a little while after 1892; especially in 1893. If you want those, I will get them.

10. We want all the information we can get on the matter? That report of 1893 was the joint report of Mr. James and myself, before we repaired the Lower Reservoir. I have that, and one or two subsequent ones.

11. How long will it take you to get these together? I think I can do it by to-morrow. I can get the principal ones together by that time.

12. Well, that is the information we want; and then we propose to visit these places with you: both the watershed on the mountain, and the upper waters of the Derwent. But you will understand that before we go there we want to get all this information we have asked for? I will try and get it ready for you by to-morrow afternoon. I have a plan, which I have not been able to complete, at present, of the plateau of the mountain. Owing to these other works intervening, I have had to put it aside; but it will give you sufficient information relative to that.

13. But you have the area of the watershed? Yes, I have the area of the water-shed, and I can give you that; although, as I said just now, the actual plan of the plateau is not quite complete, but it has been traversed as far as I have done the work up there. I have the report on the Styx here now.

14. I think you had better bring them all up together.

The Commission adjourned till 3 p.m. next day.

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THURSDAY, FEBRUARY 14, 1901.

ROBERT S. MILLES, C.E., *further examined.*

The examination of Mr. R. S. Milles, Director of Hobart Waterworks, was continued.

15. *By the Chairman.*—Have you brought those documents, Mr. Milles, we asked for yesterday? Yes, Mr. Chairman, I think I can produce all the reports. I have not been able to obtain the originals in many cases, and I have thought the best way would be to bring up the

clipping-book, which contains correct copies of the reports. I have indexed the pages to show what they consist of. Here is the first report made when I took charge.

16. What does that consist of? A report on the repairs of the Lower Reservoir. That was my first report on this subject to the City Council.

17. I do not think we can go into all those reports from the outset, or our work will be interminable. What we only want from you, Mr. Milles, is this: we have resolved to go upon these lines. First, we want your report on the estimated cost of the proposed impounding reservoirs on the high levels of that plateau on the mountain, with the area of the watershed. Or, if you like, you can begin with the Styx, and the estimated cost of bringing water from the Styx and Russell Falls rivers. You see, if we go into the question of the Lower Reservoir, and the cost of repairing it, it will land us in difficulty; all that is really outside the scope of this Commission. We cannot possibly deal with all questions of administration during the past. How long is it? About eight years, since I took charge.

18. *By the Chairman.*—Pardon me for a moment. I think we had better follow the lines laid down, and not go into the question of finance until we have settled the question as to the bringing of water from the upper level plateau and as to its feasibility—as against the scheme for bringing in water from the Styx. You understand that, Mr. Milles? Yes. Of course, the work you referred to just now was an unforeseen work, and it was paid for from revenue.

19. *By the Chairman.*—This Commission has determined that the first matter to occupy its attention shall be the different schemes proposed to increase the water supply to Hobart and the suburbs, not only for domestic purposes, but also for the purposes of underground drainage; and it might also include a supply for irrigation purposes for the Derwent Valley. With that object in view, we ask you now to bring before us any reports and estimates you may have of the cost of bringing water from the Styx or Russell Falls rivers. Beginning with that, we will come afterwards to the question of finance. Have you got those reports here? I think you will find that this report of ours dealt with several schemes and several sites for reservoirs. It was a report on the supply question. [Report of 4th May, 1893, put in. See Appendix.] That is chiefly in regard to the storage question, and as to the securing of sites available about Hobart.

20. But it all refers mainly to the watershed of the mountain? Yes, that is so. That was, of course, prior to the actual decision of the City Council to go on with the repairs to the reservoir. Then I have a report here, Mr. Chairman, of the result of my examination of the valley of the Russell Falls River, with the approximate distances and estimates.

21. Is that printed? No; only in the columns of the press, a day or two after it came before the City Council. The date of the report was March, 1893.

22. Well now, will you just refer to that report for a moment, in order that the Commission may have some idea of the work and cost of bringing that water in? There were four streams examined. The first one was the Russell Falls River, the second was the Junee River and Mount Humboldt Creek, the third was the Styx River, and the fourth, the River Plenty. As to the Russell Falls River scheme, it was found that the river had an average fall of 44 feet per mile, and there was some difficulty in getting a sufficiently high elevation. Therefore, it was necessary to get up above the reserve of Tyenna, some 15 miles above Glenora.

23. That is above the falls? Yes. The river at this point gave on that day—which was a fair time to gauge it (in the dry season, at the end of February, 1893)—20,000,000 gallons per day.

24. *By Mr. Propsting.*—Was the quality of the water good? No, it was not good. I have referred to that at the end of my report. I said, “I believe it would be found necessary to go some three or four miles further up the river. This would be in steeper country, and less liable to contamination.” The next report was on the Junee River—a tributary of the Russell Falls River, taking its rise in Mount Field West. The quantity of water flowing down on that day was about 6,000,000 gallons. That creek was abandoned as a proposed source of water supply for several reasons; and then I went to the Mount Humboldt Creek, which is supposed to originate from the lake on Mount Humboldt; it joins the main river a little above the town reserve. The gauging of this stream gave 8,000,000 gallons a day of very good water, coming down steep, rocky country. I gave an estimate of that scheme. It would require, approximately, about 32 miles of covered channel, 25 miles of a 30-inch to 24-inch main, and 13 miles of subsidiary mains, intake, weir, and small reservoir. The total estimated cost of this scheme was, roughly, £230,000. The next stream examined was the River Styx. You will, perhaps, understand the position better by reference to the plan. [Witness refers to plan.] That point to which I think it would be necessary to go in order to get sufficient elevation for this work, was estimated, approximately, 15 miles above Glenora. The whole of this country is unalienated at present; it is Crown land; very steep, rocky country, some of it; and the water was in a very good condition when we were there.

25. *By the Chairman.*—No contamination at all? None at all; it is right above all cattle-runs, and runs of every description. The gauging of the river showed that there were about 25,000,000 gallons of water a day flowing down; this is exclusive of the water drawn off for irrigation purposes at Bushy Park. The scheme involved, approximately, 20 miles of covered channel, 25 miles of 30-inch to 24-inch mains, and 13 miles of subsidiary distributing mains. The estimated cost of the work was £205,000. The last scheme was at the River Plenty, which, after examination of the river, I gave up as unsatisfactory. At the end of the report, I made a recommendation on those schemes, which was, practically speaking, that the Styx scheme was the most favourable. That river was also visited a few years ago by the Waterworks Committee of the City Council, with a

view to seeing what water was there. The river was gauged in the presence of the Waterworks Committee, and the members were perfectly satisfied that an adequate supply was available.

26. Now, you say that the Styx River, when gauged, showed 25,000,000 gallons of water a day? 25,000,000 gallons—yes.

27. What is, roughly, the consumption in the summer months here—in the driest months? The present highest consumption we know of is about 2,250,000 gallons a day. The average in summer is about 2,000,000.

28. *By Mr. Davies.*—But that includes the supply to about a thousand water-closets? Eight or nine hundred water-closets, I think.

29. *By the Chairman.*—Have there been any further reports, since the date of that report, on these schemes? There was a report brought up by the Waterworks Committee; “The Styx Scheme versus Artesian Boring,” it was called: that was in March, 1898, after the Committee had gone up to view this site. They then proposed to vote the sum of £300 for a detailed survey, but that motion was lost. The matter has been in abeyance ever since. The discussion on the Waterworks Committee’s report is to be found in *The Mercury*, of February 28, 1898, and I think there was also an adjourned meeting on the 7th March following, on the same subject.

30. *By Mr. Davies.*—Who was present at that meeting? Alderman Hiddlestone (in the Chair), Aldermen Bradley, Benjamin, Johnson, Henry, Smith, Duff, and Kerr.

31. *By the Chairman.*—That proposal you have spoken of was on the motion, if I remember rightly, of the late Mr. John Bradley—was it not? Yes; brought up by him in conjunction with Mr. Duff. There is a long discussion on the matter reported in *The Mercury*.

32. Well, that brings up to date all you have on that question? Yes.

33. *By Mr. Propsting.*—Have you in your mind, Mr. Milles, any comparison between the consumption of water in Hobart and in other capital cities—consumption per head of the population, I mean? Yes; I can give it to you now. This is an official return, obtained by the Sydney Water Board, of the consumption in various cities for the year of 1898: so that the report is a recent one. I might explain, perhaps, that most of these quantities given are of the average consumption per day on an estimate of the whole year. The average consumption we have always reckoned upon in our Hobart calculations is only for the summer months; so that, really, the quantity of consumption per day that is always being quoted and commented on in Hobart would be substantially reduced on any computation for the whole twelve months. In Sydney, the consumption is 42 gallons per head per day for the twelve months, and 50 per cent. of that water has to be pumped up. Adelaide has an average consumption per head per day of 61 gallons; Brisbane, 54 gallons; Melbourne, 63 gallons. I have a report of the engineer for Melbourne, in which it is shown that the consumption per head per day goes up there to over 100 gallons, at times; that, of course, is in the summer.

34. *By Mr. Guesdon.*—I suppose that is when they flush the gutters, isn’t it? [No answer.]

35. *By Mr. Propsting.*—Can you give us the figures for Hobart, on the same basis? The consumption in Hobart, averaging all the year round, will come down as near as anything to the Sydney figures—that is, about 40 to 45 gallons per head per day. I think it might be as well to give the figures for one or two of these other cities cited here, as their returns have been rather misquoted of late. When people have gone into this waste-water matter—or where cities have introduced the waste-water meter system to stop consumption—the amount of water consumed is high, even in some places at Home, at present. Glasgow has an average consumption per head per day of 55 gallons. London varies in the eight water companies supplying it, of from 30 gallons up to 49 gallons per day per head. Dundee has a daily average consumption per head of 49 gallons, and Aberdeen, of 42 gallons.

36. Well, can you give us the average summer consumption in Hobart, Melbourne, Brisbane, Adelaide, and Sydney? Melbourne, in the summer, goes up to 100 gallons.

37. *By the Chairman.*—What year was that—1898? Yes, about two years ago. Sydney, in the summer, goes up to about 50 gallons per head daily. I have not got the records of any of the other cities.

38. *By Mr. Propsting.*—And Hobart? Hobart goes up to 60 gallons per head in summer.

39. Have they underground drainage, or shallow drainage, in Sydney and Melbourne? In Sydney, most of it is underground drainage. In Melbourne, when I was over there, they had 30,000 houses connected. For your information, I might say that I went over the works there very carefully, and they were averaging daily through the pumping-stations from 12,000,000 to 14,000,000 gallons of water to the 30,000 houses then connected.

40. *By the Chairman.*—What is that per head? It comes out to an enormous amount. Mr. Thwaites himself showed me his return of the number of houses then connected, and it was 30,000.

41. Are you aware that Mr. Thwaites has told the Metropolitan Board of Works in Melbourne that the consumption, with the 50,000 houses now connected, is no greater than it was before? I do not see how they could get at that; it is a moral impossibility to find out; the water-closets are not metered independently. I have always doubted, myself, how, unless you actually metered a house as to its consumption before it was connected and afterwards, you could find out what the difference of consumption was. I don’t see how it possibly could be done.

42. *By Mr. Propsting.*—Well, Mr. Milles, can you tell us how Sydney and Melbourne are supplied—are they supplied from reservoirs? Their head-works are on running water, and they bring it into large conserving reservoirs. Melbourne is supplied by gravitation, and Sydney about half by gravitation.

43. *By the Chairman.*—Melbourne is supplied by gravitation pure and simple? Yes.
44. *By Mr. Propsting.*—Can you get us any comparative statement as to the cost to the inhabitants of their water, or between Hobart and the other capital cities? No; I have worked it out, but I have not got the information with me here. I can get you that information, but also of a comparison of the capital cost per head and the revenue cost per head.
45. Then we can get that later. I should like you to say whether in getting at that you included any additional services, such as drainage, water-closets, &c.? I will ascertain that.
46. *By Mr. Davies.*—Mr. Milles, when you went up to the Styx and made your calculation as to the quantity of water coming down the river, did you satisfy yourself as to the quality of the water—did you get an analysis of it? No, we have never had it analysed yet.
47. *By the Chairman.*—What is the population of Hobart? As nearly as I can say, about 35,000, including Glebe Town, New Town, Moonah, Mount Stuart, Cascades, and Sandy Bay; that is the number of people we supply with water. We do not supply Moonah any longer; but there are very few people there, anyhow—only two or three hundred, as far as I remember. The number I mentioned was in 1898. That would not take in all the places you would cover, I suppose, in any scheme for a Greater Hobart. In my opinion our present mains must be enlarged before they reach all the districts you would be likely to take in.
- The further examination of the witness was adjourned.
- The Commission adjourned till 3 P.M. on Monday, February 18.

MONDAY, FEBRUARY 18, 1901.

H. S. R. WRIGHT, *called and examined.*

Mr. Wright was sworn.

48. *By the Chairman.*—What is your full name, Mr. Wright? Harold Stephen Robert Wright.
49. Will you describe your official position in connection with municipal matters at Glenorchy? I am Warden of Glenorchy.
50. *By Mr. Hamilton.*—And the water trust? I am Chairman of the Glenorchy Water Trust.
51. *By the Chairman.*—The object of this Commission, as you are probably aware, is to see if we can do anything towards the cheapening and simplifying of municipal government in Hobart and its suburbs—doing something, in fact, such as is now being attempted in Adelaide, Melbourne, and Sydney. And what we are concerned about at this particular moment is the question of water supply; we are going into other matters afterwards. Can you tell us what is the position occupied by your board with regard to water at Glenorchy? How do you mean—financially?
52. Financially, yes? Well, we have £6000 borrowed from sundry persons on debentures, which fall due in April, 1902. We are paying 6 per cent. interest on them. Then we have borrowed from the Government £9,700 at 4 per cent.
53. *By Mr. Guesdon.*—I suppose that is a perpetual loan? Oh, practically, I suppose. Of course, we have the right to pay the loan off at any time. That makes £15,700 altogether. Then we owe the Government £1782 for arrears of interest. As to the rates we demand, those were the figures for the last four or five years, from which you will see that we have a rising revenue. In 1894 we demanded £622; in 1895, £665; in 1896, £705; in 1897, £746; in 1898, £801; in 1899, £861; and in 1900, £978. The cost of maintenance, salaries, and expenses of all sorts other than interest was £250 last year.
54. That was the cost of the administration of the water trust? Yes, and for buying pipes and things.
55. That £250 is not only for cost of administration, then? No; there is, roughly speaking, about £60 we paid for pipes out of that. The height of the reservoir is 277 ft. above the level of the sea.
56. *By the Chairman.*—What is the capital cost of the works? Oh, well, the capital cost of the works was all the money we borrowed—£15,700.
57. You did not have any money of your own? No.
58. *By Mr. Guesdon.*—What has been the result of those demands you have quoted, Mr. Wright—what amount have you received? Oh, they are, practically, all paid up. Of course, some of them naturally run on to the next year; but I do not suppose that for the whole time we have got £20 arrears. You see, under our Act it is a first charge on the property, and there is interest chargeable at the rate of six per cent. per annum for all outstanding rates.
59. What provision do you make for a sinking fund? Well, we have not made any yet, because we have not caught up our interest.
60. Has your Act given you power to borrow without making any provision for a sinking fund? No; we were supposed to lay by one per cent. The five per cent. paid to Government really provides for that: interest to Government, four per cent; sinking fund, the other one per cent.

61. But there is no provision in your Act for you to make provision to cover a sinking fund? Well, I really forget about that.

62. *By the Chairman.*—I suppose you have not paid interest to the Government for some years, have you? Oh, we are always paying some interest. We paid £250 last year.

63. Your interest account comes to £845, does it not? Yes; in 1902 we will be able to finance it on a much better basis. I have brought my last balance-sheet here, in case you would like to see it. [Document produced and put in.]

64. *By Mr. Guesdon.*—Then, Mr. Wright, do you know what the actual amount of your sinking fund is to-day—is it supposed to provide for the renewal of the whole of these works? Yes, in the end it should. Of course, we have the right, if at any time we pay off any of our loan, to borrow the money again, so long as we do not exceed the sum allowed by Parliament. If we pay off £5000, we have the right to borrow another £5000.

65. *By the Chairman.*—Is your water supply ample for all your purposes? Oh, yes.

66. Not for irrigation, I suppose? We do a good deal of irrigation—yes; but it is not ample for any more than our present area.

67. Would you consider it an advantage to Glenorchy if a scheme were devised for bringing in water from the upper waters of the Styx, sufficient for all purposes of Hobart and the suburbs, and for the irrigation of the whole of that valley? Well, there is the question of our water trust to be considered; we have our liabilities to meet, and we would have to see how competition would affect us.

68. Well, of course, we would have to purchase under a Greater Hobart water scheme—what do you think? Oh, that is the question we would have to look into, of course—that question of the purchase.

69. That goes without saying. Would any such project have the support of your district if it were proved feasible? I should think that if you showed us any project financially feasible we would be rather stupid not to fall in with it. But, of course, I am only stating my own opinion; I do not answer for the others. The fact is that we value our water so highly that we don't want to go into partnership in the dwarf and giant lire of business, we being the dwarf.

70. What do you charge per 1000 gallons for domestic purposes? We do not charge at a rate per thousand for domestic purposes; we charge on rating. We charge sixpence per 1000 gallons for irrigation purposes.

71. What is your rate, Mr. Wright? Two shillings; that is, for Glenorchy proper. The rate at Moonah is 1s. 4d. up to £40 a year, and 1s. for all over that.

72. *By Mr. Guesdon.*—I want to have one thing clear. You have got nothing at all to the credit of a sinking fund, Mr. Wright? Well, have we not got one-fifth of the amount we have paid for interest to the Government? I should think so; we have one-fifth of that, *plus* the interest due on that, I take it.

73. Well, then, I suppose you will tell us that these arrears of interest due are not really arrears of interest due at all? Well, no; not altogether. We would be entitled to interest one in one per cent., I suppose; but that would only apply as far as this one per cent. is concerned.

74. The actual amount payable on the whole amount in seven years, at one per cent., would be £1099. You don't show that amount in your accounts at all, I suppose? No, that is not shown in the accounts at all. We thought it would be needlessly complicating the thing, since it could be worked out at any minute, if we wanted it.

75. How does your Act work, then; are you supposed to have a sinking fund merely on paper? Well, the Government arrange that.

76. Then there is no provision in your Act that the Sinking Fund should be the first charge on your rates? No; it is the last charge, I think.

77. *By the Chairman.*—One per cent. of this five per cent. you pay to the Government would stand for a sinking fund, you say—that would be credited to you by the Auditor? Yes, I suppose so. Of course, the whole position really shows that we are much more solvent than appears on the face of the thing.

78. *By Mr. Guesdon.*—Your accounts, I suppose, show that the rates you have received have been merely paid away in administration? Yes.

79. You have established no other sort of reserve fund for repairs, or anything of that sort? None.

80. Everything depends, then, on your sinking fund? Yes.

81. Which stands as you have told us? Yes.

82. *By Mr. Propsting.*—What has been the gross cost of your undertaking? £15,700.

83. And what portion of that was spent in the construction of a reservoir? I could not say that now, without looking it up. Eleven hundred pounds of it was spent in a very bad bargain—Moonah, to wit.

84. You include that? Yes; and it was a very bad bargain. Our men are always there repairing damages.

85. *By the Chairman.*—My valuation of that was £600, you know? Yes; and you were about right, although we gave £1100.

86. *By Mr. Propsting.*—Can you tell us what length of main you have got? Yes; I have that here: the length of main is somewhere about nine-and-three-quarter miles.



87. What diameter? That varies, of course. The main main is 6-inch, and the other is 4-inch; but it goes down to 2½-inch in the outer extremities of the district.

88. And what is the furthest distance north that you carry the main to? Up to Claremont.

89. And south, to Moonah? Yes, to the creek, you know.

90. Have you any information as to how many ratepayers you supply? Yes, 400.

91. That includes supply for purposes of irrigation, does it not? Yes, I think so. The estimated area of the district, I may say, is 6914 acres.

92. And only those who use the water for irrigation purposes have meters? Yes, I think so—yes.

93. At what rate per 1000 gallons are they charged? Sixpence per thousand for the first half-million, and four pence, I think, for the next half-million; and then in the winter we do it half-price again, in order to induce people to go in for winter irrigation.

94. Do you make the ratable value of the property a minimum charge? Yes; and the people have the right to draw water for irrigation up to the value of their rating.

95. *By Mr. Guesdon.*—Was there not some question of riparian rights then, Mr. Wright? Yes; I suppose there is.

96. Is that settled? Oh, it is settled, I suppose, inasmuch as the common law applies to it. No one has a right to take water to the detriment of those below.

97. But those living along this river—have they the right to take water? Yes, of course; there are certain factories which have the right to use the water.

98. Without payment? Without payment—yes; they have had that right, some of them, for sixty years, at least.

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W. BETTS, *called and examined.*

Mr. Betts was sworn.

99. *By the Chairman.*—Your name? William Betts.

100. You live at Longley? I live at Leslie; my address is Longley—the river divides the two districts.

101. You know this stream, the North-West Bay River? Yes, sir.

102. You know the proposition of the Corporation of Hobart, to take certain water from that stream; to divert the water at a certain point, and bring a portion of it to Hobart? Yes.

103. You understand fully what that scheme is, I suppose? Yes, sir.

104. And, I believe, that some arrangement has been made between the inhabitants of this locality and the Corporation, for the Corporation to take a certain amount of the water—is that so? I cannot say, sir.

105. *By Mr. Davies.*—You are aware that it has been decided by Parliament that half of the water of the North-West Bay River should be diverted, to be utilised by the Hobart Corporation, and the other half still go on to North-West Bay? Yes, sir.

106. How many years have you been living in the locality of the North-West Bay River, Mr. Betts? About twenty-eight.

107. And, consequently, you know that river very well? Yes.

108. Will you give the Commission any idea as to the quantity of water coming down that river in the height of summer? No, I could not say the quantity.

109. Have you ever seen it dry? In places.

110. Are you aware that a quantity of water in that river soaks through the bed here and there, and is found again beyond these dry places in the river? Yes.

111. You are aware of that? Oh, yes; when I have seen the river dry; of course, the water has soaked through the boulders.

112. And then below that you have found the water is running again? Yes, sir.

113. Have you, in your own experience, ever found difficulty in obtaining water you may require for your own use in that river in the summer months? No, sir.

114. Do you know of any one in your own experience who has suffered in any way because of that? No, I can't say that I have; still, the water is very low in summer. There are places in the river where a bucket of water could not be taken up, while you could go, perhaps, lower down or higher up and get at a little pool. But perhaps where you have been accustomed to get your water it would be dry: not really dry, that is, but you couldn't dip a bucket of water up, all the same, but if you turned over the stones you, perhaps, could. The river has a very loose bed of boulders—perhaps ten or twelve feet of boulders in places—before you get to the solid rock.

115. Do you know the site of the proposed intake? Yes, sir; I should think it is a quarter of a mile, or rather better, below the Wellington Falls.

116. Have you been there in the summer months? Yes, sir.

117. And you have always seen a large quantity of water in that particular locality? Not a large quantity—no, I have not.

118. You have always seen a good stream? Yes, a fair stream.

119. Have you any idea, of your own knowledge, whether it would fill an 8-inch pipe, for instance? No, I don't think it would.

120. Of course, I mean in the height of summer? Oh, yes, I understand; I was certainly speaking of it in the summer time. Of course there is eight inches of water there now, but we have had a very wet season. I have seen it before Christmas some years ago when it would not fill a 6-inch pipe altogether. In 1896 it was very low.

121. Yes, of course; that was a specially dry year. Now, it has been publicly stated that the people who have raspberry patches close to the waterside will be considerably affected by the Corporation taking a portion of this water away? Yes; they would, sir.

122. Have they ever used that water for irrigation purposes? No, not that I am aware of.

123. Then why should they be affected? Why, because, you know, the bed is all boulders, and the heat would rise from those boulders and dry the raspberry patches up; whereas, if the water remains in the river, it causes a moisture.

124. But you say the water gets under the boulders and soaks away? In places, it does; but if it was under the boulders, one part of the boulder would be damp, wouldn't it?—I don't say it covers all the boulders.

125. And are there many people who have raspberry beds in close proximity to the river? A good few, sir.

126. Have you any idea of the area of the land along the river owned by people who would be affected—I mean close to the river? Well, all those who have property adjoining would.

127. Yes; I mean properties, say, within a hundred yards of the river? Well, of course, if you had a chart, you could pick the blocks out that adjoin the river.

128. But you have been there so many years. You know every one that lives in the locality, do you not? Certainly.

129. And you should have a pretty good idea of the area of land under raspberry cultivation? Yes, I have; shall I give you all the peoples' names?

130. Oh, no. I only want the Commission to have some idea of the areas? (No reply.)

131. *By the Chairman*—Would there be 20 acres? Oh, yes; more than that. I should say there would be 200 acres.

132. *By Mr. Davies*.—Two hundred acres under raspberries? Oh, no; not raspberries alone.

133. Well, you see, I am talking of raspberries and other small fruits that would be affected. You say the water is not used for irrigation purposes; but you say that the moisture in the air helps to keep the raspberries from getting dry? Yes; well, some people have fifty acres, but they may only have four or five acres of raspberries.

134. *By the Chairman*.—Would there be twenty acres of raspberries—close to the river? Yes—well, certainly, there might be. I would want a little time to think it out.

135. *By Mr. Davies*.—I only want a general idea; I don't want to bind you down to an acre or so—well, suppose we say fifty acres? No, there would not be so much; I have made a little mistake there. I don't think there would be above thirty acres—that is, owned by people living within half-a-mile of the river. Some of the blocks adjoining the river run back half-a-mile—a person's land adjoining the river may run back half a mile from the river—how will I count that?

136. You could not say that a property running half-a-mile back would be affected much? Well, of course, it would affect their land, wouldn't it?

137. But, you see, they say their raspberry crops would be seriously affected by the Corporation taking any of this water: now, you say they don't irrigate; and I ask you to think why, if they don't use the water for irrigation purposes, they should be affected at all. And, on that, we have informed the Commission that the stones in the river-bed would be considerably drier, and the raspberries would be affected—is that so? Yes.

138. Well, that could not apply for any great distance, could it? Well, I think so; because the river draws a lot of moisture.

139. The river-bed would hardly affect a place a quarter of a mile away, would it? I should think so; because a hot wind on a raspberry patch off those boulders would damage it considerably, wouldn't it?—whereas, if this water were there, it would be a cool breeze.

140. *By Mr. Guesdon*.—You have been there twenty-eight years, Mr. Betts? Yes.

141. Was the river very different twenty-eight years ago from what it is now? Yes, there was a lot more water in it.

142. And do you attribute the decrease of the water largely to any other circumstances than the withdrawal of the water up above for use by the Hobart Corporation? No, I don't put it down to that so much. I think that when the country is opened up it interferes with the river, and dries it up a good lot.

143. Then you think there are two causes for the water being less? Yes, that's my opinion.

144. From your experience, do you think this withdrawing of the water will seriously militate against those who hold allotments along the river banks? I think so, sir.

145. You look upon it that the moisture caused by evaporation rising from the water would extend some distance in on the bank on each side, and not merely be confined to the immediate banks of the river? Yes.

146. And you consider that that evaporation and the moisture arising from it would be of material benefit to small fruits? Yes, sir.

147. *By Mr. Davies*.—How long does the fruit season last there—small fruits: raspberries, for instance? Raspberries alone.

148. Yes—that's a principal product, is it not? No, gooseberries are the principal. Gooseberries have lasted a long time, this year. Gooseberry picking commences about two weeks before Christmas; the small fruit picking has lasted a long time this year.

149. But in your experience, generally, how long do they last? About six or seven weeks. If you have a late season, you do not start down there till New Year's Day.

150. But, generally speaking, all the small fruits are gathered about the end of January? No, about the first or second week in February. The last two years have been dry seasons. This year they are picking fruit down there now, and this is well on in February.

151. But in a dry season? In a dry season the fruit picking lasts four or five weeks.

152. And this year they are lasting up till now, you say? Yes, in parts.

153. On the river? No, on the higher ground. The higher the ground, you see, the later the crop.

154. *By Mr. Propsting.*—Have you got land fronting on the river? Yes, sir.

155. Do you object to the Corporation taking any water out of the river? It is very little use of my objecting.

156. I am asking for your opinion. Would it be detrimental to your interests, in your opinion? I think so—that is my opinion.

157. Do I understand that the volume of water in that river has lessened in late years? Yes, sir. You see, some seasons there is more water than others. This last year there has been a good quantity of water, because we have had a wet season.

158. Can you give this Commission any idea of the value of the small fruits grown on the banks of the river? No, I could not.

159. Can you give this Commission any idea of the value of the raspberries that have been sent up from Longley in one year? No, I could not, sir. I could give it later on, certainly; but I couldn't do it at once.

160. What was the dry year you referred to? 1896; that was when the river had been the lowest I had ever seen it.

161. What was that due to—want of rain, or bush fires, or what? There were no bush fires that year.

162. It would be want of rain, then? Yes.

163. What year was the bush fires? 1897; I think it was the last day of the year.

164. Was there much water in the river then? No, it was pretty low. I could give you the quantity of water that was running then, sir. The river was dammed in one place. There were seven inches by ten; seventy square inches of water running in the river five miles below the intake.

165. *By the Chairman.*—That was in summer? Yes, sir; the river was dammed in one place right across, and there was a slot put in 10 inches wide. I measured it, I dare say, some eight or nine times on different days, and it averaged seven inches—sometimes a little more, sometimes a little less. It rose to  $7\frac{3}{4}$  inches, and was down as low as about  $7\frac{1}{2}$  inches.

166. Was this dam put in a place where it enabled you to gauge all the water in the river? Yes, as far as my knowledge goes. There may have been a soakage somewhere.

167. *By Mr. Davies.*—Whereabouts was the dam? Very nearly a mile above Longley.

168. Are there not a lot of small streams that come in below that? No, not above Longley, sir. This dam was put in above Longley, down against Armstrong's. It would not be a mile, but it might be three-quarters of a mile from Longley, above it.

169. *By Mr. Propsting.*—How many small streams enter into the river below that dam? What do you mean—right down as low as North-West Bay?

170. Yes, approximately? Five. There may be another little stream, perhaps: a very small stream, that would be running only in the winter.

171. How many of these are on the Hobart side? One.

172. *By the Chairman.*—Was this seventy inches of water gauged in the driest part of the year? That was in January, sir: January, 1898.

173. You told Mr. Davies, as I understand, that there would not be enough water to fill an 8-inch pipe—do you know that that would fill a 9-inch pipe? No answer.

174. Do you understand that? Mr. Davies was speaking about a place six miles higher up the river: a different thing altogether. The intake is  $2\frac{1}{4}$  miles from St. Crispin's Well, and St. Crispin's Well is ever so much higher than the place I am speaking about. The spot where this dam was built would be fully five miles from the intake, and it might be six; that is, up the river; I am not speaking of a direct line.

175. *By Mr. Davies.*—Why, five miles from that would take you up to the Wellington Falls, would it not? I do not think so.

176. *By Mr. Propsting.*—What you state, then, is that your dam is five miles from the proposed intake? Yes, it is fully that.

177. That is along the bed of the river? That is along the bed of the river, yes.

178. And at that point there was a volume of water 7 inches by 10? Yes, sir.

179. *By the Chairman.*—That would fill a 9-inch pipe exactly: a 9-inch pipe carries about  $70\frac{1}{2}$  inches. Well, if it would fill a 9-inch pipe there, would it not fill an 8-inch pipe at the intake? I should not think so; there is five miles difference, you see.

180. Is the stream fed from any other source in that five miles? Well, sometimes, sir, there is an overflow from St. Crispin's Well. Sometimes just a shower of rain in the night will make it overflow.

181. *By Mr. Propsting.*—What is the distance from the *Longley Inn*, along the bed of the river, to the intake? I should think it would be about six miles; it might be  $5\frac{1}{2}$ ; I could not say to a certainty; I am only just roughing the distance.

182. *By Mr. Davies.*—Of course I am not in a position to contradict you; I am only trying to put things right. The proposal to bring the water to Longley from our proposed intake was for  $1\frac{1}{2}$  miles of main, at a cost of £1500; that was to go right into Longley township; that was the Director of Waterwork's opinion of the distance. What do you say to that—would not that pipe tap the river at what we call Spencer's Rock? Of course there is no overflow from St. Crispin's Well now; they have a 12-inch pipe, and all the water goes away to Hobart.

183. *By the Chairman.*—I suppose we may take it for granted that the settlers generally are opposed to any diversion of the water from the North-West Bay River? Yes, sir; I think so.

184. Is that opinion universal? Well, I cannot speak for everyone, sir.

185. *By Mr. Propsting.*—Do you know anyone down there in favour of the Corporation taking the water? I don't.

186. Do you know many opposed to it? Yes, I do.

187. And according to the measurement you made, what do you reckon would come down the North-West Bay River if the water were halved at the intake? Well, you see, that is a great distance. It is 5 miles away. I cannot say; but it would certainly only be half the water of the river.

188. There is not much comes in, then, between your dam and the proposed intake? No, except in cases of an overflow from St. Crispin's Well. Of course there are a few little dribbles, but in summer time they are all dry.

189. And since the Corporation has put in the 12-inch pipe at St. Crispin's there has been no overflow? No. Of course they have not got the 12-inch pipe right through, but they have connected it with the 8-inch pipe, and now it takes all the water. I suppose it used to choke somewhere when the 8-inch pipe went all along, and now it all gets away.

190. *By Mr. Hamilton.*—You were saying that you know of no one that is willing to accept the Corporation's original proposal to take half the water of the river, and lay the other half on to Longley. Do you mean that—do you mean to say that no one in Longley is in favour of that proposal? No; there is no one in favour of it, as far as I know, sir. I took a petition round, anyhow, at one time, and there were over a hundred signed against it.

191. *By Mr. Propsting.*—When you were taking round that petition did anyone say they were in favour of the Corporation laying on half the water for you, and taking the remaining half for themselves? No, sir.

The witness withdrew.

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R. G. McWILLIAMS, *called and examined.*

Mr. McWilliams was sworn.

192. *By the Chairman.*—Your name? Robert George McWilliams.

193. *By Mr. Davies.*—You lived for many years in the Huon district, I believe? No, I never resided in the Huon district. My brother did.

194. You know the district very well? I know the district fairly well, yes.

195. You have for many years been up and down that road, and had an opportunity in all seasons of seeing the North-West Bay River? I walked that road, so to speak, before it was made, and crossed the North-West Bay River very many times.

196. In the height of summer? Yes, always in summer, or in summer as a rule.

197. Did you take any observation as to the quantity of water in the river? I have always found a good supply of water running down the river.

198. You have never seen it dry? No, never; never saw it without water.

199. Have you ever been up the river for any distance? No; except from the mountain side, I never travelled up it any distance.

200. And from your knowledge of the river, do you think that the action of the Hobart Corporation in asking for a portion of this water would, if given effect to, materially affect that stream? I think myself that the Corporation could very well take a considerable portion of the water running down that stream without affecting the people on the banks of that river.

201. The holders of riparian rights? Yes.

202. Have you noticed if there were many portions of land close to the river utilised by small farmers for growing small fruits? I never knew them to use the water for irrigation purposes.

203. *By Mr. Propsting.*—Do you know the bed of the river well, Mr. McWilliams, beyond what you have seen of it in passing up and down the Huon Road? I have never examined it.

204. You have only examined it from the road? That's all. Of course I have gone down the bed of the river there over and over again.

205. Have you ever followed the bed of the river up or down any distance? Oh, no.

206. Have you held any interest in any land on the river? Not the slightest.

207. Can you give us, roughly, your idea of the quantity of water going down that river in the height of summer? Oh, no; I could not. Water is a thing which, when you find it rippling down gutters in the bed of a river, you would naturally require to have some idea of the depth and width of the gutters, and then you would have to measure it accurately before you could say what the quantity was.

208. Have you ever known that river dry in places? To the best of my recollection, I have always seen water running there. It may have been dry at other times, but never within my recollection at times when I was passing there.

209. You know the quantity of water the Corporation expected to take from the river? I do not remember it just now. I have heard it often enough in Parliament.

210. Why then do you say there would be ample for the North-West Bay settlers after the Corporation had taken from the river whatever water they might require? Because I recollect what was said as to the necessary quantity in the discussion that took place in the House, and I know that the quantity they propose to take would be infinitesimally small in comparison with the quantity they would leave behind.

211. How much would be left behind? That would all depend on the quantity running in the river and the quantity they took away.

212. I suppose so. And you have no knowledge of the quantity that runs? No, I have not; I never measured it.

213. Really, then, your knowledge of the position is duly solely to what you have noticed in passing up and down that road, and to the discussions you have heard in Parliament and elsewhere? Entirely so.

The witness withdrew.

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J. BAILY, *called and examined.*

Mr. Baily was sworn.

214. *By the Chairman.*—What is your name? John Baily.

215. *By Mr. Davies.*—Mr. Baily, you have had many years experience of the North-West Bay River? Yes, sir; it is many years since I first crossed the North-West Bay River—about the year 1854.

216. And you know that river very well? Yes, I used to pass it repeatedly from 1860 to 1862. At that time I was Postmaster of Huonville, and had a store there. It was all walking in those days. In crossing the river we had to go through it.

217. In the whole of the years that you were down there did you ever find that river dry? No, never quite dry; it was lower in the summer than in the winter, of course; but there was always a considerable noise of water above. I believe that the same thing takes place with regard to the North-West Bay River that does with regard to the Fourteen Turn Creek; that a great deal of water is lost underground—that it disappears and revives again lower down, especially in the summer time. At the time I am speaking of, about 1860, the bush was very thick by Longley. If I remember rightly, the first bridge over the river there was made almost out of a single tree. They got a span across there something like 80 feet long. Before that, we used to walk through and get across the bed of the river by going from stone to stone; but at times there was a very considerable stream of water there, and that was difficult. I have seen the water flow in the summer, but I have never seen the river dry.

218. Have you ever been up the North-West Bay River from Longley? No, not any distance. I have been to the Falls repeatedly, many years ago; in fact, it was a party of ours that helped to clear the track out. As I said just now, I believe that a great deal of the water that comes down that river disappears under the stones, and then revives again lower down.

219. And, from your own knowledge, can you form an opinion of the quantity of water there—I think you have had some little experience in connection with waterworks on the Municipal Council? Yes, I had a good deal to do with it.

220. And, from your knowledge of the quantity of water coming down that stream, do you think it would materially affect the people living on the banks of the North-West Bay River if the Corporation took a part of the water? No, I do not think it would materially affect them, because my own opinion is that there is plenty of water there for all parties. I have not been down there lately, but I would like to go down, and if I had received your notice in time I would have gone down before coming here. My idea is that by sinking on the edge of the rivulet they could get a considerable force of water anywhere at any time, on the principle that they adopt in the Channel Islands. They use a large number of little windmills to pump the water; and I believe that if they wanted to irrigate at Longley the same plan could be adopted, and would give them a good supply of water. I believe that if they sank an ordinary well anywhere along the river banks they would get any amount of water, even in summer.

221. *By Mr. Propsting.*—You were a member of the Hobart Corporation, were you not, Mr. Baily? Yes.

222. Were you a member of the Waterworks Committee? I am not quite sure. Yes, I must have been; and I was a member of the Public Works Committee. I had a good deal to do with the making of the lower reservoir.

223. That is the one now undergoing repairs? No, not that—the lower one.

224. Do you think the present method of getting water for the city from the Mount Wellington watershed is likely to be satisfactory for future purposes? I believe that there is sufficient water on the mountain, as far as I can judge. I believe sufficient water could be conserved there for many years to come.

225. Conserved where? On the mountain itself.

226. Do you mean by the construction of other reservoirs? They could build other catchments on the top of the mountain: it is a very simple thing. I do not know whether you ever saw the reservoir that was erected on the top of a hill at Gladstone. They wanted the same thing there, and they pump the water up from the Ringarooma River to the top of a hill 300 feet high. They simply store the water up there, and get a pressure of 300 feet.

227. Do you know whether the top of the mountain is of such a formation as would hold water? I believe it will.

228. Do you know? Well, it holds water now; all over the mountain you will find water in many places.

229. Do you think there is any risk of the water on the mountain being affected by tourists and other people frequently visiting it, and by cattle passing about it—the purity of the water, I mean? Did you say that cattle visit it?

230. Well, cab-horses going up to the Springs, and that sort of thing? Of course it is never desirable to have cattle running over the water you are going to drink.

231. Do you think the water is likely to be affected by the constant visits of many people to the mountain as years go on? Well, it will be many years before many people go to the top, for instance.

232. But does not the water supply come from the sides of the mountain as well as the top? I should not think so; not very much of it.

233. Not in the vicinity of the Springs? Not a very great deal.

234. Would it surprise you to know that as many as a thousand people had passed the Springs in one day? I have seen a large number of people up there; but I have never seen anything like that number; I scarcely think it is so, myself.

235. Do you think that large numbers of people promenading on the mountain, and picnicking, would be likely to affect the quality of the water? As a rule, I have never seen any great number of people up there picnicking.

236. But do you think that a large number of people visiting the mountain will affect the quality of the water? There are very few people who get away from the track; certainly no large body of people.

237. I may tell you that we shall probably have evidence submitted to us that a thousand people have been counted passing the Springs in one day—what do you say to that? I have never seen anything approaching it.

238. Do you think that a large body of persons like that visiting the mountain and picnicking is likely to deleteriously affect the quality of the water? I do not think there is much picnicking. The bulk of the people really rest at the Springs for their refreshment, and then they simply go on carrying some light thing to the top, or along the track to the Falls.

239. You do not think that the presence of very many people on the mountain would affect the purity of the water? I do not think so. A good number of them would go along the Falls track, and the water from there breaks away towards Brown's River; it does not come into our watershed.

240. Coming, then, to the North-West Bay Rivulet. Have you ever tested the quantity of water flowing down it in the summer? No, never.

241. Have you any idea of the quantity—would it fill a 12-inch pipe? I could not say; because, you see, the North-West Bay stream is fed not only by the water from the Falls, which is considerable, but also by creeks lower down, which are also considerable in size.

242. How many creeks lower down are there? Several; I do not know how many, but a good many.

243. Well, we have been told by a man who has resided there for 28 years, that there is only one creek below a dam he erected, about  $2\frac{1}{4}$  miles straight below the intake. Do you know of any others? No; I have not been up there. There are several streams coming down there, but I have not had time to examine them. If I had had time after receiving your notice, I should have gone over the ground myself.

244. Do you know how much water the Corporation expected to take from the North-West Bay Rivulet? I do not know; I have only heard on hearsay.

245. So you do not know what quantity they are expecting to take from the rivulet at all? No, I have heard nothing officially; I have only seen what has been in the papers.

246. *By Mr. Hamilton.*—You were saying, Mr. Baily, that your familiarity with the North-West Bay River was largely due to your journeying up and down? Yes, up and down to Huonville.

247. And your track mostly lay about Longley? Oh, it came through there. The old track and the present new one joined at Longley. There was a sort of half-way resting-place there. There was an old hut where you could get a cup of tea, if you wanted it.

248. And at Longley, in your experience, there was always an appearance of sufficiency of water? Yes.

249. And from the apparent supply, as you became familiar with it, you would not think that a 9-inch, or 10-inch, or a 12-inch pipe, put in by the Corporation, would materially affect that river? I shouldn't think so, not if the water was taken higher up; because, I believe a good deal of water goes into that river a long way below the Falls. And even at the Falls, in the driest time, there is a good deal of water coming down.

250. And in your earlier years you were pretty familiar with those interested in small fruit-growing—you know something about that? Yes.

251. Do you think that the removal of that quantity of water would very much affect the fruit-growing industry there? I do not think it would affect the fruit-growers at all—that is my opinion; because I firmly believe that if they wanted the water they would have to get it the way I say, or else by going to some place in the river-bed where there is an opening. There are always ponds all the way down there, just as there are in the Huon River. In the Huon River you will come to a stretch where there is three miles of water, like a large lake; and perhaps a little lower down you could almost cross the river on foot.

252. The choice of aspect for raspberries, generally, is in the valleys? Yes.

253. And it does not follow that a little water taken from this river would affect the valley sites further inland? I do not think so—I do not think it would affect the growth of strawberries or any of these small fruits. They are growing them now at the back of the Fern Tree, on the slopes, and getting very fine fruit there.

254. *By the Chairman.*—How many years ago is it since you traversed the bed of the North-West Bay Rivulet from Longley to the Falls? I never traversed it from Longley to the Falls.

255. Then you do not know the river-bed, really? I have never been up this way to the Falls.

256. Then you have no exact knowledge of the conditions? Only from being at the Falls, and crossing lower down.

257. You do not know the present circumstances of the fruit-growers in that five or six miles from Longley up to the Falls? No; but the water would not affect them at all.

258. But you have no exact knowledge on the subject? No.

259. *By Mr. Hamilton.*—But you have a very long knowledge of that particular industry and the character of that kind of country. The conditions, I suppose, are not different in and from the North-West Bay Rivulet than they would be on the Huon? No; the small fruits would grow just as well there as they have always done. Of course, the country is very much opened up from what it was when I first went through there.

The witness withdrew.

The Commission adjourned till 3 P.M. on Wednesday, February 20th.

WEDNESDAY, FEBRUARY 20, 1901.

T. R. MARSDEN, *called and examined.*

Mr. Marsden was sworn.

260. *By the Chairman.*—Your name? Thomas Richard Marsden.

261. And your occupation? Schoolmaster.

262. Do you know Longley and the district surrounding it—the region of the North-West Bay River? I do.

263. You know the proposition of the Corporation, to take certain water from that river, and diverge it for purposes of the Hobart water supply? I do, Mr. Chairman.

264. Will that, when it is carried out, affect at all the value of land or the interests of the people in occupation or settlement along the banks of that river? I think it will most seriously affect the property of the whole district.

265. Will you tell the members of this Commission in what respect the property of the district will be affected? Firstly, in the depreciation of the value of property in the district; from the fact that that part of the district is conveniently suited for small-fruit growing, and we think that the taking of the water from that river will certainly prevent us from getting the crops which we have been in the habit of getting. In proportion as the water is taken we shall certainly lose the moisture which we now derive from the river; and as the small fruits depend almost entirely on that in the summer time, it is in that way that we shall be seriously affected.

266. Is there enough water going down the bed of that river in the dry season—in the driest month—to fill an 8-inch or 9-inch pipe? I should say not, from what I have seen, and what I have heard from those capable of giving an opinion.

267. Then, if an 8-inch pipe is connected with the North-West Bay River at the proposed inlet, you don't think there will be much left for the inhabitants? I do not. Why, since the last heavy rains this summer, even within the last few weeks, the river has gone down to a surprising extent.

268. Is your opinion shared by the majority of the settlers? Undoubtedly.

269. And they are opposed to this division of the water? They certainly are.

270. *By Mr. Propsting.*—Have you ever followed the bed of the river from Longley upwards? I have.

271. What distance? Oh, two miles and over.

272. In the driest parts of the year, what body of water comes down? Well, I do not think you could call it a body of water at all in the driest part of the year; of course there are certain deep pools. To begin with, I think it is a misnomer to call it a river at all. It is not a river at all—it is a mountain torrent; and in the summer it nearly dries up, except in the deepest holes. Generally the holes are shallow; but there are some holes deeper than others, and in these there may be a fair amount of water. In order to explain this to you, I may say that there is one part of river close to my place, from which we are compelled to draw water in the summer; and I have seen it repeatedly so dry that you could not take up a bucketful of water in one draught.

273. Is the water used for irrigation, at all? Not at all, I think; for this reason: that most of the land is on the hillside, and you would have to throw water up to it by some means, in the case of most of the properties.

274. In what months do you pick small fruits? This year it is difficult to answer that question very definitely. Generally, in January—right up to the end of January. But this has been an exceptional year, owing to the late rains, and we have not quite finished yet.

275. Can you tell the Commission how many tributaries run into this rivulet from the Hobart side, between Longley and the proposed intake? I am afraid I cannot. I do not remember just now.

276. *By the Chairman.*—From Longley to the Falls, on the Hobart side? No, I could not say. There are scarcely any tributaries left, you know—scarcely any, that is, that are not picked up by the Hobart Corporation water supply. There are only two or three to speak of, I think, worth taking; and these are already picked up by the Hobart water supply, so far as my knowledge serves me.

277. *By Mr. Propsting.*—Did you sign a petition against the proposition of the Corporation? I did, on two occasions.

278. Did you take round a petition for signature? No, certainly not. To explain that, I may say that I got some signatures for a petition one Saturday, when I happened to be down there. There were a number of young property-holders interested, who were assisting to clear up the Church of England churchyard, and I happened to be going up myself to give a hand; so I took the petition up, and got these men to sign it. That was as far as I had to do with that part of it.

279. Do you know if any of the residents were in favour of the proposal of the Corporation if, and on the understanding that, pipes were laid on to supply them with water? I believe there were some residents willing to favour the proposal on that understanding. But there was always a doubt expressed, even by those, as to whether there would be sufficient water if the pipes were laid on. We were under the impression that we would have the pipes, and very little water to run in them.

280. Were there many of these residents in favour of the proposal on those terms? No, very few.

281. *By Mr. Guesdon.*—You say that the moisture in the creek would benefit the small-fruit orchards in the vicinity of the creek? Yes, certainly.

282. To what extent? To what radius on each side do you think the orchards would be affected? Well, it is difficult to say to what radius, definitely.

283. I suppose there is evidence of the fact that there is benefit arising? Oh, undoubtedly. It is particularly so in the scrub close to the banks of the river. Passing through there in the mornings you get pretty well wet through.

284. To what distance on each side, then, do you think the moisture of the river would be effective—half a mile, or a quarter of a mile? I should say a quarter of a mile, at any rate.

285. At most? I should think so. I judge that from this fact, that the man above me has his cultivated land well over from the creek, and he has told me that he gets the benefit of the dews at his place.

286. And you say, therefore, that this reduction of the water must affect the interests of the small-fruit growers? From my own observation, I have no doubt whatever on that point.

287. Do you recollect a Mr. Hannam coming round there? Yes, I do.

288. Can you give an outline of what information he gave in respect of this matter—he was a private man, was he not? Yes, he was a professional engineer, and he was sent down on behalf of the residents of the district, in order that he might test the volume of water in the river, and report as to what effect the placing of pipes in the river—the scheme, in fact, now



proposed—would have upon the water supply, so far as Longley was concerned. I think, speaking from memory, that he spent two days, or say three days, in the district, and gauged the water in one or two of the best parts of the river, such as those I have described to you; one part, in particular, near Armstrong's place, where there is a very good flow. And I think Mr. Hannam's opinion was that a 6-inch pipe would then carry all the water in the river. I believe his report is in the hands of a person in Hobart, and I think I could get it, if required. I have not attempted to get it, but I think I could get it; in the interests of this Commission I'll try to.

289. I suppose that the substance of that report was to the effect that interference with the head waters of the North-West Bay River would materially prejudice the rights of the people who are living in that district? That is so—yes. Mr. Hannam's opinion was entirely against the water being removed, so far as the district of Longley was concerned.

290. Is there any other information within your knowledge which you would like to impart to the Commission on this matter? The first time this matter was spoken of, some two years ago, I took occasion to satisfy myself regarding it, in the company of one of the men down there, who is a very good bushman, and knows the lay of the country. On purpose to test this matter we went right through up Millhouse's Creek and across to Snake Plains; from Snake Plains coming back to St. Crispin's Well, and so down the river. And we also went along what was at that time the survey-track—the one they are now using—and measured it; because I was under the impression that the distance stated in Mr. Milles' report at that time was not quite correct. Anyhow, I wanted it measured for myself. Having found his marks on the trees, we followed them and measured the track, with the result that we found it went outside the area allowed to the Corporation at that particular time. I believe that that had a good deal to do with the defeat of the Bill on that occasion. With regard to the water supply itself: when this matter was before the Legislative Council, and the Longley men were invited to town, we thought it possible that some questions might be asked of some of the men; and at that time I had taken the trouble to work out the quantity of water which falls over the area used by the Corporation so far as their water supply is concerned. I did that in order to show that, in our opinion, if there were proper conservation of the water—I speak as a layman, of course—it would not be necessary to touch our river at all. I have those figures with me.

291. You might let us know them, will you? I have only taken half of the catchment area into consideration.

292. *By the Chairman.*—What catchment area are you referring to? The whole of the catchment area which is allowed to the Corporation on the mountain.

293. Exclusive of the North-West Bay River? Exclusive; yes. It is somewhere about 3300 acres altogether, I think; but only half of it is used. It includes the New Town side, which is not used. I have only taken the area actually being used—about 1600 acres—into this calculation. I find, by Mr. Wragge's rain-gauge, that the rainfall at the Springs is 84 inches for the year; and, from that, I worked it out. Taking 244 gallons of water to the ton, one inch of water over an acre gives you 100 tons. That would be 24,400 gallons, and 84 inches would give you 2,049,600 gallons. Multiplying that again by 1600 for the acres of the area actually in use, you get 3,279,360,000 gallons of water for the year. The consumption which Mr. Milles allows per day comes, I think, to 2,000,000 gallons for Hobart, or 730,000,000 gallons for the year.

294. And your total would give you about 10,000,000 gallons per day? Oh, of course, that is the whole quantity of water that fell on the area in use in that particular year. Deducting the 730,000,000 gallons of Mr. Milles' estimate, of course it leaves us somewhere over 2,000,000,000 gallons of water in that particular year, on their own showing. From that, I gather that it cannot be for want of water on the catchment area that they were short. I think, myself, that it must be something in the consumption that's at fault. I had reason to pass the Waterworks myself frequently (pretty well every day for the last six months of last year), by reason of the fact that I walked out to Longley every day; and I walked out nearly every day by way of the Waterworks. I noticed then, that when they started to repair that upper reservoir they actually had to let a good deal of the water coming down from the Gentle Annie Falls go to waste. They removed one of those stones at the bottom of the Falls, and let the water run to waste for weeks and weeks down the waste channel; and, almost at the same time, they were making connections lower down to pick up some little extra dribblets of water to lead into the lower reservoir.

295. *By Mr. Propsting.*—Do I understand that they were at the same time allowing water to run to waste at one place, and collecting it elsewhere to fill the lower reservoir? Yes; that is what they were doing.

296. Different water? Different water—yes; some small creek that they had picked up; but the water that ought to have been going into the upper reservoir was running down the waste channel.

297. *By the Chairman.*—What month was that in? That was when they first started to repair the upper reservoir.

298. In October? Yes.

299. Don't you think the reason of conserving other sources at that time was to keep the lower reservoir pretty full in the driest season of the year? Yes; I think that was the object.

300. And so in what they did they could not very well help themselves, could they? No; I not see how they could help doing it; I merely mention the fact.

301. Do you tell the Commission that the rainfall at the Springs is 80 inches? Yes; you will find that in the Statistics in Walch's Red Book. The rainfall there is something enormous.

302. I understand that the rainfall at the watershed on the 4000 feet plateau is only 40 inches in the year—what do you say? I do not think there is any error in my figures. It says here—I am referring to the last number of Walch's Red Book—that the total rainfall at the Springs from October, 1899, to October, 1900, was 56 inches; that is last year. This was made up in the December previous for the previous year.

303. I thought you said that was the average rainfall? Oh, no.

304. But your calculations are based on the assumption that that is the average rainfall? Oh, no; I simply calculated for that year.

The witness withdrew.

The Commission adjourned till 9.10 a.m. on Thursday, 21st February.

FRIDAY, MARCH 1, 1901.

CHARLES GADD, *called and examined.*

Mr. Gadd was sworn.

305. *By the Chairman.*—What is your name and office? Charles Gadd, Ranger for the Hobart Corporation on Mount Wellington.

306. Can you tell the members of this Commission how many people visit the Springs during the summer months—the tourist season, that is—approximately? I could not give that, not exactly.

307. But I mean to say, roughly? Well, the last year or two there has not been so many as formerly. One year—it would be 1893, I think—I tried to keep a tally, and that year there were over three thousand counted. That was from New Year's Day until the 31st of December following. That was counting everybody, local people and others.

308. *By Mr. Nicholls.*—That is, people who passed the Springs? Yes, passed the Springs, and called at the Springs.

309. *By the Chairman.*—I suppose they camped all over the mountain? The front part of the mountain, sir.

310. On the watershed? Yes, sir. That is the only year that I tried to keep any record.

311. *By Mr. Nicholls.*—I believe that at one time you used to be allowed to take boarders in your cottage? Yes; that was my agreement with the Municipal Council when I took the office, and there was a fixed tariff drawn up for meals and everything.

312. Large numbers of people were sent up to you by the doctors, I think? Several, yes.

313. Now, of course, you were only allowed to let one bedroom, were you not? Yes, sir.

314. And you used to have applications for that right through the summer, I think you told me? Yes, that's correct.

315. How many applicants was the most you ever had outstanding at one time—people waiting to get a chance to come in, that is? Well, at one time, sir—I think it was five or six years ago—a sister of yours was recommended by a doctor to stay at the Springs, and she had to wait for a month before she could get there. That year, I think, at one time, there were nine or ten people waiting.

316. Now, these people who go up the mountain; of course you talk to a great many of them? Yes.

317. They come primarily for the view, I think—that is generally the first idea in their heads, is it not? Yes.

318. And then, in the second place, they want a walk? Yes.

319. They generally walk round the level track if they are not going to the Pinnacle? Yes.

320. Although a great many of them, as a matter of fact, do go up to the Pinnacle? Yes, sir.

321. Have you seen the plan attached to Mr. Rahbek's report on the mountain? No, I have not seen that.

322. I will get you to look at it. [Plan produced and handed to witness.] It is there proposed, you see, to run a barbed-wire fence from the Fern Tree up to the top of the sandstone plateau—to the very top of it—and along the top of the plateau down to the carriage-road, and then down along there somewhere towards M'Crobie's Gully. Well, now, would not that fence practically cut out the whole of the places where the people want to go? (No reply.)

323. It would cut out the track to the Organ Pipes, for instance? Yes.

324. And the track to the Wellington Falls? Yes.

325. And to the Pinnacle? Yes.

326. I suppose the view from that plateau would never be what the Springs view is—you would not get anything like so good and attractive a view as you get at the Springs? Well, of course, you would not get the same view as that from the Springs. From the plateau, to get a view of the Derwent and Ralph's Bay, you would have to fall forty acres of timber or so, and even then

Mount Nelson would shut in the greater portion of Ralph's Bay. The higher you rise towards the Springs the better view you get; and above the Springs it is the same. Even on the flat near the lower ice-house, you get a better view than you get from the Springs.

327. You begin to open up the view just as you leave the sandstone plateau? Yes.

328. Then, putting it broadly, if a fence were put up in that position, it would shut up the whole of the most desirable parts of the mountain? It would shut up the picnic resort.

329. Including the Pinnacle? Yes.

330. I want to ask you, now, about the people who lodge at and about the Fern Tree in the summer. Do you know anything about that? Yes, sir.

331. Mrs. Gadd, I think, keeps a boarding-house somewhere about there now? Yes, sir, "Mountside."

332. Well, now, as a test of the number of visitors, how many boarders has she had this summer? Well, she keeps a small boarding-house, and she has had to refuse people right through the season.

333. How many boarders has she? She has seven, at present.

334. How long before the season began did they engage their rooms? Well, two ladies—a lady and her daughter—now staying there, engaged theirs at the end of July last, to commence on the 5th of January.

335. Do you happen to know how the other boarding-houses are doing—are they equally full? Mrs. Smith's house has been full the whole of the season; and I think she must have refused fifty; while, at the present time, others are writing for rooms to be vacant.

336. How many people do you think there are boarding at and around the Fern Tree, altogether? It's a little slack now.

337. Well, now, in the fall of the season, I mean? Well, I could tell you that now. Mrs. Smith has twenty-six; Miss Hall has five; Mrs. Grubb has eighteen; Mrs. Gadd has seven; and the hotel has four. That was this morning. Mrs. Crockett has *nil*.

338. And there have been more than this enter in the season? Yes.

339. I suppose it's dropping off generally, now? Yes, sir. Christmas week, to the end of January, is the thick of the season.

340. How do these people—these visitors—put in their time? Well, this year, and last year, and the year before—

341. Never mind that. Do they picnic about the mountain much? Chiefly that, sir.

342. That is their main occupation, I suppose? Yes. There is a doctor and his family and another lady, for instance. During the whole of their stay, they have been to the Springs, the Organ Pipes, the Wellington Falls, Snake Plains, or St. Crispin's Well almost daily.

343. They walk all over the watershed, in fact? Yes.

344. Do you have many inquiries for rooms at the Springs? This year we have not had so many inquiries as we have had in other years, on account of the report being in the paper last year of our not being allowed to take boarders.

345. I suppose there are some people up the mountain pretty well every day in the summer? In the summer, almost daily, sir; unless it is very, very wet.

346. And on holidays? On holidays, latterly, there have not been so many as formerly.

347. Do you remember New Year's Day, 1890—it is rather a long way back, but you might remember it, because the fares that year were very low, the Union Company's and Huddart Parker's? Yes, I remember.

348. Do you know how many people there were up the mountain that day? No; I could not say.

349. Well, if it has been said that a thousand were counted, are you prepared to say that must be wrong? I do not think it would be so many.

350. How many would you estimate it at, roughly? Well, I could not say, sir. Of course, I was not living at the Springs then; I was living down below. But the most I ever counted in one day—that was New Year's Day, four years ago—was 210; and I believe that some were missed then. That is the most that has ever been counted in a day since I lived up there.

351. *By Mr. Propsting.*—And, on the same occasion, would there be more at the Bower, do you think, than at the Springs? Yes, I think so.

352. So that you would suppose, if 210 passed the Springs, there would probably be more than 210 visiting the Bower? Yes, sir. I have counted forty different traps in the Fern Tree yard at one time.

353. Is that since the road to the Springs was made? No, sir; that was before.

354. Can you give the Commission any idea of the number of traps that visit the Springs in the height of the season? Well, the first year the road was opened—at Easter—there were thirty-seven traps at the end of the road there at once—that was brakes, cabs, spring-drays, and shays. But since then, fifteen or sixteen has been the outside.

355. And how long would the horses remain there? Some remain there all day, and others go back to the Fern Tree, and stable there. That is on account of there being no stable nor covering for the horses at the Springs.

356. *By Mr. Nicholls.*—It is absolutely dangerous to the horses to leave them exposed on top of the drive, isn't it? Yes; and I know that Thomas Austin, the livery-stablekeeper, gives his drivers distinct orders to drive back to the Fern Tree whenever his traps go up there.

357. *By Mr. Propsting.*—And where does the drainage from that Springs road flow to? Dunn's Creek, I think, it would make for.

358. From all parts of the road? No, not from all parts. The far end of it, on the spur, would either go to the Cascades side or the Bower side.

359. That is to say, the drainage from the road at these points would go into the sources either of the Hobart Rivulet or the Bower Creek? Yes, sir.

360. Do these places you refer to form part of the Hobart watersheds? Yes, sir.

361. Can you venture any opinion as to the number of visitors who visited the mountainside in, say, January and February of this year? Well, this year would be slack, sir: January was very wet.

362. Well, what is your estimate? It would go very close to a thousand, I should think; that is, during the two months.

363. Does that include visitors to the Bower? No, sir; that is above the Bower, to the Springs and the mountain. Of course, I could form no idea of the number of visitors to the Bower, because some days I am not down that way.

364. And you think that visitors to the Bower are more numerous than those to the Springs? Yes, sir; because the afternoon brakes from town—there are four daily—run to there, and they are mostly loaded during the months of January and February.

365. Are there no conveniences for visitors about the mountainside? No, sir.

366. And there is no provision made for sanitation, excepting at the Springs? That is all, sir.

367. Is there anything that, from your own knowledge, you would like to add to what you have said? Of course, I might state one thing. On holidays there are a great number of people go up to the huts on the Cascade estate. That is above part of the supply.

368. Now, before you go, Mr. Gadd, I think I would like to ask you one question with regard to the top of the mountain. In the depth of winter, is the top of the mountain approachable? I have seen it that way that you could not get across.

369. Well, assuming that there were works up there that required overlooking, would any length of time pass in the winter when it would be impossible to be on the spot? I think not. I have not been right across by the Pinnacle, but I have been on the flats in the very worst of weather.

370. And would you be able to go out any time? I went when there was about the deepest fall of snow we have had during my time there. I went across to take the rainfall for Mr. Kingsmill. That was in July, about our severest month. But I was a considerable time getting over it, of course.

371. *By Mr. Nicholls.*—And, of course, there is much weather there during which it would be impossible to carry on any work there? Oh, yes; there are three months in the year—quite three months—when you would not be able to do any work there, on account of the snow.

372. And there are times when the weather is bad—when the works, and everything connected with the works, would be simply buried in snow? Well, I saw the observatory hut—the shape of it—in the snow when I went up that time, but I could not see the hut itself; that was last July.

373. *By Mr. Propsting.*—Would it be very difficult to cart material to the top of the mountain to carry out any large works? You would have to improve the track considerably to get any bulk of stuff up. The stuff that the observatory hut was built with was carried up by men. But if you had light drays and horses, and the track was made, and deviated in one or two places from the present track, you could get material up, if you took light loads. It would be an expensive item.

374. Would the fodder have to be taken up for the horses,—is there anything to eat up there? Oh, there is nothing for them to eat up there; it would have to be taken up.

375. All fodder, and everything else, would have to be taken up? All fodder, certainly; yes, sir.

376. *By Mr. Guesdon.*—Do you think that, in the interests of the public safety, the Springs road should be further fenced than it is? I think myself, sir, that it should be fenced right through.

The witness withdrew.

ROBERT S. MILLES, C.E., recalled, and further examined.

377. *By the Chairman.*—I have a proof of your report to the Mayor of Hobart here, Mr. Milles, which I have been going through. I only received it yesterday. I wish now to ask you two or three questions with regard to it. First of all, will you tell the Commission what the respective storage-capacity of your two existing reservoirs is—the upper and the lower? The upper one is about 60,000,000 gallons of available water, and the lower one about 40,000,000 gallons. It must be borne in mind that that is available water. Of course, they would hold more than that.

378. What is the daily consumption in Hobart and the suburbs in the worst months of the summer? About 2,200,000.

379. Then, in that case, these two reservoirs hold about fifty days' supply? Yes, that is taking all the water consumed out of them only.

380. And making due allowance for evaporation, they would not hold fifty days' supply? Yes, they would; that is, if they were not fed from day to day from the sources upon the mountain. These figures I have given allow for the evaporation, and the bottom-water we don't utilise. The reservoirs hold more than I have stated; but the quantities I have given are of the available water, after making due allowance for evaporation, bottom-water—everything.

381. Fifty days' supply, nett, then? Yes.

382. Now, there is a statement here, which you quote from a report of Mr. Gale's, to the effect that the rainfall for the three months of the summer of 1842 and 1843 amounted to three-quarters of an inch only, while the rainfall for the whole of the next six months was a fraction over two and three-quarter inches. Yes; I have those rainfalls with me here, sir. In December, 1842, there were 11 points; in January, 1843, 55 points; in February, 11 points; and in March, 2 points.

383. It is a fact, then, as you state, that the rainfall for the three months, December, 1842, and January and February, 1843, was only three-quarters of an inch? Yes.

384. And for the six months, only two and three-quarter inches? Yes.

385. And the total rainfall for that year was less than  $13\frac{1}{2}$  inches? Oh, that is taking the two half-years, of course—half of 1842, and half of 1843. The rainfalls given are for each separate year; but the rainfall I have quoted is for half of one year and half of another.

386. But, you see, you do not say so here. This is your report:—"The rainfall for three months of the summer of 1842-43 was only  $77\cdot100$ ths of an inch, the rainfall for six months of this season being 2·85 inches, and the total rainfall for twelve months was only 13·43 inches." That is your report? Oh, that's correct.

387. Very well. Now, if we had had a similar season this summer, with only one reservoir in use, what would have been the result so far as our Hobart water supply is concerned? Well, you would have run short on your high levels.

388. Shouldn't we have run short on the low levels? I do not think we would have done that.

389. Now, Mr. Milles, I want you to consider this very carefully for a moment. Let me make it clear again. What is the capacity of the lower reservoir? Forty million gallons.

390. Less than twenty days' summer supply? Yes.

391. Very well. Now, if we had had only three-quarters of an inch of rainfall in the past three months of this summer, would there have been any water in the reservoir at all? You would have been sure to have had some incoming water, even if you had had three months without any rainfall.

392. Two million gallons a day, do you think? No; but, as I have stated before, our lowest supply from the mountain is 1,000,000 gallons a day.

393. Let us have it clearly. I want you to go into the matter, taking your own data, and tell the Commission whether there would be any water at all in the reservoir now if you had only had three-quarters of an inch of rainfall this summer? I can only go by experience. In the summer of 1886 hardly any rain fell, and we had nearly a million gallons of water a day coming in.

394. But the circumstances at the reservoirs are different now, and here are other data. The report does not state what quantity of water there was coming in in 1843, but it does state the pregnant fact that only three-quarters of an inch of rain fell in three months, you know; that is, in Hobart? You are taking it for granted that there is no incoming water. You must make allowance, in the first instance, for the amount of water you would get from the mountain in a dry season.

395. Tell me, if we had only had that rainfall this season, would there not have been a water famine? On the high levels, I think there would.

396. Not on the low levels? Not on the low levels. I have got the record of the rainfall for Hobart here. In 1892 only 15 inches of water fell in Hobart, and we got through all right.

397. You had two reservoirs then, you know? Yes; but, all the same, it was very warm that year, when only fifteen inches fell.

398. Now, coming to your estimates for these three reservoirs on the plateau. There is one reservoir to be constructed which it is proposed shall hold 15,000,000 gallons—that is the first one? Yes.

399. Well, that would hold a little over seven days' supply, wouldn't it? Yes, taking the actual supply.

400. And the estimated cost of that reservoir is £17,000? Yes.

401. Will you tell the Commission how you arrived at that estimate of £17,000? I took out the quantity of earthworks, and based it, as near as I could, on what I thought would be a fair price for the work.

402. Can you remember the price? Yes, I think I have it here.

403. What do you estimate for the material, excavating, carting, and rolling in the dam itself? 5s. 6d., I think it was, or 6s. a yard for the ordinary material, and 8s. for the puddle.

404. And where do you get your puddle from? Well, you would have to use the best material you could get up there; it would have to be weathered.

405. Of course you know that we examined those shafts you have had sunk up there, the other day, Mr. Milles. I want to ask you an important question—whether you consider the available material there equal or inferior to the material on the inner slope on the upper dam of your existing reservoirs, which has failed, and is now being repaired at great cost? It would not stand, I daresay, as a slope; but it would stand in the form of a centre core, closed in.

406. But is it equal to the material which has failed on the inner slope of the upper reservoir? Oh, yes; certainly.

407. That's not saying much, is it? Well, I think it is far superior to that, as a matter of fact.

408. Well, now; these other two reservoirs you propose to make will cost about £12,000 each, will they not? Yes.

409. And I suppose that you have taken the same data in estimating the cost? About the same data—yes.

410. Wouldn't you have to make a road or a dray track up that mountain to begin with, if only to take up fodder, tools, implements, and so on? I think you could do it all by pack-horses.

411. That would require a track, wouldn't it? Oh, you would have to widen the track, I think.

412. Now, I am going to ask you a general question. Seeing that to give effect to these proposals would involve the shutting up of the mountain for ever to tourists from all parts of Australia, and that even then you would only get seven days' supply from one reservoir and ten days' supply from the other two, or less than one month's supply, as a result of the conservation got by this expenditure on the mountain: seeing that these things are so, would it, in your opinion, be wise to go on with these works, or to at once definitely face the difficulty by going further afield to the upper waters of the Derwent, and bringing in a supply from there which would serve for all time? That is rather a hard question to answer exactly. It is simply a question, to my mind, of whether the citizens could bear the cost of it.

413. That is another question. We are not now discussing the question of whether the cost of any such work would be borne by the Government or by the citizens, or by the Government assisted by or assisting the citizens, or by whom: we are not dealing with that. I am asking you for your opinion as an engineer. We have now entered on a different and larger national life as part of the Commonwealth of Australia. We may fairly and reasonably look forward to a large expansion of our tourist industry, which requires expansion, and which is an industry of great value. Do you think it would be well to close that mountain, which is a popular and healthful resort for tourists, for the sake of getting twenty-seven days' supply of water for Hobart? I do not think you would close the whole of the mountain; you would only close a portion of it.

414. I want to call your attention to a report here. But, first of all, are you of opinion that tourists should be allowed to camp and picnic all over that mountain, under present conditions? Certainly not.

415. Well, in closing your report, you say: "I cannot close this report without referring (as I have done on previous occasions) to the necessity of laying down a pipe-main along the Springs watercourse, and likewise of continuing the same down to the Bower; by which means, not only would a large portion of the water from this part of the mountain be saved in summer time, but it would keep it free from contamination, as it must be remembered a large number of visitors to the Springs travel along this watercourse." Are you still of that opinion? Yes.

416. You have probably seen Mr. Rahbek's report, in which he says: "In my opinion, the authorities are running a great risk in allowing a family to reside in the cottage at the Springs, where, moreover, the presence of a shelter-shed induces the public at large to visit the locality; and I strongly advise that the Springs cottage, the shelter-sheds, and any other sheds there may be in the vicinity, be removed as soon as possible to, say, some place below the sand-cliffs, and the place at the Springs to be thoroughly cleaned." And then he goes on to point out the serious danger of epidemic that arises from a polluted water supply, and so on. You know all that? Quite so.

417. Well, in view of that, he also recommends that this road to the Springs be deviated and taken from that area of the watershed. As to that, also, I suppose you practically agree with Mr. Rahbek? Yes.

418. Would you, in the event of the construction of these three reservoirs, advise that the pinnacle and the whole of the plateau should be closed to the public? I think, Mr. Chairman, that it is only a portion would need to be closed off to ordinary tourists. As to the main spur of the Springs, I believe that the water could be diverted so that it would not be contaminated at all.

419. Would you still allow tourists to go to the Pinnacle? No, I would not. Of course, a portion of the Pinnacle water goes away on the town side.

420. But this plateau is where you get the water from? The Pinnacle track is not the plateau.

421. But a very little is sufficient to contaminate the water supply? Oh, certainly. As a matter of fact, Mr. Rahbek, before he made that report, called on me, and had a long consultation with me about it. He mentioned then the fact that he considered it necessary to put wire fencing up. I know, of course, that that is done in other places. The principle is to keep watersheds as free from contamination as possible.

422. Yes; and that principle is violated here in every possible respect? It is done on that portion of the mountain.

423. And although you have reported to the Mayor, and Mr. Rahbek to the Government, that every possible precaution should be taken to keep the water pure, and that with that object in view the cottage should be removed from the Springs, yet the Corporation has disregarded you and Mr. Rahbek alike? I cannot say that altogether, because there has been some difference of opinion about the land and who it belongs to.

424. But nothing has been done? Oh, yes; the stable has been removed, and Mr. Gadd's family has been removed, with the exception of himself and one daughter.

425. And the tourists? Oh, yes; the tourists go there still, of course. I don't see how the Corporation can stop them. The Government claims the right to make that road and keep it open.

426. And you still think it would be a wise thing to disregard all these things, and build these proposed reservoirs on that plateau—honestly, Mr. Milles, do you think the game is worth the candle? Oh, of course, I would sooner see a good permanent scheme; most undoubtedly.

427. I want to quote to you a report of Dr. Sprott's. You are aware, of course, that not only have you reported against this contamination of the watershed by tourists, but that Dr. Sprott has also reported? I reported in conjunction with Dr. Sprott.

428. And Mr. Mault also reported to the same effect, I think? I believe that Mr. Mault did report, in the first instance.

429. Anyhow, on January 10, 1899, Dr. Sprott writes:—"Mr. Mault reports he is opposed to any habitation or 'anything to encourage the frequentation of it (watershed) by holiday-makers or tourists.' The principle of keeping the watershed as reserved as possible is therefore admitted on all sides." Then Dr. Sprott himself says:—"With regard to the existing house at the Springs, and the risks of pollution, I have already expressed regret that they should be allowed to exist; and, if it be not possible to remove them, the Council should exercise the greatest care before doing anything that may increase existing evils." So that, you see, all the authorities have spoken in the strongest possible manner about the evils of allowing tourists to go on that mountain, and of keeping the habitation there at the Springs, and Mr. Rahbek has gone so far as to say he would put a barbed-wire fence round the place. You think that is advisable? Yes; so far as this question of tourists going there at present is concerned, I certainly think it is a most dangerous thing.

430. *By Mr. Nicholls.*—The proposed extension of the Springs road from its present terminus to Gadd's cottage has been burked, hasn't it; because the Corporation object to it on account of the danger of horses going up there? Yes; the original proposal as to the roadway was submitted to the Corporation, and certain correspondence followed, the result of which was that the construction of the road was changed in one or two points. And a letter was sent to the City Council from the then Minister of Lands, Mr. Pillinger, stating that the road should not go above a point 180 feet below the Springs. That point, as a matter of fact, was reached at the 8th mile-post on the new road, so that guarantee was, of course, broken later on, and the Council objected.

431. So that the extension of the road was really stopped owing to the danger of the water supply being contaminated? That is so.

432. And anything in the way of future construction of a road to the Pinnacle is out of the question while that is a water-reserve? Well, any water from that part of the mountain would go into the Hobart Rivulet. Then, you see, it would be a question of that supply, and not of the Corporation water supply. The brewery would come in there.

433. *By Mr. Propsting.*—What is the total length of the streets in Hobart, in miles? Very nearly thirty-eight miles.

434. What is the average width of streets, in feet? They vary from 60 feet to 66 feet for the largest. On Battery Point, however, there are several only about 33 to 40 feet wide.

435. What is the total number of houses, stables, and factories in Hobart? In the city?

436. Yes? There are about six thousand properties in the city, as far as I can say.

437. Can you give us the number of municipal and public buildings—schools, hospitals, fire-stations, barracks, and so forth? I have not been able to get the exact number of these at present.

438. What do you estimate the number of inhabitants at? The population of the city was given by the Government Statistician in 1899 as 30,560, and, with the suburbs, 41,040.

439. What common sewers are there in the town at present, and what is their total length? The only proclaimed sewer is really the Hobart Rivulet, and any covered sewer connected therewith. But the other open creeks have become, practically speaking, common sewers, from the fact of houses draining into them in years past. Such creeks are the Sandy Bay Rivulet, the Park-street Rivulet, the Letitia-street Creek—a branch of the Park-street Rivulet—the Queen-street Creek, and the Goulburn-street Creek. The portion of these that is covered is, approximately, about  $1\frac{1}{2}$  miles, and about six miles of them are open. The pipe-sewers I have not been able to get the correct length of, as there is no authentic map existing of the old sewers of the city. I have never had such a map, and it has been very difficult to discover where some of the sewers are. But, as far as I can ascertain, approximately, there are about eight miles of pipe-sewers in the city.

440. What is the capacity of these sewers—what proportion of the total production of industrial and rain-water can they carry? They carry the whole of the storm-water at present; all the water coming into the watershed of the City of Hobart and the immediately surrounding districts.

441. Do not the surface-gutters carry any? Yes; but they all go into these sewers eventually, with the exception of one or two sewers emptying under the wharves. The Sandy Bay Rivulet drains all the watershed it traverses, but the Hobart Rivulet is the main one.

442. Is there any provision made for flushing any of these sewers in summer? Whenever any portion of these sewers—of these dry creeks, as they are called—gets very foul, they are generally flushed, either with salt water or fresh water.

443. What provision is made to carry faecal and other sewage from these creeks in the summer months. Well, there is no provision, except for those sewers which are paved.

444. Which sewers are paved? A portion of the Hobart Rivulet, to a good distance up.

445. And no provision is made for scouring the others? Well, as a matter of fact, there are very few closets emptying into these now. The Hobart Rivulet is the main one carrying matter from the closets.



446. Can you tell us how many closets empty into each of these sewers? Five hundred and twenty-one into the Hobart Rivulet; 194 into the Derwent, from houses round the shores; 62 into the Park-street Rivulet; 40 into the Melville-street and Elizabeth-street Creek; three into the Goulburn-street Creek; and three into the Sandy Bay Rivulet.

447. Are there any water-closets emptying into sewers or creeks in Hobart, contrary to statute or municipal by-laws? Well, that has always been a rather moot question.

*Mr. Nicholls.*—There are legal opinions on that, which we can get; I have copies of them myself. It is a difficult question, and I don't think you could expect Mr. Milles to answer it.

*Witness.*—I may say that the late Alderman Bradley tried on several occasions to move in this matter, and get so-called laws enforced; but there have been stumbling-blocks in the way, in every instance.

448. *By Mr. Propsting.*—What is the density of population in Hobart? I think it varies from about nineteen to twenty per acre. That's the average.

449. Has any plan been prepared showing the levels and by-circles in the most populous districts of the town, graduating to the least inhabited parts? Not by the Corporation, that I know of. I am not sure whether Mr. R. M. Johnston has such a plan. I have none in my possession.

450. You do not know whether the Metropolitan Drainage Board has done anything of the sort? No, I am not able to say.

451. What is the present system in use for removing sewage from Hobart? The pan system, in addition to the water-closets.

452. And where is the sewage conveyed to from the pans? It goes to Maria Point, down at Ralph's Bay, some nine miles down the river.

453. And what are the terms or duration of the contract? I think it is a three years' contract, expiring at the end of the current year, the 31st December, 1901.

454. Has the Corporation entered into any contract with anyone to receive the sewage? Oh, only with the contractor to take it away under the terms of the contract, subject to the supervision of the Local Boards of Health interested. His contract is, I think, 1-7<sup>6</sup>/<sub>16</sub>d. per pan.

455. What is the annual sanitary rate actually paid by each householder? Household-ers with assessments of £24 and under, 12s. each; over £24 assessment, 6d. in the pound. Of course, that covers and includes not only the cost of removal of pans and incidental expenses, but also the cost of the department—Health Officer, other officers of the department, supervision, inspection of premises, and so forth.

456. Are the public buildings and hospitals fitted with water-closets? Yes, nearly all of them.

457. Can you give any approximate estimate of the quantity of sewage conveyed from the town by the contractor? Well, it's a very difficult estimate to give. As near as I can get it, on a computation of the number of pans removed in the year, taking the contents of the pans on what seems to be an accurate average, it would be between 200,000 and 300,000 cubic feet per year. But included with that, of course, there would be a large percentage of ashes, put in by householders to deodorise the contents of the pans.

458. Are there any cess-pools in town? A few; only three or four, I think, now.

459. In the houses where pans are used, what becomes of the household slops? Oh, that all runs into the gutters.

460. That is, into the surface gutters in the streets? Yes; with the exception, I may say, of several properties in the centre of the city where they have the pan system, but are also connected with a pipe-sewer. In the case of such properties, of course, the slops are conveyed into the sewer.

461. Does the Commission understand, then, that in the great majority of cases where pans are used, the slops from the kitchens and the bedrooms go straight out into the streets? Yes, in most cases. There are some large properties where owners take a little more care, and put the bedroom slops on the ground; but in many cases, or most cases, the bedroom slops go into the street.

462. What is the total amount of water used per day in the months of January, February, and March? The maximum during these months, as I stated just now, is 2,200,000 gallons a day.

463. What proportion of that is used for sprinkling gardens and streets? I have not got a copy of the report dealing with that. I made a report to the Drainage Board in March, 1899. That will give you the figures as near as it is possible to get them—the sub-division of the consumption of water, I mean. I can tell you approximately what it was. I made a previous report, but it was revised afterwards. About half a million gallons a day, or nearly that, was estimated to be used for irrigation purposes.

464. Does that include street-sprinkling? No, not the street-watering. But I may mention that during the very dry season we do very little flushing, and all the street-watering is done with salt water pumped up from the dock.

465. Then the difference between the quantity you have just stated—half a million gallons, I think you said—and the total amount of consumption would be used almost entirely for domestic purposes? Oh, no; there are the Government offices, using a very large quantity, and the shipping, and the amount used for other public purposes, such as for urinals, &c. Then there is the amount used by trades and manufactures—a very large item—and a further large amount used for hotels and stables, and miscellaneous purposes.

466. Can you tell us the total amount used by baths and laundries? No; only a few of them are metered. Practically speaking, all the large businesses are metered, but I could not give you the consumption.



467. Would you care to give the Commission any estimate, based on the present rate of increase, of the population of Hobart and the suburbs of New Town, Queenborough, Glebe, and Mount Stuart, say in twenty-five years' time? Well, it is rather a difficult problem. From 1870 to 1881, Hobart, the city, increased by over 2000 souls; from 1881 to 1891, by 3780; from 1891 to 1899, by 5650. So it has gone up on an increased ratio all the time. Therefore, taking the suburbs into the calculation also, I fancy we would want to make large provision for the next twenty years.

468. *By Mr. Nicholls.*—The suburbs' rate of increase is something like a thousand a year, isn't it? (No reply.)

469. *By Mr. Propsting.*—Do you estimate that the population of Hobart and the suburbs will be nearly doubled in the next twenty-five years? I do not think it will be doubled. I think you might assume that it will be half as much again as it is now; say, about sixty thousand. But, of course, it is a very problematical matter indeed.

470. Do you know whether the mortality of the city is on the increase or decrease? I have not my statistics with me on that point. You might get that from the Officer of Health.

471. What proportion of the population has water installed in the houses? We have 6850 properties now connected with the water supply.

472. And how many public closets or urinals are there? About half a dozen.

473. Can you give us any approximate information as to the quantity of water these places consume in a year? No; none of them are metered.

474. Has the Corporation considered a project of sewerage schemes, and, if so, what scheme has been considered? No, they have not; not as a public body, that is; not since my time.

475. Have you formed any opinion as to the best means of disposing of the sewage of Hobart and its suburbs? Oh, I have, privately. I have never published anything officially.

476. Can you tell us what means you would propose? Well, I would not care to, without I took time to answer, and went into it carefully.

477. Would any satisfactory scheme require a larger supply of water than we have at present? I do not think it would—not per head. But would you have a guarantee that you could be sure of getting that quantity all through the twelve months—not only in the city, but in the suburbs?

478. Would the proposed storage of water on the plateau of the mountain give any greater pressure at the high levels of the city? No; it would only affect that as to keeping the high-level main full. It would not alter the pressure otherwise.

479. Is any reliable record kept of the rainfall on the plateau at the top of the mountain? The nearest one has been the Springs record. That has been kept since 1891. I have made a very careful comparison of that with the surrounding districts, from which I have arrived at the total, or estimate, stated in my report on the mountain. The average rainfall at the Springs since 1891 has been about 54 inches per annum; and from the observation, or the experiment, rather, of Mr. Gale, I have been helped in my conclusions. He found that the rainfall on the plateau is about two and a half times what the rainfall is in town. I should certainly think that you could safely calculate on not less than 40 inches of rain on the plateau in the twelve months in the driest season. It is on that estimated fall that I have based my calculations. That is to say, I have taken it at twice the quantity of the low-cycle rainfall in the surrounding districts of Hobart, Glenlusk, Mount Nelson, New Norfolk, New Town, and the Botanical Gardens. I have averaged these, and I think they show about twenty inches per annum as the low-cycle rainfall.

480. Would you draw on the proposed reservoirs on the plateau all through the year? Oh, no, sir; only in the dry season.

481. Would you release any portion of the water conserved to supply the North-West Bay Rivulet in summer? If you intercepted the whole of the running streams on the plateau during the summer time, and it was a very dry season, I expect that you would require to do that—perhaps to the extent of a quarter of a million gallons a day. On the other hand, I would point out that Mr. Randall's gauging of the North-West Bay River has a bearing on that. He gauged the stream from Longley upwards—from the junction of the Plains Rivulet to a point about half-way between that and Longley—and he estimated that there was, in addition to the main stream, an amount of four hundred odd thousands of gallons a day coming into the river between those points. That is much below St. Crispin's Well, and very much below the level of the proposed intake.

482. What did you say would be the storage capacity of these three reservoirs on the top of the mountain? You could get about 20,000,000 gallons from each, I think, upon the average.

483. And that would last about a month, at the present rate of consumption? Yes, about a month, allowing for no incoming water.

484. But it would not last so long, of course, if you had to liberate a quarter of a million gallons a day to supply the North-West Bay River? Of course, I have always, in the first instance, calculated what, practically speaking, we can get from the present mountain sources, and I can only go by the lowest supply we have ever had from there, which is about a million gallons a day. Now, I have assumed that we take half a million gallons a day out of the storage reservoirs; they would then last 150 days. Making up from the reservoirs and the North-West Bay River, we might reasonably expect to get at least 700,000 gallons a day.

485. That is without interference, practically speaking, with the residents interested in the North-West Bay River? Yes. I believe that now the streams between St. Crispin's Well and the intake will be found to give fully 200,000 gallons a day. I was up there the other day, and I found that since we have opened out two of the streams they show up very well indeed. I believ

that with the North-West Bay River and the reservoirs on the plateau we would be able to get 2,500,000 gallons a day constantly. Your storage would be in this position, then: your present reservoirs would last 150 days, and these reservoirs on the mountain would last 80 days without any run of water into them. But it is not at all likely that you will ever get 80 days on the mountain without a heavy rainfall to fill the reservoirs again; so that I contend that 80 days' allowance in these reservoirs would be equal to 150 days' allowance of your other reservoirs. It is almost impossible that you could go two and a half months on the mountain without rainfall.

486. Well, with this additional storage, can you give any idea for how long Hobart and its suburbs would have an adequate supply, supposing a system of drainage were installed? Well, probably in ten years' time, with a fair proportionate increase of population in the meanwhile, it would be necessary to build another reservoir—almost sure to be.

487. What was the estimated cost of construction of the first reservoir; and what the absolute cost? In Mr. James's report to the Waterworks Committee he states that his estimate for the works in the first instance was £34,867; and the actual expenditure on the reservoir and adjacent works, I find, from the Accountant's books, was £34,650. I would like to explain that that amount includes not only the embankment, but the storm-channel and the No. 2 main to the Marquis of Hastings reservoir at the top of Hill-street. It covers the cost of the reservoir and all works connected with it.

488. What has been the cost of repairs to that reservoir? Well, there have only been two large repairs; one necessitating an expenditure of £800, owing to a slip underneath the storm-channel, I think, in 1896; and another, necessitating an expenditure of £200, on the embankment, in 1898. That is exclusive of ordinary maintenance.

489. Then I ask you what the amount expended each year in maintenance was? I have not been able, at present, to collect the details as to that for several years back; but I can give it you for one year, as an indication. The cost of the mountain supply—which includes all the reservoirs and works in that district and the whole of the maintenance and work in connection with the mountain—for 1899 was £442.

490. *By the Chairman.*—Is that for the whole year? Yes, as nearly as I can arrive at it. It is almost impossible to give you precisely the actual cost, unless I went through the Accountant's books, and reckoned it in close detail. Everything has to be charged to current revenue, and there is only one wages-sheet kept for all city work and maintenance work, unless, of course, it is any special work authorised by the Council, such as these repairs now in progress: such special works as those go on a separate sheet. The ordinary maintenance work is all entered in the one weekly sheet.

491. You cannot tell precisely what the cost of maintenance is, without analysing the accounts? Not exactly. It would take many days to get the information. It would incur our going through all our day-books.

492. *By Mr. Propsting.*—You do not keep a separate account, then? We keep a sort of abstract in our department, but the Accountant simply averages them. Our ordinary maintenance work, as I said just now, is all included on the one sheet, even the cost of cartage. It would be very difficult to analyse it, unless I went into it very closely.

493. Can you give us the estimated cost of the second reservoir, and the actual cost? The contract was let for £11,737 1s. 11d. That was in August, 1889; the work was completed in April, 1895. The total actual cost was £12,921 15s. 3d., but that included about thirty per cent. more work than was anticipated in the contract.

494. Now, can you give us a comparative statement of the cost of water per head to the inhabitants of Hobart and other capitals of Australia, and say whether in any case the cost includes water for additional services? It is rather difficult to say whether the returns include special services or not. The only way I can give you an answer to this question is to base it on the population, and either the revenue received or the expenditure. I think the revenue would be the best basis, because the expenditure varies: it may go up one year and down the next, that is, while the revenue keeps somewhere about a regular average. Taking the revenue as the basis of calculation, Sydney works out at about 8s. per head as the cost of water; the capital indebtedness is a little over £9 per head. Adelaide, 9s. 5d. per head for the cost of water, and indebtedness £11 per head. Brisbane, 14s. 3d., cost of water per head per annum, and £9 capital cost per head, indebtedness. Melbourne, 7s. 3d. per head per annum; indebtedness, a little over £8 per head. Hobart, 8s. per head for cost of water, and indebtedness, £4 10s. These are the only colonial cities I have been able to obtain returns of. The figures are from the return based on the operation of 1898.

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GREGORY SPROTT, M.D., D.P.H., *called and examined.*

Dr. Sprott was sworn.

495. *By the Chairman.*—Your name, Dr. Sprott? Gregory Sprott.

496. I believe you hold a diploma for public health, in addition to your other qualifications? Yes, I have such a diploma.

497. I hold in my hand a report from you, presented to the Corporation of Hobart, and dated, 10th January, 1899. In it, you state that you are strongly opposed to any habitation being erected

upon the watershed of the mountain, or any contamination of the watershed by tourists being permitted. You remember writing that report? Yes.

498. You are still of that opinion? Yes; I am still of that opinion.

499. Now, the Commission has before it a proposition of the Corporation to further extend its provision for the storage of water, by constructing three reservoirs on the plateau at the 4000 feet level; and I have it in evidence that these three reservoirs will hold, when full, an amount of water equivalent to twenty-seven days' supply of water at the present rate of consumption. Are you of opinion that it is wise to extend provision for the storage of water on the mountain—or do you think that it would be better, in view of the rapid increase of population, to go further afield to obtain a copious supply, adequate for all purposes, from the upper waters of the Derwent? I think it would be very much better, in the interests of the citizens, to have a copious supply. Twenty-seven days' additional supply, at the present rate of consumption, is not very much, after all, and we have been frequently told that our present supply is not sufficient for the purpose of any drainage scheme. It occurs to me, therefore, that unless we get a copious supply, we will not get a drainage scheme; and a drainage scheme is one of the institutions most essential for the future welfare of Hobart.

500. And we have it from the Director of Waterworks that, even if these proposed new reservoirs are constructed, in ten years further storage accommodation will be required. That fact, I suppose, would tend to strengthen the opinion you have expressed? Well, under those conditions, I should say that you certainly ought to go further afield. But I may say, in addition to that, that you will either have to have your watershed on the mountain protected, or you will have to abandon it. You will have to give up all idea of allowing human habitation on the watershed, or you will have to give the watershed up. You cannot have the two; they are incompatible.

501. That is to say that if you go on conserving the water on the mountain, you will have to shut off the mountain from tourist traffic for ever? That is what I should do, if I could, in the interests of the citizens. It has been proved that water is frequently contaminated by human habitation. You must either give up the idea of getting your water from the mountain or you must protect the mountain from all chances of contamination. That seems to me to be clear enough.

502. Can you tell the Commission whether these cobble-stone gutters in Hobart are flushed daily in the summer? I could not say that; I do not think they are. I know that many gutters I see do not seem to be flushed—there is no appearance of it. Of course some of them may be flushed; I don't know.

503. But in any case, whether this extension of storage capacity on the mountain is gone into or not, you think the mountain should be closed to tourist traffic in order to keep the watershed pure from contamination? I do; I have always been of that opinion.

504. In the event of our being able to procure adequate water supply from another source—say, by inducing Parliament, or the Hobart Corporation, or both combined, to obtain a permanent and copious supply from the Styx or Russell Falls rivers, and so being enabled to open this mountain watershed to the public, and make the place a sanatorium by the erection of hotels and so forth—would that be an advantage to visitors from the mainland, particularly from the sub-tropical parts of New South Wales and Queensland? Yes, I think so—a distinct advantage. At the present moment all tubercular diseases are being treated by what is called the open-air method, and for that treatment the higher altitudes are specially selected. Indeed, I think it is quite likely that before many years are past Tasmania will establish a sanatorium for consumptives as a national institution, and, probably, the mountain is just the place where that institution would be established.

505. Then you think, generally, that by shutting up this mountain to the public we would be really shutting-out a very important industry? I think the visiting industry, if I may describe it so, is the best industry in Hobart, or would be the best if properly cultivated; and you can only cultivate it successfully by offering inducements to visitors to come here. First of all, there must be good hotel accommodation, and that must include good water-closet accommodation. I have seen a visitor from Sydney, a medical man, within the last few days, who would not stay at a certain place because they had earth-closets there, and he had to go into an hotel where they had water-closets. In my opinion many visitors go away from Hobart as soon as they find out that they have to put up with the earth-closet system.

506. Well, judging from the reports—yours, Mr. Milles's, Mr. Rahbek's, and Mr. Mault's—you are all alike in urging the removal of the habitation at the Springs? Yes.

507. Then, I suppose that it is really a public scandal—a standing menace to the health of the community—that those reported recommendations have been disregarded by the Corporation? I have always contended that it is a very great risk, and I think that it creates a feeling of unrest in the minds of many. The citizens should have a perfect sense of security as to the purity of their water supply, and they should not be left in a position to think "I may be taking in some infected material with this water, such as typhoid excreta." At present that feeling is not unreasonable. People near town in apparent health, that is to say, they feel "out of sorts," and do not know what is the matter with them. It is frequently typhoid in its early stage; and so they go up to these higher altitudes in search of fresh air. If such people go up the mountain, as I have reason to believe they do, what follows? Excreta, laden with typhoid-germs, is deposited on the watershed; a shower of rain follows, and the germs find their way into the reservoir. Under such conditions there is nothing to prevent people getting typhoid through the water supply; and I do not think the public should pay for water and have that feeling of unrest among them when they drink it.

508. Then on several grounds you think that we should go further away for our water? You ought certainly to do one of two things: you must either close your mountain against tourist-traffic and so have a pure and copious supply, or you must remove your water supply elsewhere and open the mountain for purposes of public resort.

509. *By Mr. Propsting.*—We had a letter read to us the other day in which I understood it to be stated that goitre was frequently caused through people drinking certain water—is that your opinion? I can hardly answer that question directly. Goitre is a disease that is frequently associated with water in some way; there can be no doubt about that. But the actual substance in the water that causes goitre is still a matter of dispute. It has been attributed to the lime and magnesium salts, and it has been from time to time associated with hard waters; but in some parts of India you have goitre with soft waters, and in some parts of England—Bristol and Sunderland, for instance—they have hard water and no goitre. So that a statement like that you have quoted as to the cause of the disease is somewhat vague; and it is difficult to say that goitre is caused by drinking any water in particular. As far as my experience and observation go, I know of no water in Tasmania that is particularly likely to cause goitre. Goitre is prevalent in the Huon district, for instance, where they drink tank water and rain water principally. It is not very prevalent in Hobart, but I have seen several cases here. But before you could say that any particular cases of goitre were attributable to any particular reason, you would have to find out where the people suffering from the disease came from, and where they lived previously when they developed their goitre.

510. Would you think, if you visited a district and found one or two cases of goitre there, that that would be sufficient to justify you in forming and stating an opinion that the disease was caused through the patients drinking the water in that locality? No, most certainly not. I do not think that any medical man would be justified in forming an opinion as to the prevalence or origin of goitre in a district from the existence of one or two cases in that district: one swallow does not make a summer. Goitre might be just as prevalent, or more prevalent, in other districts that the medical man, or whoever else might be interested, had not happened to visit.

511. Am I to take it, then, that there is some goitre everywhere? Goitre is more or less prevalent all over Tasmania. Speaking for myself, I have seen more cases from the Huon—Franklin and the Channel ports, and thereabouts—than from elsewhere.

512. With regard, now, to the sanitation of Hobart—do you think that the present pan-system should be altered as soon as possible? I do.

513. What is your objection to it? Well, my objection to the system is merely that in operation you cannot keep it clean. If you work the pan system out in theory, you will find it a very complete and adequate system, but when you turn aside from theory and put it in practice, you have to deal with a large section of the public who do not take much interest in keeping the pans clean. Many householders get up early in the morning and go to their work, and get back at night—practically never see the pan; and the children use it all day. Children will not use earth. Men who go to work at daylight during a portion of the year, and get back at dark, do not see the state of affairs; and they cannot take sufficient interest in it. It is impossible for them to do it. I think that all sorts of filth should be removed as quickly as possible from the dwellings. A drainage scheme, with water-closets, has been shown right through, all over the world, to have a good effect on the public health.

514. What scheme of sanitation have they in New Town and Queenborough? Well, I cannot speak for New Town, because I have never taken much interest in it; but I understand they have a sort of pan system there—a sort of half-voluntary, half-compulsory system. I think they allow you to bury your nightsoil out in your garden, if you wish to. In Queenborough they have a pan system, and they allow some of the citizens there to bury the excreta in their gardens also. But the greater part of it is carted to a farm next to the Queenborough Cemetery.

515. Have you officially recommended any scheme to the Corporation or the Government? Well, I have not; but in several of my annual reports I have drawn attention to the facts, and I have advocated a metropolitan drainage scheme, with water-closets. I have, on frequent occasions, advised the necessity of that.

516. What schemes are in vogue in Sydney, and Melbourne, and Adelaide—do you know? Adelaide was the first to have an underground drainage system, with water-closets—discharging into a sewage-farm. In Sydney they have an underground drainage system, and in Melbourne they are just completing one.

517. Can you tell the Commission whether or not there has been any real improvement in the health of the citizens of Adelaide or Sydney since these systems of drainage were installed? A couple of years ago I made a calculation on the statistics of the various cities, as regards typhoid fever, and Sydney showed a marked decrease of that disease after the establishment of the drainage system. I have several maps showing the effect of drainage on the prevalence of typhoid fever; but, speaking generally, the experience of every city has been that there has been a lowering of the typhoid death-rate after the institution of a drainage scheme.

518. Regarding this City as a tourist resort, apart altogether from the health of the citizens, do you consider that attention should be paid particularly to the water supply and sanitation of Hobart? I do. I think that with a good water supply, a good drainage system, and good hotel accommodation—in short, with a clean, healthy, and attractive city—Hobart would easily become the recognised sanatorium of the Australian group of States. Brighton, Blackpool, Southport, and numerous

other places in England, have practically no industries except their visiting industries, and they are healthy, progressive, and prosperous cities. Under better conditions, I believe Hobart would be the same. As to this, I may say that I think there are at least ten doctors from the other side now visiting Hobart. I have talked to some of them. They are all delighted with the climate and the surroundings; but those I have spoken to certainly do not appreciate the sanitary arrangements very much—quite the contrary.

519. Do you know whether the mortality in Hobart is higher or lower than in these other cities we have spoken of? The mortality in Hobart for the present year, and for some years past, has been lower, I think, than in any other town of similar size that I know of.

520. Is that due to the natural healthy climate and conditions of the place? Yes; I should say so—decidedly; because the death-rate from general causes is very much lower, and the death rate from typhoid fever is considerably higher, than in the other capitals. Typhoid is a strictly preventible disease, and, as such, ought not to exist. Our general death-rate is very low, and our general standard of health is very high, because we have a large percentage of people who die from what we call old age, sixty-five years and over.

521. And what is the obvious conclusion from that fact? That Tasmania has a salubrious climate.

522. *By Mr. Nicholls.*—And that Hobart should have a very much lower death-rate? A much lower death-rate—certainly.

523. *By Mr. Guesdon.*—Have you in the past advised the Corporation as to the necessity of the adoption of measures for the dessication of refuse? Yes; I have, in nearly every annual report that I have made to the Local Board of Health, advised that a destructor should be erected for the purpose of destroying city refuse, and doing away with the unhealthy and unsightly tips.

524. Do you consider that the authorities have taken proper safeguards to secure the public health? I hardly think that is a fair question to ask me. I have my own opinion about it. My annual reports are before the Commission, I understand.

525. Is the Building Act observed with regard to buildings and drainage, so far as your knowledge goes? So far as I know, and am able to say, it is; but the Building Act is incomplete, as it stands. Recently, on my recommendation, the Health Department has adopted certain new by-laws, providing that no house shall be erected without a plan being first submitted, showing the proposed arrangement of the house, and the proposed drainage to be constructed. This was done because I have frequently found that a new house had been put up without any provision for drainage at all. In such cases, when we come to compel people to put in drains, they say, "We cannot get through our neighbour's property." Well; of course, that is no business of the Local Board of Health. Property owners have the power to force their neighbours to consent by recourse to arbitration.

526. Is the condition of the Municipal Slaughter-yards satisfactory to you, as the Officer of Health? As far as their maintenance and cleanliness are concerned, the slaughter-yards are satisfactory, but the general construction and position of the slaughter-yards are not satisfactory. The position is a bad one, to begin with, and the present structure of the buildings is more or less dilapidated. The yards will probably have to be removed.

527. The present site is a bad one? It is in the wrong place—yes.

528. Do you know anything of the Liernur system of drainage? I have had no practical experience of it. I have read something about it.

529. How does it strike you—as a reasonable kind of system? I would not recommend it, judging from my reading of it, and my knowledge of what has taken place elsewhere. It is a system consisting mainly of exhaust-pipes and tanks. It is complicated, and I do not think it would be a good system to adopt; anyway, I would not recommend it myself. I know of no British community that has adopted it. They have it on the Continent in one or two places—Amsterdam.

530. Do you think, then, that a system of underground drainage for this City of Hobart, discharging the faecal matter into the Derwent, would be a good system; or do you think we ought to adopt the system adopted in some parts of England, and have tanks where the solid matter can be drawn off, and prevented from going into the river and polluting it—you know that they have had to do that in the Thames? Yes, I know that.

531. Do you not think that some effect of pollution would follow in this river if a constant quantity of solid sewage matter was discharged into it? I think a drainage scheme would be capital well invested, in any case. As regards point of discharge, Mr. Napier Bell assures us that the amount of excreta discharged at Macquarie Point would be, by comparison, equal to a teaspoonful of sewage in four hundred gallons of water: which means, practically, that there would be no contamination at all. But, on the other hand, as a matter of sentiment, and in order that people should feel that they are as far away from contamination as possible, he recommends that the point of discharge should be at One Tree Point. I would do the same. If the matter was purely one regarding the additional expense, I should say, take it to One Tree Point. But, if it be a question of either a drainage scheme discharging at Macquarie Point, or no drainage scheme at all—the continuance of our defective system of pans, combined with a mass of filth discharging at the mouth of the Hobart Rivulet—I should say, emphatically, have the drainage scheme. With a drainage scheme discharging at Macquarie Point, you could, if necessary, adopt the new bacteriological system; which means, in plain language, a system of filtration through coke. In that system, an acre of land with filter-beds would be needed at the point of discharge. It simply

comes to a matter of expense. But if it were found in the future that the discharge of sewage at Macquarie Point became objectionable, you could have your filter-beds. Of course, the great advantage of taking the sewage to One Tree Point would be—apart from the fact that you would have it further away from the city—that you would take in Queenborough and Lower Queenborough. This would be a very great advantage to the city; because it does not matter what you do in the city in the direction of sanitation and cleanliness, if you allow the suburbs to remain in an insanitary condition, the citizens of Hobart are liable to be visited by any epidemic prevailing outside.

532. You are aware, of course, that at that portion of the wharf where sewage does enter at present it renders the water very objectionable in appearance and in smell? Well, I may say that I have never observed anything objectionable down here at the foot of Murray-street, except when they were dredging, and then it was certainly very offensive. Lower down on the wharf there was a drain that discharged at a point above the water-level. That became very offensive; but the nuisance was removed by putting the outlet of the drain under water. Since then I have not heard any complaint about it. As regards the mouth of the Hobart Rivulet, where about eight hundred water-closets discharge into a wide, unmade sewer, you could not expect anything else but offense.

533. *By Mr. Nicholls.*—When you said that the mountain would be a suitable sanatorium for consumptives, I suppose you did not mean that it would be only suitable for consumptives? Oh, no.

534. Can we understand, then, that all sorts of persons in indifferent health from various causes would be likely to be sent there by medical men? Yes.

535. Such a sanatorium would also be good, I suppose, for people in Hobart who wanted to recuperate? You may take it that if it would suit a consumptive, it would suit any state of health from that to the healthiest condition. When I say that such a sanatorium would suit consumptives, I mean that it would be likely to be beneficial in many cases in all kinds of illnesses of the people.

536. *By Mr. Propsting.*—If the sewage was turned into the river in the way you suggest, don't you think it would be wasting a valuable fertiliser? No; I have never yet known that you can work a sewage farm at a profit.

537. Have you ever gone into the statement of the profit and loss of the sewage farm in Adelaide? No, I have not; but if Adelaide works it at a profit, it's about the only place I know of that does. In England Croyden once attempted to work it at a profit.

538. What size is the Croyden farm? I don't know; but that is about the only case I know in which such an experiment was tried. I think that everyone who starts a sewage farm does it with the distinct idea that it must be worked at a loss, and only because there is no other place available where the sewage can be emptied. I know that in the drainage scheme at Wellington they have taken the main sewer a great distance in order to discharge the sewage into the sea.

539. *By Mr. Guesdon*—Not into a harbour? No; they have cut across into the open ocean.

540. In Sydney too? Yes; but, proportionately, Sydney harbour is much smaller than the Derwent.

The witness withdrew.

FRIDAY, MARCH 8, 1901.

EBENEZER SHOBRIDGE, *called and examined.*

Mr. Shoobridge was sworn.

541. *By the Chairman.*—Your name is Ebenezer Shoobridge? That is my name.

542. How long have you resided here, at Bushy Park? About thirty-six years.

543. You know the River Styx? I do. I have known it for over fifty years. I have seen it repeatedly, at all seasons of the year.

544. What is your opinion of the character of the water, so far as regards its value and quality for domestic purposes? There is no better water in Tasmania.

545. What is the condition of the river now, as regards its daily flow, as compared with the rest of the year—is the river low now? I have very seldom seen it lower than it is now during my whole experience of it; very seldom indeed, during the whole of that time.

546. If the Government of the country were to decide to bring water to Hobart from the River Styx for the supply of the City and suburbs, could the water be used for irrigation purposes *en route* with advantage? Certainly, it could.

547. Could you tell the Commission, roughly, what area of land could be served by it; what area could be irrigated, that is, from the Styx on towards town? It would be a difficult matter to say. Several thousand acres.

548. I think that some twenty years ago, when I was staying with you, you spoke of this river as being suitable for a possible scheme for taking water from this district for the supply of Hobart? It would be decidedly the best scheme available; in fact, there is no other scheme. At any rate, I do not think there is any other suitable scheme.

549. And we visited that river together on many occasions? Yes. Of course, if you went up the Derwent for your water it would be most difficult to get an acceptable scheme at all.

550. *By Mr. Nicholls.*—That several thousand acres that you mentioned, Mr. Shoobridge: what would that land be suitable for? Oh, it would include all kinds of soil.

551. Suitable for hop-growing and orchards? Yes, and for vegetables, too. Everything you can grow on any land in Tasmania you could grow there.

552. What is that land used for now, Mr. Shoobridge? Gardens and farms, mostly. A great deal of the land I look to to be benefited by irrigation is now in cultivation for farming purposes. All kinds of grain, and all kinds of root crops; in fact, everything that is wanted for man is grown on it.

553. Don't the present occupiers irrigate? They have not the water to irrigate with. Maurice Weston, I think, did a little irrigating; that is the only case I have heard of—that and Mr. Reid. Of course, at Glenorchy, some of the occupiers irrigate very successfully, as you can see for yourself.

554. And the others could get water for irrigation from no other sources than these proposed races from the Styx? They could get the water from the proposed races from the Styx, certainly—all the water they would want.

555. I was thinking more particularly of the road from here to Bridgewater? Oh, along there there is no land to irrigate. "Redlands" is the only place; and they are already supplied from the Plenty. From Bridgewater to New Norfolk there is not an acre of land likely to be irrigated by this scheme. You cannot reckon an acre of it as suitable land apart from what is already irrigated; all the rest is swamp.

556. And what about the stretch of country between here and New Norfolk? There is no land suitable there; no people to take the water for irrigation. Of course, the scheme would supply Bridgewater; that is an important item to take into consideration. If the water were conveyed to Bridgewater, it would be a good thing for the people there.

557. *By the Chairman.*—If this Commission recommended such a scheme as is proposed, to take the water from the Styx, how would that affect your own irrigation operations—your own scheme, I mean, as apart from any Hobart scheme—is there ample water for both? Yes. Sometimes in the summer, however, when you wanted water for irrigation, I think you would have to go to the Russell Falls River, and bring that into contribution as well as the Styx. In the Falls River, also, there is an ample supply of water all through the summer.

558. Have you any idea of the quantity of water you use daily in the summer at Bushy Park? No; I have been thinking about that, but, you see, I have had no occasion to try and form any idea; no necessity has ever existed for that. We always have plenty of water for irrigation, with always an abundance running to waste. I never attempted to gauge the water we use.

559. But what you use does not appreciably affect the quantity of water that goes down the river? Oh, certainly not.

560. *By Mr. Guesdon.*—You speak of the water of the Styx being good. I suppose that that means that it is not in any way prejudicial to health? Certainly, it is not. During my knowledge of the river the water has been several times analysed by competent chemists, and it has always been pronounced pure. The only water anywhere that is bitter is a part of the Derwent opposite "Clarendon." But there is very little difference; practically, this Styx water is as pure as water could be.

561. Do you recollect who the analysts were? I do not; it was years ago.

562. Now, irrespective of all that, you can give an opinion, based on a wide personal experience, of the health of this district? There is no healthier place in Tasmania.

563. Have any of your family ever suffered from any ailments caused by this Styx water? No.

564. Do you know of any cases of goitre in the district? I have heard it said that some people have had it, but I never saw a case.

565. You have never once seen it? I have not. I have heard of it at Macquarie Plains, where the water is bad.

566. Do they use Styx water there? No, it is not Styx water they use—not at all.

567. Now, of course, you have brought up a large family up there? I have.

568. Are they all healthy? Yes, all my children, and a great many grandchildren. I have never known of a case of suffering arising from this water in any way.

569. And you will be able to give an indication as to the general character of these children's teeth and bones? They are as healthy as any children, and as well as any I have seen in Tasmania.

570. Substantial in bone, and the teeth good? Yes, perfectly so.

571. Now, there is another question I would like to ask you, in reference to irrigation. Irrigation has had a certain effect upon your property at Bushy Park? Yes.

572. A good effect? Why, certainly.

573. Could you give us, approximately, an estimate of the extent to which you think irrigation has enhanced the value of that property by increasing its productiveness? That is a most difficult question; for the fact is that the benefit has been incalculable.

574. Doubled, trebled, or quadrupled the value? Well, it is safe to say doubled, at the least.



575. And it has doubled the productiveness of the estate? It has more than doubled the productiveness. That question I can answer; for I have records to prove what I say. But as I stated just now, if you are going to irrigate right through, you may sometimes have to tap the Falls River in the summer.

576. How many miles of race have you for Bushy Park? I can scarcely say; it is divided. The main race is perhaps two miles long.

577. Can you give us an idea or rough estimate of how much per mile it costs for the construction and maintenance of the race? Oh, it is very trifling? It is scarcely worth thinking about. You can do it at a few shillings a chain; for the most part, it's just a matter of running a plough along wherever you want it. The cost is a matter of no consideration—purely nominal. You might want a dam, and that would cost you £40 or £50 at the outside. The cost is quite nominal; that is the advantage of it.

578. And you regard irrigation then, in this district, as absolutely essential for the production of hops and other products? I do. The command of water for a short period each year is absolutely necessary.

579. *By Mr. Propsting.*—Which do you think would be the most suitable supply for Hobart—the Styx or the Russell Falls River? Well, there is no difference in the rivers, but you should take the Styx, as the closest, and the easiest to get at. I see no other difference. The waters are both about alike, and the supply is about the same in each all the year round. I, of course, recommend or suggest that the Styx should be taken first.

580. In your estimate of the quantity of land you could irrigate under this scheme, do you include any land on the other side of the Derwent? No.

581. Do you include any of the Bridgewater or Brighton land? Not across to Bridgewater—oh, no. I do not include that at all. I only speak of land on the south side of the Derwent; none on the north.

582. Is there any land on that side that could be profitably irrigated? Oh, yes; several thousand more acres. But the only thing mentioned was as regards the supply of the township or village at Bridgewater. There is a considerable population just there, and I think that such a source of supply would be very valuable and of great importance to them.

583. Can you give the Commission any idea of the quantity of water you use per acre for irrigation? Well, I never measured it. I never went into the matter in such a way as to enable me to answer the question definitely. It is just a matter of opinion and judgment. One person puts on so much water and gets the result he wants; another puts on too much and gets too much leaf. That is what is happening in some of the hop gardens now.

584. Would you be able to grow either hops or black currants in this valley without irrigation? It is very questionable. You could not calculate on your crop with any certainty unless you had command of water for a few weeks each year.

585. Can you give us any estimate of the value of the hops and fruit grown here, as a result of irrigation, that could not be grown without it? I have already stated that with irrigation you would get somewhere about treble the quantity of fruit or hops that you would get without it. It is simply impossible to get a good crop of hops unless you have got command of water for a short time. I know; I have tried it now since 1847.

586. Have you ever been very far up the bed of the River Styx? Not many miles.

587. Do you know whether it is mineral-bearing country up above? I am not aware that it is. I never heard that it was, and I never saw any minerals from there. That was one of the things, Mr. Chairman, that I wanted to speak about as enhancing the value of the Styx. There is no likelihood of any impurity there. There is no land to cultivate; there could be no cultivation up there. People have told me that they have been up the river for twenty miles, and they have found no land that could be cultivated. If, on the other hand, there were any manufactures up there—which would not be at all likely—you would simply have to pass a law to prevent impurity. I have never seen a river naturally protected from impurity to such an extent as the Styx is.

588. Is there not a single resident living up the Styx? I do not think there is a soul living up there at all; I am sure there is not: neither in the country above nor on the banks of the Styx above Bushy Park. I have been up fishing for miles, and never saw any sign of habitation. I look upon that, Mr. Chairman, as a most important feature connected with the taking of this water for the Hobart water supply. It is next to impossible for any impurity to get into it.

589. *By the Chairman.*—The land is all Crown land, I think? It is all Crown land. There is only a little belt across here at Glenora which is private land at present. There might be manufactures down here in the course of time, but up there, about the source, it is impossible. I want to see this water going to Hobart. I do not know anything that would give me greater satisfaction.

590. *By Mr. Nicholls.*—Can you give us some idea of how many people drink the Styx water? Well, I should say from eight hundred to a thousand, that I know of: very close up to a thousand.

591. I suppose you meet these people to a considerable extent, and know something of their affairs? Nearly every day in my life.

592. Did you ever hear of goitre among them? I have not seen it. Of course, in every part of the world you see a little of it occasionally; but I have seen nothing to enable me to say that I have seen goitre caused by that water: I certainly have not. The Styx water is the best I know, except, indeed, that the small Park creek that runs through the Bushy Park estate is said to be the best water in the world for making tea with.



593. As regards the clearness of the water, Mr. Shoobridge: do you drink it without filtration? Certainly, I do; I always have done so. Some of them boil the water. My own people are rather fastidious about water; they think of microbes, and since there has been so much said about it, they have used a filter. But all the years I have been here I have used the water pure and simple from that stream.

594. Is there ever an unpleasant quantity of sediment in it? No; it is clear. For twenty years I had my beer or ale made from this water, and there was no better made in the world.

595. Suppose that we took, say, half the water that there is now in the Styx, would there still be sufficient for local needs? Ample.

596. It would affect no one's irrigation or domestic requirements? You would not. You would not affect irrigation at all. There is only this little patch at Bushy Park to be affected by it.

The witness withdrew.

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WILLIAM SHOQBIDGE, *called and examined.*

Mr. Shoobridge was sworn.

597. *By the Chairman.*—Your name is William Shoobridge? It is.

598. And you live at "Hawthorne Lodge," Bushy Park? Yes.

599. How long have you lived on the estate? Thirty-seven years. I was away for a short time at Valleyfield; but I was to and fro here every week, and, really, half resided here.

600. You know the River Styx well, I suppose? Yes; very well.

601. What is the character of the water in the river? It is clear and cold—free from sediment.

602. Is it adapted for use for domestic purposes? Yes, it is.

603. For drinking, and so on? Yes, it is. I may say that it is the coldest water of any of the tributaries of the Derwent.

604. Is there any purer water running into the Derwent than comes from the Styx? I have had the water tested a few times, and all the reports I have had state that the Styx is the purest water that enters the Derwent—the freest from sediment or mineral matter.

605. Judging from the size of the main race that leads from high up the Styx here to Bushy Park, I gather that the quantity of water you use for purposes of irrigation is hardly appreciable, compared with the great bulk of the water that runs to waste? I suppose that we take about one-fifth of the water, reckoning it at the lowest summer level.

606. *By Mr. Nicholls.*—Is that statement a guess, or is it the result of gauging? It is the result of gauging. That is, taking the low summer level of the Styx to give a daily flow of 30,000,000 gallons. I take 5,000,000 gallons daily for Bushy Park.

607. *By the Chairman.*—I was just coming to that.—We have it in evidence, then, that the gauging of the river at its lowest level gives 25,000,000 gallons daily, exclusive of the water drawn off for irrigation purposes? Yes.

608. You only take that 5,000,000 gallons a short time in the year? Well, it is always running, summer and winter; because, when it is not in actual use for irrigation, it is used for other purposes. We use it for a mill, for one thing.

609. *By Mr. Guesdon.*—You use it as a motive power? Yes.

610. *By the Chairman.*—Summing up what you have told us—in other words, if the country went to the expense of taking the Styx water for the supply of Hobart—so long as the amount taken did not exceed 25,000,000 gallons daily, it would not affect you? Well, say so long as the amount taken did not exceed 20,000,000 gallons daily.

611. And you think that the water is well adapted for drinking and for general purposes of a city like Hobart? I do.

612. You think it would be wise to take it to Hobart for those purposes? I certainly do. For one reason, it is the only river, of any size I know of, of which you could get complete control of the watershed.

613. There are no habitations on that river beyond a point five miles from here? There are no habitations whatever on it beyond the first two miles.

614. Is it Crown land beyond that? Yes, it is Crown land.

615. Then we could ensure that watershed being kept absolutely pure from contamination? Yes; I am sure of it. I have been about twenty-three miles up the Styx myself.

616. Have you been up to where the watershed widens around Mt. Styx? Yes; I have been beyond Mt. Styx.

617. And there is not a human being, I believe, along there? There is not a human being anywhere up there from a point just beyond the valley there.

618. It has been explored in search of good land, has it not? There was a track from Uxbridge past Mt. Styx, making round the head of the Russell's Falls River, and going round the Falls—McPartland's Track it was called.

619. *By Mr. Nicholls.*—Do you know whether that track was used to any extent for exploring purposes? No.

620. Or for prospecting purposes? No.

621. Do you know whether there has been any prospecting done up there? Yes, there has been some prospecting.

622. Anything been found? They brought in some good specimens of gold.

623. Were any leases ever taken up, that you know of? No. I helped one party to go up there.

624. Did that party find anything worth taking up? No.

625. Well, if you have been up there as far as you say, I suppose you know that watershed about as well as anybody? Well, yes; from Mount Styx you can see the whole watershed of the Styx River.

626. And, apparently, then, there are neither sufficient agricultural prospects nor sufficient mineral prospects to make it desirable to keep that country open for selection? There might be some minerals, because the next hill beyond Mount Styx is porphyry; it is known locally there as High Rocky. The only person who has given me any information about that is Tom Moore, who is on the West Coast now. He went through there.

627. How many people do you think drink water out of the Styx? About two hundred, I should say.

628. The population in this district varies, does it not? There are about 180 people residing on Bushy Park, and they all use the Styx water.

629. Have you ever heard of cases of goitre among them? No.

630. Have you never heard of one? We have had one or two cases in my time, but inquiry has always proved that they came into the district from outside.

631. Where from, do you know? One case came from Fentonbury; but whether it started from Fentonbury I cannot say.

632. Do they drink Styx water at Fentonbury? No.

633. Where did the other case come from, do you know? Well, it came to us from Hobart; but where it came from to Hobart, or whether it originated there, I do not know. The people affected were residents of Hobart, anyhow, and came to us from there. While on this subject of goitre, I might say that some twelve or fifteen years ago Dr. Benjafield told me he had a case of goitre from here, and he thought it was the Styx water had caused it; but when I investigated the matter, I found it was a case of a person who had only been a few weeks resident here, and had goitre before coming to this district.

634. *By Mr. Guesdon.*—You say there is water for motive power in this river? Yes, we are using it for motive power now.

635. I suppose the water you have available would give you a great deal more motive power than you have now, if you cared to use it? Yes, we could get more.

636. I mean the water is there for extra power, if you require it? Oh, yes.

637. What do you consider is the value of that water-power per annum—is it a valuable asset? Yes, it is a valuable asset.

638. For the power alone? Yes.

639. Can you give us, roughly, what you think it worth—what it gives in labour? Well, at the present time we are not doing as much as we could do with it. We use about 20-horse power now.

640. And what horse-power do you think you could get from your water? Well, by bringing it round from a higher level—I have it surveyed from there—I could get 200 feet of fall.

641. What would that give you in horse-power? It just depends on how much water you take.

642. Taking as much as you do now? Well, it would give me 500 horse-power, anyway.

643. So that, irrespective of its value for irrigation to you, this water is worth 500 horses for motive-power? Yes, that is so.

644. What altitude have you had it surveyed up to—200 feet above you? Yes; that would be an altitude of about 400 feet above sea-level.

645. And you would get 500-horse power, taking 5,000,000 gallons only from that level? Yes, that is so.

646. From your knowledge of the inhabitants of this district, and your knowledge of Tasmania generally, do you regard the present rising generation in this district as being able to compare in health and vigour with that of any other part of the State? I do, decidedly.

647. You think that the Styx water has the effect of producing good bone and teeth among the inhabitants? Well, I think they are as healthy as those of any other district in Tasmania.

648. Sound in teeth? I could not say what comparison their teeth would bear with those of people in other districts. I have not taken particular notice.

649. But are they generally sound in teeth? Yes, they are, generally. I may say at once that the only thing about the Styx water that is against it is the stain it occasionally gets from the button-grass plains. Like all the West Coast rivers, it has a dark-brown stain at times. It is not a sediment, however, but merely a stain. It does not show at all if you pour the water into a glass.

650. From the roots it goes over in flood? Yes; it appears, as I say, in all the West Coast rivers.

651. In the Huon, too? Yes; it is in all of them.

652. *By the Chairman.*—In the Russell Falls River, too? No, not so much in the Russell Falls. The Russell Falls River comes from a flatter country; the Styx comes from the higher levels. The

Styx comes round Mount Weld and Mount Anne; the Russell Falls River comes from flatter country, more to the north.

653. Of course there is none of that stain in the Styx water now? Not just now; but you might get it at any time after heavy rain.

654. How long does it last after rain? It goes off in about three or four days, generally. In the winter it shows more, because the rain comes oftener. The stain generally lasts three or four days, or perhaps a week. But the stain gives nothing in analysis—nothing, that is, in the way of sediment. It cannot be detected.

655. *By Mr. Nicholls.*—Have you been concerned in the analysis of the Styx water? Yes.

656. When? Twelve or fifteen years ago.

657. Why? It was when these cases of goitre were talked of that I got the water analysed.

658. *By Mr. Guesdon.*—Was there a report of the analysis? He gave me a verbal report; I have not got a written one. What Dr. Benjafield told me then was that he was surprised at the small amount of sediment and mineral matter there was in the water.

659. Is there much land that would benefit by a general system of irrigation between this point and New Norfolk? Oh, yes.

660. What area? Between here and New Norfolk?

661. Yes? Oh, I don't know exactly. Not counting Bushy Park, between here and New Norfolk I should think there would be about 2000 acres.

662. That is, bottom land? Yes; but the district that would benefit most by a system of irrigation would be round Bridgewater and about Glenorchy.

663. What area of land do you think would benefit there? The estimate I made was that the land that would be irrigated by the use of the water from here would be between 8000 and 10,000 acres.

664. That is between here and New Town? Between here and New Town, yes.

665. That is without touching Hobart and the actual suburbs? Yes; I estimated it as nearly as I could, and it was between 8000 and 10,000 acres.

666. Do you think that such a system of irrigation would increase the value of the land? It would double the value of it.

667. Double its production? Yes, double its productiveness. I certainly think that. And that 8000 or 10,000 acres would carry an irrigation rate up to 20s. an acre.

668. *By the Chairman.*—Could the land afford to carry that rate? It could afford to carry it.

669. *By Mr. Guesdon.*—That would give a revenue of £10,000? Yes, if you could get the whole of that area. Of course you would not get it all at once; but it would be possible to get it all eventually. Why I think so is because the annual rate for maintenance, pumping, and so on, at Mildura is from 18s. to 20s. an acre.

670. *By the Chairman.*—If the rate at Mildura is 18s. to 20s. an acre, with the cost of pumping necessary, would not a gravitation scheme cost much less? Oh, yes, of course; 10s. an acre would pay splendidly for a gravitation scheme. I would only estimate 10s. for an irrigation rate pure and simple; and 10s. would be a very low rate indeed for irrigation. I may say, with regard to New Norfolk, that they are paying for the maintenance of their irrigation scheme at least £2 an acre; I know that to be a fact. That is what it is costing them there for the land actually irrigated.

671. *By Mr. Guesdon.*—That is, practically, equivalent to paying a rate of five per cent. on a £40 rental, is it not? Yes, that is so.

672. So that irrigation must really enhance the value of the land considerably more than you estimate? Oh, when I speak of that rate of £2 an acre, I am taking that as what is actually paid for the irrigation of selected spots, and not as an average for the irrigation of a district.

673. Then we ought to classify these lands? Yes, you must do that. In my answer just now, when I said there would be eight or ten thousand acres suitable for irrigation, I would not estimate the acreage-rate you would receive at more than 10s. an acre. When I said 20s. an acre, I meant that that rate would be got for what is actually used—the actual amount of land that is irrigated.

674. You said, I think, that irrigation doubled the value of the land? Yes.

675. What I wanted you to give us rather more in detail was this: first of all, will irrigation double the value of any quantity of land? Yes.

676. And it will considerably enhance in far greater degree the value of land that is specially suitable for irrigation? Yes.

677. You say irrigation will double the value of the land, taking that as the minimum. To what extent would the enhancement of value go if you state a maximum of benefit? Well, I will tell you where I had an instance of the value of irrigation. I have had to do with valuing the land taken over for railway purposes in the Derwent Valley; I have been assessor in a good many cases, and I was able to establish this: that where land was worth £10 an acre, apart from irrigation, in places up the valley where it could be irrigated it was worth £30 an acre, and £30 was what I got for it. That price was got from persons who, when they came to this district, said £10 an acre was the outside value they would give for arable land; but when I showed them the returns obtainable from irrigation, and proved that the land was capable of being irrigated, they allowed me £30 an acre, and that is what I got for it. That enlarged value was paid merely on the basis of the benefits to be got from irrigation, and the value was paid in several instances in my own experience. For instance, I succeeded in getting that value for land round Charley's Hope and through Redlands. I mention these two special instances as examples of how I got £30 an acre for land that would only have had a value of £10 an acre without irrigation.

678. *By Mr. Nicholls.*—Can you give us an estimate of how many gallons per diem per acre are required to irrigate land for general purposes? Well, I have not worked it out in that way; but the amount required to irrigate an acre of land in the Derwent Valley is 30 inches for the season, so that you can work it out from that yourselves.

679. *By Mr. Guesdon.*—Let us understand this clearly, Mr. Shoobridge. You use five million gallons of water daily to irrigate your property here? Yes; but, of course, all that is not actually used; we waste a lot.

680. So that that water could be extended on for the irrigation of countless acres below you? Yes; we have plenty, and we don't trouble about economising it.

681. What is the lowest quantity you could do with then? Could you do with, say, three million gallons daily? Oh, yes; I could do it, of course. I could irrigate the estate out of that. That is corroborated by a good many reports I have made of irrigation works in various parts of the world—that for land similar to that we have here 30 inches per acre for the season is necessary. It would not be wise to calculate any scheme for irrigation on a basis of less than 30 inches to the acre. I have had experience of that, and my own conclusions have been corroborated from outside. Trustees of various irrigation trusts in Victoria have visited me, and their experience has been the same as mine. In one instance in Victoria, a trust—the Tregowell Water Trust—had only calculated on the basis of 12 inches to the acre, and they found that that amount was insufficient—it was no use. The trustees had to reduce the area that they irrigated because 12 inches was not sufficient. How I came to arrive at the quantity of water used was at Valleyfield, where we pumped the water. I knew the amount of water I was pumping, and I kept a record of the number of days and hours I was pumping for irrigation purposes through the season. I worked it out on that basis of 30 inches; that was my own calculation. Since then, in further corroboration, some of the reports I have read on irrigation in India calculate it at the same rate, and also in northern Italy—Lombardy—the calculation is at about the same rate. These are independent calculations.

682. *By Mr. Propsting.*—You say you have been a considerable distance up the Styx valley? Yes; about twenty-three miles.

683. Is there much mineral country there? No, not very much; it is beyond that. The next hill beyond Mount Styx, which they call High Rocky, gives the first indication of minerals. That would be about thirty miles up.

684. Would there be much saving in distance in taking the water from the Styx preferably to taking it from the Russell Falls River? There would be a saving of about ten miles.

685. What is the cost per mile of a race to carry five million gallons a day? I could not say, because when you speak of a race you would require for carrying your water you must estimate for one that is lined: you could not simply dig a ditch, as we do. You must allow for lining it with rubble work and hydraulic lime; building up a rubble wall on the outside, that is, and lining the bottom with lime concrete.

686. Do you consider that there would be any particular difficulty in constructing a race from the Styx, starting at an altitude of eight hundred feet? Oh, no, no difficulty whatever, beyond making an ordinary hillside cutting, and crossing one or two creeks, I see no difficulty. I do not know whether you know it, but this side of New Norfolk, in the hills at the back of Bryn Estyn, there is a very good quality of hydraulic lime. I have used it for foundation purposes.

687. *By the Chairman.*—Under water? Yes, under water.

688. *By Mr. Propsting.*—In your estimate of the quantity of land to be irrigated between here and Hobart, do you include any land on the other side of the Derwent? Yes, I include land at Green Point, which could be reached by taking a pipe across the causeway.

689. Any at Brighton Plains? No; only about eight hundred acres at Green Point.

690. It would be just as easy to convey the water to Brighton Plains, would it not? Oh, yes, probably it would; but I did not estimate that; I only estimated the land at Green Point.

691. Without irrigation would they be able to grow hops and some of the small fruits in the Derwent Valley as they do? No; no hops can be grown in the Derwent Valley, so far as I know, without irrigation; none are grown without irrigation.

692. Is there much suitable land between Hobart and Glenorchy which is not now irrigated, but which, if irrigated, would be suitable for hops and small-fruit growing? Oh, yes.

693. What is the area of land under hops and small fruit that is irrigated between here and Hobart—have you any idea? I should say about four hundred acres of hops; it has been more than that before now; but at the present time it is somewhere about five hundred acres. I could not say what area is under small fruit, I am sure; I have made no estimate.

694. Can you give us any estimate of the value of the hops taken off those five hundred acres annually? Well, the annual amount is from 1000 lbs. to 1200 lbs. to the acre; that is the actual amount taken on the average.

695. But the price varies a great deal? Oh, the price varies a good deal, certainly.

696. Taking the price realised last year, what would that be per acre? The price was 10d. per lb., and the amount realised about 1100 lbs. to the acre; that is net, and that would be about the average.

697. What amount would be realised per acre, in money? About £46, I should think; that is, about £23,000 for the total acreage.

698. Have you ever known the Styx River lower than it is at present? The lowest I ever knew it was when Mr. Millés measured it the last time he was up here; it has never been as low since.

699. And what was the quantity of water in the river then? Twenty-five million gallons a day. I helped him to measure it, and it was really more than that; but we put it at that to make sure. It is very difficult to measure the Styx, because the bottom is so rough.

700. And when you gauged it you were on the safe side? We reckoned we were on the perfectly safe side. Most years it does not go nearly so low as it was then. I do not estimate, judging from our measurement of the river then, that it would be found to go below thirty million gallons a day now.

701. Are there any other large supplies drawn from the Styx for irrigation, in addition to that for Bushy Park? No, none whatever. There is another small amount drawn off where the dam is made, to go down the other side. We supply now, from our Bushy Park supply, a good deal of the northern side; we are on the southern side of the Styx.

702. Could fifteen million gallons be taken daily from the river without interfering with what is now taken for Bushy Park? Yes, it could. You could safely take fifteen million gallons a day.

703. You told us, in answer to a question put to you by the Chairman, that there are about 200 people drinking the Styx water? Yes; about 180 on Bushy Park alone.

704. Are there only twenty, then, besides those at Bushy Park? Yes; you see, we have all the land on the south side of the Styx River.

705. But, then, there would be the people here and round about. They drink the Styx water, don't they? Yes; on reflection there would be more than twenty others. There might be fifty.

706. Is not your estimate of two hundred rather low, then? Yes, it is: I was forgetting all the people that use the water on this side.

707. *By the Chairman.*—I suppose all the railway people with billets here use it? Yes, they do. It would be more than two hundred.

708. *By Mr. Propsting.*—Have you noticed any change in the character of the water within the last five years? No.

709. Is the appearance of the river the same? Yes, it is.

710. Bush fires had no effect on it? Not the slightest. The character of the Styx valley is exceedingly rocky and rough. So much so that it is impossible to follow the course of the river right up; no man has ever done it yet. Every time they have tried to get up the Styx they have had to make a detour round the high land in order to get along, the course of the river is so exceedingly rough and rocky.

711. *By the Chairman.*—The watershed could be preserved from contamination for ever? Yes; that is the advantage of the Styx River as a water supply. The land, so far as I have been up the river, is so very rocky and rough that it would be useless for any purpose. The best proof of that is that no settlement has ever taken place up there, although it has taken place up the Park Creek and the Russell's Falls River. The Styx has been avoided because it has been inaccessible. Even should any settlers wish to go there, the land is not worth taking up. The exploring parties I was interested in went to see what the country was like, and the report was that the country was so rough that they could not get through it. The prospects for minerals were good about twenty-five miles back. That was Mr. Renison Bell's report. He went up to the upper waters of the Styx and Russell's Falls Rivers. He said that the country was too rough to do any prospecting at all in, unless roads were opened up.

712. *By Mr. Guesdon.*—Was that on the Styx? No, that referred more particularly to the upper waters of the Russell's Falls River—that is, the prospecting for minerals. Of course there is only one range; the same range that supplies the Huon supplies the Styx. From Mount Styx you can see the valley of the Huon River. There is just a dividing range between the Styx and the Huon.

TUESDAY, MARCH 12, 1901.

R. S. MILLES, C.E., *re-called and further examined.*

713. *By the Chairman.*—Mr. Milles, we have called you to-day in order that you may be able, for the information of members of the Commission, who were absent on the occasion of our late visit of inspection to the Russell Falls and Styx rivers, to give a succinct account of the proceedings of those four days. By that means, the absent Commissioners will have the position, as to information, as good as our own, and we shall have the proceedings properly reported in the evidence. Is that clear? Oh, yes; I think so.

714. Well, Mr. Hamilton and two other members were not with us. If you will first tell the Commission, now, what took place at Glenora, all the Commissioners will be able to judge of what was done. Can you do that? Do you mean me to begin at the commencement?

715. Yes. I want a simple and succinct narration of our proceedings, so that the reporter can take it down. Otherwise, neither the members not present, nor the public outside, would be in a position to judge of what we saw? Well, the Commission arrived at Glenora on Tuesday evening, March 5th, and the following day proceeded to a part of the River Styx, some six or seven miles above Glenora. On its way up, the Commission examined the river right up to the highest point reached, which the Commissioners considered was quite sufficiently high up for the purpose they were concerned with. Samples of water were taken from the river, and the Commission was enabled to assure itself, from general observation, of both the quantity and the quality of the water.

716. The Commissioners went some considerable distance away from all settlement? Yes; they went up to a point which, as far as I could gather, would be about the commencement—or very nearly the commencement—of the Crown land.

717. And the watershed beyond where the Commission went was absolutely free from contamination caused by settlement of any description? Yes, as far as we know, it is. The following day, the Commission went up to Tyenna, following the Russell's Falls River up to that point, and likewise examining the quantity of water, and the quality of it, at that point: that is, just above the township of Tyenna. Samples of water were also taken from there.

718. Is the watershed above that point free from contamination from settlement? No, there is a good deal of habitation along that river, both below and above the point where you saw it?

719. Then there is no comparison, as between the freedom from contamination of the two watersheds of the Styx and Russell's Falls rivers? Oh, I should certainly think not. The branches of the Russell's Falls River, that is, the Junee and the Humboldt rivers, were not visited, as the Commissioners did not consider it necessary to visit them, in the circumstances. Both of these are smaller streams. There were several other matters of detail that the Commission looked into in connection with the question of water supply, particularly as to the methods of irrigation adopted in that district, and the quantity of water that would be available for that purpose. I do not think that there is anything else that I can say about the Commission's visit to Glenora.

720. *By Mr. Nicholls.*—I suppose the samples of water have been sent to the Government Analyst, Mr. Milles? Yes, I sent them at once, through your Secretary.

721. *By the Chairman (to the Secretary).*—You brought back these samples of water from the Styx and Russell Falls rivers? Yes.

722. And you forwarded them to the Government Analyst? Yes, with a letter requesting the Analyst to analyse the water, and report to the Commission. I may say, sir, that the Analyst does not know which water is which—which, I mean, comes from the Russell Falls, and which from the Styx; I did not acquaint him. One sample is contained in a blue bottle, and the other in a white one.

*Witness.*—I might, perhaps, say, Mr. Chairman, that when you were up at the Styx I made an approximate gauging of the river.

723. *By the Chairman.*—With what result? There was, I consider, between twenty millions and thirty millions of gallons of water daily flowing down the river at the time of your visit. I was told that the season previous to this had been rather a dry one, and that the river was in a rather low state.

724. *By Mr. Hamilton.*—In your visit to the Styx, last week, Mr. Milles, did you re-visit the country that you investigated with the Corporation some time ago? We went very nearly to the same point that we reached in the first instance, in 1893, when I first made an examination of the district; and also in 1898—I think it was—when I visited the place with two members of the Waterworks Committee of the City Council. On both of these previous occasions we went to a point rather higher up the river than the point we reached last week; but the Commission thought there was no necessity to go any higher up in this case, because at the point they reached they could see exactly what the class of water was, and what was the state of the river.

725. You were talking just now about having cursorily gauged the water last week. Does the result then attained correspond with your previous experience of the river? It was a shade higher this time. When I gauged the river before it was in a very low state, indeed.

726. *By Mr. Guesdon.*—Do you not consider, Mr. Milles, that it will be absolutely necessary, eventually, to obtain the water-supply for Hobart and the suburbs from these sources beyond Glenora? [No reply.]

I notice that in your report here you say, "as to the expediency of the scheme."

727. That is practically an admission that the mountain scheme will only meet the immediate requirements of the place under existing conditions. Now, of any alternative schemes that may be suggested, do you believe that this Styx scheme is the scheme that must eventually be adopted? The only other alternative is to go in for increased storage in connection with our present works. That is the only alternative scheme to make provision for your future population. You will have to provide considerable storage capacity, either on the mountain, or somewhere else in connection with the existing works.

728. But under your present scheme for increased storage—the scheme providing for three small reservoirs on the top of the mountain—you would have nothing like an adequate supply? [No reply.]

729. *By the Chairman.*—The point is this : the population is increasing, and will probably increase still more rapidly under Federation. Supposing that the population doubles, or trebles, or quadruples, during the next fifty years, will the present additions proposed to the storage capacity of the mountain watershed be other than the merest makeshift? I consider that you would have to go on increasing your storage from period to period, as it becomes necessary. There is no doubt about that.

730. And that would entail closing the mountain absolutely to the public? The major portion of it would be closed, certainly.

731. *By Mr. Guesdon.*—Then, eventually, after having spent a very large sum of money there, the limit of supply on the mountain would be reached, and would fall far short of the limit of supply that could be obtained from either of these rivers? [No reply.]

732. For instance, there is no means by which you could obtain from the mountain a supply of ten million gallons a day, is there? Not without extending your works round the other side of the Thumbs, and taking in some of the streams that flow towards the Huon district.

733. And would not the cost of that be far more than the cost of the proposed Styx scheme? Oh, there is no doubt that it would gradually mount up, and cost as much as the Styx, eventually.

734. *By the Chairman.*—And even then you would not obtain anything like the supply the Styx would afford us? No; you could not get anything like such a large supply. There's no doubt of that.

735. And do you think you would ever get a really adequate supply from the mountain? For instance, to cleanse this City properly under existing conditions, do not you think the gutters ought to be flushed? Certainly they ought to be flushed, every day.

736. Do you know, as a fact, how often they are flushed? Well, it varies according to circumstances. Only last week I had to give an order not to use any water for flushing the gutters, because the reservoirs were getting down to such a low state that we could not keep the high level supply up. In such a case, of course, the gutters cannot be flushed.

737. How often are the gutters flushed generally? Certain gutters require more than others in that way; some of them have to be flushed once a week, and others twice a week, according to their position and the condition they are in. At certain times we have to use salt-water for them, when the fresh water runs short. The worst gutters are flushed, usually, twice a week, and in one or two cases three times a week, in the dry season.

738. Do you know anything of a gutter that is mentioned, I think it is in the *Tasmanian News* of yesterday, in Murray-street, between Patrick and Warwick streets? Do you know anything of the very offensive gutters there described? Yes, we have several very offensive gutters indeed.

739. How often are they flushed? About twice a week; but, as I was saying, we had to give an order to stop the flushing for a few days last week. We could not do otherwise, and it is very troublesome and inconvenient to use salt-water for this purpose. There is no means of getting salt-water to the drains except by means of the water-carts, and we have not a sufficiently large number of carts for the work. Practically speaking, it is a moral impossibility to flush the gutters here as one would like to have them flushed.

740. What do you mean when you speak of flushing the gutters? Flushing them with a stand-pipe and hose from the main.

741. How much do you flush them? Well, they let it run perhaps ten minutes or a quarter of an hour, according to the length of the gutter. Then the men follow the water down with brooms, keeping the main body of water together, and so getting rid of the offensive matter.

742. Have you gone down any of the gutters after they have been flushed? Yes.

743. Have you noticed how offensive they are, even after having been flushed? I have noticed that next day that they are just as bad as ever.

744. That is not what I ask. Have you noticed how very offensive many of these gutters are immediately after they have been flushed? Of course, they will be sometimes if the sun comes out very hot afterwards, and the main flush of water has gone off. But the worst thing in connection with them is that immediately they are flushed the same bad matter comes from houses into the gutter again. So that, really, the effect of flushing is of very little use.

745. Of course, you know that in Melbourne, in the days of surface drainage, there was a continuous flow of water down the gutters? Yes.

746. Which fact kept Melbourne in a fairly healthy condition, despite its disadvantageous circumstances? I know that there was running water in most of the gutters, anyhow.

747. Do not you think that by obtaining this water from the Styx you could get a sufficient supply to enable the whole of the city to be flushed in exactly the same way as these gutters in the Melbourne streets were? Yes, in some of the worst gutters you could allow an almost continuous supply of water to go down. You would not be able to do it in all cases, however, owing to the fact that the mains would have to be increased in size if that were done, but we could always have a small stream running down the worst gutters.

748. The question I am asking is, would not the supply from the Styx enable you, if you had the mains necessary to distribute the water, to thoroughly flush the city on the same lines as Melbourne used to be thoroughly flushed? Certainly, it would.

749. Is there any possibility of your being able to do that by your water supply from the mountain? No; in any case you will be a good deal restricted.

750. Then, supposing that the analysis of this water offers no objection to its use for household purposes, Mr. Milles, and that the question of finance can be satisfactorily dealt with, what would your conscientious opinion be as to what ought to be the action adopted in regard to obtaining a water supply for Hobart? Of course, I would then favour going to the Styx for a big body of water once and for all time.

751. And throw the mountain open to the public? Yes; I think, however, that it might be found necessary, perhaps, to keep one of your main streams, such as the St. Crispin's Well stream, as a standby for the high levels. But the water area with which that stream is connected I do not think will be affected at all by the visits of tourists, because that water, as a matter of fact, comes from a bed of rocks; it is not surface water really.

752. And that water area could be protected without interfering with the tourists? Oh, yes. That could be protected easily enough.

753. *By Mr. Hamilton.*—Mr. Milles, talking now about the mountain supply, you have had a good many years' experience of that? Yes.

754. Is your opinion altered at all in this matter by recent observation—do you consider that the mountain watershed is equal to the supply of our City for a period, say, up to 50 years' hence? No; what I say is this: it would be simply a question of storage. As the City grew, and the population increased, you would have to keep on increasing your storage capacity.

755. I am asking you this question: you are naturally observant, professionally, of the water on this mountain? Yes.

756. Has it occurred to you that the conditions on the mountain have very materially altered within the last ten years or fifteen years? You mean as far as the rainfall is concerned?

757. As far as the rainfall is concerned, yes? I believe there is sufficient water obtainable from the mountain during the twelve months for all the purposes of Hobart, if you could conserve it. It is simply a question of conservation.

758. And yet there is a gentleman you know well, resident on the mountain, who has a little rural retreat up there. He recently pointed out to us that within his residence of ten or fifteen years in that quarter, the water supply has gone off—that immediately outside of his location, when he went there, you could not traverse certain of the land without being over your boot-tops in mud. And to-day, after ten or 12 years, the cattle are feeding there. Do you know that? That falling-off of water might be purely a local matter.

759. But he pointed out that the water conditions are altogether altered? I cannot agree with that; because when we were laying the new main lately along the strip of land that traverses one part of that property, we found that there were some half-dozen of little streams of water all running, down to the present day. The gentleman you refer to certainly cleared his land. It was bush land a few years ago; and where he has cleared it on the higher points it has dried up; but there is still water in all the lower portions, as can be seen from the fact of his having a large water-hole there. He has a good water supply upon his property, with pipes laid on all around. That is all taken from little streamlets coming out of the hillside. Speaking generally, the rainfall is quite as good, on the average, as it used to be. You may have a series of dry seasons coming fifteen or twenty years apart from one another; but I do not think that those seasons are increasing in number, and I do not think, for the purposes of water-supply, the mountain is any worse than it used to be.

760. *By Mr. Propsting.*—Will you tell us, Mr. Milles, what is the quantity of water consumed in the City annually? I could not tell you by actual measurement. I have only gauged the consumption for special purposes in the summer time. The winter consumption has only been taken once or twice.

761. Cannot you tell the quantity of water released from your reservoirs annually? No; we have not got meters on any of our large mains at present. Of course, the only method of getting at a consumption is by having a recording meter.

762. Well, the average daily consumption is—what? It goes up to an average of two million gallons per day during the summer months.

763. I mean what is the average throughout the year? Well, it will come down, I dare say, in the other seven or eight months of the year, to about a million and a half gallons a day. I should say that would be about it.

764. Well, you can safely say that the average daily consumption throughout the year is over a million and a half gallons? Yes, it is over that, on the average. Perhaps it would be about one and three-quarter million gallons.

765. What is the average rate charged per thousand gallons? By measurement?

766. In any way? It has been, on the average, about one shilling a thousand gallons.

767. What is the annual revenue? At present, do you mean?

768. Yes? From 1889 to 1899 inclusive, it has varied from £12,300 to about £15,000.

769. What quantity of water does that represent at the average price? About three hundred million gallons.

770. Then you released from the reservoir a quantity of water for which you were not paid at all equal to the quantity for which you were paid, on that showing? You see, I am basing it on a revenue of £15,000. That gives three hundred thousand shillings for three hundred million gallons of consumption.



771. Then you only get paid for about half the water you release from the reservoir? [No reply.]

772. You have told us, you know, that the average daily consumption is over a million and a half gallons throughout the year? Yes; but of course that does not all come from the reservoir, you see.

773. Where does it come from? It comes from the mountain, direct, most of it.

774. But you supply it? Oh, yes; but we don't get paid for all we supply—not by a great deal. I think that, taking the amount paid to us, the actual amount we get for the water would average about sixpence a thousand gallons.

775. That is to say, you supply about three hundred million gallons for which you get nothing at all? Yes; getting on for that amount, probably.

776. Is there any means by which you could get paid for all the water you supply? No, only by adopting a system of supplying the water entirely by meter.

777. If you were paid for all the water you supply, your revenue from water would be £30,000 a year? No, I do not think it would.

778. What do you think it would be? Under the meter system, the consumption would probably decrease by 30 or 40 per cent.

779. In other words, if you measured the water to your customers, you would decrease the consumption almost by half? Yes, you would considerably decrease it, any way.

780. Now what do you attribute this loss to, proportionately to the surplus of supply—is it waste? A good deal of it is.

781. Defective reticulation? It is chiefly due to carelessness in the property-holders we supply. For instance, in ordinary cases, now, people frequently turn the tap on to flush a drain. I know that, taking one house as an instance, they used to regularly flush the gutter throughout the whole length of the street they lived in. They were continually letting the water run, and at last they were metered—with the result that they never did it again.

782. Now, supposing anyone had a fountain. What quantity of water would they use per day, if the fountain was running all the day? Well, they would probably only use it in the summer time for a certain number of hours per day. It would take, I suppose, about 100 or 150 gallons per hour.

783. *By the Chairman.*—It would be a very small jet at that rate? Yes, a jet of about a full eighth of an inch would go at about that rate under ordinary pressure of about 80 lbs. to the square inch.

784. *By Mr. Propsting.*—But that would be a very small jet? Oh, no; that used as a sprinkler would account for a fair amount of water: but it would not, anyhow, go over 200 gallons an hour.

785. Well, assuming that such a fountain was kept playing, it would use about 3000 gallons a day? Yes, but it would not be going the full twenty-four hours, day and night.

786. Well, that is only supposition on your part. If people will waste water from their taps, are they likely to be more provident with a fountain? Oh, yes. If the water goes into an ordinary drain, from which the property owners do not get any secondary benefit, they are fairly careful.

787. Well, assuming they let their fountain run daily, and use about three thousand gallons a day—and assuming they let it run six months in the year—what quantity of water would be used? Over £20 worth of water a year.

788. And have you any charge for fountains? Yes, there is a charge, when they are not connected by meter. I think it is £3 a year. That, I know, is what it used to be.

789. And if they let the fountain run always, for twelve months on end, they would use £50 worth of water? Yes, I suppose they would, if it were constantly running.

790. And they would only pay £3 for it? Yes.

791. I think you told us the other day that you could not state the quantity of water used in the public urinals? No, unless we base it on about something the same conditions as what a fountain would give. We know pretty well what the orifice is. The taps are generally turned on about one full turn of a half-inch tap, and that would allow, I think, roughly speaking, from 100 to 200 gallons an hour—much about the same as the fountain.

792. With respect, now, to the water supply to shipping. What do you charge for that—is there a differential rate? There is a differential rate this year.

793. What is it? The water supplied to shipping at special berths on the wharf, through fixed meters—that is, where the meters are fixed on the wharf for the special accommodation of respective vessels—is charged for at the rate of 1s. 6d. per thousand gallons. Water supplied to shipping trading solely within the jurisdiction of the Marine Board of Hobart, and not supplied by fixed meter, is charged for at the rate of 6d. per tun. Water supplied to all shipping other than this—that is, to the large ocean steamers—is charged for at the rate of 1s. 3d. per tun. A tun is 252 gallons. The old Act of 1860 gives us power to charge steamers up to the rate of 2s. per tun.

794. *By Mr. Guesdon.*—That is to say, you are now charging certain shipping about 5s. a thousand gallons for water? Yes; but you must remember that in addition to supplying them with water, we have to send a man with a truck. Sometimes we get no revenue from water supplied to shipping at all. For instance, the *Chicago*, the other day, took 800 odd tuns of water, and we never got a penny for it. She comes on the free list under the Act, being a vessel in

the service of His Majesty. We had to send a man with the truck to the *Chicago*, and we never got a penny, either for his services, or for the water supplied.

795. *By Mr. Propsting.*—That is a very exceptional case, is it not? Not very exceptional. When the warships are here, we have to supply them with water under almost the same conditions.

796. And does not the Government pay you anything for that? No, we do not get a penny for it, and it is a very large item indeed.

797. Why is the charge to steamers trading here higher than the price made for supplying water to householders? Well, it was originally fixed so in the old Act of 1860. The object was, I suppose, that such steamers might come here and take the water away for the use of persons who had, practically speaking, no interest in the City. Speaking on that subject, I may say that, if you had a very low rate at the present time, it would pay many people to take water at the low rate—that is, say, at 6*d.* per tun—down the river, and sell it in dry seasons.

798. What would it cost to attach meters to the houses in the City? For the whole supply?

799. Yes, the whole supply per meter? I think that, taking one sized meter with the other, it would average about £4 per meter.

800. That is, including the adjustment? Yes, that is to cover the cost of altering the pipe in the street, putting the meter on, and the cost of the meter.

801. These meters you do supply now: how do you charge for them—do you charge interest on the cost? Yes, we charge a rent of 10 per cent. on the cost of the meter and the fittings.

802. *By Mr Guesdon.*—Is that 10 per cent. for a sinking fund? No, they have never had a sinking fund, but this year they propose to keep a separate meter account. We have only had a limited number of meters hitherto, but they are increasing now very rapidly, as there has been a large number of voluntary applications for them from residents. It will be necessary, now, to keep a special and separate account.

The witness withdrew.

WEDNESDAY, MARCH 13, 1901.

FREDERICK G. KNIGHT, *called and examined.*

Mr. Knight was sworn.

803. *By the Vice-Chairman* (Mr. Herbert Nicholls).—Your name is Frederick George Knight? That is my name.

804. And you are the Chairman of the New Town Town Board? Yes.

805. We want to ask you first with regard to the water supply at New Town. There has been some discontent there recently, I think? Yes.

806. I will get you first to speak upon that count. What is the discontent due to? Well, chiefly to the differential rating of the suburb, and the inadequate supply. That is what our meeting was held for.

807. Will you just explain in detail what you mean by the differential rating? Well, the suburbs—speaking for New Town, at any rate—have to pay 3*d.* in the £1 in excess of what is being paid in Hobart, and some years as much as 4*d.* in the £1 has been charged in excess. That is what the people complain of.

808. How do you stand with regard to that now? We are in the same position, I believe, sir.

809. I think that the reason given by the Corporation for that differential rating is the difficulty of supplying the suburbs, owing to the length of main and so on? Yes; chiefly that, I think.

810. Now, as to the inadequacy of the supply. Is it inadequate all over New Town, or only in parts? Chiefly in parts, I think. Of course there has been no complaint this summer; we seem to have had a fair supply. But for the last three or four years it has been very poor.

811. You think, then, that the people would use more water if they could get it? I think so.

812. Have you any doubt about it? I have not the slightest doubt about it. There seems to be an excessive consumption at New Town, but that is owing to the many leakages there.

813. Are you perfectly aware of those leakages? Yes.

814. Through your officers, I suppose? Yes, and I have known the water to be wasting away for a period of a fortnight or three weeks at a time; in fact, the whole reticulation service is in very bad order. I know that some years ago they took up a main, and put a new one down, in Foster-street, and the main they took up was so corroded that you simply could not see through it.

815. Are there any people in New Town that use the water for irrigation? I think there are a number of people.

816. Are there any farms and orchards there? Plenty of orchards, very few farms; and then, of course, there are some large gardens, and that sort of thing.

817. Now, supposing that there was a plenteous supply of water, and people were sold the water at a fair rate by meter, do you think they would use a much larger quantity of water than they use now? I question whether they would, if it were sold to them by meter. They seem to have had free use of it without it being measured in the past. But, as a matter of fact, I think that they pretty well all have meters as far as the orchards and gardens are concerned.

818. What is our system of sanitation there—the pan system? Well, practically speaking, we have no system. Certainly, there is a man attends to it in a sort of way, for people who feel disposed to make use of his services; but I think they only do that if they have not sufficient area of land available for burying the night-soil. That man has to carry out the duties for those who pay him, but he is not under the control of the Board.

819. What is done with the ordinary drainage, household slops and so on? Oh, that goes into the gutters, and finds its way into the New Town Creek, where we are concentrating it every day.

820. And that flows into New Town Bay? Into New Town Bay, yes.

821. Into very shallow water? Yes.

822. I suppose you are aware that it is part of the duty of this Commission to enquire into the possibility and desirability of uniting Hobart and the suburbs in one large municipality? I was not aware of it, sir.

823. Have you ever considered that question? Never.

824. It would be very little use asking you to give your opinion on the subject, then? Our present system seems to me to work very well. I should not think it would work so well if it were concentrated under one municipality.

825. With regard to a water trust, now. Are you satisfied with the present administration of the water? Yes, if we can get the supply.

826. At a price? Yes, at a reasonable price. Otherwise, I think the suburbs should have a voice in the administration of it.

827. Are there any complaints as to the result of your system of drainage? Very few indeed, because our drainage is very complete, with the exception of the construction of the rivulet, and that we are about to proceed with as soon as possible.

828. Forming the bottom of the rivulet, you mean? Yes.

829. Has the creek a good supply of water running down it? Yes, very good.

830. Sufficient to keep it clean? No, not in its present state. It requires to be formed.

831. Now, what rate do you levy at present, Mr. Knight? Well, last year we collected on capital value, viz.—one halfpenny for road purposes, and a sixth of a penny for town purposes. Previously it had been a thirteen-penny rate on the annual value—tenpence for road, threepence for town.

832. And what is your water rate? Fifteen pence. Of course, that is levied by the Corporation.

833. Well, now, as the Commission is going into the matter I mentioned to you relative to a proposed Greater Hobart, we would like you to have every opportunity of presenting your views on it. Of course, you have special knowledge of the subject, and we would like you to consider the proposal. Then, you see, you could be recalled? Yes, I will consider it.

834. *By Mr. Guesdon.*—When you say that the Town Board does not carry out the pan system, Mr. Knight, are we to understand that is because the Town Board has not the power to do it? No, we have the power; but it is rather a difficult question. This pan system is rather an expensive thing, and rather too gigantic for us to go in for. But now we see our way to get assistance from the Government to carry out our drainage; when we get that assistance we intend to borrow sufficient money to carry out a pan system.

835. How do you deal with the people now—do you exercise any supervision of the way in which they deal with their night-soil? Yes; all that is supervised by our inspector.

836. How do you deal with other refuse from the houses—are people left to do as they like with that? Well, if people like to put such refuse out, we collect.

837. You have a system, then? We have, if the people like to put their rubbish out.

838. Supposing they do not put it out, would you compel them to be cleanly in that respect? The inspector visits all properties and back-yards, and, if there is any complaint, he lays it before the Board. He carries out his duties according to the by-laws.

839. What is done with that refuse when you do collect it? We generally tip it away down at the bay, as we wish to reclaim as much of that land as we can.

840. You say that you would be satisfied with the present administration of the water supply, Mr. Knight, if the suburbs were put on the same rating as the town? Yes, with a better supply.

841. But are you satisfied with a system of administration which leaves a leakage unattended to for three weeks or so? Oh, no; but, of course, they are a little more prompt now than they were some time ago. I suppose, as a matter of fact, that they were compelled to be, in consideration of the shortage of water. But the main road pipe is constantly leaking; in fact, it is worn out, and wants replacing. The money they have spent in repairing that pipe in one way and another would be enough to have put a new pipe down.

842. And you feel that as a suburb you have a right to representation on any board that controls the administration of the water? Yes, that is the feeling.

843. *By Mr. Hamilton.*—I think I understood you to say, Mr. Knight, that the inhabitants of New Town are better contented this year with their water supply than they have been heretofore? This summer, yes.

844. The supply this summer has been sufficient for you? Yes—on account, I suppose, of the favourable weather we have had.

845. In years gone by the insufficiency of water at New Town was a chronic source of complaint? Yes.

846. But that is improved now? Well, it seems to be better; I have heard no complaints this summer.

847. Is that attributable, now, to the Glenorchy end of New Town being supplied from Glenorchy source and relieving the Hobart end? I hardly think it would affect it in any way. You mean as regards Moonah?

848. Yes? I do not think it would affect it in any way. They would be bound to get a good supply at Moonah, on account of the levels.

849. The Risdon Road people used to complain loudly of insufficiency of water. Do they appear satisfied now? I have heard no complaint this summer.

850. Captain Bailey was conspicuously one that expressed himself perfectly satisfied to pay anything in reason for his water, if he could get a proper supply. Does his cause of complaint seem to have passed away? I have heard nothing of it this summer.

851. *By Mr. Guesdon.*—Have the complaints as to shortage of water in the past been complaints of shortage of supply for domestic purposes, or for hosing gardens? For domestic purposes. Before the Select Committee of the Legislative Council, Mr. Gant gave this evidence:—"As a house supply the service is sufficiently good. About five or six years ago, when there was a severe drought, we had to do without water for several days at a stretch; the longest was five days. So far as the land I live on is concerned, the water supply is useless for the purposes of cultivation." He has complained, too, that they could not use their kitcheners on account of the want of water. He complained of that at the public meeting at New Town.

852. Of course, there are many orchards out there—are all those orchards metered? That I could not say.

853. Does it not seem to you that it would be a proper thing to have a district like that of yours dealt with by a system of meters? I think it would be; I know that they have already put a meter on our Public Buildings out there, and the water we use is very little.

854. Then in your opinion the meter system should be adopted? That is my opinion. I think it must be the fairest way for people to pay for what they use. I have known hose pipes running all night on certain properties, and that ought not to be.

855. Do you get any water at all for flushing the gutters? No; we should have to pay for it if we did, and we do not flush them at all. As a matter of fact, we have no dirty gutters to speak of.

856. *By the Vice-Chairman.*—What is the population of New Town, Mr. Knight? About 2500. Of course, that is not including the Institution.

857. And what is the area, do you know? Well, I could not exactly say now. I know we have something like eleven miles of road to attend to.

858. Moonah has a separate Board again, has it not? Yes.

859. What is the population of Moonah, do you know? Well, I should think it would be considerably under 500; but I have no definite idea what it is.

860. *By Mr. Guesdon.*—Is Moonah above the New Town Creek? It is above the fresh-water creek that divides the two towns.

861. *By the Vice-Chairman.*—The population of New Town is increasing, is it not? Oh, yes; but it has been rather slow these last few years. Why, I do not know. But I think, somehow, that it will increase considerably now.

862. As compared with ten years ago, there is a large increase, is there not? Oh, yes, a very large increase.

863. And the time must come, must it not, when you cannot go on with these open gutters? [No reply.]

864. What I mean is this: If there is a comprehensive scheme of drainage framed for Hobart and the suburbs, with a proper and adequate water-supply to carry it out, New Town would necessarily have to join in with that? Yes.

865. Consideration of the health of the whole drainage area would compel New Town to join in? Yes. But our drainage is very complete now; I do not think we have two dirty gutters in the town. All the gutters are properly prepared, and no sewage remains in them.

866. Well, you have a fairly dense population in parts, and a fairly large population on the whole, and you are pouring that sewage into a very shallow bay, are you not? Yes.

867. And there is no current in New Town Bay, is there? No; but we get the sewage out into the bay; it does not lie on that mudflat. You see, in the thickly populated parts of New Town we have a network of drainage, into which all the houses are trapped, and the sewage eventually finds its way into the rivulet. Then from Augusta Road, right down from below the Harvest Home, we have a system of drainage, in connection with which we have already spent upwards of £400 to get that troublesome inner wall in Pedder-street. That is really a very

complete system of drainage. All these properties from Clare-street, away up to the Augusta Post Office, trap into the one drain, and all the sewage gets away into the bay.

868. *By Mr. Guesdon.*—What amount of money has your Board out on debentures? We have no loans at all.

869. What is the amount of your overdraft, then? A little over £500. We reduced it by £100 last year. That overdraft is in consequence of the debt on the Public Buildings.

870. *By Mr. Hamilton.*—In the information that you have given us, Mr. Knight, with regard to water, I take it that what you have said only applies to consumption for domestic use. If all the orchards and gardens there desired to avail themselves of the water for irrigation purposes, do you think there would be a sufficiency? I really could not answer that question, Mr. Hamilton. Someone more closely concerned with these pursuits would be better able to tell you what you want to know on that point. I do not think that any of the orchards do irrigate now, as a matter of fact.

The witness withdrew.

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MATTHEW W. SIMMONS, *called and examined.*

Mr. Simmons was sworn.

871. *By the Vice-Chairman.*—Your name is Mathew Wilkes Simmons? Yes.

872. And you are Chairman of the Beltana Town Board? Yes.

873. The Commission first wants to ask you one or two questions with regard to the water supply at Beltana. Whence do you procure your water now? There is no special source of supply except the individual catchments.

874. That is from the roofs, mainly? From the roofs, yes.

875. Do the residents find that supply sufficient? No. For purely domestic purposes they do find it sufficient; but not for general purposes.

876. For baths, for example—do they get sufficient water for baths? Well, of course, it is a question of providing sufficient storage accommodation. But I may say at once that the people of Beltana badly want a water supply, and have taken the matter into consideration on two or three occasions.

877. I think there are no streams on the eastern side of the Derwent that could supply you? No; nowhere near enough.

878. There is a mooted proposal, as I suppose you are aware, to bring in water from the Styx or somewhere else on the upper Derwent watershed for the supply of Hobart and the suburbs, and it is generally proposed that Bellerive and Beltana should also be supplied from there—it is part of the scheme. Now, as one with a good deal of experience of the interests of the eastern side of the river, what do you think of such a scheme? I may explain the position at once. We have taken the question of obtaining a water supply for the town into consideration on two or three occasions. On one occasion we considered carefully proposals for the establishment of a catchment area there. The matter was gone into very fully, and a report on the proposal was supplied by Messrs. Huckson and Hutchinson. Subsequently to that a report was furnished in connection with a project to bring water from the Glenorchy Water Works. But in view of what we considered the reasonable prospect, namely, that at an early date the City Council of Hobart would have to go further afield to obtain a water supply, taken together with the uncertainty of success of either of the proposed schemes we had considered, we abandoned them both. We really abandoned them in the hope that sooner or later the water would be brought from the Derwent Valley, and we would be able to come in under the general scheme.

879. Would there be more settlement over there if you had a better water supply? Oh, I think there would be. I am certain there would.

880. In fact, this shortage of water over there is the standing difficulty in the way of the progress of the place? Yes; I suppose it is. There is a great deal of land through to Risdon from Beltana—some 2000 or 3000 acres, at any rate—that could be made profitable by irrigation; it is at present practically useless, owing to the scarcity of water.

881. What are your sanitary arrangements at Beltana—I suppose every one looks after himself? Yes.

882. *By Mr. Guesdon.*—What was the estimated cost that Mr. Huckson thought it would take to conserve the water there under the scheme you considered? Do you mean the Glenorchy proposal or the other one?

883. No, the other one first; or you might as well give us the details of the two, if you have them by you? Well, the catchment scheme was alternative; that is to say, alternative as to the size of the reservoir. One proposal involved an expenditure of £7416: that included a reservoir to hold 14,000,000 gallons. The smaller scheme involved an expenditure of £6757, and that included a reservoir to hold 6,000,000 gallons. Under the other proposal—to bring water from Glenorchy—the capital expenditure was to be £8106, and that included the construction of a service reservoir to hold 1,200,000 gallons.

884. And what were you to pay for this water, if you got it from Glenorchy? It was estimated that a two-shilling rate would be necessary to cover the cost,

885. That was to cover interest on the sum borrowed, as well as working expenses? Yes—interest, sinking fund, royalty to be paid to Glenorchy, and the annual working expenses of the service. But on long consideration we did not consider the amount provided by Messrs. Hucksion and Hutchinson to cover working expenses (£60, I think it was) was anything like sufficient. We, therefore, considered that a two-shilling rate would be quite inadequate, and probably a three-shilling rate would be necessary, and we determined, therefore, we could not look at it.

886. What was the royalty to be paid to Glenorchy? £10 per million gallons. That was £150 for a consumption of 15,000,000 gallons.

887. What is the present annual ratable value of the property at Beltana? About £1800 within the town area.

888. And you rate on the annual value, I suppose? Yes.

889. Do you think the residents there will be glad to avail themselves, at all events, of a water supply provided by bringing in the water from the upper watershed of the Derwent? Oh, I have not the slightest doubt of it. I have attended joint meetings of representatives of Beltana and Bellerive, with a view of trying to make arrangements for an adequate water supply. We disregarded the proposals made to us, as not being sufficiently satisfactory, foreseeing, as we thought, that sooner or later a comprehensive supply would have to be arranged for Hobart, in which we could share.

890. I suppose there is very little gardening done over there, on account of the scantness of the water supply? Of course, it considerably restricts gardening, and there would be a great deal more done if there was a fuller water supply. But, apart from the town area altogether, there is a large quantity of land at Risdon that would be benefited if the supply were extended there. There is a certain amount of settlement there now—people taking up small holdings of 30 and 40 acres. There has been a good deal of that lately, and I think the settlers would be all very pleased to get a permanent water supply. It is the great necessity of that side of the river; there is no doubt about it.

891. When you were speaking just now of collecting the water on the ordinary roofs of houses at Beltana, I suppose you simply referred to the habit of the people of securing enough supply for ordinary domestic purposes.—What would you estimate would be the cost of tanks and so forth for such a purpose? Well, a man would be seriously handicapped if he had any less supply than 3000 gallons.

892. What would it cost him to provide tanks to collect that, approximately? Well, I suppose it would cost him about £25 to £30. Of course, that amount of 3000 gallons is not a sufficient supply for general purposes; it would provide nothing for gardening, for instance.

893. *By Mr. Hamilton.*—I suppose that settlement on the other side of the river will be always very much restricted until a sufficiency of water is provided for Beltana and Bellerive? Undoubtedly.

894. You say that gardening operations are restricted—I suppose that you are entirely dependent on the season? Yes.

895. It would be futile to attempt anything in the way of orcharding? A succession of seasons like those we have had recently would involve serious loss.

896. And there would be no possibility for extending individual catchments beyond what was absolutely necessary for domestic purposes.—I suppose they exercise their roof facilities to the fullest extent now? No; it is merely a question of cost. For instance, at a cost of about £200, I have personally provided catchment accommodation for about 30,000 gallons. I have no difficulty in getting that supply; but it was an expensive matter at the start, and even that supply is inadequate for gardening purposes.

897. *By the Vice-Chairman.*—What rates do you levy now, Mr. Simmons? Last year we levied one shilling road rate and fourpence town rate.

898. What do you find the life of a galvanised iron tank to be? I could hardly say; but those I purchased ten years ago are still quite good.

The witness withdrew.

MONDAY, MARCH 18, 1901.

ARTHUR E. M. ECKFORD, *called and examined.*

Mr. Eckford was sworn.

899. *By the Vice-Chairman.*—Your name, I think, is Arthur Eglinton Montgomery Eckford? Yes; I generally call myself Arthur Eckford.

900. And you are Chairman of the Queenborough Town Board? Yes.

901. The Commission wishes to deal firstly with the question of water supply; and the first question we should like to ask you is, whether you have an adequate water supply throughout your town? Up to within the last twelve months the water supply was very inadequate. During the past twelve months, however, it has increased, and it is a better supply now than it was formerly.

902. Is it a sufficient supply now? We say it is better; we do not say it is sufficient.

903. When you say it is sufficient, what do you mean? Well, the Corporation supply at times is very short. When they turn the water on, the different householders find it does not run with a full pressure.

904. Have you sufficient for sanitary purposes—do you use any water for flushing gutters, or purposes of that kind? We are never allowed to use a pipe for flushing, or anything of that kind; in fact, it is looked upon that we are prohibited from using it in that way, under any circumstances. The Town Board considers that we ought to be allowed to use it for cleansing our drains, and so on; but we are not allowed to use it, unless we beg it as a favour.

905. Do not you think there is necessity to use it in that way? Yes. It is a crying necessity. I may state that where there is a bad drain in front of a residence, we get the residents to allow the water to run through their pipes, down the gutters. I have been told, however, that these residents would be fined for allowing that water to run, if they were caught doing it, and I have informed such residents that the Town Board would take all responsibility, and if anyone suffered, we would pay the fine.

906. I want to know just what your water supply is. Have you merely sufficient water for household use, in the strict sense, or have you sufficient for your garden—can you give me some idea as to that, so that the Commission may know, in case your supply is deficient, of what the deficiency consists? As far as the domestic and household use of water is concerned, we have now a sufficient supply, I think. As far as our gardens go, very few of us like to use the water at all, on account of the warnings that we have had, that the water will be short if it is not used carefully, and that the supply is limited at the best.

907. Is there any land in Queenborough which, if there were a copious and cheap supply available, would be benefited by irrigation? No doubt of it. There is Lord's estate, in particular.

908. For what purposes could this land be used, under irrigation? For market gardens.

909. What is the population of Queenborough Town? That I could not say, exactly.

910. Can you tell me this: is the population increasing? Yes, rapidly.

911. In parts, I suppose, it is becoming pretty dense? Yes.

912. There are streets which are practically all houses? Yes.

913. What system of sanitation is used in those streets? In what way, may I ask?

914. How is the nightsoil disposed of? We have a contractor who works privately, and who is not under the control of the Board. He removes all pans; but it is a very insufficient service, and not by any means general. We are now about to contract with the Hobart Corporation to carry out an efficient service.

915. And as regards household slops, what becomes of them? They go into the drain, and are conveyed down the one sewer we have underground into the main sewers or rivulets of the town.

916. And they discharge into Sandy Bay? Yes, they discharge directly into Sandy Bay. The Corporation and the Town Board have now entered into a contract to put the Wellington Rivulet into a better state than it is in. At present, it is in a very bad state.

917. How would your sanitation be affected by a larger and cheaper supply of water? The town would be healthier in every way, and the drains and pipes would be in better order, because the continual stoppages we now have would be stopped. A better supply of water would improve the town in every way.

918. Have you had any typhoid in Sandy Bay? Last year we had one case, or two cases; I forget which. This year we were congratulating ourselves that we had none, but I hear that there is a mild case on the main road now.

919. What is the condition of the Wellington Rivulet now? There were a number of water-closets used to pour into that rivulet from the City. The nuisance became great, and the Town Board took up the matter very warmly, and we had those City property-holders, who were defiling the rivulet with their water-closets, cut off. There are only two or three water-closets pouring into the rivulet now, and these we are taking measures to have cut off, and, of course, it is in much better condition now, and healthier in every way. If we had a continuous flush of water in that creek—which we say the Corporation has taken from us—that flush, by allowing the overflow to go down the river continually, would put it in a much better condition still.

920. You pay the same water-rate as the New Town people, I think? Yes, the suburban rate.

921. How is lower Sandy Bay supplied? I cannot speak exactly as to that, but I know that they have a main right down the road, and they are supplied from that main.

922. What is their local governing body? The Lower Sandy Bay Road Trust. Mr. Frederick Salier is Chairman of the Trust, just now.

923. *By Mr. Propsting.*—Have you any idea what the total consumption of water is at Sandy Bay? I have not.

924. You say you are entering into an arrangement with the Corporation to remove the pans in your town? Yes, to take over the whole sanitary service.

925. Are any of the people in your town allowed to dispose of the contents of the pans on their properties? Yes, if the area is large enough. Dr. Sprott visits the places, and if he thinks the available ground is sufficient in area, we allow it.

926. What is the position of the public baths there—do they belong to the town? Under our Act they come within our jurisdiction; but the Minister of Lands and Works claims them as belonging to the Government. The baths, I may say, are in a very dilapidated state just now—literally falling to pieces, in fact. The Town Board has approached the Government to see whether they would advance the Board some of the money they have been receiving for years as rent, and the Minister of Lands has replied and referred us to our powers to borrow to put the baths into good order.

927. What benefit would that be to you? The baths would be a benefit, not only to Queenborough, but also to all the citizens of Hobart.

928. But what benefit would they be to the Board under present conditions? None, I suppose, while they are held by the Government, but the Government has now proposed to give us the baths on condition that we take them over properly.

929. Are there any water-closets in Sandy Bay discharging into the creek? As far as we know, none. We have an inspector who occasionally visits every place in the town; and if he finds any water-closets, they are immediately cut off.

930. Is slaughtering permitted in your town? No; not beyond a person killing a pig occasionally. There is no other slaughtering, and even that pig-killing is not done in the town itself. It is done on the larger areas outside the town.

931. None of the butchers slaughter in town? No.

932. Not occasionally? Not occasionally. That is to say, they do not slaughter at all with our knowledge. If they did, it would be without our knowledge, and without authority from the Board to do it.

933. Can you state from memory what the total rate levied in Sandy Bay is? The amount, do you mean?

934. Yes? No, I could not say that. We have had a new assessment, and I could not speak accurately upon that from memory.

935. What rates do you levy? You mean the Town Board Rates?

936. Yes? We levy 11d. in the £1 for road rate, and 1d. town rate—one shilling in all. Those rates produce somewhere between £500 and £600.

937. No sanitary rate? No sanitary rate. That is paid privately, not to the Board.

938. As to this arrangement you propose with the Corporation—will that service be universal in your town, or will it only be confined to small householders? We propose that the service shall be confined to that part of the town that the medical health officer requires to be served in that way. If any houses, in his opinion, have sufficient ground to enable them to carry out the burial of nightsoil to the satisfaction of the health officer, we shall be content. We are not proposing to make it a compulsory service.

939. Have you definitely arranged as to what rate you shall levy with regard to this service? We are only allowed, under our Public Health Act, to rate up to 6d. in the £1. The new service will cost the ratepayers  $\frac{1}{2}$ d. or more, and the payment of that is a private contract they will enter into.

940. Then, your sanitary rate will fall heavily upon the small householders? No; because the Corporation has a lower scale for houses rated at 20s. and under, and we are hoping that they will only be charged 12s. a year; so that the rates for the new service will not fall heavily on the small householders at all.

941. But the service will not apply at all to people having large areas of land? No; unless the health officer reports that it is necessary it should apply to them.

942. Has your Board ever considered any scheme for obtaining water from anywhere other than from the Corporation? We have had a scheme to obtain the water from the River Styx, and I think there was a public meeting on the subject. Anyhow, the Board has considered it, and I can speak for the residents of Queenborough, one and all, so far as my knowledge, based on intercourse with them, goes. They all think that a water trust should be formed, and that water should be obtained from the River Styx, or from the upper reaches of the Derwent. That was their opinion unanimously, as far as I remember.

943. Is there any difference between the water rate charged to you and the rate levied on the people of Hobart? Yes, we used to pay a higher rate; either 2d. or 3d. higher. That is a very sore point with the residents of Queenborough. They argue that under the 1860 Act there was a contract made fairly and equitably with them that they should be charged the same rate as the Hobart citizens are charged. The people who had the management of the Sandy Bay Trust then gave in their adherence to the scheme of getting water from the City of Hobart, and giving up the water they were then using for Sandy Bay to the Hobart people, only on the distinct understanding that they would always be charged the same rate as the people of Hobart; and the Act bears out what I say. The Hobart Corporation take up the view that their supplying the suburbs with water was a favour. We at Queenborough, on the other hand, look at it that we gave up certain things by that Act of 1860, on the Corporation making a certain undertaking, and we do not, therefore, look on the water we get as a favour, but as a right. That is the position and feeling that Sandy Bay is sore about. It was in 1893 the present Hobart Corporation—I am trying to speak as respectfully as I can—got their Act passed through the House, in the most hurried way; and at that time influences were brought to bear by the result of which the suburbs of New Town and Queenborough were treated in a very unfair manner.



944. Do I understand from you that the Board would be prepared to take the water from the town through one main and pay for it, undertaking the responsibility of collecting from the ratepayers, and keeping the pipes in order? I think so; I think they would. If we got a good and sufficient supply, I think they would only be too ready to do it. But that is a matter, of course, we would have to refer to the ratepayers.

945. *By Mr. Guesdon.*—This contract with the Corporation you are speaking of, Mr. Eckford. Mr. Propsting asked you whether it would bear unduly heavily on the small householders. Is not the charge for dealing with the night pans there now 6*d.* per week per pan? I do not exactly understand you, Mr. Guesdon.

946. There is a man removing the night pans now. Does not he charge 6*d.* per week per pan? He charges in some cases much less than 6*d.*; the maximum charge is 6*d.*

947. Does he charge 3*d.* in some cases? I think, in some cases, he does.

948. Do you know what the minimum is? I do not know what it is, but I know there are differential charges.

949. Do you think 3*d.* would be the minimum? Yes, I think 3*d.* would be about the minimum.

950. And, you see, 3*d.* a week would mean 13*s.* a year? Yes.

951. So that if your small householders got the service from the Corporation for 12*s.*, they would not be prejudiced? Oh, I said they would not be prejudiced. The small householders would be benefitted.

952. These rivulets, the Russell Crescent and the Ashfield: do not they become very offensive, owing to the lack of water for flushing them? Yes.

953. And particularly the Wellington Rivulet? Well, we get a man to clean them as often as possible, but they are really very offensive, on account of the want of water to flush them with. Our medical officer has stated, time after time, that it is absolutely necessary to have these rivulets flushed.

954. Now, in the event of a flood taking place on that property of Blink Bonny, that drain at the Butts would become very offensive, would it not? Yes, it would.

955. It is foul now, is it not? Yes, sir; it is a menace to health. The Town Board, to prevent that for the present, has insisted upon everyone bringing their drains to Lord-street; but if many more houses go up, the drain will, eventually, have to go that way.

956. Then, it is absolutely necessary, if your suburb is to make progress, that you should have a vastly better water supply than you have now? Yes, quite so.

957. If only for the purpose of flushing your gutters and drains? Yes, quite so.

958. Do you have many complaints from your inspector, as to the condition in which some of the yards of some of these people at Sandy Bay are? The inspector's reports are occasionally to the effect that there are several such places requiring attention; but I have not found it necessary to serve any notice on the occupiers in such instances, beyond the mere notice giving warning. The matter is always attended to at once.

959. Then this contract with the Corporation is to deal purely with nightsoil—only with nightsoil? Yes, that is so. We remove house-garbage, and that sort of thing, ourselves.

960. Do you remove it for anybody that requires it to be removed? For anybody that requires it, yes.

961. And for that you charge—what? We have not charged anything, as yet. There are many people who cannot even afford to pay 3*d.*, and our inspector has instructions to remove the stuff at once, in any case.

962. You attend to that out of your Town Board rate of 1*d.*? Out of the 1*d.* rate, yes.

963. Mr. Propsting has spoken to you on a suggestion that you should receive a certain water supply at a certain point in the district, and distribute it yourselves. I suppose you would have no objection to having that water supplied to you by meter? Not if a fair system is adopted; there is a difference of opinion about meters. A great number of our residents think that water is free, coming from the clouds, and they do not understand the water being measured out to them. I coincide with them in that. We would sooner have a copious supply without meters, if it were possible, but, of course, we would take the meters if a copious supply could not be got without them.

964. Of course, you could take the water from the main, and charge it to your own consumers as you liked. But would you have any objection, supposing a uniform system were adopted, to the Corporation charging you from the main for whatever water you used—if a uniform system were adopted, would you not regard it as a perfectly fair and reasonable way of dealing with it? We would be happy to fall in with it.

965. Your ratepayers regard themselves as in some way responsible for the capital cost of these present waterworks? It is an extraordinary position taken up by the Mayor and Corporation that we residents of Queenborough are not liable for the debt on the waterworks. I do not think it has ever been submitted to counsel, but I think we are liable for the debt.

966. You regard yourselves as liable? Certainly; never thought otherwise.

967. Then you regard yourself as having an undoubted right to representation on the administration of the waterworks? Yes, we do. We pay rates, and at present we have no voice in the administration. We say that should not be so.

968. That is the general feeling in Queenborough? That is the general feeling in Queenborough, expressed at a public meeting.

969. *By Mr. Hamilton.*—As Chairman of the Queenborough Town Board, Mr. Eckford, you are rather proud of your little holding there? Yes, we are.

970. And it is a sort of boast with you, the healthfulness and cleanliness that has always attached to Queenborough since your Board took it in hand? Yes; we say that our town is the healthiest town in Tasmania, and this can be proved by statistics.

971. And you are desirous of entering into an arrangement with the Corporation, now, for a better sanitary service for your town? Yes.

972. Do I understand that your present sanitary service is defective? The Board has no sanitary service of its own; the work is done privately; but still, we, as a Board of Health, exercise controlling power, and when we want a thing done we are able to get it done.

973. Is not that sanitary matter largely disposed of on one of the farms? Yes, Mr. Lord's farm.

974. There is no objection to that? There is no objection. Medical men are finding the pans and the service wholesome, if properly carried out.

975. Have you frequently visited Lord's farm? I have been there occasionally.

976. Did you find anything disagreeable or offensive there? No. We have only had one or two complaints since the golf players have gone to Queenborough. It is not on account of the nightsoil being buried there that this service is being undertaken; we find that we want a service that will be more effective than the present one.

977. You maintain that you have an inherent right to a sufficient water supply from the mountain? Yes.

978. You hold that you contribute your rates to the Corporation, and well deserve the right to a supply from the watersheds on equal terms with those enjoyed by residents in the City? Yes.

979. And you say that your town is largely increasing in extent? Yes.

980. And you tell us that your supply of water, notwithstanding your contract, is very insufficient? Yes. If it had been a very hot summer, I should have dreaded the effect of the scarcity on the town.

981. You are a cottage-gardener yourself, are you not? Yes; I am.

982. And there are hundreds like you at Sandy Bay? Yes.

983. And you would be pleased and benefited if you had an abundant supply of water? Certainly.

984. Therefore you put both hands up for a copious supply from the River Styx? Quite so.

985. It would crown your efforts as Chairman; it is really the only thing you want in Queenborough? Yes, you are quite right. I may say again, that the fact of our insufficient supply is shown by our not being allowed to flush our gutters. That is a sufficient answer to anyone who says we have an adequate supply now.

The witness withdrew.

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#### SILAS T. TINNING, *called and examined.*

Mr. Tinning was sworn.

986. *By the Vice-Chairman.*—Your name is Silas Thomas Tinning? That is so.

987. And you are a member of the Bellerive Town Board? Not now. I was a member of that Board for nine years.

988. And you have been Chairman of that Board, I think? Yes.

989. How long were you Chairman? One year.

990. What is the population of Bellerive now? About 600.

991. Is it increasing or decreasing? Increasing slightly.

992. Rapidly? No; it has been rather at a standstill for the last three years.

993. What water supply have you over there? Only catchment.

994. From the roofs? Yes.

995. Is that all the water you have for any purposes? Yes, that is all we have for every purpose.

996. Is there any desire there for an increased supply? Yes, there is.

997. Has that desire been manifested at any meeting of the Town Board, or by any public meetings? Yes.

998. You might give us an account of that? We have considered two schemes of water supply within the last five years. The first was to provide a catchment area for Bellerive and Beltana jointly. The idea was to conserve water behind Beltana in a reservoir on a site already selected. We got an estimate from Messrs. Huckson and Hutchison, the engineers, and the cost they then arrived at for the work was £7500. That amount was to build the reservoir, and to find everything for completing it, including, I think, all reticulation and pipes. We considered the advisableness at that time of raising a loan to cover the cost of the works, under the Public Bodies Loans Act. On discussion, we decided that it would take a 2s. rate to pay

for the work. On that we had a public meeting, and the people objected. They objected to the heavy rate, and they also thought that, as the rainfall at Bellerive and Beltana was the smallest in the Colony, it would not warrant us in proceeding with the work. The other scheme considered was to bring in a supply of water from Glenorchy. The Glenorchy people undertook to give us a maximum quantity of water of 20,000,000 gallons per annum for five years at a charge of £175 per year. Under the scheme we had to find everything in the way of works; the Glenorchy people were simply to supply the water. After the expiration of five years, we had to take a minimum quantity of 20,000,000 gallons at the rate of 2½d. per thousand gallons. We also had a meeting at Bellerive to consider that scheme, and one of the difficulties in the minds of the ratepayers, was the question of crossing the river.

999. Has any estimate been made of the cost of that? Yes. I attended myself with the engineer, and took soundings, and it was made evident to us that the work could be done; the difficulty was the corrosion of the pipes that might ensue; but we found a suitable bottom in soft mud, and the engineer thought the pipes would sink in that, and so be preserved. Finally, however, that scheme was also considered by the people, and they thought that the cost would be too great, and so the scheme fell through. The idea was to bring the water down the Derwent Park Road to Risdon Ferry, across the ferry, and then adopting a course that would follow the river down to Beltana.

1000. What effect does the limited water supply have on gardening at Bellerive? We cannot do very much gardening; but people conserve the house water to a certain extent.

1001. That is, of course, a rather expensive way of doing things? Yes, particularly in the way of time and trouble.

1002. Is there any market gardening going on over there? None whatever.

1003. Is there any land that could be taken up for that purpose if an adequate water supply were available? There is, yes.

1004. How much—have you any idea? Twenty or thirty acres, just in the town.

1005. Do you think that the lack of a proper water supply prevents people going to reside at Bellerive? Yes.

1006. Have you known any instances of that? Yes, many; people have left on that account.

1007. What is your system of sanitation there? We have a pan system, but it is not compulsory. The Town Board, instead of making a compulsory rate, engages a contractor, who undertakes to attend to the service at so much a pan; but persons need not use that service unless they like; it is for the inspector to see whether they have sufficient land and conveniences to avoid using it. Of course, there is no duplicate system such as you have in town. The pans are returned as they are emptied.

1008. You have some pretty thickly populated streets in Bellerive now? Yes.

1009. How do you manage about flushing the gutters there? They are never flushed.

1010. Do they not become disagreeable? No; we do not allow much drainage in the streets, only in parts where there is a good fall. In Murray-street, where I live, and where there are more houses than anywhere else for the length of the street, we have a fairly good fall, and an asphalt drain.

1011. What becomes of the house slops generally? They are thrown over the ground.

1012. What rate do you think the Bellerive people would be willing to pay for a proper water supply? Well, they objected to pay 1s. 6d. under the Glenorchy scheme, but I think they would be willing to pay that now for a good supply; certainly, they would pay 1s. readily enough.

1013. And if a uniform rate of paying for the water by meter were adopted, I presume there would not be any objection to that? No; it would be welcome, I think.

1014. *By Mr. Propsting.*—Under that proposal to bring water from Glenorchy, were any other places included besides Bellerive? Yes, Beltana.

1015. Did you get an estimate of the cost of taking the water across the river? No, we did not.

1016. What means were proposed for doing it? The idea was to bring the pipes down by Derwent Park and across the ferry.

1017. Sinking them beneath the water? Yes. That was the easiest part of the river to do it, and we found it was a fairly good bottom for the purpose.

1018. Is any slaughtering permitted at Bellerive? Yes, slaughtering is permitted.

1019. What means are adopted for keeping the slaughterhouses clean? They use a fair amount of water. I think there are only two houses in Bellerive where they kill, and they only kill sheep there.

1020. What are your rating powers at Bellerive? Our ratable value is £5000.

1021. And what is the Town Board Rate? One shilling.

1022. Does that cover everything? Yes, except the sanitary rate.

1023. *By Mr. Guesdon.*—What is the rate for sanitary service? Sixpence per service.

1024. *By Mr. Hamilton.*—You say the population is about 600? Yes.

1025. And it has been practically at a standstill for the last few years? Yes.

1026. But if you had the advantage of an abundant water supply, that would bring about a very great change, would it not? Very great,

1027. How long have you been familiar with Bellerive and its conditions? About twenty years.

1028. Well, does it not strike you that the great drawback to life over there, the thing that steadily blocks increase of population, is want of water? No doubt it is.

1029. You were saying that there was very little trouble caused over there by house slops? Yes.

1030. For the simple reason, I suppose, it is all preserved for garden purposes? It is all kept for the gardens—exactly.

1031. In fact, such a thing as waste of water you do not know over there? That is so.

1032. With an abundant supply for all purposes, not only settlement would be increased, but the opportunities of gardening and vegetable growing would also be increased by the improved conditions? Very greatly.

1033. You were saying that there are about 30 acres of land ready for market gardening now, if you had water—that would only be one block among many, I suppose? Well, that is speaking of pieces of land I have my eye on for that purpose.

1034. Some fifty years ago, I think, the land at Rosny, and along there by the Smelting Works, was bought with the express purpose of cutting it all up in small sections, believing that that would be a magnificent watering-place, and a chief suburb of Hobart; and I think that it was only the want of water that broke up that speculation? Yes. Of course, Mr. Nicholls' question to me was as to market gardening with an adequate supply of water; and while, of course, 30 acres is a small enough piece of land, it would be a very good market gardening space for a small town such as Bellerive.

1035. Anyhow, an abundance of water would revolutionise the place? Yes; I would like to see it.

The witness withdrew.

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PETER FACY, *called and examined.*

Mr. Facy was sworn.

1036. *By the Vice-Chairman.*—Your name is Peter Facy? Yes.

1037. You are an Accountant, and act as Secretary to the Bellerive Town Board? Yes.

1038. We have just asked Mr. Tinning a large number of questions relative to Bellerive affairs. Have you the last balance-sheet of the Bellerive Town Board? Not with me.

1039. Will you be able to supply the Commission with a copy of it? Yes.

1040. I was asking Mr. Tinning what area of land there was there that would be taken up, supposing we had a full water supply, such as would enable the occupiers of the land to irrigate. Can you say? Well, I could give you the number of properties at Bellerive that are unimproved. There are 162 properties at Bellerive unimproved, and 138 houses and improved properties.

1041. Do you consider that an increased water supply would be of much advantage to Bellerive? I believe it would enhance the value of certain properties over there that at present are very short of water, and have to rely on what they can catch.

1042. *By Mr. Propsting.*—Most of the large householders over there have got concrete tanks? Numbers of them, yes.

1043. And they have made full provision for their domestic supply? Yes, numbers of the modern houses have. Taking the case of my own house, I have never been short of water since I have been there, and that will be ten years this next October.

1044. Taking your own case, then, would not you wish, although you have made that provision, to have an adequate permanent supply of water laid on to your place? It would be only of value to me for irrigation purposes, and, probably, we would then be able to have a bath every day, which we are not able to do now.

1045. Are there many persons at Bellerive situated as you are? Not very many at Bellerive, because my roofage area is so extensive. I catch a large quantity of water. I think I have about the best water supply at Bellerive.

1046. The benefit of a copious water supply from Hobart would be chiefly to small householders who have not that adequate provision, and in enhancing the value of vacant lots of land? Just so. It would be of considerable value to the majority of the inhabitants of Bellerive.

1047. What is the assessed value of the property in the town area? On last year's Roll the assessment value amounted to £5018 4s. 3d. That was the valuation we levied the Town Board rate on for last year.

1048. Do you think an adequate and regular supply of water would rapidly increase the size of the town? Well, it would tend to do it.

1049. Do you know of many persons who have left Bellerive, and declined to go and live there, because of the inadequacy of the water supply? I could not name very many. The inadequate water supply is a great drawback to the place.

1050. What do you consider the chief drawback? The water supply and the ferry service. The ferry service wants to be extended considerably. If that were done, and there was an adequate water supply, the place would go ahead in proportion to the other suburbs.

1051. *By Mr. Guesdon.*—Do you not think that a material increase in the population over there would itself regulate the ferry service? Yes, there would be better facilities if we had more population.

1052. What do you do with your rubbish there? What rubbish?

1053. What does your contractor do with your pan refuse? It is taken down to a farm outside the boundary of the town and deposited there, just below the Wentworth property.

1054. How do you deal with the other house rubbish? That is put into the tip.

1055. Do you leave people to deal with it themselves, or do you deal with it? There is a sanitary inspector, who insists on all rubbish in back-yards and so forth being carted away and cleared out. There is no contractor to do that part of the work; that is done by the householders themselves.

1056. But you provide a tip there? Yes.

1057. Is that the tip that we see going round the battery? That is closed now; has been closed for some time. The present rubbish tip is on the Bluff, between the battery and the sandy beach.

1058. Do not you consider that it is a very undesirable thing to tip your rubbish there? [No reply.]

1059. Would it not be better to remove the rubbish beyond the town boundary altogether? The Town Board attends to the rubbish tip frequently, to see that nothing in the way of offensive matter is allowed to accumulate there. It is covered over and attended to at least once a month.

1060. Have you borrowed any money on account of local works? No.

1061. None whatever? None at all.

1062. What is your rate now? One shilling. That is for road and town purposes combined. Last year it was 8d. for road purposes, and 4d. for town.

1063. Have you adopted any general system of drainage there for the disposal of household slops? Only surface drainage. All the streets have either cobble gutters or table drains for carrying off the surplus water.

1064. You have no means of flushing them? No.

1065. Do you not think it would be a great boon if you had water for flushing? It would, were the household slops emptied into the drains.

1066. *By Mr. Hamilton.*—You have known Bellerive for a great many years? I have lived there ten years.

1067. But you know it for half a century, pretty well? Yes.

1068. Is it not apparent to you that the want of water has been always a drawback to the progress of Bellerive? Yes; it is one of the chief drawbacks to Bellerive.

1069. You speak of your place as being conspicuous over there for the good supply of water you have? Yes, I have a large roofage area. My house is 99 feet in length, and, consequently, I catch more water than I actually use. I can only conserve about 10,000 gallons. I have a better catchment area than any other house in Bellerive.

1070. What did the tank cost you? The underground tank cost me £50; that is, for repairs only.

1071. I suppose it would cost pretty well the price of the house? Oh, no. Of course, I bought it with the house. It cost me £50 to make it water-tight.

1072. I suppose it would cost a couple of hundred pounds at least to construct a tank of that size? Well, it would hardly cost £200. I am not an expert in these matters. I suppose it would cost from £100 to £150 to put a tank down to hold the water I have in mine.

1073. Now, going to all that expense for the purpose of conserving water, making that splendid roof to carry the water to your tank and so on, do you not still always feel that there is a sort of menace in that system of providing for your water supply—do you feel as free in every way to use that water as if you had it conducted to your place in pipes from a proper source of supply? I think so. I am frequently putting lime in that tank to purify it. We have never had a case of sickness in the house. Of course, that fact has only been brought about by the constant care and attention I have given to keeping the water supply pure.

1074. Of course, Bellerive is splendidly healthy, from its natural position? Yes.

1075. And your town, being small and well situated, is pretty clean and dry? Yes; the natural formation of the town makes it so.

1076. And talking of your household slops: they are no trouble, I suppose, because they are used for gardening purposes? A great many of the ratepayers use them so—yes.

1077. Speaking roughly, if you had a good amount of water at Bellerive, a permanent and copious supply, what do you think would take place in the way of increased settlement? I believe it would enhance the value of property. The taxes there are only 1s. in the £, and against that we have to put the ferryage, which is 5s. a month for each adult.

1078. If you had the same water supply there that you used yourself to enjoy in Hobart, would not that be the boon that Bellerive is pining for? It would be one great advantage. We want other advantages as well to make the place prosperous. We want more frequent ferryage, for one thing.

The witness withdrew.

TUESDAY, MARCH 19, 1901.

WILLIAM A. BRAIN, *called and examined.*

Mr. Brain was sworn.

1079. *By Mr. Guesdon.*—Your name is William Alfred Brain? It is.

1080. And your occupation? I am Engineering Inspector to the Hobart Corporation.

1081. Have you read this report of Dr. Gregory Sprott, appearing in this morning's paper? Yes.

1082. We should like to get some information from you as to the statements here. Dr. Sprott says, for instance, that there is a necessity for a more rigid inspection of premises and back-yards. Do you agree with that? Yes, certainly.

1083. And he says that a necessity also exists for greater and more direct assistance for your department. What do you say as to that? Yes; I have been asking for further assistance for some little time now. As a result of my first application arrangements were made with the police to make a regular visitation of premises, and they now send in a weekly report to us.

1084. What does he mean here, when he says that something should be done in order that the complaints made by the police may be promptly remedied? As a rule, the police simply caution a man in the first instance, and if, on going back to the premises, they find that the man has not remedied the fault in question, the complaint is sent on to us, and a written notice is served on the offender. The trouble is really that we have not a sufficient staff to enable us to cope with all the nuisances that are reported by the police.

1085. Then, we are to understand that in the interests of the public health you agree with Dr. Sprott that it is absolutely necessary that your department should be strengthened? Yes, I certainly think that is so, if we are to carry out the Health Act as it ought to be.

1086. He says that the difficulty is increased since your department has been given additional responsibilities as to the surveying, planning, and supervision of all drainage works. What does that mean? Drainage of private premises. That work was all done by the City Surveyor's Department formerly, and so was under rather divided authority. The idea of putting it into my department was to have the whole thing under one head.

1087. Then, you have to arrange as to the connections between private houses and public drains? Yes. If one of our inspectors reports a case of insufficient drainage, we have to visit the place. In many cases it means that levels have to be taken, and a survey made, and then we have to supervise the work while it is being done.

1088. That includes, I see, the inspection of the plans of premises before a permit to build is given? Yes. That provision is quite recent; made under the new by-laws that have just passed. Under those by-laws every man building a new house is required to submit a plan showing what the drainage is to be; and that has to go through my hands and be approved of before he can proceed with his work.

1089. Was not that provided for under the old law? No. Under the old law there was no provision for a permit for drainage being given at the outset—merely for the building.

1090. Under this new by-law you are empowered to go into houses already constructed, and insist upon the people improving their drainage? Oh, we can do that under the Health Act. If, in the opinion of the Local Board of Health, the drainage is insufficient or defective, we can always do that.

1091. You have not the power merely under these new by-laws, you mean? No; we had before, under the Health Act.

1092. Under what Act do you determine what drainage shall be put in, in the case of a house being built? Under the Public Health Act—the same Act that the new by-law was made under.

1093. Well, you have some knowledge, I suppose, of the general system of drainage in Hobart? Yes.

1094. In your opinion, is there a necessity for a great improvement in the drainage of houses already built? Well, the whole system of drainage, in my opinion, requires altering. You see, even supposing that a house has its own private drains in good order, probably it drains into an open sewer, and offends other people lower down. It goes into a cobble-stone gutter, in many cases.

1095. Still, if your open sewers were properly constructed, and you had ample water supply to flush them, I suppose there would be very little offensive matter in them? That is so; but it would be a very costly job to build open sewers, and it would take a lot of water to flush them properly. I prefer to put sewers underground.

1096. But even with your present system of drainage, do you think there would be any considerable trouble if you were in a position to flush your surface drains properly? Do you mean the creeks and rivulets?

1097. I will leave the creeks out of the question, now, and deal with them separately afterwards. For a moment, I am talking of the gutters in the streets. What do you think? Well, there would be a vast improvement on the present conditions if we had sufficient water to flush all the gutters daily.

1098. Then you do not regard a largely increased supply of water as an imperative necessity for the City of Hobart? That is rather a difficult question to answer. There is a difference of opinion as to whether there is sufficient water available for a drainage scheme. I have not gone into that.

1099. But in the interests of the public health, do you not think it is an imperative necessity to have a large supply of water to keep your present drains sweet? Yes, I do.

1100. And the present water supply is inadequate to do that? Yes; in the summer months.

1101. And I suppose you have not enough water to do it daily, even in the winter months? No; I do not suppose there would be enough at any time.

1102. Well, now, as you have this power under the Health Act to deal with the drainage of houses, have you many reports made to you as to insufficient drainage, and so on, in connection with houses now in existence? Oh, yes, we have a fair number of reports made to us. Speaking from memory, I think 270 houses had new drainage put down only last year, in addition to many that had slight alterations—such as new sinks, and things like that.

1103. And, speaking generally, you are enforcing the Act rigidly? Yes.

1104. Do you consider that it would be a great improvement on present conditions, if the Corporation were to undertake the removal of all rubbish in addition to nightsoil from the premises in the City? Yes; my last two annual reports have strongly advised the Corporation to take steps to do that. You mean garbage, and so on?

1105. Yes? I have advised them, as I say, to do that, especially in my last two annual reports.

1106. Have you gone into the question of what it would cost to go in for a general and efficient system of dealing with this rubbish? Well, allowing for a weekly removal from each house, and, in addition to that, a daily removal in the centre of the City, it would cost about £1000 annually. But there is about £150 being spent annually on the work now in the centre of the City; so that it would practically mean £850 a year, in addition to the present expenditure.

1107. And that amount of expense would enable the Corporation to remove the whole of the garbage? Yes.

1108. What would that represent in rates? £1000 would be about a 1½d. rate. Taking off the £150, I daresay a 1d. rate could be made to cover the whole thing. In many cases, a fortnightly removal would do.

1109. And do you not think that the introduction of a system like that would be a material saving to the public generally—I mean do you not think that the cost of individually removing this rubbish by ratepayers would far exceed the cost under a general system? Yes; those ratepayers who do remove their own garbage now would not pay so much. Of course, those who let it accumulate would pay more. In my report I take a £30 house as about the average assessment of a house in the City. Well, in the case of such a house, a 1d. rate would mean 3s. 9d. per year, and the refuse would be removed every week; whereas now the ratepayers are charged 1s. to 1s. 6d. for the removal of every load. It costs, therefore, 3s. 9d., practically, for the removal of three loads; which means that every load is the accumulation of four months or so. That, of course, is not desirable.

1110. Do you allow a three months' accumulation now? No; not if I know of it.

1111. For what period do you allow it to accumulate? No man is allowed to have an accumulation of offensive refuse, no matter how small. For manure, two cubic yards is the limit under the Act.

1112. Then, if an individual householder undertook now to remove his garbage under the provisions of the Act, it would probably cost him 1s. a week, or so? Yes.

1113. That is as against an annual rate of 3s. 9d.? Yes. Of course, it would not be necessary to remove it every week, unless there was a nuisance caused by it.

1114. The Act does not specify any time? No; the Act specifies no time at all.

1115. Is there power under your Act to make a by-law to specify the time for which rubbish shall be allowed to accumulate? I could not say, off-hand, where that power would come in.

1116. At all events, in your opinion, you think it is a proper thing that the Corporation should undertake the duty of dealing with house refuse? Yes.

1117. And whether we have surface drainage or underground drainage that necessity continues? Oh, yes; it is quite independent of drainage.

1118. Do you approve of the system of the Corporation of leaving this rubbish in tips? Of course there might be a better system adopted than that.

1119. Have you suggested any improvement to the Corporation in that respect? Yes, I have suggested that they should purchase a destructor.

1120. Did you go into any figures or supply any details as to the plan and cost of a destructor? No; I am getting information on that point now; I have not received it yet. I am getting definite information as to what the cost will be.

1121. In connection with this matter of refuse, there is a very large number of fruit shops in Hobart. Do you know, of your own knowledge, how the refuse collected from them is dealt with, or whether and when they are closely inspected? As far as I know, the refuse from the fruit shops is removed in the ordinary way to the tips.

1122. Do you know the danger arising from decomposed matter of that sort? Yes.

1123. And you know, of course, that there is a very large number of these shops in the City, as I said just now? Yes.

1124. Well, have you made it a matter of special instruction to your inspector to see that this refuse is dealt with properly and promptly? There are three classes, practically, who are under special supervision, the butchers, the dairy-keepers, the fruit shops, and the fish shops: that is four altogether. These people have more inspection than all the others put together.

1125. And you say that there is a very close inspection of these trades now? Yes.

1126. Have you had any complaints at all as to their premises, say, during the last summer—the last four months? I do not know of any complaints about the fruit shops. I have had complaints about one fish shop in particular.

1127. Is the whole of that inspection in the hands of one man, Butterworth? Well, of course, I mentioned the police inspection just now. Then there is Butterworth; and since the outbreak of bubonic plague in the other colonies last year, the foreman of the Sanitary Department also gives half his time to the work of inspection.

1128. And, from the reports made by these inspectors, are you satisfied that the provisions of the Health Act are being carried out properly, or do you think that there is room for a considerable amount of improvement? Well, there is room for improvement, of course; that is why this report of Dr. Sprott's has gone in; still, there has been a great improvement in the last eighteen months or two years.

1129. And you tell us, in reference to this refuse, that you are preparing a scheme to submit to the Corporation—a scheme of dealing with this garbage and rubbish in another way? I have been obtaining particulars for my own information. In all probability, I will submit a report to the Corporation, if I consider it advisable.

1130. You do not consider it desirable that the present system of pitching this rubbish on tips should continue? No.

1131. Coming now, to the creeks. Do you know anything at all about what number of water-closets empty into the Hobart Rivulet? Roughly, about 500—say, 500 to 550.

1132. Within a radius of what—how far up do the water-closets extend? The bulk of them are below Harrington-street. There are a few above that.

1133. You have no means of flushing that rivulet at all, except by the ordinary rains? No, no means at all.

1134. And, of course, that matter, and all the matter from the hospital, must lie between Harrington-street and the mouth of the creek, until the fall of rain comes down to wash it away? Most of it gets away all right until it meets the tide. There is a man employed sweeping the paved sides of the creek, in order to prevent offensive matter lodging anywhere.

1135. If he sweeps it into the centre of the sewer, does that carry it away? Yes.

1136. Is there sufficient water always running to take the matter down? Yes; I never saw it so dry that it would not take anything down. Of course, the water from the water-closets helps it greatly.

1137. How many water-closets empty into the Park-street Rivulet? About 60, I fancy. There are just over a hundred that empty into the smaller creeks, and I think the Park-street Rivulet has about 60 of them.

1138. Have you cut off any houses recently from the Park-street Rivulet? There were four houses cut off about eighteen months ago.

1139. By order of the Corporation? Well, we did not serve them with any order; but the drains were in very bad order, and I advised them to do away with the water-closets, and substitute earth-pans. They did it.

1140. There is no cement bottom at the Park-street Rivulet, I think? No. We have a man employed cleaning that creek, and removing all obstructions as far as he can, but there is no made bottom there.

1141. Is there any flow of water there during the year? Yes, there is a constant flow of water.

1142. Sufficient to carry the faecal matter—how far? Well, to below where the rivulet junctions with the Hobart Rivulet, at the foot of Macquarie-street.

1143. Does it carry it as far as that? Yes, with the help of the man employed for that purpose. Of course, unless the matter is attended to in such a creek as that, the faecal matter is stranded on the sides of the creek.

1144. Do you think it is desirable that that creek should be used for that purpose? I think it is desirable that the water-closets should be cut off.

1145. And if the Corporation had the power to do it, would you advise that they should be cut off? Yes.

1146. That would mean a considerable saving in the expense now incurred in keeping the creek clear of obstruction? Well, I do not know that it would not be advisable to keep a man there in any case. Of course the creek would not require so much attention.

1147. Do you know anything of a drain recently much spoken of in Murray-street, between Patrick and Warwick streets? Yes; there is an open creek there.

1148. That is not cobble-stoned, or anything, is it? No.

1149. Just an open fissure in the ground? It is the natural bed of a watercourse; there are walls along it in places on private properties, but it has no made bottom.

1150. Have you not had reports about the offensiveness of that locality? The only thing I have noticed was something I saw in the *Tasmanian News*; that is the only complaint I have had.

1151. And your inspectors have made no report to you as to the offensiveness of that drain? The man who looks after the Park-street Rivulet goes through there, and clears it out; he cleans out all the drains—the Melville-street drain, the Park-street drain, the Elizabeth-street drain, and the King-street drain—in turn.



1152. Have your inspectors, during the last four months, made any report to you of any objectionable drains, the stench arising from which is practically a public nuisance? I have had several reports of a bad smell arising from different gutters in the City. When I get such reports I simply write a memo. to the Foreman of Works in the City Surveyor's Department, and he instructs the foreman of the sweepers to have the matter attended to.

1153. Your inspectors deal also with dairies? Yes.

1154. Have you had any complaint at all about the way in which dairies are conducted within the municipality? Not within the last few months. I made an inspection of the dairies personally about twelve months ago, and refused permission to keep cows to several people in the then existing state of their dairies.

1155. Do you confine yourself simply to the dairies where the milk is kept, or do you deal also with the places where the cows are pastured? Oh, the pastures are liable to inspection the same as the cowsheds.

1156. You know Battery Point? Yes.

1157. Do you know the vacant piece of land in front of where Mr. Douglas lives, at the back of Risby's Mill? Yes.

1158. Then you know that that is practically a swamp? I have not been in there for years. I know there was a swamp there at one time, but I thought that the drainage put down had taken all the water away.

1159. Do your inspectors report to you on the condition of public institutions, places of amusement, and so on? Do you mean as regards the sanitation?

1160. I mean as regards the Building Act—all matters in connection with such institutions—the way in which they are constructed, their state of repair, means of escape, and so on? No, I have never had any reports on places of that sort, except as regards sanitation.

1161. But under the Building Act is there no provision made for that sort of thing? That comes under the department of the Building Surveyor.

1162. You have nothing to do with it? No, nothing whatever.

1163. *By Mr. Propsting.*—Then, if there are any insanitary houses, they come under the control of your department? Yes.

1164. But if they are otherwise unfit for human habitation, they come under the control of someone else? You mean if they are dangerous?

1165. Yes? All cases of dangerous buildings come under the City Surveyor's Department. There was such a case this morning.

1166. Take the case of any old tenements out of repair. Would they be under your department—would they be brought to your notice? Well, of course, the Local Board of Health has the power to condemn houses as unfit for habitation. At present, if I find a place unfit for habitation, but consider repairs could be made that would render it fit for habitation, we serve a notice on the owners, prohibiting the use of the building until it is repaired to our satisfaction. That comes under my jurisdiction.

1167. Is it your duty to discover whether there are small tenements in the City unfit for habitation? Yes.

1168. Are there any? Well, there are several that have been condemned and shut up. They are not occupied now.

1169. Are there any buildings unfit for habitation now occupied by families or individuals? Well, there are some that are not altogether what they should be; but still they are only on the borderland, as it were; it would be hard to say whether we should condemn them straight away, or whether they should be allowed to exist a little longer.

1170. Is that a matter that rests with your judgment entirely? In cases of doubt, I get the opinion of the Medical Officer of Health.

1171. There are a number of very old wooden buildings in the City, are there not? Yes.

1172. Buildings that are still occupied? Yes.

1173. Do you consider that all such buildings as are at present occupied are fit for occupation? Well, as far as I have seen, they are. That is to say, I do not know any that are absolutely unfit for habitation, although many of them might be greatly improved.

1174. Is it the duty of the Corporation to inspect boarding-houses and licensed houses? The common lodging-houses are inspected.

1175. Not boarding-houses? Only in the ordinary course of house to house inspection.

1176. And as to licensed houses, do they come under supervision of any sort? Hotels, do you mean?

1177. Yes. The Medical Officer of Health examines those every year; and then, of course, they come under the ordinary course of inspection from house to house.

1178. Is it your duty to see that in such places the accommodation is sufficient and the size of the rooms adequate? No. The licensee has to give that information to the satisfaction of the Licensing Board before he gets his permit.

1179. I understand that there are water-closets draining into the Hobart Rivulet, above Harrington-street. Is that so? Yes; but only one or two, as far as I know.

1180. And that part of the rivulet has still a broken bottom, full of boulders, has it not? Yes.

1181. Is it possible for anyone to keep that part of the rivulet clean, and clear from obstruction? Not without plenty of water.

1182. Is any attempt made to keep it clear? I could not say exactly how far the man goes up that creek.

1183. Even if he did go right up above Harrington-street, could he do any good there? No, he could not do any good with a broom. He might be able to do good by confining the flow to as small a space as possible.

1184. Is there any scheme for sweeping the surface gutters regularly throughout the City? Oh, yes; that again is under the City Surveyor's Department. There are regular days for dealing with different parts of the City.

1185. Are there any cesspools in the City? Not that I am aware of.

1186. If there are, would you be aware of their existence? Well, I ought to be, at any rate. Seven or eight of them were discovered and closed up during the two years I have been in the department.

1187. It is the business of your inspectors to report cesspools to you, is it not? Yes.

1188. And you know of none? I know of none.

1189. And you will be surprised to hear that Mr. Milles has told us that there are some? There are none that I know of; all that I was ever aware of have been closed up.

1190. You told us, I think, that it is possible for the faecal matter conveyed into the Park-street Creek to become stranded, and lie on the banks? Yes, if it is not attended to by the man whose business it is to clean that creek.

1191. What quantity of water runs down that creek in the middle of summer? I suppose the lowest I have seen it is with about six or seven inches of water on the bottom.

1192. Flowing rapidly? Well, at a fair rate. There is a fair fall down there, most of the way. On consideration, I should say that there is not always five or six inches of water—three inches, perhaps.

1193. Is there as much as three inches, say, at the bridge at the end of Brisbane-street, in the summer time? Yes, I should think there is pretty well that. I have never gauged it; I am only speaking from what I have noticed.

1194. The fall is not great, is it? There is a good fall down that creek.

1195. Is it a regular or an intermittent fall? Well, it is not properly graded, of course. It is up and down—just in its natural state.

1196. Is any disinfectant used in that creek? The summer before last some disinfectant was used. That is the only occasion I know of its having been used.

1197. How frequently was it used? It was only used two or three times, I think; when complaints were made of the offensive smell rising from the creek.

1198. Who made the complaints? I could not say from memory; some of the residents or passers-by, I think. We tried the disinfectant then; but the effect of it did not last—it was useless.

1199. Then, we are to understand that the disinfectant was put into the creek on the recommendation of the public? No, not exactly that. The public complained of the smell, and we tried putting a disinfectant down to stop it.

1200. And it did no good? No; the effect of it would only last for a few hours, and then go off.

1201. And you put no disinfectants in the creek this year? No.

1202. Is the paved portion of the Hobart Rivulet in a good state of repair? A portion of it is; other portions are not. The lower portion of it is broken a good deal.

1203. And any solid matter coming down would lodge in those broken places, I suppose. Yes, it is apt to.

1204. And does the General Hospital drain into that rivulet? Yes.

1205. What effect has the tide on the rivulet—more particularly on the solid matter carried down by the rivulet? When the rising tide comes, it drives the water back to a certain extent, and stops its flow; then, when the tide goes down, the solid matter is deposited on the sides of the creek.

1206. How often does that happen? Well, there are two tides a day.

1207. So that it happens twice a day? Yes.

1208. How often is such solid matter removed by the Corporation? Well, I believe that the man employed on the rivulet gives the bulk of his time to it. But I cannot say definitely, because the City Surveyor keeps that work going.

1209. Is the man you refer to the same man who has to overlook the other creeks? No; I have a man under my own control doing all the other creeks.

1210. What length of sewerage has your man under his control? The whole of the Park-street and the Queen-street creeks, and the other creeks I have mentioned.

1211. Can you give us the length of them, approximately? Well, the Park-street Rivulet, I suppose, is pretty well a mile long itself. I suppose the man has to look after two miles of creeks. That is only a guess, of course.

1212. Where does the Gaol drain to? Into the Park-street Rivulet.

1213. Have they water-closets there? Yes.

1214. Do you say, then, that the whole of the water-closets at the Gaol go into the Park-street Rivulet? I do not know whether the whole of the Gaol drainage does. I know that they have water-closets there discharging into the Park-street Rivulet.

1215. How many water-closets are there? I do not know.

1216. Are they included in the sixty that you mentioned as draining into the Park-street Rivulet? Yes.

1217. Is the Gaol drainage in that sixty counted as a number of water-closets, or as one? When I say there are sixty, I am only speaking from memory. I am not absolutely certain as to the number.

1218. Do you know anything about the Liernur system of drainage? Well, I have read a little about it.

1219. Do you know whether it has been installed successfully anywhere? Well, I know it has been installed in some places; but where I have read of it, it had only had a very short trial. It had only been installed about twelve months, and it was working successfully so far as it went.

1220. Where was that? Some small town in England. A French syndicate put it down as an advertisement, practically speaking. I forget the name of the town.

1221. Do you know whether the system has been adopted at Trouville, in France? Yes.

1222. For a longer period than you mentioned just now? Yes, for a longer time, I believe.

1223. Has it been successful there? As far as I know. I never heard anything to the contrary.

1224. *By Mr. Guesdon.*—In regard to the inspection of lodging-houses and other licensed houses—houses of that sort are licensed, I suppose, to take in a certain number of lodgers? Common lodging-houses, yes.

1225. And hotels, too? I do not think there is any number of lodgers fixed in the case of hotels.

1226. Do you satisfy yourselves in your department that in lodging-houses and other licensed houses the sanitary arrangements are sufficient to meet the requirements of the lodgers? Do you mean—

1227. Well, do you satisfy yourselves, for instance, that the pan accommodation is sufficient to meet the requirements of the lodgers in all these houses? If the pan is not sufficient, the foreman of our nightmen is an inspector under the Act. If he finds that the pans are too full, or actually overflowing, or otherwise not in a proper condition, he reports it to me, and then the Secretary of the Local Board of Health sends a notice to the person concerned, to the effect that more adequate provision must be made.

1228. You know that a lodging-house has a licence to take in a certain maximum number of boarders? Yes.

1229. Do you insist, before you grant a licence to such a place, that the pan system in use shall be sufficient to meet the requirements of the maximum number of lodgers that may be in the house? Yes; but I have only had one case in which I had to do that. That was very lately, and we insisted on proper provision being made in that particular case.

1230. And you exercise some supervision with regard to all licensed houses, hotels as well? Well, as far as hotels are concerned, I have nothing to do with the actual certificate granted to them.

1231. But you have power to petition against the licensing of an hotel if the building or sanitation is not suitable? Yes. Of course, if the Medical Officer of Health finds that an hotel is not properly equipped, he will not grant the permit until he is satisfied.

1232. Then, if there is any sort of insufficiency in that respect, your department is responsible for it? Yes.

1233. *By Mr. Propsting.*—Are all water-closets fitted with patent valve-taps? How do you mean?

1234. Well, is there provision made to prevent water constantly running to waste? Well, everybody with a water-closet is supposed to have an automatic cistern that will only hold a certain quantity of water, with a ball-tap to shut off the flow when it is full. I could not say for certain whether they all are so fitted, because I found a case just a little while ago in which the regulations had not been carried out.

1235. And does the removal of rubbish come within the scope of your department? Yes.

1236. Some people have their rubbish removed by the Corporation, and others not? Yes.

1237. Do all those who have it removed pay for the removal? No.

1238. Why not? I could not answer that question. I know it is done, and no special payment is made. When you asked me as to the removal of rubbish, I thought you meant to ask me whether we had to see that the rubbish was removed. Well, we do do that, but such rubbish as is removed by the Corporation is done by the street-sweepers under the department of the City Surveyor.

1239. And the gutters are not in your department? No, they are in the City Surveyor's department.

1240. *By the Vice-Chairman.*—Do you know whether any report has ever been made to the Corporation as to the necessity of cutting off the water-closets from the smaller creeks? The Medical Officer of Health has recommended it.

1241. More than once? Yes, I believe he has recommended it more than once. I believe he has called attention to it several times.

1242. Do you know the reason why it has not been done? No; it was before I was in that department. I could not say the actual reason why. I know there were some doubts as to the legality of doing it, and as to whether the Corporation had power to do it.

1243. Have you any acquaintance with the present state of the waterworks on the mountain, in connection with the laying of the new pipes to the intake at the North-West Bay River? No.

The witness withdrew.

SPENCER WATERS, *called and examined.*

Mr. Waters was sworn.

1244. *By the Vice-Chairman.*—Your name is Spencer Waters? Yes.

1245. And you are the City Turncock for the Hobart Corporation? Yes.

1246. You might tell us what your duties are, first? Well, my duties are that I have charge of the whole of the water supply, both of the City and suburbs. I am held responsible for the water in case of fire.

1247. You are responsible for the regulation of it, I suppose, you mean? Yes.

1248. What is the condition of the pipes throughout the City, now? Well, in the City there are about nine or ten miles of drains in a very bad state. Some of the pipes are very good.

1249. For what reason do you call these mains bad? Well, they are very old, and badly corroded.

1250. Does that interfere with their water-carrying capacity? Oh, yes, to a great extent.

1251. To what extent, at the worst? Well, in some cases, it reduces the capacity of the pipes about three-quarters. It will reduce the bore of a four-inch pipe till, in some instances, it has, practically, only about a one-inch bore.

1252. And where does that occur mostly? Well, we call Battery Point the City; mostly in that direction, and up the top end of Davey-street, and in part of Collins-street. Of course, there are two mains in Collins-street, and one is pretty good.

1253. Is it any part of your duty to supervise the use of water for water-closets? No; that does not come within my duty. Of course, I have the power to see that the Water Act is carried out with regard to the closets. I see that they are fitted-up with the proper cisterns.

1254. Do you see to that now? No, we do not make any close examination. There is no supervision of the plumbers' work in Hobart, as yet.

1255. There should be, should there not? Oh, yes, there should be, of course; we are trying to get that fixed-up now.

1256. Who supervises the trapping, and so on? Well, that is more under the Health Department. I do not know whether they look after it.

1257. Can you give any estimate of the quantity of water used by the various Government buildings and charitable institutions—or, perhaps, we might take it more broadly—what amount of water is supplied to buildings which are not rated? Well, I could not say. You see, I have only been here about fifteen months, and these public buildings are not metered, with the exception of the Railway Department. There is no means of getting at the consumption at all.

1258. Would it be any great expense to the Corporation to put meters on? Oh, yes, it would. The smallest meter would cost about £3 16s.; and then there would be the cost and trouble of putting it on. I suppose it would cost about ten shillings to connect it. Of course, it is according to how the service is situated.

1259. Well, perhaps you can tell me this: the Government pays £500 a year for the use of the water, does it not? About £620, I think it is.

1260. Are you aware that an estimate of the cost of water supplied to the Government has been made? Well, not officially; but I have seen such an estimate.

1261. The estimate is that the Government should, properly, pay £1700 per annum for the water it takes? Yes, that is it.

1262. Have you any information as to how that estimate was arrived at? No. I might say that I am under this impression: that there were meters put on to all the Government Departments a year or two back. I do not know how long they were on, but an estimate of the consumption was made for the time they were on.

1263. In whose possession would the details of that information be? Mr. Milles', I should think.

1264. *By Mr. Guesdon.*—Do you consider that there is an immediate necessity for replacing a considerable quantity of the pipes for water service throughout the City? Yes, I do; decidedly so.

1265. And do you consider that these new pipes would have to be larger than the present ones? Oh, I don't think so. The present service would do if it were in good order.

1266. Have you any idea what the necessary repairs are likely to cost, speaking roughly? I think I made it out to be somewhere about £1100 a mile; that is, calculating all the fittings. Of course, that is not including the services; and, practically, we would have to buy all new services.

1267. You made an estimate? Yes.

1268. What was it? About £1100 a mile, as I said just now.

1269. And what number of miles of main are you likely to have to take up? I think about fifteen miles, at the least.

1270. That would cost £16,500? Yes.

1271. Without the services? Yes, without the services.

1272. Roughly speaking, what do you think the services would cost for these fifteen miles of main? It would depend on the length of the services from the main to the building line. I suppose it would cost about 25s. a service, taking them on the average.

1273. To what extent, then, are the services likely to increase that sum of £16,500? Well, you would have to put a short service to each house, and it would depend on the number of houses to the mile.

1274. Then you could give a rough, approximate idea of the cost—how many houses do you think go to the mile? I have no idea. You might say a hundred houses to the mile. The total cost of the renewals would then be about £1250 a mile for mains and services—£125 for the services.

1275. Then, what I want to get at is this: what we would have to add to that £16,500, would be another £1800? Yes, £1800 at the least.

1276. Now, within what period do you think that work will be necessary? Almost immediately.

1277. Do you know of any other work that will have to be done in the near future? Well, it is only a matter of time when pretty well all the mains and services will have to be renewed. What they call the new main has been down some twenty-five or thirty years; and the actual life of a main is only about thirty to thirty-five years.

1278. And how long have the old mains been down? About forty years, I should think. Of course, I am only speaking from hearsay; I have no personal knowledge. I have only been here a short time.

1279. *By the Vice-Chairman.*—But you got these facts from the department? Yes.

1280. *By Mr. Guesdon.*—Do you consider there is much waste of water arising from these defective mains and services? Well, it is not altogether the loss of water through the mains and services that does the mischief; it is the wilful waste by consumers.

1281. But do you think that these defective mains result in much loss of water? No; we have got control of them. Whenever a leak becomes known it is repaired that same day or the next; it is very seldom we have any great waste of water. Of course, there may be leaks taking place that we know nothing at all about; but wherever we find them, we repair them as soon as possible.

1282. You control the administration of the water—that is your office? Yes.

1283. And you know the amount that goes into the service reservoirs? No; I know nothing about the storage.

1284. You know what is the supply available? They tell me it is about two million gallons a day. The consumption is sixty gallons per day per head of the population; that is, about two-thirds—fully two-thirds—more than it ought to be.

1285. You have no means of being able to say, then, whether the amount of water that reaches you reaches the consumer? No; we have no means of gauging it. There are no meters on the trunk mains at all.

1286. From your knowledge of the pipes that you have had to repair, do you think it is likely that there is a considerable loss of water from defective pipes? I could not say. There may be an old main laid in some street where the ground above it is all solid and made-up, and in such a place a leak may possibly be going on for months, and we know nothing about it, until the water at last finds its way to the surface. There are probably a number of such cases now, because, when we find that a main is broken, there is generally a hole blowing—eaten right through. That takes time; it may go on for months before we find it out.

1287. Well, the fact that these mains you have seen are worn out will justify you in assuming that all the mains put down at the same time are in a similar state of disrepair? Well, the old mains we have opened up in cases of leakage have been found in a terrible state; but I cannot say that there is a lot of leakage going on; it is only a surmise that a good many of them are leaking. It is only by the water showing up now and then that we can locate the leaks.

1288. Do you know anything about the pressure? Yes.

1289. Will not a heavy leak be indicated by the lowering of the pressure? Oh, yes; a heavy leak will affect the pressure in the mains to a great extent, according to the extent of the leak. But, as a general thing, when our old mains give, it is only by a little hole that blows right out; and that would probably only be equal to a  $\frac{1}{2}$ -inch service-pipe, running the whole time. Such a leak would not materially affect the pressure. On the other hand, if a main were broken in two, or if a lead joint blew out, you would notice it immediately.

1290. In gauging your pressure, do you go on a calculation of what pressure the supply ought to give you, supposing all your pipes were perfectly clear—I mean, to put it in another way, could you tell from your pressure here in the City that your mains were only carrying an inch of water, for instance? No; only by drawing the water off. You see, the water in a 1-inch pipe would give the same pressure proportionately, per square inch, as the water in a 10-inch pipe. But if you put a standpipe on a large, corroded main, you would not get anything like the proper pressure, because the water could not get through quickly enough. With a clean main, you would have a greater volume of water in a given time.

1291. And a proportionately greater pressure? Yes, to a certain extent. But while the water is still, if you attached a pressure-gauge, you would have as much pressure in an old, corroded main as in a good, clean one. The pressure is always about the same, unless they happen to be watering the steamers at the wharf. At the wharf, there is a  $2\frac{1}{2}$ -inch outlet, and, when it is going, you notice the pressure going down at once. But it is rather difficult to calculate the pressure of water at any time.

1292. You simply accept the pressure as it is registered? Yes, we take the gauge as it stands; and then, of course, taking the reading every day is a good guide.

1293. If the gauge reads 80lbs. to-day, and only 60lbs. to-morrow, you know there is something wrong? Yes, we should know that there was waste somewhere, then. But, as a general thing, the gauge stands at the one level, unless there is a heavy draw on at the wharf, or somewhere. I do not know whether Mr. Milles has ever calculated what the actual pressure would be in still water.

1294. Have you advised the department that these defective mains should be replaced? Yes, I did that in my last report for last year, the report, that is, of last year's work.

1295. *By Mr. Propsting.*—What experience have you had in the control of waterworks? I had twelve years' experience on the other side, in the Hunter River district. I was not twelve years in the Hunter; but I was in the Harbours and Rivers Department for six years, and with the Hunter River District Water Supply for seven years.

1296. Do you understand that over two million gallons of water is supposed to be supplied to the consumers of the City of Hobart daily? Yes, that is what I am led to believe?

1297. And you know the population of the City? Yes.

1298. Is it your duty to frequently inspect premises, and see the condition of the services? No; that is the duty of the inspector, the man directly under me. I give him instructions.

1299. Are you conversant, then, with the various services of the City? Generally, yes.

1300. In your opinion is that estimate, that the daily consumption of water is two million gallons, a correct one? Yes.

1301. What consumption per head is that? Sixty gallons.

1302. Per day? Yes.

1303. Do you consider that that quantity of water is actually used by the householders and others? Well, that depends. Judging by past experience in the water department of the Hunter, over on the other side, it seems a lot. Our consumption there was 20·89 gallons per head per day, and it has been as low as 19½ gallons. But over there the consumers are not depending entirely on the water supply; they all have tanks. Here it is different. The whole of the water consumed here is water coming through the pipes from the mountain. But I think a consumption of 60 gallons per head daily is excessive, speaking for myself.

1304. Do you mean to say that you think there is great waste, or do you think the people do not really consume that amount of water at all? Well, they do not consume it legally; they waste it.

1305. But that 60 gallons per head per day is allowing for any waste from defective reticulation? Oh, yes; I think that includes everything. The whole of the supply from the reservoirs each day is two million gallons; and that, divided into the number of the population, gives 60 gallons per head per day. That includes all waste, whether from mains, or services, or whatever it might be.

1306. The consumers, then, are not altogether chargeable with the waste? Oh, no.

1307. Have you any information as to what quantity of water is wasted through defective reticulation? No; we have no means of gauging it.

1308. In fact, the bulk of the waste may arise from that source? Well, possibly, yes. Of course, as I said just now, we have no meter on the trunk mains, and there is no way of gauging accurately what quantity of water comes through the supply to the City. It is just an approximate estimate, I think, that two million gallons.

1309. Have you advised that the City be divided into large sections, and that meters should be put on the mains, so as to ascertain the quantity of water supplied to each section? I do not quite understand the question as to dividing the City into sections. Do you mean to have a man supervising each section?

1310. No, a meter? I have not gone into that.

1311. Do you think it would be advisable? I do not know that it would give very good results, because, if we had serious leaks, there would be no way of calculating them. There might be a bad burst in the night, and we would know nothing of it till the morning, and so there would be a terrible waste of water that could not be reckoned to either of the sections.

1312. I do not mean that the division should be for the purpose of charging the various sections for the water used; I mean that it should be for the purpose of detecting whether there is any excessive use by consumers. What do you think? I think it would be a good plan, so far as that is concerned. I have never advised it.

1313. If you divided the City into blocks, each containing, say, five thousand people, and you had a meter fixed so as to register the quantity of water used in each block, would you not have a groundwork for discovering where there was excessive use or waste? You would. But you could not adopt that plan, because the reticulation of the City is all connected. There is a network of pipes. If you arranged to gauge the supply to one certain section, you would, probably, have to cut off the supply altogether from the other sections.

1314. What provision is made in your department for discovering leakages in the streets? We have inspectors.

1315. And does a leakage remain undiscovered until an inspector sees it? Oh, no; the general public comes in there. Nearly every man that sees a leakage reports it. Sometimes we have a leak reported by a dozen different people. Only this morning we had a leak reported, when our men were out in the City. In such a case we would probably have nine or ten people coming in before dinner-time to report the leak. Then the police assist us, and the foreman of works in the suburbs. There is no chance of a leakage going on and our not knowing of it, so long as it shows.

1316. Do you repeatedly have leakages in the same main? Oh, yes, in different parts of it.

1317. There is a main, in my mind, at the present time, along Cross-street, at New Town. Is that free from leakage? There are leaks there frequently; but they are not all from the one source. You see, there is a joint-way nine feet along the main.

1318. Why are there frequent leakages in that main? Well, I suppose it is on account of the quality of the material in the service-pipes. Sometimes a joint blows out; a leak is not always caused by a defect in the main. There are so many different fittings on a main that leaks often come from them.

1319. You spoke, just now, of corrosion of the pipe-mains—reducing some of them, I think you said, by three-quarters—that is, to an actual bore of only one-quarter of their nominal bore? Yes.

1320. Does that corrosion create a serious risk in time of fire in the neighbourhood? Yes; I pointed that out in my report. The risk would arise from not having a sufficient volume of water in the main. The pressure would be there; but owing to the corrosion of the pipes there would not be enough volume of water to keep it up.

1321. When Mr. Duncan was putting in the foundations of the new Customs House there was a considerable inflow of water reported, was there not? Yes.

1322. Was it fresh or salt water? Well, they said it was fresh. We took steps to ascertain whether it came from the mains or not.

1323. What steps did you take? Well, we had an old 3-inch main in Dunn-street, and we thought the water might come from a leakage in that, so we shut it off. It was only supplying one fire-plug, just near the Dock, and we closed it down altogether. There was no difference in the flow of water in the foundations of the Customs House; and when I turned the old main on again, the flow did not increase any. That showed conclusively that there was no leak in that main. If it had been in the other main, we should have felt it immediately, from the quantity of water that was leaking out. We keep a pressure-book, and we should have detected it immediately. To my belief, that water in the foundations came from the bed of the creek at the bottom of Campbell-street. The concrete there is all broken; and I believe that that is how the water came out.

1324. Speaking broadly, what is your opinion of the sources of water supply in Hobart? Well, I could not express an opinion; because I have only been once on the mountain, and my duties do not extend as far as the reservoir.

1325. What is your opinion with respect to the whole of the reticulation of the City and suburbs? Well, as a general thing, it is good. Of course, as I said just now, there are a number of pipes want renewing; but, as far as pressure is concerned, we are very well off. With new mains in place of the old ones, I do not think the service could be surpassed anywhere.

1326. Would you advise additional provision being made for future supply? Well, as far as my own personal opinion is concerned, I think there is ample water for all requirements, if the people were educated up to the necessity of not wasting the water.

1327. Would that be overcome by measuring the water at each house? Yes; to a large extent.

1328. Have you recommended that? No; I have not.

1329. Do you recommend it? Yes; I do. In places where there are large gardens, factories, livery stables, and that sort of thing, there should be meters. Of course, a number of meters have been put on lately.

1330. Do you know what is paid per year for the right to have a fountain in a garden? I believe they pay twenty-five shillings a year. It is charged the same as a tap.

1331. What quantity of water could be used in such a fountain, if it were always turned on? Well, a good deal depends on what kind of a fountain it is. If it were just an ordinary ornamental fountain, I suppose it would use about 300\* gallons a day.

1332. And what is the value of that? Well, it is said to be worth a shilling a thousand gallons; that would be a little under 4*d.* a day, reckoning three hundred gallons.

1333. *By Mr. Guesdon.*—How many leaks do you have reported in the year, on an average? I think I furnished that information in my report; I could not say from memory. I would not be quite positive as to this; but I think there are about twelve leaks a day repaired, as a general thing—sometimes more. There is an average, every day in the year, of about ten, I think.

1334. In your experience of water companies in the other colonies, do you consider that excessive? Oh, yes; it is greatly in excess of the other colonies. Of course, as to the other side, I am alluding to materials practically new, with the mains only laid ten or twelve years. Then, of course, there were no lead services over there. Since I have been here in Hobart, we are putting in all galvanised iron, and it is rarely you get a leak in a galvanized iron service. Some of the lead service pipes here are eaten almost through, and must be renewed very soon, in any case.

1335. Mr. Milles told us here that he did not think the leakages in Hobart were more than the average elsewhere, but, arguing from what you have now told us, the losses from leakages in Hobart under existing circumstances would be far in excess of anything in your previous experience? In excess of anything in my previous knowledge, yes. But, our mains over there were practically new, and these are very old, and have seen their time out. Of course there must be some leakage here; it is only to be expected. We have a big pressure here, and the material of our supply seems worn out and deteriorating.

[\* I should have said "2800 gallons."]

1336. *By Mr. Propsting.*—You said that, with such a fountain as I spoke of, 300\* gallons of water a day would be used: is that so? Oh, of course. If it ran for 24 hours it would run away with a lot more than that. I suppose it would run about 50† gallons an hour. It all depends on the size of the jet and the pressure. If it were under a big pressure the water would be forced through quicker than at a low pressure. It is a difficult thing to give a definite quantity.

The witness withdrew.

EDWARD BUTTERWORTH, *called and examined.*

Mr. Butterworth was sworn.

1337. *By the Vice-Chairman.*—Your name is Edward Butterworth? Yes.

1338. And what is your office in the Corporation? I am City Inspector, Sanitary Inspector, Bailiff, Inspector of Weights and Measures, and Inspector under the Impounding Act.

1339. *By Mr. Guesdon.*—Have you anything to do with the adulteration of foods or liquors? Well, I am supposed to have. Of course, any inspector can go into those matters under the Public Health Act.

1340. Your duties as City Inspector are—what? That appointment is necessary, because of the Police Act and other Acts. The City Inspector has greater power than any of the other inspectors.

1341. As City Inspector, in whose department are you? I really don't know. I don't know whether I am master or man.

1342. To which department do you make your reports? I cannot tell.

1343. To whom do you make your reports? I should make them to the Town Clerk, if I had to make any report at all.

1344. Not to the head of a department? Well, there is no head of any department, so far as I know. Of course, an inspector is supposed to be master of himself, as it were; although I have no one under me.

1345. Do you find that you have time to attend to all these duties you have enumerated satisfactorily? No; not to carry them out properly; I could not possibly do it. There are licences—1600 or 1700 of them—to be attended to, in the first place. If the duties of dog-licensing could be carried out properly, it would mean the licensing of at least an additional hundred dogs. Then, there are 150 milk licences, and there should be more. It is very difficult to get all these people licensed.

1346. Then, there are the licences for cabs, stage-coaches, and drays? Yes, I have to do everything connected with all these.

1347. Do you devote much of your time to the one duty of sanitary inspection? Well, the greater part of my time has been devoted to that duty lately; indeed, it has been for years past.

1348. And during that time you have had to make many reports as to the necessity of improvement in the sanitary condition of the City? No, only a yearly report. A weekly or monthly report is not necessary.

1349. You do not quite see the drift of my question. If you go round and inspect the back-yards and so on, and look into the sanitary condition of certain places, do you report anything that requires immediate attention immediately? Oh, yes; in that case I should serve a notice—give 24 hours' notice to the occupier, under the Health Act.

1350. And would you report such a case as that to the Town Clerk? Not necessarily; I simply keep a duplicate of every notice served.

1351. Have you the power, then, to put the law into operation against such people without reporting the matter to anybody connected with the Corporation? Yes.

1352. And, may I ask, do you often have to put the law in motion in that way? No; I do not know of a case, with the exception of two or three, for many years past. The accumulation of rubbish is the commonest cause of complaint. That is a very simple matter to remedy, and you have to give them twenty-four hours' notice. With that notice people always have the stuff removed in time. Of course, sometimes we have to go back and serve the same people with notices a few days after, and then the same thing occurs over again. Some of the places, such as fish shops, require a lot of attention. With regard to all of them, we are now making twice-a-week visits.

1353. Do you devote much attention to the fruit shops? I do not see that there is much wrong in the fruit shops. I certainly have had complaints about them, but on investigation I have found that there is nothing in it.

1354. How is that—there must be a large quantity of surplus refuse fruit which is liable to become offensive? Oh, the milkmen take all that along. These milk people keep pigs in the country, and are very glad to get refuse fruit, or anything of that sort.

1355. Do the milkmen take the refuse fruit away in their milk carts? No; they have boxes.

1356. How do they carry the boxes? Oh, in their carts.

1357. Are they allowed to put such matter into the carts where they have the milk? Well, we do stop them in many cases, but I don't think there is any harm done. I have never yet caught a man with vegetable matter and milk in his cart at the same time.

1358. And do you think that a man should be allowed to carry refuse of any sort in his milk cart? Not with the milk in the cart.

[\* I should have said "2800 gallons."

† "120 gallons an hour," I should have stated.]



1359. But even with the milk out of the cart, do you think so—do you think that a milk cart should be allowed to carry refuse of any sort, under any circumstances? I cannot see that it will do any harm. Of course, if I ever found milk in the cart at the same time as the refuse, I should stop the man straight away. I may say that only the other day it was reported to me that a man carried refuse home in his milk cans. Of course, I would not allow that; but so long as it is carried in any other way, it would do no damage.

1360. *By Mr. Propsting.*—Do you say that it is your duty to see that all dogs are licensed? Yes, sir.

1361. Is it your duty, when dogs are found wandering about the street in a mangy or otherwise diseased condition, to detect the owners and prosecute them? Well, you see, it is impossible to detect the owners, to begin with. If there is a mangy dog caught wandering about the streets you can never find the owner, unless you happen to know of him personally. No one ever comes forward and claims dogs of that kind. The idea I have is for the police, when they see a mangy dog about, to send it down to the Town Hall; then I give them sixpence or a shilling for fetching it down, and have it destroyed.

1362. You say that, owing to the number of duties you have to perform, probably a hundred dogs go unlicensed? Yes; quite that, I should think, in the whole of the City.

1363. Is it a part of your duty to inspect buildings, and see that they are in a habitable condition? Yes, sir.

1364. Are there many old places in Hobart? Yes, a great many.

1365. Occupied? Yes, occupied. I don't mean to say, mind you, that they are uninhabitable; they are habitable in pretty well every case.

1366. Are all the houses now occupied in Hobart fit for human occupation, in your opinion, then? I should think so, yes.

1367. Is there any limit to the number of persons who can occupy one of these places? No; the Act only applies to a cellar in that way; it does not apply to houses at all, unless they are licensed places. Of course the Medical Officer of Health has great power, and he can do many things that an inspector cannot do under the Act.

1368. The common lodging-houses have to be licensed, have they not? No, not necessarily. When they are licensed, they do it of their own free will. The Act does not define the meaning of "common lodging-house." If they put "private boarding-house," or something of that kind, over the door, you cannot compel them to be licensed.

1369. Are there many houses keeping lodgers and not licensed? Oh, of course, there are lots of boarding-houses all over the town.

1370. And you do not make any special provision for inspecting any of them? Well, of course, the licensed places are visited more than the others.

1371. But you say that none of them are licensed unless they choose to be? Not unless they want to be—no; you cannot make them.

1372. And, unless they are licensed, you do not make any special provision to inspect them? No, sir.

1373. You have nothing to do with the slaughter-houses? No, sir.

1374. Is it your duty to take milk from the vendors, and have it analysed? Yes, during the year that is done.

1375. How frequently do you do that? I test seventy or eighty samples from the different purveyors during the year.

1376. Are these milk-sellers all subject to registration? All subject to registration—yes.

1377. Do they all register? As far as I know, they do. Possibly some of them get off because I am not able to get around sufficiently.

1378. Is it your duty to inspect the pastures where dairy cattle in the City are run? Mr. Brown and I, or the doctor, generally visit these together.

1379. Are dairy cattle run in the North Hobart Recreation Ground? Yes.

1380. Is there any drainage carried into that ground? I am not supposed to interfere there.

1381. I am asking you whether there is any? Possibly, there is, sir.

1382. Whose business is it to look after that? That would be the inspector at New Town.

1383. Has he any control over the cattle there, if they are driven into Hobart to be milked? No, none at all. But if he made complaint that there was such drainage where cattle were pastured, we should stop the cattle going there.

1384. And you think there is drainage in that North Hobart Reserve? I should think so. I do not think they would carry their drainage right round to Park-street.

1385. Do you know whether dairy cattle are pastured there? Yes, they are.

1386. Who gets the rent? I don't know. I suppose the Recreation Ground people would.

1387. Do you inspect the dairies in the City? Yes.

1388. How many are there? I do not know exactly. There are between 140 and 150 vendors' licenses issued. I should not think there would be more than ten dairies.

1389. Besides paying a license fee for the dairy, the dairy-keepers have to pay a water rate per head, do they not? For the cattle?

1390. Yes? Yes; they pay two-and-sixpence per head per quarter. Of course, a cow-keeper pays a five-shilling licence; but a dairy-keeper only pays two-and-sixpence.

1391. Is there any regulation as to how cows are to be kept? They must not be kept within thirty feet of a dwelling.

1392. Is that provision enforced? Well, we do a good deal of work under that section of the Act; but, unfortunately, if they won't do as the Act provides, we cannot make them do it.

1393. Why not? Well, I should have said that we can make them do it now; but previously we could not.

1394. Then, previously, you had a regulation you could not enforce? Yes, a regulation we had no means of enforcing—exactly. We did serve a lot of notices; but when people did not feel disposed to remove the stables or cow-sheds, we could not make them do it. But we can compel them to do it now. A new by-law has been passed dealing with the matter.

1395. Is every dairy in the City now complying with the new by-law? We have not made a start to enforce it yet.

1396. When is it proposed to start? From the 1st of July.

1397. Have you anything to do with supervising the drainage of premises? Yes, sir; the greater part of my time is taken up with that.

1398. Do most of the houses in Hobart drain into the street? Yes, with the exception of those situated just along the Melville-street Rivulet, and the Hobart and Park-street rivulets.

1399. Does that mean that the bedroom slops run out into the street? Yes, sir.

1400. Do you know anything of the existing regulations for sweeping the gutters—as to how often they are swept, and so on? No; that comes under the City Surveyor's Department. But I know that the gutters are expected to be swept twice a week.

1401. Every gutter in the City? Every gutter in the City—yes.

1402. *By Mr. Guesdon.*—And flushed? No; that all depends on the quantity of water they have at their disposal.

1403. *By Mr. Propsting.*—Do you know anything as to the arrangements made for the removal of refuse from houses? No, that is done by private people; with the exception of the City streets from Argyle-street to Harrington-street, from Harrington-street to Brisbane-street, and from Brisbane-street to Argyle-street again. The block within these limits is done by the Corporation. It is supposed to be done every morning.

1404. What provision is made by the householders in that block to get their rubbish and garbage taken away by the Corporation? The majority of them put it out in the street over night.

1405. Do they pay for the removal of the rubbish? No; there is nothing to pay.

1406. How do you know? Well, in the City Surveyor's Department they tell me that there is nothing to pay for that service. Some of the householders in that area have such very small yards, that they cannot keep the stuff more than a day.

1407. Is it part of your duty to see that manure is not allowed to collect in yards? Yes.

1408. Is there any regulation as to the time at which manure must be carted away? Well, if it's offensive, there is.

1409. Do you allow manure to be carted through the street at any hour of the day? Yes; so long as there is no smell arising from it.

1410. Unless you were present, and saw it carted, you could not very well state whether any smell was arising from it or not, could you? No; you would have to go along behind the cart, and see. Of course, if it was in any way offensive, I should take proceedings against the man who was carting it through the streets. But ordinary manure will never become offensive unless it has been left a considerable time, and so become heated.

1411. Is it your duty to enforce all by-laws with regard to the removal of rubbish and manure, and the sweeping of the pavement in front of shops? Not as to the sweeping in front of shops; that comes under the Police Act.

1412. And do you not have to enforce the by-laws under that? Well, I suppose I really ought to, but I don't. The fact of the matter is, that I don't do it because I am so frightened to go to the Police Court, because I should lose so much time there.

1413. But it is your duty to prosecute in such cases? Yes; and it is the duty of every policeman, too.

1414. *By Mr. Guesdon.*—Could you not get over that difficulty of the loss of time by taking a policeman to the place where the nuisance was being committed, and getting him to prosecute? Of course, if it was any obnoxious nuisance, I would not attempt to ask the police to do the work; but as far as sweeping shops out, and that sort of thing is concerned, we expect the policemen themselves to do it. For a good part of my time at the Town Hall—fifteen years altogether—I was a constable and a sergeant. As a constable, I always attended to these things. It is no trouble, at all, to a policeman to insist on the nuisance being stopped, or to take proceedings.

1415. Have you anything to do with the adulteration of liquors in hotels? No; I have been round once or twice with Mr. Pedder.

1416. Is that part of your duty? No; I do not understand it as such.

1417. But the Act gives you the power to prosecute in cases of such adulteration? Yes.

1418. I suppose that you are aware that an enormous amount of adulterated liquor is sold in this City? I could not say, from my own personal knowledge. I do not drink spirits.

1419. With reference to the registration of dogs. Have you ever suggested an improved way of dealing with the registering of dogs? Yes; before I took it in hand, there were only about nine or ten hundred dogs registered.

1420. Have you suggested any improved mode of issuing licences, such as obtains in New Zealand, where a badge is issued with the owner's name on it, and attached to the dog's collar? No; I have not suggested that. It could be done. We have a by-law. But it would be no benefit.

1421. Would it not be of material benefit? Not with the quantity of dogs that are licensed here.

1422. Would it not be of benefit in enabling the dog-catcher to know what dogs he could take, and what not? No; every dog that is at large in the street without an owner, is supposed to be taken to the dog-house. I always tell the dog-catcher that it doesn't matter if it is the Governor's dog: if it is found wandering about the streets, it must go to the dog-house. It would not do to pass anyone's dog by; the Act is very clear on that question.

1423. *By Mr. Propsting.*—Are you not obliged, under your by-laws, to put a collar on every dog licensed? There is an Act for it; but the Corporation is not obliged to do it. They passed a by-law that the Corporation should supply these collars; but it never came off. They found that it would really be a waste of money, and would be of no benefit at all.

1424. *By Mr. Guesdon.*—Coming back to this question of the surplus or waste fruit. Are the milkmen in the habit of bringing in boxes to carry away the refuse fruit and stuff? Yes; they make arrangements with the shops, and bring the box in the morning—say, one box each day.

1425. And the empty box comes in at the same time as the morning milk? Yes.

1426. In the milkcart? Yes. But the pig-wash can is just the same as the milk can—there is nothing in it.

1427. Still, the empty box, or whatever it is, comes in with the milk—with the full milk cans? Yes; every morning.

The witness withdrew.

FRIDAY, MARCH 22, 1901.

WILLIAM A. BRAIN, *further examined.*

1428. *By Mr. Guesdon.*—Mr. Brain, I believe you want to make some personal explanation? Yes; it is in regard to a question Mr. Propsting asked me the other day about cesspools. At that time I said I was not aware of the existence of any cesspools in the City. In thinking it over afterwards, however, I remembered two. There are two cesspools in the City that I know of; but I only remembered them after I had given my evidence. I then saw the Chairman, and he told me I had better ask to be recalled. We should have to prove that these two cesspools were a nuisance before we could have them closed.

1429. Had you not better tell us where they are, now you have gone so far? One of them is in Davey-street, and one in Holbrook-place.

1430. While you are on the question of cesspits, do you know anything at all about a cesspit being discovered in those premises of Walker's, the crockeryware-man, in Liverpool-street? No, I have never heard of it.

1431. They were making some additions to those premises, and they discovered an old closed-up cesspit, I think. You know nothing of that? No, I never heard of one being discovered there. Several have been discovered since I have been in the department, but not there.

1432. And you cannot remember this one—about 18 months ago? I have never heard of it. It must have been longer ago than that. I have been a year and nine months in the department myself.

1433. The sanitary inspector, Mr. Butterworth, told the Commission on Tuesday that, if he discovered any garbage or refuse in a house, he acted on his own initiative, and forwarded a notice to the ratepayer concerned. Is that correct? Yes.

1434. Ought he not to report to the Board of Health that he has forwarded such a notice? No; there is no regulation to that effect.

1435. No regulation at all? None at all.

1436. Then, supposing he struck an intolerable stench in a public street, he could not very well serve a notice on that, because, perhaps, nobody in particular would be legally responsible for it. What would he have to do in that case? You mean a stench from a bad public gutter?

1437. Yes. What does he do then? Well, he would report that to me, or to the City Surveyor.

1438. And you have received no report from him as to the offensive condition of the gutters? Oh, if he noticed a bad gutter, he would either mention it to me, or to the City Surveyor, whose department is responsible for the cleaning of the gutters.

1439. And you have received no reports from him as to the offensive condition of the gutters, say, during the last summer? No, I cannot remember that I have.

1440. But such reports may have gone to the City Surveyor's Department? Reports may have gone to the City Surveyor's Department, certainly; I cannot answer as to that.

1441. Another question I want to ask you is this: your inspector told us that the refuse from the fruitshops was taken away in the milkcarts to feed pigs in the country; and on that, in reply to questions from me, your inspector stated that he did not see any objection to these receptacles for conveying this refuse being carried in the milkcarts, so long as there was no milk in the

carts at the time. What do you say as to that—do you think it is a proper thing that a cart used for the distribution of milk in the City should be permitted, on going back to the dairy, to carry dangerous refuse of that sort? If proper milkcans, and proper closed receptacles for the fruit are used, I do not see any great objection to it.

1442. Of course, he admitted also that the receptacle would be brought to town in the cart with the morning's milk brought in for distribution. You understand that? Yes.

1443. And, of course, that receptacle would have to be periodically opened for the purpose of taking in refuse and fruit from the various places where it accumulates, while the milk, or some part of it, was still in the cart? It all depends on the way in which the work of collecting the refuse fruit is done. If the work is carried on with proper closed receptacles, both for the milk and the fruit refuse, I do not see how we could prevent it, nor what harm could be done. There is no special by-law bearing on the case.

1444. Of course, you know how sensitive milk is, with regard to its ready reception of any germs that may happen to be about? Yes, refuse and milk should not be carried in the cart together.

1445. Do you think it is proper that a cart used for the purpose of distributing milk should be used for the conveyance of refuse at all? I certainly think it would be better not.

1446. And do not you think that you might hint to your inspector that this is a matter that requires the very closest investigation, because, you see, he stated to us that as the refuse was not carried in the milk cans, there could not be any objection to it—what do you think? Well, if it is carried at all, it should be done in the best manner, and every precaution should be taken.

1447. Of course, you admit that there must always be danger if you allow vehicles of that sort to be used for the conveyance of such refuse? Yes. But I must say that I do not think it is a common practice. I do not think many of the milkcarts carry this refuse at all.

1448. Of course, the germs are likely to cling to the sides and bottom of the cart, unless the cart is regularly and most carefully cleaned and disinfected? Yes.

The witness withdrew.

#### JAMES A. HARDY, *called and examined.*

Dr. Hardy was sworn.

1449. *By Mr. Guesdon.*—Your name is—? James Arthur Hardy.

1450. And you are a medical practitioner? A legally qualified medical practitioner, residing at Hobart.

1451. You are aware of the object of this Commission, Dr. Hardy; that, it is to deal principally with the question of water supply for Hobart? Yes.

1452. The water supply of Hobart and its suburbs; and also with the general municipal administration of sanitary and other matters in the City? Quite so, sir.

1453. We have called you, knowing that you take a very close and considerable interest in sanitary matters, with the object of getting you to assist us by stating what reforms you would consider advisable and possible, dealing with the sanitation of Hobart particularly. You understand? Well, do you wish me to suggest reforms, or will you ask me questions?

1454. I will ask you a few questions first, and then anything that may escape me you can fill in. We want to get all the information possible in the best way we can. Speaking generally, how do you regard the sanitation of Hobart? It is very inefficient.

1455. Unnecessarily so? Unnecessarily so, I think.

1456. First of all, then, with regard to the disposal of garbage and house-refuse. How do you regard the present Hobart system of dealing with that branch of the sanitary service? I think it is bad.

1457. Very imperfect, as far as the collection of garbage is concerned? Well, it is very incomplete.

1458. And then as to the final disposal of the garbage by shooting it into tips: what do you think of that method? I think it is decidedly and positively bad, as compared with the modern system of destruction by fire.

1459. Would you regard the existence of these tips for the disposal of rubbish and garbage as a continuous menace to the public health? Distinctly. Such tips must be detrimental to health at all times in a town.

1460. And, I suppose, the mere fact of putting a few ashes or a little earth over masses of rubbish of this sort will not prevent the trouble, or remove the menace? It will not prevent decomposition; it will not prevent the thing becoming a source of danger.

1461. Then, you consider that the proper and only efficient way of dealing with the stuff is to destroy it by fire? Yes, and the cheapest way, too; cheaper than your present system, at all events.

1462. Have you got any information that you can give us as to the ground you have for stating it to be the cheaper way? For years past I have made a study of this subject. I was one of the representatives of this State at the Conference of Hygiene and Demography in London, and I went into the matter very closely.

1463. And, have you any data or figures to give us? I had a number of different papers, gathered when I was in London, and since then in Melbourne and Sydney, including information as to the cost of works, and reports by engineers and medical officers of different municipalities.

1464. From those papers and your own studies of the subject, have you prepared anything at all in the shape of an opinion? I have prepared two reports. One I read before the Health Society here, eight or nine years ago; and one, a longer one, brought up to date, I lent to somebody and cannot get back. That last report was from the colonial point of view, as outside and apart from the English.

1465. Was the one you read before the Health Society published? No; a brief *resumé* of it was.

1466. Have you a copy of it? Yes, I have; I will try and let you have it. I have also the rough notes of the report that is in the hands of somebody else, who cannot return it to me.

1467. Now, with regard to refuse from various establishments in the City, which would you regard as most dangerous to public health—refuse from butcher's shops, from fish-shops, or from fruit-shops? Well, I am hardly prepared to say that one is more dangerous than another. I think that decomposing vegetable matter, such as fruit refuse, is, as a rule, very dangerous; but, equally so, the others are dangerous in themselves.

1468. Would you regard a milk cart, habitually used as a vehicle for the distribution of milk in the City, as a proper vehicle to be used on its return home to cart refuse from fruit shops for the feeding of pigs? Most certainly not.

1469. Even if the refuse were placed in a closed receptacle? If it were placed in the cart at all, it could not fail to be dangerous to health. A milk cart should be like Cæsar's wife—"above suspicion."

1470. Used for no other purpose than the distribution of milk? For no other purpose whatever, and, even then, thoroughly cleansed and purified at frequent intervals.

1471. And if I told you that the Sanitary Inspector informed this Commission that the milk carts are used for that purpose, would you regard it as a matter that required immediate attention at the hands of the authorities? I do not think it should be allowed.

1472. Would you regard the present system of drainage in Hobart—that is, the system of surface drainage—as a healthy system, if the channels for conveying the refuse matter were properly constructed, and an ample supply of water for flushing them was provided? Granted that you could have a perpetual and adequate supply of water, and they could be constantly flushed, the danger would be reduced to a minimum. But as you have not an adequate and perpetual supply of water, and as the water channels are not asphalted or paved or anything like that, I look on the system of surface drainage as a distinct source of danger. We have the pan-system, and all the kitchen and bedroom slops go down the street channels. That is bad.

1473. But supposing you had such a water supply as would give you an almost continuous flush? I look on that as almost an impossibility, considering the size of the town; and I see no need for it at all, any how.

1474. But, still, you think that a big supply of water would reduce the present evils very considerably, until we got a general system of underground drainage? Oh, undoubtedly.

1475. Do you consider the present supply of water for Hobart anything like adequate, from the standpoint of the public health? I have always argued that if big towns can have a system of deep drainage—every kind of drainage going through the sewers—and run it and all other requirements at a consumption of thirty gallons of water per head per diem, while we use sixty gallons per head per diem in Hobart—I have always argued that there must be a great waste of water somewhere, and that the present supply should be sufficient, properly used.

1476. But don't you consider that Hobart would be very materially benefited by a better water supply? Undoubtedly.

1477. And even with an underground drainage system, you would require a certain amount of flushing water for your gutters? Yes; but very little. They would be so clean; there would be nothing going into them; they would be dry, like the streets. Another thing you must realise is this: if you have a system of underground pipe-drainage, you might confine the matter in 9-inch pipes, instead of throwing it over a wide gutter. It would not take more than a quarter of the water to keep those pipes clear that it would to flush the gutters, and the bedroom slops or water from the bathrooms, &c., would flush these small pipes, while it could not flush these surface drains; you would want so much the less for your sewerage. Of course, under a better system, you must do away with cobble-stone drains, and all that sort of thing.

1478. That is, even if you have underground drainage? Yes, anyway. Cobble-stone gutters are a survival of the dark ages, and should not be used.

1479. Then, even with underground drainage, the cobble-stone drains would still be a menace to the public health? More or less, always; because a certain amount of drainage would always get into them, soak through, and putrify.

1480. Supposing we had a system of underground drainage, doctor; I presume that it would be many years before we would get the smaller tenements connected with the sewers. As regards the sanitation of Hobart, you have got to provide some temporary system—probably for three or four or five years—before you could possibly get a complete system of underground drainage. Even then you would not have time to get connected with some of the outlying places.

1481. And a considerable supply of water would be wanted down there for some of those outlying places, if they were to be kept clean? Yes; and for other things, to make the town healthy.

1482. Do you think that, if the Corporation has power to cut off water-closets and prevent people from emptying excreta into water-channels like the Park-street Rivulet and other rivulets

of that kind in the town—I am not referring now to the Hobart Rivulet—that should not be done—do you not think that the Corporation should at once, in the interest of public health, exercise that power? I think they ought. They have no right in summer, at all events, to turn sewage to soak along the bed of a dry creek.

1483. I suppose that, in the event of an outbreak of typhoid or diphtheria, the first thing you would look to for the cause would be the presence of decaying excreta in such a channel? I should myself look very much to the milk supply as well.

1484. If there is anything else you feel you would like to state, doctor, I should be glad if you would give us your views—is there anything? Well, as you know, I have worked at this subject for a number of years; if I spoke about it generally I might be too lengthy.

1485. We would be glad to have it, anyhow. It would be a distinct advantage to the Commission to have your views on this subject? Well, take your present water supply for an example; I think it is a most dangerous and iniquitous thing to have no proper fences round the different intakes for water, and around the reservoirs. I myself have seen dogs swimming in the reservoirs. I have seen people bathing their dirty feet in the water sources after tramping up the mountain; and I have seen scraps of food and other things thrown into the Fern-tree intake. Anyone can get in and out of the reservoirs here. Those reservoirs should be absolutely shut up, and then you should have filter-beds.

1486. Then you consider that if the water-supply is to continue to come from the mountain, the mountain should be absolutely shut to tourists? No; I don't say that; but the intakes should be fenced round, at any rate. There should be a fence put round the intake at the Fern-tree Bower, to start with. A tap should be provided, so that people could get water when they are picknicking, but it should not be possible for them to dip into water that the people of Hobart have afterwards to drink unfiltered.

1487. Still, you know, the water comes from various parts of the mountain. Supposing that people going to the Pinnacle taint the very fountain-head of the supply—would not that always be a menace to the public health? That is a big question. One person who had recently had typhoid or diarrhœa going up there might easily injuriously affect the health of dozens. I admit all that; but how could you possibly shut the mountain up? The fact of the matter is that it is the wrong place to get the water supply from.

1488. If the water supply is to continue to come from the mountain, the sources from which the water is derived ought to be absolutely shut off? Yes; strictly speaking, they ought to be absolutely shut off from the public.

1489. Whereas, if you can get the water from the Styx—? Then the mountain can be, as it should be; the pleasure-ground and beauty-spot of the place, and the water you get from it can still be used for street-watering and dozens of other things. Well, that is one thing. Then I consider that, taking the broad fact of improving the health of the place, there should be no delay or question about removing the slaughter-yards from where they are. It should be done at once; it is a crying menace to health to have them there. Another thing: in Launceston they found that the different noxious trades were becoming a great nuisance in the City, and they eventually moved them out to a suitable noxious-trades area, and gave proper compensation to the people concerned. Here, they are letting men following noxious trades in town build and add to their noxious-trade premises. There should be a noxious-trades area close to the abattoirs, say at Derwent Park. There is plenty of land there, and the site should not be put over the river, owing to the expense of getting meat across, for one thing. I would certainly move all these places without delay, giving fair compensation when necessary. Then I certainly would have a garbage destructor. It is not only a matter of burning the rubbish: the power you generate by burning it counts for something. You could get sufficient power to provide electric light for the Town Hall and all the public buildings. You would get clinker, which could be used for paving-stones, and beautiful stuff for the streets. At Southampton they have a refuse destructor. The whole refuse of the town is taken by the corporation to the destructor, separated into certain different classes, and burnt. With the resulting clinker they make paving-stones and all sorts of material for the use of the town. The sewage and street sweepings, after being purified, are mixed with other stuff and sold for manure. The total cost of working that destructor is £220 a year; and the destructor itself cost £7500 for a town of 60,000 people. I am not quite sure whether the whole refuse of the town is worked by the destructor; as to this, one or two other things deserve mention. First of all I may say that this destructor is right in the heart of a poor part of the town, with houses built close up all round it. It causes no nuisance, and has never been known to cause a case of disease; yet they bring the sewage there and burn all refuse and everything. The net result at Southampton of the working of the destructor during the year I am thinking of was a shade of profit; while in Hobart we are spending £900 a year in collecting refuse in a small part of the town, and in all other parts of the town the people have to pay men to cart their refuse away. If the Corporation here collected all the refuse, and burnt it all, and got some good out of it, I consider that that would be equivalent to a saving of a large amount a year. You will see that, when you consider that all the outlying people pay from a shilling to eighteen-pence a load to have their refuse carted away. Then there is another thing I feel very strongly about, and that is that, as you have got to have this very unpleasant system of pans, and as you have got to legislate for the ignorant in connection with it, you need to take very special precautions. You and I, when we have to deal with pans, take good care to be provided with plenty of dry earth, ashes, and carbolic powder, but the ignorant

people do not do that. The Corporation or the Government should supply the people with a suitable material to put in the pans, and then make a strict law that it must be put in, and enforce it. I have seen horrible instances of neglect under the pan system. I have had cases of typhoid, and in one house where there was a case I saw a closet fitted with one pan for the use of a large family. There was not an atom of dry earth or ashes in the pan, and it was brimming over—running out in places, and the stuff trickling to the door. Well, sir, that cannot be said to be a healthy condition of things. If you are going to have the pan system you should see that it is carried out properly. Then you must realise as regards the pan system, that it is not a thing that applies to everything. It only provides for one thing, and that is faecal matter. You cannot empty your slops into the pans; the slops have to go down the street gutters. All the kitchen and bedroom slops go down the street channels, and there is as much danger in that as in the faecal matter in the pans; indeed there is more danger, if you make the faecal matter dry, as you are expected to do. Therefore, in improving your pan system you are only providing against one danger out of many. In some directions the Corporation has improved on the old conditions. A certain amount of improvement lies, for instance, in the fact that we no longer have our meat brought uncovered dangling through the streets. But I do not think that in the summer time it should be allowed to be hung out in the streets outside the shops, to be covered with flies that have probably been earlier fed on garbage.

1490. But could you prevent the flies getting on it, even if it were hung up inside the shop? Well, in some cases I have seen muslin put over it.

1491. Of course, there must always be a certain amount of danger with meat? Yes, that is so; but you can take all the precautions possible. Then, as regards the milk supply, I would have the most rigid and thorough system of inspection—perpetual surprise-visits from inspectors, for one thing. I would not only have the dairies looked at, but I would also have the water the cows drink analysed, and the cows regularly examined by a competent man, to see whether they are healthy—free from tuberculosis, sore teats, and so on. And I would have the milk itself analysed.

1492. How frequently? Once a week; or once a fortnight, at any rate. I would have an inspection, for the purpose of seeing what water the dairy-keepers use to scald the pans out, and to see whether they are properly scalded out.

1493. You must recollect that a great portion of the milk supply comes from places beyond the town boundary. Therefore, before a licence is granted to any milkman to bring his milk into town, the Corporation should have a right to supervise the place from which the milk is obtained, whether inside the municipality or outside? Quite so.

1494. And now the inspection is confined to dairies in the municipality? Yes; and all the other milk comes in free of inspection. When you had that bad outbreak of disease, a while ago, it was shown that all the trouble came from a dirty well on a milk-farm at Bonnet Hill. It is simply no good at all inspecting half the milk; you must inspect the whole of it. Of course, in New Zealand the milk is all pasteurized, and you can drink it at any time with safety.

1495. And would you suggest the adoption of that system here? I should think it would be rather a good idea to have the country milk pasteurized, at any rate. Then, I think that the regulations about stray dogs should be rigidly carried out. They form a source of danger, if it is only the danger of hydatids. The number of stray dogs about the streets now—most mangy, unhealthy dogs—is so great, that I think the regulations should be rigidly carried out.

1496. Do you think that provision should be made by which registered dogs, with proper collars on them, notifying the name of the owner, should be left untouched? Yes; that would be a good thing.

1497. Supposing that the slaughter-yards were removed, as you suggest, don't you think that a better system of dealing with their drainage could be adopted than that of merely allowing it to flow into the river? It would not do any harm at all at Risdon Park. In regard to that matter of the slaughter-yards, there is another point. I don't know whether the system is still carried out in the North; but it was when I lived there. In Launceston, cattle brought in for slaughter were all turned out in a certain suitable place, and had a week or a fortnight in which to recover from the effects of their journey. Here, according to the quarantine regulations, they are not turned out at all, and have to be killed within a certain number of days. The result is that the cattle are frequently bruised and feverish when they go to be slaughtered. It would be infinitely more wholesome meat if the cattle had a week or two in which to feed about and recover. I may add that I think it was a great mistake for the Corporation to prevent people keeping pigs. The pigs used to eat up all this house garbage.

1498. Do you know anything at all about the Liernuhr system of sewerage? I have read about it. I do not know enough about it to be able to speak authoritatively.

1499. How does it strike you, from what you have read? Well, I think it is a thing only just in its beginnings, and it would be better for us to wait and see how it develops. While we have good systems that work thoroughly well, why try a new thing, and spend money over what may not prove a success?

The witness withdrew.



R. S. MILLES, *re-called, and further examined.*

1500. *By Mr. Guesdon.*—A paragraph appeared in the *Mercury* the other day in reference to an averted water famine, or something of the sort—do you recollect seeing it? Yes.

1501. It was last Monday week, I think? Yes; I think it was.

1502. Here is the paragraph. It states, Mr. Milles, that: "The works in connection with supplementary water supply for Hobart are progressing rapidly. A service-pipe junction has been made with St. Crispin's Well, the Three Streams, and the new spring, which will in future be known as 'Milles' Spring.'" Is that correct? No; it is not correct.

1503. The connection has not yet been made? No.

1504. The paragraph goes on to say: "The value of the work that has been done cannot be over-estimated, because, by its means, what threatened to be a water famine for Hobart has been averted." That, I think, isn't correct, either? No; the works have not been advanced to the stage as stated there.

1505. Besides which, at the present period of the season, there is no danger of a water famine? Not now, there isn't. Last week we had a little anxiety, owing to the Lower Reservoir being down about nine feet.

1506. But, if there had been a water famine, those works would not have helped the situation at their present stage? No.

1507. Then the statement contained in that paragraph is absolutely inaccurate? Quite so.

1508. There is one point I wish to be quite clear about. In the evidence which was taken before the Select Committee of the Legislative Council, Mr. Grant asks you this question: "I believe you have been engaged in investigating the source of water on Mount Wellington to see if any additional supply can be obtained—have you had any success?" And you reply: "Well, not to the extent that some persons imagine. It might help us for a year or two, but will not give a large permanent supply from the present small water reserve." Then he asks you; "If what you recommend is carried out, do you think any substantial increase will be made in the supply?" And your reply to that is: "We may increase it to a certain extent. There are a large number of little streamlets that are getting right under the surface-ground and down to North West Bay that really belong to us, and we may be able to get these, though the increase thereby may not be very much." Now, you recollect the evidence you have given before this Commission? Yes.

1509. Well, the impression you have carried to my mind is that you look upon this water supply now as being very much more adequate than you described it as being then—is that so? Yes; it is so; because of the simple reason that at the time when I gave evidence before the Select Committee of the Legislative Council, the survey I have made was not completed, and I was, practically speaking, without full knowledge, giving information almost in the dark about it. I had not completed the survey, and I had no definite information then available as to the storage capacity to be obtained. What I referred to was chiefly as to the running water on the present water-shed only, which, of course, I knew all about before I made the survey.

1510. Then you have modified your views since you gave evidence before the Select Committee of the Legislative Council? Yes, I have had reason to modify my views. As a matter of fact, I did not feel inclined to give any evidence at all on the point at that time, and I could only speak of what I actually knew at that time, before I had finished my survey. I had really no definite information then as to the storage capacity available up there, with the exception of the top plateau—just the one site near the Trigonometrical Station. As far as I knew, that was the site that was spoken of when I was examined, and all the information at that time as to it being a favourite site for a reservoir was from the late Sir Lambert Dobson. He told me that many persons had spoken to him as to a site being available for water-supply near the Trigonometrical Station. That was the only site I knew of when I gave evidence before the Select Committee of the Legislative Council. Since then that site has not proved to be what it was anticipated by many that it would be.

1511. Have you received in your department any report from the Sanitary Inspectors as to the offensive condition of the gutters in any parts of the City—say, during the last summer? Oh, we get such reports nearly every week from the Health Department—and from our own department as well, for that matter.

1512. Who do you get reports from in the Health Department? Well, chiefly through the Officer of Health. He makes reports from time to time to the Council, and sometimes to the Committee.

1513. Mr. Brain has told us that during the last summer no reports whatever have come into his department as to the offensive condition of the City. How is that? Well, the Health Officer reported the other day about the gutters to the Local Board of Health. When there is any report of that sort we always take notice of it. Then, we often get reports in from residents of certain streets, complaining of the condition of the gutters, and such complaints are always attended to immediately. At the same time, I might mention that we have an overseer of sweepers, whose duty it is to do nothing else but look after the scavenging, and to furnish me from time to time with reports of the work of his department. When anything wants special attention he gives his report into the office, and the Foreman of Works attends to it, if it is a



question of construction. If it is a large work, such as the construction of a new gutter, I report to the Committee. The worst gutters we have are a few dug-out gutters, without any construction at all. The Committee has some of these under consideration now. For instance, there are two gutters in the Mount Stuart District, and, unfortunately, nearly the whole of the drainage in these gutters comes from the outside district of Mount Stuart, and there is a dispute now pending as to the Corporation having to do work in order to carry the drainage of another district through the City itself. There has always been trouble with the adjoining districts on this matter. The same thing happened a little while ago in connection with the Wellesley or Cascade District. Their drainage used to come into Hobart, causing us a great deal of annoyance and nuisance, and some annual cost as well. We have called on the Wellesley people to join in the work, and now we have pretty well remedied that trouble. All the same, the citizens of Hobart have had to pay a part of the expenses of getting rid of a nuisance that is not their own. The gutters that are causing us trouble at the present time are, as I say, a few dug-out gutters.

1514. Then the reports relative to offensive gutters have not been made to you by the Sanitary Inspector? Not so much. We may have had a few from him. I won't say without referring to the books. But the Sanitary Inspector is in constant communication with our department, and everything he reports we attend to, if it is possible to do so. As I say, if it is a question of construction it has to go before the Committee, and the money has to be voted in due form.

1515. What is the condition of the bed of the Park-street Rivulet—is it formed in any way? Only a very small portion of it.

1516. Up to where? Up to the end of Liverpool-street.

1517. From the end of Liverpool-street to the mouth? Yes; and that you can hardly call a proper formation.

1518. And the other part of it has merely an earthy bottom? Yes. It is, practically speaking, in a state of nature for the whole length.

1519. Are all the other rivulets in the same condition, with the exception of the Hobart sewer? Yes, nearly all the others are in the same condition, with the exception of small pieces here and there where they go through certain persons' properties, and also a portion of the Goulburn-street sewer.

1520. And in those cases the work has been done by the ratepayers concerned themselves? In some cases the Corporation has helped them in the way of giving them material.

1521. That applies, then, to all the rivulets except the Hobart Rivulet? Yes; and a portion of the rivulet from West Hobart, that comes down Elizabeth-street, from Melville-street downwards. That portion is covered and paved.

1522. Oh, that is underground? Underground—yes.

1523. Where does your province come in in the matter of dealing with buildings—old buildings that ought to be removed? Do you mean dangerous buildings?

1524. Yes? There is a divided authority, I believe, between your department and the Sanitary Department: one has to deal with houses, which, from the sanitary point of view, are unfit for habitation, while the other, your own, has to deal with houses which, from another point of view, ought not to be allowed to remain in the City? Well, till recently, the whole thing was dealt with in this way: unhealthy buildings jointly by myself and the Officer of Health, dangerous buildings by myself only. Latterly, since they have made a sort of sub-division of the Health Department, that department deals alone with the question of unhealthy houses.

1525. Are there any buildings in this City which, in your opinion, in the interests of the public health and for other reasons, should be demolished? Yes, a great number.

1526. Have you advised the Corporation to that effect? Well, every year, more or less, we have had a certain number of buildings that have had to be dealt with, both from the point of view of their being insanitary and of their being improperly constructed. I think that latterly most of the notices given in reference to such buildings have been carried out.

1527. Have you advised the Corporation as to the number of places you think ought to be demolished? No; I have never had occasion to make a recommendation as to the number of buildings I think it necessary to have demolished.

1528. If you did so, the Corporation would have the power to deal with the matter? O yes; they have full powers.

1529. And you have not made any such report? No; I could not make a general report unless I was requested to make it.

1530. Then it is not a part of your duty to make a report on any matter unless you are asked to do so? Not unless it is a matter of urgent necessity; and if a building is dangerous or dilapidated, I deal with it at once; but if it is merely a question of sanitation I do not deal with it.

1531. But irrespective of sanitation, there are a large number of buildings that should be demolished? Yes.

1532. And they come distinctly within your province? Well, that is rather questionable. In most of the cases, I dare say, the matter would have to come before the Health Officer.

1533. Have you dealt at all with buildings used here for purposes of public amusement? Only in special cases. I have dealt with cases of buildings that happen to have been put up in my time for public purposes; but I have not dealt so much with existing buildings.

1534. Do you not examine places of public amusement, to see whether they are proper places for the public to be allowed to congregate in, particularly as regards their means of escape, and the inflammable character of the material out of which they are constructed? No, I do not. The main question of inspection is dealt with under the Public Health Act.

1535. That is not within your province? Well, it would come within my province, strictly speaking; but I have never made any reports on any buildings that have been up any length of time, because they have been, practically speaking, dealt with when they were put up. I have only dealt with the cases of new buildings, and I remember one such case in which the application was refused.

1536. Have you ever been asked by the Mayor to examine the theatre? No, I never have.

1537. You are quite clear as to that? Quite.

1538. He never asked you to inspect the theatre, as to the defects of the building, and so on? Never.

1539. You know the theatre, I presume? Yes.

1540. And you know the parapet of it that lies a little back? Yes, I know it.

1541. Have you ever noticed that there is a distinct and serious settlement there? Yes, I have noticed that there is a settlement there.

1542. Well, I spoke to the Mayor some time ago, and asked him about that matter, and he said he would instruct you to look into it. Has he done so? No, he has not.

1543. Does that strike you as being a dangerous settlement? Well, I could not say, unless I examined it carefully. Very often what appears to be dangerous in that way, proves not to be dangerous, when you come to look into it carefully.

1544. Well, Mr. Milles, speaking from your own knowledge of the theatre, considering the material out of which it is constructed, and considering that communication with the gallery is only by means of a narrow wooden staircase, do you think the means of escape, in case of a panic from fire, would be sufficient? No, I do not think they are quite adequate for the requirements of a theatre.

1545. In fact, if you were called upon now to grant a licence to that building, would you recommend the issue of a licence? No; I think I should have to make some recommendations as to alterations in it first.

1546. Do you consider that the Temperance Hall is adequately provided with means of escape from the gallery in the event of a panic from fire? I am not quite sure of the number that that gallery will hold. From my memory, I would not like to say.

1547. Supposing it would hold five hundred people? I think it would serve. I think there is an exit from both ends.

1548. You don't know it sufficiently well to express an opinion, I suppose? No, I do not.

1549. Just before you go away, I want to ask you a question as to that water sent for analysis, in order that we may have a clear record on the notes. The sample in the blue bottle, I think, was the sample from the Styx? Yes.

1550. And the sample in the white bottle was from the Russell's Falls River? That is right. The witness withdrew.

GEORGE LEATHAM, M.H.A., *called and examined.*

Mr. Leatham was sworn.

1551. *By the Vice-Chairman.*—Your name is George Leatham? Yes.

1552. And you reside at New Norfolk? Yes.

1553. How long have you lived in the New Norfolk district? I went to the New Norfolk district in 1851, and I have been there ever since—with the exception of two years.

1554. And you are well acquainted with the Derwent Valley district? I am.

1555. You know the River Styx? Very well.

1556. How long have you known that river? I went to the Styx in 1851, and left it in 1875. I was continuously living at the River Styx from 1851 to 1875.

1557. Did you drink the water from the Styx? Many a time, sir. I used to bathe in it when I was a boy.

1558. Was that your regular drinking water while you were living there? Yes, sir.

1559. All those years? Yes.

1560. Is it good water for drinking purposes? Well, I have always understood that it is the best water in the world—or as good as any.

1561. But, from your own experience, do you consider it good water? Yes. In all those years that I have explained to you that I lived there I never heard of much sickness there of any sort.

1562. Do you now know of any sickness there? I do not.

1563. You have known the river in all seasons of the year, I presume? I have.

1564. Have you seen it lately? I have.

1565. Did you see it at the time when the Commission visited it, recently? No; I cannot say that I saw any particular part of the river then; I only just saw the outlet of the river on the Derwent, as I was going by.

1566. Could you see what its condition was then, as to the quantity of water in it? I could not; not properly.

1567. You do not know whether it was low at the time? According to the condition of the Derwent then, it should be low. The Derwent was lower than ever I saw it.

1568. If the Styx water should be brought to Hobart, for the purpose of supplying Hobart and the suburbs, is there any land between the intake—which would be some miles above Glenora—and Hobart which that water could be profitably used to irrigate? Yes; a great quantity of land.

1569. Where? Well, firstly, I should say that the Shoobridge people have irrigation on their land, and take the water of the Styx River for that purpose. You would mean, after leaving those people?

1570. Yes; what land is there after that? Well, I have seen your plan, and know where you get across at Uxbridge. Mr. Read, of Redlands, has irrigation of his own, from the River Plenty, but, as you go further on, I should say that Mr. J. T. Read would require water for irrigation, inasmuch as he has no way of getting water at present. He drew his water for the household at Kinvarra from a well or a spring from the Tier.

1571. Well, then, as you get further down, what about Bridgewater and Brighton Plains? Well, leaving Kinvarra, after you cross the Plenty River, there is what we call the Goat Hills, Mr. Morgan's, a part of the Glen Leith property; that would require water for irrigation, if it could be got. That is before you come to what is known as Glenfern, or the Dry Creek.

1572. Yes—and lower down? Then, after that, you get to Lloyd's Hill; according to your chart, you come down to Captain Underwood's, Davies's old place. But if the water was taken across what we call Broadlands, that would require irrigation; it is cultivated land. That is, just before you get to New Norfolk.

1573. When you speak of "your chart," you mean that chart that was prepared by Mr. Milles? Yes; it was sent to me the other day.

1574. Well, would there be any places in New Norfolk that would be likely to take water for irrigation? Yes; the irrigation supply there just now is not very good for the township. We have a water-supply scheme there that has been in existence some years, and we are supplying the Asylum. The supply for both places—that is, to the Government for the Asylum, and to the township—does not leave enough water for irrigation purposes, although we issue irrigation licences. There is not really enough for household consumption, and for irrigation as well, to the extent that is required.

1575. Then, what land is there below New Norfolk? I would like to mention, just at this point, that irrigation on a larger scale would suit the Government themselves; it would be useful for the Asylum paddocks, and that sort of thing. The people of New Norfolk are now beginning to think that it is time that the Government should assist the waterworks there. The Government have had the use of the waterworks for some forty years, and we have always kept up the supply to the Asylum. We think that now we should be helped by the Government. I mention this, thinking it might help the scheme, as the Government should now really do something on their own behalf. The Styx scheme would be of great benefit to the paddocks at the Asylum for irrigation purposes.

1576. Well, now we have got as far as New Norfolk—are there any lands below New Norfolk that would be likely to benefit by irrigation? When you got to Bridgewater—if that is the line of route proposed—there would be Bridgewater and Brighton to be considered. I have known the people there have to go to Sorell Creek for their water.

1577. And Brighton—that is Bridgewater you are referring to, I think? Yes. I would not like to say as to Brighton. But on the south side of the river they have had to cart their water from Sorell Creek before now.

1578. *By Mr. Propsting.*—Are there any intermediate lands that would be likely to require irrigation—Bridgewater and Riverton, for instance? That would be on the south side of the Derwent?

1579. Yes? Oh yes; there would be water required there, if you could get it to them. Getting away from the line of route I see on the chart, I should have thought that if they had taken this water scheme and come down by Bismarck it would have been a shorter way of getting to Hobart. Coming right through, as they do, to New Norfolk, they could strike off from the back of the Asylum through Bismarck.

1580. *By the Vice Chairman.*—That, of course, is a question for the engineer? Oh, a question for the engineer, certainly. But, as you know, the land on either side below New Norfolk—either north or south of the Derwent—is not very good land; it would not require very much irrigation, in my opinion. There are swamps on the New Norfolk side, and there is high land on the Riverton side. I don't think much irrigation could be used along there.

1581. What about the land below Bridgewater? Do you know that country? Not very well. I should think irrigation would suit those paddocks of Mr. Wise's, and down towards Green Point. That is more level country, and more suitable for irrigation.

1582. Do you know anything of the country about Berriedale and Glenorchy, and along that shore? Yes, I have been a good bit about there.

1583. Is there any land there that would be improved by irrigation? Yes, there is a good deal of land that could be improved very much by irrigation, especially when you get to the patches under the hills. I should think irrigation is really what is wanted there.

1584. *By Mr. Propsting.*—You say you have a water scheme at New Norfolk? Yes.

1585. What is the charge for water there? We have four sections of charges. We charge 2s. 6d. for the cottager; 5s. for the next best house, as it were; 7s. 6d. for the third class; and the highest rate is 10s. a quarter—or £2 a year.

1586. And for these charges can they use an unlimited amount of water? Yes, for household purposes. Then our charge for an irrigation licence is £1 a year, and that is only just for water for gardens.

1587. Under your irrigation licence you restrict them to the use of the water at night only, I believe? Yes; from seven at night to seven in the morning they can use the water for irrigation purposes.

1588. And you say the town supplies the Government Asylum? It does, sir, and has been supplying it for somewhere about forty years, I believe. It appears that formerly the Government laid the main up to the boundary of the township, and then the people did the rest. Well, the pipes are beginning to get very thin and corroded now, and I think we are likely to ask the Government, before very long, to assist us in this matter. The pipes are bursting fast.

1589. How far up the River Styx have you been? I should think I have been quite as far up as the weir marked on the chart—some fifteen miles. My father owns some land on the right of the Styx, going up, and I have been some seven or eight miles above that.

1590. Is it a good stream up there? A very good stream; I have always known it to be.

1591. With a large volume of water moving down, summer and winter? Very large in the winter, and always a good body of water in the summer.

1592. A larger volume of water than the Russell's Falls now has? Very much. I do not know how far the Royal Commission went up the Russell's Falls River, but I certainly would have liked to have been able to have gone. When you got up a certain distance, you would notice that the Styx River gets clear of trees. Lower down, there used to be plenty of logs and trees in the river, but higher up it is quite clear of snags.

1593. Have you ever known any cases of goitre in that neighbourhood? I never knew of one case at the Styx all the years I lived there. But I knew of cases in a family living over opposite Mr. John Walker's, some couple or three miles across from the railway station, on the banks of the Derwent. There was a family there that had big necks, or goitre, but I think it was a sort of family complaint with them; but that was three or four miles above the point where the Styx enters the Derwent.

1594. What water would that family drink? They would drink the Derwent water—the Lake St. Clair or Clyde water, that is. They would be up about Half-Moon Neck, about half-way between the mouths of the Russell's Falls and the Styx rivers—right up at the turn by Mr. L. M. Shoobridge's.

1595. Have you yourself had any experience of irrigation? Not a great deal; only what I have seen at the Shoobridge's, and about. I have seen what the Shoobridges have done with Bushy Park, and that sort of thing.

1596. Do you remember Bushy Park before it was irrigated? I remember the time Shoo-bridge went up there.

1597. That was before the estate was irrigated? Oh, yes; there was no irrigation before the Shoobridges went up there.

1598. What is the difference between the condition of the property, as it was then, and as it is now? Oh, very much. That was almost wild bush on the right-hand side of the Styx bridge; on the other side there were patches of cultivation.

1599. And now there are acres and acres of orchards and hop-grounds? Yes.

1600. To say nothing of root-crops and grass? That is so. On the right-hand side of the bridge, where we went, there was what we called the bullock-paddock, covered with blackberry; not the English blackberry—the native stuff. A man named Graf used to rent it from Mr. Bligh before the Shoobridges went there.

1601. *By Mr. Guesdon.*—What height would you have to take the water from on the Styx in order to bring it through Uxbridge? I do not know. I was surprised to see that, according to the chart, they had got to the top of Uxbridge Hill, and I cannot make out why they are coming down so close to New Norfolk. It seems to me that there is a great fall from the top of Uxbridge Hill.

1602. The proposal, I think, is to take the water from a point 700 or 800 feet above sea-level? That's about it; yes.

1603. And is not Uxbridge above that? I do not know.

1604. Would they be able to take the water through Uxbridge from that elevation? I do not know; I believe they would.

1605. Is there not a large quantity of land in the Brighton district that would be benefited materially by any adequate scheme of irrigation? No doubt of that, sir; because you would get on to the low-level land, as it were. It is when you get below Riverton that the irrigation would begin to be useful, as the land gets very level along there; and, of course, on the Brighton Plains the water would, no doubt, do a lot of good.

1606. The land about there would be much more valuable than it is now if they had a regular and adequate supply of water for irrigation purposes? Yes; I should think land worth £1 an acre now would be worth £5, or *pro rata*.

1607. Then you think that irrigation on suitable land would generally increase the value by five times or so—is that it? No doubt of it.

1608. And you think that in some cases it would increase the value even more than that? Yes.

1609. To what extent do you consider that irrigation has increased the value of the land at Bushy Park? Well, taking it between the increase from irrigation and from the management of the Shoobridges, I think I would not like to say it is less than ten times the value it was originally; perhaps more than that. I would like to mention, at this point, that if you will look around that district now you will see that all the little hop grounds are getting fluming—miles of it sometimes—and little engines for irrigation purposes. In Ellendale, for instance, little struggling people are going to the creeks, and bringing water a mile or more to their hop grounds. You can tell the value of irrigation from that; as things are now, they must have it. Mr. Dean, of New Norfolk, is getting water for his hop-ground with an engine, from the Derwent. It all goes to show that irrigation is of great value.

1610. Have you any knowledge or experience on which you could estimate the annual value of horse-power? No, sir; I have not.

1611. *By Mr. Hamilton.*—You have been a farmer, Mr. Leatham, or variously interested in farming, all your life? Yes.

1612. You have been an observant man among farmers, then, as to farming operations and requirements, all your life? Yes, sir.

1613. And when you speak of the advantages of irrigation at Bushy Park, for instance, do you believe that many of the other lands you refer to would be anything like as much benefited by irrigation as that particular property has been? Well, Bushy Park is naturally a very fine place, sir, and we have often thought among ourselves that sometimes they use too much water for their actual requirements there, the place being in the valley. But, apart from that, on the drier portions of the land about Bushy Park, the crops have been increased to a great extent by irrigation. In the lower lying portions, as I say, it has been thought, sometimes, that they use a little too much water.

1614. And as to what you said about Ellendale: we may take it that there, and all along the Derwent Valley, they are all thorough believers in irrigation, and all go in for it more or less? Yes, wherever they can get it. I may say that I do know they were trying to divert a part of the creek that goes over the Russell's Falls itself down into Fentonbury. I believe that that scheme is likely to be abandoned now. Of course, if that were done, it would spoil the beauty of the scenery of the Falls; but they were seriously trying to get the water into Fentonbury, none the less.

1615. You were speaking of the New Norfolk water supply, and the provision you make for irrigation there—they get that supply from the Lachlan, do they not? They get the water from the Lachlan River, yes.

1616. Is the Lachlan River of sufficient volume to continue to supply New Norfolk to the full of your requirements? Oh, yes; we have a real good supply. We do not interfere with the people living up on the Lachlan taking what water they require for irrigating their raspberries and hops, and that sort of thing, either; there is water enough for all of us.

1617. But what I want to ascertain from you is this: is the present water service sufficient if they choose to utilise it at New Norfolk for all their requirements? Not for irrigation purposes; there is plenty for domestic purposes. As I say, we do not interfere with the people on the Lachlan, and we have plenty of water for our household purposes, but there is certainly not enough for irrigation purposes.

1618. Therefore, if the Styx water were carried along there, it would be largely taken up for irrigation purposes on the New Norfolk properties? Well, I think, myself, that it would be very advisable for the New Norfolk Council not to issue irrigation licences at all, in that case; but to let the people get their water for irrigation purposes from the Hobart supply. The amount available for such purposes is very limited now—only enough for little vegetable and flower gardens, and that sort of thing.

1619. *By the Vice-Chairman.*—How far have you been up the Styx River? Oh, I should think I have been up the river to a point somewhere about seventeen or eighteen miles above Glenora.

1620. What is the size of the river at that distance up? Oh, of course, it gets narrower. In one particular place it is only just about as wide as this room.

1621. Where does it rise—on Mount Styx? Well, I am led to believe it does. Speaking by hearsay, I am told that it forms into two small creeks, one coming out of Mount Styx, and the other out of some marsh up there.

1622. Are there any habitations up the river? No, sir.

1623. You know the river—up there where the race used to come out? Yes; what we called the Styx Bottom.

1624. Are there any habitations beyond that? No. There used to be a hop ground about two miles up, but I think that's all cleared away now. It was in just a little corner, and I suppose it would be about two and a half miles above Glenora.

1625. A long way below the 700-foot level, that would be? Oh, a long way below it—yes.

1626. And above that 700-foot level, I suppose, we may take it that there is nobody living? No. I think the only private property along there is about a hundred acres belonging to my father.

1627. Is that above or below the intake at the 700-feet level? It is below it; and it would not interfere with the intake, anyhow, for there's a ridge between it and the river.

1628. There has been some talk of mineral discoveries on the head-waters of the Styx; have you ever heard of genuine discoveries up there? I once heard a man named Fenton say he got a colour of gold there; and, on the ridge I spoke of, between the Styx and my father's selection, there is a quartz hill. I know that, because at one time my father sent two bags of the stuff down for assay; but I don't know what result he got out of it. A party got a lot of those white quartz crystals higher up, at one time; I think Mr. Robert Read was one of the party.

1629. No leases were taken up though? No.

1630. How long ago was that, when that party went up? Oh, thirty years ago; perhaps, thirty-five years ago. I may say, while I think of it, that the furthest land held by anybody up on the left bank of the river is Mr. John Read's, what we call Wilson's Run.

1631. Is that above or below the 700-feet level? Oh, below.

1632. And there are no cattle running above the point of intake? No, nor sheep either—no stock of any kind.

1633. The country is absolutely in a state of nature up there? Yes.

1634. No contamination of any kind, that you know of? None, sir.

1635. Have you ever noticed any large quantity of sediment in the water of the Styx? No, I have not.

1636. Have you ever noticed the water dirty or discoloured in any way? Yes, at flood times it gets a little discoloured.

1637. Discoloured by button-grass, I suppose? I don't know what it is caused by.

1638. The water gets slightly brown? Yes; but it is never anything very bad—never worse than the Derwent.

1639. It is like the colour that button-grass gives to water in flood? Yes, just about the same.

1640. You do not know, I suppose, whether there is any button-grass up there? No, I do not; but young Raynor and some others, who were out there last year, say there is a big plain at the back—probably, a big marsh, I expect.

1641. The Russell's Falls River goes over button-grass in places, I think? Yes, it does. While I think of it, I'll tell you what I never noticed in the Styx River, and what I did notice in the Russell's Falls River only the other day—the day the Commission was up there. It is that green slime; I dare say the members of the Commission noticed it. We get it in the Lachlan. It clears off after a flood, of course; but I never yet noticed it in the Styx River.

1642. Now, taking it generally, broadly: you have had a lengthy experience of the Styx water, and you have drank it for—how many years did you say? From 1851, when I was two years old, until 1875, when I left it for two years. Then I went back for two or three years after that.

1643. And you always found the water clear and wholesome? Yes; many a time, when I was a boy up there, the schoolmaster has had to come out after me and run me out of the river.

1644. Now, the population up there—speaking specially just now of those people who have grown up in the district—are they healthy and strong? Yes.

1645. Got good teeth, and so on? I think so. I saw one of them riding here with the Contingent the other day, and he looked all right. Superintendent Conlan was brought up on the banks of the river.

1646. Is that case of goitre you mentioned the only one you have known up there? The only one—yes, sir; and, as I said just now, that was right away from the Styx.

1647. You do not know what doctor attended that family, I suppose? Oh, I suppose it would be Dr. Huston or Dr. Moore, perhaps.

1648. Have you anything you would like to add, Mr. Leatham? No; except only that I would like to add, that any one who said there was ever goitre on the Styx would be making an error.

1649. *By Mr. Propsting.*—Of course very few people live on the Styx, for one thing? Oh, there were a good number up there at one time. My father was a tenant of Captain Fenton, and we lived within fifty yards of the paddock behind Hoffman's. There were thirty or thirty-five other tenants and their families then living all round there: a very fair population. There were three hotels there in those days.

1650. I suppose the population was greater a good many years ago than it is now? Yes, sir. When the Shoobridge people bought Fenton Forest they cleared the tenants off; that is what has made those back places—Fentonbury, and so on. The tenants went back on to the land, and made Uxbridge and Fentonbury.

The witness withdrew.

EDWIN J. ROGERS, *called and examined.*

Mr. Rogers was sworn.

1651. *By the Vice-Chairman*—Your name is Edwin John Rogers? Yes.

1652. And you are a commission agent, carrying on business in Hobart? Yes.

1653. *By Mr. Guesdon*.—You have taken a considerable amount of interest in regard to sanitary matters in Hobart, Mr. Rogers? Yes, I have.

1654. You were for some time the Secretary of the Sanitary Association? I was the founder of it: I have not been Secretary of it for many years past.

1655. And the Secretary of it is still in your office? Well, no; the thing is now defunct. One of our clerks was Secretary at the time when it was last in existence; but, of course, that had nothing to do with the office.

1656. I suppose that you, in connection with your business, have regularly to deal with houses in all parts of the City? Yes.

1657. Well, generally speaking, do you regard the sanitation of this City as being in a satisfactory state? No, generally speaking, it is not—certainly not.

1658. Is the system of dealing with the pan-service satisfactorily carried out, for instance? That question I cannot answer. We hear of no complaints in connection with things of that sort. I think it is—speaking for myself. I think it is very satisfactorily carried out now; although it certainly was not at one time. Speaking personally, I think the efforts of the various sanitary associations have been the cause of the present satisfactory service.

1659. Is the present system of dealing with house-garbage and refuse satisfactory? I do not think it is particularly satisfactory.

1660. Do you not think that that is a service that ought to be undertaken by the Corporation? Yes.

1661. Do you not think that if the Corporation undertook it, and levied a uniform rate to cover the cost, it would be a distinct saving to the public? To the public—how?

1662. Well, the cost to the public of a rate sufficient to cover the cost of taking out and carting away this rubbish would be less than what they have to pay now in order to deal with the stuff by individual effort, would it not? As far as I know, the system of moving the garbage now is such a go-as-you-please style of thing that I do not think the people really trouble their heads much about it. Well, I suppose they do pay for the cartage of it, but we hear very little about that.

1663. When you say that people do not trouble their heads much about it, are we to infer that it is your experience that people do not remove their rubbish? I think they must remove it.

1664. And when houses become vacant do you generally find a lot of rubbish left there that has to be carted away? Yes, particularly in suburban places. In the Glebe, there is generally a claim from new tenants for clearing away rubbish.

1665. And in the City of Hobart? Oh, in the City we do not hear much about it.

1666. I suppose people do it without complaining? I presume they do.

1667. Then will you explain what you mean when you say that you regard the present scheme or system of dealing with house-rubbish as unsatisfactory? I think it ought to be done regularly every week. A man should go round and clear away the rubbish in every yard every week, the same as they do with the sanitary pans; and the thing should not be done, as it is now done in the City proper, by leaving rubbish-boxes out on the pavement at night to be upset by stray dogs and larrikins, and so forth.

1668. Then if this proposed system of carting away this rubbish once a week were in force, do you not think that it would be much more economical for the public that it should be done by the Corporation, preferably to it being done by the ratepayers individually? It ought to be more economical; but then there is the matter of rateage again.

1669. In your experience what do they charge a week to empty and cart away rubbish from a house? I do not know; we never hear anything about that.

1670. Can you get a load taken away under a shilling or eighteenpence? No, I suppose eighteenpence a load would be about the thing—perhaps a couple of loads might be taken at a shilling each.

1671. And if an individual ratepayer had to pay eighteenpence every week for the removal of a load of rubbish from his house that would be equivalent to a tax of £3 18s. a year? Yes.

1672. Carters would not call for less than a shilling a week, anyhow, I suppose? No, they would not.

1673. What do you consider is about the average rental in Hobart, taking the tenants all round? That is a question I could not answer.

1674. But speaking roughly, approximately? Well, I suppose, the average, taking them right through would be about eleven shillings or twelve shillings a week; but, mind you, that is nothing but a very rough haphazard estimate.

1675. Then a payment of fifty-two shillings a year by each individual tenant for the carting away of this house refuse would be equivalent to a rate of about 2s. in the £? Yes, it would seem so. But still there is no reason why the man should go specially to any one house every week. If a man were to go round regularly with a cart from house to house, that difficulty would be overcome. There is no reason that I can see why the work should not be done by the Corporation on the principle of the pan system. Let the Corporation supply a pan or receptacle for refuse to every householder and see that it is emptied regularly.

1676. Yes; but that is not what I am aiming at just now, Mr. Rogers. I want to get at the difference of the cost to ratepayers between this work being undertaken unsystematically by each ratepayer, and the work being done by the whole of the ratepayers, through the Corporation—see? Yes; well, of course, if the Corporation sent round a cart in the way I am suggesting, the work would be done by the Corporation.

1677. Let us get the thing clear. If each individual householder has to deal with his rubbish separately, and it costs him a shilling a week to do it, that, on the £30 average rental, would be an average tax of getting on for 2s. in the Pound? Yes.

1678. Now, if the Corporation were to undertake it, I suppose the necessary rate would not amount to so much as the present sanitary rate? No, it would not.

1679. It would not amount to more than a three-penny rate? No; I do not think so.

1680. It has been estimated, I may tell you, that it would not exceed a three-halfpenny rate—what do you think? I should say that the work would cost a merely nominal amount, if it were done systematically by the Corporation, because there would be nothing like the work there is attached to the sanitary service.

1681. And you think it would be much better, in the public interest, if that service were undertaken by the Corporation? Undoubtedly; it would be much better.

1682. And it would be to the benefit of the public pocket to pay a small rate instead of ratepayers paying individually, as at present? I think it would.

1683. From your knowledge of these various houses with which you have to deal, do you regard the present water supply of Hobart as adequate for the requirements of the City? Yes, taking it right through, the houses get a very fair supply.

1684. For all purposes? I am speaking of domestic purposes pure and simple.

1685. Do you ever hear complaints of the water being cut off in various districts of the town? No.

1686. I suppose such complaints might be made direct to the Corporation without reaching you at all? Very likely; they would be referred from our office to the Town Hall, in any case.

1687. Do you ever get any reports from members of your staff as to the state of the gutters in various parts of the town? No, not from our staff.

1688. And you do not get complaints of offensive gutters from tenants? No; people can see the gutters for themselves when they go to see the houses, in the first place.

1689. Well, from your own experience, do you think that sufficient water is used for flushing the gutters? Oh no, not nearly. I take particular notice of the gutters, and I say now, the same as I have said for years—I think they are in a dirty, filthy state.

1690. Do you think the fact that the gutters are not flushed more frequently is due to the scarcity of water, or to the negligence of the Corporation authorities? Well, I think that is probably due to—I would not say negligence, but want of management in the sweeping of the gutters; because these gutters should be swept regularly, even if the Corporation had not the water to flush them. But, of course, those that know all about it in the Corporation say they have not sufficient water to flush the gutters properly, and the public have to be content with that. Every time you tackle an alderman he will tell you that.

1691. You have, at times, taken prominent action in this matter, and expressed yourself in emphatic terms about the sanitary condition of this City, at meetings of the Sanitary Association? I have.

1692. Has that resulted in any unpleasant counter action being taken by the Corporation against your office? Well, no; I cannot say it has.

1693. I think I can call to your mind a certain circumstance in connection with which your name was used improperly? Yes, it was.

1694. Would you mind stating what that case was? Well, at the time when we moved in connection with the introduction of the bubonic plague, there seemed to be a deal of displeasure amongst the members of the Corporation; they did not seem to think we should interfere in these matters. On that the Mayor said that we had a number of places ourselves that had not received proper attention. Of course, that came to me in an indirect way, and I went round to the Town Hall and tackled him about it.

1695. What was the statement he made? That some back-yards of properties that we were agents for had not received proper attention. Well, of course, I pointed out to him at once that we have nothing to do with that; that is the tenant's affair. We could not possibly go round and see that the occupier of every house we have to deal with cleans his back-yard; that is the Corporation's business. We do all we can; and I explained that to the Mayor. He said he had not said anything of the kind; it was one of the other aldermen that made the comment; and I think it was Alderman Snowden he named. He said, "Here's Rogers kicking up a row, and he's as bad as any of them." The Mayor said, "Mr. Brain tells me that your office always attends promptly to any complaint that may be made," and there the matter ended.

1696. Were you not at the same time served with a summons for certain matters as to which you were able to produce a receipt? I cannot call it to mind.

1697. I think you showed me some documents, and said you had received a notice, and here were the receipts—or something of that kind. Do you remember now? Yes; I remember something, but cannot quite call to mind what. I vaguely recollect something of the circumstances.



1698. At all events, it was in your mind at the time that the unpleasant action was taken as a counter move to your own action in taking a prominent part in this sanitary agitation? The idea might have been in my mind at that time; but, taking it right through, I get on very well with the members of the Corporation. At that time, for a day or two, they were a little bit sore, and thought we had no right to interfere. I think they are pleasant, as a rule.

1699. And you were not alone in complaints of that sort of treatment, among members of the Sanitary Association? I do not know.

1700. *By Mr. Propsting.*—Why was the Sanitary Association formed, in the first place? Because of the dirt and filth of the City, and the streets generally, and the insanitary state of the sanitary arrangements of the Corporation at that time. It was at the time when Mayor Hiddlestone occupied the chair at the Town Hall, and the sanitary carts used to be about at all hours of the day, even as late as one o'clock in the afternoon. At that time it struck me so forcibly that something should be done because of something I saw myself one day. A gentleman rushed into my office one morning, accompanied by two ladies, and they banged the door behind them so loudly that I went out of my room to see what was the matter. He said, "I must apologise to you for rushing into your office in this way, but there's such an abominable stench outside that we had to get in anywhere to escape it." I went to the door then, and looked out. A cart was passing at the time, and the contents were slopping out all down the road in a most disgusting way.

1701. A night-cart? Well, it was evidently a day-cart in that case: it was a pan-cart. I chatted to two or three people about that, and we were all agreed that it was fully time that something was done to remedy such a state of affairs; and, among other things, that the gutters should be cleaned. At that time, things were in a very bad way about the City. Rats would be caught, and thrown out into the middle of the roadway, and there they would be left to fester and rot for days and days together. I used to notice such sights frequently as I went round in the 'bus. These things were the origination of the Sanitary Association; its object was to do what was possible to remedy them; and it, undoubtedly, did a deal of good while it was in existence.

1702. But the chief object was really to confine the perambulation of the night-cart to the night, was it not? Yes, I suppose it was.

1703. You spoke of the state of the gutters then; have they improved very much since? I do not see any improvement, except right in the middle of the City: I think they do keep them a little cleaner there. But the improvement, such as it is, certainly does not extend beyond Melville-street or Brisbane-street.

1704. Do you think that any marked improvement in the sanitation of the City, and the sanitary condition of the City generally, would necessarily entail a much heavier rate than is at present levied upon householders? I do not think it would mean a much heavier rate, but I know what it would do, apart from that: it would mean a very large increase of population. No one knows better than I do that at present visitors from the other side are always afraid where they go to in Hobart. Every little sickness they come across they think is typhoid. The dog has a bad name.

1705. You have many inquiries from the other side during the summer season? Yes, a good many.

1706. And do the people who write to you mostly make inquiries as to the health of the locality? In every case. A gentleman from the other side—an architect—came here a month or two ago. He looked about, and he laughed at me when I told him that, notwithstanding that the place was not as sweet as we would like it to be, it was healthy. He said, "You will never have health while you have these open gutters; we know all about that in Sydney." He was afraid to bring his family into the town. He settled at Kingston, because his wife was so afraid of every little hole she saw, and so forth. Of course, that sort of thing is very detrimental to Hobart.

1707. And what about the creeks in the City, Mr. Rogers?—You had occasion to consider that subject at one time, had you not? Well, I think they are keeping the creeks much cleaner than they did. I think the Park-street Rivulet is kept in a better state than it was, for one.

1708. Then that creek is not in such a bad condition as it was years ago? Well, I think the system of sweeping it is better; they seem to have men going through it more frequently. I know it, because I have a property there, and I gave them a piece of land only the other day, where my property carried over the creek. They seemed to have worried about that, and, I suppose, they worry about the rest of it.

1709. Do you ever hear of people objecting to going to live by these open sewers? Oh, yes; some people would not live near them if you gave them a house rent free. Others do not object, and so the houses are occupied.

The witness withdrew.

MONDAY, APRIL 1, 1901.

WILLIAM DUNCAN, *called and examined.*

Mr. Duncan was sworn.

1710. *By the Chairman.*—What is your name? William Duncan.

1711. And what is your occupation? I am a builder and contractor.

1712. *By Mr. Propsting.*—And you are at present building the new Custom House for the Government? Yes.

1713. Have you been troubled by an inflow of water in the foundations there? Yes; very much.

1714. Will you tell the Commission how it occurred, and what the character of the trouble was? It was a trouble to me almost from the very start. When we got about four feet deep in the trenches, the water came in from the direction of Dunn-street.

1715. Was it fresh water, or salt water? Fresh water.

1716. Was it clear? Yes, quite clear and good.

1717. Had you any notion where it came from? No, I had not—not for a time, at any rate. But I got suspicious after a bit, and went to the Corporation about it, and they tried to make out that the water was not coming in from any of their mains. Then I wrote to the Mayor about it, and I suppose there was about a fortnight's lapse before I got a reply. All that time I had been at them in the office, seeing the City Surveyor, and so on; but they did not seem inclined to take much notice of me. Then they wrote to me and told me that they had done all they could, that the turncock had tested the mains, and that there was no leakage anywhere. Then just after that the turncock came one afternoon and turned off the main in Dunn-street. That afternoon we were flooded, and the result of turning the water off in the Dunn-street main was, that next morning, there was not a drop of water in the trenches.

1718. The trench was dry? Perfectly dry.

1719. When did it commence to run in again? After we got down to a lower level it commenced again. The water, I may say, came along an old stone drain. Of course we tore that up, and when the trench was dry, the morning after the turncock turned off the water in Dunn-street, we went to work again. Then after we got to a deeper level the water came in on us again, and continued running all the time.

1720. How long was it after the trench got dry, as you have told us, before the water commenced running again? Oh, a few days. As soon as we saw it was dry, we went to work and got to a deeper level; then it started running again from the same point as formerly. It was a terrible annoyance to us the whole time we were digging there; and it is running there now. If you dig down about six feet, you will get it.

1721. Did you have to pump it, then, while you were working in the trenches? Yes, we had two pumps going night and day—had to.

1722. In order to cope with it? Yes.

1723. Have you any notion what quantity of water was running there when you were in the trenches? Oh, there is a lot of it. I suppose that now there is from eight to ten thousand gallons running every day, from that one point alone—must be.

1724. Do you know if after the Dunn-street main had been turned off it was turned on again by the turncock? I never knew that definitely; but still I had my own suspicion about it; because it was at the same point, although at a lower level, that the water again came in on us. After that it came all the time. I wish I had known definitely that it had been turned on again.

1725. You never heard that it had, I think, until just the other day? Not till the other day—no.

1726. Do you think that that water that gave you all the trouble could have come from the Hobart Rivulet? No; the place is too high, for one thing; much too high at the level at which the water came into our trenches. The reason why the water afterwards came in at the lower level is, that it is all made land about there, and it percolated down through the made stuff and came out where it could get vent again.

1727. Is it made land where you were sinking? Yes, all made land.

1728. It has been given by the turncock as his opinion that this water in the foundations probably percolates through from the Hobart Rivulet, at the bottom of Campbell-street, where the cement is broken—what do you think? That could not be; because the Hobart Rivulet is too low for that, taking into consideration the level at which the water came in on us.

1729. Well, assuming for the moment that it was not too low, would the water from the Rivulet be as fresh and clear as the water you describe, after travelling that distance underground? I do not think so. I don't know; but I don't think it would—not at all times; it might if there was a big lot of clean water coming down the rivulet. The water in the trenches was quite fresh and clear.

1730. Do you think, in ordinary circumstances, that the filtration through that distance would be sufficient to remove all evidences of it being drainage water? Well, I don't think so; because the creek was very low all last winter; there was very little rain. Most of the water that was in the creek was just the drainage and filth from the town. I don't think there would be sufficient filtration to make the water fit for drinking in that short space.

1731. Did you ever drink that water in the trenches? Yes, I tasted it.

1732. Was it fresh to the taste? Yes, quite fresh—quite nice to drink.

1733. *By Mr. Guesdon.*—I suppose that this inflow of water has caused a serious loss to your pocket, Mr. Duncan? Yes, indeed it has, sir; a great loss, besides keeping the work back. I was no less than eleven weeks fighting with that water.

1734. Roughly speaking, to what expense do you think you have been put by the trouble you have had with this water? I suppose about £200; but of course what I chiefly feel is the loss of time. If the Government puts on a penalty of £10 a week on me, of course it will be a serious matter; I am under a penalty of £10 a week to have the work finished in a certain time. I reckon that fighting with this water has kept me back a good two months; because the case was that the men simply could not work with my satisfaction. They were working up to their knees in water sometimes; we could not get it out fast enough. We just had to get it as dry as we could and then drive it ahead with the concrete.

1735. Well, unless this flow of water to the foundations is satisfactorily settled will it not be a very unsatisfactory matter in the building? Well, of course it won't do it any good; but you see it is all cement concrete, and it is founded on a rock. The place is being built on the flat rock, and I don't suppose there is much water getting through the building now. All the leakage will be going round the outside of the building and finding its way into the dock.

1736. Is there any cellarage accommodation in this building? No, sir. Then again, I may mention that nearer Macquarie-street, just exactly below the Bond gates, there was a tremendous leakage from somewhere.

1737. Another leak altogether, you mean? Yes.

1738. Did you mention that one to the Corporation, too? Oh, yes, they knew all about it, I was continually drawing their attention to it, but of course they tried to make themselves out free of any fault—they always do. I had just to fight it out as I best could. I tried the Government, and the Government would do nothing for me; and so I had to put up with it, and do the best I could.

1739. You are suffering from the complaint, unusual enough in Hobart, of having too much water? Yes, sir; there's enough useful water going into that dock now every day of the week to supply half the City. It was an eye-opener to me, and a great many more that saw it.

1740. *By Mr. Hamilton.*—From your experience, then, in connection with the building of the Custom House—making the excavations, that is—you are quite satisfied that your water trouble arose from leakage or escapes from the water-mains? Yes, Mr. Hamilton; I think the most of it came from there.

1741. Well, you say, Mr. Duncan, that when the water was turned off in Dunn-street the foundations became perfectly dry? Yes; that is a proof, you see.

1742. And, then, when it was turned on again —? Well, the trouble continued, anyhow, right until we got up above it.

1743. Do you know where they turned the water off? No, not exactly; but it was somewhere in Dunn-street—about the Market, somewhere, I should think. If any of you gentlemen had seen the trench the night before the water was turned off, and then saw them again the next morning, you would understand, easily enough, where the water came from. We were perfectly flooded that afternoon; and the next morning, to the surprise of all of us, there was not a drop of water left in the trenches. That was proof enough. The turncock came down there pretty early next morning to see the result, and I said to him, "You turned off the main last night, didn't you?" He said, "Yes, I did." I said, "Well, you see the result this morning." But I never knew definitely that they had turned the main on again, or I should have been at them about it. I am very glad now that I have got that knowledge.

1744. *By the Chairman.*—Then it has been proved to your satisfaction that this influx of water to your foundation trenches came from a defective main? Well, what I have told you was proof enough, Mr. Patterson.

1745. You are quite satisfied that it was so? Yes, quite.

1746. Have you had a large experience as a builder in Hobart in connection with other jobs? Yes, fairly large.

1747. Well, from that experience, have you come to any conclusion as to the soundness of the leading mains in this City—that is, as to whether there is any other leakage, to your knowledge, in other mains? Well, my experience at the Custom House is a pretty good indication that there is; but, of course, I can't prove it.

1748. I understood you to say that there is enough water running to waste into the dock to supply half the City? So there is, right up to the present day. All the water that I had to contend with is running into the dock still, and has been, in all probability, for years past. Although it may never come to the surface, it gets into the dock all the same.

1749. Do you remember when the contract for the new dock was carried out some years ago? Yes.

1750. Were you troubled much with water there then? I don't know, sir; it was not my contract. I could not say for a fact whether they were troubled; I think they were, so far as I remember. I have not sufficient knowledge to say definitely, because I was not personally interested in the work.

1751. I suppose you do not know the age of the main in Dunn-street, do you? No, sir, I don't; but I am told that it was one of the first mains put down. That must be about forty-one years, I think. It is about that long since they opened the waterworks.

1752. You say that you had considerable difficulty in getting the Corporation to look into this matter of the water? Yes. I got this letter from the Town Clerk, after three weeks' delay. Unfortunately, I wrote my letter to him in a hurry, and did not date it. However, this is the reply I got.

Hobart, 5th June, 1900.

SIR,

I have the honour to acknowledge the receipt of your letter undated, referential to leakage of water in excavations, Dunn-street, and in reply have to inform you that every endeavour has been used by our officials to ascertain the whereabouts of the leak; but, up to the present, have been unsuccessful. I enclose herewith copy of a report from the City turncock on the subject.

I have, &c.,

J. W. C. HAMILTON, Town Clerk.

Mr. W. DUNCAN, 297, Liverpool-street, Hobart.

The Report of the turncock he enclosed was dated 4th June, and addressed to the Director or Waterworks:—

SIR,

I beg to report that on the 22nd of May last, when Mr. Duncan first drew my attention to the water in the excavations in Dunn-street, I inspected the works, and decided to take the pressure on the mains, as this would be the surest guide as to any leakage. This I did, with the result that on the new 3-inch main in Dunn-street the pressure read 118 lbs., showing conclusively that the main is thoroughly sound. On the old 3-inch main the pressure indicated only 28 lbs., this low pressure leading me to suppose the leakage was coming from this main. I had the water turned off at 5 p.m., with the result that on the following morning the excavations were practically dry, and I have left this main shut off ever since. But on the excavation being sunk to a greater depth a fresh stream of water has been met with, coming, apparently, from the same direction, the source of which I am unable to locate. I feel certain it is not from the mains in Macquarie-street, for the slightest leak in the mains or service pipes in this street shows on the surface immediately, and, in addition to this, the pressure on the main here is 114 lbs.

Yours, &c.,

S. WATERS, City Turncock.

I may say that I was always anxious for them to turn off that Macquarie-street main for a night, just to test the matter; but they wouldn't do it.

1753. *By Mr. Guesdon.*—You have asked them to do that, you say? Yes, frequently. There is a stream of water coming from the corner of the building, near the old Bonding Warehouse. We excavated down there below the level of the foundation, and there is a stream of water coming down there that would supply three or four City streets.

1754. Fresh water? Yes; quite fresh and sweet.

1755. *By the Chairman.*—But surely the leak from that corner could be easily traced? That is why I wanted them to turn off the main at the higher level, up in Macquarie-street. I asked them to turn it off just for one night, in order that we might see if it would make any difference. The water in the foundations was really a terrible trouble to us. The poor fellows were working up to their knees in water, and we simply could not keep the water out.

1756. It would have been a very simple matter for the Corporation to turn off the water for one night, and leave a man at the stop-cock to turn it on again in case of fire? It seems simple enough; I don't see any serious difficulty about it; but they thought otherwise, and wouldn't do it. If they had had the same trouble as I had they would have tried any scheme to find out the source of the leak; but those not interested do not trouble themselves, as a rule.

The witness withdrew.

#### JOHN G. SHIELD, called and examined.

Mr. Shield was sworn.

1757. *By the Chairman.*—Will you state your name and office to the Commission? I am Inspector of Public Buildings.

1758. What is your full name? John George Shield.

1759. *By Mr. Propsting.*—You have had occasion, several times, to visit the Customs House now being erected? Oh, yes; I am there daily. I am the officer in charge of the work.

1760. On behalf of the Government? On behalf of the Government—yes.

1761. Do you know anything of a flow of water into the foundation excavations there? Yes; I do sir.

1762. When did you first notice it? Well, I could not give you the date.

1763. Well, what stage was the work in at the time? They were excavating the foundations. I have brought the plan down, so that I can point out the place. [Witness refers to plan.] Having got down about five or six feet, we came across what appeared to be an old drain running across from the New Market—a drain which is thought had been put in purposely to carry away the water. As soon as we took one cover off this drain, we found that there was a big stream of clean water in it, running full-bore. The drain, I suppose, was about fifteen inches wide, by nine or ten inches deep.

1764. *By the Chairman.*—Running full-bore, did you say? Well, pretty well. Of course, it was pretty flat, but there was a very good stream of water there. I went down into the trench myself, to see what sort of water it was. I thought it was probably the tide that had been backing up, and was running out again; so I went down purposely to taste it. I found it clear and fresh. We afterwards found that it was above the level of the salt water.

1765. *By Mr. Propsting.*—Do you know when the Corporation turncock turned off the Dunn-street main? Oh, yes; in fact, it was when both myself and Mr. Maddison told the contractor that we found the water was fresh, that we first thought there must be something wrong with the mains. We said that as there was such a big stream running away to waste, he ought to go and report the matter at the Town Hall, and ask them to turn one or two of the mains off for a bit, to see if it would make any difference to the flow.

1766. And was it done? Yes, they arranged to have it turned off one afternoon at 4 o'clock.

1767. Did it make any difference—did you go down next morning? Yes, I went down next morning, and found the trench practically dry; in fact, it was that dry that we started the men to work straightway in the place where the water had been running to such an extent the day before. The men turned to, and got well down below that; and afterwards, the water flowed in again very freely. We could not tell, then, where it had come from, because the drain was all pulled away. It just came in among the loose rubble.

1768. Apparently coming from the same direction as before? Oh, yes; it all came from the same direction.

1769. How long was that Dunn-street main turned off—do you know? I never knew it was turned on again until I was told so a day or two ago by Mr. Duncan. That was where the trouble of it was; because we could never make out where the water came from afterwards, and yet it was fresh water all the time. You see, we had thought that the main was turned off for good, because the turncock said there were only one or two connections on it, and one of those was the old urinal on the wharf, which had been done away with by the Marine Board. The water in the main was not wanted, and we thought it was still turned off.

1770. Was there any other inflow of water, at any other part of the excavations? Well, sometimes, at a very high tide, it would come in along the whole front.

1771. But was there any other flow of fresh water anywhere? Well, there was some soakage at another place, but nothing like the flow I am speaking of. There was some soakage from the freestone bank in the yard, up by the roadway, where you go into the Bond; but nothing like the quantity there was at the other place.

1772. Can you give any idea of the quantity of fresh water that was flowing through from the old drain you have spoken of? Well, I should say it would take a good 2-inch main, at the least, to carry the quantity of water I saw flowing there; that is, judging by what water you get when you turn on a 2-inch or 3-inch hydrant into the gutter; it was just such another flow as that. Anyhow, it was that much that it kept him pumping the whole time at that one spot. We had to keep on pumping till we got the whole of the concrete in. It was still flowing then, and I suppose it is flowing away now.

1773. And all that water is running into the dock? Yes.

1774. *By Mr. Guesdon.*—Can you give us an idea of how long you were free from the flow of water during that time you spoke of—you say that the trench was dry, or practically dry, after the water was turned off at the main in Dunn-street, and you started the men to work? Yes.

1775. And you say that since then the flow of water has returned, and you have it as strongly as ever again? Oh, yes.

1776. Well, how long were you free from that flow after the water was turned off that day in Dunn-street? Oh, I don't think above a day or two—say a day, perhaps; because, you see, we put half a dozen men into that trench straight away, and got the stuff out right down on to the rock.

1777. You were only free from the water for a day or two, then? That is all.

1778. Then, if that leakage came from the Dunn-street main, the Dunn-street main could only have been turned off a couple of days? That is all, at that rate. It was a puzzler for us, because, we could not say where the water came from, once that drain was broken up. It was all lost labour.

1779. Then if the City Turncock certifies that he turned the main off, and did not turn it on again for a considerable time afterwards——? Then, of course, that water would not have come from that main. But the Clerk of Works would have a better idea as to that. I never took a great deal of notice of the water after we got the trench out, but the Clerk of Works was there through the whole time; he would know.

1780. What loss do you estimate that Mr. Duncan sustained through this flow of water—is it a serious matter for him? Yes. You see, it is not only the cost of the pumping; he had to give some of the men extra pay to work in the water, I know. He used to pay these men two or three shillings a day extra to get that stuff out.

1781. Well, roughly estimating it, taking into consideration the cost of pumping, the loss by way of extra pay to the men, and the penalty he may have to pay under his contract for delay in completion of the work, at what do you estimate the loss to him caused by this flow of water? Well, it would be a difficult matter to get it, you see. When we sank those trial holes, a certain amount of water came in, and I provided in the specifications for pumping to keep the foundation dry to that extent, while the concrete was being put in. That is practically provided for

in his contract. But, we thought, then, it would only be ordinary soakage or sea-water; we never thought there would be a big constant stream like that.

1782. Well, do you think his loss would be considerable? Oh, there is no doubt about that. It was that serious that he was nearly throwing the job up through it, when he saw the body of water. He said that if it had not been for his deposit and the expense he had gone to, he would throw the job up; he was thinking seriously of it.

1783. *By the Chairman.*—I suppose the chief factor in his loss would be the loss of time preventing him completing his contract in the specified time? Yes, that and the extra labour involved in shovelling all the stuff out among this water. You see, a lot of it had actually to be filled into buckets, because it was so sloppy. You could not shovel it out.

1784. You have had a long experience of buildings in Hobart, I think? Yes; and twenty-two years, in my present position.

1785. From your experience, have you arrived at any conclusion regarding the condition of some of the mains of the Hobart water supply? Some of them are in a very bad state—corroded up—not a doubt of it.

1786. And have you come to the conclusion that there is a large amount of waste through leakages? Yes, there is.

1787. You have no doubt about that? Oh, no; there is a lot of waste going on.

1788. Do you know if any serious steps have been taken by the Corporation to ascertain the condition of the leading mains here? Well, I have seen them testing them; but that was some years ago.

1789. Do you know of any other big leakage besides this one at the Custom House, that has come under your own personal knowledge and observation? Well, I know that there was one in front of Mr. Hiddlestone's shop, in Elizabeth-street.

1790. Was that of long standing? Yes; that was a peculiar case, too. They could not make out for a long time where the water was going to, and they accused Mr. Hiddlestone of wasting it through his water-closet. But he denied that he was wasting any water at all; he told them to look at their mains, and they would find where the water was going to.

1791. And did they examine the mains? Yes; and they found, then, that a 6in. or 8in. main had blown out, and the water was running straight into the sewer below. There is a large sewer running down Elizabeth-street.

1792. The whole joint was blown out, do you mean? Yes, sir; the whole joint was blown out.

1793. And how long had that fault been in existence? Well, from what he told me at the time, it had been some weeks.

1794. There was enough water wasting there to fill a 3in. or 4in. main, I suppose? Oh, yes; a lot of water. It just ran away into the sewer, and then emptied into the main creek, near Walch's.

1795. Of course, you know that it has been stated that the consumption of water here per head per diem is largely in excess of the consumption in sub-tropical countries, such as South Australia and New South Wales? Yes, I have seen that stated in the papers; at the same time, I don't believe it.

1796. Then, in your opinion, is the large apparent consumption due to the leaks in the mains? The way I have argued it, over and over again, when the Corporation figures have come out, is in this way. If the consumption is as stated, then, all our drainage being on the surface, we should see the water running down the street gutters. As a matter of fact, you see very little of that. If there was anything like a consumption of sixty gallons per head per day, you would see it—any quantity of it.

1797. Then you think a large proportion of that sixty gallons is due to leakage from defective mains? Yes.

1798. *By Mr. Propsting.*—Do you think it would be possible to convert the cobblestone gutters into a much more serviceable condition by asphaltting them? I do.

1799. Can you give us any idea of the cost of that—say, per mile, or per chain? Yes. I believe that all the gutters in Hobart could be vastly improved, and I have advocated it over and over again. I have done them myself at Government House, and in other places belonging to the Government. Cleaning the crevices well, and filling them up with fine, tarred metal siftings, or sand, would make very good gutters of them. Of course, where there's a big flow of water, and the gutter is constantly wet, they would have to be specially prepared.

1800. Would such a gutter stand heavy traffic—carts driving into it, and so on? Oh, yes. I have done yards in that way, and I have done stables in that way. Cobblestones filled up make a splendid key for asphalt. You see, if you asphalt, you put the dry, loose metal underneath; and if all these holes between the cobblestones are cleaned out, and it is well dried, and you fill it up to them, you get a good foundation to start with.

1801. *By the Chairman.*—What is the cost of a square yard of asphalt, say one and a half inches thick, on these cobblestone gutters? It would not be a shilling a yard. In Launceston they do it for about sevenpence or eightpence.

1802. *By Mr. Propsting.*—Could it be done for sixpence a lineal yard? Yes, I should think so. We have done it at the New Norfolk Asylum, and all about the places there.

1803. Now, assuming for a moment that these gutters in the main streets could be done for £40 a mile—would that be money well expended in washing those places clean and sweet and healthy? Yes, it would so. I have advocated that for the last twenty years with every City Surveyor that has been here.

The witness withdrew.

JOHN MADDISON, *called and examined.*

Mr. Maddison was sworn.

1804. *By the Chairman.*—Your full name, Mr. Maddison? John Maddison.

1805. What is your occupation, Mr. Maddison? Clerk of Works.

1806. For the Government? Yes; for the Public Works Department of the Government.

1807. And you have been Clerk of Works for that new Customs Building? Yes, I am Clerk of Works for that now.

1808. You know [Mr. Chairman refers to plan] this corner of the new building, at the corner of Dunn-street and Davey-street or thereabouts? I do so.

1809. Can you tell us what you discovered there when the contractor had excavated two or three feet in the trenches—in the way of an influx of water, I mean? We discovered a rough stone drain. That would be, I suppose, some five feet deep: I do not know exactly. That drain seemed to me to be—(as near as I could tell; it was very rough, and had a lot of rubbish about it)—about fourteen inches wide and ten inches deep, and it was flowing full. When we lifted up the cover the water came out as though it had been coming out of some place with a big pressure behind it, and flooding the whole of the trench until the men had to leave their work.

1810. Was that water salt or fresh? Fresh water; perfectly clear.

1811. Do you remember at any time a main in Dunn-street being turned off by the Corporation, to test whether this inflow to your foundations come from that main or not? Yes, I remember that. I did not actually see it turned off; but Mr. Duncan told me he had arranged with the City Turncock to shut the water off at four o'clock that afternoon, and I remember seeing the turncock at different times the next morning, after the water was shut off, come and look into the trenches, which were then perfectly dry. When I came along that morning, and looked into the trench from a little distance, it reminded me of looking on a bank of washed sand, with boulders pushing up through it. The sand was dry, and the cobbles sticking up clean in it.

1812. There was no water there at all? There was no water flowing, where it had been all flooded the day before. You could walk dry-shod right over the top of it.

1813. Did that prove anything to your mind as to the source from which the water came? Well, we naturally concluded that the 3-inch main in Dunn-street, which had been shut off the previous afternoon, had a big burst in it somewhere, that supplied that water. The water had dried up by next morning, anyhow; and we could not account for it drying up so quickly in any other way.

1814. And you are quite clear that this drying-up of the water followed immediately on that main in Dunn-street being turned off? The next morning we found it dry, as I have described; I am quite certain as to that.

1815. And did the water in the trenches cease running from that time on? It ceased for a time; for just how long, I could not say. But when we got down lower, and got a lot of the earth taken away, the water came in on us again.

1816. As badly as ever? Well, at times it seemed to be coming in with just about the same force, as far as I could judge. Of course, the contractor had the pumps at work again; and it was a very laborious task to get this water out, especially in the mornings. In fact, the contractor had at last to arrange to have the men going through the night; otherwise, we would not have been able to have the men working in the trenches half the day.

1817. In your opinion, did that water come from the same main all the time? Well, that I could scarcely say; it was impossible, really, to say where it came from. Only, we had the water in the trenches, and when that main in Dunn-street was turned off, we lost it. That's all I know.

1818. Was that main turned on again, to your knowledge? That I could not say.

1819. Did you, without looking for absolute proof, come to any conclusion in your own mind about the matter? Well, it was a bit of a puzzle to us to know where all the water came from again when we got a little lower down; and, knowing that the 3in. main in Dunn-street had been turned off, we felt all the more puzzled to know where the water was coming from. So we just set to work as best we could to cope with it, and had men going day and night at the pumps.

1820. Do you suppose that the water in the main was turned on again after a certain interval, or not? Well, in that particular place, where the old drain was, there seemed to be a big influx of water; it seemed to come in with great force. But how it got into that old drain we could only surmise—we could not say; but it was very clear, apparently fresh, water, and quite sweet.

1821. Have you had any lengthened experience in Hobart in connection with the construction of buildings, other than that you have had recently? Well, I have had to do with other places. We had a good deal to do with what is now the new Post Office site. We had some water that used to come in there, and we could not make that out. We had a syphon there for several years. I used to look after that syphon in connection with my other duties. For a long time I laboured

under the impression that that water came in from a defective pipe somewhere; and now that the building has been taken down, the water seems to have disappeared, which, to my mind, bears out what was my own impression. There has been a water supply there for years, which is now cut off. All the pipes are cut off which were supplying that place, and now there is no spring of any sort, and no water coming in there, except the rain-water. I had control of the work of the Public Buildings—all alterations and repairs, that is—for seven years, and likewise the Technical School. That is about the extent of my experience in Hobart.

1822. Are you aware of any other leaks from defective mains that have occurred in your own experience here? No; I do not know of any other.

1823. *By Mr. Propsting.*—Do you think it is possible that this inflow of water at the Customs House could have come from the Hobart rivulet? No, I do not.

1824. Why? Because the Customs House is too high, for one thing.

1825. That is to say, the Hobart rivulet is lower than these excavations? That is my opinion.

1826. Did the water that came into your foundations show any evidence of being drainage water? No.

1827. Did you taste it? I did. I tasted it, sometimes, for this purpose: having, of course, to act in the capacity of Clerk of Works, I was afraid of any salt water being used in the work, and so I tasted it to find out whether it was sweet, or otherwise, but I did not find any trace of salt in it. In addition to that, when the water was coming in, except when it was disturbed by the workmen, it was as clear as crystal. That water is flowing there to this day.

1828. Can you give us any idea of the quantity of water that was flowing in your trenches? It would be very difficult to arrive at the quantity. You might say ten thousand or twenty thousand gallons a day, and perhaps more than that. I am strongly of opinion that there is some defective pipe somewhere, and that there is a very large quantity of waste water of that sort running into the dock now. That is my own opinion from my experience in that particular place, and from what I was able to judge of the character of the water that came in.

1829. *By Mr. Guesdon.*—When that main in Dunn-street was turned off, how long were you free from that water—water has troubled you since in the same place, has it not? Yes, it has.

1830. How long were you free from the water trouble, after the turning off of that main? I could not say. The contractor came to me after I had examined the old drain, and found the big inflow of water, and said, "Well, look here, Mr. Maddison, I am thinking very seriously about giving up my contract." I said, "I could not advise you as to that, Mr. Duncan. You know best." He said, "Well, if this water is to flow on at the rate it has been flowing lately, I might get out of it with a loss of two hundred pounds, if I gave it up now; but goodness only knows what I shall lose before I am through, if I go on with it." For some days after that—after the main was turned off—we worked comparatively dry, perhaps for a week. The drain flooded us on the 16th of May.

1831. Do you mean that was the first day the trench was flooded? Yes, that is what I mean; that was the first day. Then it was some few days after that before the main was turned off. But we had some days free then, and when we got to a deeper level we found the water coming in again, and it was a very great source of trouble after that.

1832. *By Mr. Hamilton.*—Have you any idea what loss that drain has caused to Mr. Duncan in carrying out his contract? Well, that would be rather a difficult thing to estimate. It would be something considerable; because men were going all night pumping, and very often a few hours in the morning before they could get to work in the trenches. It was cold weather, and the men were messed about so that they could not work properly. I suppose his loss would be £150 to £200, roughly speaking.

The witness withdrew.

WEDNESDAY, APRIL 3, 1901.

J. W. C. HAMILTON, *called and examined.*

1833. *By the Chairman.*—Your name? John William Chancellor Hamilton.

1834. I believe, Mr. Hamilton, that you are Town Clerk of Hobart? I am.

1835. *By Mr. Guesdon.*—When were you appointed Town Clerk, Mr. Hamilton? On the 1st of February, 1898.

1836. And you took the appointment over from Mr. Steward? From Mr. Steward, yes.

1837. Of course, when you took over your office, I presume that you necessarily went into the whole system of administration of the financial affairs of the Corporation? As far as I could—yes.

1838. I suppose that you really have control of the whole of the department? Yes; I have control of the whole department.

1839. Did you discover any necessity whatever for remodelling the department? No; you see, I luckily had followed on the term of Mr. Steward, and my work, at the outset, was materially simplified by that fact: he had had a month of solid "graft" at the re-organising of the whole of the offices, which, in his opinion (judging, that is, by the information he gave me), was badly needed. I made notes of what he told me. He gave me his own notes.



1840. Have you the notes now? Well, no; I have not got them now. The notes he left were, really, only for my own personal information; but after discussing the whole subject with him for three days I knew pretty well what his ideas were. I have carried on the work on the lines which he suggested—a course which, in my first departmental appointment, I thought would be an excellent one to adopt, if it could be carried out.

1841. Do you consult with the Accountant, and advise the Corporation with regard to making financial provision for contingencies which may arise in regard to the removal of water-mains? I have done that all along: not so much with the Accountant, however, as with the Director of Waterworks. In almost one of the first conversations I had with the Director of Waterworks, he was regretting the fact of the Corporation not having had a renewal account that would enable them to deal properly with the water-mains. I asked him then, "What renewals do you reckon would be required?" He said, "I can only estimate that forty miles of new mains would be required, at the least." I said, "Why was not a renewal account provided?" He said, "Give me an easier one; there never has been a renewal account." He told me, that in conversation with members of the Corporation his cry had always been, "Give me a renewal account?"

1842. Did you mention that conversation, or the purport of it, to the Mayor and Corporation? Oh, all the aldermen were immediately seized with the necessity of it, at the time of Water's appointment as turncock. He was naturally led to go out and examine the existing mains and services when he took up his duties. He went into it thoroughly, and he found that a lot of the mains were in a very bad state; three of them, in particular, there were that he reported personally to me—one in lower Macquarie-street, one in St. George's terrace, and one in Byron-street. Those three, he told me, would not stand the point of a knife. He told me all about those three mains: he said, "They have taken up the mineral from the ground; the ground they lie in has a peculiar tendency to eat into the pipe." Now I think of it, there was another main he mentioned—at Fitzroy Crescent. A report came in from the late turncock, Buchanan, because Mrs. Henry had a fire along there. He said he should refuse to have a fire-plug put on to that main; it would not stand it. He said the only thing that saved it at all was that, in places, it was buried eight feet underground. It is an original Government main—one of the first put down, and he said it is now merely nothing but hard plumbago. He brought one or two pieces of the main, where it had been broken, and showed them to the Waterworks Committee. He said, "This is what I have to contend with, and I can do nothing with your water-service until twenty-odd miles of new mains are put down." I may say, of course, that at last the Corporation have provided for a renewal account. The nucleus of such an account has now been started.

1843. When did it start? Last year.

1844. And on what basis was provision made for renewal under that account—was it made on any calculated basis? Yes. On the re-construction of the reservoir—when I say "re-construction," I mean doing away with the slip—a twopenny rate was determined on. We reckon that in about six or seven years that twopenny rate would pay off the amount we have had to borrow from the waterworks loans to do this renewal work at the reservoir. We have borrowed money for ten years, and four years of the twopenny rate, which the present Aldermen have managed to keep on, will form a substantial nucleus for a renewal account. Of course, you can never tell what the coming Aldermen will do.

1845. I don't think you quite understand me. What I mean is this: Have you gone into a calculation of what may be reasonably looked forward to as the amount you will have to meet in the future on any recognised basis, by the advice of your Engineer and other officers, and made provision on such a scale that you will be able to meet these contingencies when they arise, in addition to the cost of interest and repayment on the amounts you will have to refund? I can only repeat what I said before: that Mr. Milles says that forty miles of new mains will have to go down. As the most urgent of these cases comes along, it is intended to renew them; in fact, we have now given Mr. Milles an order for £2000 for pipes for immediate renewals. It will be arranged by a bookkeeping entry, and that money is to come out of this renewal account later on. Last year there was about £400 spent on the mains; and this year it is proposed to spend £2000; that is how it stands.

1846. Do you know how much expenditure your turncock estimates that you will require in the almost immediate future? He says sufficient to provide for forty miles of mains. So does Mr. Milles.

1847. Well, what does that represent in value? It all depends on the size of the mains. I may say that we have promised the Fire Brigades Board not to put down a less than 4-inch main anywhere. In certain places we shall go to a larger size than that, as necessity arises. It would be impossible to estimate straight off how much the work will cost.

1848. Has not your turncock given you an estimate of what will be required? No, he has not. He has sent in two reports, saying that if his department is to be conducted properly, a certain amount of renewals must be made at once. On that, the Corporation have given an order straight away for £2000 worth of pipes for renewals.

1849. Your turncock stated to this Committee that he had advised that there would be a necessity for the expenditure of £20,000—do you know anything as to that? That has not come before the Committee. It has probably gone to the head of his department.

1850. Does not everything go through your hands before it goes before the Committee? Yes.

1851. Would not such a report, then, come to your hands at once? No; naturally, it would go to the head of the department first. In nine cases out of ten, he has a consultation with the head of his department, and very often he revises his reports afterwards. That report, that £20,000 would be needed at once, never came before the Council. I do not know whether he mentions it in his annual report, or not, but I know that Mr. Milles did revise that report somewhat, and I do not know whether I saw the revision.

1852. You mentioned the fact, I think, that the present Aldermen have decided on establishing a renewal account, but said that you did not know what future Aldermen would do? No; you cannot say what future Aldermen will do, at any time.

1853. Does it not strike you that the present Corporation could have an Act passed which would bind future Aldermen—make a provision of a sort that would be compulsory upon future Aldermen to set aside a certain sum for renewals? It was suggested, in a casual conversation with the Auditor, about three years ago. I asked the Auditor whether it would not be a good thing to have such an Act brought into force, and it was the antagonism we then received from the House of Parliament that stopped the idea. The Corporation considered that a certain set was being made against them in Parliament, and it was on that that the idea was dropped.

1854. What legislation affecting the Corporation has come before Parliament in the course of the last few years—only the legislation affecting the proposal to take water from the North-West Bay River, wasn't there? No. Last year there was a big Act introduced that the Mayor finally withdrew on his casting vote.

1855. What bill was that? A water bill. It went to the Upper House, and was mutilated, and it was then withdrawn in the Lower House on the Mayor's casting vote.

1856. What was that bill for? It was a water bill. I could not exactly give you the clauses. It was a general bill, and provided for raising the rates, for one thing.

1857. The chief provision was with regard to increasing the rate? Yes; increasing our power of rating, that is; and the supply of water to shipping was also dealt with. That bill, as I said just now, was mutilated by the Legislative Council, and withdrawn in the Assembly.

1858. Well, do you not think, in the public interest, that the present Corporation should have recognised the necessity of establishing such a renewal fund as should put it beyond the power of any future Corporation to abandon that sound business principle? I certainly do. I think that if they gave us the power of raising a rate for renewals, and forced us to exercise that right, it would minimise all our water troubles to a certain extent, especially with regard to broken mains.

1859. Are you paying for all these repairs at the reservoir out of loans account—or are you paying anything out of general rates? As a matter of book-keeping, we are paying everything out of general rates. We are borrowing the money from the loans with the Auditor-General's approval, but we are raising a twopenny rate this year, as, I say, simply to pay that money that is to be sent on renewals.

1860. How will the deducting of such moneys from loans—money of the Corporation affect the general public works of the City? That will not be affected at all, because we have put on a twopenny rate for the specific purpose of covering the cost of the repairs to the upper reservoir. Then we have put on a penny rate in the City for urgent work required—these renewals, for instance.

1861. You do not follow me; let me put it more clearly. How much money was taken out of the general rates last year? About £4000.

1862. Now, if the moneys were not taken in that way, would it not be used for public works in the City? There will be really not one penny taken out of the rates if the whole £10,000 available is applied to these purposes. In 1875, we obtained power from Parliament to borrow £10,000. The money was not borrowed at once. The Council had a long consultation over this matter, and they decided to borrow this £10,000, out of which they will pay for the repairs to the reservoir. Last year we had not floated this £10,000; we have floated it completely now. Therefore, not one penny of this expenditure will come out of the general rates money; we have decided to borrow it from the loans account.

1863. When did you borrow this money? It was not borrowed all at one time. As each debenture was taken up, so we passed it on to credit of the rates account.

1864. Then you have recouped the general rates now out of your loan? Yes.

1865. And during the time when you were raising general rates money for these purposes, you were complicating your accounts? Oh, no. Last year there was a dead set made at the Waterworks Department by the aldermen. Four of the aldermen stood out for the imposition of an additional twopenny rate, in order that a commencement might be made on these repairs—Aldermen Davies, Henry, Snowden, and one other; and the five other aldermen carried the vote against them. Those four aldermen fought for the rate for fully two hours in committee one day, but the others would not give way.

1866. But, you see, while you are borrowing the £10,000, you take the money for another purpose than that for which the £10,000 is intended; the question is, whether the money taken out of that fund in that way did not work to restrict general public works in the City? No, it did not—not one tittle; because that work was not started at the upper reservoir until the end of July. Our scheme for the year had been got out, and the majority of the aldermen had decided not to spend £500 in renewals, and they did not do it.

1867. But you took £4000 out of the general rate? Yes; towards the end of the year. Towards the end of the year the influx of rates is a good deal more than at the earlier stages. At the end of the year before last there was a £2000 credit balance. Instead of the credit balance remaining last year, we utilised it, to the extent of £4000.

1868. Then you overdrew? Not last year—not by one penny. The Mayor, just before he went away to Sydney, arranged for an overdraft, which was not utilised till the 4th or 5th of January; and then the account was not overdrawn to make provision for repairs at the reservoir, because we had borrowed sufficient money for that on debentures. The overdraft was to provide for the new 12-inch main from St. Crispin's Well.

1869. You referred just now to the rates which come in at election time; or, rather, the rates which are due at the end of the year. As an average thing, since you have been in the Corporation employ, what has been the amount of outstanding rates at the end of each year? At the end of last year, I believe it was about £5000; and at the end of the year last closed it was £3400. We put that reduction in arrears down to the fact of their being three elections within two months: the election following on Alderman Bradley's death, the one after Mr. Andrews' retirement, and the regular election.

1870. And that £3400 outstanding is not credited to 1900? Oh, yes, certainly.

1871. But is it credited in your accounts to 1900? The £3000 that came in is credited to 1900; anything that comes in after the beginning of the year is credited to 1901, because there was an overplus at the beginning of 1900.

1872. Then, in making up your accounts, how do you deal with liabilities up to the end of 1900?—Do you debit them all to 1900, or do you carry them forward to 1901? We carry them forward to 1901.

1873. Then you could easily hold back the payment of a considerable number of your accounts for 1900, and carry them on to 1901, and the balance sheet for 1900 would be a misleading one? That could be done, certainly, with the collusion of the Treasurer, the Accountant, the Mayor, and all the aldermen—not otherwise.

1874. Of course, you know that the generally-adopted system of dealing with a revenue account is to credit to a year the whole of the revenue that year it intitled to, whether collected during the year or not, and to debit the whole of the liabilities of that year, whether paid during the year or not—the account that you describe is purely and simply a cash receipts and expenditure account—that is so, I think? I should not like to give an answer to that question until I looked at the accounts. We had a conversation on this subject—Mr. Davies, Mr. Stump, and myself—early in the year. If I gave a definite answer to any such question as to the accounts I might be getting mixed up; I cannot say. I will go through the accounts.

1875. Now, from your experience of the Corporation, and its management and general administration, do you think it would be advisable to amend the Municipal Act in such a way as to have a general election of aldermen every three years, with a complete change, as we have in Parliament—or do you think it is better to continue the present system? Well, in Sydney, early in the year, I had a great opportunity of talking over matters connected with the different municipal systems with the various town-clerks and others, and I certainly then fell in with the present Mayor's idea. That was, a ward system, with six aldermen and twelve councillors. Under the present system in Hobart, we are continually bumping up against these little boards outside. We have to do nine-tenths of the work whenever we come into conjunction with them, and then we have to give them terms for payment of their share of the cost. We had a case in point recently—a little £150 job with the Mount Stuart Town Board. We had to extend time for payment of £50 at four months, of £50 at twelve months following, and £50 at twelve months following that. It is the same way with Sandy Bay, although it is not so bad there. Hobart, you see, is so peculiarly situated. We are down in a hole, as it were, and these four or five outside places—the Glebe, Mount Stuart, Sandy Bay, Wellesley, and the other—thrust all their drainage into us; that is just what it amounts to. We get complaints arising from this cause, and we have to attend to them, and, consequently, our Drainage Account is overdrawn this year. Now, we want £260 for work for the Mount Stuart Town Board this year. I have advised the Mayor to serve a mandamus on these people to take their filth somewhere else. They want us now to construct 160 or 200 feet of built-up gutter in cement and concrete on their boundary, to carry away their drainage. There's only one way out of the difficulty that I can see—we ought to have full control up to the coping or top of all these drainage areas.

1876. Of course, in speaking of all this, you are really dealing with the question of a Greater Hobart? Yes, certainly.

1877. Well, the point I want to get at is this: Every year, now, you have an election, and three new men come into the Council? Yes.

1878. And do you not think it would be better to have the election so arranged that, periodically, you would have a complete change of representation in the Council, as we have a complete change on a general election in Parliament? I really think that my experience in municipal matters is far too small to enable me to give an opinion on an important question of that kind. In your proposal I can see points very good and points very bad, at once. There are some men you could not afford to lose from office; others, you would get rid of with pleasure.

1879. Of course, that is a question for the ratepayers? Not always.

1880. Do you think that the municipal continuity of government would be sufficiently maintained by the heads of the municipal departments—yourself as Town Clerk, the Director of Waterworks, the City Accountant, and so on—if there was a complete change of aldermen every three years? I think so; I should say, certainly.

1881. Then, as far as that point is concerned, you do not think there could be any objection to the change of system? Certainly not.

1882. Speaking now from your experience of aldermen, have you found aldermen come in enthusiastic in the cause of reform, to find their efforts in that direction considerably modified or neutralised by the action of those aldermen who have been a long time in the Council? I can only speak of the five new aldermen returned within the last four months or so; all the others in the Council have been aldermen almost from time immemorial. Alderman Smith has been, I suppose, quite fifteen years an alderman. We are only really feeling now what an influx of new blood means, and there is no shadow of a doubt in my mind that the new aldermen seem to have grasped and dealt with certain affairs that were previously allowed too much licence, and not properly dealt with at all.

1883. Is this new blood you speak of responsible for the establishment of the provision for renewals you were speaking of just now? No; that was started either in July, August, or September of last year—before the change of aldermen took place. I may say at once that that was done by Alderman Davies, after consultation with the Accountant and myself—but practically it was done by Alderman Davies; he took the initiative, and pushed the thing through. Alderman Davies, ever since I have been in the Corporation, has continually and persistently hammered at the other aldermen about this matter: "We want a renewal account, and you will never do a scrap of good with your water-service till you get one." He's been at it over and over again; he had to fight tooth and nail for it. Had it not been for the majority of one against the proposal, we should have had a twopenny rate levied last year simply for renewals.

1884. What do you provide in the Corporation by way of a Sinking Fund? The Sinking Fund is five shillings per cent.

1885. For what accounts does that provide a Sinking Fund? All. Each account is debited with its own proportion, by way of contribution to the Sinking Fund.

1886. Well, now, is that Sinking Fund of five shillings per cent. regarded as making sufficient provision? Certainly. The Auditor-General, in making a close examination of the accounts of the Council, found it was not altogether sufficient in some ways, and he came and put the proper proportions under their proper heads.

1887. But is the whole fund at five shillings per cent. regarded as adequate for the requirements? I think it is.

1888. Have you heard it estimated how many years it will take to cover the original loans? I have not worked it out myself, and I have not heard it estimated; but I know that we will be ready, within £2000, to meet all the liabilities falling due in 1902. You must remember that we were not paying five shillings per cent. until 1896. We have just had to have our Loans Consolidation Act altered, because we were carrying out our arrangements as altered under the Auditor-General's instructions, and he told us that that was contrary to the law as it stood.

1889. You have not got that incorporated in the law, I think—a compulsory clause providing that you shall put by five shillings per cent.? Yes, we have that.

1890. In your experience as Town Clerk, Mr. Hamilton, have you found any ratepayers holding over payment of their rates for a very prolonged period? I have never found it so since I have been in the office. I went there following Mr. Steward, and I do not know what his experience was; but, for my own part, I never saw fairer treatment of ratepayers. There is no fear or favour shown to anyone. I take in the writs to the Mayor in bundles, and if Mr. Davies had a writ against himself he would not know it. I told the Chief Clerk in the Rates Office to pay no attention to anyone's position, or anything of that sort. I told him, directly their term is up, if they did not pay, to summons them, warrant them, and distrain, without fear or favour. That is done in all cases; no difference is made. Since I have been there only one person—a woman—has had rates remitted, and that was a very exceptional and extreme case.

1891. There has been no loss through rates? There has not been a penny lost to the Corporation through rates since I have been there. Mr. Davies, Mr. Stump, and myself have certainly adopted a system of allowance in one way. We have had to take certain "good marks," in cases where estates were in a mess and so on, and take from them a twelve-months' bill for their rates, backed by some responsible person. We have found that arrangement work splendidly in all cases where it has been resorted to. It has given the people time to recover, and the bills have been met in every case. There are only two such bills outstanding now, and they will be met within two months. I know we have been twitted over the matter—charged with showing preference or indulgence to a certain class of ratepayers; but it is not so.

1892. I did not intend to suggest anything of this kind; the question was not put in that way. I only asked whether some of the ratepayers had allowed their rates to run unduly; I did not mean to suggest that there had been any favour shown; I was only going into the general question of administration. Do you see? Yes. The administration is perfect. No favour is shown in any case. Nobody in the Corporation knows who is being summoned at any time.

1893. Do you ever hear any reports in connection with your Waterworks Department against people, for using or wasting water, in the summer season particularly? Yes, when we have our inspectors out.

1894. Has any action been taken to punish these people? Several of them have been punished, but we consider the greatest punishment is to put on a meter. If they are not honest, we put on a meter and so stop them stealing.

1895. And have you put on meters to some of the large gardens in the suburbs? Yes, we have—much to the owners' disgust.

1896. In most of the large gardens? Yes. But you must bear in mind that in some cases it does not pay us to put on a meter. If a man has a fountain, he pays £5 a year for it, and that pays us better than a meter.

1897. And you have had a good many complaints through the department, of people wasting the water? Very few this year. The first year I was there, there were a great number.

1898. Where are the principal offenders? New Town and Sandy Bay—Sandy Bay especially. In one particular portion of Sandy Bay there was a report, I suppose, every week.

1899. How do you deal with leakages in your pipes?—do they come before you? Very often they come before me; especially if a man will not repair his pipe under our 24 hours' notice. We have a 24 hours' notice which we serve, threatening to cut off the water if the repair is not made.

1900. I am referring more particularly to leakages in the street-mains. I dare say you have seen letters in the newspapers and elsewhere stating that leakages have been running on for days without attention; in fact, I have seen them myself: whose fault is that? The fault of the police, mostly. When we first had centralisation, the police used to continue the one system of reporting leakages. The men reported to their sergeants, and the reports came down regularly to the Town Hall two or three times a day from the Police Office. Then, when Mr. Richardson came in, I think he stopped it. Anyhow, we never get more than one report a day now, and the old system of inspection by the police has become very cursory. We have a new City Inspector now to deal with private leakages; but our Foreman of Works and Foreman of Scavenging have strict orders from Mr. Milles to report in their books immediately they see a leak anywhere. But at times the leaks are very numerous. One Sunday morning no less than seven mains went in different parts of the town; my telephone was going the whole day long. Waters, the turncock, is now connected with the Telephone Exchange; he was not formerly. It is a most peculiar thing that Sunday is invariably our worst day for bursting mains. They believe that that is due to the fact that, not so much water being used in the City generally as on a week day, the pressure is higher, and the pressure being higher, it puts a harder test than usual on all the weak places. If we had a staff ten times as large as our present one, we could not keep up with the bursting mains sometimes. But no time is wasted. I got a telephone message about ten o'clock the other night about a main being broken, and the repairing of that main was completed that night, before the men went home.

1901. Do you have a system whereby each report sent in is recorded as to the time at which it was received and the time at which it was attended to? All these times are not reported.

1902. If there is any improper delay, then, you cannot centre it on any man in particular? Oh, yes, because they report every day as to what repairs they have done. They go down to Sandy Bay, for instance, and there is a main gone there. They get to work to repair it. In the mean time a main goes at New Town. There are only two gangs of men, and the second gang goes out to New Town. Meantime, perhaps, another main goes somewhere, and another, say at the Glebe. We cannot take the men away from Sandy Bay or New Town to go straight to the Glebe. It would cause needless inconvenience to consumers at Sandy Bay if the repairs there were left unfinished, while the men went to repair a main at the Glebe; and much time would be wasted too, because the men would have to go back to Sandy Bay to finish their work afterwards. So that some short delay is unavoidable at times. In this present time we have not a sufficient staff to deal immediately with all contingencies. But we can't keep on a bigger staff. The rush lasts, say, three days in a week; during the remaining three days there probably will not be work enough to keep three men going. When repairs have to be done of course a main always takes preference of a service: the bigger the leak, the bigger the preference. There is no needless waste of water at any time. If the Gore-street main, a 10-inch main, goes, we immediately telephone to the man at the waterworks, and he turns off the water from that main, and in that way stops the leakage until it is repaired.

1903. Are you taking any action in the Corporation with regard to the plumbing work done in this City? That is a very sore point indeed. The Mayor, Mr. Milles, and myself, are fighting all the rest of the aldermen, and the whole of the town apparently. We have got a man over now, and I have seen his work. I can judge of it, and of the speed with which he does it. Apart from that, his credentials show that he is a thorough master of his work. As against him, two of the oldest plumbers in Hobart consider that they can plumb against any man in the world, and they refuse to be examined by that man we have got over. The Mayor has now succeeded in bringing the aldermen to consent to cancel the licences until the men are properly examined.

1904. Is that done now? Yes, it is done. But it is by no means an easy matter; it is the institution of a new system into an old place, and they don't like it. Formerly, if a man could solder up a tin of jam, he was a plumber. Buchanan, our late turncock, was only a plumber in

Hobart formerly. It was very difficult to bring about a better state of things. When Buchanan left, the Council decided to get a skilled man from outside, one whose interests were not mixed up with any of the local people. When Waters arrived, his first idea was to go about and see what sort of plumbing was being done in Hobart. He was not satisfied. If a local plumber were asked to bring down a specimen of his work, it was appalling. In three cases, where a man was asked to make a square joint on pipe, he blocked the main pipe completely up in doing it. The plumbers don't like the examination by the new man. Some of them say they'll see him damned before they'll be examined by him; he's only a new chum, they say, and they know just as much about plumbing as he does.

1905. In the event of a licensed plumber not being available at once, I suppose a man can apply to the Corporation? Yes; it has been done before now. I have already suggested to the Mayor and Mr. Milles a scheme for the apprenticeship of boys, of decent education, to the Corporation, with the idea of taking up plumbing ourselves. The Launceston Corporation makes £300, £400, to £500 a year by its private plumbing. Why Hobart does not do it, I cannot understand; although, of course, if it is done, the local plumbers will say we are taking the bread out of their mouths. I consider that the Corporation has a perfect right to do all its own plumbing, if it chooses to. Then everyone would know that they got fair work for fair money.

1906. I saw the Captain of the *Chicago* a few days ago, and he was rather sore about the question of the supply of water to his ship. I would like to get from you, in evidence, exactly what did occur. When first he came here, was there any difficulty at all about his getting water? None at all, sir; he applied for water, and he got it immediately.

1907. What happened next, then? I asked what our man had been doing at the wharf so long, and I found that the *Chicago* had taken 874 tuns of water. I made inquiries, and I said it was totally unfair that we should have to supply such an amount of water in the circumstances. I found that the water was going to the ballast bunkers. She was washing her bunkers out, and was going to pump them out again between this and Sydney, and then come back for another 874 tuns. In these circumstances, we put in a claim for the money for the water, and the Captain refused to pay it; but he signed the bills.

1908. Did you get any payment at all for the first lot of water you supplied? Not one penny.

1909. Did you make any application for payment? Yes; to the Captain—he had no agent here.

1910. And after he had gone away to Brisbane, did you make any application to anybody in the matter? We put the case before the Premier. The Premier said he would inquire into the conditions of her service, and then get an opinion as to whether she was a King's ship, or a ship employed by His Majesty, or in His Majesty's service, according to the terms of the Act. There were some things that seemed to point to the fact that she could only be looked on as an ordinary trading vessel chartered for transport service.

1911. And when she came back from Brisbane, what happened? When she came back I instructed Mr. Milles and his assistants not to supply water to the *Chicago* without special instructions from me; and I then reported what I had done to the Mayor, who approved of it.

1912. Do you remember when Captain Jacobson made his first application for water? He made his first application, or the first I heard of it, was one afternoon, when I got a telephone message from Mr. Steward, to the effect that Captain Jacobson was at his office, and said that he had been refused water.

1913. Did he make no personal application—no direct application? Not to me; he may have made application to the Department; I don't know. Anyhow, he went to Mr. Steward, and Mr. Steward telephoned to me, and I told him that I did not see why the Captain of the *Chicago* should get water for nothing to use as ballast. That morning I received a letter from the Chief Secretary himself, saying that the *Chicago* had been refused water, and asking whether we would oblige them by letting them have the water with as little delay as possible. I wrote back saying that the Mayor was out of town, that water had only been refused to the Captain on account of his having used the water for ballast, and not for general purposes, and that the Corporation did not think that His Majesty's ship could claim to be supplied with water for nothing to be used for such purposes.

1914. Did the Captain not write to you saying that he required water to enable him to work his fore-hatches, and that he had been waiting to load the ship, and merchandise waiting to be loaded? That is the first I have ever heard of it.

1915. What delay was the ship subjected to before she got water? I should say twenty-four hours, fully. It would have been longer if I could have made it so; I should have certainly fought the matter out with the Committee. Mr. Steward telephoned to me on the Wednesday, and on the Thursday morning he came in to see me, at a time when I was in Committee. The Captain came in with Mr. Steward into the Committee-room, and in the conversation that followed it came out that the *Chicago* was only a chartered vessel, and the Captain said that the ship herself was due to find her own water. Mr. Steward, I believe, was annoyed, or the Government was annoyed, because the Captain was questioned with regard to his charter.

1916. What occurred when the Captain went up to your Committee-room? The Captain, as I said just now, came in with Mr. Steward, and Mr. Steward said he had come to see why the *Chicago* was refused water. I told the Committee that, as far as I knew, the *Chicago* had not been refused water.

1917. Was the Captain told that you had not water to supply him with? He was told that every tun of water was of far more value to us than the money we could get for it. I will tell you why I said that. From the Sunday to the Wednesday, after the *Chicago* had gone to Brisbane, the water in our reservoir dropped seven feet—seven feet altogether, in five days. April is always a treacherous month with our water, as you know.

1918. Was he told that the water was *sub judice*, pending some communication from the Premier? Yes. The Premier said he would write to Captain R—— in Sydney, and he would give us an answer before the *Chicago* came back. The Premier afterwards said that he thought that the Mayor had written, and would have an answer by the time the ship came back.

1919. Did the Captain satisfy you that he had power to give orders for payment of the amount due for water? Yes. He said, "I will sign any bill, which will satisfy you that I have the right to draw on the Imperial Government for this water. If not, it can go on to my owners."

1920. When did he tell you that? He told us that in the Committee-room, before he sailed.

1921. Did you accept that? Why, certainly.

1922. Did you, or any of the Aldermen, insist that the Captain's bill should be backed by the Government? Certainly not. We told Mr. Steward that he should have an answer before twelve o'clock, and before twelve o'clock we sent word that the water would be supplied, on the understanding of what the Captain had said. She took £86 worth of water, at the rate of 1s. 3d. per 252 gallons.

1923. How long elapsed between the time of the Captain's application for water and the time when he got it? Mr. Steward telephoned me on Wednesday. The Captain did not come down to the Town Hall till the next morning at 11.30. That was a day lost.

1924. The Committee was called together on the Thursday? Thursday is the regular day of meeting. Mr. Steward came to see me while the Committee was sitting, and I let him come in with the Captain and see the Committee.

1925. I suppose that in a matter of emergency you would call your Committee together on any day? In a matter of emergency, yes.

1926. The Captain of the *Chicago* was very sore about this matter, I think? Yes; but he was far more sore about the Government than about the Corporation. He said that no other Government in the Empire would not have backed him up, and given us its guarantee pending settlement. Of course, the only reason why he was refused water was, that we heard he was using it for a wrong purpose, otherwise we would have given it with pleasure, and raised no question. I may tell you that the Captain would not take Brisbane water. We asked him why, and he said it was not as good as ours.

1927. Now, dealing with the water question generally, do you think it would be advisable to establish a general system of meters right throughout? I do. The Mayor has already tried to make the aldermen understand that, and they won't. I do not refer to the new aldermen—the aldermen last elected, that is. The Mayor wants them to get power to borrow £15,000 for the purpose. It will cost £20,000 to meter the City, attaching a meter to every property having a rental of over £12 a year. The Mayor's idea is, not to meter the poorer class, so that they will not be able to say that they are being stinted of a necessity; but he wants every house assessed at over £12 to be metered, starting outside the City, and working into the centre.

1928. And that proposal is under consideration, you say? Well, it is under consideration, in a way, but not as fully under consideration as it was this time last year.

1929. If you were to establish a system of metering, do you think it would be an equitable thing to put a large meter on to the main supplying each suburb, and then debit each suburb with the amount of water used, leaving the suburban authorities to levy and collect the rates? I certainly think it would be a good thing for us, because our "worst marks" are in the suburbs, and always have been.

1930. With regard, now, to the licences to sell milk that are issued by the Corporation, is there any discrimination exercised as to where the milk comes from that these licensed men sell? We have not the power to make any discrimination. Some vendors may get £5 worth of milk in a day, and we don't know where they get it from. We have no knowledge of the outside dairies, or how they are kept; they lie beyond our authority.

1931. And you have no jurisdiction, even in any of the suburbs—as to whether the sanitary arrangements at the dairies are good, for instance? No, luckily, our Health Officer, Dr. Sprott, is also Health Officer at Sandy Bay, and he works in with us there. For that reason, we can always guarantee the Queenborough milk. But we have not the jurisdiction over wholesale vendors of milk that we certainly ought to have.

1932. But you can always refuse a licence to any vendor? Only on good grounds, and the grounds would need proof.

1933. Would it not be regarded as good grounds if you found that the vendors were getting milk from a district where there is no proper health supervision? It might be.

1934. And on that, as well as on other grounds, you would favour the idea that these various suburbs should be amalgamated into one Greater Hobart? To a certain extent. I should not think that Glenorchy or Moonah could be profitably included. I should not think it would be advisable to go beyond New Town. Within those limits, the interests of one district are the interests of another.



1935. There is this question of the drainage from the higher level, not under your jurisdiction affecting you and putting you to expense. That would be an argument in favour of the amalgamation? Yes.

1936. And then there is the question of the general milk supply? Yes. But of course the great arguments in favour of the scheme are those connected with the sanitary service.

1937. Are there any other grounds you could suggest to the Commission on which you would favour the Greater Hobart scheme? Well, I certainly think that if the suburban area were under our central supervision, all matters connected with buildings and the system of drainage of buildings would be much improved. We have introduced an improved system in the City now, and brought in new By-laws to work it. If we are to take over these suburbs eventually, it would be well that we should take them over soon, because then the new provisions would apply to buildings now in course of construction, and to be constructed, and we should not have, by-and-by, to go over the whole thing again. We could deal with places built on rubbish heaps, for instance. Under our present system, the plan of a new house is submitted to us before the place is built. Then Mr. Brian goes and views the lay of the land to see what provision can be made in the matter of drainage. He asks all sorts of questions about the drainage; and if he finds, for instance, that the surface of the ground is not of good quality, or in good condition, he immediately orders an asphalt or concrete layer, and we have power to enforce that, whereas, in the suburbs we heard of two or three cases where a man has got rid of his cows, and is now living in the cowhouse. We know of a place just outside the City where they had a cowhouse just outside a dwelling. Supervision in the suburbs is very lax. Well, New Town, Queenborough, Wellesley, Mount Stuart and the other suburban places are so near to us that they are really part of us, and we have to watch their health as closely as we watch our own. Then you have the difficulty of the present system. Typhoid patients in the suburbs are not controlled nearly as strictly as they are in Hobart. No proper pan system seems to have been adopted to make provision for typhoid cases. Why, an application for a typhoid pan came to us the other day from the lower part of Sandy Bay, and we sent it immediately. More than that, we offered to remove the typhoid-pan daily, free of cost, just as though the fever had been within our jurisdiction. You can't get away from the fact that the health of these suburban places is directly connected with the health of the City.

1938. These are the principal grounds on which you would favour the scheme? Yes, that and the water. I certainly think that, since the suburbs pay for the water, they should have a certain amount of representation on the body controlling it. One of the greatest of the reasons that would induce me to support a Greater Hobart scheme would be that it would do away with five or six little offices, each running its own little show. It would centralize the administration, and that is what is wanted.

1939. Have you ever, for the purpose of advising the aldermen, gone into the question as to what it would mean to the municipality if the Corporation undertook the removal and disposal of all garbage and rubbish, going round and collecting it from house to house? Yes; it would cost us £2500 a year at the least. At present we never refuse anybody living in the City of Hobart, if they write, "Would you kindly let us know when your carts pass our place, so that we can put out our rubbish." We never refuse to take such rubbish away free of cost to the ratepayer. That work averages now the use of two carts a day for the whole year. That is about twelve shillings a day we are spending now without any return of any sort, just for the sake of cleanliness. That is not a new thing; it has been going on for the last six or seven years.

1940. And to do that work thoroughly, you say, would cost the Corporation an additional £2500 a year? Fully; we would have to get our own carts and our own men to do the work. We would have to build special carts.

1941. What would that extra expenditure represent in extra rating? About a twopenny rate.

1942. And do you not think that that twopenny rate would represent an enormous saving to the citizens individually? It would—if they could only be brought to see it that way; but they won't see it. They would sooner go and bury their filth. I know of houses over our boundary now that bury their excreta in their gardens every week, and the fumes of it go all over the neighbourhood.

1943. You are satisfied, then, that it would be an immense saving to the municipality if the work of removing garbage was undertaken by the Corporation? It would be an immense saving in the matter of health and inspection, because each of the carters employed on the work would be appointed an inspector. It would be an immense benefit. I cannot well say it would be a saving to the Corporation.

1944. But if the people were compelled to keep their places clean themselves, and have their refuse regularly removed, it would cost them far more than they would have to pay for a twopenny rate? Well, the clean people get it done for nothing now.

1945. In the interests of the public health it is necessary that every house should be properly attended to in this matter? Certainly.

1946. And if it were made compulsory that every house should be so attended to, it would be economical for the public to have it done by the Corporation, if a twopenny rate would do it? Yes. A twopenny rate would provide for those horses and carts that would be necessary. Of course, a twopenny rate will only provide, at the most, £1000 a year.



1947. Have you ever discussed in committee, or at a full meeting of the Corporation, the necessity of adopting some means to destroy this rubbish when you have collected it? Yes, we have.

1948. By means of a destructor? Yes. We have had two or three reports on that. Dr. Sprott has always done it. Our idea has always been to run a destructor and an incinerator on one and the same premises at the rear of the slaughter-yards, so that we could get rid of the refuse from the slaughter-yards, and the rubbish from the City, at the same time. We could not make provision for that for less than £3,500, and the question of expense had to be faced. Dr. Sprott consulted several people about it when he was over on the other side. He has always advised us to have both an incinerator and a destructor.

1949. Do you not consider it necessary, in the interests of the public health, that some such scheme should be adopted? Yes; all the aldermen recognise that. It would be far more cleanly than our present system. But, mind you, our tips—as tips—are conducted on a splendid system. I have lived within fifty yards of a tip for the last three years, and I have never smelt anything offensive from it; nothing but occasionally the smell of burning rubbish. It certainly is a harbour for rats.

1950. At all events, you consider it to be advisable, in the interests of the public health, to adopt that system? I do; and the Corporation has always recognised that it is only a matter of finance.

1951. Have you had any reports made to you on buildings that are in such an insanitary condition that they ought to be destroyed? I have never received such reports without their being immediately acted upon. Of course, there is a proper form to go through in such cases. It is a rather lengthy form, but it is gone through every time. Directly the inspector reports a house unfit for habitation, the members of the committee go up and inspect the house themselves.

1952. Let us clearly understand that—is it the duty of our Director of Public Works and your health officials to find out these places, and report them to you; or are they obliged to wait until they get instructions from the Corporation to go and report? Certainly not. Their responsibility is to report them to us, and, as far as we know, they do it. I suppose there have been some thirty houses condemned since I have been there—this last three years, that is.

1953. Then, if one of your officials states to this Commission that he knows a great many houses that ought to be condemned, for the reasons that they are insanitary and unfit for habitation, and if he states that he has not reported on them because he has not been directed to do so—if this is so, he is not fulfilling his duties? It all depends on how you mean that. Mr. Brain, Mr. Butterworth, Mr. Adams, and Dr. Sprott would be the ones to report on insanitary houses. Mr. Brain would report, for instance, that a house is in an insanitary condition, and unfit for habitation. Mr. Milles would then go round and look at it, and it might, by being patched up, be made good enough. It is a very difficult thing to say, when a house has come to that state, when it is quite unfit for habitation, or when it is in such a state that, by the expenditure of a small sum of money, it can be made fit for habitation again.

1954. And if an official states that he knows of houses unfit for habitation, is it his duty to report that to you, as the representative of the Corporation, without being specially instructed to report? Certainly; it always has been done. I do not think the official who said otherwise can have understood the question you put to him. Mr. Brain is always reporting such places from his standpoint. If such a place is found to be beyond repair it is pulled down.

1955. And it is the duty of the official to report these places? Yes, and I cannot think how any official, if he understood your question, can have made the remark you quoted.

1956. How do you issue licences to places of public amusement? "Places of public amusement" is a very wide term. If it is a theatre, or a hall, they come in and bring their two sponsors.

1957. What do you do then?—Do you instruct your officer to go and see that the means of escape, and all the appliances are such as are adequate to provide for the public safety? The provisions of the Act are very peculiar on that point. The Act says, that if the owners of such a place once procure a licence, they can apply for a renewal and obtain it. We have had a fight over the Temperance Hall. I refused to license the hall because the police objected that the hall was used for a purpose they did not consider a good purpose. If the police say that there is no police objection, then such places are licensed under the Police Act.

1958. Supposing it is shown to you that a place of public amusement does not possess the necessary means of escape, for instance, in the event of a panic, occurring through fire? Yes.

1959. Do you consider you would be justified in issuing a licence to that place without satisfying yourselves that all proper requirements are filled, and all proper arrangements made to safeguard the public? [No reply.]

1960. Let us get it this way. The Corporation is responsible for the issue of these licences? Yes.

1961. What precautions are taken in issuing them to ensure the public safety? Every precaution.

1962. Do you instruct an official then—Mr. Milles, for instance—to go down and examine the place of amusement, and satisfy the Corporation that that place of amusement is properly provided with means of escape in such a contingency as I have named—panic from fire? No. I think the Health Officer generally goes round and has a look at it.

1963. Does the Corporation instruct the Health Officer to do it? No; I think he does it voluntarily, as a matter of course.

1964. Put it in this way: say that an official of your Corporation, in a responsible position, states that he does not consider that the means of escape in a place of public amusement are sufficient? I would like to know the name of the official.

1965. Well, there is no reason why I should not tell you. Mr. Milles does not consider that the present theatre is provided with adequate means of escape for the public safety in the event of a panic through fire. Now, Mr. Milles was asked whether he had been instructed to report to the Corporation as to whether the theatre was properly provided in that way, and he said he had not. He was then asked whether, if he had been asked to advise that a licence be issued to that theatre, he would approve of it, and he said no, he would not. Now, upon that evidence, I want to know from you what means the Corporation takes before it issues a licence to satisfy itself that the proper appliances for escape are provided? Well, in the case of a place being built.

1966. It does not matter just now whether it is being built, or whether it has been built for a long time or a short time; that is not the point—you see, in places that are licensed, you prevent overcrowding, in the interests of the public safety? Yes.

1967. But, in the case of the place I am speaking of, your Director of Works says that, even if it is not overcrowded, the appliances for escape are not adequate. You seem to recognise that the responsibility rests with you to prevent overcrowding, but you do not seem to recognise your responsibility to see that it is properly provided with appliances for escape in case of fire.—You have heard what your official has said: what do you say? That official has nothing to do with that.

1968. Do you instruct any official to go down to the Theatre before you license it to examine its means of escape, to satisfy himself that the wooden ladder leading to the gallery is wide enough, and otherwise safe and suitable, and to report to you? Do you have all these matters looked into before the licence is renewed? I have not personally instructed anyone to do that; and I believe no official has had instructions to go and inspect the Theatre.

1969. And if you did send your official down there, and he came back with a report that that building did not provide proper means of escape in the event of fire, do you think you would be justified in renewing the licence? Certainly not. As to that, I can only say I have been down there myself during the recent crush; a special constable, sworn in for the purpose, has shown me that there is ample escape on the ground floor for any rush.

1970. What means of escape is there from the gallery? I believe the gallery is not properly provided with means of escape. From my knowledge of the case, I do not consider it to be the duty of the Corporation to issue instructions to have a place of public amusement inspected. When we get an application for a place from the police endorsed "No Police Objection," I consider, then, that the Corporation is free from all liability. That is pursuant to the provisions of "The Police Government Act" of 1865. Immediately we get the Commissioner's or the Superintendent's endorsement, "No Police Objection," I consider that the end of the Corporation's liability. The police should object to the issue of the licence if there are no proper means of escape. There was a police objection to the licensing of the Temperance Hall, and we stopped the issue of the licence until the police withdrew their objection.

1971. Then, if it came to your knowledge that a building, a place of public amusement, was absolutely unsafe—unsuitable, unsafe, and likely to come down suddenly with a crowd in it—and if your Director of Public Works told you that that was the case, you still think the Corporation would be perfectly justified in licensing such a building, even if the Police did not object to the issue of the licence? I do. Mr. Milles, I may say, has never taken any part in the inspection of any places of public amusement, and has never been asked to. It is not his duty. He would be the last man in the building I should vote to go and report on such a matter. He has far too much work to do in other ways, as it is. But if Mr. Milles comes to the conclusion that the Theatre is unsafe, it is his duty to make an immediate report to me. Then we should immediately send a report of his complaint to the Police.

1972. I asked your Mayor, six months ago, to send Mr. Milles down to examine a very dangerous-looking settlement in the front of the Theatre, and he promised he would do it, and Mr. Milles says he never was so instructed; do you know anything of that? No.

1973. Now, I will ask you one more question. You know that up to the last two elections it was always necessary for a ratepayer to make a declaration that his rates were paid before he voted? Yes.

1974. Have you ever known instances of ratepayers going up and writing that declaration when their rates were not paid? I have. I have known them go and make the declaration without thinking what they were doing; and I have stopped them myself. When they have asked for the ballot-paper I have said, "No, you have made the declaration, and your rates are not paid; bring me a cheque within ten minutes, or I'll instruct the police to prosecute you." On an election day it is a terrible rush all day long, as you can imagine. We have our taxation officers outside the hall to watch the ratepayers as they come in, and give us the tip if any of them have not paid their rates. I have had to stop one person voting—a woman—at two elections running. It is utterly impossible for anyone to provide against that sort of thing: they will do it, whatever we do.

1975. Has it been done in many instances? Not that I know of. I have never known for a fact that a man has made a false declaration and gone through.

1976. *By the Chairman.*—Are you of opinion that these defective mains you have described lead to any loss of water? Certainly, they must. I have not a shadow of a doubt of that—every week, all day long, and all night long.

1977. Well, we have this evidence from the City Turncock. He is asked: "From your knowledge of the pipes you have had to repair, do you think it is likely that there is a considerable loss of water from defective pipes?", and he replies, "I could not say." Now what do you say? Then, I should say that I cannot say either. I have not nearly his knowledge in the nature of things. I do know that there is one place particularly where a certain part of the community blamed the Corporation for an alleged leak of millions and millions of gallons—at the new Customs House; and it was the same at the new Post Office. But it was a freestone all along, as Mr. Duncan showed to me only the other day.

1978. What grace is allowed to ratepayers who are in arrears with their rates? None at all. Rates are payable in advance. About the first week in March the demands begin to go out. They go out in duplicate for the first and second quarters. The first quarters's rates are payable in April. The Court is held every half-year. The third week in July is the time when the first Court is held for the first half-year; and each defaulting ratepayer is at once summoned to appear before the Mayor on a certain day. He very seldom does appear; and according to the Mayor's order, he is given seven days, fourteen days, or a month, in which to pay; but never in any case more than a month. I sit as Clerk of the Court, and the Mayor records it on his sheet—say "14 days." Well, at the end of fourteen days, if the rates are not paid, a warrant is issued. It goes to the Mayor for signature with a lot of others, and the whole bundle of warrants are handed over to the bailiff, who has instructions to prosecute each warrant as it falls into his hands. Perhaps the man will then come in and show good reason why we should not give him another month. The outstanding rates are very few in proportion to the whole. Of £42,000 worth of rates, we had £3000 worth outstanding at the beginning of this year.

1979. The Mayor always signs these warrants? Invariably. Nobody else can sign them. I have never seen him put one warrant aside all the time I have been there.

1980. You say that in 1895 £10,000 was borrowed to repair the Upper Reservoir? No. Power was given to borrow £10,000, but not for the purpose of repairing the Upper Reservoir.

1981. Then the £10,000 has been diverted from the purpose for which it was intended? No; we are simply using the power we got from Parliament to borrow £10,000 in the repairing of our water supply.

1982. In 1895 nothing was known of this matter at the Upper Reservoir? No.

1983. And this money, borrowed by a power then given to you by Parliament, is, therefore, being diverted from its original purpose, for the purpose of repairing that reservoir? Yes; but only as a matter of book-keeping.

1984. The money is being used for a purpose never contemplated at the time when power to borrow it was given? It is not being used at all; it is merely being borrowed from the Loans Account.

1985. Now, reverting to a question put by Mr. Guesdon some while ago, cannot you form an idea of how long it will take to pay off the debt owing by the Corporation, by a provision of one quarter per cent.? I cannot say. I have never worked it out, except as to our first loan, falling due in 1902; and as to that, we shall be £1800 short.

1986. But you can surely form some idea of how long it would take? I wouldn't give an answer right off. It is just a matter of calculation.

1987. But you think the provision is adequate? The Auditor-General says it is ample.

1988. Now, talking about this meter system, and the inspection at present carried out in summer—is it not a fact that in some large gardens in Hobart the owners prefer to be caught wasting water once a year, and fined ten shillings, rather than to apply for a meter? No; there has been no man fined—except, I think, one man—since I have been in the Corporation. We have never given them a chance of getting off in that way with a fine. If they are charged a second time, we meter them.

1989. I may tell you that I know one man who has been fined three consecutive years, and he says it is cheaper than being metered—what do you think? Oh, it would be; but it is not done now. If any man offends a second time he is metered.

1990. You said just now, in answer to Mr. Guesdon's questions, that if the chief officer of the Corporation, as far as engineering is concerned, should report that there is a dangerous settlement at the theatre, and that the building is generally unsuitable and unsound, you would refer that report to the Police Department, and if the Police thought there was nothing in it the Corporation would be relieved from responsibility—do you maintain that opinion? Yes, that is a flaw in the Act. I say that the Corporation has no responsibility at all.

1991. You maintain that? I say that the Corporation, under the present Act, has no responsibility. There are certain things in the Act that certainly need amendment, and this is one of the most urgent of them.

1992. That is not the point now. Mr. Milles, as a matter of fact, is of opinion that this theatre building is unsafe, owing to a large settlement in the front, and is otherwise not safe as a place of public resort, particularly if crowded. I ask you now, would you think the Corporation was absolved from responsibility if it reported to the Police, and the Police disregarded Mr. Milles' opinion? I say the Corporation has no responsibility.

1993. In other words, they could afford to ignore their chief engineering officer's report? I don't say they would, but the whole responsibility would rest upon the Police. The Corporation are bound solely and wholly to work under certain Acts.

1994. But all this shows a very narrow sense of your responsibility, does it not? It is a sense we have to stand by every day, with legal men.

1995. *By the Vice-Chairman.*—The late Alderman Bradley moved some time ago to have a by-law made, whereby the discharging of water-closets into the smaller creeks should be stopped? Yes.

1996. When he moved in that direction, I think that the objection was taken in the Council that there was an opinion of Mr. John M'Intyre's which was antagonistic to the proposal? Yes.

1997. We want to see that opinion—can you get it? Yes.

1998. And you have another opinion of Mr. A. I. Clark's, I think, saying that such a by-law can be made, and that the water-closets can be cut off without compensation to the occupiers concerned? I believe we have such an opinion.

1999. And a draft by-law, drafted by Mr. A. I. Clark, to meet the case? I believe we have that, too.

2000. Now, in what matters do you deal with these local bodies governing the suburbs? Well, we are mutually concerned in drainage matters; above everything, we are mutually concerned in the administration of the Health Act.

2001. And you include drainage in that? Yes, certainly.

2002. As regards water, you supply all these suburbs? Yes, all, except Glenorchy; we supply them right up to Moonah.

2003. Do you ever have any question arising with regard to the removal of refuse? No, not beyond our boundary.

2004. You have no question as to that arising with these outside bodies? No, never. We are trying to do the whole of the sanitary work for Queenborough now. We have made them an offer, which will result in a loss to the Corporation of £30 or £40 a year; but the Corporation considers that the health of the City will benefit by that loss.

2005. To return to that other question a moment; it is said, I think, that Mr. Justice M'Intyre's opinion is adverse to the proposal to cut off those water closets? Well, it is adverse up to a certain point.

2006. Who has said so, at meetings of the Council? Several of the Aldermen have said so.

2007. Have they ever got their solicitor to advise on it? No; that has merely been the opinion. Mr. M'Intyre's opinion was given on a very peculiar point, which they don't seem to grasp.

2008. Do you remember when a joint-opinion was got up for the Sanitary Association? I never saw any such opinion.

2009. In that it was stated that Mr. M'Intyre's opinion had nothing to do with the question of making a new by-law? I have always held the same opinion. I think, certainly, that there are too many local interests involved in the matter.

2010. Now, with regard to the suburbs that drain through Hobart—which are they? Glebe Town drains directly into Hobart main sewer; so does Wellesley; and so does a lot of Leslie; Queenborough and Davey-street by the Wellington Rivulet.

2011. The drainage of these suburbs you have named is discharged into the Hobart Corporation sewers? Yes.

2012. Do they pay anything for the right of draining into those sewers? No.

2013. I suppose that really the length of drains they use in Hobart itself is greater than the length of drains in their own areas? Miles and miles more. In the case of Mount Stuart we recognise that it is a most important thing for Hobart. The drainage of fifty or sixty houses up there is dumped into a dug-out at their boundary. By that means they get rid of their responsibility, passing their filth on in such a way that the Aldermen of Hobart have to do the work that properly belongs to an outside board. Of course, we have to do something at the boundary to remedy the evil.

2014. Is the work actually being done now? Not yet.

2015. What is the demand that the outside boards make in such a matter—that the work should be done by Hobart, and no compensation paid to the City? No, they offer a certain compensation; but, I say that they ought to bear the whole cost when drainage has to be dealt with under such circumstances as that. I have told the Health and Sanitary Committee that they should make the Mount Stuart people lay a proper sewer, of sufficient capacity and length, to convey the whole of their drainage from the boundary, at the point where their local drainage ceases, to one of our sewers. As it is, they bring the stuff in a formed cement gutter right up to our boundary, and then dump it down into a place that is a veritable quagmire.

2016. Was a solicitor's advice ever taken on the rights of the Corporation in that matter? No, that has never been done. The Corporation has been "got at" over and over again by these small surrounding boards, and, in cases of conflict, the outside boards always seem to come out on top. There are instances now. The Jordan Hill bridge has nothing whatever to do with Hobart, really; but we agreed to pay a third of the cost of it, as it was on our boundary. Our engineer prepared the plans of the work, and saw that it was carried out properly. We paid the contractor all the money due to him. Then we had to wait six months before the Government

paid its share of the cost ; and then we had to wait six months for the first instalment of payment due from the Mount Stuart Town Board. After that, the balance is to paid by instalments, as I said just now.

2017. Then the citizens of Hobart are paying for the carrying out of the local government of these boards? Certainly they are, to a great extent. I think, as far as I can remember Mr. Milles' estimate of cost, that this Mount Stuart drainage improvement I spoke of just now will cost about £160. Of that, the Board will offer £60 or so—probably, on a bill. I don't understand why the Corporation don't see that they're being got at ; but they don't.

2018. There are water-closets in Glebe Town, I think, that drain into the Park-street rivulet? I have heard so ; I have not seen them.

2019. What other questions have arisen with these outside boards with regard to health matters? Well, questions have arisen with regard to sanitary matters ; we have always objected to Glebe Town sending the whole of its filth through the City at prohibited hours. At ten o'clock at night you will find their carts going through the town. If we could compel them somehow to let our sanitary service do the whole of the work, we could do the whole lot—New Town, Mount Stuart, Queenborough, Glebe Town, and the rest—with the same amount of supervision that we have now, and without nuisance or dissatisfaction to anybody.

2020. You have no system of inspection of any sort dealing with suburban dairies? No, excepting in the case of Queenborough ; and there only because Dr. Sprott happens to be Health Officer of both places, Queenborough and Hobart.

2021. And these suburban dairies supply the town? Yes.

2022. Do their trade in town, really? Yes. Of course, if we can trace a case of disease to any dairy, we stop that dairy immediately ; we have that power, under the Act.

2023. But you have no wide powers of prevention? No.

2024. Now, Glebe Town is really a part of Hobart? Well, it ought to be.

2025. But actually? It is actually a part of Hobart, certainly.

2026. What about Mt. Stuart? Well, it is just as much a part of Hobart as Hobartville is.

2027. And Holbrook Place and Leslie? Well, Wellesley and Leslie are both really a part of the City. We have some properties, part in Hobart and part in Wellesley, and we can do nothing with such properties ; they are a continual bother.

2028. Now, suppose that the municipalities close at hand were all brought under one government, would it increase the cost of the administration of affairs much? The only increase in the cost of administration that I can foresee is, that we would have to get over a new Director of Waterworks, or a new City Surveyor. Mr. Milles is overworked now, and I do not think it is possible for him to pay that attention to these public works of the City that ought to be paid to them, when every part of his attention and energy is being exercised to the utmost in the control of the Waterworks. I think that, with an extension to Greater Hobart, the only extra expense that need be made would be the salary of a new City Surveyor or a new Director of Waterworks.

2029. You have had difficulties with the suburbs with regard to water supply, I believe? Very great difficulties.

2030. Let me look at the organisation of the City Council for a moment. You are the Town Clerk, working under the Mayor? Yes.

2031. Who are the heads of departments under you? The Health Officer and Engineering Inspector have a sort of duplicate department. The Health officer is the official head, and the Engineering Inspector is the actual head in this building.

2032. Now, under the Health Officer, who is there? There is the Engineering Inspector, who as I say, is the head in that department. Then there are two Inspectors—the Sanitary Inspector, and an Inspector under the Health Act—whose duties include the inspection of butchers' shops, bakers' shops, and dairies, the inspection of milk coming into the City, the inspection of foods in the City, and so on. The Officer of Health, the Engineering Inspector, and myself have all reported on this matter ; and it is on the tapis now, that this Inspector, who has to do all this work, and who is also our Bailiff, will be relieved from some of his work.

2033. Is that the whole staff of the Health Department? Yes ; except, of course, that the department really includes all the men employed in the sanitary service.

2034. What does the sanitary staff consist of? An overseer, and a certain staff of men who do all the work in connection with the removal of the sanitary pans, and one or two men employed in the creeks, whose work it is to clean up the creeks, and keep them in a decent state.

2035. What is the next department? Waterworks.

2036. The Director of Waterworks is at the head of that? Yes.

2037. He is also City Surveyor? Yes. That is only an amalgamated department—Waterworks and Public Works. Under him there is an assistant, with a clerk, the Foreman of Works, and the Foreman of Waterworks. The Foreman of Waterworks has a certain number of hands under him, whose work he supervises. Then the Foreman of Works has under him the head of the scavengers, who, again, has under him twelve men, three for each round. Then, under the Foreman of works, again, there are what we call gangers. Each ganger gets Threepence a day extra for taking charge of the City work he has in hand.

2038. You have forgotten the Turncock, have you not? No ; he is Foreman of Waterworks. Then there is the Accountant, who forms a Department by himself. I consider that the Accountant should be in charge of the Rates Office.

2039. Who has the Accountant under him? Nobody. Then there comes a big anomaly. The Town Clerk is City Treasurer as well. This is, I suppose, the only place in the world where the Town Clerk is City Treasurer. I have really nothing whatever to do with finance, but I have to sign the cheques as Treasurer. I think the Accountant should be termed City Treasurer, as in Sydney and Melbourne. The City Treasurer should then have charge of the Rates Office, with the three clerks in there—the outside collector, and two clerks under him. I consider that that department should be managed by the Accountant, who would be appointed City Treasurer, as he is everywhere else.

2040. What are the duties of the Rates Department? The collection of all moneys. Every penny that comes into the Corporation goes into the Rates Office—health rates, water rates, city rates, licensing fees of all kinds.

2041. And has the Accountant no control whatever of that Office? None, whatever; but I consider that he should have. I consider he should be the person responsible for that department.

2042. But what does he do now if he wants any alteration made in anything? If he disapproves of anything he comes to me and reports, and I take it into consideration with the Collector of Rates. Then, if the amendment is necessary, it is made at once.

2043. Is that the whole of the staff, then? That is the whole of the staff.

2044. In connection with any matter where there is a desire or necessity for public display—such as the visit of the Duke of York, or the reception of the Governor, or whatever it might be, when a display is made on behalf of the citizens—does the Corporation bear the whole of the expense? The Corporation has never borne the expense of a cent. in anything of the kind. The Mayor has to do it all. The Corporation has power to vote the Mayor up to £600 a year.

2045. Supposing there is any erection of arches? The Government would do that; the Corporation could not possibly do it. We might do it conditionally—in such a way, that is, that the expenditure would appear in some other way.

2046. And the expense of matters of that description is borne by the Mayor? Certainly, the Mayor would have to be allowed for. We are allowed to vote him up to £600. We allowed him £100 extra for the reception of the troops from South Africa.

2047. Then it does come out of the rates after all? Oh yes, indirectly; of course it does. The witness withdrew.

THURSDAY, APRIL 11, 1901.

J. W. C. HAMILTON, *examination continued.*

2048. *By the Vice-Chairman.*—I understand, Mr. Hamilton, that you said you did not consider the Corporation was responsible for the licensing of places of public entertainment? We are responsible to a certain extent. What I meant to convey was this: the licence is applied for, perhaps to myself, perhaps to the Municipal Council. Immediately I reply, and ask the applicants for the names of their bondsmen—all that comes in under the schedule. I then send on the application if the bondsmen are approved, to the police, asking if there is any objection to that licence being granted. If it comes back, marked either by the Commissioner or the Superintendent of Police—"No Police objection," the licence is granted, and we receive the fee for it. Therefore, really, there is a sort of joint responsibility. There is a simple instance of that in the fact, as I told you last week, that in the matter of the Temperance Hall last year, we had no objection to issuing the licence, but the police had; and the police refused to license the place for three days. The difficulty was got over, and the hall was afterwards licensed.

2049. Are we to understand then, that the City Council take no steps to ascertain that a place of amusement is fit for the purpose for which it is licensed—do they leave it wholly to the Police? Certainly not. With the existing buildings they do. With the Temperance Hall, the Lansdowne Crescent Institute, the Mechanics' Hall, and so so, that is so. But when any new buildings are contemplated, then, under our new Building Act they have to send in plans, and if the building is to be used as a place of entertainment, a dance room, or any kind of room of that sort, we then pass the plans over to the City Surveyor and the Engineering Inspector—Mr. Milles and Mr. Brain—and ask them to jointly confer on it, and report back to the Committee. If the proposed plans meet their views, and are suited for all contingencies arising in a place of that kind, and if they approve the plans generally, the plans are immediately approved by the Committee. If not, we hand the plans over to the people concerned or the builder, as the case may be, and have the alteration required by our officers put in the plans before the plans are finally passed.

2050. But of course there is a certain amount of responsibility incurred in the issuing of any licence by the Corporation? There certainly ought to be; but there is not at present, under the Act.

2051. Don't you think it would be better if the licensing was done by one sole authority? Certainly; and the responsibility thrown on those who get the fees.

2052. Does not a moral responsibility rest on them now, as they get the fees, and the licence is issued in their name? Certainly; but in several matters there is a sort of dual control now. At

centralisation, in the removing of the police from local control, sufficient care was not taken in securing the control of the police from different municipalities. So that now we are really making certain acts by favour of the Commissioner of Police; if he says we have to stand by, we have to do it. That is especially troublesome in the matter of informations. We have had informations laid by the Local Board of Health owing to the delay of the police. They have been up, in some cases, three weeks before the summonses have been issued. Notices have actually run out of time before the summonses have come up.

2053. You think that the Corporation, having no longer got control of the police, should have sole control of these places of amusement? Certainly, I do. I would like to add one thing on another matter, while I think of it. I have already suggested improvements in this matter, but there have been difficulties thrown in the way. I certainly think that the Mayor's Court should be a proper Mayor's Court. The work of the Corporation could be expedited to a great extent if we had a Mayor's Court as they have it in the other States, once a week, in our own building, to deal with our own cases. We would then have no difficulty, and no delay. Any cases brought under the Municipal Acts could be tried before the Mayor.

2054. Do you think it is advisable that the Mayor should try Municipal cases at all? Certainly. He tries rate cases; why not the others?

2055. Do you think that the Mayor should be allowed to try rate cases? Certainly. I think that water-wasters, keepers of unclean pans, and so on, should all be tried before any alderman.

2056. Is not it rather like making the City Council both the prosecutor and the judge? The Council never prosecutes, it is always an inspector.

2057. *By the Chairman.*—Pretty much the same thing, is it not? Oh, well, I suppose it is. Of course, when I make this suggestion, I do it only with a view of expediting matters. I consider there is often a wilful delay, especially in regard to health notices.

2058. *By the Vice-Chairman.*—But, you see, there is the danger that under such circumstances as those you suggest, you might expedite convictions? Well, we would have to take our chance of that. You asked me last week to produce certain opinions. I now produce one opinion dated 11th January, 1893, from Mr. A. I. Clark; with an endorsement or a sub-opinion of 11th June, 1893.

2059. *By the Chairman.*—From the same authority? The same authority—yes. Then I produce a draft by-law that came with that opinion. I also produce an opinion *in re* the Central Board of Health and the Local Board of Health and the City of Hobart, to enforce By-law No. 11. That deals with water-closets.

2060. Who is that opinion from? Mr. A. I. Clark also. I also produce another opinion of Mr. A. I. Clark's, *in re* the Local Board of Health and the City of Hobart, and the Park Rivulet and other creeks of the City of Hobart, bearing date the 28th October, 1896, with an opinion of Mr. John M'Intyre, of the 30th August, 1898. That was only a joint opinion with Mr. A. I. Clark. Mr. A. I. Clark was asked to confer with Mr. M'Intyre. They conferred together, and that was the opinion that emanated from them.

2061. *By Mr. Propsting.*—Has the Hobart Corporation power to light the City? Yes; by a Lighting Act.

2062. Have they ever taken any steps or discussed what steps should be taken to give effect to that Act? Yes, several times; and I may say that at the present time they are seriously discussing it. They have had—it was before my time—the Gentle Annie Falls tested, as to the power and body of the water coming down, by two or three electricians. But they were advised against lighting the City by that means, unless they could go to a great expense for storage at the Bower. They were advised that it would be necessary to store the water all day and send it down through the night, having just a very small flow during the daytime. But it really means sending all the water over the falls at night instead of all day and all night long, as at present; and so to keep up a continuous supply at a certain head during the night-time.

2063. Have they only discussed the lighting of the City by electricity? Yes; only by electricity. Another scheme that was discussed was the erection of destructors for getting rid of the refuse of the City, and, incidentally, getting power from the heat generated there.

2064. Can you tell us what is the annual amount paid by the Corporation for lighting? About £2000; or from that to £2500. The rate charged us is £5 per ordinary lamp, £6 5s. for one incandescent burner, £7 10s. for two, and £9 for three; and then for every extra street lamp we have to pay the proportion, of course, during the year. I think the cost to us runs out from £2000 to £2500.

2065. There has never been any proposal to acquire the Gas Company's right and premises? Not in my time. I have mooted it on two occasions. I do not mean officially; but I have said, "It's a pity we can't take over the Gas Company." There has always been a laugh then, for the reason that the Gas Company have a peculiar provision under their Act, that they cannot declare a bigger dividend than at present; so that they are really increasing their stock and plant all the time, so as to put it almost beyond our power to purchase.

2066. Is it the duty of the Corporation to see that the tramlines are properly maintained? It is the duty of the Corporation to see that the tramlines are not a source of danger to the public.

2067. Well, what are the exact duties of the Corporation in respect of the tramlines? To see that the tramline is kept level with the street; and that eighteen inches on the outside of each rail, and the whole of the space between the rails, are kept in proper repair.



2068. Is "proper repair" defined in the Act? No; that comes under the control of the City Surveyor. But I may tell you that we have at times served notices on the company to carry out certain repairs, and, as a general thing, we get back the answer, "We have no money to do it at present; wait until next month"—or, it may be, "next quarter." We have always tried to meet the company in such matters. Directly we told the company we were going to asphalt Elizabeth-street, they met us, and told us to do all their part of the work for them. They laid new rails all along that part of Elizabeth-street, and we did all the rest of the work for them.

2069. What amount of work was that? We asphalted the street from Macquarie-street to Liverpool-street; mind you, I do not think we would have any power to go to the company and tell them to take up an old rail and put down a new one in its place.

2070. What officer's duty is it to inspect the tramlines? The City Surveyor's.

2071. How frequently is it done? I think it is done every day. There is not a specific inspection of the tramlines any day, or during the year, for that matter; but if we notice a bad place we immediately notify the company.

2072. You mean to say, then, that the City Surveyor's inspection amounts to this: that when he sees anything, he takes notice of it? Yes; if a foreman or any other officer of the Corporation, he reports it to the City Surveyor. It is a general duty of any officer of the Corporation to report it, just as it would be if we saw a hole in a footpath, or anything of that sort.

2073. Have any accidents been reported to you, caused through the defective state of the tramlines? None.

2074. Never have been? Never have been since I have been connected with the Corporation.

2075. Has the question of purchasing the trams been discussed by the Corporation? We have been approached by the other side and asked to purchase, but always at a ridiculous price. We have informed the company on each occasion that we could not think of the price, and that is how the matter has ended. That is just about twelve months ago, now—since the last offer of the kind was made, I mean.

2076. Has the Tram Company a perpetual right over the streets? Yes.

2077. Do you consider that detrimental to the interests of the citizens? Absolutely; in every way, for the simple reason that if they liked to use it, they could go to work to-morrow and continue the Elizabeth-street line on to the wharf, and round the wharf, and we should have no right to say a single word against it, or to seek to stop them in any way.

2078. Do you get any revenue from the Tramway Company? Yes; rates on £100 a mile per year, I think it is. They are rated up to our full powers under the new Assessment Act.

2079. What is the basis of assessment? The valuation of the line, at so much a mile.

2080. Is that valuation much below the price they offered you the line at? Oh, yes; very much. The Assessment Act only empowers us to value up to a certain price. Under this Assessment Act (62 Vict. No. 33), we are charging the full value we can charge.

2081. Can you tell us exactly what revenue you get from the tramway company? I think it is rates on £100 a year per mile. There are exactly three miles of rails in Hobart—a mile from the Town Hall to the boundary at New Town, a mile to the boundary at the Cascades, and a mile to the boundary at Sandy Bay. I think we get rates on £300 a year from the company. I think they put down the valuation at £1000 a mile.

2082. Would that be under the Assessment Act, or the Tram Company's Act? The Assessment Act. It was put in specially as a clause in the Assessment Act.

2083. Do you remember what the price was at which the Tramway Company offered the trams and lines to the Corporation? No; but it was a very intricate sort of thing—so much in cash, so much to debenture-holders, and so on. I could not say exactly what the price was, but I know that the Council thought it was an utterly absurd price, and told the company so. I think the Council said that if they were asked about a fourth of the price they might consider the proposal.

2084. What are Mr. Butterworth's duties in the Corporation? I think he has about thirteen distinct duties to perform. He is Bailiff to the Corporation, first of all. All warrants are made out in his name; then, he is Inspector under the Health Act; he is Inspector of Weights and Measures; he is Inspector under the Roads Act; he is Inspector of Cabs, Delivery-carts, and so on. Then, he has charge of the collection of dog licences. Milk and foods both come under his supervision under the Health Act.

2085. Is he able to perform all these various duties satisfactorily? He is not able to carry out all these duties satisfactorily, and it has been reported to the Municipal Council, who are at once taking action on it. Within a week from now a man will be taken on. Also, that on the recommendation of the Health Officer, another inspector is to be appointed. Referring back to the tramways, the clause that deals with what I was speaking of, one of the sub-sections of Clause 9:—"The local authority may assess any public tramway not exceeding One hundred Pounds per mile on the annual value of such tramway exclusive of the value of any buildings used or occupied therewith."

2086. What is the rate you levy, then? We levy a general rate on that for the full amount. We levy on whatever the assessment of their premises is, too; and they pay full rates on that. While I am talking of rates, I may say that I have suggested all along that the Gas Company should be charged a heavy rate for all its mains. They do far more damage to our streets and paths than the tramways do, and we have no redress, except that the company have to pay to



put the streets and paths they break up into proper repair afterwards. But it is absolutely impossible to repair an asphalt path with satisfaction after the Gas Company has gone through. They allow no time for settlement. After they have done their work they fill in the ground and put in an asphalt coating on top. Then, in a week's time our man has to go over the place and do it up again. I know for a certainty that in Wellington, and certain New Zealand cities—and Sydney was going to follow suit, and has already adopted the same system to a certain extent—they put a heavy taxation on the gas mains. Wherever a street carries a main, the Gas Company has to pay a certain amount, on the same line as the tramways pay £100 a mile here, or whatever it is. I know that we have had hundreds of complaints since I have been in the Corporation, without exaggeration, hundreds of complaints, as to streets opened up in repairing gas mains, and then improperly filled in again. They put the clay on the top, for instance, and that spoils the streets. Settlement takes place afterwards, and we have to go over it and make it right, using our own metal, at our own cost.

2087. *By the Chairman.*—Do you think that the tramlines of Hobart are properly maintained? Certainly not. Of course I am speaking unprofessionally only, as a traveller on the trams.

2088. Are you aware of any report from the City Surveyor to Mayor, giving the City Surveyor's views upon the subject? Not in my time. I have seen a very extensive report that was prepared before my time. Since my time, I have forwarded a copy of that report to Mr. Parker, and he has forwarded it to his people at Home.

2089. Has that report ever been made public? I do not think so.

2090. As a matter of fact, it has not been made public, has it? I would not say that; I do not remember. If it came to the Council in its proper form it would be made public at once.

2091. Do you think that the present condition of the trams is a credit to the City of Hobart? Certainly not, sir.

2092. Can you procure that report for us? Certainly, if you give me an order to produce it. I want to make a correction in the evidence I gave a week ago. I do not know how on earth I got into such a mistake, and it did not strike me until I was talking to one of the Commissioners—my father. He said “you distinctly told the Commission that it was four shillings per cent. you got for a Sinking Fund.” I do not understand how I made such a mistake. The old Act empowered us only to charge five shillings on each account, but directly the Auditor-General came to us, he told us that five shillings per cent. was not enough, and he instructed the Council, in his report, to charge ten shillings per cent., and from the time the Auditor took us up—I think it was in 1896—ten shillings per cent. has been charged on both accounts. That was made law by Parliament during last session.

2093. You told us last week that the Auditor-General considered five shillings per cent. quite enough? It was a total misconception on my part, because I drew the amended sections myself from the Launceston Act, and they were sent on to the House. The new section provides—(64 Vict. No. 49)—“That ten shillings shall be provided out of every hundred pounds for the Sinking Fund from the General Account and Water Account.”

2094. *By Mr. Guesdon.*—That is not obligatory on the Corporation, is it? Oh, yes.

2095. Then you misconceived another question, too; because you stated to me that unless some future aldermen undid this you thought it would be sufficient. Do you remember? Oh, no; that was on a different subject altogether; that was on the question of the twopenny rate. This was when the first Loan's Consolidation Act was brought in, in order to make the Council provide properly for its loans. The Auditor-General said that they would not provide properly, and so they raised it from five shillings to ten shillings per cent. I drew the sections from the Launceston sections, and passed them on to the Attorney-General, who settled them, and passed them through the House. As Town Clerk or City Treasurer, I would now be bound to demand that money.

2096. What does that ten shillings per cent. apply to?—The whole sum of money you have borrowed? The whole sum the Corporation has borrowed—yes. The whole of the loans were consolidated in 1895, and it was after that that a small Act was passed, enforcing us to pay five shillings per cent. Then, in 1896 the Auditor-General took over the accounts, and he said, “This provision of five shillings per cent. is not enough; you must pay ten shillings per cent.” This Act is the outcome of that. Since 1896 we have been paying ten shillings per cent.

2097. Do you know what the life of your water-mains is? Well, I have heard from our professional men that it is all according to the character of the land in which they lie. The life of a certain portion of them is quite forty years. We took one up a while ago, at the front of the Gaol. It was known to have been down forty years, and it was in perfect preservation with the inside coating not worn off; another main has been down five or six years, perhaps, and it is found to be blown right through. My father tells me it is exactly the same with gas-mains. I certainly think, from what I have heard, that we ought to make provision for the escape of our surplus current. They have an Act in England now, enforcing them to control their surplus electric current. If this is not attended to we shall find that we shall suffer greatly with our water-mains later on.

2098. How do you invest your Sinking Fund? In three per cent., Government Local Inscribed Stock, most of it. We have now power from the Governor-in-Council to invest it in our own Hobart Waterworks Debentures at three and a half per cent.

2099. Supposing that your turncock estimates the average life of a main at from thirty-five to forty years. Do you consider that a Sinking Fund of ten shillings per cent., which, invested at three per cent. compound interest, would take ninety-four years to recover the amount of expenditure would be adequate? Certainly; if we had a proper renewal fund.

2100. But then, your renewal fund is purely optional with your Corporation? Certainly; and, as I said last week, it ought to be made obligatory. I am sure that there has never been an alderman or a Mayor in the Hobart Corporation who has not been impressed with that. We have an opportunity, now that we have forced the extra twopence on, and it ought to be made obligatory for future time.

2101. *By the Chairman.*—Just one more question as to that report made by the City Surveyor on the Hobart Tramways. We know it has never been made public. Was that report ever laid before the Corporation by the Mayor? It was not made to the Mayor, privately. It was made at the instigation of a committee.

2102. Was that report ever laid before the Corporation, as a Corporation—was it ever laid before the City Council? It was laid before the majority of them.

2103. You are quite sure of that? Quite sure, yes.

2104. You cannot say why the report was not made public in the usual way? Certainly not. I may say that the idea of that report, as I understand it, was really to force the Tramway Company to keep its lines in the City in a better state of repair. It was at the invitation of the Manager of the Tramway, to the best of my knowledge, that that report was made.

2105. I am referring to a report made by the City Surveyor to the Mayor, which has never been made public, and has never been laid before the Corporation—you understand that? I know of no such report. I know of one report, made at Mr. Parker's own request, I think, before I joined the Corporation.

2106. *By Mr. Propsting.*—You say that that report was sent to England? Yes; the whole thing was worked between the Corporation and the Tramway Company. We asked them to do certain work in the repairing of their lines, and they said, "We have not the funds." The other said, "We will have to force you." Mr. Parker said, "I wish you would. You can get a report from your City Surveyor as to the state of your lines, and I will only too gladly forward it on." The Mayor was asked to do this, and it was done.

2107. Have you heard anything of that report since it was sent to England? No, I have not. It must be eighteen months ago now. It was, I think, before the Tramway Company asked us to consider the proposal for the purchase of its property.

2108. And has nothing been done by the Corporation in the way of carrying out the recommendations of the City Surveyor, made in that report? No. Anything we have wanted done, Mr. Parker has always tried to do.

2109. *By the Chairman.*—Now when the Tramway Act authorised the company to construct this Tramway, were there not provisions inserted to ensure the proper maintenance of the lines?—Was not the line to be maintained to the satisfaction of the City Council? Yes.

2110. And it has not been so maintained? No.

2111. What is the penalty? No penalty is provided, so far as I know.

2112. Then, this provision that the lines shall be properly maintained is useless? Well, it is in the Act.

2113. And is the Corporation altogether powerless, then? No; of course we have power to issue a mandamus ordering them to carry out certain repairs; but we do not think it is politic to do that, on account of the fact that the company have got no funds. They could not pay law costs in another case; and we don't want to needlessly incur law costs if we can get the work done without forcing their hands. If we report that a part of a street traversed by their lines is out of repair, and wants packing up, they will always do it without delay.

2114. But the line has been reported to be out of condition from the very commencement? Oh, certainly—yes.

2115. And the Corporation has allowed it to continue so, without attempting to remedy it? Well, we hold that it was the Government's responsibility in the first place. If the Government had not extended the company's bill in the way it did, the present difficulty would not have arisen.

2116. But, surely the Corporation can compel the company to properly fulfil the conditions of the Act? Yes; if we issue a mandamus. But directly we attempt to force a mandamus, the debenture-holders would step in, and we would be out in the cold. It was the same in that matter of £900 damages. They were told, "if you don't take £300, the debenture-holders will step in," and we were only too glad to settle up.

2117. *By Mr. Guesdon.*—What is the amount of the debentures in that Tramway Company? I have no idea.

2118. Do you think it would be worth your ascertaining what that amount is?—for this purpose—that in the event of action being taken by the Corporation, and your getting a mandamus and judgment for the amount of the costs, you would be able to seize the equity of the redemption, subject to the debenture-holders' claims, would you not? Yes, if there were any equity of redemption.

2119. And if you ascertained what the amount is that is due to the debenture-holders, you would be able to calculate as to whether it would be worth while for the Corporation to seize the trams for the amount of their judgment, and take the whole thing over in that way? We have

been guided all along, more than anything else, by the case of *Taylor versus The Hobart Tramway Company*, in which Taylor got substantial damages. The Tramway Company forced Taylor to accept £300, each party paying its own costs. Stephens and Stephens determined to fight it out, and went a certain distance with it; but they then became glad to submit to the Tramway Company's terms, thus proving that there was very little to get, outside of what the debenture-holders had.

2120. But don't you realise the fact that, as the Corporation, you are in a very different position from that of Stephens and Stephens?—If they seized the trams, and tried to work them, subject to the debenture-holders' rights, they could not do it so efficiently and profitably as the Corporation could? No, certainly they couldn't. I see now what you mean.

2121. Don't you think it would be worth while, then, to consider the matter, if you have such trouble as you say you have owing to their not maintaining the street properly? Well, they do it whenever they can. When we point out a certain spot that is out of repair, they go at once and repair it.

2122. *By the Chairman.*—But, of course, you know that the whole line is out of repair, from start to finish? I don't know that, professionally.

2123. *By Mr. Guesdon.*—Well, I suppose, then, there is no doubt in your mind that it would be a great advantage to the City if the trams were the property of the Corporation? You are quite right there.

2124. Then does it not strike you that there is no more advantageous way for you to acquire possession, then by forcing the company through the Law Courts, to carry out the spirit of their Act, and keep the road in good order—and then, if they defaulted in the payment of costs to put up the equity of redemption and buy it, subject to the debenture holders' rights—cannot you realise the fact, that those would be the very best terms upon which you could possibly acquire the rights? Certainly.

2125. Then it seems to me that you need not hesitate for one moment about incurring law costs, but at once compel them to carry out their plain duties with regard to your streets; because there is the remedy, ready to your hands; don't you think so? I do. I think so, certainly. I want to ask you one question though. I am a little worried as to an answer I gave Mr. Patterson, about that report. Mr. Milles has given a report to the Mayor, I believe, which has been a private report, as to what he considers the value of the Tramway Company's property in its present condition.

2126. *By Mr. Propsting.*—Mr. Hamilton, what is the method of calling for tenders for the Corporation requirements? Oh, there is only one method. A specification is prepared in whatever office it is coming from. For instance, if it is for a work in connection with the Markets, it would be in the City Surveyor's Office. Tenders are then advertised for on that specification—the tenders to close at the exact hour of the sitting of the first Council Meeting after the advertisement.

2127. Is everything that is done for the Corporation tendered for? No, certainly not. There are hundreds of works it would be impossible to call tenders for, for hundreds of reasons. We advertised the other day for tenders for the construction of a new street. Before considering them we had an estimate of the departments sent in, and it was nearly £50 below the lowest tender; and, I may mention, that the estimates of the department are considerably above the actual cost of the work, when it comes to be completed. For one work the lowest tender was £340; Mr. Milles's departmental estimate was £270.

2128. Then, as regards supplies: are they tendered for? Yes; bricks, cement, hardware, and ironmongery of all kinds and descriptions. They have adopted a system this year which is totally different from that previously followed—the system of divided tenders. It has been the rule to give a contract to whoever is lowest on the list *in globo*. This year they have separated tenders. If you were lowest in picks, and I in shovels, you would get the one contract and I the other. That system of tendering has proved totally unsatisfactory in all its workings. It is so with printing and stationery. The printer who took one of two things came and asked us to let him off his contract that he had cut another man out of, and we had to go to the other man and ask him if he would do the work at his tender price. The iron-casting work is all tendered for. One man refused to have his tender accepted under the new conditions, and another man threw up his contract in a month. Now we have to go on doing the work by piece every time.

2129. Do you know what method is adopted by the Railway Department for the purchase of supplies? I have no idea. All the supplies we get, of course, are small lines. We get samples, which we hold for twelve months.

2130. Do you know that it is a fact that the Railway Department calls for separate price-lists for separate goods? Do you mean exactly as I said we were doing?

2131. Yes? No, I had no idea of it. I hope we won't do it again, anyhow.

2132. *By Mr. Guesdon.*—Do you distribute your advertising impartially amongst the Press? That matter is left entirely in my hands, and I invariably, if it is a job over a pound in value, go round and ask for prices. That is for general printing. As to advertising, we distribute it absolutely equally between the two dailies now. That is to say that to a certain extent I go by circulation. If one daily paper comes out with half the circulation of another, it is not fair that that paper should get the same proportion of advertising as the one with double the circulation. I should say that the proportion to follow in distributing advertisements between the morning and evening papers now would be about, for daily advertisements, three to

two ; weekly two and three. If it is a month's advertisement, I think the *News* gets two and the *Mercury* three.

2133. You call for tenders for your printing? Yes. What I referred to just now was the ex-tender printing.

2134. And that is left to your discretion to go and ask for prices? Certainly.

2135. Does it not seem to you that that also should be dealt with by tender, if the tender principle is sound? Well, I don't think it could be given out by tender. It might perhaps be tendered for by the page or folio. We get "quotes" which are really quite equal to tenders for our purposes.

2136. Then how do you determine on the quotes?—you see this is the awkward point about it: if you get quotes there is always possibility of your going to one printer and saying, So-and-so has quoted lower than you." Do you think it is advisable to depart from the sound principle of tendering? No reply.

2137. You see, going round and getting quotes always has that objectionable feature about it, hasn't it? Well, no one has anything to do with the matter but myself. I send across to the *Mercury* Office, and I see the *News*'s people, and when the two quotes are in, as well as Walch's and the *Clipper*'s, I decide. I send these quotes to the Accountant immediately and say "This quote has been accepted." Then when the accounts come in, he gets the precise charges and see that they are right.

2138. Since you have been in the Corporation, who has done the principal portion of the printing? The *Mercury*, by far. They are ten per cent. cheaper than any other printer. I may say that we never get quotes from the *Clipper* or the *Tasmanian Mail*. We only get quotes from the dailies.

2139. Do you advertise in weekly papers? No; for two years now we have not advertised in weekly papers.

The witness withdrew.

FRIDAY, APRIL 12, 1901.

MR. R. S. MILLES, *re-called, and further examined.*

2140. *By the Chairman.*—We have summoned you to-day, Mr. Milles, to ask you some questions in regard to the manner in which the Hobart Tramways are maintained.—Can you tell us, from your own knowledge, whether these lines are maintained in accordance with the provisions of the Act authorising the construction of the tramway, and the running of the trams? Under the original Act, you mean.

2141. The Act authorising the construction. Is the company maintaining its lines and traffic in the manner set forth in the schedule of the Act, or in the provisions of the Act, authorising the construction of the undertaking? Well, I think that is somewhat a question for the Council, really, and I cannot answer off-hand. The Act I have not got with me.

2142. I am not asking you whether the City Council is taking action or not, or if the Aldermen have done their duty; but rather whether, in your opinion as an engineer, the lines are now maintained in a fit and proper condition, in accordance with the provisions of the Act? I should like to refer to the provisions of the Act first, before I answer that question, Mr. Chairman.

2143. *By Mr. Guesdon.*—There is Section 16, Mr. Milles? [Witness refers to Act.] Yes, the wording as to the maintenance of the lines is, "as the Local Authority shall direct."

2144. *By the Chairman.*—Very well then. Now, in your opinion as an engineer, have these lines been maintained in a fit and proper condition? No, I do not consider that they have: not in such a way as an undertaking such as a public tramway should be maintained.

2145. Have you ever reported to the Mayor on the condition of these lines, especially with regard to this matter of the maintenance of them? Yes, I have.

2146. Was that report laid before the City Council? It was given directly to the Mayor, and I believe, as far as I know, that it came before the Members of the Council. I do not think it was used as a public report; but I believe all the aldermen were conversant with it.

2147. It was never given to the public through the press? Not that I remember.

2148. Was there any reason for that? I cannot say.

2149. Could you produce a copy of that report for the information of this Commission? Yes, I think I could.

2150. Will you do it? Yes, I will try; I think it is copied in our letter-book.

2151. Do you think the way in which the tramlines are now maintained is a credit to the City of Hobart? Certainly not.

2152. Can you suggest to the Commission any method by which the maintenance and running could be improved? Well, I went into the matter at the time of this report, and the only way I could see out of the difficulty was to put down a complete new permanent-way right throughout, and to improve the rolling-stock.

2153. In other words, you entirely agree with me that we want an entirely new tramway, and more modern rolling-stock? Quite so.

2154. *By Mr. Guesdon.*—Can you give us, roughly, an estimate of what it cost the Corporation to make good the damage done to your pathways and streets by the Gas Company during the year? No; I could give you a return giving pretty fairly the amount of work we do for the Gas Company. Under the arrangement that we have now with the company, when they open the paths they give us notice, and we repair them at a fixed price throughout. But, in many instances, with such matters as the road-work, we have had a good deal of trouble in that matter, and I have had to make several complaints to the Gas Company of late about it.

2155. And am I to understand, then, that you take up and repair the roads as well as the pathways for the company? Yes, when they have done any large work in connection with a main, we have called their attention to it, if it has not been done in a proper manner; and in most cases of late, after their manager has inspected the place, we have repaired it at the company's expense. But it is not a satisfactory arrangement at all, because it always means that we have to refer to every item under that arrangement.

2156. Can you suggest any means by which the Gas Company could be compelled to compensate the Corporation for the expense it is put to in repairing damage to the streets caused by any work done by the company? Well, the only way that I can see in which a satisfactory arrangement could be arrived at would be for the City Surveyor's Department to put every piece of work in proper repair after the Gas Company has done it, the department taking full responsibility, and charging the Gas Company just the bare cost of the work.

2157. Then the agreement at present does not provide for that? No, not for the roadways—only for the crossings and footpaths. I may say that the company has met us in this matter within the last twelve months better than it used to do.

2158. In your report on the Styx proposals you suggest, I think, that the water should be brought in to a hill in the vicinity of New Norfolk? Yes.

2159. And then you would have a certain drop? Yes; I hope from five hundred to six hundred feet, leaving a hundred feet nett above the river.

2160. For irrigation purposes? For irrigation purposes—yes.

2161. And what amount of brake horse-power did you estimate that you would have off the Pelton's? A thousand horse-power.

2162. Using what quantity of water? Ten million gallons.

2163. *By Mr Propsting.*—What does the Tramway Company's Act pledge them to do with respect to keeping the line in repair? Well, as far as I have been able to read this Act, the local authorities have full power to insist on the maintenance of the line up to its original standard of construction. But it is rather questionable whether they could force the company to put down a new class of construction now, and paving on either side of the rails.

2164. Are they pledged to keep the road between the rails level with the top of the rails? Yes. That was one of the points I referred to in my report.

2165. And to what extent are they expected to keep the roadway level with the outside of the rails? The provision is that they have to maintain eighteen inches on the outer side of the rails on each side, and the whole of the space between the rails.

2166. Do they do that at present? Well, it is difficult for them to do it, in some cases. I think I gave it in evidence before that the rail, in many cases, is at present above the surrounding surface of the roadway, and although the Act is clear and comprehensive on that point, still they have nothing to pack their eighteen inches of outside width on if the surface of the roadway is too low. The result is that all they can do at present, in the ordinary way of maintenance, is to put down that tarred metal over the width of eighteen inches from the outer side of the rails, and this very often leaves a bump on the roadway.

2167. Whose duty is it to inspect the tramlines on behalf of the Corporation? Well, I think it would be mine; but, of course, after that other report, I had no other instructions, and the lines are, practically speaking, in the same condition now as they were then.

2168. You have made no inspection since? Oh, yes, I have—several times; and the line, as I say, is in the same condition, practically speaking, as it was when I reported on it.

2169. And you have not reported that to the Corporation? No—not since. My report dealt with all the chief features of the business.

2170. Have you not considered it your duty to bring under the notice of the Corporation again the undesirable condition of the line? Well, it has been spoken of so often by the members of the various committees, that, particularly as my report was still in existence, I did not see any use in doing so.

2171. *By the Chairman.*—Then, practically, your report has been burked, so far as any practical issue is concerned? Well, there is no outcome of it, that I know of, so far as I am concerned.

2172. Now, I wish to call your attention to this 16th clause of "The Hobart Tramway Company's Act" (48 *Victoria, Private*):—"The Company shall, at their own expense, at all times, maintain and keep in good condition and repair, with such materials and in such manner as the local authority shall direct, and to their satisfaction, so much of any road whereon any tramway belonging to it is laid, as lies between the rails of the tramway, and so much of the road as extends eighteen inches beyond the rails of and on each side of such tramway. . . . Provided always that if the Company fail to comply with the provisions of this section, the local authority, if they think fit, may themselves, at any time after seven days' notice to the Company, open and break up the road, and

do the works necessary for the repair and maintenance or restoration of the road to the extent in this section above-mentioned, and the expense incurred by the local authority in so doing shall be repaid to them by the Company." Has that ever been carried out? Not that I know of.

2173. Has any attempt been made to carry it out? Perhaps I might tell you that this has been rather a difficult question, owing to the financial position of the company.

2174. We have nothing to do with that, you know? No; but, all the same, I have had several conversations with the Manager of the Tramways, and, as far as he is able, with the funds at his disposal, he has tried to meet the Corporation in every way he possibly could. Even when we did that tar-metalling in the middle of Elizabeth-street, it was only with the greatest difficulty that he could find the funds.

2175. But, still, you see what the provisions of this Act are? Oh, yes; they are perfectly clear.

2176. And the tramway is really in a miserable condition? A miserable condition, certainly.

2177. And the local authority has not availed itself of the provisions of the Act? Not as far as that clause is concerned.

2178. And that is a vital clause? Oh, yes; I suppose it is.

2179. Now, with regard to the supply of materials and stores to the Corporation. Do you call for tenders every year for such supplies? Yes, for the ordinary supplies we have.

2180. How do you deal with these tenders? Do you single out special items, or are the items grouped as a whole? Until this year our practice was to take the average lowest tender—the lowest tender, that was, for the largest number of items. The person who tendered lowest for the largest number of items got the contract. This year, a different system was adopted in some tenders; the person who tendered lowest for any separate item got the contract for the supply of that one, and so the whole thing was split up.

2181. Do you think that that is a good system? No, I do not. It has not worked at all satisfactorily in our case, anyhow.

2182. As a matter of fact, as Engineer to the Corporation, are you absolutely free to accept or reject tenders? No. Generally, a tender is referred from the Council to the committee that has to deal with that branch of the Corporation's work, and they make the recommendation—making it, chiefly, of course, on my recommendation to them.

2183. Are your recommendations to them always carried out? No, not always. In the case of this change of system, I certainly would not recommend it.

2184. Now, can you tell me this, from your experience: say the Corporation requires bricks, for instance; have you ever known bricks rejected by an architect or builder of this City for his private work accepted by the Corporation? Not that I know of.

2185. You would be surprised to know that that has happened? Oh, it might have happened, with a certain class of brick. But we have generally had samples to tender on. Taking it all round, with the exception of one or two cases, we have had very fair results.

2186. Do members of the Corporation or their partners ever tender for the supply of these materials, or for work done under the Corporation? Have you known that done in your own experience? Not that I know of.

2187. In no case? Not that I know of as to members of the Corporation.

The witness withdrew.

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ALAN C. WALKER, A.R.I.B.A., *called and examined.*

2188. Mr. Walker was sworn.

2189. *By the Chairman.*—What is your full name, Mr. Walker? Alan Cameron Walker.

2190. And you are practising your profession as an architect in Hobart, I believe? Yes.

2191. And you have a very extensive acquaintance with building materials of all kinds? Fairly so.

2192. Can you tell this Commission whether, in the course of your personal experience since you have been practising in Hobart, you have had occasion to reject bricks or other materials offered for building private places with which you have been concerned, on the ground of their not being up to the specifications? Occasionally.

2193. Do you know of any instances in which these bricks so rejected by you have been accepted by the Corporation for use in City works? I do not know that of my own knowledge. I have been told that such bricks have been used by the Corporation, but I did not take the trouble to investigate.

2194. You do not know, then, of your own knowledge, that such bricks were used? No.

2195. Have you reason to believe that such was the case? I have reason to believe so—yes.

2196. And has that been the case with any other class of material besides bricks? No; not within my knowledge.

2197. Do you know anything of the Customs House building now in course of erection—I mean with regard to the foundations, and so on? I saw the foundations being excavated.

2198. Did you ever notice any water in the trenches there? Yes; at one time when I saw them they were full of water, below a certain depth.

2199. Do you know where that water came from? No, I have no idea. I believe it was brackish water.

2200. You never tasted it? No.

2201. We were inquiring just now into the conditions under which the Corporation invites tenders for ordinary supplies; and we have been told that, until this last year, it has been customary to take the lowest tender for each lot *in globo*, but that they now pick out the individual items, and the lowest tenderer for each item gets the contract. Can you tell us whether that is a proper system to adopt? I should certainly say it would be.

2202. Taking tenders for all the individual items separately? Yes.

2203. *By Mr. Propsting.*—Why do you say you think the water in those trenches at the Customs House was brackish, Mr. Walker? The contractor told me it was. I asked him if it was fresh water; because I had an idea myself, that it was just the saltwater that had come up with the tide that was coming back. When we were building the Marine Board buildings, and the T. S. N. buildings, the water used to come in, and rise and fall with the tide; so I asked the contractor who is putting up the Customs House, "Is it saltwater?" He said, "No; it is saltwater a little brackish."

2204. What stage were the foundations in then—was the flow of water a very extensive one? It did not seem to be running water at all to me; it just seemed to be still water. Of course, I was only there, as you might say, casually; I was not there the whole time. I did not notice any flow of water when I was there. The water was just lying still.

2205. Do you know what the depth of it was when you were there? Probably about three feet, I should think. Of course, not being officially connected with the thing, I did not take particular notice of it.

2206. When the plans are prepared for a new building—any new building—to be erected in Hobart, have they to be submitted to the Corporation? They are submitted to the Corporation.

2207. For what purpose? To see that they comply with the Building Act. They are generally submitted to the Corporation by the contractor, not by the architect.

2208. Do you know anything of the charges made by the Corporation to builders for water? I believe it is on a sliding scale. I cannot remember now, exactly, what the scale is, but I know it is a sliding scale.

2209. Does it depend on the cubic measurement of the room or building? No; it is based on the cost of the building. I do not think that is the correct and reasonable system myself, because, of course, one might put up a costly building and not use a gallon of water. But, according to the system in vogue, one has to pay for the water, whether it is used or not, and not proportionally to the amount used in any case.

2210. Do you know whether that system has recently been modified or altered? No, I do not.

2211. Can you give this Commission any idea of the cost of water to a large building during erection—say such a building as the new Post Office, or Tattersall's, or the Customs House? Well, as I told you just now, it is according to the scale. If a building costs about £25,000, the water-charge would be about £50. That would be the charge for the new Post Office on the present scale. I worked it out, and I believe it came to about £50; but I do not think that if they measured the water actually used, and charged for it at a shilling the thousand gallons, it would come to nearly as much as £50. The more work you put on a building—such as stone-carving, and so on—the more you have to pay in proportion for water, and the more you spend on such work, the more you would have to pay for water in excess of what you would have to pay on a common brick building.

2212. Do you know the method followed by the Corporation in charging ordinary householders in Hobart for the water they consume? They pay on an assessment of the annual value of the houses.

2213. Do you consider that is a fair means of getting value for the water consumed? No, I do not—not altogether. Of course, a large house might have only a few people in it, and it would still have to pay very much more for water than a small house with a large number of people in it. That does not seem to be altogether a fair system.

2214. Would you favour the adoption of the meter system in preference to that? If everybody had a meter, certainly.

The witness withdrew.

WEDNESDAY, APRIL 17, 1901.

FREDERICK BACK, *called and examined.*

Mr. Back was sworn.

2215. *By the Chairman.*—Your name is Frederick Back? Yes.

2216. And you are General Manager of the Tasmanian Government Railways? Yes.

2217. We are at present inquiring into the question of the method of dealing with tenders for the supply of stores in connection with the work of the Hobart Corporation; and it seemed to me that you could give us some very valuable information on that matter, particularly as you were on a board some years ago that had to deal with matters in connection with the Government supplies.



Can you tell us exactly how you came to be on that board, and what the result of the board's deliberations was? Well, as far as I remember, the Treasurer or the Premier of the day sent for me, and stated that he was not satisfied with the existing system of Government store-keeping; and he asked me to give him some information as to what we were doing and what we were paying in the Railway Department. It was then shown that we were obtaining our stores in the Railway Department at a very much lower price, in some instances, than was paid for the general Government stores. On that a committee, of which I was chairman, was appointed, and a report was furnished to Sir Philip Fysh on the matter. Whether he was Treasurer at that time or Premier, I forget—Treasurer, I think. Anyhow, we told him he could save over £2000 a year by making some change in his system of storekeeping. The Government adopted, to a great extent, the recommendations of the board; and Sir Philip Fysh told me afterwards that the anticipated £2000 a year was more than saved.

2218. What was the radical alteration that your board, in your report to the Government, recommended the Government to make? Well, the whole system there, as we found it, was bad. For instance, if they wanted castor-oil they would send to England and pay ten shillings a gallon for it, when all the time they could buy it here for 2s. 6d. That was only one case of the sort among many.

2219. Well, now, could you tell the Commission your practice in the Railway Department with regard to supplies for stores. We have had it in evidence that, until quite recently, the Corporation called for tenders, and accepted the lowest tender, taking the items in bulk. Since this last year they have altered that system, and now they call for tenders and distribute the contracts in accordance with the lowest tenders under individual headings. What do you think is the proper system? What class of stores are you referring to?

2220. Well, we will suppose that there is a schedule of materials which is put forth to tenderers? For twelve months supplies of all sorts, you mean?

2221. Yes. Hitherto it has been the system to give the contract to the lowest tenderer? The one that aggregates the lowest?

2222. Yes. But lately they have adopted another rule, under which they take the separate tenders for each separate item, and accept the lowest tender for that item alone. Would you consider that a wise way of doing it? I should not think it would be either wise or fair. I would not tender under those conditions myself.

2223. *By Mr. Hamilton.*—Would you stipulate, as a condition, that you were to have all or none? The common practice in all large companies and railways, and so on, where they have tenders for a years' supply, is to accept the tender that is lowest in the aggregate. A man who knows the run of the ropes, and knows what quantities are used, might put in an exceedingly low price for those articles that are of very infrequent consumption, and put his higher prices on those articles that are used daily. I do not think it is fair, in either case, to adopt the system you have described. If you call for tenders for a years' supply in a small place—I am not quite sure whether that is the best thing to do—you should accept the tender for the whole supply.

2224. *By the Chairman.*—Is that the system that is adopted in the Railway Department? No; but from my knowledge and experience it is the common practice elsewhere. But here we are a very small people. When I first came to Tasmania the stores were purchased at retail rates from retailers, and the prices paid were simply ruinous. I have adopted a system which suits our requirements. Large lines—say rails and fastenings, and so on—we get tendered for in England, through the Agent General, and certain standard lines we buy from the makers. For instance, Champion's white lead we get at first-hand; Andrew Spences' oils we get at first-hand, and Harland's or Turner's varnishes. In the Railway Department, as you know, there are a number of standard articles that are used that you can buy in England through the Agent-General, the prices varying, at different times, very slightly. Then in local matters our practice is different. If we wanted kerosene, for instance, we should watch the market, and when the proper time arrived, we should send a little printed slip to each importer asking for a rate for so many hundred or thousand cases, as the case might be, approved to brand and test. Similarly with cement and timber, and so forth, we ask for a quotation from each of the importers or holders of the articles we require. In some cases we buy lines and stock them. It is not an uncommon thing for a shipment of cement to come in, or say a shipment of galvanized iron, and the importer is glad to get rid of it at the ship's side at five per cent on invoice; and it may suit us to take it. In such a case we take it and stock it, and our business is small enough to enable us to deal with it in a way such as could not be adopted in connection with large systems of railways like those of Victoria and New South Wales. Anyhow, the practice we have adopted has made an enormous saving in our stores—thousands a year. In oils alone, I think, we have saved from twenty to twenty-five per cent, and in steel and iron we have saved up to 50 per cent.

2225. But still you are of opinion that the Corporation, in dealing with its schedule, would do the fairest thing, both to the taxpayer and the tenderer, to take the lowest aggregate tender for the schedule? I know absolutely nothing about the requirements of the Hobart Corporation. I would not like to apply my remarks to the Hobart Corporation, not knowing anything at all about it. But as a general practice, in accepting a schedule tender, undoubtedly, the proper course is to accept the lowest aggregate. It is the practice in all the large works that I know anything of, when tenders are called for a large supply.



2226. *By Mr. Propsting.*—Is all your printing done by the Government Printing Office? No; they could not possibly do it all.

2227. And what plan do you adopt with regard to that surplus printing? Ask for prices outside.

2228. From the different printers? From the different printers—yes. And if we are much rushed with small jobs, and so on, we have to distribute the printing.

2229. And with respect to tools. Do you buy them locally? Some of them.

2230. Say navvies' tools, or tools for the men on the road? Yes, we get most of these locally. We send and ask for prices. You see, for some tools—for shovels and so on, for instance—there are regular standard prices, like there are for Cross and Blackwell's pickles or Foster Bros.' ale. We very often get lines offered us, you know, and in such cases we stock them, if the prices suit. For instance, if you look at our Store Book, you will see that we have bought shovels below standard price sometimes. If you care for that, our storekeeper can produce his books, and tell you all about it. The books show every transaction we have. I can tell you what you can see there: you can see the particulars of every purchase we have made—sometimes calling for prices, sometimes taking prices offered. It is practically a system of tendering, without the expense of advertising. But you can see the whole thing if you wish to; the store is at your disposal, the books and the storekeeper. He can either come here, or, as his books are so numerous, perhaps it will be more convenient for you to go to the stores. As to printing, I might add that the ticket-printing we do ourselves.

2231. And bricks, for instance—Do you get quotations for them? Well, for bricks we get quotations; but, as to bricks, of course, we are very much guided, as with drainpipes and so on, by the names of the best makers. You might pay a much lower price for a thousand bricks in one case than in another, but you would get a much inferior article of much lower value in the one case than in the other.

2232. *By Mr. Guesdon.*—In dealing with the question of sinking funds, Mr. Back, do you think that a sinking fund, intended to make provision for a public work, should be based on the life of that work—that the amount provided under the sinking-fund should bear some relation to the life of the public work, so as to replace the work when its life is done? Yes, that seems to be reasonable.

2233. For instance, if you were putting down water-mains, and we estimate that the average life of those water-mains is forty years, do you think such a sinking fund should be provided to renew those water-mains as would accumulate to the necessary amount in forty years? Speaking in the abstract, I might agree with you. But, you see, we are creatures of circumstances in these colonies—small people—and, I suppose, we have to finance as best we can. I would not like to be called on to state any hard-and-fast rule as to what the Corporation should do without knowing the conditions under which they are financing. As a general principle, I should say you are right.

2234. As a general principle of finance, the provisions made by way of a sinking fund should have some proper relation to the life of the work the fund is intended to replace? Now you are speaking of general principles; I quite agree with you.

2235. Do you think it is a wise thing, speaking as a matter of your opinion, based on general experience, that money derived from a sinking fund should be invested in the funds of the institution by which it is being accumulated? I don't see why it should not be invested in that way. It is not an unusual practice.

2236. Can you give any instances within your own knowledge of institutions in which that the usual practice—for instance, I think, is it a practice for a bank reserve fund to be invested in the shares of the institution? I think you will find that banks and public companies—particularly insurance companies—take up their own debentures and invest in that way.

2237. Do you know of cases where insurance companies have invested their reserve funds in that way? It is floating in my mind. I am not quite sure that I could give you a particular instance; but I think that I am right. I think it has not been an uncommon practice for a reserve fund to be invested in the debentures of an institution.

2238. And you think it would be a proper thing to invest the sinking fund of an institution in its own debentures? I think so. I have known of cases where that has been done, although I cannot call them to mind now. As I say, it is floating in my mind that that has been done.

2239. You cannot quote any particular instances? Not for the moment—no.

2240. If it were the general practice you would be able to quote instances, of course? Well, it is not the sort of thing that comes in my way.

The witness withdrew.

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EDWARD BUTTERWORTH, *re-called and examined.*

2241. *By the Chairman.*—I understand you wish to make some corrections in your evidence as you previously gave it before the Commission, and have desired to be re-called for that purpose? Yes; I am sorry that I have had to give you the trouble of having to recall me to-day, but I wish to correct my evidence in some places in which I have evidently made a mistake, and not answered in the manner I should like to have done.

2242. What is the first alteration you wish to make? I have a lot of them here. The first is where the evidence reads, "Have you anything to do with the adulterations of foods or liquors? I want to make that answer, "Yes, I have."

The witness handed in a list of desired corrections, as follow:—

Question 1340—"Your duties as City Inspector are—what? Amend answer so as to read:—"To see that the provisions of the Police Act are carried out—such as cab licences, parcel delivery carts, drays, registration of dogs, and all by-laws under the Police Act. Through holding the two positions—City and Sanitary Inspector—I have greater power than other inspectors.

Question 1341—"As City Inspector, in whose department are you? Amend answer so as to read:—"The Town Clerk's Department, as I look upon him as head of all departments."

Question 1342—"To which department do you make your reports? Amend answer so as to read:—"I make no reports. If I see an infringement of the Police Act I take the necessary legal proceedings myself. If there is any important matter I consult the Town Clerk."

Question 1344—"Not to the head of a department? Amend answer so as to read:—"I look upon myself as the head of my particular department, as I hold the necessary authority from the Council to see that the Police Act is complied with, as mentioned in a previous answer.

Question 1348—"And during that time you have had to make many reports as to the necessity of improvement in the sanitary condition of the City? Amend answer so as to read:—"Whenever I, as Inspector, discover any breach of the Health Act, I at once take action to have it remedied; and, if I consider it of sufficient importance, I report same to Local Board of Health."

Question 1349—"You do not quite see the drift of my question. If you go round and inspect the back-yards, and so on, and look into the sanitary condition of certain places, do you report anything that requires immediate attention immediately? Amend answer so as to read:—"Whenever there is anything demanding attention, I see that it is carried out myself. As the Local Board of Health might not meet for a week or fortnight, to report a breach of the Act would not meet certain cases, and I see that the necessary steps are taken at once to effect a remedy. As a rule, twenty-four hours' notice is given to the occupier to carry out the Act."

Question 1353—"Do you devote much attention to the fruit-shops? Amend answer so as to read:—"Yes, I give them visits occasionally, dropping in when least expected."

Question 1355—"Do the milkmen take the refuse fruit away in their milk-carts? Amend answer so as to read:—"Shopkeepers have boxes, and milkmen have special cans, for the purpose of carrying the refuse fruit."

Question 1356—"How do they carry the boxes? Oh, in their carts."—Amend question so as to read:—"How do they carry the cans?"—Amend answer so as to read:—"In their carts."

Question 1357—"Are they allowed to put such matter into the carts where they have the milk?" Amend answer so as to read:—"Certainly not. They bring the cans in clean every morning, and, after they have delivered their milk, they call for the refuse fruit. I have never yet caught a man with vegetable matter and milk in his cart at the same time."

Question 1390—"Yes? Yes; they pay two-and-sixpence per head per quarter. Of course, a cow-keeper pays a five-shilling licence; but a dairy-keeper only pays two-and-sixpence."—In answer, alter "dairy-keeper" to "purveyor."

Question 1424—"Coming back to this question of the surplus, or waste fruit. Are the milkmen in the habit of bringing in boxes to carry away the refuse fruit and stuff? Yes; they make arrangements with the shops, and bring the box in the morning—say, one box each day."—In answer, alter "box" to "can."

Question 1425—"And the empty box comes in at the same time as the morning's milk? Yes."—Amend question so as to read:—"And the empty can comes in at the same time as the morning's milk? Yes."

Question 1426—"In the milk-cart? Yes. But the pig-wash can is just the same as the milk-can—there is nothing in it."—In answer, delete all words after "Yes."

Question 1427—"Still, the empty box, or whatever it is, comes in with the milk—with the full milk-cans? Yes; every morning."—Amend answer so as to read:—"Yes, every morning; but they are cleaned out before being brought in. I have inspected them, and found them clean."

2243 *By the Chairman.*—Is that all you would wish to alter? Yes.

The witness withdrew.

FRIDAY, APRIL 19, 1901.

GEORGE STEWARD, *called and examined.*

Mr. Steward was sworn.

2244. *By the Chairman.*—I believe you are Under Secretary to the Government, Mr. Steward? Yes.

2245. And you were at one time Town Clerk of Hobart for a short period? Yes.

2246. *By Mr. Guesdon.*—Mr. Steward, when you went into the service of the Corporation you naturally went into the whole matter of the administration of the Corporation, I presume with a view of seeing what improvement you considered could be made in the general system. Is that so? I did; that is so.

2247. Well, will you tell the Commission, just in your own words, exactly what state of things you found there, what remedies you considered necessary to remove any defects you discovered, and what steps you took to improve the system? Well, I might say, first of all, that I did, when I first went there, make a full inquiry—a very full inquiry, indeed—into the working of the whole of the departments under the Council; and I found that, on the whole, the manner in which the Council's affairs were being managed (and had been managed for a long time), so far as the various departments were concerned, was—well, to say the least of it—very unsatisfactory. When I say unsatisfactory, I should, perhaps, say that their system of what I may call decentralisation had been in existence for some considerable time, and that fact in itself had certainly weakened and hampered the administration of affairs generally—weakened them, that is, to the extent of placing the affairs of the Council under the severed control of about half-a-dozen officers in the place. I may say at once that when I first went there I had very great difficulty in ascertaining exactly what I had to do. I found that there was no such thing as a Town Clerk in connection with the Corporation, as I understood the functions of a Town Clerk. In those circumstances, in order to cover myself, and to take care that I did not exceed in any way any of the functions that properly belong to a Town Clerk, I wrote over to the various town-clerks on the other side—Sydney, Melbourne; two or three places—and made inquiries, and I received from those gentlemen the regulations of their respective services. Even then, the chief difficulty I had, as I said just now, was to exactly find out where my functions began and ended. Let me explain that a little more fully. I found that the duties of the Town Clerk, as I understood those duties, were very largely carried out in Hobart by the aldermen. If I wanted any information on a particular point in connection with my duty, or in the discharge of it, I must confess that I sometimes had considerable difficulty in getting it. When I spoke to some of the officers of the Corporation I was met with such remarks as “This does not belong to you,” or, “This is a professional matter, and as such, of course, it does not come within the scope of your duties or cognisance as Town Clerk.” I was frequently met with such rejoinders as that when I sought information in the discharge of my duties, and I was placed in a position of very serious difficulty because of that. But I was speedily put right as to that and other points by discovering in the strong-room in the Town Clerk's office a big heap of papers. Many of these papers were of a very valuable character; some of them agreements setting forth the circumstances under which rights had been acquired by companies taking water from the mountain, and so on. These papers were lying all in a tumbled heap, and right underneath the whole of them I discovered some documents which were rather valuable to me at the outset. There was a large pile of what proved to be sheets of printed paper, stacked just as they had come from the printer, dated 1885. When I examined these, they turned out to be a set of regulations for the guidance of the whole of the Council's officers. The first one I noticed was Section 15, which set forth that the supervision and discipline, and, roughly speaking, the administration of the Council's affairs in the whole of the departments was in the hands of the Town Clerk. Clearly the responsibility for these matters lay with the Town Clerk. Then, later on, in another section of the regulations—about 18 or 19, I think—I found that the officers were distinctly called upon to render every assistance they could to the Town Clerk. I at once attempted to put these regulations into force, and I experienced such a degree of opposition and antagonism at the hands of those to whom the regulations applied, that for some considerable time matters were just at a standstill. I found that the duties and responsibilities of the Town Clerk's position were not apprehended or understood by anybody in the service—excepting, perhaps, by the Mayor. Certainly the heads of departments did not understand anything at all about it. Anyhow, they continued, even after that, to conduct the affairs of the Council in that decentralised manner—if I may use the term—that had obtained in the service for some time. I saw—it was made very plainly evident in many ways—that if any good was to be done it was absolutely necessary to bring up some sort of a scheme, comprising a series of reports on the working of the various departments. With that end in view I accordingly started a series of reports upon the management of the Council's affairs. I presented the first one. It did not go beyond the first one, so far as the Council was concerned, because, after they had received it and tabled it at a special meeting of the Council for some hours without result, it was ordered to be laid upon the table of the Council for ten days, and then to be dealt with again. I am rather hazy as to whether the second meeting to deal with it was ever held; I rather think not. All I know is that my report apparently did not receive any more attention from anybody. I may say that that first report had for its object the re-arrangement of the offices and certain of the officials at the head office at the Town Hall. One of the things which always struck me when I was there, and which strikes me even to-day under the new *régime*, is that the Rates Office is not manned and arranged in such a manner as is most desirable. To my thinking it was highly necessary, for obvious reasons, that that office should be brought more directly under the control of a responsible officer than was the case at that time, and than is the case now, I believe. For that reason I proposed to close the present Rates Office, and to open the Town Hall doors, as is the case in every other town hall that I have any knowledge of, and to take the room on the left-hand side of the vestibule for a Rates Office; and I proposed to have all the rates work done in that office, and supervised by the Accountant. Now, the latter part of my proposition was quite sufficient to kill the whole thing when it came before the Council. It had been customary, and, so far as I know, it may be customary still, for the Accountant's room to be a sort of rendezvous for certain of the aldermen; and as soon as I suggested the idea of taking the Accountant out of that isolated position which he occupied, and bringing him immediately into touch with his staff—over whom, I

should say, he should exercise at all times a closer supervision than would be necessary in any other branch of the municipal service—directly I suggested that, the aldermen said among themselves, “No, we won’t have that; we will not move Stump.” They even came to me and told me that it would be quite sufficient to stop the adoption of any proposals, if I insisted upon moving Mr. Stump, and putting Mr. Stump with his clerks, where he could exercise constant supervision over them. They said they could not pass any such proposal under any circumstances. Thus we had—and we may have now, for all I know—three or four young men in that important office in the Town Hall building without, practically, any control. The public are in and out of that office all day. They come and pay their rates and taxes. Now, I have no precise data that I can submit to you; the time for that, of course, has gone past with me, because, when I left the Town Hall, I left it finally in every sense of the word; I kept no papers, and I preserved no formal evidence to bring before you. But I can say that I was quite satisfied from what I did observe that it was absolutely necessary that that branch of the service should be re-arranged, either in the way that I suggested, or in some better way. I have gone to this length of explanation because I wanted to show you the kind of feeling I met on all hands, whenever I suggested anything by way of change or improvement that I thought would be calculated to bring about a better condition of things. I might give you any number of instances. Thus, on going to the Waterworks Department, I found that Mr. Milles was in daily correspondence with the public in reference to various matters, such as the rates that should be paid for supplying water-meters, or putting on an extra supply of water. I found that he had the power of refusing or granting applications, as he thought fit. The Town Clerk knew simply nothing whatever of what was going on in Mr. Milles’ office; and, generally speaking, I felt that the time had come when I must ask Mr. Milles to conform with those regulations. I made his department the first which I sought to bring under the Council’s own regulation—which stated that all these various offices were in charge and custody of the Town Clerk. Of course, in doing that, I recognised then, as I do now, that it was not necessary for the Town Clerk to so interfere with a professional officer’s work, or to interfere with it from a professional standpoint. But, here again, I got the same treatment. When I suggested that certain alterations should be made in Mr. Milles’ office—that the work, in fact, should be centralised—that some of the health work that was being done under Dr. Sprott in another part of the building should be brought under the immediate control of Mr. Milles’ department, and that other improved arrangements should be made—I was met again with the same opposition and antagonism. I had to face the same silent antagonism, too, on the part of the aldermen, who refused absolutely to do anything they thought they would not do. It was a very common thing for the aldermen to say to me, “You propose to move Mr. So-and-So?” “Yes,” I would say. “Oh,” they would reply, “you must not do that; that won’t do at all.” And that is how everything I attempted to do for the improvement of method and practice in the work of the Council was treated. No one recognised the Town Clerk, and no one understood his position; largely—perhaps, I ought to emphasize this—because the aldermen had grown up, so to speak, with the previous Town Clerk and the one prior to him, who certainly had failed themselves, especially, towards the latter part of their terms of service, to make their own position and responsibility felt and recognised alike by the aldermen and the service. I really ought to say, too, that I believe, the condition of things was very largely attributable to the unfortunate condition of health of the previous Town Clerk; because, when I came to look over the committee-books and take over the duties in that connection—and there were very few duties that were not general to me—I found that even those simple duties had been carried out in the most slipshod fashion. One of the most serious things that I discovered was that there was not a single record kept of any of the correspondence in the place. If a case cropped up, as it frequently did, where it was necessary to refer to papers, the utmost difficulty was encountered in endeavouring to find the papers. It generally meant sending Finlayson down to the vaults, and his bringing up whole boxes of papers, which may or may not have been written in the year the labels denoted. Then there would be a long hunt, with the object of finding a particular paper; and you very rarely found it. There was no record-book of correspondence, and you had no facility whatever for turning up the records of the work of some of the place for some years past. I was there just about five months; but long before my time was up, I had had quite enough of it. I must say that, with the exception of the Mayor, Mr. George Davies (who was Mayor for six weeks or two months during my time, and who gave me all the assistance he possibly could), I got no help from anyone. So far as the other aldermen were concerned, they did not seem to think that the Town Clerk should interpret the duties of Town Clerk as their own by-laws and regulations interpreted them. I don’t know that I can say much more about it than that, except that I think I have pretty clearly indicated what was, in my opinion, the chief fault—the fact that the whole thing, the whole administration of the Council, was decentralised. There were such a number of heads, that the Town Clerk’s duties had not been recognised; and the Town Clerk’s duties, properly understood, were so badly supported by the aldermen that it was a moral impossibility for any man to carry out those duties to his own satisfaction. I left the Town Hall service purely on that account. I would like to say here that it has been said that I was bought by the Government to come back to the Civil Service. I want to have that quite clear. As a matter of fact, I went to the Government, and asked them to take me back. I had to do it; I was so sick of the whole thing. I remembered, you see, that I was not a lawyer, or a surveyor, or a doctor; I had no diploma to work on. I went to the Town Hall with a certain reputation as an organiser, and I felt that the longer I stayed here the nearer I was to losing it. I saw, plainly, that I should get into trouble with the aldermen

if I had stayed; because I would have had to decline to go on, as things were. What would have happened then, in all probability? I should have been thrown out among the large number of clerks, with my reputation and prospects gone. I would not have stayed there, even if I had not gone back to the Government. Another thing I might mention while talking of the administration of the Council, as I found it: the committee meetings were conducted in a very remarkable and unusual manner; or at least some of them were. As far as I remember, now, the committee books were never signed. There was no record as to who was chairman, who were present, and what was done; and I am afraid that what was done at these committee meetings was not invariably recorded in the minute-book. I say this, because the entries made in the minute-book were so few as compared with the entries made by me when I went to the meetings. I found that, making the minutes as short as I possibly could, they had to fill half a page or so; but in some previous instances there were not half a dozen words to a meeting.

2248. Were these minutes signed? As far as I remember, they were not signed when I went there; but they were signed after I went there—at least, I think they were. You see, it is now three years ago since I was there, and I can scarcely remember all these things in very full detail now. My recollection, generally, is extremely clear on all these points.

2249. Then, I would understand that you gave the Corporation a written report of your recommendations as to the improvement of the service? Yes, sir; I did.

2250. Now, in reference to what you have said as to the Rates Office. Under the system that was in vogue when you were there—and the system, I presume, that is in vogue now—it is quite competent, I suppose, for a ratepayer to go in and speak to one of the subordinates and get the payment of his rates postponed? I do not say that it is quite competent for a ratepayer to do that, but it is quite possible. That was one of the reasons that induced me first to tackle the Rates Office; because I had not been there more than three or four weeks when one of the citizens came in and asked me to give him more time to pay his. I said it was not in my power to do anything of this sort; as, of course, it was not. "Oh," he said, "If I had gone to Mr. So-and-so,"—mentioning one of the rates clerks—"he would have done it for me in a moment." That shows you what were the relative positions of the Town Clerk and the rates clerks at that time. I held then, and I hold now, that that Rates Office is conducted in a very unsatisfactory manner. The work may be done honestly enough; I do not attribute dishonesty to anybody in the slightest degree; but I contend that it is unfair, alike to these men and to the public, that that office—the most important office of the Council—should be one without any direct supervision whatever. The Town Clerk has no chance of doing anything in the way of supervising the rates; he has no time, and it is not his duty. The duty clearly belongs to the Accountant; and his place is in the office where the clerks are working and where the books are kept. The money is taken in the rates office, and the rate-books are kept there. It would immeasurably benefit the work if the Accountant were on the spot, not a doubt of it. As it is, if the Accountant, in his room away at the back of the building, requires a book, he has to go from the back to the front of the building, carry this book through to his own room, and carry it back to the office when he has done with it. That is not as it should be. Apart from the inconvenience of the existing state of things, the Accountant's place is to exercise a healthy and close control of the Rates Office.

2251. And, practically, it is his place to exercise his discretion as to whether any allowance is made to ratepayers in the payment of their rates? No; it is rather his function to see that that is not done, but that all such matters are referred to the Town Clerk.

2252. Speaking of rates, Mr. Steward: did you have occasion to take action in regard to arrears of rates while you were in the employ of the Corporation? I think that perhaps twice or three times I have taken packages of summonses to his Worship the Mayor to sign.

2253. Did you find on one occasion, after an election, that a considerable number of ratepayers had gone and made the declaration that their rates were paid, and voted on that, when, as a matter of fact, their rates were not paid at all? Yes, I believe I did. At any rate, I am certain that on one occasion whilst I was in office votes were recorded at an election by persons who had not paid their rates.

2254. And you took occasion to bring the matter before the then Mayor, and asked him to issue writs against these people—Is that so? Well, I would not like to say that immediately. I should like to collect myself a bit and think; because, as I just told you, I do not clearly remember every detail of the work of those days now. I know that what I have just stated was a fact. I will state now—for this I remember clearly—that votes were recorded by those who had not paid their rates, and, to the best of my belief, the matter was brought under the notice of the Mayor of that time.

2255. *By the Chairman.*—These people had made false declarations, in fact? They had made false declarations—precisely.

2256. *By Mr. Guesdon.*—Now, your name was mentioned before this Commission in connection with certain matters affecting the captain of the *Chicago*. We were told that you had called officially upon the Corporation authorities with a view of getting the ship supplied with water. That was on the return of Captain Jacobson from Brisbane; and I may tell you that he complained personally to me of his treatment by the Corporation. Did he make an application to the Corporation for water, through your department? Yes.

2257. Will you tell us the whole of the circumstances in connection with his application, and what occurred? The Premier's name was brought into the matter, and I presume that there was correspondence over it as well as interviews. Will you give us a concise statement of what occurred? Yes.

The circumstances, briefly, were as follows:—On Tuesday, the 19th of March, Captain Jacobson called upon the Chief Secretary, and told him that he had made application to the Town Hall on the previous day, Monday, for a supply of water for the *Chicago*, and that the Town Hall people had refused to give it to him, at first, on the score of the shortness of available supply at the disposal of the Corporation. The Chief Secretary wrote that day to the Mayor, and asked him to be good enough to supply the captain of the boat with what water he required, as it was always usual to supply troopships free of charge. This, as I say, was on the Tuesday. On Wednesday morning, the 20th, the captain of the *Chicago* came to me at the office and stated that, although the letter for this water had been written to the Municipal Council, up till then no water had been given to him, and the lack of the water he needed was becoming a very serious matter with him. On that, I rung up the Town Clerk, who informed me that he was that morning writing a letter to the Chief Secretary in reply to his letter of the 19th. At 11:30 we got that letter, in which the Town Clerk explained that His Worship the Mayor was out of town, but that he had already had an interview with the Premier on the subject. He also drew attention to the fact that not a fortnight before, the boat had taken away, I think it was, 784 tons of water, which the Mayor thought was a very excessive quantity to obtain free of charge, especially at this time of the year. However, continued Mr. Town Clerk, the Chief Secretary's letter would be brought under the notice of the Mayor on his return to Town the following morning—the morning of the 21st, Thursday. At about a quarter past eleven on the morning of the 21st, the captain came to me again and complained very strongly about the action of the City Council in not giving the ship the water she required. He said they would be quite unable to work the engines of the forward hatch until they got water, and, moreover, the water was required generally in the ship, for ordinary purposes. I rang up the Town Clerk again, and the result of what was said through the telephone was that I went down and interviewed that gentleman with Captain Jacobson. There were several members of the Waterworks Committee present, but it was just before the hour when they were due to meet—twelve o'clock, I believe. Well, after they had listened to Captain Jacobson's application for water, very strongly worded, they promised that they would consider the matter immediately and let us know their decision at half-past twelve. At half-past twelve, accordingly, I went back to the Town Hall with Captain Jacobson—(I went, I may say, because there was no Minister in town, and it was the Chief Secretary's function)—and we saw those gentlemen again. They were then in committee. They very graciously received us in their committee-room, and interrogated the captain of the boat as to his necessity. One of the aldermen said that he had been told that the water was required for ballast, and, after some little difficulty in making him understand, it was shown to this alderman that, whilst the water was required for ballast in one sense, it was not required for ballast in the ordinary acceptance of the term. It was explained that, inasmuch as the vessel had to carry such a large quantity of water for the horses and men, the ordinary tanks were not adequate, and that, therefore, the ballast tanks were filled on leaving port with sufficient water for the requirements of the voyage; and that as these tanks were emptied, they were refilled with salt water to act as ballast. As I said just now, some of these aldermen seemed to have a little difficulty in realising that; but eventually that point was cleared up. The captain of the boat then put it to them in a very direct and unmistakable fashion: "Will you supply the water, or will you not supply the water?" "Well," one of the members of the committee said, "we want to know who is going to pay for it, if we supply this water?" The captain said, "I told you nearly a week ago that if there were any question at all of charging for it, I have full power, under the hands of the owners of my vessel, to incur any expense that may be necessary; and this expense will be met by my owners, on receipt of bills signed by myself." He said, "You have not treated me at all fairly in this matter. First of all, you tell me that it is a question of who is going to pay for this water; then you tell me that the water is worth more to you than the money you can get for it. It seems to me that I have been treated in the most disgraceful manner. The work of my ship is being stopped; my engines are being endangered; and I cannot load the material that is lying on the wharf." And I may tell you that the action of the committee over this water did delay the loading of the ship; and that delay has considerably increased the cost of the consignment of oats to the British Government. I cannot say to what extent off-hand, but it did increase the cost, and it delayed the loading of the ship very considerably. Well, the committee sat and talked the matter over, and finally declined to do anything in the matter at all. They said it required a lot more consideration; they were not at all satisfied that a troopship could be regarded as a ship of war, or, in the terms of the Act, as one of His Majesty's ships. Then they promised to give us a definite reply at three o'clock that same afternoon. At three o'clock, I rang up the Mayor, and he told me that it had been arranged to supply the water; and I believe that the water was supplied. I may say, now, that the action of the Committee throughout was quite unwarrantable. The water had to be supplied, whether the aldermen could spare it or not; the question of payment did not come into the matter at all. Everyone knew that the boat was under charter to the British Government; that she was carrying goods for the British Government; and that everything connected with her was undertaken by the British Government. All matters of supplies and so forth were for the British Government, and not for the captain of the vessel. The water should have been supplied without a moment's delay, when it was first asked for.

2258. There has been a reference made in evidence here to a deputation waiting on the Premier in this matter. Have you any particulars of that? I may say that, after leaving the Town Hall

at twelve o'clock, on the 21st March, I sent this telegram to the Premier, who was on a special train at Deloraine—

Captain of *Chicago* experiencing considerable difficulty in obtaining water supply from Council. I called twice this morning upon Council, and was informed that any delay in supplying water was due to the non-receipt of a promised communication from Captain Royle you promised the deputation which called upon you. I pointed out to Council that delay was highly undesirable, and that the question of payment could not stand in the way of supply. The captain also told them that he was empowered to incur any expenditure in behalf of his owners, if necessary, but this did not satisfy the Council. They held another meeting, after which they said they had not fully decided upon the matter, and have promised to further communicate with me at three o'clock this afternoon. The captain became very cross under the aldermanic examination to which he has been subjected by the individual members of the committee as to consumption, etc., at sea, and left the Town Hall expressing his indignation. It appears that the Council require the State to guarantee payment, as they doubt whether the *Chicago* comes within the meaning of the Act as one of His Majesty's ships.

Well, as I have told you, sir, at three o'clock the Mayor told me that it had been arranged to supply the water; but upon what terms I do not know.

2259. What was the Premier's reply to that telegram? This one, from Ulverstone, the same day, 5.45 p.m.:—

When deputation waited on me about fortnight ago, it was arranged that Mayor should address letter to me, which I could forward to Captain Royle. This letter was never sent me. Tuesday last Town Clerk called to ask if I had received letter from Captain Royle—

Captain Royle, sir, is the chief transport officer at Gardner Island, Sydney—

And I pointed out to him that I had not received letter promised by Mayor, and he said he would write at once, and I promised, on receipt, to cable to Captain Royle. Up to time of departure from Hobart, I had not heard from Town Clerk. Of course, the captain of *Chicago* must have the water, and I believe he is entitled to have it free of cost, as being water supplied to a vessel in service of His Majesty. Endeavour arrange with Council to supply what is required, and the whole question of payment can be submitted to Captain Royle, or, if desired, to Home authorities through Agent-General. You can show this to Captain Jacobson and Council.—N. E. Lewis, Premier.

To this telegram I replied:—

The Hon. N. E. Lewis, Premier, Burnie. Water difficulty *Chicago* settled.

2260. The Premier says then, that he did not hear from the Town Clerk up till the date he left Hobart. On what date did he leave—do you know? He left on Thursday, the 21st March, by special train.

2261. Do you think that if the proposal that you submitted to the Corporation of generally centralising the departments had been adopted it would have materially reduced the cost of administration? I think so, and considerably increased efficiency. But I ought to say that the report embodying that report was only one of about six that were prepared at the time. But the fate of the first one was quite enough to preclude me from submitting any more.

2262. That one paper would be a record, then? Yes, it would be a record, or should be.

2263. And the other reports were not recorded—were not presented to the Council at all? No. You see it was absolutely necessary to begin at the very bottom of the thing, if we were to begin at all. As things stood, there was no central control whatever. As I told you before, the Town Clerk was simply ignored by everybody throughout the whole of the place—ignored absolutely; there is no other word for it. No one seemed to understand or appreciate his position in the slightest degree. But, just before I left the office—I think I was within three or four days of leaving at the time—I got the Mayor's authority for issuing an order, addressed to all heads of departments, instructing them, in future, to send all their correspondence through the Town Clerk. I believe that that was all that was ever done in my time by way of supporting the Town Clerk.

2264. Were the Sinking Fund Commissions in existence when you were in the Council? Yes, sir.

2265. Well, see here. Here I have a statement of accounts prepared by the Hobart Municipal Council for 1899, and also the statement of accounts for the Municipality of the City of Launceston for 1900; and in the Hobart accounts there is a charge made against the Sinking Fund. It simply says in the Hobart accounts, "Expenses, £497 11s. 10d." Expenses under what head would that be—under the Sinking Fund? Yes.

2266. Well, you see, it does not specify what these expenses are; but I presume that we can see what they are from another account. In that it says, "Commissions, Consolidated Loans Sinking Fund, half per cent. on £85,560, £427 16s." Now, I would ask you, as an accountant, Mr. Steward, supposing that this £497 4s. is the half per cent. commission paid to the Commissioners, whether it ought to be charged to the Sinking Fund, or whether it ought to be charged to general account. In the one case of these accounts, as I say, it is charged to the Sinking Fund; in the other it is charged to the general account; what do you think? Unquestionably, it should be charged to general account.

2267. You regard the Sinking Fund as one of those funds that should not be tampered with or reduced in any way? Obviously; because if you begin to tamper with it, where are you going to stop? If you undertake to supply a certain sum to a sinking fund, you must leave it there. A sinking fund should be kept inviolate for its purpose.

2268. Were you aware, when you were in the Council, that a large sum of money, like that I have mentioned, was to be deducted from the fund? No, I was not aware of that. I acted as Secretary of the Commission in a very casual and flimsy sort of way, on two occasions. All I was called on to do was to read out one or two minutes for the Commissioners to agree to, authorising the investment of certain sums in Government debentures. I was only there at two meetings, and I



don't suppose they lasted much above half a minute each. There is another striking instance of the necessity of giving the Town Clerk some proper authority: when I was there you had the utmost difficulty in finding out anything whatever about the work of the Council. It took me five weeks to find out what the financial liabilities were; there was no regular statement immediately at hand, as there should have been. I don't say that I did not eventually get the information I required, but I did not get it in the way in which any well-regulated office should have been able to supply it. The whole thing was unsatisfactory. I can, perhaps, describe it best by saying that it was a sort of family concern; there was an utter absence of business method and system about the place.

2269. Were you ever requested to retire from committee meetings while the members considered certain things? Yes; I had forgotten that, for the moment. I remember that, on one occasion, I attended a committee meeting—whether it was a public works committee, or a water-works committee, I could not now say; but I think I could find out, if necessary—and after some business had been done, the chairman said, "That will do, Mr. Town Clerk; the rest of the business is of a confidential character." There you have an instance of the sort of thing that went on there; and that was one of the many things that all went to make it absolutely necessary for me to clear out of the Town Hall as quickly as I possibly could.

2270. Now, from your knowledge of the Corporation and its constitution, Mr. Steward, do you think it would be conducive to the better government of this City of Hobart, if there was a general clearance of the whole body of aldermen every three years, and a complete re-election, just as there is under our Parliamentary system? I have always advocated that, ever since the first day I went to the Town Hall, as being, so far as I can see, the only means by which you will get good government there.

2271. Have you ever devoted any attention to the consideration of this question, whether it would be an advisable thing to bring the suburbs of Hobart under the central control of the City of Hobart? Only generally; but I am of opinion that it is distinctly necessary. Generally speaking, I have considered the subject a good deal of recent years. I considered it when I was at the Town Hall. It came before me, necessarily, when I was striking the rates of the place. I remember that the question definitely cropped up while I was there; but I don't think I left anything on record about it. But I was of opinion then, and I am of opinion to-day, that it is advisable to bring the whole thing under one head. There is considerably too much decentralisation throughout the whole thing, even to-day.

2272. And do you think that centralisation would materially decrease the cost of local government in Hobart? Yes; I am certain of it. It is obvious; because, if you work four or five departments in a small place, such as Hobart is, each department must have its head and its distinct organisation—its chief clerk under the head, and probably a junior clerk and a messenger. That is what I found at the Town Hall, in a way: half a dozen absolutely isolated establishments. I attribute the condition of things, as I found it, solely to the system of decentralisation which had gradually grown up.

2273. Did you go much into the general system of accounts in the Corporation when you were there? No, I did not; I found my hands pretty full, as it was, with the work I had taken up. I should have taken that up in its order, of course, but, you see, one got no encouragement to do anything. It was very evident to me from the outset, that any radical measures of reform which might be proposed, no matter how much they commended themselves to the intelligence, probably, would not be adopted by the Aldermen, and such measures as I did suggest were not adopted.

2274. Were there any loans floated by the Corporation while you were there? I think not.

2275. Did you ever trouble to ascertain whether the loans were floated on any business-like basis whatever?—That is to say, when money was borrowed for a particular purpose was it really applied to that purpose; and whether, when money was borrowed for a certain public work, which, when completed, would have a certain life income, was it taken so that the period of the loan should have some application to the life of the work? No; I did not go into that. Of course, that would have been one of the things one would naturally have taken up; but I was only there five months altogether, and the first thing that struck me was the necessity of making a proper start, and that was not the thing to begin with. The staff, as I found it, was not satisfactory, and the arrangements in connection with it were very far from satisfactory: I had to attend to that matter first.

2276. Did you ever touch upon the question of commencing or creating a reserve fund to provide for contingencies, in the shape of repairs, and so on? Beyond some general discussion with the Mayor, and, I believe, with the Finance Committee, nothing was done as to that. The idea was then being thought of for the first time.

2277. Would you regard a sinking fund of ten shillings per cent.—which, capitalised at three per cent., compound interest, would take 94 years to cover the cost of a public work—sufficient to meet the necessary outlay for the renewal of a public work which has only forty years of life? Well, you could hardly call that a sinking fund—obviously not. I take it that a sinking fund is a fund which is established for the purpose of extinguishing, during the life of a certain work, the cost of its subsequent renewal. A fund that would only mature in ninety-four years could not make provision for a work with only forty years of life.

2278. The expense of renewal should be covered during the life of the work? During the life of the work, of course. If a work has only a life of thirty years, it would be hardly fair or reasonable to establish a sinking fund to renew it at the end of ninety. That seems plain enough to me, speaking as an accountant.



2279. Do you know what these Sinking Fund Commissioners had to do, speaking from your own experience—was it left to them to determine what the percentage passed to Sinking Fund should be? What do you mean—as to how it was to be struck?

2280. Was it left to them to determine what provision was to be made? No; I believe that was done under the supervision or instruction of the Audit Department. Anyhow, I found that that was done when I went to the office; and the Auditor, if I remember rightly, was, and I think is, one of the Commissioners.

2281. Then what are the functions of the Commissioners? To see that the fund is properly invested. But I understand that recently a change has been made in that matter, by the authority of the Governor in Council. Whereas it was necessary previously for the Council to write a formal recommendation through its treasurer to the Sinking Fund Commissioners for authority to invest the fund, now, so long as they continue to invest such moneys in Government debentures, it is not necessary to go through that form.

2282. Did you have occasion, while you were there, to take any action as to the question of water supply, and the revenue derived from the water supply—or did you feel so barred, as it were, by the treatment you have described to us, that you did not take the matter up? Well, I took this much interest in the matter: I was never at all satisfied that the statistics of the Director of Waterworks were correct as to the quantity of water which he said was flowing into the reservoir every day; and I was never able to get his statement as to that confirmed in the way I should have liked to see it confirmed. Had I remained at the Town Hall, that would certainly have been one of the first things I should have taken up. I am not aware that that statement has ever been confirmed yet. If it has, I never heard of it.

2283. *By Mr. Propsting.*—Do you mean as to the quantity of water running into the reservoirs, or the quantity of water supplied to the town? The quantity of water running daily into the reservoirs. I doubt whether the quantity that he estimated came in ever did come in at all. I know that it was supposed to have been measured, but I could never even get any sort of satisfactory proof that it had been measured. I could never believe that the quantity of water was used in the town that the people are credited with using—some sixty gallons per day, I think it was, for every man, woman, and child in the place; whereas in a place like Liverpool, where there are proportionately many more great factories, and so on, than we have here, the outside daily consumption per head is, if I remember rightly, only about fourteen gallons per day.

2284. *By Mr. Guesdon.*—At all events, you regard that as one of the departments of the Corporation that would stand a good deal of overhauling and remodelling? I would not like to put it quite in that way; but I would like to say that, if I had remained in the service of the Council, I should have taken very good care to have satisfied myself that things were in an efficient condition. One has, of course, to be very careful in dealing with a professional man in his professional capacity, but I certainly would have exercised all the powers that I had, so far as the Waterworks Department was concerned, if I had remained in the service of the Council. I believe that that, as well as the other departments, could have been materially benefited.

2285. *By Mr. Propsting.*—Were you acquainted with the by-laws of the Corporation at all? Yes; and I would like to refer you to the fact that I had not been at the Town Hall above a month before I made extracts from the by-laws, and had them published and posted all over the City, drawing the attention of the people to the need of their doing, and abstaining from doing, certain things—such as riding bicycles at too rapid a rate, driving round corners, permitting cattle to stray on the footpaths, and so on.

2286. Are you in a position to say whether, when you accepted the office of Town Clerk, or during your tenure of that office, these by-laws were impartially and vigorously administered? No; I should most unhesitatingly say that they were very indifferently administered.

2287. Can you give us any instance, or illustration, of what you base your opinion on, as to that? Yes, I could give you many instances; small things they may be, for the most part, but they go to make up the whole. I found instances night and day. You can find it laid down in the by-laws that you shall not trundle bicycles along the footpaths; but you can go out any day and find people doing that. You can find cattle straying about, too,—go down around there where I live, any night, and see—getting into people's gardens, and eating things. You can find bills and posters stuck up all over the place in defiance of those by-laws, even to-day.

2288. Were reports as to breaches of these by-laws made to you by the officers whose duty it was to make them? Well, then again, I came across the most undesirable state of things; a state of things that has since been removed to some extent, I think, by the centralisation of the police. In my time I could never get any information from the Superintendent of Police as to what his force was doing. I know from many private sources that certain things had happened in the town which had not been reported, and I was so thoroughly satisfied that the Corporation was not informed of what was going on, that, personally, I have gone about the town at night. I have watched the scavengers going about the streets with their carts at one o'clock in the morning. At the same hour I have seen public-houses in full swing; even seen them practically inviting people to come in by having their venetian blinds slanted so as that the gaslight could stream through across the roadway. And I have seen carts going about on Sunday mornings, with no responsible person looking after them—no foreman, or anyone else about, to keep them in order. Then I asked Mr. Pedder for information, telling him that I had heard of broils in one of the public-houses at three o'clock in the morning. I asked him for his report upon that. He

said, "Oh, I don't furnish any report to you." I said, "Who do you furnish them to, then?" He said, "Any reports I have to furnish, I furnish confidentially to the Mayor; I use my discretion." I said, "In future, your discretion will have to take the form of a report addressed to me." But I never got a report from him, either then or afterwards. I would like to say that I do not believe the officers of the Corporation were in the least to blame for this very undesirable state of things. I think they were rather the victims of the very bad system which pervaded the whole of the service, and which had gradually grown in, owing to that very decentralisation I have been speaking about. What was anybody's business was nobody's business.

2289. *By Mr. Hamilton.*—You said, Mr. Steward, that you would recommend a clean sweep of the Council periodically, like that we have periodically in Parliament at the general elections. Do you know anywhere where that is done in municipal life? No, sir, I do not; I have not looked into the matter at all as to precedent. But I certainly see no objection to it, so far as Hobart is concerned.

2290. But, there are some of those in the Corporation who do admirable work. Now, speaking from your own knowledge of administration and organisation, would not a clean sweep—that is, a complete clean sweep—put things a bit out of joint? Under some conceivable circumstances it might be so. Under the circumstances we are considering, I don't think it would be so—except to the advantage of the Council and the City. I would recommend it, anyhow; because if, as a result of the first clean sweep, the work were carried on in the admirable manner to which you refer, when the admirable workers among the aldermen went up for election again, they would be again returned; or, at any rate, a sufficient percentage of them to make the system of workable value. Might I say that there, again, the state of things is not so much the fault—if it be a fault—of the aldermen, but, rather, of the condition of things which has, in our City, crept into the working of the whole concern; and which nothing, so far as my opinion goes, would rectify so surely as having the whole lot of the aldermen periodically placed in the hands of the people.

2291. *By the Chairman.*—I want to have one matter quite clear about the *Chicago*. The Town Clerk, on being examined the other day on this question, stated to this Commission that—"The captain came in with Mr. Steward into the committee-room, and in the conversation that followed it came out that the *Chicago* was only a chartered vessel, and the captain said that the ship herself was due to find her own water."—What do you say to that? I do not remember that. I was certainly not present when that was said, because, you see, that was the very reason that took me there. If the ship were under an obligation to find her own water, then it was for the captain to make his terms to get his own water. There is a little misunderstanding somewhere, evidently.

2292. *By Mr. Hamilton.*—But do I understand, Mr. Steward, that the debatable point, then, was whether the *Chicago* was or was not a King's ship? Yes—a King's ship in the terms of the Act.

2293. *By Mr. Guesdon.*—If the functions of the Town Clerk were properly recognised and properly carried out, don't you think that, with that clean sweep of the aldermen every three years, the Town Clerk would be quite sufficient to preserve the continuity of municipal government? Yes, he and his officers—certainly. As I remarked before, if these gentlemen went in a batch, with a three years' tenure, and so conducted the affairs of the place as to win the approval of the ratepayers, they would go back there. The City Council is not a place which people tumble over one another in endeavouring to get into. If the aldermen discharged their duties to the satisfaction of the public, a large proportion of them would be bound to go back after an election. The Town Clerk and his staff once properly organised, it would not matter if the aldermen went out every year. These gentlemen must always be, to a certain extent, dependent on their permanent staff. It is only very occasionally, when anything goes wrong, that any Minister, so far as the public service is concerned, would ever go to the trouble of making an inquiry into the details of the work of his department. I would like to strongly emphasize the necessity of trying that clean sweep.

The witness withdrew.

WEDNESDAY, APRIL 24, 1901.

J. F. STUMP, *called and examined.*

Mr. Stump was sworn.

2294. *By the Chairman.*—What is your full name, Mr. Stump? James Frederick Stump.

2295. And what position do you occupy under the Corporation? City Accountant.

2296. *By Mr. Guesdon.*—I have got your statements of accounts here, Mr. Stump, for 1899 and for 1900. There is your statement of general account, I think, which is merely a statement of receipts and expenditure, and not a revenue account at all? Yes; a statement of receipts and expenditure,

2297. Simply a cash account, really? Yes.

2298. What does this mean in the statement for 1899: "Rates for 1897 overdue, £22 2s. 10d."? That amount was received in 1899 for rates that were outstanding for the year stated.

2299. But you bring it forward on the 31st December, 1899, as being then due? Oh, no; as being money actually received during 1899 for rates outstanding for the year 1897.

2300. Where is your account showing the amount actually due at the end of the year, then? The amounts actually due at the end of the year would be shown in the rates ledgers. The rate ledger is the assessment roll extended into four columns, representing the four quarters of the year; and the amounts not filled in in those columns and credited would be the amounts outstanding, which we take out at the end of each year, so as to have an idea of the proper amount outstanding at the end of each year.

2301. Can you tell us now, then, what was the amount outstanding at the beginning of 1901 for the previous year of 1900? Well, so far as my memory serves me, it is £5484 some shillings and pence. That is as near as I can state it from memory.

2302. This is it, then: "Ditto owing to the Corporation"? Yes. There is a memorandum made each year when the statement of accounts is got out, stating the ratable value of the rates levied, together with the outstanding accounts, with debts owing to or by the Corporation, as at the end of that year.

2303. Well, here you have "Rates outstanding for 1899, £238 12s. 6d." That is to say, I suppose, that these rates have been outstanding at least twelve months, as this is your 1901 account? Yes; that amount would be the rates outstanding in 1899.

2304. Then they have actually been owing for twelve months? Yes, for twelve months. That is so.

2305. And £5484 17s. was what was so outstanding? Yes, on account of the year 1900. That would really be that something like £5700 was outstanding on account of rates on the 1st of January this year; which was a smaller amount than it had been for some years previously. It is generally somewhere between £6000 and £7000 outstanding at the end of each year.

2306. Now, can you give us a general idea of what is the class of people who are slowest in paying their rates. Are they the poorer classes of ratepayers, or the more prosperous? I do not think there are any particular classes; I think these people extend over all classes of ratepayers—merchants, lawyers, owners of property of all sorts. I do not know that I could lay down any one class more than another.

2307. What do you do in the case of rates of that sort that have been so long overdue. I see that in the previous year's statement of accounts you have "rates outstanding for 1898"—in arrears another twelve months, that is to say—"£536"—what practice is adopted with regard to these arrears? At the end of every half-year summonses are issued for the recovery of outstanding rates. In cases where absolute necessity is the cause of the delay in payment we may make some allowance. But if we see a notice of a sale by auction, for instance, or anything of that kind, in which outstanding rates are concerned, in goes a warrant in order to secure the Council; and our man stops on the spot until he gets a guarantee from the auctioneer that all rates due shall be paid out of the proceeds of the sale; and in the case of anybody living in one of the houses belonging to the Cascade Brewery Company we put a man in, who has to remain there until the debt is paid, or guarantee from the company. In many instances, perhaps, a summons is issued, and there may have been a distress-warrant put in; and, possibly, the people may then see the Mayor about it, and manage to make terms with him to pay by weekly or monthly instalments, as the case may be. In lots of cases the attempt to do anything with regard to seizing property and selling it would mean, perhaps, selling up people's beds and a few traps they have got, and we would be no better off in the end.

2308. But you know, I was not dealing particularly with that class of people now. I am talking of people who can pay and do not pay, or—I won't say that—who defer paying. What do you do with people of that sort? Well, I do not know that there are any people who can pay and won't.

2309. Well, they do not pay, anyhow, you see; or why these arrears every year? Well, we have had one or two cases; for instance, we have had the case of Knight's estate. At one time there has been as much as £250 to £300 outstanding on that estate alone. The estate at that time was pretty much at a standstill, and Mr. J. C. Knight, as I think, humbugged us a good deal. There was a disputed amount for a sanitary rate for the piece of land in Macquarie-street, which is assessed at a fairly high amount. The sanitary rate went to a very fair figure, and it was standing on the account for some considerable time. At last we notified the tenants of the estate that rates were owing on the different properties they were living in, and, of course, they came rushing down to the office, and we explained to them exactly what they should do, viz., pay the rates and get our receipts, and then simply produce these receipts as payment for rent." On that most of them went to see Mr. Knight, I think, who came down and saw us, and there was a good lump paid off, perhaps £100. I could not say from memory how much is outstanding from that estate now. Of course, I could have brought you down a list of the outstanding rates if I had known you were going to question me on that, and shown you exactly what rates were outstanding at the end of the year.

2310. Well, we can ask you to send that list down. Will you do so? Yes.

2311. *By Mr. Hamilton.*—Do you make any bad debts, Mr. Stump? Well, comparatively *nil*. Of course, there may be at any time a case of extreme poverty in which an exception may be made. But there have only been one or two such cases in the whole of my fourteen years' experience—cases in which the Mayor has told us to wipe off a pound or two. Perhaps some old widow lady, living in a small house of her own, has got a little behind and been unable to pay, and the Mayor has said, "Write it off."

2312. *By Mr. Guesdon.*—But, as I told you just now, I am not referring to those who are the victims of circumstances, but to those who delay to pay when they can pay. Do you take extreme steps to make those people pay? Yes; there is no distinction made.

2313. I see, Mr. Stump, that you bring forward a credit balance of £3355 on your general account. But between these "Debts owing by the Corporation" and "Debts owing to the Corporation" there is a difference to credit of £4700; so that, practically, on revenue account you have really a credit balance of £8000 for the year when you have fulfilled all your obligations? Oh, well, when you see it set down "Debts owing by" and "Debts owing to" the Corporation, it is indiscriminately general account and water account. That would not all be under the general account; that is, debts owing to and debts owing by the Corporation, including the water account, the health account, the slaughter-house account, and all other accounts.

2314. Well, do you not think it would be well to separate and specify these things in your general account, so as to show what was outstanding or to your credit under the water account and what under the general rates account. You see, the information here, as it stands, does not specify that. What do you think? Well, there is this to be said: when you take the general account and see a credit balance of, say, £3355, you will know that the probability is that whatever debts there are outstanding and chargeable to that account for that year are really covered, in a way, by the similar items that have been paid at the beginning of the year as outstanding on the previous year's account. One thing, you see, balances the other. For instance, there are sundry tradespeople's accounts, and there is the gas account. We do not get the gas account in time, and that is a big item. There is, generally, somewhere about the same amount of debts outstanding at the beginning of each year.

2315. *By the Chairman.*—This happens year after year? Year after year; so that what we pay at the beginning of the year out of revenue for the previous year's outstandings comes back to us in the small items that are left outstanding at the end of the current year. Prior to 1896 these outstanding accounts were brought into their own year by means of journal entries. The system of keeping the books then was to bring all outstanding accounts for any year into the statement for that year, and debit or credit them to that year's account; but when the Corporation came under the Audit Department, and the Auditor-General had a say in the matter, he ruled that we should simply take into account merely the actual transactions for the year. These outstanding rates were always brought in as part of the revenue of the year to which they belonged previously. That was the system under which our accounts were previously kept.

2316. You kept proper revenue accounts, then? Yes; now we keep simply receipts and expenditure.

2317. As we cannot find it out from here, will you explain how it is that your debit balance under your water account has grown from £3023 8s. 10d. last year to £4656 7s. 3d. this year. Is that attributable to the fact that there is some amount due for rates outstanding? No; it is attributable to the larger expenditure made during the year. I think you will see an item of £3863 in that year—an expenditure which was not foreseen—in the way of repairs to the upper storage reservoir.

2318. Well, then, you attribute that increased debit to the larger expenditure on waterworks during the year? To the increased expenditure, undoubtedly, for which no special provision was made.

2319. Then, you see, there is a difference still to account for if all the other items are proportionately anything like they were the previous year. On your showing you have £3863 more of expenditure, and you have only got £1600 of increased debt, so that you are only, on those figures, £2200 better off than you were last year? Yes; with the exception of that big item for repairs of the upper storage reservoir, for which no provision was made, the water accounts would have come out considerably better than was anticipated early in the year.

2320. Then, at that rate, your water account is beginning to recover itself? Yes, it is.

2321. *By the Chairman.*—In fact, it has made large strides, has it not? Well, of course, there is one thing that we must look ahead at, and that is, our reticulation service. Now that the pipes have been down so many years, many of them are badly corroded and rusted, and we shall require to regularly renew some of them from year to year, as necessity arises, until all the City is renewed with new pipes.

2322. *By Mr. Guesdon.*—You have borrowed £10,000 on account of waterworks? Yes.

2323. Was that sum borrowed for the specific purpose of mending the storage reservoir? No.

2324. For what, then? It occurred in this way. The last loan under the waterworks, prior to this, was £30,000; and in constructing the old storage reservoir an amount of £4532 was over-expended. Well, the Council got permission to borrow this £10,000. But, we really did not want the money then. Although we had made that over-expenditure I have referred to, we had money in hand out of another loan, and we simply made the deficit good out of that, and paid our way, and the sum so paid was ear-marked to come out of this £10,000, when it should be borrowed.

2325. What was done with the balance, then? The balance is used for the work now going on of laying a 12-inch main to St. Crispin's, and making the extension to the North-West Bay River, and constructing the new tramway.

2326. And this expenditure has nothing to do with the work now going on at the reservoir? Nothing whatever to do with it. The work at the reservoir is being provided for out of current revenue.

2327. *By Mr. Patterson.*—And will be covered by putting on this increase on the rate? Yes. And we anticipate that in three years the whole thing will right itself.

2328. *By Mr. Guesdon.*—What amount of extra rate have you put on? Well, twopence, threepence, and a penny. In some places we could not put on threepence, because under the law we could only go to a certain limit.

2329. What revenue will that give you then—the extra rate that you have put on, I mean; what should you say, speaking roughly? Oh, I should think—

2330. Would it be a couple of thousand a year? Oh, more than £2000. Because, a penny rate on the City produces about £750, and this increase, of course, extends to the City and suburbs alike. I should think we shall get quite £2600 or £2700 extra.

2331. A year? Yes. The amount realised in three years will pay the whole expenses of repairing this new storage reservoir—say, something like £8000.

2332. Well, the Town Clerk, in his evidence before this Commission, stated that out of this rate—this extra rate—there was to be a fund provided for renewals and repairs. Do you know anything about that? I know nothing of it, as a positive arrangement. There may have been talk about it in committee, or something of that sort; or the Mayor, perhaps, in the middle of the year, may have spoken of it; because, you know, they anticipated putting this extra rate on some months ago—some time during August or September last, I think it was—to provide the money for the repairs to the upper storage reservoir; for that particular purpose. I know nothing of the establishment of any fund to provide for renewals.

2333. No fund to be continuous and permanent, to provide for this sort of thing in the future? No; I never heard of it.

2334. In fact, it will take you more than three years to pay off the cost of the repairs to the reservoir, on that rate? Yes; I calculate it will take about three years to pay it up. But, I might state that the Auditor-General had our estimate of ways and means, and he wrote and asked how the money was to be made up. By some means or other, it seems, he had been informed that it was a twopenny rate we were levying; and he rang me up and asked me how that was. So I gave him the figures, and worked it out with him, and showed him that it was not a twopenny rate at all. Of course, some of it is raised by a twopenny rate, because, as to a certain amount of the assessments we can only put on twopence. I showed him the way in which I had estimated the amount, and that the water rates would wipe off the cost of work in about three years. So he looked into it; and a day or two afterwards he rang me up, and said, "That's all right. You will be in a very good position. Your water account will be about out of debt in three years' time."

2335. Do you not think that provision ought to be made, Mr. Stump, to provide a fund to meet contingencies for renewals and things of this sort; so as to keep your rates uniform in the future, instead of having to put on special rates whenever contingencies of this kind arise? Well, before I could answer that question, I should want to know more than I do about the life of pipes, and other things of that description. It is a question that Mr. Milles can give you a more definite reply about than I can.

2336. But still, speaking in general terms, ought not that provision to be made? [No reply.]

2337. Do you think it is wise to conduct your accounts in such a way that you only begin to make provision to meet these contingencies when they arise, and in such a way as to impose a heavy charge to meet them on a certain portion of the people during a certain number of years, whereas they ought to be spread over a much longer period? Well, of course, there have been expenses that have been incurred year after year in the way of extending the pipes; there was a large extension at Sandy Bay, just a little while ago. There have been such extensions in other parts of the City; and we have always been able to meet the cost out of the current revenue. If there is any more extension required, I cannot see why they should not manage to spend £800 or £1000 a year in renewing the pipes, where they know the pipes have been down so many years, and have become badly corroded and need renewing. I think that the Council could provide for this very easily with the rate as at present, when this other big liability is cleared off; or even the rate as it was previously would be sufficient, I think. Although, really, I might tell you, the cause of the water account getting so backward, and having a large debit balance, was that a few years ago they took threepence off the rates, slap; and ever since then the account has been going back. I think, speaking from memory of the last ten years, that we had a fairly large credit balance for about five years, and then, when this threepenny rate was taken off, the account dropped, and since then has been in a bad state.

2338. That is simply to say that it is in a bad state because you have not adopted the principle I suggest, of putting by a certain sum every year to provide for contingencies? The reason was that they took off that threepenny rate, and then had not sufficient to keep them going.

2339. Then, even if they had sufficient to keep them going, it would not be enough, under the present system, to make provision for contingencies of the kind we have been talking about?

No, it would not. Of course, from a common-sense point of view, although I profess to know nothing about the life of water-pipes, I should say that while we know that we have these things, and that they cost a certain sum of money to keep them going, we should do something. The pipes won't stay there for ever. We will have to put new ones in their place; and I think it would be wise to have a certain regular fund in which you could deposit a few hundreds every year, as a sort of reserve fund. If it was not placed to a separate account, it would, at any rate, be a wise thing to make provision for it.

2340. How do you deal with your water account, in the way of cutting up your streets and footpaths? In what way do you mean?

2341. Well, of course, I suppose that, if the work of repairing your streets and paths after work connected with water is not debited to the water account, it has to be paid for out of general rates. What is the course you adopt, for instance, if you cut up a portion of a street or a footpath to make a connection—do you charge the general rates with the cost of the subsequent necessary repairs? Oh, no; when the waterworks people do that, all the wages and time is charged to the water account.

2342. Both in the suburbs and in the City? Yes.

2343. And the water account is fairly debited with all charges of that sort? Yes, it is charged for everything of that sort. I might tell you that all the accounts now, since I have had anything to do with them, are analysed. I analyse them, and cut them up under their separate heads, in such a mathematically correct way that if one came to 1·8*d.* and another to 1·2*d.*, the one that was ·8*d.* would get the penny to make up the correct amount; and the same way with the interest.

2344. On the other hand, then, do you not consider it to be an equitable thing to charge all institutions under the Corporation for the water that they use? Yes, certainly.

2345. Institutions such as the slaughter-yards? Certainly.

2346. And the Town Hall? Yes.

2347. And I suppose the general rates should be charged for the water that you use for flushing your gutters? Yes; I think that the water account ought to get the benefit of all items of that description.

2348. In fact, all the water used by all the other departments of the Council ought to be credited to the water account? Yes, it ought to be credited.

2349. And any water that you supply in like manner to the suburbs for flushing purposes ought also to be debited to them, and credited to the water account? Certainly. I think that, if the suburbs use water for flushing the streets and gutters, or anything like that—I don't know that they do—they should contribute proportionately to the Hobart Water Account.

2350. *By Mr. Propsting.*—As a matter of fact, the suburbs do not use any water for such purposes, do they? Well, they sometimes have water running down their street-gutters, don't they? Anyhow, the slaughterhouse uses a large quantity of water, and I think it is only right that that department should have a meter, and whatever water is used should be paid for. It should be paid for, even if they had it at a lower rate than the general public. I think the water account ought to be credited, and the slaughterhouse debited, for the value of water used.

2351. *By Mr. Guesdon.*—Don't you think that that would materially improve the financial position of the water account? Oh, certainly; it must do.

2352. You know that it is done in Launceston, and the abattoirs are charged for the water they use there? Yes.

2353. Have you gone into the question of whether the water account has benefited, and, if so, to what extent, by the introduction of meters, where you have found it necessary to introduce meters? No; I am unable to speak positively on that point; or, indeed, to speak on it to any extent at all.

2354. Can you give us a return from your department, or Mr. Milles', of the houses that are supplied by meter now? Yes.

2355. A return, I mean, showing what is the minimum that they would actually pay in rates under the ordinary system, and what they have actually paid since they were supplied by meter—that is to say, the number of houses now supplied by meter, the amount of water rate you would receive from them supposing there were no meters, and the amounts you have actually received from them since the introduction of the meters? Yes, I can give you a return showing that. I know, I may say, that in some cases, where water was being used at different places where Mr. Milles suspected that large quantities were being used, he had a meter put on; and the first quarter the meter was on, the water used would come up to—well, it might be £15 worth; but the next quarter it would drop to half that. This clearly shows that when they were first using water by meter they were simply wasting it. They did not know, then, how they were running on, and what the cost would be, during the first quarter; but when they saw the account, and found out the quantity of water they had used, they found also that next quarter they could do with pretty well half the quantity. I may say that that was notably the case in the *Metropolitan Hotel* and the *Tasmanian Club*.

2356. Then, from your experience, do you think that it would be to the benefit of the water account to have the meter system introduced generally? No, not generally; I do not think it would. Not, that is, if people paid simply for what they used.

2357. But you would fix your minimum rate, you know? Oh, if you fixed your minimum, I certainly think it would be a good thing.

2358. You strike a minimum now where you fix a meter, I think? Oh, yes. The minimum is the amount that would be paid by rate if no meter were fixed.

2359. And, if you continued that principle, the introduction of meters would mean a material increase in your water revenue, or a very large saving of water? It would mean a large saving of water, certainly; but I would not like to say we would get more revenue. But it appears to me that it would be a fairer method of charging than the present, because it would simply be a matter of paying for what you use. Of course, a minimum would be fixed for the privilege of having the water laid on.

2360. Well, if you saved water, you would save money? Yes, you would save money, so long as you wanted the water. Sometimes you do not want it. In the winter time, for instance, it is simply running to waste.

2361. Can you tell us, roughly, how many houses there are in Hobart, altogether? About 5230, as near as I can remember. That would be including a certain number of pieces of vacant land.

2362. We will put it at 5000, then, in round figures, taking out the pieces of land? Five thousand, then, approximately.

2363. Well, then, just taking these approximate figures, supposing that it costs every household sixpence a week to clear away his rubbish and garbage? Yes.

2364. That would represent a cost to the whole community of £125 a week, would it not? Yes.

2365. At that per week, it would be £6500 per annum? £6500, yes.

2366. Now, has it ever been estimated what it would cost the Corporation to undertake to clear the whole of the rubbish and garbage from these houses once a week. I suppose you could tell us that, approximately? No, I could not. The Health Department may know; I could not tell you. I do not know how many carts would be likely to be required. If we knew how many carts and men would be wanted, we would know the cost exactly. We know exactly what we have to pay per day per man and cart.

2367. The head of your Health Department said, I think, that it would cost above £1000 a year; and, I think, the Town Clerk's estimate was the same. What do you think? Well, I would not like to make the statement unless I went into the figures.

2368. But, speaking generally on these figures, do you not think that, at all events, the Corporation could do it for very much less than £6500 a year? Oh, I think so.

2369. And it would be a very material saving to the community generally? I think so; because the present sanitary arrangements cost less than £6500 a year—you will see by the Health account just what it costs—and the matter of going round and collecting the garbage once a week from each house would certainly be less expense than carrying out the ordinary sanitary work, as now.

2370. The cost of the sanitary service is £5287 17s. 4d.? Yes.

2371. And you think it would cost nothing like that amount to remove the garbage? Oh, no; well, as a matter of fact, you say that the Town Clerk and the head of the Health Department each quoted £1000 as the probable cost of the work—well, put a hundred per cent. extra on those estimates and you only have £2000.

2372. You make a provision here for sinking fund—now, you have increased your provision for that fund recently from five shillings to ten shillings per cent.? Yes.

2373. Were you consulted in any way as to whether that provision was adequate or not? Well, the provision was formerly five shillings per centum per annum.

2374. That is what I say; and it has been increased to ten shillings? Yes.

2375. Well, were you consulted with as to whether that ten shillings per cent. was an adequate provision to make? The Mayor was interviewed, I think, by the Auditor-General on the point, and I think that the Launceston Act provided for a sinking fund of ten shillings per centum per annum; and the Auditor-General considered that we had a right to bring in an amending Act, and have our Act, with reference to the amount to be paid or set aside as a sinking fund, made the same as the Launceston Corporation Act. The Council fell in with that view, so the amending Act was brought in and the change was made.

2376. Then there was really no calculation made at all as to this provision—it was simply a capricious decision, so that this sum should be paid here because that was what was paid in Launceston? Oh, no; I think the Auditor-General was the governing person in dealing with this matter of the Sinking Fund.

2377. But you say that the Auditor-General made the recommendation because that was the percentage provided for by the Launceston Act? Oh, no. He said, "This five shillings per centum is not a sufficient sum to put on one side."

2378. Did he say, then, that ten shillings would be sufficient? Well, I cannot say he did say so, but I imagine that he did say so, from the fact of his recommending that ten shillings per centum should be fixed on; anyhow, it was fixed at that.

2379. And you do not really know anything at all about the basis or principle on which this percentage was fixed? No.

2380. *By the Vice-Chairman.*—As Accountant, Mr. Stump, I understand that you have no control over the Rates Department of the Corporation? Oh, yes, I have.

2381. You might tell us what the relations are between you and that department? Well, the relationship is this—that I am actually the check, day by day, on the work of that depart-



ment, inasmuch as, the first thing in the morning, I add up their entries of rates made on the previous day, with all the other items of revenue that have been received and then enter the figures in what we call a General Receipt Book (which is an abstract of the previous day's receipts), and book the rates up from the Cash Book into the ledger. Then the abstract of that day's work forms an entry in my Cash, which is entered again under the different headings.

2382. But to whom is the Collector of Rates responsible for his work? Well, I should say it should be to the Town Clerk, as head of the Corporation.

2383. Not to you? I think not.

2384. Do you think he should be answerable to the Town Clerk? I think so, certainly; it always has been the custom. Because, you see, in the matter of warrants being executed, or anything like that, I think the head official should be the person who should have the responsibility of putting the bailiffs in, or, if they are in, of taking them out; that is, of course, in the absence of the Mayor. Of course, we always contend that, when the bailiff goes into a place, he should remain there till arrangements are made with the Mayor to have him out; because the Mayor signs the warrant.

2385. I suppose there would be no difficulty in making a return of the rates, showing, say, how much in the £ has been levied during the last ten or twenty years? No, I do not think there would be any difficulty about that.

2386. Will you let us have such a memorandum? Yes.

2386A. And can you let us have a memo. showing the amount obtained from each of the suburbs from which you collect water rates, since you first commenced to collect them? Well, that would entail a very large amount of work.

2387. Are the accounts not kept separately, then? They are now; they were not formerly.

2388. How long has that gone on? They have been kept separately since 1897, I think.

2389. Well, will you let us have the returns from 1897? I think that in my last examination before the Select Committee of the Legislative Council you will find that that information was given.

2390. That does not separate the suburbs, you see. What we want to get at is the actual revenue drawn from each of the suburbs. If there is any great difficulty, perhaps the return for last year would do. Can you give that? You want the suburbs separately—not the whole of the suburbs?

2391. Yes? Oh, our books for last year simply divide them—City and suburbs.

2392. Have the suburbs never been divided? No, not so as to distinguish between the separate suburbs; but from our rate-ledgers we could have the figures added up, because there we have the entries—Sandy Bay, New Town, Glebe, and so on.

2393. Well, let us have that, will you, for the last two years? Yes.

2394. Have you many dealings with the surrounding small municipalities or town boards? Oh, no; very few. We have one or two on now: one with the Mount Stuart Town Board—the joint construction of that Jordan Hill Road bridge, jointly paid for by the Mount Stuart Town Board, the Government, and the Corporation; and there is also some joint work being carried on at the Wellington Rivulet. We spent something like £152 last year in buying timber for that. When we get it, we store it, and have it seasoned, before its being used for the improvement of the Wellington Rivulet. That is one of the items put down as a debt owing to the Corporation by the Sandy Bay Town Board.

2395. *By Mr. Propsting.*—Are there ample funds in hand, Mr. Stump, to carry out the City Surveyor's scheme of Public Works this year. Yes; of course, the estimates show that, allowing £5500 for the ordinary expenditure in the department, as well as a special vote of £1500 from the Government, and a portion of £750 or £800 from the subsidy of £1000. And then, in addition to that, there is a balance of loans money unexpended, and the probability is they will spend some of that this year; they can spend up to £2000 from that, under "The Loans Working Act (53 Vict. No. 30)." There is an unexpended balance still, of £7933. That is loans money that may be spent in a specific way; not in repairs or maintenance, but in actual construction—making new roads in outlying districts, and so on.

2396. Did this year start with a credit balance to general account? Yes, £3355.

2397. And how does that compare with the state of things obtaining in previous years? It was £3266 the previous year. The last five years we have had a credit balance to the account.

2398. Could there have been a substantial reduction of rates this year without affecting the financial condition of the Council? Well, it would have been running things very closely if there had been. I think it better to keep the rates as they were; then, if any extraordinary case of special work should crop up that requires doing, you know your hands are not tied for a matter of a thousand or so.

2399. What would a reduction of twopence in the rates mean to the Corporation? A loss of about £1400.

2400. And you do not think that such a reduction could wisely have been made this year? It is certainly far more advantageous, I think, to keep the rate as it is than to reduce it, and afterwards find that you hardly have enough to pay your way. It is better to have a penny or twopence more of a rate, and to know that you have got £1000 if any case crops up of work that must be carried out. You never know what may happen—what sewers are going to give in. You have to pay four or five hundred here and four or five hundred there. You must be prepared.



2401. You know the statement I am referring to, I suppose? Yes. I presume it is the statement made by the Mayor last night?

2402. Yes. He says he could have made a reduction in the municipal rate of twopence in the pound without affecting the financial position. What do you think? Oh, it must have affected the financial position; because if you reduce a rate by twopence, that means £1400 anyway; and it means that you are going to reduce your revenue for the year by £1400.

2403. Well, have any municipal works been delayed by want of funds? Oh, no.

2404. Can you explain, then, what is meant by this statement of the Mayor's: "This, together with the fact that very many necessary works should not be further delayed, prevented me even mentioning the reduction"? No. I cannot name any special necessary work that has been delayed. Of course, the City Surveyor would be able to answer that question better than I could, because it is in his department, and he knows exactly what work does require to be done.

2405. Why was that special parliamentary vote of £1500 made? Was it made in 1900 or 1899?

2406. It was made last session, was it not? I do not know what were the reasons brought forward to induce the Government to grant it. The subsidy was given for new works, or works in the outlying districts, and works that, probably, would not have been considered urgent. For instance, work is to be done going up the top of Brisbane-street from Harrington-street, up away there by the hill, and all around different parts about the Crescent.

2407. But was not the subsidy of £750 given because subsidies were granted to every other municipality? Oh, yes; that is the £750 for this year.

2408. Then why was the special vote of £1500 granted to the Hobart Corporation? Just to enable them to improve the outlying parts of the City, I suppose. I would like to look at the speeches made by the Mayor and other members in the House in support of this vote being granted. At present I cannot say exactly why the Government should grant the vote.

2409. Can you tell us approximately what amount will be at your disposal at the end of the year for improvements, new works, repairs, and cleansing of the streets? Well, there is £5500 that is set apart. Then there is £1500 voted by the Government, and the subsidy of £750. Then we can spend up to £2000 on the improving of the streets. And there is also a balance for contingencies, and when you see a balance like that for contingencies, you may be sure that if the Public Works Committee see it they will lay themselves out so that they can get some work or other put down, in order to use that money up. But there are other things that come under contingencies, beside works, that might require to be done by the Public Works Department of the Council; for instance, we have had a lot of expenses lately with reference to reception of troops, and so forth, and money spent otherwise in the way of patriotism; and there have been a lot of other expenses that one cannot foresee. For instance, there was an official trip to Sydney the other day; and I mention other items that would show you what I mean. Here we have "Furniture, &c., Town Hall, £80"; that would have to come out of contingencies. That is an expense of a sort that occurs pretty regularly: mending chairs, purchasing brooms, and so on; it all goes under that heading. Here is another item: "Tree-planting, £123." The chances are they will spend £80 or £100 this year again in tree-planting. Well, then, you have some of the items that have to be provided for out of Contingencies. Then here is this contract for Jordan Hill road; that was £553. And there is the cost of the stone-crusher, with duty on same £160. Altogether, there is £900 here, all covered by that item of Contingencies. The Public Works Committee do not have to consider that. Leaving out contingencies, they have £9750 to spend.

2410. What was that official trip to Sydney you referred to just now—was that at the time of the landing of the Governor-General? Yes.

2411. Does that include the expenses of the Mayor and aldermen—or what? The aldermen paid their own expenses; and the Mayor's hotel expenses were paid by the Sydney Government. I think this was principally the Town Clerk's expenses. He went officially, to accompany the Mayor and Aldermen.

2412. *By Mr. Guesdon.*—Mr. Stump, do you debit your water account with a portion of your general officers' salaries? Yes.

2413. Then this item for salaries includes a portion of the Town Clerk's? Yes; and a proportion of my salary, and a proportion of all the salaries. Well, I should not say all; it would not include a proportion of the salaries of the Health Department, nor yet the Slaughter-house Department—only those whose work is taken up as much with one thing as with the other.

2414. *By Mr. Propsting.*—One question more, Mr. Stump. There are several heads of departments under the Corporation, are there not? Yes.

2415. And is any one officer referred to by the different heads of the departments, or do they refer direct to the Mayor? For instance, to put it more clearly, is the Town Clerk looked on as the head of all departments? In my opinion, he is absolutely the head of the Corporation.

2416. And everything has to be referred to him that has to be referred at all to anybody, I suppose? I think that all the business of all the departments should go through his hand.

2417. And he has really the custody and control of everything in the hands of the Corporation? I take it so.

2418. That is, the correspondence and documents, and so on? Yes.

The witness withdrew.

SPENCER WATERS, *recalled and examined.*

2419. *By the Chairman.*—When you attended the Commission on a previous occasion you were asked whether, when you turned the water off from the main in Dunn-street, it had any effect on the flow in the foundations of the Customs House. You say it had no effect? No.

2420. And when you turned the water on again afterwards it made no difference? No.

2421. Now, it has been stated in evidence, before this Commission, by the contractor for that work, and by the Government Clerk of Works, that after the water had been turned off the trenches were quite dry for some days. What do you say to that? No. The water was flowing the whole time they were putting the concrete in—right up to the last day; because they had to sink a hole to a depth lower than the foundations, in order to get rid of it. There was a continual flow right along after the water was turned off in Dunn-street.

2422. Then you do not think the evidence given here as to that is correct? No; I am positive it is not.

2423. And you adhere to your opinion that the Dunn-street main had nothing to do with that flow of water into the trenches? Nothing. When Mr. Duncan complained to us about it, we thought it might be coming from the old 3-inch main. There are two mains in Dunn-street. We turned the old one off, and there was a slight decrease in the water in the trenches; but, then, as they sunk lower, the water came in again as strong as ever. Then, unbeknown to anyone, I turned it on again.

2424. How long was it turned off at first? Twenty-three or twenty-four hours. But it is off now. It was turned off again almost immediately, and we have not turned it on again since; because the main is useless, and is not wanted.

2425. Are you fully satisfied in your own mind that, at the time when you first turned the water off, there was no decrease of the amount of water in those foundations? Yes. Mind you, when we turned it off in the first place, they were about three feet down with the excavations; and when we shut the water off in the afternoon, on the following morning there was very little water running at that level. But as they went further, and came to a greater depth, the water was still running; and as they went deeper down so the water came in on them, and gradually grew worse. They had to dig a hole deeper than what the foundations were, so that they could bale it out the whole time.

2426. *By Mr. Propsting.*—You say you turned it off in the afternoon? Yes; but I cannot speak quite positively as to the time.

2427. Then, about twenty-four hours afterwards, you turned it on again? Yes; I turned it on again on the following day.

2428. And how long did it remain turned on then? All that night, and I turned it off again the next morning.

2429. And it was turned on again for how long after that? Oh, from four to six hours.

2430. And it has been turned off ever since? Yes; it has been turned off ever since.

2431. There can be no mistake about it having been turned off permanently? No; no mistake at all. I may say that the fact of Mr. Duncan using the water coming in at the foundations to mix the concrete with showed that the water was continually running. That was where he was getting his water from all the while after we cut the supply off.

2432. *By the Chairman.*—Did you taste the water in the trenches? No.

2433. *By Mr. Propsting.*—I understood you, in your evidence given previously, to express the opinion that this water possibly came from the creek? Yes, that is what I thought myself at the time.

2434. What creek did you refer to? I think they call it the Hobart Rivulet; the creek that runs under the Campbell-street bridge.

2435. Is not the water in that creek lower than the excavations for the foundations of the Customs House? No; I think it is either two or three feet higher than the point where they were excavating.

2436. Did the water in the trenches appear to be running rapidly? Yes, it was coming in a strong stream.

2437. What is the distance from the foundations of the Customs House to the point in the creek at which you suppose the water was coming in? Oh, about three hundred yards, I should say.

2438. That would be a fall of three feet in three hundred yards then? No, not in the ground level, but from the bed of the creek to the road level at which they were working in the excavations. You see, they were a long way down; their excavations went down six or seven feet—which would mean three or four feet below the bed of the creek.

2439. Then you reckon that the actual fall was about three feet in three hundred yards? Yes, somewhere about that. That is from the creek bed to the bottom of foundations.

2440. And do you think the water would be running as rapidly as you describe it to be with that slight fall? Well, at the time I took particular notice of that, the tide was very low, if I remember rightly. You see, the tide comes in and backs it up, and the water would not run, but be almost stationary while the tide was at its extreme height. After that, as the tide goes out, the water would run out rapidly, and that would account for the strong flow I saw.

2441. Did the water run in a regular volume? Well, it seemed to be continuous, for they kept on baling it out. They did not bale it out, in fact, they were pumping it out. By steady pumping, they would have it nearly dry by the afternoon. Then, during the night it would run in again and fill up all the trenches.

2442. How could they bale it out if the tide came in? Well, when the tide was out the water would be running out into the dock as well as what they got out by pumping, and they could get it down. They used to pump it dry. They had a large 4-inch pump at work.

2443. Do you know as a fact, then, that there was salt-water percolating into these foundations? No.

2444. How did the tide affect it, then? Well, you see, it is all made ground there. The water would be higher when the tide was up, being backed-up.

2445. But that does not seem clear—the tide could not force back this stream without getting into the foundations, could it? Oh, yes; the saltwater, I believe myself, goes right through these foundations at a low level. I think it backs right up through that street. It is all made ground there—all been filled in. I mean that the water, at high tide, would have a tendency to prevent the water in the trenches from running out at the same rate as it would if the tide were low, and so back it up in the trenches.

2446. Then, you think that the tidal waters would be at a lower level than this water running into the trenches? Yes. The bed of the creek would be higher than the level of low tide.

2447. One question more—You say that the tide rose and backed the water—you are quite sure as to that? Yes; it stopped it running out so fast as it would when the tide was low.

2448. Then the tidal water at high tide must have been at the same level as this inrunning fresh water? Yes, about.

2449. Of necessity it must have been, I suppose, if it stopped it from running? Yes, it must, to have stopped it running. You see, at the time I took notice of it, the tide was low, and the water was running freely from the trenches into the hole the contractors had sunk there for the purpose of pumping it out.

2450. If then, the tidal water was at the same level as the inrunning fresh water, it must have got into the foundations? Yes; possibly, it was there. Possibly, a good deal of it was salt water.

2451. Well, do you know that the evidence before us is that it was perfectly fresh, always? I could not say that.

2452. And that could not be if what you suppose was happening was really taking place? No. Well, you know, I suppose the fresh water coming in would mix with the salt water to a certain extent. The water in the trenches would be brackish water.

The witness withdrew.

WEDNESDAY, APRIL 25, 1900.

J. W. C. HAMILTON, *recalled and examined.*

2453. *By the Chairman.*—Were you in receipt, yesterday, of a summons issued by Commission calling on you to attend and produce a certain document? Yes, I received the summons, and I have got the report. This is the document—

*City Surveyor's Office, Town Hall, Hobart, 7th August, 1899.*

WORSHIPFUL SIR,

I HAVE the honour to bring under your notice the present unsatisfactory condition of the permanent way of the Hobart Tramway Company, as laid within the City boundaries.

Owing to its peculiar construction and the heavy weight of the cars, it has not proved a success, with the result that repairs are continually being effected by re-laying damaged rails, and re-packing the sleepers, &c., which in some places has brought the tramway higher than the adjacent roadway.

Very slight provision has been made for carrying off the surface drainage, and, therefore, in wet weather, the water collects in the foundation of the tramlines, doing very considerable damage to the streets.

On inspection, I find in several places, the space between the rails is 25 to 50 per cent. wider than that originally agreed upon, and by reason of the light nature of the rails, and insufficient foundation, the running rail has sunk much below its guard rail, thereby offering considerable danger to vehicular traffic.

Having now clearly watched the working of this system of permanent way for several years past, I am of opinion that it is anything but a success, being costly for the company to maintain, and causing great inconvenience to the public.

I would therefore suggest that the City Council consider this question, with a view to asking the company to relay the tramway line with a better class of permanent way, having a proper tramway rail laid on a solid foundation with provision for drainage.

I have, &c.

R. S. MILLES, *City Surveyor.*

TO HIS WORSHIP THE MAYOR.

2454. Does the correspondence end here, Mr. Hamilton, or did the committee to which this report was made take any action on it? That it did, sir. It took action and transferred the report, and that is where the Mayor came into the matter. That was the report I referred to last time I was here, as having been brought before the Public Works Committee; and the Public Works Committee, sitting with the Mayor, advised sending a copy of the report to the Manager of the Tramways Company, so that the Manager might send it home to England, with a view of obtaining assistance from the directors at home—assistance, I mean, in the way of money to enable him to carry out the suggestions contained in this report.

2455. Well, that, I think, was last September? Last August twelvemonths, I believe it was—August, 1899.

2456. And what has been obtained further in the way of result? I have written to the Manager of the Tramways Company asking him if he has any reply to make to the report I forwarded to him. I have no reply to hand as yet.

2457. What was the date of your letter to the Manager of the Tramways asking for this reply? It was the very day I went back to office after giving evidence before this Commission—the day of my last attendance here. At the same time I wrote to Mr. Milles, and asked him to go over the tramlines again and furnish me with a report as to whether any steps had been taken to remedy the evils complained of in his former report; I asked Mr. Milles about it again, just before I left the Hall to come here to-day, and he told me that he should finish his inspection to-day. He had finished the other two lines, and was now finishing the inspection of the New Town line as far as the City boundary.

2458. Do you know whether the Tramway Company is doing anything specially in this matter to-day; No, I have no idea. I have no knowledge that they are doing anything else than just their ordinary work.

2459. No special work at all? No special work, no—not that I know of.

2460. *By Mr. Guesdon.*—Mr. Hamilton, the Mayor, in addressing that public meeting in the Town Hall on Monday night, drew attention to the financial position of the Corporation, and said that the finances would have justified the reduction of general rates this year by twopence in the Pound—had you ever heard that assertion mentioned in any way before? I had never heard of it until he read it.

2461. Before that public meeting? Yes.

2462. He never used the statement before in any way, in argument with his brother aldermen? I never heard him use it before.

2463. Not to you personally, in consulting with you as Town Clerk? Not to me personally.

2464. Do you consider, from your knowledge of the accounts, that that would be a justifiable reduction in the rates at the present juncture? No, I do not, and I never was consulted in the matter.

2465. Then what I would ask you, Mr. Hamilton, is this; if the Mayor had consulted with you, would you, from your knowledge of the accounts, and the way in which the accounts were swollen, have advised the Mayor that it would be a wise thing to reduce the rates? The Mayor did not ask my advice; if I had been consulted, I should not have advised the reduction.

2466. *By the Chairman.*—Well now, reverting to this matter of the tramways, how do you account for this long delay, since August before last?—Nothing seems to have been done by the Corporation, although this report had been received—how do you account for this delay? First and foremost, I consider that the company in London, after getting the report, might have wanted to write out and get particulars. I consider, again, that an English company like that is not called together except for the certain regular and specified times, yearly, half-yearly, or quarterly; and I don't consider that either twelve months or eighteen months is an extraordinary lapse of time in communicating a report of that kind to the Old Country. You see, it necessitated the reorganising of the whole company in the matter of funds. We were fully cognisant of the fact that they had not too good a credit balance when we sent the report. I should say there would probably be two or three letters backwards and forwards required to explain the exact position. But I can say this: I certainly had no idea that the matter had run on for so long when I gave my evidence here; I thought the report was made early last year; but directly I went back to the office from here and found how long it was since the report was forwarded, I wrote and jogged their memories about the matter.

2467. Then do you seriously mean to tell this Commission, Mr. Hamilton, speaking as the permanent head of the City Council, that a period of twenty months should be allowed to elapse in this way, after the professional adviser of the Corporation has reported that this line was an absolute source of danger to the travelling public. Certainly I think so, under the circumstances. It was decided to let Mr. Parker send this report Home, in order to lay it before his directors.

2468. Then you do not think, yourself, that there has been any undue delay in carrying into effect the recommendations of the City Surveyor in this matter? Certainly not—not under the circumstances.

2469. I am very much afraid that if any accident had happened you would have been driven to a different conclusion. However, that is your opinion? Yes.

2470. *By Mr. Guesdon.*—Then has there been no correspondence from them at all? From neither the directors nor the Manager of the Tramway Company, in *re* this report.

2471. *By the Chairman.*—Then, but for the stimulus given to the Corporation by this Royal Commission, another twenty months might have elapsed before anything was done in recognition of your professional adviser's report? No; certainly not, for the simple reason that the matter has been brought up very lately in the Council.

2472. How lately? I should say within the last three Council meetings. It was brought up by Alderman Gould.

2473. Since the appointment of this Royal Commission, then? Oh, certainly; certainly since last August.

The witness withdrew.

FREDERICK PEDDER, *called and examined.*

Mr. Pedder was sworn.

2474. *By the Chairman.*—Your name? Frederick Pedder.

2475. What is your official position in Hobart, Mr. Pedder? Superintendent of Police in Hobart; the district includes Glenorchy, Clarence, Sandy Bay, New Town, and Carnarvon.

2476. *By Mr. Guesdon.*—Mr. Pedder, I want information chiefly upon one point. The question of licensing places of public amusement has been one of the matters inquired into by this Commission, and it has been stated to this Commission, in evidence, that the Corporation simply refers the matter to the Police Department, and, if the application for a licence comes back endorsed "No Police objection," the Corporation issues the licence upon that, without making any other inquiries or accepting any further responsibility; and it has been stated to this Commission that that is the law. Is that your reading of it? I do not know whether it is the law or the theory; it certainly is not the practice.

2477. Now, Mr. Pedder, will you describe exactly what the practice is? In licensing a place of public entertainment do you mean?

2478. Yes? Well, the matter has never been referred to the police, as far as I can remember. The licences under the Act are granted by the Mayor in a municipality, and by two justices in petty sessions, I think, in a town. The matter has never been referred to me, or, as far as I know, to the police, in any way, as to whether we approve or disapprove of the applicant for a licence.

2479. Nor as to the character of the building? Neither as to the character of the building, or its capacity to hold any stated number of people.

2480. Nor as to whether the means of escape are adequate in case of need? No.

2481. Well, here is some of the evidence given to us—"I . . . ask the applicants for the name of their bondsmen—all that comes in under the schedule. I then send on the application, if the bondsmen are approved, to the police, asking if there is any objection to that licence being granted. If it comes back marked, either by the Commissioner or the Superintendent of Police, 'No Police objection,' the licence is granted, and we receive the fee for it."—is that correct? That is the first I have ever heard of it, really. It is all quite new to me. The only reference that the Town Clerk ever makes to the police applies to new applicants for cab-drivers' licences; they renew the old ones without reporting to the police at all—which is unfortunate. But if a new applicant comes along he brings a form to me, and I endorse it, "No Police objection," if I know the man. That is the only reference that is ever made by the City Council to the police with respect to new licences.

2482. *By the Chairman.*—Before leaving that let me impress these questions on you for a moment. I impressed them on the Town Clerk. It seemed to me so utterly absurd on the face of it that the police should practically be asked to report on the nature of the foundations of a building; or, if a settlement took place dangerous to the public who use the present theatre, that you should be called on as a kind of unprofessional engineering Superintendent of Police to report on the safety of the building. As a matter of fact, you have never been approached on a subject of that sort? Oh, no; that should be provided for under the Public Health Act.

2483. *By Mr. Guesdon.*—No, it is not. These licences are granted on application to, and approval by, the Municipal Council. That is under the Police Government Act, I think? Yes. The police have power to enter unlicensed buildings where entertainments are being held; that is provided under one of the sections; but, officially, we do not know of the existence of any places licensed for public amusement anywhere.

2484. And you have never been consulted, either before the police were centralised, or since? No; certainly not since, and I cannot call to mind any occasion when I was referred to, either as to the quality of the building, or the character of the applicant.

2485. What was the position in regard to the licensing of the Temperance Hall at the time that disturbance took place, when the man Slattery was lecturing there—was there any police objection then with regard to that licence? No, we were not asked about the licence at all—at least I do not think we were. At that time attention was called to the fact that the Temperance Hall was not a licensed building, and inquiry was made about it, with the result that it was found that Mr. Crouch had left the fee with his son, but that no licence had been issued; and subsequently to that the licence was issued.

2486. Then you simply took exception to the hall being used at that time on the ground that it was not licensed? Yes, not licensed as a place of public entertainment, although lecturing would not be considered as such within the terms of the Act. The proceeding against Slattery would not be covered by that definition of "a place of public entertainment"; a lecture would not be regarded as a stage performance, or anything of that kind. In the early days, as I dare say you remember, the Theatre Royal was licensed by the Town Clerk, and it had the words "licensed pursuant to 'The Police Act, 1865,'" plainly printed on the front. That regulation is not complied with now, but the words should be plainly printed on all licensed places of public entertainment.

2487. In reference to the administration of the Health Act, Mr. Pedder: it has been stated in evidence to this Commission that Mr. Butterworth is assisted in his work by the members of the Police Force—is that so? Yes.

2488. You know something of that—that is correct? Yes, that is so. North, south, east, and west—we have four policemen on the out-stations, and they visit the premises of everyone in their

division. They have a little book, which is printed so as to show the number of the houses, and the streets, and the name of each occupant. They go round weekly, and if they find any defect in drainage, or a place insufficiently drained, or unsuitably provided in any way, they make a note of it, and give notice to the person on whose premises they found the defect. Then they furnish me with a weekly return, and I send it on to the City Council. Such work in the centre of the City is done, I think, by the City Inspector. Our work includes North Hobart, South Hobart, Macquarie-street, Battery Point, Elboden Place, and Lansdowne Crescent.

2489. To whom do your men report? They send their reports to me, and I send them on weekly to the Town Clerk.

2490. So that no action is taken by you in regard to any complaint that is made? No, none whatever; they have to remedy any defect, if it is found. After we have reported it our duty ends.

2491. And do you also report in regard to all Corporation works that require repair—faulty gutters, and so on? Yes, to some extent; we report if we find a hole in the street, for instance.

2492. And what about any nuisances that may occur in the streets—for instance, if a part of the town is very objectionable, so far as the street drainage is concerned, are your men supposed to report on that? No, sir; we have not done that. We have just concerned ourselves simply with back premises. The open streets and pathways are left to the Corporation; of course, if any hole in the street occurs at a place where it would become dangerous to passenger and vehicular traffic, we report at once to the Council.

2493. There is a matter here which I think you might explain, Mr. Pedder. In dealing with this question, we have evidence given before us to this effect: that what is called dual control is especially troublesome in the matter of informations. The evidence goes on to state that informations laid by the Local Board of Health in Hobart have, in some cases, owing to the delay of police, been hung up three weeks before the summonses have been issued. Notices, says the same witness, have actually run out of time before the notices have come out. What do you say? Well, that has only happened in one instance; and I do not think that it was the fault of the police then. It was rather the fault of the City Surveyor, in not signing the notices in time, or something of that sort. It was not our fault, I know; I remember the circumstances well.

2494. Then, generally speaking, this evidence, on that point, is not true? It is a mistake. What is referred to only happened once, and it was not our fault then. I dare say that if I looked up my books I could find the cause of it.

2495. *By Mr. Propsting.*—Are the police in any way responsible to the Corporation for duties performed in Hobart? No, not at all. There is an understanding between the Mayor of the City and the Commissioner of Police that, if ever the Mayor or Corporation desire the assistance of the police, they are to render it, being still responsible to the Commissioner. That is the position taken up by us in assisting the Corporation, so far as the inspection of premises is concerned—the reporting of burst water-pipes, dirty backyards, accumulations of manure and other offensive matter, and so on. It is thought that that work, although it is outside the duty of the police, is not without its use to us, because the men, in passing over their various beats, have an opportunity of entering upon premises, and thus they become acquainted with the whereabouts of people, and the nature of the houses they live in.

2496. Are the policemen serving in a City like Hobart obliged to have any knowledge of the by-laws of the City in which they are serving? Each policeman has a copy of the by-laws.

2497. And do they generally understand it to be their duty to enforce certain portions of these by-laws, and report breaches of them? Yes; they report to me, and I proceed.

2498. Take dog licences, for instance. Have the police anything to do with them? No.

2499. Or dogs wandering about the streets, unlicensed? No; we do not know them.

2500. You have nothing to do with that? No; but we should have, if I may venture to say so; and I say the same as to the cabs. We should have something to say as to the character of the people who apply for licences for cabs.

2501. Mr. Butterworth, in his evidence given before us, states, "The idea I have is for the police, when they see a mangy dog about, to send it down to the Town Hall, and I give them sixpence or a shilling for fetching it down." What do you say to that? What are you reading from?

2502. I am reading from Mr. Butterworth's evidence before this Commission. What do you think of it? Well, it's new to me. If there are any mangy dogs about the town, or anything offensive in that way, we send a report to the Council for them to take action.

2503. As a matter of fact, then, you do not consider looking after dog licences as part of the police duty? No. I believe that in the outer portions of the town they do furnish the names of the owners of dogs; but not in the centre.

2504. As to licensed houses—hotels and music. Is it the duty of the police to see that proper accommodation and ventilation is furnished in these houses in this City? No. Under the Licensing Act, no certificate of approval of a man receiving a public-house licence will be granted unless it is accompanied by a certificate from the Officer of Health of the town and a licensed surveyor. I think that is the provision of the Act.

2505. And reference is only made to the police as to the character of the licensee? That is all. The nature and suitableness of the premises of hotels have nothing to do with us now. That is left entirely to the Officer of Health and the surveyor. The owner of the property has his own surveyor, and he pays someone to send a certificate, along with his application, to the Licensing Bench. That has to be attached to his application.

2506. Not a surveyor appointed by the Corporation or the police? No. It is clearly provided, as I say—53 Vict. No. 37, I think, is the Act. Until the passing of this last Act, I, with Dr. Giblin, used to visit every one of the houses and report to the Licensing Bench.

2507. *By the Chairman.*—Then this last Act, in that respect, is no improvement on its predecessor? Well, I do not say that. The Act says that no certificate of approval shall be granted without the applicant forwards, with his application, to the Town Clerk or Licensing Bench, a certificate that the premises are suitable and habitable.

2508. In other words, he finds his own certificate, and pays the man for making it? He does.

2509. Is that an improvement on the old Act? Well, it is not so independent, certainly. Of course, I never cared about the business of going round myself, but I had to do it.

2510. *By Mr. Propsting.*—Is every licensed house obliged to have accommodation for guests? All houses licensed prior to the passing of 53 Vict. No. 37 were required to have one sitting-room, I think it was, and two bedrooms always available for lodgers. Now, any house built after the passing of that Act requires to have at least some 4000 cubic feet of space, I think it is, for the convenience of the people who attend there.

2511. And whose duty was it to see that this accommodation was to be found at all houses? Prior to the passing of this Act, do you mean?

2512. Well, you say that that is still the law as to houses that had licences prior to the passing of the Act? Yes.

2513. And whose duty is it to see that that accommodation is provided? I don't know that it is the duty of anyone.

2514. Are there any houses in the City without that accommodation? Oh, I think they are all provided with accommodation to the extent required by the old Act. Any houses built subsequently to the passing of the new Act have to have something like twelve or thirteen rooms, I think. So far as sanitary arrangements are concerned in hotels in the country districts, the Commissioner has issued a general order that the police are to report to him any want in that respect, and unless the licensees in such cases provide sufficient sanitary accommodation to the satisfaction of the police officer in whose district the house is, the Commissioner has instructed the police to oppose the renewal of the licence.

2515. Well, take the case as you state it. Are there any licensed houses now in Hobart without the prescribed accommodation under the old Act? No; I do not think so.

2516. Well, I will mention a licensed house to you. [Licensed house named]. We will call it X, for the purpose of this examination. Has that house the prescribed accommodation? It has the space.

2517. But has it the bedrooms? Yes. When I last knew of it, it had two bedrooms and a sitting-room.

2518. For travellers? Yes.

2519. Where are the bedrooms? Well, they are along by the bar and the kitchen. That is where they were, anyhow; I have not been in the hotel for ten or twelve years.

2520. Where did the landlord live, then? That I could not say. I think the rooms were upstairs, over the bar. That is my impression.

2521. *Mr. Hamilton.*—I may say I know that that hotel has the accommodation requisite. There was some difficulty about it; and I knew the trouble they had to supply the accommodation needed.

2522. *By Mr. Propsting (to witness).*—You know of none that have not that accommodation? No. I speak of the time that I knew them all. They all had proper accommodation then, and they have not decreased since. Many of them have been added to.

2523. The Police have nothing to do with the adulteration of liquor, or quality of liquor sold, have they? No. We can purchase—I have myself purchased—liquor at various places, and take the samples to the analyst to be analysed.

2524. And that is no part of your duty? No. But I think that, under the Health Act, any constable can do that. At one time he could not; but the Act was amended, I think, so as to enable the police to act.

2525. That is not systematically done? No, sir.

2526. Either by your department or any other, to your knowledge? It is not.

2527. You have not any power to go into hotels and examine the liquors under the Health Act? No; you have to purchase the liquor there, in the same form as you would purchase any article of food, or milk, saying at the time: "I have purchased that article for the purpose of having it analysed. I will divide it with you now, and take a portion sufficient to be analysed, giving a similar quantity to you." Then you must seal both portions in the presence of the vendor, and take your portion to the analyst. That is what I have done.

2528. Are the police supposed to fulfil any duty of that sort, or is it supposed to be dealt with entirely by officers appointed by the Health Department of the Corporation? Well, I do not know that there is any defined responsibility or duty resting on the police to do it. If any suspicion of selling bad liquor was attached to any particular house, we would take the responsibility; we always have done so. The difficulty is in finding what is adulterated.

2529. Well, it is very clear here in excepting "spirits not adulterated other than by the addition of water, except in case of spirits sold under a trade-mark," or, at all events, there would



be no difficulty in proving a case against publicans selling under a trade-mark liquor which was not the liquor which it purported to be, would there? Oh, they would be liable under the Trade Marks Act.

2530. But there would be no difficulty in the police carrying out that portion of the thing? No.

2531. Or getting a conviction under it—say a bottle is purchased as Hennessey's brandy, and, on analysis, proved not to be Hennessey's, a conviction would be at once obtainable, would it not? Yes; I have tried that in Hobart with Usher's whiskey—the white seal. I went into an hotel some time ago and asked for Usher's whiskey, white seal, and they produced some whiskey in a white-seal bottle. I knew it was not Usher's by the look of it. I purchased a bottle, and I said, "I am going to get this analysed." I got a bottle of the genuine Usher, white seal, from Messrs. Ferguson and Co., the agents, which they were prepared to swear was Usher's whiskey. On comparing the two, it was found that the bottle I had bought purporting to be Usher's contained, I think it was, Rob Roy whiskey. It was stronger in alcohol than Usher's.

2532. *By the Chairman.*—That sort of thing is an every day practice, is it not, in most houses in Hobart? Yes. At the time I speak of, I think Usher's brand was largely sought for, and publicans could not afford to buy it, and would put other whiskey into Usher bottles. I have seen the same bottles standing in a bar for days and days, always more or less full of various whiskies posing as Usher's.

2533. Can you tell us, Mr. Pedder, anything about the means of egress from the theatre, in the event of a fire taking place there—are they sufficient and ample? Yes, I think so; there are doors ready to be opened, and they open outwards. I think that in the event of any alarm being suddenly given there, the theatre could be cleared in a short time.

2534. Are you aware if any of the doors open inwards? I do not think they do.

2535. Are you quite sure? I do not think they do.

2536. Do you know if any of the doors slide? Yes, they do.

2537. And would jamb in the event of pressure being put against them? Of course. Oh, yes; that is so, sir.

2538. Does that give safe means of egress from the theatre in the event of a panic from fire? No, not as the theatre is situated. It would be difficult to get out the doors under the stairs.

2539. It is no part of your duty, I suppose, to report on those means of egress? No.

2540. You know the gallery in the theatre? Yes.

2541. Is that sufficiently provided with means of egress? I think people would have a difficult time getting down there. I certainly would not like to be in that gallery when an alarm was given.

2542. Whose business is it to inspect and report upon the means of egress from such places as these in the event of an alarm? I do not know. That would be provided for under the Health Act.

2543. Then who is responsible? The Local Board of Health of the City Council.

2544. Is Dr. Sprott officer of that Board? I think he is. With reference to cab licensing, I may say that I often know people who come here, strangers, who make complaints of the bad language used by cabmen, and their habit of overcharging. Well, I think, if the Police had the sanctioning or approval of the renewals of licences to cabmen, keeping a record of those men who were complained against, it would do much good. Although the Mayor has the power to grant the licences, I think it might be prudent if renewals were sanctioned by the police before they are granted. As it is, we have nothing whatever to do with it.

The witness withdrew.

WEDNESDAY, JUNE 5, 1901.

R. M. JOHNSTON, *called and examined.*

Mr. Johnston was sworn.

2545. *By the Chairman.*—Your full name, Mr. Johnston? Robert Mackenzie Johnston.

2546. What office do you hold under the Government? Registrar-General and Government Statistician.

2547. *By Mr. Guesdon.*—Well, there is a note here, Mr. Johnston, of the information we are likely to require from you. It will be necessary to get such evidence as will enable us to ascertain the probable extent of the market in and about Hobart for the supply of electric power. In order to get that evidence, we have called you. I am given to understand that you have a return prepared as to the amount of motive power that is now used in Hobart and in various parts of the State. Can you tell us, now, what amount of motive power—steam motive power, that is—is being used in Hobart and its suburbs at present, including, if you can, New Norfolk and Bridgewater? I prepared a return specially, when I learned that you required such information. I must say, however, that our information is incomplete. It only takes in the principal works and industries, giving the result from thirty-nine establishments, which include boot-factories, bark-mills, brick-yards, engineering establishments, flour-mills, printing establishments, saw-mills, soap and candle factories, tanneries, and woollen factories.



2548. Jam factories, also? No, I have not got any details as concerns them. In all, as I say I have included thirty-nine establishments, having forty-seven engines, with a horse-power reported to us as 591 horse-power. But this does not include the power of engines employed in cutting firewood, and in similar industries. In this connection I have obtained a special report from Mr. Ross, the Chief Inspector of Machinery, who states that the aggregate horse-power in the two districts of Hobart and New Norfolk is as much as 3,500 horse-power. Mr. Ross wrote me to-day:—

Dear Sir, In compliance with your request, I have the honour to inform you that there are 177 steam-boilers in the Hobart and New Norfolk districts, aggregating 1750 horse-power. This horse-power is what is termed "nominal"; it would be extremely difficult to arrive at the actual horse-power in use, but, I think a fair approximation would be double that, or, say 3500 horse-power.

That is the best information, sir, that I can give you.

2549. Another question I was going to ask you is this: In dealing with the provision made for sinking funds by the various Municipalities, have you been consulted by the Government? No.

2550. It has been a matter left entirely to the Auditor-General? I never heard anything about it.

2551. Would it be asking you too much if we were to ask you to give us an estimate of what you consider would be a reasonable provision in the way of sinking fund? For wiping off any debt, you mean?

2552. Yes, for making good works, the life of which would not exceed forty years? I shall be very glad to give you what I may consider a reasonable estimate.

2553. Can you supply a memo. showing what you consider to be a proper provision by way of sinking fund to wipe off debts within a period of forty years; the sinking fund to be capitalised on the assumption that it will be invested at three-and-half per cent. compound interest? Within a week I shall have such a statement prepared, which shall apply to all municipalities in the Island on that basis.

#### S. RHEUBEN, *called and examined.*

Mr. Rheuben was sworn.

2554. *By the Chairman.*—Your name? Solomon Rheuben.

2555. What position do you hold under the Hobart Corporation, Mr. Rheuben? Inspector of Stock.

2556. Anything else? I am partly Government Inspector of Stock, but chiefly Municipal Inspector of Stock, for the City of Hobart.

2557. You have control of the slaughter-yards, I believe, have you not? Wholly.

2558. Do you think it would be for the benefit of the citizens of Hobart if these slaughter-yards were removed outside the boundaries of the City? I do not know that it would.

2559. You do not think so? I do not think so, not if they are kept under proper management.

2560. Is the management proper now? Yes, to the satisfaction of the citizens and the Municipal Council?

2561. Then you do not think it would be advisable to establish abattoirs outside the City, in accordance with the most modern ideas and principles, in preference to continuing the use of the unsuitable site and somewhat crude appliances you have now at the present slaughter-yards? The present abattoirs, certainly, could be in every way improved.

2562. I suppose you are aware that in Melbourne—but, by the way, have you seen the abattoirs in Melbourne? Yes, quite lately.

2563. Well, as you know, there has been a great rumpus made in Melbourne about the condition of those abattoirs—they have been condemned by the Inspector of the Board of Health, I think? One lot were.

2564. And do you think that if we had the same inspection here, the slaughter-yards here would pass as up to the modern standard—if we had the same inspection as that I have referred to in Melbourne, that is? Here, in Hobart, I think that the present abattoirs would not pass as the newly-constructed ones of Melbourne would.

2565. Oh, and still you are not of opinion that it would be advisable, in the interest of the City itself, to remove the position of these slaughter-houses, and establish new abattoirs on a suitable site, in accordance with the most modern ideas on the subject? I mean to convey to you, sir, that the present abattoirs, of course, could be greatly improved; but, so far as the conveniences go for the trade and the general public, if these could be improved, being near the City, I do not think the abattoirs in the City would be of any great inconvenience to the citizens.

2566. Are you aware whether those citizens who inhabit tenements in close proximity to the slaughter-yards are quite satisfied with that proximity, or whether they find it a nuisance they would gladly be rid of? They have never made a complaint, sir.

2567. You are sure they have not? Never, sir.

2568. *By Mr. Guesdon.*—How long have you been connected with the slaughter-yards, Mr. Rheuben—not only in your present position, but otherwise—how long is it since you first went to the slaughter-yards? I have been there twenty-four years, altogether, in connection with the slaughter-yards.

2569. Now, speaking roughly, from your knowledge of the slaughter-yards: the Corporation has made an annual profit out of the slaughter-yards of over £1000 sterling during that twenty-four years? I could not say the amount exactly.

2570. But is it not, approximately, £1000 a year? Something near that; but I wish to mention to you that that has not been made from the butchers. What we actually get from the butchers would only just cover expenses. That actual profit is derived, as you are aware, from imported stock, and from the country stock.

2571. That is, from fees for the sale of stock? Yes. What we actually get from the butchers would only just cover expenses.

2572. Well, notwithstanding all that, the slaughter-yards, as an institution, has returned £1000 a year, approximately, to the Corporation, during the last twenty-four years, at least? I do not think it is quite so much as that.

2573. But that is it, approximately? Yes.

2574. Well, now, does it not seem to you that the Corporation, making that large revenue, might very well have materially improved the general condition of the slaughter-yards, both in regard to its drainage, in regard to the killing-house that the butchers use, and in regard to the general condition of all the buildings and the whole of the place? I do think they could be improved.

2575. And does it not seem to you that the Corporation, having received this large surplus revenue from that yard, ought to have applied some of it to the work of bringing these slaughter-yards and abattoirs more up-to-date? Well, I think that, to a certain extent, they have.

2576. Still, in your evidence to Mr. Patterson, you say that there is much left to be done in order to bring the slaughter-yards up to the standard of the up-to-date abattoirs in Melbourne? That is quite so.

2577. Well, then, do you not think that a governing body like the Municipal Council, receiving such an enormous surplus income as that from this source, ought to have put the whole establishment into a far better condition of efficiency and repair than the condition it is now in? To ascertain extent.

2578. Where does your drainage go from the slaughter-yards now? It goes into the river at the rear of slaughter-yards.

2579. Into the river or into the creek? Into the river.

2580. By the old butts, you mean? At the back of the yards.

2581. Is it thrown out on the reclaimed land, or have you pipes through into the river? We have got pipes running right out. That has been done lately.

2582. And what portion of your drainage do you allow to go into those pipes? Do you have any proper wells or vats to receive the blood, and so on, or do you let it all go into the river? We have well-regulated vats—if you style them vats—or receivers. All the blood, after it has congealed, is like a mass of liver. All that is swept away, and the receivers are emptied regularly. Of course, as to the drainage, to be candid, there is nothing self-working.

2583. There is no fall? No. It is all a matter of water. The cleanliness of the department depends upon the superintendence of the men, to see that they do it.

2584. Well, does it not seem to you that that one fact is a serious defect in the present condition of things: namely, that the place is so absolutely flat that there is no fall to carry the drainage away? I think that could be improved.

2585. You think a fall could be created? Well, I do not know that it could, in its present condition. There is nothing self-acting now. The drainage has to be continually swept away. The solid blood, after the animal is dropped, is swept down into the receiving butts, and taken up some short time afterwards, and conveyed away as manure.

2586. Have they in any way improved the condition of the killing-sheds that they used to have since I used to be down there, fifteen or sixteen years ago, or are they still the same? They have improved them in many respects, sir. In your time we had only just the tubs for slaughtering purposes, but now we have large vats, with steam. They have now an engine, much to the Government Statistician's astonishment, who did not know we had one, and, of course, everything is done now by steam. I can tell you, sir, I have visited the abattoirs in Melbourne and Sydney of late, and their appliances, as far as pig-slaughtering is concerned, are not so good as ours.

2587. That is what you use the steam for particularly, I suppose—the pig-slaughtering? Yes.

2588. Your duty of inspection of the meat intended for consumption practically ceases, I suppose, when the meat leaves the slaughter-yards? Quite so.

2589. You are only responsible for that? Yes.

2590. Well, now, does it strike you that the means the butchers use for the carriage of that meat through the streets, from the slaughter-yards to their places of business, is not quite what it should be? I think you are quite right, it is not.

2591. *By the Chairman.*—Have you seen the dessicators at Flemington? Yes, sir.

2592. Converting the offal into a dry manure? I have seen it.

2593. Don't you think it would be a great improvement to have such dessicators here, instead of having to haul the stuff out of the pit and carry it away by manual labour? I do think so.

2594. *By Mr. Guesdon.*—To return, now, to what I was asking you—I suppose that, as a matter of fact, to carry the meat properly the butchers want vans, such as Stevenson introduced? Well, something of that style, sir. Myself, I do not approve of meat being covered over with

dirty rags; I think the meat had better be taken through the streets as it is than covered with dirty rags.

2595. That is not Stevenson you are referring to now? Oh no, sir; I am referring to other cases.

2596. With regard to, now, dealing with the sale of stock—have they improved the accommodation at all for penning sheep, or are things still as they were in my time? They have a shed now, sir, and different other places; and the place they used to sell the pigs in is altered. I wrote to the Council about it, and asked them to have a place specially made for selling pigs in, and the pigs are not now actually sold in close proximity to the pig slaughter-house, as they were when you were there.

2597. Following up that question of Mr. Patterson's about the advantages of a dessicator—did you take the trouble, when you were going into this question on the other side, to ascertain what a dessicator would cost, or what it did cost, over there? No, sir, I did not; I simply went over there to improve myself, so that I could report to the City Council many things and improvements that I thought were necessary here, which the Council have since adopted upon my suggestion.

2598. *By the Vice-Chairman.*—At the Hobart slaughter-yards, Mr. Rheuben, what becomes of the offal? The offal all goes to the contractor. Mr. Shoobridge is the present contractor. Of course, animals that I condemn, which are frequent, are burned with quick-lime, and they generally go afterwards to Mr. Chapman's guano mills.

2599. But there is an objectionable smell arising from the slaughter-yards, is there not? Yes, sir; but I can tell you what that is.

2600. Well, what is it? That is the ammonia-water from the gas-works, and the nuisance has now been altered in some small degree. But, inasmuch as medical men say that it tends to do good instead of harm, we have not altogether done away with it. It is the ammonia-water from the gas-works in close proximity to the slaughter-yards, that causes that smell.

2601. But there is also a smell of decaying animal matter, is there not? Not any, sir. All the stuff is removed three times a day. But, of course, if you run a fowl down now and kill it you will notice something at once; there is always a peculiar odour.

2602. But is there not a smell at the back of the slaughter-yards, on that reclaimed land? If there is it does not emanate from the yards. There might be a smell from what they cart there. They cart all sorts of refuse there.

2603. Are you quite sure that any smell there does not come from the yards? You can judge for yourself. Mr. Shoobridge takes the stuff away this afternoon, say, and the beasts are only killed at twelve o'clock. It is never allowed to remain longer than that.

2604. But, come, now: in the best of slaughter-yards, there is always some smell of the sort I have referred to, is it there? Yes, sir.

2605. And that particular smell was found offensive to the warships in the river, when they were here, was it not? I think that all that talk was greatly exaggerated, if you will forgive my apparent presumption in saying so.

2606. You know, I suppose, that it has been said that the Admiral will not come here again, on account of the smells in the river, and for other reasons? I know that a certain lady in this City has said so.

2607. But don't you really think that it would be better if the slaughter-yards were removed to some more suitable and secluded spot? Do you think slaughter-yards are desirable things to have right in a City—the modern practice always is to have them as far away as is conveniently possible, is it not? I do not know that I could give an opinion on that matter.

2608. *By Mr. Guesdon.*—I suppose, Mr. Rheuben, that you really look on it in this way: that there are two things to be considered—the convenience of the trade, as well as the consideration touching the citizens? That is quite so, sir.

The witness withdrew.

THURSDAY, JUNE 6, 1901.

A. C. PARKER, *called and examined.*

Mr. Parker was sworn.

2609. *By the Chairman.*—Your name, Mr. Parker? Arthur Charles Parker.

2610. What is your official position here, Mr. Parker? Engineer and Manager of the Hobart Tramways Company, sir.

2611. You are aware of the object of this Commission, I suppose? I am not.

2612. Well, it is this: to inquire whether we cannot make a Greater Hobart, with a view of taking in the out-lying municipalities and centralising control, and thus saving expenditure; and we are also considering the advisability of acquiring the tramways in connection with this particular scheme. For this reason, among others, we have asked you whether you can provide us with your balance sheet for the last three years. Can you do so? Well, here is last year's balance sheet; I brought that with me. But I do not know whether it will be of any use to you. What might be of some use to you, is the statement of my actual working expenses and receipts. I can give you that for the last three years.

2613. Well, give us that now, will you? The total receipts for the three years, 1898, 1899, and 1900, were £41,161. The total expenditure under all heads, during the same period, was £41,028.

2614. That is for three years? Yes; the three years, 1898, 1899, and 1900, as I said just now.

2615. And that shows a profit of £133 for the three years? Yes.

2616. On the actual working, that is? Yes; after paying debenture interest and everything.

2617. Then I suppose you have not declared any dividend to the shareholders during that period? No.

2618. Or, as a matter of fact, since the installation of the tramway system in Hobart? No.

2619. What is the total capital expenditure on the work? I do not know. You see, that was all done before I came here; I had nothing to do with that at all; in fact, as far as I am concerned, I believe there were really two companies at the outset. I was sent out to construct the electrical part of the company's concern, and then I was asked to stay on and manage the business.

2620. Well, can you tell us what the total capital of the company is? As far as I know the capital is £1 shares, £45,130. Then there are 15,000 first debentures at £20—that is £30,000—and 1000 second debentures at £20.

2621. Of course you cannot tell us either, then, what amount of capital has been expended on rolling-stock? Yes, I could tell you that. Siemens's contract for the generating plant—the fixed plant, that is—the rolling-stock and the overhead electric work was £34,700, or say about £35,000 in round figures. I am speaking from memory.

2622. Then, in your opinion, have the various lines, Sandy Bay, New Town, and the Cascades, been maintained efficiently and in good order? I think so.

2623. Have you seen a report of the City Surveyor as to that point? Well, I have had various reports from the Corporation from time to time calling my attention to any part of the road that wanted attending to.

2624. But, as a matter of fact, Mr. Parker, the City Surveyor has laid before us a report to the Mayor—a report which I think went through you to your company—do you know of that? Yes, there was one such report, I think, in 1899—in August, 1899, I think it was.

2625. Well, did that report have any effect on your directors at Home—in the direction, I mean, of moving them to take any action? Well, I may tell you that I sent that report Home. I have an Advisory Board here.

2626. *By Mr. Propsting.*—You act with a local Advisory Board, that is? Yes. I was appointed General Manager, I think, in 1894; and Messrs. Grant and Barclay and Sir Edward Braddon, who were original directors of the company, were termed my Advisory Board. To them I had to apply in the case of any report of the kind I referred to just now. When Mr. Milles's report reached us I called my board together at once, and the report was discussed, and a wire was sent home to London at once to send out new rails to replace the very bad ones, and that was done. At the same time I also submitted a scheme for re-laying the whole of the track, but I have heard nothing definite about that.

2627. *By the Chairman.*—Then, if you submitted such a scheme, and thought it desirable to relay the whole track, you cannot think the lines are in very good running order now? Well, there are two ways of looking at that question. From the point of view of a company that works to make a paying concern of the thing, it is not a good track.

2628. Do you think it would be an advisable thing for the citizens to acquire the rights in these tramlines? Yes; I think it would be, if the thing were worked on sound commercial lines. The receipts are increasing now. In 1898 the traffic receipts were £12,459; in 1899 they were £13,401; and in 1900 they were £14,549.

2629. Well, now, can you give us the contrast? Can you say whether, with this increase of traffic receipts, the maintenance expenses increased in like ratio? Yes, they did. The expenditure in 1898 was £8949; in 1899 it was £10,152; in 1900 it was £10,714. I can show you how that increase was made up. Expenditure on permanent way material in 1898 was £567; in 1899, £644; in 1900, £851. That was the cost of material on the permanent way alone.

2630. *By Mr. Propsting.*—Then the greatest increase was really in 1900? In 1900; yes.

2631. What was the cause of that increase of expenditure? Well, I will tell you. When I was working in 1896 and 1897 the traffic was very poor indeed. I had not a penny to put a pennyworth of paint on with. Then directly the receipts increased I expended them on improvements of the permanent way.

2632. *By the Chairman.*—Well, do you think that the time has arrived, or nearly arrived, when something must be done in regard to getting new rolling stock and putting the route into proper order? Well, if the company want to declare dividends, and make the thing pay, they certainly must do it. I myself have written to my board at Home, advising them to do it, because I believe the traffic would increase twenty-five per cent.

2633. *By Mr. Guesdon.*—You might modify the scale of rates? Oh, I don't think anyone can complain.

2634. I mean, suppose you split it into penny sections, instead of keeping up the present scale. Would not that be an improvement? I don't think that would benefit the company in any way. We don't run frequently enough for that; the population isn't sufficient to admit it. If you have a

service of trains running every three minutes or so, then when people see a car they can jump into it to go a short distance, but they won't wait about for a quarter of an hour until the next tram comes along.

2635. *By the Chairman.*—You understand, of course, that the Commission is in no sense hostile to the company. We are simply trying to make this place more attractive, as this is a tourist resort, and the tourists are really our biggest asset. We have to see that the visitors are properly treated. Now, you know that there are numerous complaints made of the bucking of these cars? Yes.

2636. It is objected that the rails are in bad condition, that the cars are old, and so on? Yes.

2637. And we want to make some suggestion to Parliament with a view of improving the locomotion: you understand that? Well, I don't think you can fairly complain about the locomotion. I have heard several people complain of the motion of the cars; but, you know, as an engineer, that all these bobtailed cars pitch. If you get up any speed on these four-wheeled cars they will pitch.

2638. Then you know the corners are unnecessarily sharp? Yes, I admit that. I do not think the track was properly constructed for a tramway. Still, since we have been running we have carried nearly eleven million passengers. This will give you an idea of the increase; in 1898 we carried 1,284,552 passengers; in 1899 we carried 1,410,476; in 1900, 1,521,155.

2639. And that is likely to go on increasing from year to year? I think so, now that the place is certainly looking more prosperous.

2640. *By Mr. Guesdon.*—Would your present generating-station develop enough power to enable you to give a larger service if it were required? Oh, yes; I never actually use more than half the power I have down there.

2641. Can you give us an idea of what it costs you per horsepower to develop the actual power that you now use—the actual average horsepower that you use there? Well, it is rather a hard thing to work out.

2642. You need not do it now—will you work it out and let us know? Well, I may tell you that the figures of expenditure I have given you hardly form a fair criterion of the work doing, because there is a lot of renewal work that ought not to come out of revenue account.

2643. And you have no capital account? No capital account at all. That is why the expenditure has increased so enormously. I think there was an overdraft at the bank when I took the thing over, and not a penny of capital to draw on. A statement really ought to be made to show the actual work done, and deducting the cost of renewals. The actual figures of the money paid out are shown in the cash-book. For instance, one for our car-mile averaged as low as 6½d.; and here, in 1900, when I spent such a lot of money on renewals and so forth, the car-mile runs up to 8d.

2644. *By the Chairman.*—Do you see any chance of an increase of capital in the company in the near future? I do not see why there should not be; I do not think they ought to be paying five per cent. on the debenture interest.

2645. Now do not answer this question unless you like. Could you give us now, or hereafter, a little later, your idea of the value of this undertaking from a commercial point of view, supposing the Corporation was to purchase it as it stands? Well, I could not say right straight off. I can tell you this, that if I had money and thought this thing could be started on a fair basis, I would be one of the first to put into it.

2646. What do you think would be a fair price for a company formed in the State—what would be a fair working capital on which to purchase this undertaking? Well, I think that to start with you would want to put a new track down.

2647. What is this present undertaking as it stands worth—£10,000? Oh, rather.

2648. It has returned a profit of £133 in three years. The commercial value of that undertaking cannot be very great, can it? Well, no; not looking at it from that point of view, still, I think it is a valuable property. Had the thing been started on a tramway, instead of a light railway line, my opinion is that it would have paid dividends from the commencement.

2649. Of course, the initial error was laying down these 40-lb. rails from the main line? Oh yes.

2650. No doubt about that? No doubt at all.

2651. *By Mr. Guesdon.*—How are these debentures held—what are the powers as to paying them off? I think it is in 1906 that they are supposed to be paid off.

2652. Is there power to pay them off before that? I am not quite clear as to that; but, I rather think there are some shares supposed to be held in reserve, so that if people prefer to take out shares for debentures they can do so.

2653. That is, of course, in case the company begins to pay big dividends? Yes, I suppose that is so. I rather fancy the company can take up the bonds when they like.

2654. *By the Chairman.*—Are these shares quoted on the Stock Exchange at all? Yes—at a shilling, I think. I do not think that there are any buyers for them.

2655. *By the Vice-Chairman.*—What is the life of one of these tramcars? Oh, it all depends on how it is kept up.

2656. I mean on an average? I really could not say.

2657. Has there been much money spent on repairs to the cars? Oh yes, a lot.

2658. Will they not want renewing soon—the cars themselves? Oh, they will want renewing, of course, eventually.

2659. Of course there must come a period when the whole of the rolling-stock will require to be renewed? Yes. Well, as a matter of fact, during these last three years I have practically renewed the whole of the electrical parts underneath the cars. That is all covered by these expenses.

2660. But are not the cars themselves always working to pieces in the natural course of things? Well, there are always repairs going on to them.

2661. They don't last for ever? They don't last for ever, no.

2662. At what period do you think the whole of the original rolling-stock will be worked out? Have you any idea? Well, if I kept up the repairs as I do now, there are three or four years' life in them yet.

2663. But they will be deteriorating all the time while they are used, I presume? Yes, of course; they must do that.

2664. You cannot tell us exactly then—or cannot tell us approximately—when there would have to be new rolling-stock altogether? No.

2665. Do you think the present rolling-stock is suitable? Yes.

2666. Could not very much better rolling-stock be procured—does it not exist? Well, I suppose that rolling-stock, tram-cars, are like everything else; in a few years they improve, as everything does.

2667. *By Mr. Propsting.*—Was an offer of sale or purchase of the trams ever made to the Corporation? I believe there was something, but I have never had letters from my board at Home on the matter. I don't know what the circumstances were, but the directors told me they were in communication with the Corporation.

2668. You did not know the price asked? No: I did not know anything about it definitely.

2669. In your opinion what would it cost to re-lay the permanent way efficiently, and make a proper tramline? I think the nine miles of line would cost about £30,000.

2670. And what would it cost to equip that with rolling-stock? Well, I suppose the tram-cars would cost about £650 each.

2671. How many cars? Well, we have twenty now.

2672. That is another £13,000, then. What would sufficient electric plant and overhead wires cost? Oh, I think the plant we have is quite good enough.

2673. But what is the value of a sufficient plant now—the whole of the machinery for generating and distributing the power? Well, the overhead wires I don't think want renewing.

2674. I am not speaking of renewal. I say, what would it cost to put down a plant? Of the same capacity as we have now?

2675. Yes? Well I suppose it would cost at least £10,000.

2676. *By Mr. Guesdon.*—Poles and everything? Yes. Of course these figures are only approximate.

2677. *By Mr. Propsting.*—Do we understand, then, that lines could be laid and cars found, and a generating and distributing plant installed for, approximately, £50,000? Yes.\*

2678. And you do not know what the actual cost of your system was? No.

2679. You don't know whether it exceeded £50,000 or not? I have not the faintest idea. You see, I had nothing whatever to do with the old company.

2680. What does it cost you to generate electric energy? I think about 1½d. per unit.

2681. Would it be any saving to your company if the electricity could be supplied to it at a lower rate than that? [No reply.]

2682. Supposing that the Government had a generating station worked by water-power and could supply with electricity at a cheaper rate—would your company, do you think, be induced to take the electricity? I should say that if they could see a clear profit, surely.

2683. Can you give this Commission any notion of the loss of power that results in transmitting electricity? Well, of course, that would all depend on the scheme adopted; it would entirely depend on that. If you transmit at a very high tension it can be transmitted at a very low loss.

2684. What do you call a low loss? Well, I should think 10 per cent., at the outside.

2685. Does that mean over any distance? Over any distance—yes.

2686. Have they got an electric street-car system in Brisbane and Sydney, do you know? Yes.

2687. Is it any different from ours? Well, theoretically it is the same.

2688. But I mean practically? Well, it is only different in detail, I think.

2689. Is there any improvement in the shape or make of the cars? Well, there is a difference in the shape of the Sydney cars; they have not got seats on top.

2690. Is that an improvement? That is purely a matter of opinion; I don't think it would be an improvement for this place.

2691. Is the point of contact between the car and the wire always overhead? Yes.

2692. In the same way as you have it here? No; in Sydney they have a trolley, and we have a rubbing contact.

2693. Does the means adopted in Sydney require less poles and wires in the street? No less.

\* I should prefer to say £60,000.

2694. Who inspects the condition of your permanent way, on behalf of the Corporation? The City Surveyor.

2695. And who does it on behalf of the Town Boards? I think it is done by their road inspectors.

2696. Do you have many complaints from these officials in connection with the condition of the line? No, not many. I sometimes get a notice calling my attention to certain sections of the road. I think it is generally the road inspectors who bring such matters forward.

2697. Are you able, generally, to comply with the terms of this Act with regard to keeping the line in proper order? Yes.

2698. *By the Chairman.*—Is not your estimate of £30,000 for nine miles a rather extravagant provision for relaying the road? No. I am going to put it on a proper foundation—six or eight-inch concrete under the rails, right through.

2699. And you would allow for the kerbing of the outer rail also, I suppose? Yes.

2700. *By Mr. Propsting.*—Do you consider the present permanent way defectively laid? From a tramway standpoint, I do.

2701. Is any provision made for carrying away the soakage or drainage in between the lines? I have not found any; of course, I did not put the tramway down.

2702. Should there be some such provision? I do not think so—not in a place like this.

2703. *By Mr. Guesdon.*—When you said, just now, that it cost you 1½d. per unit to generate your electricity, you meant per unit per hour? Yes.

2704. How many hours in the day do you work? The engine is going eighteen.

2705. That is twenty-seven pence per unit, is it not? Yes, per diem.

2706. That would be £41 or £42 per unit per annum? Yes.

2707. What does a unit represent in horse-power—one and a half? No, not much more than one.

2708. Then that practically means that your horse-power costs you £43 per annum? Practically; yes.

2709. And if you could get it at £25 per horse-power per annum, it would mean an enormous saving? Decidedly.

2710. *By Mr. Hamilton.*—Mr. Propsting was asking you just now about soakage: in such a line as you would construct, Mr. Parker, would you have provided for that? Well, soakage in that case could not take place as it is doing now. Of course, I propose putting a solid foundation right through the whole length of the track. There would be no soakage.

2711. And you are taking all repairs into consideration—wear and tear under the carriages, for instance—that, I think, is where the wear and tear is greatest? Yes.

2712. In your replacing and re-instating of parts—does that apply to remedying all the rattle and noise we hear here? Yes.

2713. You are continually replacing all that? Yes.

2714. And supposing, Mr. Parker, that under any change the whole matter came into your hands, would you suggest a different system of trains to what we have here? No; I prefer our system.

The witness withdrew.

FRIDAY, JUNE 14, 1901.

J. F. STUMP, recalled and further examined.

2715. *By Mr. Guesdon.*—Mr. Stump, when he was last before the Commission, was asked to do certain things, and I thought it as well that Mr. Stump should come down and explain any question that might arise out of the information he brings, which can then be finally dealt with. You have to give us certain figures for 1899, I think? For 1898, 1899, and 1900.

2716. You have given us a return of the actual rates collected in those years? The actual rates collected; yes.

2717. We want a return of the rates due, whether actually collected during the year or not? No; what I have here is the actual revenue—the amount actually collected each year.

2718. That is no good for our purpose, you see. We want the rates for each year shown, whether collected in that year or not? Well, I have taken that out as well—rates only, you know. You did not say the complete revenue of the Corporation.

2719. I want the water account separately. Did you not understand that? Well, of course, my instructions from the Commission were rather vague, and did not convey to me that it was the water account only you wanted. I rang up about it, and spoke to the Secretary, and the consequence was that I brought a return showing the amount derived from the water account, and from the other accounts also.

2720. Well, that will be all the better for us. Do you produce that return now? I do. This is the return I promised to furnish you with—the matter of the outstanding rates, the whole of those brought forward for 1900.

2721. *By the Chairman.*—You have not summarised all that, have you? Oh, yes, it is all summarised. The first thing here is the amount of the Waterworks Debentures you asked for, with

the dates when the same fall due. Then there are the rates of interest, and the amount of the Hobart Corporation Sinking Fund. As to the latter return, I might tell you this: that it is impossible for me to say how much of the fund credited to the Sinking Fund is set aside for water, or how much for the account for general purposes. The Sinking Fund is formed to meet the loans as they fall due, whether they are for works or other purposes.

2722. *By Mr. Guesdon.*—You make it one general Sinking Fund? One general Sinking Fund—yes.

2723. Although the life of your general Corporation works may be very much longer than the life of your Waterworks? That is so. The only thing I have given you is the amounts borrowed for water purposes, including the amounts received this year.

2724. *By the Chairman.*—You might state the totals briefly, Mr. Stump? Well, £100,000 falls due in 1930, at five per cent.; £30,000 in 1940, at four per cent.; £30,000 in 1902, at five per cent.; £10,000 in 1910, at from three to three-and-a-half per cent.; £7700 in 1915, at three-and-a-half per cent.: total, £177,000, which used to stand at £160,000.

2725. Are all these loans maturing within fifty years? No, within forty. I might tell you there is power to borrow up to £15,000 under this last loan fund. The amount to the credit of the Hobart Corporation Sinking Fund is £21,801 17s. 10d.\*

2726. *By Mr. Guesdon.*—The water revenue from rates was ——— ? £12,455 18s. 10d. for 1898. That is from City, suburbs, and meters. It does not include “specials,” for taps and animals—cows, horses, and so on.

2727. How is it that that is not included here? It is part of your water revenue, is it not? You were not sufficiently explicit in saying what you wanted.

2728. Is there any other source of revenue? I can tell you in a minute. There are special charges for garden taps and animals; and we lost a large bit of revenue from shipping water and the Government account. With these exceptions the others are very small items. Building water is an item that appeared this year at £700 odd.

2729. What I wanted particularly to find out is what is the revenue actually due to the water account from all sources for the year, whether it is collected during the year, or is not collected during the year; and what is the amount that ought to be fairly debited to such fund, whether collected in the year, or whether it is not. I want, you see, to get an absolute revenue account. If you only collected three-quarters of your revenue there is nothing here to make it clear. You see that? Of course, this return, so far as it goes, for rates only and meters, is as you would require it?

2730. Yes. Well, you had better now add all other sources of revenue and expenditure, and make an account out for these years. Will you do that? Yes. Of course, if we actually add the figures given here, it will give amounts approximately. The other items—taps and animals, and the amounts from the Government and the shipping—which is collected almost as soon as the water is supplied—would be correct. As to taps and animals, a certain portion would be collected from the previous year, and it is quite probable that there would be just about the same amount outstanding at the end of the year. But, of course, I can do what you want.

2731. Well, we might as well have the actual revenue because that is the only sound basis to which we could go to form our calculations. You see that? Yes. I will make another statement, and furnish you with it.

2732. And you thoroughly understand what I mean by a revenue account. I want revenue credited to everything properly due to it, whether it is paid or not. I do not want a mere cash account, because that does not furnish a true basis on which to form a reliable opinion. And now with reference to the other side. You know that at the beginning of 1898 there was a certain amount of outstanding revenue due for rates not collected during that year? Yes.

2733. Well, I want an exact statement of the revenue for that year of 1898, whether collected or not. You understand that? Yes. I cannot say that I have such a return as that for the previous year.

2734. Well, you can do it for 1900, anyhow, can you not? Yes, I can do that. If the returns for the other years are not quite complete it would entail a very large amount of work. With reference to this Sinking Fund, of course you will understand that it is a general fund to meet any loans as they fall due. The amount paid into this fund is ten shillings per cent. per annum of each hundred. Well, here is an amount borrowed on account of water, and we know exactly the amount borrowed for other purposes; so that if you wanted the proportion of the amount paid to general purposes it could be worked out. I understand that the Corporation Sinking Fund, when the loans were consolidated, was simply a fund to provide for those loans as they mature, whether they were water accounts or general.

2735. *By the Chairman.*—Well, you see, we are specially charged to inquire into water, and what we want is the proportion of the Sinking Fund that is provided against water loans. You could easily do that for us? Oh yes, it is only simple rule-of-three, of course. If the water loans are £160,000 as against £70,000 for general purposes, the proportion is as 160 to 70.

2736. *By Mr. Guesdon.*—Then you will get all that information for us? Yes. There was another thing you asked me to do: to make a comparison of these meter charges, as to whether water being supplied by meter would entail a loss, as against water supplied by rate. Well, where water is supplied by meter for manufacturing purposes you could not get those figures. For

[\* Water, £14,798 11s. 7d.; General, £7003 6s. 3d. Total, £21,801 17s. 10d.]



instance, where you have a large factory like the Gas Company, or the Tramway Company, you cannot make a comparison on that basis.

2737. *By the Chairman.*—Because there is no assessment? Well, there is an assessment; but the amount charged on the assessment for water, if they did not use a large quantity for manufacturing purposes, would be very little.

2738. *By Mr. Guesdon.*—And with the meter system you get value for the water supplied? You get proper value for the water consumed, yes. Of course some private houses are metered, where it seems likely that there will be a large consumption. We can only take out meter-accounts where water is not used for manufacturing purposes. We get the hotels—the *Metropolitan*, *Heathorn's*, and others. I have prepared a list for 1898, 1899, and 1900. We take the totals, and I find that at the end of 1898 there are a lot of people fairly highly assessed. There are Austin's and Ikin's livery stables, fairly highly assessed, and they put a meter on there because they used a large quantity of water for washing traps and horses. Then, Mr. Bond, of Montpellier Road, is included: a private residence, with large grounds. It is the same with Mrs. Butler, at "Westella," and some others: the Imperial, the Hobart Club, Mr. Mather, in Federal-street, Mr. R. C. Patterson, the Tasmanian Club, and other possibly large consumers.

2739. You have not got one out at "Stoke," have you? No.

2740. Got one out at the Mayor's? No.

2741. Well, what I wanted to get at was this—is it proved that the Corporation has derived benefit where the meter-system has been adopted in these various places? The total by meter in 1898 was £331 2s. 6d., and by assessment, £296 13s. 6d., mind you—I will tell you this before we go further. This is reliable information as far as safeguards are concerned, but it is not reliable to base calculations on. I will tell you why. Take the Imperial as an instance—This past year the meter account there amounted to £124 6s., and the water by assessment would only be £18 16s. 8d. The matter is in dispute now between the Coffee Palace people and the Director of Waterworks; and I understand from Mr. Milles' information, that the meters on there have been thoroughly tested, and so they have in other cases of dispute. At the Coffee Palace they have had three meters, one following the other, and all registering correctly. I believe, also, that this past year, with this heavy consumption, is the only year the Imperial has paid a dividend. I do not know that I am the right person to give this information, because the matter is more directly under Mr. Milles' control.

2742. You might give us the same figures for the following years, if you have them? The next year the meter accounts came to £416 as against corresponding assessments of £450 1s. 3d.

2743. I thought that your meter-system could not be less than your assessment—I thought the assessment was fixed as a minimum—is that not so? It is this way. In the assessment we calculate under the actual rate per pound, what would be paid for "specials" that the meter includes. You see, if there is a meter on at any given place, it might be used for three or four garden taps, and all sorts of other things. If the meter account does not come above the assessment, we charge the assessment; because the assessment does not include these "specials." If there is no meter fixed, we make an extra charge for "specials."

2744. Then, these assessments you have given us included these "specials"? Included the "specials," yes; so that that year the meter-system shows a loss. The next year the account by meter was £515 8s. That does not cover the whole of our meter accounts, but those I have referred to as being ones where you could make a fair comparison. The corresponding assessments in this year totalled £297.

2745. Including the "specials"? Yes, including the "specials." But now, that requires explanation. The Water Department has a note here: "The above list contains the principal consumers, as far as private residences, hotels, and boarding-houses are concerned." In some instances the amount by meter has been greatly in excess of the usual consumption, and those included in the above list are now being considered by the waterworks and finance committees. I do not think the above list could be taken as a fair basis of calculation of revenue, to be received by a complete metering-system for the whole water-supply district, as against the minimum rate of assessment, because, as previously stated, this includes most of the large consumers.

2746. *By Mr. Propsting.*—That note does not explain why last year the revenue was in excess of the assessments, and the previous year was the other way about? Well, I think I can explain that. In 1898 was the first year when a large number of these meters were first put on to the hotels and clubs, and so forth, and they evidently continued to use their water without distinction as to whether they were using a large quantity or not. The next year they knew they had to pay for it, and they saw that the more careful they were the less they would have to pay.

2747. But last year, by meter again, it is much higher? [No reply.]

2748. *By Mr. Guesdon.*—And by assessment it is so very much lower. You have not preserved the same names right through on these lists, I suppose? Well, not entirely so. For instance, there may be some here in 1899 that had not got meters in 1898. Some drop out, and others come in.

2749. Do you allow the consumers, then, to abolish the meter when it suits them—is it a question of option with them? No, I do not think it is a question of option altogether with them; but there are occasions in which a meter is occasionally taken off in exceptional circumstances.

2750. Well, who has dropped out this year, then. Can you give us an instance? Well, Mr. C. W. Butler seems to have dropped out.

2751. Was his water account in excess of his assessment? No; it was £4 10s. by meter, and £9 6s. 8d. by rate.

2752. Then you lost by him? Oh, no; we get the full assessment always. Take the case of Mr. Patterson. In 1898 his meter account was £6 5s., and his assessed rating was £8 3s. 4d.; he paid £8 3s. 4d. In 1899 his meter account was £4 16s., as against £6 5s. the previous year, and a rating of £8 14s. 11d.; he paid £8 14s. 11d. Last year his rate of meter was £14 2s., and the assessed rate £6 9s. 4d.

2753. *By Mr. Propsting.*—Mr. Stump has not yet offered any explanation as to the reason why that last year the meter-reading was so much in excess of the assessments? Well, that would only be a matter of looking into particulars. There is one item of £124 at the Coffee Palace that I made an explanation about just now; and, then, Heathorn had a very large account. These accounts are now in dispute, because the consumers think they could not possibly have used the water.

2754. You see we have the meters higher than the assessment in 1898, lower in 1899, and, again, higher in 1900. The reason given for that by Mr. Stump was that the people were more economical in 1899; but that reason does not seem to apply again the next year, and they apparently lose more than in 1898. The figures take in the whole year; so that the summer months do not come into the consideration in any way. What do you think? [No reply.]

2755. *By Mr. Guesdon.*—But this return is not correct in one respect. If you always receive your minimum rate, return should merely show those items where the meter-charge is in excess of the rate. It is not fair to give us a return like this. The amount actually collected where meters are fixed ought to be shown, so that the profit of meters could be plainly understood. Where the meter-reading is below the minimum rate, the minimum rate should be filled in with an explanation memo. if you like. Then this amount received by meter would still be tremendously more than it is made to appear in this return. You see, you cannot lose anything by your meter-system, and there are many cases where you make a profit; so that this is not the return we want. We want a return showing the amount of profit you make on your meters. You see, now, where the meter-reading is less than the amount of the assessment, you show an apparent loss to the Corporation where there is really no loss at all. You see that? Yes. The only way would be to ignore these cases where the meter amount is lower than the assessed rate, and account for the difference where there is any excess.

2756. Yes; of course, that excess would be the real profit you are making on your meter-system? Yes; of course, you understand that these items do not include the Tramway Company, and the Gas Company.

2757. Well, of course, the amounts paid by those companies is considerably more than if they were merely charged their minimum assessment? Certainly; but you could not expect people to use large quantities of water for manufacturing purposes under an ordinary assessment.

2758. It is the same principle, is it not? It is the difference of the one system against the other.

2759. It shows the advantage of establishing the meter-system, does it not? Well, I do not think that that is a fair way of comparing, myself.

2760. Well, you will give us the figures, then, as you have drafted them for last year only? Yes; of course, you will understand that where there are one or two very heavy items last year, they are disputed. I prepare no return of the Corporation actual receipts and expenditure, not taking into account outstanding liabilities; I mean I have not taken it under the general head—Waterworks, Health, and so forth—making a comparison of the yearly receipts, as against the yearly expenditure. I don't think that is exactly what you want, because, when you get the other figures you will find them nearly the same as the return I have prepared. The statement each year that there is so much owing by the Corporation simply refers to ordinary accounts coming in. This year there is only one account I know of that came in after the yearly statement of of accounts was prepared; that was a law account. That account happened to be £40; but I have noticed in previous years that the outstanding claim has generally been a little account for a pound or thirty shillings; an account over-looked by some tradesman, which does not come to hand until after the statement is made up. You asked me when I was down last to prepare you a statement of the amounts received from the suburbs, distinguishing between Glebe Town, Mount Stuart, Sandy Bay, and New Town. I produce that. [Document produced and put in.]

2761. *By Mr. Propsting.*—That is all for water? Yes, all for water. The "specials" are added.

2762. *By Mr. Guesdon.*—That finishes with that matter. Now, in dealing with your accounts, what is the usual practice? You submit your account to be paid, I presume, to the Finance Committee? They are first submitted to the Council.

2763. And then they are, of course, submitted to the Finance Committee for special observation? Not always; sometimes they go to the Public Works Committee or the Waterworks Committee.

2764. Then, where does the Finance Committee come in? The Finance Committee comes in in connection with any account regarding the Town Hall; but, if the account goes before the Waterworks Committee or the Public Works Committee, and is passed by them, after being first submitted to the Council, it is signed by the Chairman, and a cheque drawn; and the duty of the

Finance Committee, then, is simply to know that the cheque is drawn in accordance with the account.

2765. Then, from whom do you receive instructions when accounts are passed for payment? From the Finance Committee.

2766. Do the whole of the accounts, or only a portion of them, go through the hands of the Finance Committee? The whole of them.

2767. Then they determine, I presume, which accounts shall be paid? No, they do not, if the Public Works Committee or the Waterworks Committee has passed the account. If these Committees pass an account, they direct the three members of the Finance Committee, and it is paid. They would be usurping the right of the other Committees if they declined to pay.

2768. *By the Chairman.*—They are not a Committee of Revision, in fact? No, they are not a Committee of Revision.

2769. *By Mr. Guesdon.*—And yet you say that the whole of the accounts have to go through their hands, after they have been dealt with by the other committees? Yes, unless it is a matter that may be paid out of petty cash. Everything that is paid by cheque passes before the Finance Committee.

2770. There must be an authority, I presume, in the Council, which determines what accounts may be legally paid before they are paid, and forwarded on for the approval of the Auditor-General. What is the authority that deals with the accounts in that way? Well, the authority is the signature of the Chairman to any amount that is passed before the Public Works Committee or the Waterworks Committee; or, if specially in connection with the Town Hall, the account is signed by the Chairman of that Committee. Then, when the accounts come before the Finance Committee, just as a matter of check, one member takes a batch of accounts, and looks over them; then, while that member calls out the amounts and initials them, another member signs the cheque.

2771. Therefore, after accounts have passed the Public Works Committee or the Waterworks Committee, they still have to go before the Finance Committee? They still have to go before the Finance Committee—yes.

2772. Then the Finance Committee must be a Committee of Revision? Not to say “we object to pay this,” because the Finance Committee must respect the other committees. If an account has gone before the other committees the Finance Committee must pass it. Frequently I have seen them when they have not liked to do it; but when an account has been before the Waterworks Committee, signed by the Chairman, and approved by the Director of Waterworks, there is an end of it. It is not for the Finance Committee to say “We will not pay this.”

2773. But if the Finance Committee found that the Public Works Committee was acting *ultra vires*, would they not put their fingers on an item, and object to it? Not unless it was very clear that the item was wrong. I know that the Finance Committee has occasionally thought a charge was excessive, or something like that.

2774. I was talking, now, of actually going beyond the powers vested in the Corporation. There was an account of £3 10s. Mr. Gould drew attention to some months ago? Yes, I remember that.

2775. Owing to Ikin for the hire of brakes? Yes.

2776. Do you generally sit with the Finance Committee? Yes, I sit with the Finance Committee.

2777. Have you any recollection of what the Finance Committee did with that account? I remember the account coming before them. The members present were the Mayor, Alderman Bennison, and Alderman Kerr. An account was presented, £10 10s. was the amount. Two items were Ikin's, one for £2, and one for £1 10s, one marked W.H. and one W.W. Mr. Bennison asked about that amount, and was told that W.H. meant Watchorn's Hill, and W.W. the waterworks. The amount was for the hire of drags to bring the men down to vote at the Municipal Election, and Mr. Bennison took exception to it being paid. One lot of men came from Watchorn's Hill, and one from the Waterworks. Well, the amount was drawn, less these two items. These two items were struck off the account.

2778. That was the decision of the Finance Committee? I won't say that was the decision of the Finance Committee.

2779. But you say all the members were present? They were all present, yes.

2780. And the amount was struck out? The amount was struck out. But I would not like to say that it was the decision of the Finance Committee that it was not to be paid.

2781. What do you infer, then, from an amount being struck out? Well, it did not say that it was not subsequently to be brought forward again, and paid; but at that time exception was taken to it.

2782. It was understood clearly, then, that the amount was for brakes, to bring the men down to vote? Yes, £2 and £1 10s.

2783. Was this account ever presented to the Finance Committee again? Certainly it was not.

2784. Was it paid? It has been paid—yes.

2785. *By the Vice-Chairman.*—Was it passed before any committee subsequently? No, the special account by itself was not; not an account rendered from Ikin for those two items.

2786. *By Mr. Guesdon.*—Was it presented in the same form in which it was rejected by the Finance Committee, the form that any committee of the Corporation should strike out? No.

2787. In what form was it presented? As an item of £2 chargeable to the 12-inch main, the work being carried on at Watchorn's Hill or on the mountain, and £1 10s. for work being done at the Upper Storage Reservoir.

2788. And who signed the sheet, then, authorising such payment? It was signed as correct by the Director of Waterworks and the Chairman of the Waterworks Committee, Mr. Kerr.

2789. Was it explained to Mr. Kerr, when he signed that document, that this was the same document as formerly presented to the Finance Committee and rejected in another form? I do not sit with that committee.

2790. Did Mr. Kerr sign as Chairman of the Waterworks Committee or as a member of the Finance Committee? As Chairman of the Waterworks Committee.

2791. Was it explained to him that this was the very item rejected by the Finance Committee? I cannot say; I should think not; I was not in the committee-room.

2792. Then how did it come that those accounts which were previously presented in the form of charges for hire of brakes were altered in this way—but, pardon me a moment—in what form do these amounts appear on the Public Works Account—as wages or cartage? For nothing special. There is nothing opposite the name of Ikin, but W.H. in one place, and W.W. in another. If you see this sheet there are cartage amounts charged, and at the bottom is "W. H. Ikin, £2."

2793. *By the Vice-Chairman.*—Then that is charged as cartage, is it not, since all the other entries are for cartage? Well, the entries above it are for cartage.

2794. Separated in any way from these others? No, none of them are separated in any way.

2795. *By Mr. Guesdon.*—And how did the other £1 10s. appear? Well, it appears in a similar way on the other sheet.

2796. Under what heading—wages or cartage? Just the same as the other. I think there is a list of names for cartage, and this item of Ikin's appears at the bottom.

2797. Did you receive any instructions to have this account altered and dealt with in that way? Yes, I did.

2798. Of course, I presume it is not a common practice in the Corporation to manipulate accounts in that way—is it? No, not common; but there are at times such items placed on the sheets, where, say, we will not bother drawing a cheque for them. Such small accounts are sometimes put on the sheets. Of these two accounts, this one for £2 belongs specially to the 12-inch main on the mountains, and the other to the work being done at the upper storage reservoir. One item is put on the sheets for one job, and the other on the sheets for the other; and so the proper accounts are debited.

2799. Well, does that irregular way of dealing with accounts often occur in the Council? Not often.

2800. And when asked to do it, I presume you must have been aware that you were asked to do an exceedingly irregular thing? Well, I was not asked to do it until the matter had been threshed out in the Council.

2801. What do you mean by the matter being threshed out in the Council? Well, the Mayor made a statement in reply to a question from Alderman Gould, and—

2802. Mr. Alderman Gould's question was—By whose authority brakes were ordered to bring down the Corporation labourers to vote at the Municipal election? Whether the amount was charged to Municipal account, and by whose authority? And the Mayor in his reply, I might tell you, stated that it was by his authority that the men were brought down, and the brakes supplied; and he also stated that it had been the practice to allow the men to come down and lose a quarter of a day when they wanted to vote. He did not answer the question as to by whose authority the amount was charged to the Municipal Account.

2803. At all events, you regarded it as an irregular thing, when you were asked to do it? Oh no, I did not; because the Mayor has power.

2804. What power? I know that it has been an unwritten acknowledged custom that the Mayor has always the privilege of voting sums of money up to Five Pounds.

2805. For what purpose? I suppose it is specifically proved that he has only power to spend it as far as he has legal power as a trustee for the people.

2806. *By the Chairman.*—Not in electioneering? I am not going to say that this expense was incurred for electioneering. I do not know that it was.

2807. *By Mr. Guesdon.*—But bringing down these people in brakes, you know? Yes, to save money for the Corporation.

2808. Is it the custom to allow these men a quarter of a day, or to provide brakes to bring them down, when there is a general election for the House of Assembly? I think that is the only time when there has been an election during the time the men have been on the mountain. No; there has been one other election since—the federal election. With that exception, I do not know that there has been an election when the men have been on the mountain.

2809. Did you bring them down for the federal election? Not that I know of.

2810. You did not allow them a quarter of a day on that occasion? I would not say specially with regard to these men on the mountain; but it is an admitted custom to allow our Corporation labourers some time off to vote, and they are paid their full time on such occasions.

2811. From whom did you receive instructions to alter the character of this account? As far as I remember, it was the Mayor.

2812. The Mayor instructed you to alter that account? No, not to alter it.

2813. But to alter the character of it? Oh, no; the character of it is not altered, because, had the account been re-submitted to the Council, it would have been passed in the usual way. These items would have been charged just the same. The character of the account was not altered; the £2 was a proper charge to the Watchorn's Hill job, and the £1 10s. to the work at the Upper Storage Reservoir.

2814. *By the Vice-Chairman.*—Did the Mayor instruct you to charge it to cartage? You have got me puzzled there.

2815. Who is responsible for it being charged to cartage? I should say the Mayor is responsible, and, next to the Mayor, myself.

2816. Did you do it of your own initiative? No.

2817. Then it must have been the Mayor? I am not very clear about that point.

2818. Would you have taken instructions to do it from anyone else? No, I would not. Well, if the Town Clerk came to me and said he had seen the Mayor about it, I should take the Mayor's instructions in that way. But if it were an account in the Waterworks Department that was put into that sheet, I should draw the attention of the Finance Committee to it, and the attention of the Mayor as a member of the Finance Committee.

2819. *By Mr. Guesdon.*—At all events, when the item was presented to Mr. Kerr for his signature, do you not think that he should have been informed that these two accounts for £2 and £1 10s. were the same accounts that were formally submitted to and rejected by the Finance Committee—do you not think that that would have been the proper and open course? I presume that each of the chairmen of each of the committees scan the accounts, and know what they are signing.

2820. *By the Vice-Chairman.*—Well, when they see "cartage," and a lot of names under that heading, would the Chairman of the Waterworks Committee imagine that this included an account for quite a different purpose, and one that had been presented to him in quite another form? Well, of course, the Chairman might be a man who did not know anything at all about Mr. Ikin, and he would naturally presume in that case that the charge was one for cartage or for some item being carried out in connection with the work.

2821. Could the Chairman possibly have recognized this as the amount previously struck out by the Finance Committee? I think not.

2822. And it would have been the proper thing to explain to him that it was the same item? Well, I don't know, seeing that the Mayor has the power to authorise the payment of sums up to £5, although we have nothing definite to that effect in our Regulations or By-laws. But as far as I can remember of Mr. Smith and Mr. Birch, the late Town Clerks, it was understood that that was the prerogative of the Mayor.

2823. *By Mr. Guesdon.*—The Mayor has to furnish an account, I suppose, of any amounts under £5 expended by his authority—I mean they could be challenged if they were improper payments—he could not, that is, spend Corporation money for his private purposes?

2824. Then he has to show that the amounts he spends are spent in ways in which he is legally entitled to spend the citizens' money? Yes.

2825. Then that question of his being able to spend up to £5 does not touch the principle of what we are dealing with now?—when these accounts were sent over for the approval of the Auditor-General, the accounts were passed by him, were they not? No, they have not been passed yet.

2826. Do you know whether the Auditor-General has expressed any opinion upon these particular amounts? I think he says that they are not a correct charge.

2827. And he will not pass them? He evidently will not pass them. But I am satisfied that when these vouchers went on to the Audit Department they would have struck out the name of Ikin; and I feel satisfied that the thing would have been queried, and particulars asked for concerning it; because anybody at all knows W. H. Ikin, even the clerk in the Audit Department.

2828. That is outside the question. I want to narrow this down as much as possible. If the Auditor-General refuses to pass that account, who will have to pay it? Well, the Mayor, as being the man who authorised the payment of the amounts.

2829. Then, the Mayor, in instructing you to alter that account——? Not to alter it, to put it into that form.

2830. Then the Mayor, in doing that, was in this position: that he either had to get that amount passed through the municipal accounts, or he had to pay it out of his own pocket? No, I think not. I think that if he refused to pay it and he said it was a correct charge against the Corporation—in that case I think that Ikin would have power to sue the Corporation.

2831. That is, even if he went beyond his legal powers? If the Mayor went beyond his legal powers.

2832. Beyond his legal powers—Yes? Well, I suppose that if the Mayor went beyond his legal powers he would be personally responsible. If it is decided that the Mayor went beyond his legal powers I should certainly say that Ikin would have to look for payment to the Mayor personally. But, outside, saying that he did go beyond his legal powers if the account were refused to be paid, I think that Ikin would have had a claim against the Corporation.

2833. *By the Vice-Chairman.*—Well, I understand, Mr. Stump, that you would only have accepted the authority of the Mayor or the Town Clerk, as representing the Mayor, to have charged these items in that way? Yes.

2834. What was the object of charging them in that way? Well, the account came in again. I knew it had been disputed; but, anyhow, it came in again and remained unpaid for some time, till this motion or question of Alderman Gould's was discussed in the Council, when the Mayor made an explanation, and there appeared to be no dissention of voices to the explanation of the Mayor, other than Mr. Gould saying that he hoped it would not occur again. Well, on the face of that it looked as if the thing being done, the Corporation would take the responsibility of it. It certainly looked as if the Aldermen that were then present took no exception to the fact that these brakes had been sent for the men, and that there was no objection to paying for them. When the account came in to me again I remember taking the account into the Mayor and asking what was to be done with it, and, as far as I can distinctly remember, I think it was he that said, "Oh well, charge the £2 to the 12-inch main, and the 30s. to the repairs at the Upper Storage Reservoir."

2835. *By Mr. Guesdon.*—You see that does not explain why it was done. If the Council approved of the payment, what necessity was there to alter the character of the account? [No reply.]

2836. *By the Vice-Chairman.*—That's it. Why was it necessary to charge it to "Cartage" if the Council approved of the payment? Well, as I told you, although it was all cartage on the sheet, I did not instruct the department to put these items on the account as cartage, but simply to charge the one job with £2, and the other with £1 10s. It is erroneous to make out that it was positively charged as cartage. That is certainly wrong.

2837. Supposing the account had been put into your books as hire of brakes to bring labourers down to vote? It would have gone to exactly the same place as now.

2838. But can you advise any means of making that hire of vehicles a legal charge against the construction of a reservoir—can you show any legal authority for it? I cannot show any legal authority. The only thing is this—that if the men on that job, with the municipal elections coming on, were to be allowed to vote, it was best to give them the opportunity in the cheapest way to the Corporation. Of course, I do not know what transpired between Mr. Milles and the Town Clerk, but I am of opinion that if they conferred and said, "These men are there, and it is only fair that they should have an opportunity of recording their vote; but if they have to walk down and do it, and go back to their work, it means half a day"—if this happened, then you can understand why Mr. Milles said, as I believe he did, that we could not afford time to be lost, and it would be better to have the men brought down by brake.

2839. *By Mr. Guesdon.*—Did Mr. Milles advise that they should be brought down by brake? I do not want to speak for Mr. Milles. I am only giving you what my firm opinion is.

2840. *By the Vice-Chairman.*—Have you any power to suspend payment of an account whilst it is referred to the auditors? No.

2841. You simply have to make the entries you are directed to make? Well, the accounts come in, and are submitted to the Council, and from them go on to the committees. The committees pass them, and that is sufficient guarantee for me. In this case I have taken the Mayor's instructions.

2842. *By Mr. Guesdon.*—And you take no responsibility? I take no responsibility.

2843. *By the Vice-Chairman.*—Well, if you had any responsibility in connection with it—supposing, that is, that the thing were to occur again—and you had power to stop an account, pending investigation as to its legality, would you have stopped this one? Yes, I should certainly have it investigated, from what I know now.

2844. It is plain, is it not, that the Corporation has no power to spend money on brakes to bring men down to vote? No; I certainly consider that in my experience and knowledge of the Council, it has been the custom. It is only just now that these amounts are being brought up and objected to.

2845. As a skilled accountant, don't you think it is time they were objected to? [No reply.]

2846. *By Mr. Guesdon.*—Have you ever known expenses incurred in carting aldermen to funerals to be put down to Cartage Account? Well, that is not expense incurred in connection with any special work of the Corporation.

2847. Have you known cases where such vehicles were hired for any purpose, and the charge put under the head of "Cartage"? Well, you know, I do not admit that they have put this down as cartage.

2848. *By the Vice-Chairman.*—The aldermen go to the *levée* at Government House every year, I think? Yes, on Queen's Birthday.

2849. In carriages hired by the Corporation? Carriages hired by the Corporation—certainly.

2850. How is that hire charged? As hire of carriages, General Account.

2851. Why was not this charged to "Hire of Carriages"? Well, if it had been charged specifically, stating that it was hire of carriages used for bringing in men working on the 12-inch main to vote at a municipal election, the amounts would have been charged in expenses for the 12-inch main, and at the end of the year the total expenditure on that work would have included that amount. "Hire of Carriages," has been recognised, for certain purposes, as a legal heading. It has for years.

2852. Well, this expenditure we are now discussing was certainly hire of carriages, was it not? Well, of course it was—hire of carriages or hire of brakes.

2853. Why was it not put down as "Hire of Carriages"? On the sheet, you mean?

2854. Yes; why was it not put down on the sheet as "Hire of Carriages"? Well, it is put on the sheet very plainly, as a payment to W. H. Ikin.

2855. But it is under the heading of "Cartage," is it not? I do not admit that it was intended to be put down as cartage.

2856. Was there anything to show that it was not cartage? Nothing. Ikin's is the last name on one sheet, and on the other sheet it is the last but one. The Clerk told me that the reason why it is not the last on that sheet was, that the other amount for cartage—the last item—came in last.

2857. Then I understand you that on one sheet there is a name of a carter below Ikin's item for hire of carriages? Yes, there was a name below it.

2858. And the item below it was for cartage? Yes, it was for cartage; but in all the items for cartage it says so many days at so much; but in this instance of Ikin's it says nothing at all of that sort—it is blank. That is why I am satisfied that when the vouchers went through, the Chief Clerk at the Audit Department would have come down and queried the items; and if the Auditor thought that it was not a just charge to make on the Corporation, his attention would have been called to it.

2859. Don't you think, as City Accountant, that you ought to have power to suspend an account for investigation when you deem it necessary or desirable? I do.

2860. *By Mr. Propsting.*—Well, now, is there anything that denies you that power at present? Well, I do not look upon it that my position gives me power to place a veto on any sum of money or account that any of the committees pass for payment.

2861. But you think you should have that power? I think it should certainly be my province to say, "This account is not correct," whenever it is not correct. But that passes beyond me now to the Audit Department.

2862. Do the Mayor and Aldermen ever visit any works—say the water-works in course of construction—in conveyances? They do.

2863. Is that expense debited against the particular work concerned? Yes, it is debited against any particular work visited.

2864. It is not charged to Miscellaneous Account? Well, supposing that the expenses for a cab to take aldermen to Watchorn's Hill—say £1. The next day the cabman will come in and get his instructions from the Town Clerk for that £1 to be paid through petty cash; then in the petty cash books information is put down opposite the item as to what it was for. Then at the end of the year that item or any similar item would be culled out and put down under the 12-inch main job, the reservoir job, or wherever it belonged.

2865. *By Mr. Guesdon.*—But it would be specifically stated on the sheet what the item was for? There would be no sheet at all in this case; it would simply be paid out of petty cash as an item for a cab, and analysed with other items at the end of the year.

2866. Were these items we are discussing paid by cheque or paid out of petty cash? They were paid by cheque. The Mayor could easily have had them paid out of petty cash, and the items would have come in for analysis in due course. It would have been unusual to do it in that way, but it would have been quite within the Mayor's province. Then, at the end of the year, these items would have come in, chargeable to the 12-inch main and the upper storage reservoir jobs. The items would have gone into exactly the same column in our Abstract Book as they will at present.

2867. Did you believe that this account would be passed by the Auditor-General? Yes, I did.

2868. You did think so? Yes, I did think so; and I thought, on the understanding of what the Mayor's privilege was—that he could pay any sum of money up to £5—that it was quite right, and a just claim on the Corporation Funds.

2869. *By Mr. Propsting.*—I don't quite understand you. Why do you say that it would be a just claim? A just claim because the expenditure of the amount in the way it was expended would save the Corporation money if they decided to let the men off to vote at all. In one case it meant the loss of a quarter of a day; in the other it meant a loss of half a day; and the works at that time required to be rushed through.

2870. *By the Vice-Chairman.*—But as a matter of fact, after this lapse of time, the work is not yet finished, I think? The work is not yet finished, as you say, but that is no business of mine. The account for £3 10s. would have been better if it had come on again in the usual form, being submitted to the Council and referred to the Finance Committee for payment. Then I believe that had the two members of the Finance Committee other than the Mayor refused to pay that account, it would have been for the Mayor to say to the Council, "Here is an account incurred for such and such a purpose," and I believe that, with the exception of two members of the Finance Committee, the Council would have carried the account by resolution.

2871. *By Mr. Guesdon.*—And that would have been the proper way of dealing with it? Yes.

The witness withdrew.



J. W. C. HAMILTON, *re-called and further examined.*

2872. *By Mr. Guesdon.*—You produce the reply sent by the Hobart Tramway Company to the Corporation in connection with Mr. Milles's report on the trams? Yes. [Document put in and read by the Vice-Chairman.]

*The Hobart Electric Tramway Company, Limited,  
Lower Macquarie-street, Hobart, 2nd May, 1901.*

A. C. PARKER, *General Manager.*

SIR,

I HAVE the honour to acknowledge the receipt of your letters of 19th April and 1st May instant, and in reply beg to inform you that I duly placed your letter of August, 1899, with Mr. Milles' report, before my Directors, and received their instructions to meet your desires in every respect, so far as the circumstances of the company would allow.

This has been done, at an expense exceeding £3300, since August, 1899, and the fact that the running has been safely conducted, and a very large number of passengers carried without the slightest accident, points out that the upkeep and general maintenance has kept all the lines in fair working condition.

With regard to the quantity of rails mentioned by your surveyor as necessary to put the lines in good order, I am now in receipt of a sufficient supply to meet his suggested requirements, and I may mention that I am sending a further order for tramway rails by next mail.

The painting of the poles has been in hand for the past month, and is nearly completed.

I desire to assure Your Worship that you may rely upon the permanent way of the tramway being maintained and improved to the fullest extent that is consistent with the financial position of the company, and I would remind you of the convenience afforded to the public by our services, by which a million and a half people are safely carried from one point to another during the year.

I have the honour to be, Sir,  
Yours faithfully,

A. C. PARKER.

*His Worship the Mayor, Hobart.*

2873. *By Mr. Guesdon.*—Is that the only reply to the letter of 7th August, 1899? Yes; that is the only reply we have received.

2874. Then it took them nearly two years to answer your letter? Yes.

2875. *By the Vice-Chairman.*—Mr. Milles's report, on the 7th August, 1899, then, was not made to the Council, but to the Mayor? Yes.

2876. And that report was not brought before the Council? No; never.

2877. Was it brought before the Public Works Committee? Yes.

2878. What did the committee resolve? They resolved to refer the report to the Tramway Company, for the company's view on the matter.

2879. Alderman Smith was chairman of the committee? Yes.

2880. And the reply we have just heard read, dated 2nd May of this year, is the reply of the Tramway Company? That is the only reply I have had.

2881. *By Mr. Guesdon.*—We have examined Mr. Stump in reference to an account which was drawn attention to by Mr. Gould, at a meeting of the City Council some time early this year—an account of Ikin's, £3 10s., for brakes to bring down Corporation labourers from the Waterworks and Watchern's Hill to vote at the Municipal elections. Mr. Stump has stated that he received his instructions to deal with that account from the Mayor, after it had been struck out by the Finance Committee. Can you say, confidently, that the instructions of the Mayor went from him personally, and not through you? Absolutely. I never knew of it until a fortnight ago.

2882. Then the instructions must have gone to Mr. Stump from the Mayor? The Mayor has told me so since.

2883. In your experience of the position of Town Clerk, have you ever known an account of that kind to be dealt with in the way that this was dealt with? In what way, Mr. Guesdon?

2884. Do you know that the account was presented to the Finance Committee, and this portion of it, £3 10s., struck out? Yes.

2885. Do you know that, without further reference to the Finance Committee, instructions were given that these items should be placed on the cartage sheets? No, I did not know that.

2886. Do you know what instructions were given in regard to it? I do not.

2887. Do you know that the character of the account was altered? I do not.

2888. Do you know anything about any correspondence that was passed? I have seen all the correspondence with the Auditor-General.

2889. Will you tell us, as far as you can recollect, in what terms the Auditor-General expressed himself in regard to the way in which this account had been dealt with? He was not at all satisfied with it, and from his observations the Mayor could see that; and the Mayor said, immediately, that such a thing would not occur again as long as he was Mayor, but that so long as he was Mayor no such charge would be incurred.

2890. Mr. Stump has told us that these two items were placed on the sheets of the Public Works Department of the Council? Yes.

2891. Did Mr. Milles take any exception to the accounts being dealt with in that way? I may state at once, that from the day this charge was struck out by the Finance Committee, until a fortnight ago, I knew absolutely nothing of this account. I know nothing of what Mr. Milles may have said in connection with it. A fortnight ago one of the aldermen asked me if this had been paid, and I said, "Not to my knowledge." Then I inquired from the Accountant, who said that the amount had been paid, and I came back and told the alderman. That was the first intimation I had that it had been paid.



2892. Do you now know whether Mr. Milles took any exception to the amount being paid? No, I do not.

2893. Have you seen any correspondence from Mr. Milles on the subject? I have seen nothing, with the exception of a short note from Mr. Milles in answer to the Mayor. The Mayor asked him by whose authority the amount was placed on the pay-sheet in the way it got on, and Mr. Milles explained to him.

2894. Did Mr. Milles express any opinion as to whether the amount should be placed on the sheet or not? [No reply.]

2895. The Mayor has the power to authorise the payment of certain accounts up to the sum of £5, has he not? There is a custom, which is allowed by the Auditor-General. In general terms the Mayor has authority to order expenditure of sums not exceeding £5 of the citizens' money. I can find no record of any right.

2896. I presume that in the exercise of that custom to purposes that fall within his power as a trustee of the people? Yes, certainly.

2897. Of course, as Town Clerk and a lawyer, you will give us that opinion? Not as a lawyer, as Town Clerk, certainly.

2898. Then the Mayor would not be justified in going outside the statutory powers that he has in spending any sum of £5 or less? Certainly not.

2899. If I told you that Mr. Stump's evidence has shown that these two items were put on the sheets in question, under the heading of "Cartage," and at the bottom of a list of various carters' moneys, with carter's name, below that of Ikin in one instance, would you consider that a proper way of expressing that account? No, and the Mayor didn't.

2900. At all events, you do not regard that as a proper way of expressing this account No.

2901. From your knowledge of the way in which matters are or should be conducted, do you think that an account which has once been struck out by the Finance Committee should be presented to any other committee in another form without being again referred to the Finance Committee in the original form, or without its being explained that it is presented in a different form to that in which it originally was? I consider that that ought not to be done, but you have to look at this case in connection with other circumstances. The Mayor had made an explanation to the Council with reference to this. You have to get at what was in the Mayor's mind. The Mayor reckoned that he had cleared himself before the Council.

2902. Then, if the Mayor considered that it was absolutely approved by the Council, what was the necessity of correcting the account and presenting it in another form? There seems to have been a mistake all through in the instructions. The Mayor does not consider that he gave Mr. Stump instructions to put this on the sheets in the way it was put on.

2903. Who signed the sheets? Mr. Milles.

2904. And who was the chairman who passed the items? Mr. Kerr.

2905. Mr. Kerr is also Chairman of the Finance Committee, I think? No, the Mayor is Chairman; Mr. Kerr is a member of the committee.

2906. Now, as Mr. Kerr is Chairman of the Waterworks Committee, do you not think that it was imperative that when these sheets were presented to him for his signature he should have had it clearly explained to him that these two items were the two items which had previously been struck out by the Finance Committee of which he was a member? It would have been far better.

2907. Do you not think it was calculated to deceive Mr. Kerr, putting the sheets before him without that information—presenting the same account in a different form, without any explanation whatever? No, I do not.

2908. Then you think that Mr. Kerr ought to have been able to recognise these two items amongst a list of carters under the heading of "Cartage" as the two items which had been previously presented to the Finance Committee in another form? I think any one would have recognised it from the peculiar way in which the items were put in. They were put in under the head of cartage, it is true; but the entry was simply in one case, "Ikin, £2," and in the other, "Ikin, £1 10s." Every other carter was put down, "Smith, 4 days, 16s.," "Jones, 2 days, 8s.," and so on. The whole item was always stated in full.

2909. Well, does it not seem extraordinary when these other items are stated in full, "2 days, 8s." and so on, that this item of Ikin's was not particularised "Ikin, brake," and so on? Certainly. The Mayor gave me instructions, and I had the sheet altered immediately.

2910. And you admit that the alteration of the form of the accounts was calculated to mislead Mr. Kerr? Certainly.

2911. As a positive fact, now, do you know that Mr. Kerr signed the sheets under a misapprehension? I know that when he signed it he did not know that it was the account that it was.

2912. *By Mr. Propsting.*—You say there has been a custom for the Mayor to incur any expenditure up to £5. Is such expenditure always submitted to the Corporation for approval? Oh, no, not to the Municipal Council. It goes through in the ordinary way. It is generally on labour or cabs, or something like that, that the Mayor authorises expenditure. If he could not do that, no one in the Corporation would be able to order a cab; whereas, I am allowed licence as Treasurer to order any cab I like for municipal purposes.

2913. If the Mayor incurs any such expenditure as you say he is entitled to do by custom, is that afterwards submitted to any committee for approval? Yes, always, to the Finance Committee,

2914. *By Mr. Hamilton.*—Would that apply to petty cash? Yes. Whenever we want a new cheque for petty cash, the petty cash-book is brought before the Finance Committee, and perused; and 999 times out of a thousand the committee want explanations of sundry and manifold items, which is always given. Within a couple of days after an amount is expended from "Petty Cash," the cashier brings the petty cash-book in to me to be initialled.

2915. This charge for bringing in these men to vote was included, in the first place, in "Miscellaneous" items, was it not? Ikin's account, yes.

2916. Charged against any particular work? Oh, yes; Ikin had put "W. W." and "W. H." against the two items.

2917. And would it have been debited to those works? Yes; that is how Mr. Bernison found it out. He asked me what "W. W." and "W. H." meant, and I explained. Then he said it could not be allowed, and scratched the items out.

2918. Was the alteration in the manner in which this amount was to be submitted to the committee made by the authority of the Mayor, or by you—By whose authority was it? Not by mine. I am only speaking from hearsay; I believe it was by the Mayor. I happen to have been out at the time, unfortunately.

2919. You said that was how the mistake occurred? Of course, this is all hearsay. The Mayor has told me that his instructions to Mr. Stump were misunderstood by Mr. Stump. He told Mr. Stump to charge these items against the different accounts—Repairs, the Reservoir Account, and Watchorn's Hill Account. Mr. Stump understood him to say, "Charge these amounts on the different sheets—Watchorn's Hill sheet and repairs to Reservoir sheet." Of course, as far as I am concerned, this is only hearsay.

2920. *By Mr. Guesdon.*—On that showing, of course, if Mr. Stump had carried out his instructions, the items would have appeared in the regular way, and gone before the Finance Committee to be dealt with in the form in which they were originally presented and struck out? Certainly.

2921. And there would have been no misunderstanding? No.

2922. *By Mr. Propsting.*—Was the Mayor present at the committee meeting on the second occasion, when these accounts were passed? I should say so. At any rate, he signed the cheque, whether he was present at the committee meeting or not.

2923. Do you know whether or not he pointed out that these items had been charged differently from his instructions? No, I know he never did that, because I never heard of it until a fortnight ago, as I said just now.

2924. *By Mr. Guesdon.*—We would like to have a copy of the Auditor-General's remarks on this matter. Can you supply that? You want a copy of the correspondence?

2925. Yes. Can you let us have that? Yes.

The witness withdrew.

TUESDAY, JUNE 18, 1901.

C. St. J. DAVID, *called and examined.*

Mr. David was sworn.

2926. *By the Chairman.*—Your full name, Mr. David? Charles St. John David.

2927. Will you state to the Commission the offices you hold under the Corporation of Launceston? City Engineer, City Surveyor, Building Surveyor, Engineer to the Board of Health, and Acting Superintendent of Waterworks at the present time.

2928. I believe you visited Hobart some time ago in connection with our water supply down there, and made a report to the Corporation? Not to the Corporation, Mr. Patterson: to the Sewerage Board.

2929. In order to make that report, you had to visit the sources of our water supply on the Mount Wellington watershed? Yes.

2930. You came to the conclusion, I think, that, if we were to continue to collect our water supply on that watershed, it would be necessary to close the mountain to public traffic? That was certainly my opinion.

2931. And in that you agreed with the other engineers and the officers of the Board of Health, who reasoned in the same manner? Yes; I did, sir.

2932. Now, referring to your gutters here, can you tell us, for the information of the Commission the cost of new gutters, per yard and per chain? The concrete gutters, do you mean?

2933. Yes? Well, as a matter of fact, I have two patterns of gutter in use now: first, what we call the heavy pattern, for the main streets, where there is considerable traffic, and considerable wheel traffic stopping up against the kerbs. These heavy gutters are 2 feet 4 inches wide and 6 inches thick. They are in what we call 6 to 1 concrete—four of stone, two of sand, and one of cement. We fit these heavy gutters with stone on the outside.

2934. That is with bluestone kerbing, is it not? Yes, with bluestone kerbing on the outside edge of the gutters, to protect them. These gutters average about £3 7s. 6d. a chain. That is as nearly as I can state the cost of the heavy gutters. The lighter gutter is 26 inches wide by 4 inches

thick, and costs about £2 15s. a chain. The 6-inch kerbing which is put down with these concrete gutters almost invariably costs about £2 a chain.

2935. The kerbing is extra, then? Yes; in the prices I quoted just now I was speaking about the channelling alone. The ordinary kerbing and channelling—26-inch gutters, 4 inches thick, with 6-inch kerbing—we always estimate at £5 a chain.

2936. That is including the kerb? Yes, both together. When they are put down both together they are put down a little more economically than when they are put down separately.

2937. That would be a total average cost, then, of £400 a mile? Yes; and cheap at that. Formerly when I came here, we were putting down bluestone kerbing that cost fifteen pence a foot in the quarry, and 7d. a foot to lay—that is, 1s. 10d. a foot altogether; that is, you see, about £6 a chain for the kerbing alone.

2938. Well, now, I suppose you know our cobblestone gutters in Hobart? Yes; we have some of them here.

2939. Well, it has been suggested to us by professional witnesses that it might be well to cement or asphalt those gutters. What do you think of that suggestion—at present, you know, the gutters are harbours for all sorts of dangerous filth and refuse—you have seen that? Well, I have never had any asphalt gutters here; but my experience of asphalt gutters in Queensland—not special personal experience, but I knew a good deal of them, nevertheless—was that they were not a success; they lasted very well for three or four years, and then broke up. Unless you can get sufficient body of asphalt—at least three or four inches—over the cobblestone gutters, I would not recommend it. What we do here with the old gutters is this: we run tar down them and thickly sand them in the summer time, and the sand and tar gets into the interstices and makes a fairly even bottom. That, however, is only when there is a fairly good grade. Whenever the streets are flat we endeavour to get the cobblestone out.

2940. Of course you know that in Hobart our streets are mostly of a good grade, a severe one in some circumstances? Yes. I should think the tar and sand that we put in our cobblestone gutters here would do you very well.

2941. That would be cheap, too? Yes. I do not think concrete would stand over the cobbles. I have used it in some places where we wanted to raise the gutters considerably; but unless you get at least four inches of concrete on, it would be apt to be broken up by wheels passing over it.

2942. And what price do you think this tarring and sanding could be done at? About £1 a chain, I should think. It could be well done for that.

2943. *By Mr. Hamilton.*—What about the under-surface of these cobblestone gutters? Their present condition is that of a festering mass in many cases, is it not? No, not always; in such cases, I should certainly get the cobblestones up. We have only dealt with cobblestone gutters in the way I describe when they have been perfectly firm and solid.

2944. *By the Chairman.*—Can you tell the Commission what your experience is as to the need of flushing these gutters—do you do it daily, weekly, or in what manner? We have no regular system of flushing here; we do not need it. We have an underground system of drainage, and there is no evil smelling stuff poured into the gutters—they are flushed to an extent by the washing out of the fire-plugs; but in the main streets we keep them continually flushed in the summer-time. We have reducing valves off the mains, which run a gentle stream of water down the gutters day and night in the main streets in summer.

2945. Can you describe your system of underground drainage and its outlet? Just generally?

2946. Yes, generally? Well, the system was originally based upon a set of plans received, I believe, in '55 or '56, when the Council called for competitive designs for draining the City; and, I believe, the plans were originally drawn by or to the designs of Sir William Denison, who was an engineer; but that I am not sure of. There are three mains—three large mains, that is: one in Margaret-street, one in George-street, one in Tamar-street, with, of course, sub-mains opening off them. The Margaret-street main, I may say, is not satisfactory to me. It is a concrete invert, with what used to be known as an eye section. It is somewhat the shape of the human eye, a sort of flat oval the wrong way about. It has been adopted in some cases where there is insufficient height at disposal to allow of the proper covering of the sewer. The remainder of the sewers were built in brick down to 18-inch in section, and the remainder of them are earthenware pipes. The City is not altogether sewered yet. There are one or two outlying sections in which there are very few houses, and where it would take a very considerable length of sewer to reach them; and these still have the earth-closets, which are emptied in the usual way by sanitary or night-carts. I may say that, as this is an old-fashioned style of sewerage, it is a compound system, and takes rain-water as well as sewage. That accounts for the large size of the Margaret-street sewer, which is 8 feet across. The Margaret-street sewer, which is the worst one we have, really started by a creek there. There are people here who can remember when the river-water ran right up Margaret-street several chains. Under our system of water-closets here, we use a 3-gallon flush. I think two gallons is sufficient for all ordinary purposes; but we have plenty of water here, and we use three. At Home the 2-gallon flush is generally in use. In fact, we got, some time ago, flushing cisterns out for flushing, and they were, without exception, 2-gallon cisterns.

2947. It has been stated, in evidence, by Mr. Thwaites, the Engineer of the Metropolitan Board of Works in Melbourne, that his experience of underground drainage goes to show that no more water is consumed per head, with a proper drainage system, than was consumed before. What do you think? I have said that before now, myself. I am decidedly of that opinion; because,

under a proper sewerage system, you lose the principal incentive to waste. When people are not throwing their slops down the gutters, they do not need water to flush them. And even when people are using a 3-gallon flush with their water-closets, the amount of water consumed is infinitesimally small compared with their wasting of water in ordinary circumstances.

2948. *By Mr. Guesdon.*—As an adviser to this Council, would you suggest that the system of gutter adopted in your main streets here is the most effective, and the best and the cheapest in the end? I do not know of any better, Mr. Guesdon.

2949. But, supposing you had to deal, as we have in Hobart, with twenty-two miles of wet cobblestone gutters, and you were asked to advise as to the best system, and the cheapest system that is consistent with a due and proper consideration of the public health, what would you advise? Well, I think I should be guided very largely by circumstances, after looking at the existing gutters; because, if the cobblestone gutters are firm, and there is not much soakage through the interstices of the stones, I should be inclined, in a very good many instances, to thoroughly tar and sand them two or three times, until the tar and sand gravitated into the interstices, and made an even or wavy surface. But, if they were bad gutters, I do not know of anything better than the concrete. I like it better than pitchers, which are apt to get loose.

2950. But, properly protected by kerbing, you think the concrete gutter will stand any reasonable weight and quantity of traffic? Yes; we only use the kerbing in the main streets, where there is likely to be any heavy wheel-traffic. We also use stone kerbing.

2951. What kind of stone? Bluestone; very hard stuff. The stone-dresser at the quarry is continually on the look-out, and any suitable stone, with a flat face to it, he throws on one side, and dresses up into kerbs. It dresses up easily into stone kerbs, which we use in the outlying streets. It is a little cheaper than concrete. We can put this stone down at rather less than £2 a chain; but it does not look so well as the concrete.

2952. Then you put that in simply in blocks? Yes, we put that in as blocks.

2953. You spoke of a system of underground drainage, designed when Governor Denison was here. Have you a proper chart or plan of the whole of your underground drainage and reticulation, are we to understand? No; that is a thing very much wanted here. I have a plan that was partly prepared by my predecessor, showing the mains; but it was not complete. And I have plans of all the sewers I have put in since. But I have never been able to tackle the job of making a plan of all the mains for myself.

2954. Have you a plan of the reticulation pipes of your water-sewers. Of the water—yes.

2955. And, I suppose, you consider it is an absolute necessity to have a complete plan of your drainage, too? Oh, I think it is absolutely necessary. I have mentioned it several times to the Council; but they did not think it advisable to go to the expense.

2956. But it would be a saving in the long run, would it not? Yes; it would be, undoubtedly; because there are cases now, where we want to take the drainage of a house, we do not know where the sewer is, and we have to look for it, with the result that an immense amount of time is wasted in looking for it.

2957. Can you give us any idea of the extent to which you use your meter system here in connection with your water? Is the meter system the system chiefly in vogue? No, the meter system here is used principally in those places where there is a very large consumption in the gardens. We put meters on for our own protection. You see, we rate gardens at a certain amount—10s., 15s., or £1 per annum, and so on. If we think the consumers are using more water than they are entitled to, according to the price they pay, we put a meter on.

2958. Then you use your meters principally for suburban gardens and for factories? Well, practically all for that; nothing else.

2959. And do you find you reap a material profit from introducing the meters? Well, we do not reap so much profit from the actual revenue received, but we prevent waste; that is the great point.

2960. But as an actual source of profit, you make a profit in addition to the value of the meters as a prevention of waste, I suppose? Yes; a small profit. We charge five per cent. annually on the cost of the meters, too, you know.

2961. Now, of course, we know that in some parts pipes will have a shorter life than in others; but what is a fair life for water-pipes? Iron pipes, do you mean?

2962. Yes; cast-iron? I have made inquiries, and I find there have been no cast-iron pipes renewed here simply for old age.

2963. How long have these pipes been down? Forty years, some of them. But, over at Inveresk, there is apparently some acid in the mud the swamp is composed of, which is very deleterious to the wrought-iron pipes used there, and we have had instances of the pipes being eaten completely through in five years. But, as to the cast-iron pipes, I cannot find any cases of decay.

2964. Have you found that the pipe has been able to carry the volume of water it would carry in its original bore? No; probably not. The cleaning, of course, goes on continuously. We take the pipes in two or three streets every year, and they are cleaned. We clean the pipes either by passing a cleaner through it, or, if it gets very foul, by passing through the chain and scraper.

2965. Have you any means of ascertaining what loss is caused through leakages from defective pipes? We have no means.

2966. What is the average number of leakages reported per day during the year? Well, we really have none to speak of in the mains themselves. Such as there are, occur mostly in our 15-inch main for the supply of the town. In each case these pipes were supplied without any grooves in the faucets of the pipes, and, occasionally, the lead gets forced out. In the summer-time, when

such leaks mostly occur, we get, perhaps, one a month. We have two 15-inch mains supplying the town. In one of these we get no leakages at all; but in the other, owing to a mistaken idea of economy at the time the pipes were got, they would not go to the expense of getting the proper grooves, and, consequently, the lead gets forced out.

2967. Have you any means of approximately estimating what the consumption of water per head is in this City and its suburbs? Well, it is only an approximate estimate which I went into with the Superintendent of Waterworks during last summer. From the fact that the 15-inch mains were carrying all that they could, we estimated that the whole consumption was nearly 200 gallons per head per day.

2968. *By the Chairman.*—That is including the constant daily and nightly flushing of these gutters that you told us of just now? Oh, yes, that is including everything. The consumption here is tremendous.

2969. *By Mr. Guesdon.*—On what population basis did you make that reckoning? A population of 18,000.

2970. That, then, is a total consumption of three and a half million gallons a day? No, I must have made a mistake. It is two million gallons a day: that is the amount of consumption I was thinking about, not two hundred gallons per head. We estimated a consumption of two million gallons a day by 18,000 people.

2971. Then that is over a hundred gallons a day per head? Yes, about 115 gallons a day per head. It is a tremendous consumption.

2972. Could you tell us, approximately, what portion of that total you would consider is consumed by the flushing of the gutters—a half, or a quarter, or a third, or what? Oh, nothing like that. Of course, it includes the water used for the watering of the streets in summer.

2973. What amount would be used for Corporation purposes—a third, or a fourth, or a fifth, or what? Well, the portion used for flushing the gutters would be very small.

2974. And watering the streets—would your part be ten per cent.? Well, not more than a tenth altogether.

2975. That would leave it about a hundred gallons per head per day for domestic use? That is what we reckon it at.

2976. *By the Chairman.*—That includes water supplied to shipping, and so on? Yes; that includes everything.

2977. *By Mr. Guesdon.*—Do you use much water in the Corporation baths? The baths hold about 75,000 gallons, and in the summer-time they are refilled every other day. Of course, in addition to that, there is also the water used in the Turkish baths.

2978. And would that ten per cent. you spoke of also cover your Bath service? Yes; it would, easily.

2979. What is your revenue from water, approximately—do you know? I think the Treasurer can give you that better than I can. I cannot tell you.

2980. Do you know what your water rate is? I do not even know that. The Treasurer will give you that.

2981. Now, in dealing with places of public amusement—does that come under your Department at all, Mr. David? In what way do you mean—as an officer of the Board of Health, or in regard to water supply?

2982. I mean as far as the construction of such buildings is concerned. In the first place, I suppose you are consulted under the Building Act prior to the licensing of any new places? Yes; and, if it was a public building, under the Board of Health Act, also.

2983. Then as to buildings already constructed—do you report on them before the licence is granted? Yes.

2984. What is the practice with your Corporation with any place that is used for purposes of public amusement? If it is in use, periodically, every year, they issue a fresh licence for it.

2985. But are you never instructed to inspect such buildings? Yes, occasionally. I have a report under way now on our public buildings. I re-measure them as to their accommodation space; see if any alterations have been made, or anything of that sort—theatres, churches, schools, all of them.

2986. What do you report? I examine the buildings, measuring them on the floor area, and so forth. I see how many people, according to the Central Board of Health's Regulations, the place is supposed to hold. I examine them with regard to width of door exits, means of escape, staircases, ventilation, means of lighting; and I report to the Local Board of Health.

2987. And if your report were unfavourable, the licence would not be issued? The licence, as you say, would not be issued. I may say that I never had a case of that sort. In one or two instances where I have had to find fault, the people concerned have made the necessary alterations without any trouble.

2988. *By Mr. Propsting.*—What is the cost of connecting households with the sewers for the purposes of drainage? The average cost of connection, including all plumbing work, for a water-closet here is from £7 to £8. Of course, it varies very greatly in different instances.

2989. Is that a payment that has to be made directly a house is constructed, or is it a charge spread over any time? Well, if the Council performs the work, of course the money is due on the 1st of the following month; our accounts are sent in monthly for work of that kind. But if there is any difficulty about payment, we arrange very often, and in a great many instances allow payment by instalments.

2990. And everybody is obliged to connect, I presume? Every property where the house is within a hundred feet from a sewer can be compelled to connect.

2991. And you have nothing but storm-waters running down your surface gutters? Nothing but storm-waters—no; we do not allow any yard-water, or washing water, or anything of that sort to be put into the gutters. I believe that in one or two isolated instances, where there is no sewer handy, and where there is a good surface gutter, people are allowed to run washing water and so on into the gutters; but we do not allow it as a practice.

2992. Do you charge a separate rate for every tap in a garden, and for all animals that are kept on premises? No, not for every tap: we charge according to the size of the garden. If persons have large gardens, they pay more than those who have small ones, and can have two or three taps if they like. Of course, the drain-pipes are the property of the owners.

2993. Well, now, is it your duty as an officer of the Local Board of Health to exercise any supervision over dairies, or persons who keep cattle, and so on? No, it is not mine. That is the duty of the Officer of Health. I am an officer of the Local Board of Health; but I am not the Officer of Health. I work with the Officer of Health with regard to dilapidated or insanitary buildings, you know. If his Inspector, in his rounds, finds a building, or a stable, or anything of the kind which he considers insanitary, he reports it to me, and I go and examine the place.

2994. What becomes of your sewage that is carried away by the main sewers? It is pitched into the river sir; that is the only bad point about it.

2995. Where is the outlet? There are three main outlets, and other minor ones. The main outlets are those at Margaret-street, George-street, and Tamar-street.

2996. *By the Chairman.*—Right among the shipping I suppose? One of them is. That, as I said just now, is a bad point of our system.

2997. *By Mr. Propsting.*—Do you recommend that method of disposing of your sewage? Very decidedly not.

2998. What do you recommend? Well, some system of dealing with the sewage is what is required. If one has a good tidal river where the sewage can be deposited away from all dwellings it may be put into the river: it is the cheapest way to get rid of it, though not the best.

2999. Have you ever visited any sewage farms? No, I have not.

3000. Would you recommend that method of dealing with sewage? Well, from what I have said—and the whole subject is a thing I have studied a lot, although I have not had an opportunity of seeing sewage farms at work—I think it would be a matter for very grave consideration, because it is very important to get a place with suitable soil for your farm. A heavy clay is not suitable for that class of work. With reference to the disposal of sewage, I am most favourably impressed with the septic tank principle, which seems to follow natural laws.

3001. Do you know anything of the Liernur system of sewerage? I have heard of it.

3002. A pneumatic system, I think? Yes, pneumatic suction. I am not very favourably impressed with it.

3003. Do you know that the Corporation of Perth, Western Australia, has recently had a report made to it upon that system, and agreed to go into the initial expense of getting levels, and so on? I was not aware of that; but I would not be at all surprised at anything the Perth Corporation did, from what I have heard of the way they have been spending money there. But I know also that the Perth people have also gone in for an expensive system of sewerage there. I have seen illustrations of main sewers and other sewers in Perth, not on the Liernur principle.

3004. Do you know anything regarding the cost of installing that system? Oh, it's a thing that one could not give an opinion about off-hand. The instances that I saw, or heard of, rather, seemed to me to be pretty costly as compared with the gravitation system. The only point that impressed me about that system was its adaptability to a place where the sewage was semi-sludge, with very little water indeed. Then this system seemed to be a valuable idea, but the pipes must always be filthy foul. You see, in order for a Liernur system to be a success, the sewage must be very concentrated. If you have to pump or draw through the pipes sewage diluted with very many times its volume of water you get so much stuff to handle.

3005. Well, we'll leave that. Where does the City of Launceston get its water from? From the St. Patrick's River. It is a branch of the North Esk.

3006. Is that an inexhaustible supply? Practically, as far as we have been able to ascertain. Anyhow, we have always had an ample supply in the driest times.

3007. What distance do you bring your water? About fourteen miles. It is brought through from the St. Patrick's River by a tunnel underneath the divide into another watershed on this side, and then through a natural water-channel, cleaned out, and made until it is discharged into a small dam we call Distillery Creek Dam. That is four miles out of town, 420 feet above sea-level. From there it is brought in by pipes.

3008. *By the Vice-Chairman.*—When you inspected Mount Wellington, Mr. David, did you go over the whole of the catchment area? Oh, no.

3009. You might tell us just what you did inspect, will you? I was taken to the Springs and St. Crispin's Well, past one or two other small springs which they take in on the way up, and the position of a spring further on on the mountain beyond St. Crispin's Well was pointed out to me—a place, I think, on a creek that runs down to the river.

3010. The North-West Bay River, that would be? Yes, that is the name of it. I was simply asked my opinion as to the advisability of continuing to take the water supply from the mountain, when it was used so largely for picnicking parties, and so forth.

3011. And the opinion you formed was adverse to continuing to supply Hobart from the mountain? Yes.

3012. Do you mind giving us your reasons for coming to that decision? For the reason, primarily, that the supply seemed to be so uncertain. At the time I was down there the supply was very low. The reservoirs were very low, and the supply coming in from the mountain was not equal to the daily wants of the town, but had to be supplemented by draughts on the reservoir.

3013. Was that the main reason that actuated you? Yes, that was the principal reason.

3014. And how far did the danger of pollution from picnickers and so on influence you? Well, I cannot say exactly how far; but I did not consider that it was a very nice or advisable thing for the town to be drawing its water supply from the slopes of that mountain, which were in constant danger of contamination, while in the future such danger would probably be very much greater than at present.

3015. I think the Springs road had been made when you went up there? It had just been formed.

3016. You know, I suppose, that since that road was opened the number of people going as far as the Springs has been increased? Naturally.

3017. Were those your only objections? Well, you see, the water from that mountain really does not travel far enough before you take it into the pipes; it does not travel far enough to purify itself. Dr. Rideau, I think it was, an English authority, gave as his opinion that water, even if polluted with 10 per cent. of its volume of sewage, was purified if it could travel down a stony river-bed a distance of twelve miles, so far as to be fit for use for human consumption. With regard to Mount Wellington, my idea was that it had no distance to travel. Once in the pipes, of course, you get no purification.

3018. Does that apply also to water travelling in a stone flume? It would apply, to a certain extent, to both. It is the sunlight and air that it wants.

3019. What is your opinion, then, as to the result of establishing an hotel or dwelling houses on the mountain, at the Springs, or some other part of the watershed? Oh, well, my opinion would be decidedly adverse to that, if you are going to continue your use of the mountain as a catchment area for your water supply.

3020. Assuming, then, that there will be an increase in the number of people who visit the mountain for picnicking purposes from year to year, you think that the water should no longer be drawn from there? I think it would be decidedly inadvisable.

3021. Dangerous to health? Undoubtedly it would, particularly if there were an hotel up there. You get a case or two of typhoid in the hotel, and you will soon know what it is in town.

3022. Have you seen Mr. Rahbek's report on the Mountain? No, I have not seen that.

3023. Have you read Dr. Sprott's report? I have seen it, some time ago; but I did not read it.

3024. Well, it has been said that if the mountain is to be continued as a source of water supply, it will be necessary to put a wire fence round the whole of the catchment area, and so keep people off it altogether. What do you say as to that? That, I think, is going rather far; but I certainly think that, if your supply is to come from the mountain indefinitely, you should take some means of keeping people off the mountain to a considerable extent,—by a wire fence, if you like. Of course, the difficulty is to draw the line. You see, we have farms on our catchment areas here, but we bring the water down in a very rapid water-course, with a fall of about 700 feet in eleven miles, and this water gets such a thorough aerating and oxygenising coming down that it is wonderfully pure. I have had it analysed several times, and I cannot find anything at all in it. But it would be a very different thing if the farms were close to the pipe-inlets.

3025. Do you know anything as to the provisions in Launceston for inspecting suburban dairies that sell their milk in the City? No, I do not. The medical Officer of Health will know about that.

3026. Have you any suburbs here situated at a greater elevation than the City? Throwing their drainage into the City, you mean?

3027. Yes? Well, to some extent, yes; on the Wellington Road.

3028. What is the name of the suburb? Well, it is commonly known as the Sandhills.

3029. It is not within the City government? No, it is without the City.

3030. Is that the only one? That is the only one that I know of.

3031. Do you have any trouble with the sewerage of that suburb? One moment—let me correct myself. We get a certain amount of drainage from Invermay also, on the north side of the river. At Inveresk we get an amount of inconvenience from the surface-water; but they have no system of sewerage there, so that we could scarcely call it sewerage.

3032. Would it be better if the whole of the suburbs were under the same control as the City for purposes of sanitation? Undoubtedly; I have advocated that here.

3033. Can you say whether it would be better in any other way also? I scarcely catch the drift of that question.

3034. I mean, can you speak as to any other point besides sanitation as to which it would be well to bring City and suburbs under a common control? Oh, yes. Taking an instance already referred to, that part of the Sandhills: it would be much better in the matter of administration. It is topographically and geographically a part of the town; but, being under separate government, of course we have no control.

3035. Have you ever any dealings with these suburbs with regard to public works? No.

3036. You might tell me in what way would it be better in regard to drainage were all these suburbs and the City under one government? Well, up on the Sandhills they have no system of drainage at present. Thus, on one side of the street that marks the boundary we have a system of



drainage. The houses on our side of the road are drained; and those on the other side of the road, outside the City, are undrained.

3037. What becomes of their drainage, then? They have earth-closets.

3038. And the other drainage? They throw it into their yards or on their gardens.

3039. It does not flow into your sewers? In some cases it does. I was thinking of two or three houses in which the surface water and washing water get into our surface gutter in the street, and gravitate to our sewer. Of course we have to take that.

3040. I suppose the City of Launceston supplies these suburbs with water? Yes.

3041. Do you charge them the same rate, as rule, within the City? A slightly higher rate.

3042. *By the Chairman.*—In answer to Mr. Nicholls just now, you said that you thought that prohibiting the tourists going up to Mount Wellington on the catchment area would be going a little bit too far? Yes.

3043. And if I tell you that we have it in evidence that during one season three thousand people have been counted passing one spot on the catchment area, and that it is quite conceivable that out of that number there may have been one or two cases of people in the early stages of typhoid, whose excrement might be carried into the water, don't you think it might be advisable to fence the mountain off, particularly as the number of visitors are likely to increase greatly under the Commonwealth? I certainly think it would be advisable. My only idea was whether it would not be taking too harsh a view of things, shutting all your tourists away from the pleasure-ground there.

3044. Oh, yes, that's all right; but, of course, that is regarding the thing from another point of view altogether? From the hygienic point of view, I should think it would be best to shut it off.

3045. Are you aware that on the Watts River Watershed, the main source of supply of Melbourne and its suburbs, every farm-house has been razed to the ground and burnt, and that no occupation whatever is allowed on the watershed? I have heard so.

3046. Well, as against the closing of Mount Wellington, we have it stated in evidence that we can go up to the Styx River, the head waters of the Derwent, where, over 700 feet above the sea-level, we have a watershed entirely unoccupied—all Crown land. In your opinion, would it not be advisable, seeing that we hope to have a scheme of underground drainage—would it not be better, I mean—to open the mountain altogether, and go further afield for a practically unlimited supply of uncontaminated water, if it could be done for £200,000? That has been my opinion for some years, that the sooner the people of Hobart tackle the question of a better supply of water, the better. You will get an undoubtedly purer supply up there; you will be able to supply the higher parts of the town without trouble; and you will be able to get some power out of it. And you will be able to throw the mountain open without any restriction. I think that would be the better way of getting your supply, and if it could be done for £200,000 it would be money well laid out.

3047. *By Mr. Guesdon.*—How do you deal with your house refuse here? We burn what we can, and bury the rest.

3048. And does the Corporation undertake the clearance of all the back-yards—not merely the taking away of the rubbish, but the actual collection of it? That is all included in the sanitary rate.

3049. How long has that been in existence here? Well, it was before I came here.

3050. Then you really have no rubbish tips? We bury it or burn it. We use the Invermay Park for the disposal of rubbish of that kind. The place is being gradually raised.

3051. How do you burn it—with destructors? Oh, no—out in the open. We have had the question of procuring destructors before us; but the cartage is so short out to this place that it is not worth while.

3052. *By the Chairman.*—In fact, you are raising the level of a swamp by this means? Yes.

3053. *By Mr. Guesdon.*—Have you ever considered the question of underground drainage with regard to the River Derwent—I suppose you have had experience of underground drainage in other parts of the world? Yes.

3054. Do you think underground drainage would pollute the Derwent? That is a thing I could not give an opinion on without examining it a lot.

3055. What is the general experience with regard to drainage falling into a river such as the Derwent? Well, it is not advisable. In the olden days, of course, the first idea of the man who laid out a scheme was, to get rid of the stuff as quickly as possible, and he did that generally by pitching it into the nearest water-course. But, as places grow, the fouling of the banks is bound to occur sooner or later. We are fortunately situated here because of the volume of water we have got down the two Esks: but even with that volume of water we have unpleasantness here in the summer time.

3056. Well, from your knowledge of the effect of underground drainage in other parts of the world, would you consider it would be advisable to take the drainage of Hobart, without any precautions, at all—taking faecal matter with ordinary drainage—into a river which is practically tideless, like the Derwent? [No reply.]

3057. You have had experience in other parts of the world? Yes; but yours is a difficult question to answer, all the same; because, even though a river may have very small range of tide, if you have a suitable outlet, and a suitable discharging point, it may happen that you will get no nuisance from it. On the other hand, it may happen that you will get a large nuisance from it. It is a difficult question to answer without knowing the river.



3058. And do you think, in order to be on the safe side——? To be on the safe side, with a beautiful clear river like that, I should certainly treat the sewage before putting it into the river—treat it either by septic tank, or by filtration of some kind.

3059. When you were down South, did you inspect the Styx at all? No; it was mentioned to me, but I did not inspect it.

3060. Was the question of constructing impounding reservoirs on the top of Mount Wellington mentioned? Yes; that was mentioned to me, but I did not go up there.

3061. What do you do with your abattoir refuse here? The blood is washed into the sewers. There is an abundance of water there, and no harm can result. But the other stuff—the offal—is carted away out into the country by farmers. The blood runs straight to the floor of the abattoirs, and so to the sewers, and is washed away. The offal is carted away—every bit of it.

3062. With offal you include the congested blood? No; just the natural intestines, or such intestines as they do not make use of—the contents of the stomach, and so forth.

3063. Have you had any experience of destructors? No; no personal experience of them. You see, my only municipal experience has been here. I was in private practice before. Of course, I have been studying the subject, and keep on reading it up; but not having any need for destructors here, I, perhaps, have not read that part of the subject up so closely as I might.

3064. Do you approve of them as a means of dessicating rubbish? It is just a matter of pounds, shillings, and pence, I think. Where the cost of getting rid of the stuff by cartage is so great that it is cheaper to get destructors and burn it near at hand, destructors are good.

3065. Have you ever had experience of destructors where burning garbage is used for generating power? No, I have not seen any of that.

#### W. CORIN, called and examined.

Mr. Corin was sworn.

3066. *By the Chairman.*—Your full name, Mr. Corin? William Corin.

3067. Will you state to the Committee the offices you hold under the Launceston Corporation? I am City Electrical Engineer.

3068. Can you give the Committee any information with regard to the comparative cost of generating power by means of the water system at present adopted here and the system of using coal and generating electricity by steam-engines—that is, I mean with regard to the present requirements of the City of Launceston? As an abstract question, it depends entirely upon the local conditions: the supply of water-power available.

3069. I am not talking of the abstract question; I am talking, now, about the concrete conditions of the City of Launceston? As regards the requirements, up to the present, of the City of Launceston, I think that the use of coal would have been slightly cheaper than the use of hydraulic power. But on the main question, in the abstract, it depends, as I say, on the local conditions. If you have a supply of coal close to the point where you want to provide power, it is just as valuable to you as a supply of water-power would be—an equally valuable asset, I mean. But on the other hand, water-power is frequently available in large quantities, and when it can be taken advantage of in large quantities, the result is that the power can be brought down to a point in price much below what power generated by steam would cost. In Launceston, now, we have just about reached the point where the thing balances. If the plant up to the present had been worked entirely by coal and steam power the Corporation would have been in pocket (*vide* Appendix F, note I.); but if the Corporation now decides to develop the whole of its resources, it will be able to supply power at a rate which will be below anything at which it could supply power generated by steam, and the electrical works, as a whole, will be a very fine asset to the City.

3070. What percentage cheaper would coal be in existing circumstances? Well, assuming for the moment that coal is not cheaper, but is equal to water-power with our present output, we have these conditions:—roughly speaking £100,000 has been expended, and we could, for an expenditure of 25 per cent. of our present expenditure, treble the present output of electric power. That is to say, that for five-fourths of our present expenditure we could get three times as much power as we are now generating (*vide* Appendix F, note II.). On the other hand, with coal, for our present output we should have practically the same cost (*vide* Appendix F, note III.).

3071. And what would it cost you to treble your present output if you used coal—what further expenditure would you have to make to get the same result of increase if you were using coal instead of water—in the first place, what would be your expenditure up to the present point if you used coal? We want first to consider what our present plant would have cost if it had been a steam plant instead of an hydraulic plant; roughly speaking, it would have cost from £50,000 to £70,000—probably £60,000.

3072. Well, as I understand, if you add 25 per cent. to the cost of your hydraulic plant you increase the result by three. What extra expenditure would you have to undertake if you were using a steam plant? You would have\* to treble the initial cost, bringing it to £180,000.

3073. Well, now, what about the cost of maintenance of the one system as against the cost of maintenance of the other? Well, in considering the cost of maintenance, of course you are imme-

\* Approximately.

diately confronted with one thing—you have to find the coal. For every unit of power you supply, you have to supply a certain amount of coal. The amount of coal is a function of the number of units used.

3074. Mr. Corin, the point I want to get at is this—after you have done with the matter of capital expenditure, your water costs you nothing? Our water costs nothing, as you say.

3075. But coal, as a factor for the generation under the other system costs you so much. Now, if you generate your electricity by steam, does it cost more for labour and for wear and tear to generate electricity by steam than it does by water—for instance, I noticed you had one man there superintending the whole of the works to-day? Yes. The labour, of course, in connection with a steam plant is greater; you have to provide firemen and drivers. One driver with a steam plant will not look after so large a plant as one driver of a water plant will do. Now, as regards the cost of these systems (*vide* Appendix F, note IV.). You may separate them out fairly well. First of all, you must provide coal; secondly, there is the matter of oil, waste, and stores; thirdly, wages of workmen; and fourthly, repair of building, plant, machinery, tools, &c. These are items that have been published in my annual report for last year. At the bottom of the second page you will find analysis of costs. The oil, wages, and repairs are mentioned separately. As far as a steam plant is concerned, the item “Oil” would be slightly in excess of what it is with our plant, perhaps double. The wages, also, would be slightly in excess, perhaps 25 per cent. in excess. The repairs and maintenance would also be slightly in excess, perhaps one-fifth or 20 per cent. in excess. The works’ costs are here shown as .773, and total costs 1.150 of a penny per unit. If you look in line 16 above, you will find the number of eight candle-power lamps, arc lamps, and motors connected to 31st December, 1900. The equivalent of all is given in eight candle-power lamps. That is to say, whatever current a motor takes we estimate at so many lamps of eight candle-power. Thus, a motor taking 40-times the current of one eight-candle-power lamp is reckoned as 40. I run the figures out in this way in order that they may be compared with English stations, where the statistics are published in this form. By that means one can compare them fairly well with a steam plant, because the English results are published from year to year, and analysed in this way. Now, taking the total cost, 1.150*d.* as the total cost per unit, to get at the price to us, that has to be increased by a cost per unit of interest.

3076. Does this include the cost of installation? (*Vide* Appendix F, note V.) That is on an entirely separate basis. We are simply acting as a trading concern to supply the public with what they require; the cost of installation has nothing whatever to do with it. Taking the average of a number of English places, the extra interest that we have to pay over what we would pay for the same plant worked by steam is £2000. That is roughly the figure I get from comparison with English places. The English people, instead of having to pay that extra interest, have to buy coal. Well, that, reckoned out per unit, is, roughly, something like .7*d.* Now, the cost per unit for coal at a number of English places varies—.25, .55, .88, 1.5, .71, .55; all installations between 500 and 600 kilowatt, the same as ours. That is the way we usually look at things—at the cost per unit. A customer uses a certain amount of power for his lamps or motor, and if you are using coal, you must burn it to supply that power.

3077. What amount of motive power do you supply? On the 31st of December last we were supplying—as you will see on Table 4, at the right hand of the top page—95½-horse-power. We have increased that now to 130.

3078. Well, what do you charge per horse-power, roughly? Well, we charge by unit. It amounted to £5 10*s.* 7*d.* per horse-power for last year.

3079. Can you make a profit on that? Yes, that pays us, decidedly. (*Vide* Appendix F, note VI.)

3080. Well now, have you had much experience of generating electric horse-power by steam? Yes.

3081. Have you ever had an experience where, under the most favourable conditions, you could generate horse-power at £5 10*s.* by steam? No.

3082. What would you consider a fair price per horse-power generated by steam? It depends upon your coal.

3083. Well, taking it in the City of Launceston—What does coal cost here—£1 5*s.* a ton? Yes; but the native coal is considerably less.

3084. But that does not give you the same results? No.

3085. Well, take Newcastle coal—What would you consider a reasonable price to generate horse-power by steam at? On a large scale, you mean?

3086. Yes; only approximately? I think you are going rather on what we sell it for rather than what it costs to generate it. What is the actual horse-power delivered by the motor amounts to something like only 65 per cent. of the power actually supplied to that motor from the station.

3087. What do you charge the consumer per horse-power? £5 10*s.* 7*d.*; that is to say, the charge amounts to that, or did average that throughout the whole of last year.

3088. *By Mr. Propsting*—Would that horse-power be as valuable to the consumer as horse-power supplied by steam, as that is currently understood? Yes, as currently understood; but I must define what I mean by “currently understood.” If I speak of horse-power by steam, I speak now of brake horse-power delivered from the shaft.

3089. *By Mr. Guesdon*.—Then if you deliver a man a horse-power he only get two thirds of it? If we deliver a man a horse-power, we deliver it. But there is a loss at the station. There is a loss of 6 or 7 per cent. on the lines. Then there is a loss on the transformers of, roughly speaking, 5 per cent. for the small transformers in question. Then there is a loss of 25 per cent.

on the motor; so that for every one hundred we have at the station only sixty-five goes to the consumer.

3090. Then, the consumer only gets two-thirds? Oh, no; of course we bear all the loss. We give him what is delivered by the motor at the pulley.

3091. Then you give him the full horse-power? Yes.

3092. And you give him that full horse-power, although it costs you 135 to give him 100 effective? Yes.

3093. Then you generate and sell 135 for £5 10s., 100 representing one horse-power; is that not so? Yes.

3094. You lose 25 per cent. on the motor and 10 per cent. in the transformers and transmission? Yes, to put it roughly—that £5 10s. 7d. is for the 100 supplied to the consumer, and 135 is what we supply in order to give the 100.

3095. What would it cost him to produce that one horse-power by steam? Well, what it would cost him with a small engine is a very different thing to what it would cost, say, in large works. With a 10 horse-power engine it would probably cost about £15 per horse-power. It depends upon the engine.

3096. *By Mr. Propsting.*—What we want to get at, in other words, is this: would it be cheaper for the consumer to get this power from you, generated by electricity or to generate it himself by steam? It would be very much cheaper to get it from us. For any motor up to 30 horse-power, we knock steam out altogether; and we shall be able to supply power very much cheaper still if we go in for a larger plant. Steam cannot compete with it now in the region up to 30 horse-power. At 50 horse-power, perhaps, it comes about level. As you are aware, the larger the engine, within certain limits, the more economically can the plant be worked.

3097. *By Mr. Guesdon.*—Then you think £15 per horse-power would be an average thing for a small engine? Probably if you could get reliable information from some of the manufacturers here you would find it £20, or perhaps £25.

3098. Well, now we will come to the capital cost. If a man is going to start a factory with a 50 horse-power engine, I suppose the capital cost of introducing the system of working it by electricity would be considerably less than if he had to put in an engine and boilers, and generate his power by steam? Very much less.

3099. And the plant would occupy very much less space? Much less.

3100. And there would be very much less danger through fire? Oh yes; in fact, the difference in insurance is a very large item that tells in favour of electric power. A man here in town told me that he had to pay 50s. per £100 for having a steam-engine on the premises, as against 10s. if he had a motor.

3101. Supposing we had sufficient water-power to generate 1000 effective horse-power for distribution off a turbine shaft—what do you consider would be a reasonable amount to lose by a transmission of twenty miles? That depends entirely upon the cost of copper or aluminium. They are selling aluminium for that purpose now in America at a price less than the price of copper. The relative cost of whatever conductor you use, and the cost of the interest on the plant, are things to be considered. You really want to go into the figures of any definite scheme, and determine what is the best course to adopt in regard to that particular scheme.

3102. I do not want to deal with the question of interest at all. I am only dealing with the loss of effective power? Supposing you transmit at very high tension, you need not use a very expensive wire for transmission. In this case the weight of the wire would not be so much a matter of importance, but you would want a better insulation all through the line; and that means more expense in insulators. So that the cost of the line would be increased on that account.

3103. Well, take it as an average thing. If you have got 1000 horse-power for your turbines, what would you consider you render an effective power at a distance of twenty miles? Well, if we put it this way:—allowing for ten per cent. line loss and other losses, 1000 horse-power on the turbine shaft would give you about 750 available electric horse-power at end of the line. But it might be found that the cost of the line for a 10 per cent. loss would be too high. You might have to calculate it out at 20 per cent. loss; and you might find it could be done at 5 per cent. It depends upon the relative conditions.

3104. Well, say we get 700 as effective. We could reasonably get that? Yes.

3105. What do you consider would be the capital cost of the plant necessary to provide that 1000 horse-power? It depends on the place, and the works necessary to deal with the water. Again, it is quite a matter of local conditions.

3106. Say that the conditions are favourable, and you have a fall of 500 feet—I am talking of the electrical works pure and simple—dealing with nothing else at all—what do you think? Well, without getting into very definite figures, for a plant inclusive of everything—and of course I could not give you the price of a 20-mile line—I should say it would cost about — but I had better give it you in writing.

3107. Will you give us, then, the cost of the generating station, and, if you can, the cost of the line for transmission to the point at which you would begin to distribute it? Yes, I will give you that.

3108. *By the Chairman.*—I suppose you have not had any great demand for power from factories in Launceston, have you—the different ironworks and so on? Well, not from the ironworks; but a number of small places, especially cabinet-makers and boot factories, and people using wood-working machines, are using it.

3109. That is five or six or eight horse-power? Yes, up to 18.

3110. And the large factories here with large steam plants have not approached you at all? No, they have their steam hammers in most cases, and they must have steam for them. And they have their boilers going, and are pretty well wedded to steam.

3111. But do you not think that if they could save £5 or £6 per horse-power per year they would come to you? I think they will eventually; I have told them so. But we have been working at a disadvantage, owing to the fact that we have not the system that is best adapted to motive power.

3112. Of course you know that we have before us a project to bring water, with a fall of 700 feet, from the River Styx, and if we could harness-up to this project a scheme for utilising generating machinery, it would help us materially. You have told us, practically, that where such machinery is largely used electricity completely outstrips the competition of steam-power? Yes.

3113. If you had 700 feet fall here instead of what you have, 150 feet, you could supply this power at a still less cost? Oh, yes, doubtless. I may say that a very important point is this: that the Postal Department is going over to the Federal Government, and there is not a great deal of water-power in the other States. But Tasmania is particularly favoured in that respect, and it is quite possible that they may make regulations which will apply to other States pretty well, but which would restrict the development of electric work in Tasmania. For instance, if the use of bare wires for high voltage is prohibited in Tasmania it will hinder the development of Tasmania's natural water resources in one important way. In Switzerland, in Germany, and in America, the use of bare wires is general. One of the first high-voltage transmissions—working at 15,000 volts—I had the opportunity of inspecting at Zurich some years ago, where 300 horse-power was carried fifteen\* kilometres. That was one of the first erected using so high a pressure, and that was all bare wire. And then I have also been able to see the Niagara installation, where they are running thirty or forty miles to Buffalo, (see note VII.), and it is all bare wires overhead. In these cases they find no difficulty or danger. Of course, the whole thing is under proper restriction and supervision; but there is no reason at all why bare wires should not be used. I say this, because in each of the Acts passed here it has been specified that the Postmaster-General has power to insist on the regulations of the London Board of Trade. If the same class of insulation were insisted on here as there, we should merely get a perfectly illusory safety, because no workman can handle a covered wire carrying a high voltage any more than he can handle a bare one; he has no business to go near the wires at all. It simply means the stringing-up of miles of costly indiarubber that would be better used elsewhere. The covering does not prevent leakage; the glass or porcelain insulator is the thing that prevents leakage. That is a point I feel strongly on, because I think it must hinder the development of Tasmania if the Federal postal authorities insist on such a regulation. I think it is altogether out of their domain.

3114. Assuming we could carry out this water-supply from Hobart, what power could we get from an elevation of 500 feet? Well, ten million gallons, at 500 feet elevation, will give 750 horse-power at the turbine-shaft. It will give, approximately, about 1000 horse-power maximum, theoretical.

3115. Then the generators of electric power would not be a very important factor in this scheme of ours? Not if that is the total amount of power you can get from it. (See note VIII., appendix.)

3116. What would you get, on the average, for 750 horse-power? Well, £5 10s. 7d. was our average last year, and I think we shall improve it this year. But anyone would be glad to pay £10 per horse-power.

3117. The power available under our scheme would light a large city, of course? Oh, yes, it would be all right for lighting.

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WEDNESDAY, JUNE 19, 1901.

J. T. WILSON, *called and examined.*

Dr. Wilson was sworn.

3118. *By the Chairman.*—What is your full name? John Thomas Wilson.

3119. And what are your duties as an official of the Corporation of Launceston? I am a medical practitioner in Launceston, and I am Officer of Health here.

3120. I will ask you, Dr. Wilson, whether, in your opinion—but, by the way, do you know Hobart at all? Well, I am afraid I don't know very much about it.

3121. At any rate, we have in Hobart a water supply, which is derived from the slopes of Mount Wellington—an area visited by something like three thousand people a year. In your opinion, is it a menace to the public health to allow people to picnic on the watershed? It all depends on the sanitary arrangements that may be provided.

3122. *By Mr. Guesdon.*—Well, there are no sanitary arrangements. What do you think? Then it certainly must be a menace to health.

3123. *By the Chairman.*—Then you will agree with Dr. Sprott, that it is necessary, if we are to continue to derive our supply from there, to close the mountain to tourists? Most decidedly; unless you could put up proper sanitary arrangements, and see to it that people are not distributing sewage all over the place. Of course, you know what a picnic is.

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\* I stated 15, or about 9 miles. This was a lapse of memory; it should have been 25 kilometres.

3124. Well, you see, the area is so large that it would be difficult and costly to put up and maintain sanitary appliances at every half-mile or so. At any rate, on the general question, you agree with our Health Officer? Oh, most decidedly.

3125. *By Mr. Guesdon.*—Professionally, now, supposing that you had a patient—a delicate patient—whom you found it necessary to order away for a change. If you understood the conditions that exist in Hobart—that is, that our watershed is also a popular tourist resort—would you take that into consideration, and say to your patient, “I think you had better not go there, because of possibilities of menace to health existing on the mountain”? Well, I do not know that I would really take that into consideration. I believe that Hobart is a healthy place.

3126. Yes, naturally, that is? Yes; of course there is no question about it that what you refer to is a menace to the public health.

3127. Do you consider that the question of dealing with the garbage and refuse from private houses is a matter that materially affects the public health? Oh, I think so. Yes, most decidedly.

3128. Do you regard it as a proper system that such garbage should be —? It should be burnt.

3129. Do you regard it as a proper system that such garbage should be carted away and discharged into ordinary rubbish tips, either within the City boundaries or on the immediate outskirts of the City? No, it should be destroyed.

3130. Don't you think that the obligation to deal with house refuse is one that should be imposed on any municipal body? Yes, most decidedly.

3131. Do you regard it as of so much importance to deal with the house refuse as with the faecal matter? Well, not quite of so much importance.

3132. But still, a matter of so much importance that it almost approaches that? Yes.

3133. How do you, as Health Officer here, discharge your professional functions as to any faulty drainage—do you wait until you are summoned, or do you consider it part of your duty to consider any clear case of the kind yourself? Oh, in all such cases we serve the people with a notice to put in proper drainage. We give them some days' notice, and then, if they don't put the thing right, we do it at their expense.

3134. And if, in the course of your professional round, you came across a case which you considered to constitute a menace to the public health, would you not report that to the authorities? I should regard it as my duty to serve a notice at once on the landlord of the property, and have it put right. We do things in a very summary way up here, I can assure you. If such a case is not put right in three days, the work is done by the Municipal Council, and charged to the landlord. We don't wait very long; we have not got time up here in Launceston, as a matter of fact.

3135. Do you, as Health Officer, inspect the sanitary arrangements of hotels, in regard to the issue of their licences? Yes, most decidedly.

3136. You satisfy yourself that the sanitary arrangements are sufficient, before you recommend that the licence be granted? Yes, and that there is sufficient ventilation and accommodation.

3137. Is it necessary, in the case of an licensee applying for an hotel, that he should have what is practically a clean certificate from the Board of Health before he makes his application? Yes. He must have, I think, sixteen rooms, with 16,000 cubic feet of space, before he gets the certificate.

3138. *By the Vice-Chairman.*—Those are the provisions of the Licensing Act? Yes.

3139. *By Mr. Guesdon.*—And you make the Act a live Act by insisting that a place shall go through a proper course of supervision before the licence is granted? Yes.

3140. And you satisfy yourself that the sanitary arrangements are adequate? Yes, and the ventilation and accommodation, and so forth.

3141. How do you do with places of public amusement? I have nothing to do with those. They are under the City Surveyor's Department.

3142. But still, I understand that matters connected with the sanitation of such places, and the means of escape in case of a panic through fire, and so on, are definitely provided for under your Board of Health Act? No, they are not. I have nothing to do with that. Of course I have to inspect the public schools.

3143. Well then, they are under your Board of Health Act? Yes. I know that the overcrowding of theatres and so forth is provided for under the Public Health Act; but with regard to the area of such places, and how many people are in, and so forth, I think the City Surveyor must be looked to.

3144. All the same, the provision is made in the Public Health Act? Excuse me: I do not think I understood your question properly. Do you mean that, supposing anybody wanted to register a building for purposes of public amusement, I should be asked whether it should be registered or not?

3145. Yes, whether you consider that the sanitary arrangements are sufficient, and the means of escape in case of a panic from fire, and so forth? No, certainly not; I do not think I have anything to do with that.

3146. *By Mr. Hamilton.*—These public buildings are licensed every year. Before being licensed, is it not a condition precedent that they should have a certificate such as Mr. Guesdon suggests? No. That is altogether a question for the City Surveyor. Of course, if the buildings are overcrowded, it is my place to attend to it.

3147. *By Mr. Guesdon.*—This is what your Public Health Act says, Dr. Wilson:—“Such public buildings may be inspected by any officer of the Central or Local Board of Health at any time during

the day or night when such building is open for public amusement or entertainment; and such Boards respectively may from time to time direct or order such means to be taken by the owner or occupier, or by the trustees of such public building, for the proper or better ventilation and draining thereof, and for the provision of proper privy and urinal accommodation therein, and for the safe and proper construction thereof, as to such Boards respectively seem fit; and may, if they so think necessary, from time to time direct or order other or better provision for ingress or egress to be made in any such public building; and may also from time to time direct or order the erection or provision therein of suitable appliances for the extinction of fire." What do you say to that? Well, I may point out that that does not apply to your first question. I think that you asked me whether I had power to supervise the building of any place of public amusement, or something of that sort, and see that proper provision for egress and ingress was given. Well, I have not.

3148. I was referring to places already constructed? Oh, that is a different thing. Of course, I have power in that case.

3149. And you satisfy yourself that these provisions have been complied with? Oh, of course we do that.

3150. I suppose you would regard it as an unwise thing on the part of any municipal body to license such a building until the body had satisfied itself, through its officers, that those provisions were properly carried out? Oh, most decidedly. We certainly would not grant a licence up here to anyone—whether for an hotel or for a theatre or other place of amusement—unless we were satisfied that there was proper accommodation, and so on.

3151. Supposing letters appeared in a paper describing a place as a death-trap in case of fire—would you at once go and investigate it? I would, most decidedly.

3152. And if you found the means of escape inadequate, you would make recommendations? I should have the place closed up.

3153. Would you regard that as a part of your duty as Health Officer? Most decidedly.

3154. How do you deal with your milk service in Launceston? Well, about once every three months we have specimens taken and sent down to the Government Analyst, Mr. Ward; and if we find his report unsatisfactory in regard to any specimen, we have the man concerned brought up at the Police Court and fined.

3155. Do you satisfy yourself that there is a proper inspection by the health officials in the localities from which your milk is brought? My Inspector inspects the premises of all the people who sell milk in Launceston, and about the City; and I have a couple of horses and a trap, and I drive about and inspect all the dairies outside of Launceston.

3156. Then you satisfy yourself that the sources from which Launceston draws its milk supply are pure? They are fairly satisfactory.

3157. As far as you can judge, the proper precautions are taken to prevent the infection of milk? Yes; of course, they are all registered, and we know who is selling milk, and who is not selling milk.

3158. Well, amongst your registered milk-vendors, do you satisfy yourself as to the cleanliness of the carts that are used for the distribution of milk? Yes.

3159. Would you regard it as a proper thing that a cart which is used for the distribution of milk should also contain in it vessels to receive house-garbage, in the shape of pig-wash, and decayed vegetable or fruit matter, so that such stuff could be taken back in the milk-carts after the milk was delivered? No; that would not suit me.

3160. Would you regard that practice as a distinct menace to the public health? Oh, most decidedly.

3161. Do you consider, as a health official, that it is part of the duty and proper responsibility of a corporation to construct public baths? Well, of course, as a health official, I should certainly think it would be; but it is just a question of finances.

3162. But it would be in the interest of the public health? Well, there is no doubt about it that public baths improve the health of the City. A good wash is a valuable thing sometimes.

3163. I suppose, now, that a Turkish bath is an institution that ought to be subjected to close inspection by health officials—a privately-owned Turkish baths—do you not think that the sanitary arrangements of such an institution, and the conditions under which the bathers bathe, should be a subject for inspection? Oh, yes.

3164. I suppose you admit that there is danger of infection in a Turkish bath? Well, of course, that is a bit too strong. There is danger in a great many things. I don't think I would go so far as to say that.

3165. Do you report annually-upon your abbatoirs? Oh, yes.

3166. And you satisfy yourself that the waste matter there is properly dealt with? Well, dealt with in just the same way as the sewage of Launceston is dealt with; that is to say, discharged into the river. Do you mean anything that is condemned?

3167. No. I suppose the blood all runs into the river? Yes.

3168. And the offal? Oh, that is taken away down to West Tamar now—down to Mr. Carmichael Lyne's place, and all buried there. I would like to show you the abbatoirs.

3169. Are there any cases of goitre in this City, to your knowledge? Well, as far as I know, medically, there are about three cases of ex-ophthalmic goitre, and one or two cases of ordinary goitre.

3170. *By the Vice-Chairman.*—I suppose there is some goitre everywhere? Yes.

3171. The reason we ask you that is this: we are considering the advisability of getting water for Hobart from the Styx River, and because there have been one or two cases of goitre in that district during a long period of years, it has been suggested that the goitre must be due to something in the character of the water. But we understand that there is some goitre everywhere. Is that so? Yes. Goitre is supposed to be, in some cases, due to snow water; in other cases, to water coming from limestone; and in other cases, to impure water. But you really cannot tell what it is due to.

The witness withdrew.

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C. W. ROCHER, *called and examined.*

Mr. Rocher was sworn.

3172. *By the Chairman.*—Your name? Charles William Rocher.

3173. You are the Town Clerk of the Corporation of Launceston? Yes.

3174. *By the Vice-Chairman.*—Well, I want to ask you, very shortly, just to give us the details of the organisation of your officers here. Of course, you have your Mayor and your aldermen? Yes, sir.

3175. Now, with regard to permanent officers? The permanent officers consist of the staff. The head officer is the Town Clerk.

3176. Is every other officer of the Corporation responsible to the Town Clerk? No; they are all responsible to the Mayor; but all communications to the Mayor must go through the Town Clerk: he is the medium of communication. If a man comes to the office on any business, he must approach the Mayor through the Town Clerk.

3177. *By Mr. Guesdon.*—Who is the administrator of the routine of the departments? Oh, that is the Town Clerk. He would not dream of taking responsibility for a professional man's work, or anything like that; but, with regard to all matters of administration, he is, as it were, the conduit pipe between the Mayor and the officers; and he is supposed to know everything that is going on, so that he can inform the Mayor when any matter arises, and the Mayor can consult his colleagues.

3178. Supposing it was necessary for the Mayor to give instructions to the accountant with reference to any accounts? Well, in that case the Mayor would verbally instruct or sign a memorandum and send it to the Town Clerk, and he would copy it in his book and send it on to the accountant—to the Treasurer, who is the Accountant.

3179. *By the Vice-Chairman.*—Now, will you tell me, please, what are the various departments under your organisation? The departments consist of the City Engineer's—which embraces the City Surveyor, the Surveyor under the Building Act, and the Surveyor under the Public Health Act. Then there is the Superintendent of Waterworks' department, the Superintendent of Public Reserves, the Officer of Health, which includes the Inspector of Stock, the City Treasurer, the Curator of the Museum, and the City Electrical Engineer.

3180. *By Mr. Guesdon.*—Is the Curator, then, a municipal officer here? Yes, he is head of a department. These are all the heads of the departments. Of course, there are sub-officers.

3181. I want you to tell me, now, what staff each of these heads of departments has under him? Well, we will take, now, for instance, the City Treasurer. He—

3182. You might take them in the order in which you gave them to me just now. Take the City Surveyor first, will you? Well, the City Surveyor would have several officers in his department. Of course, he is the Overseer of Roads, and he takes the management of the Baths; the Store-keeper is under him, and there are one or two clerks—a clerk in his own office and a clerk or assistant storekeeper. Then take the Superintendent of Waterworks. He has a Foreman of Waterworks under him. The Officer of Health has under him an Inspector under the Public Health Act. The Electrical Engineer has a Superintendent of Mains, and a Foreman Wirer; then, out at the stations, he has the Engineer-in-Charge and two assistant Engineers, and they have labourers under them again. The departments of the Town Clerk and the City Treasurer mix together to a certain extent. The City Treasurer has under him the Collector of Rates and three or four clerks; and the Town Clerk has, so to speak, a part-interest in these three or four clerks. They do work both for the Treasurer and the Town Clerk, especially the typewriter, who is about three days a week entirely taken up with typewriting. The Curator of the Museum has nobody under him at all. The Superintendent of Public Reserves has a senior workman under him, and is also in charge of the Albert Hall. Then there is the City Inspector, who is also the Inspector under the Public Health Act. He is under the Town Clerk, and his duties are not very onerous. Then there is an Assistant Inspector of Stock, who resides at and takes charge of the Abattoirs. Other employees are mechanics, skilled labourers, and labourers.

3183. And the whole of these officers, then, are responsible to the Mayor, and their responsibility, as you say, goes through the Town Clerk? Yes; but the Town Clerk has no practical power to go into another man's office or department and say, "I won't have this done."

3184. Nevertheless, he knows pretty well what is going on? Oh yes; and if he found out that things were done in a way he did not like, and could not get them remedied, he would speak to the Mayor about it.



3185. And you, as Town Clerk, have an absolute power of seeing everything that is done? Oh, yes; and of getting any information I require. If the heads of a department once get my signature to anything, they do not care a rap—they just do it. They would not take orders from other than the Mayor or Town Clerk. Supposing a committee meets to day: the members meet, and they may have occasion to go over to the other end of the City. They will come back and tell me all that has taken place, and then, at the next meeting, it will all be brought forward again, and I will send a memo. to the City Surveyor, conveying the proper instructions. Everything is done through the Town Clerk, and all instructions are signed by him.

3186. You call your Accountant here the City Treasurer? Yes, he is *Treasurer*.

3187. What power has he of controlling the administration of finance? [No reply.]

3188. What I want to get at is this: is he bound to make such entries as he is directed to make; or, if he thinks an entry is erroneous, has he power to suspend it? He would not make an entry or pay a sum of money away under any circumstances, unless he were sure it was correct to do so, no matter what his instructions were. To give you an illustration of that: a committee authorised the payment of an amount of money for a wreath on the occasion of the death of Mr. Alderman Barrett. The Auditor-General did not consider it was a legitimate thing to charge to the Corporation Accounts; but had the Treasurer considered it was not legitimate, he would not have signed the cheque, no matter what his instructions were.

3189. *By Mr. Guesdon.*—Not even if the Mayor ordered it? No. He would say, "I prefer it to be brought before the open Council."

3190. And in any case he could insist upon such protection as is provided in the document you have produced here? Oh, certainly, he would desire written instructions.

3191. You would not take the Mayor's word merely? Oh, certainly not. The Treasurer we have here is very particular.

3192. Before you go, Mr. Rocher, I would like to ask you this: how do you deal with the issue of licences for the places of public amusement? We would not issue a licence at all unless we got a certificate from the City Surveyor that the building was fit for the purpose for which it was sought to obtain a licence.

3193. And you would not renew a licence unless you were satisfied as to that? I am not prepared to say that. No doubt action would be regulated by the extent of improvement required.

3194. Suppose that attention was drawn through the columns of the press to the inefficiency of the means of escape in a building licensed for public amusement, would you make inquiry on the point before the licence was renewed? We would certainly have it inspected at once. The matter would then go before the committee, and if there was any doubt on the point it would go before the full Council.

3195. And you would regard it as part of your responsibility that you should be thoroughly satisfied on the point before you issued the licence? Certainly. I should be responsible in advising the Mayor to sign the licence.

3196. The mere fact of there being no police objection would not satisfy you? Oh, certainly not. In all our public places we take all possible steps to have the regulations enforced without closing the places, if that is possible.

3197. *By the Vice-Chairman.*—Of course, you cannot have things done in a place with a small population just as they could be done in a place with a large population? Oh, no. I may say that our inspector attends entertainments of all kinds, and if the buildings are overcrowded he lays informations.

3198. How do you deal with your stores—do you purchase any stores except by tender? Oh, yes; we purchase things as we want them, very often. But we start each year by putting down everything we will be likely to want, and then calling for tenders. All the things are supplied within a certain time, and stored. If I wanted anything else specially—say yellow pencils, for instance—I would send to the storekeeper to get them.

3199. But it would be impossible for your storekeeper to go and order a couple of thousand feet of timber without the order going through the department in the usual official way? I do not know exactly how he could do that. Of course, when you come to what a person could do, you get at once on rather difficult ground, as it is impossible to calculate what fraudulent ingenuity will overcome. In this case the order would have to go through the storekeeper's books, and I am not quite sure how it could be worked. That is a question that Mr. David could answer more satisfactorily and definitely than I can. Our practice is this: we send an order to the storekeeper, and he has a book. If not in stock, he fills in the book and sends it on to the tradesman. The butt of this book is countersigned by the City Engineer and the Mayor. Whether he could order a thing without authority I do not know; but our system of checking is, I think, about as perfect as it well could be. The City Electrical Engineer, when goods are not in stock, orders direct, and the Surveyor signs the butt of the order.

3200. Anyhow, you invite tenders for your stores? Yes.

3201. And supposing a man sends in a general tender for a lot of articles and you have a lot of other tenders under consideration at the same time—do you pick out individual items, or do you take the tenders in the lump? No; what we do is: we put in a notice calling for tenders for certain articles, with the right of taking the whole or part, and from the tenders we receive we select things as we please—from Jones, nails; from Smith, copper-wire, and so on. We get one general tender from each man, and we pick out the items here and there as we please. There have been a good many disputes about it.



3202. *By Mr. Hamilton.*—You do not follow the system of all or none? Oh, no; we used to at one time, but we do not now.

The witness withdrew.

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THOMAS GLADMAN, *called and examined.*

Mr. Gladman was sworn.

3203. *By the Chairman.*—Your name? Thomas Gladman.

3204. You are, I believe, the City Treasurer of the Corporation of Launceston? Yes.

3205. *By Mr. Guesdon.*—You stand in the same relation to this Corporation as the City Accountant of Hobart does to the Corporation there? Hardly; I act as Treasurer as well; I think he only acts as Accountant.

3206. *By the Vice-Chairman.*—But you are Accountant as well as Treasurer? Yes.

3207. *By Mr. Guesdon.*—Now, speaking purely and simply as City Accountant—as recorder of the financial transactions of the Corporation—do you consider that beyond the ordinary routine of your duties, your office involves a responsibility of satisfying yourself that the entries are properly made and charged in a proper way to the proper accounts? Yes, I do.

3208. If you were asked by the Mayor or by any official here to make an irregular entry, you wouldn't do it? I wouldn't do it?

3209. *By the Vice-Chairman.*—Not under the direction of a Mayor or Committee? No.

3210. *By Mr. Guesdon.*—You would consider that your office would make you responsible for doing that which you knew to be irregular? Yes.

3211. Now, regarding you simply as an accountant, I am going to refer you to a specific transaction. I daresay you know, from the papers, that an order was recently made by the Mayor of Hobart to send up two brakes to bring down Corporation labourers to vote at the Municipal Election. The cost of those brakes was charged against the Corporation; but when the item was presented to the Finance Committee it was struck out. After some little delay, the item was presented in another form, by the direction of the Mayor; that is to say, it was put in under the head of "Carriage," on the wages sheet of the works on which these labourers were engaged—now, Mr. Gladman, would you allow any Mayor to direct you to place such items on a wages sheet in that way? No; certainly not. I should desire a reference to the Council.

3212. And how would you regard—mind, I am speaking from a high moral ground—how would you regard such a manipulation of accounts? Oh, it is wrong.

3213. A practical falsification of accounts? It appears very much like it to me.

3214. And supposing that that same account, which had been thrown out by the Finance Committee, was presented in that new form to the Chairman of the Waterworks Committee, who had also been a member of the Finance Committee present on the previous occasion when the item was struck out, would you not consider it imperative upon the official who presented that account in the new form to inform the Chairman of the Waterworks Committee that this was the same account that he had disallowed in his capacity as a member of the Finance Committee? I certainly should.

3215. Otherwise, if you presented the account under these circumstances, would you not regard yourself as misleading the Chairman of the Waterworks Committee? I would, certainly.

3216. Then, practically, you wouldn't take instructions from anybody in your own department as to the conduct of your duties, or the way in which you deal with the entries in your accounts? No; certainly not, only from the Council.

3217. You satisfy yourself as to how the accounts are to be dealt with? Yes.

3218. Have you here a sort of unwritten law providing that the Mayor can, on his own authority, order any special work to be done, entailing expenditure up to the amount of £5? I do not think so.

3219. Everything must be done through the committees? Yes, through the Committees, or the Mayor, or, if important, with the confirmation of the Council.

3220. And supposing that the committee in any case ordered something to be done which you considered *ultra vires*, would you dispute the matter? Oh, I would, certainly. Of course there are little things that crop up occasionally as to which mistakes may arise. For instance, we paid for a wreath some little while back in connection with the funeral of one of our deceased aldermen. Well, expenditure for such a purpose on such occasions had been our practice all along, but the Auditor-General decided that it was irregular. Then again, in connection with advertising public meetings, the Auditor has taken exception to accounts passed for payment of advertising charges. I think, myself, that he is straining a point in these matters.

3221. Well, you charged for that wreath in the honest belief that it was a purely municipal charge made in a regular way? Yes.

3222. *By the Vice-Chairman.*—If you had not been satisfied that it was a legitimate charge, you would not have allowed it? No, certainly not. The Commission desired me to produce certain information, which I now produce. [Documents put in.]

The witness withdrew.

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THURSDAY, JUNE 20, 1901.

C. W. ROCHER, *re-called and further examined.*

3223. *By Mr. Guesdon.*—Mr. Rocher, as a municipal official who understands thoroughly the scope of our powers as a Royal Commission, and as an experienced officer in municipal work, I want to ask you to offer any suggestions that you may think will be of value to us in forming our report as to the best form of municipal government—will you do that? I shall be very glad to prepare a memo. embodying such matters as I think will be of interest to the Commission.

3224. For instance, you gave us information yesterday as to your water supply, and your ability to produce power at various points along the line of route of the supply? Yes.

3225. You also told me that you had two distinct abbatoirs here—you will remember mentioning that? Yes; one quarantine, and one not quarantine.

3226. Well, you might be able to point out to the Commission what are the advantages of having two abbatoirs? Yes, I can point out some matters relative to the duties of this staff, and show how these things are arranged in the municipal offices of Launceston as compared with the methods adopted by municipalities generally. We do an immense amount of trading here, and other municipalities do not. Then, as to the working of the Health Act and the Police Act as they affect the Corporation, I could give you some information. I will prepare that.

3227. And you will put clearly before us what you regard as the responsibilities attaching to your own office as permanent official head of the Corporation here? Yes, I will embody that, if I have not been already explicit enough.

3228. You will understand that we want to put our municipal officials in Hobart in a proper position? I understand. I will draft a memo., and have it type-written, and send it down to the Secretary.

The witness withdrew.

THOMAS GLADMAN, *re-called and further examined.*

3229. *By Mr. Guesdon.*—You will understand, Mr. Gladman, that I am going to appeal to you now purely and simply as a professional accountant? Yes.

3230. I am going to ask you this question—you know the principle which governs Municipal Accounts, and you know that your so-called Revenue Account is practically nothing but a Cash Account, a record of receipts and expenditure? Yes.

3231. Do not you think that in the public interest it would be a wise thing to add to your ordinary Revenue Account such a statement as would show the true revenue and true expenditure of the year. Let me make myself plain. You will understand, as a professional accountant, the distinction between a revenue account and a cash account. Of course, a revenue account, in the strict sense, must show a credit for all the actual receipts of the year, whether they are collected or not; and it would only affect the true receipts for that year, not touching receipts brought over from last year; and it would also give a true indication of the expenditure of the year. Of course, a cash-book can only be a record of actual payments. Do you not think that in the public interests it would be a wise thing to have a proper Revenue Account, from which the public could gather what your revenue was and what your expenditure was under the various heads? Yes, it might be advisable.

3232. As professional accountant—or, let us say a City Treasurer—do you not think your duty is to do all in your power to enable the citizens of your municipality to understand exactly what the true revenue and the true expenditure is under the various heads—do you not think it would be advisable that the accounts should be dealt with in such a way as to show, not the mere cash expenditure and receipts, but the true revenue derivable from the various sources and the true expenditure, whether passed through the cash-book or not? Well, that is a big order, rather.

3233. How could any of the citizens possibly know, except by a clear statement in the way I have indicated, what is the true revenue and the true expenditure under any head—you will admit, of course, as an accountant, that a cash account is not a revenue account? Yes, I will go as far as as that.

3234. *By the Vice-Chairman.*—I think that what you want to get at is this: that a ratepayer cannot understand the year's finances from a cash account; but, if he sees a proper revenue account, with everything that should have been recorded duly credited, then he knows what the year's finances are; otherwise, he only knows what sums have been received and paid. You see that, Mr. Gladman? Yes, it might be advisable to do that; but it would entail a good deal of labour, and I don't think there would be any great advantage gained from it. Our accounts are kept in a similar way to that adopted with reference to the Treasury accounts.

3235. *By Mr. Guesdon.*—Well, if you bring out a balance-sheet without dealing with the precise expenditure and receipts of a year, you do not bring out a true balance-sheet. You see that? Yes.

3236. We will assume that the national debt of this country is 8½ millions; and we will assume that it charges interest at an average rate of 4 per cent. per annum—that is, £330,000 per annum; and we will assume that the interest on these debentures is payable in January and July. Now, our financial year closes on the 30th of June. There would be £170,000, or so, of accumu-

lated interest payable on the 1st of July, and it could not possibly be passed through the cash-book until it was paid. Well, the Treasurer who says that the financial liability is so much, without taking into the account the £170,000 to be paid the next day, is not giving a true statement of the revenue of the State? No.

3237. Now, if the principle is sound there, don't you think it would be wise to have a revenue account, which is a true index of the revenue and expenditure, in your Municipal Office? Oh yes, it might be advisable to do that. Of course, with regard to the payment of interest on our loans, all such payments generally come into the year.

3238. But suppose you put it in this way: a banker discounts £100,000, in December. There is a month for the discount to run in that year. A banker would not take credit for more than a month's discount in that year's statement? No.

3239. Very well. The banker produces his balance-sheet, and in that balance-sheet he provides prospectively for the dividend to be paid on that year's work? Yes.

3240. He does not leave the payment of the dividend to be carried over to the next half-year, because it is not paid through his cash book? Oh no, of course not.

3241. That is a true revenue account? Yes. It must be made out in that manner in regard to mercantile institutions and those of companies.

3242. And don't you think that if you really want to take the citizens into your confidence, you should deal with them as a sound commercial institution deals with its shareholders? Yes. Of course, it would necessitate a different form of keeping the accounts.

3243. You know what the total of your outstanding liabilities and revenue is? Yes.

3244. And you might make a statement showing the outstanding revenue and liabilities under a certain account? Yes; it would be a very easy matter to make a statement of that kind from the annual statement we publish. I see what you mean. I think it would be advisable. Practically this is given as regards the accounts as a whole.

The witness withdrew.

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C. ST. J. DAVID, *recalled and further examined.*

3245. *By Mr. Guesdon.*—We want you to understand this, Mr. David, that we are, in a sense, an inexperienced Commission; none of us have ever been associated with municipal matters. You understand by the scope of the Commission what we want to do as public trustees is to try to bring up a report which will be of value to the citizens of Hobart and the suburbs. Do you follow me? Yes.

3246. And, of course, in our examination of you there may be very many points in regard to which you may be able to give us valuable information, but which, from our want of knowledge, we have not been able to touch? Yes, I see.

3247. Well, we have asked Mr. Rocher to be kind enough to deliberate with you, and send us in a report dealing with any such points. You have a fair knowledge of our water system in Hobart, and you have a fair general knowledge of the condition of our cobblestone gutters; and I suppose that there are many things that will strike you, as an expert official, that could be improved. We are, therefore, asking you, purely as a professional man, in what way you would suggest that improvements should be made in order to help us to make Tasmania a sanatorium of the south. You understand that? It might be well if you could give me a transcribed account of the evidence I have given previously.

3248. *By the Vice-Chairman.*—You will have that in due course, Mr. David; but, you see, evidence can only be corrected in case of obvious inaccuracy: it cannot be added to or altered. If you can supplement what evidence you have already given us by any further statement we will be very glad.

3249. *By Mr. Guesdon.*—For instance, Mr. Rocher told us that you graduated your water; so that you could supply different places along the route, if necessary? Yes; that is so.

3250. Well, you see, that is one matter of interest to us; that contains a valuable suggestion in our case—you will understand that? Well, of course, this water of ours is only used in one place on the route.

3251. Still, you could use it if you wished to? No, not the water that we bring into the town; it is only surplus water that we bring down to our dam and do not make use of what we could use in that way. Of course, I will be perfectly willing to do anything for you in the way you suggest, but it places me in rather an awkward position with my *confre'e* in Hobart.

3252. We do not want to do that. We are treating you perfectly frankly; I hope you understand that? Oh, yes.

3253. *By the Vice-Chairman.*—It does not follow that you will make any statement that will conflict with the opinion of professional men in Hobart, does it? I will gladly do anything I can, so long as it does not interfere with any feeling of fellowship between myself and the engineer in Hobart.

3254. Well, supposing that you condemned the use of cobble-stone gutters. That would entail no reflection on Mr. Milles, because he is as strong on the subject as you could be. You will see that? Oh yes, I see that.

3255. And if you propose to substitute some other form of gutter for the cobblestone gutters that would be no reflection on anybody? That is so.

3256. And if from the standpoint of health and otherwise you thought it proper to have close supervision of every place of public amusement, you would be dealing with a general matter, and reflecting on no one? I see that.

3257. Well, if you think that these provisions of the Health Act are deserving of scrupulous consideration, you should be prepared to say so? Yes.

3258. I am prepared to say, myself, that it was a standing disgrace to the City of Melbourne when she took thousands of people into the Exhibition Building recently, with the means of escape utterly inadequate. It would have been a simple death-trap in the case of a panic from fire? Yes.

3259. Well, in that way, we want you to take up anything that we have inadvertently omitted in our examination of you. You understand? Yes, I understand that.

TUESDAY, JUNE 25, 1901.

J. W. C. HAMILTON, *recalled*.

3260. *By the Chairman*.—I believe you wish to produce some papers, Mr. Hamilton? As requested, I produce the correspondence between the Auditor-General, the Mayor, and the officials of the Corporation in reference to the hire of brakes. That correspondence is complete up to to-day, but one letter written by the Mayor to the Auditor remains unanswered so far. [Documents put in.]

THE HON. C. H. GRANT, M.L.C., *called and examined*.

Mr. Grant was sworn.

3261. *By the Chairman*.—Your name, Mr. Grant? Charles Henry Grant.

3262. You have been summoned to-day, Mr. Grant, to give us any opinion you may have on the question engaging our attention: the present municipal government of the City of Hobart and its immediately surrounding suburbs. Are you of opinion that it would be well for the community at large if such unification were brought about as would bring drainage and other matters under a sole control? I think, as regards water supply and drainage, that it would be better to have one body controlling the whole. But as regards the repairing of the streets and lighting, and such matters, I certainly think that suburban bodies are far better off as they are. So far as I know, they would be most unwilling to join with the City in respect to general administration.

3263. Even Glebe Town? Even Glebe Town. Personally, I hold strong views in the matter; for I know that the districts are far better served as they are by local authorities than they would be if they were under one central authority.

3264. But still you think that so far as the administration of the waterworks is concerned, the whole of the City and suburbs would be better if brought under one head? I think so.

3265. And drainage also? Yes.

3266. Do you think the present Metropolitan Drainage Board would be a proper body to administer these departments? I think so. The Board seems to be framed on equitable principles. The terms of the Act constituting the Board had an immense amount of consideration, and so had the two main Acts that have since been framed for it. On the whole, I think that the Board is equitably constituted.

3267. Then you think that the plan adopted in Melbourne whereby the Metropolitan Board of Works has sole control of water and drainage could be profitably adopted here? Yes; I think those matters would be best combined; undoubtedly they lead one into the other.

3268. Now, so far as Glebe Town is concerned, have you any difficulty with regard to the drainage of Glebe Town going into Hobart? No, we have no difficulty. The drainage of Glebe Town is discharged into the Park-street Rivulet, and we have availed ourselves of that right of natural drainage to put our sewage into that rivulet. Perhaps we have not done so legally, but we had no option—it was the only possible means of getting rid of the sewage.

3269. Have you had any difficulty with the Corporation of Hobart in regard to getting rid of your storm waters, and so on? No; the Park-street Rivulet takes any amount of water.

3270. Of course, unless we can induce the surrounding local bodies to say that they want to come into a Greater Hobart scheme, there is not much chance of our getting it? No.

3271. And you think that Glebe Town is better off by itself, as at present? In regard to all matters of general administration, yes. But as far as water and sewerage are concerned we might very well form part of a larger body.

3272. Does it not strike you as anomalous that a place like Glebe Town, with a mere handful of people, should form a governing body of its own—does it not mean waste of officers? Yes, it seems to; but I must point out to you that the Town Boards are managed on very economical lines, and our part of the municipal salaries under a large scheme would be much greater than our

costs are at the present time. For instance, our sanitary and health inspectors work on honorary lines.

3273. I believe you are the senior chairman of any local governing body about Hobart? Yes; the Town Board of Glebe Town is the oldest body, and I have been connected with it ever since its commencement.

3274. *By the Vice-Chairman.*—There are some water-closets on the Glebe that discharge into the Park-street Rivulet, are there not? I do not know of one.

3275. But all the slops and drainage go there? All the slops and drainage—yes. Of course, the sanitary service is not controlled by the Local Board at all; it is an independent concern.

3276. Is that run by the occupiers themselves, then? There are two men who go round, and their services are used by the occupiers of the houses. We have no complaints under this head. We are not asked to take the responsibility of this service, so that we have not burdened ourselves with it.

3277. Does the Glebe Town Town Board contribute anything towards the cleaning of the Park-street Rivulet? No; but it only uses a very short distance of the rivulet, as to which section there is very little cleaning required.

3278. Is there any sanitary Inspector who reports to the Glebe Town Town Board? Yes, one of the Board themselves, Mr. Sculthorpe.

3279. If it is an advantage to Glebe Town to be separated from Hobart, I suppose it would be an advantage also to Battery Point? I dare say. If you look at it you will see why I say it is an advantage. You have only to look at the position of the City streets. Take Park-street or Argyle-street, and compare them with the streets of Glebe Town. After making that comparison, I think anyone would say that it was an advantage to be separate.

3280. Well, you see, there is a point of difference in the streets. There is very little cart traffic in Glebe Town? No.

3281. Then the owners of carts there chiefly take them into Hobart, and use them in the City all day? I don't know anybody doing so.

3282. Well, take the case of your own carriage. It does not drive about the streets of Glebe Town very much, I suppose? Not much.

3283. But you drive about the streets of Hobart a good deal? Yes. Of course, I was not asked about the equity of the matter, but rather as to the willingness of the inhabitants of Glebe Town to join in a scheme of centralisation.

3284. Are you satisfied with the water supply up there, generally? Yes; I have never heard any complaints substantiated. There were two or three complaints I heard of; but, on inquiry, I did not think they were serious. The water service, on the whole, is extremely good, and, for my own part, I can say that it is perfectly satisfactory. I always have an adequate pressure, even at the top of the house.

3285. What officers have you in the Glebe Town Town Board? We have only one paid officer, a Secretary and Collector, Mr. Henry Vautin.

3286. What is his salary? Twenty-five pounds a year, I think, it is—£20 or £25.

3287. *By the Chairman.*—I suppose, with a commission on the amounts collected? He has a commission for collecting the dog tax.

3288. *By the Vice-Chairman.*—Of course, you get the advantage of the Hobart Corporation supervision of the slaughter-yards, for example? Oh, yes.

3289. And pay nothing for the service? No.

3290. Well, there are not very many other examples that occur to me at present; but in the course of their work the Corporation officials supervise many things, the advantages of which accrue to the suburbs as well as to the City? Yes. In our case, of course, we have a little the advantage of the City in several ways. The City boundary happens to be on the east side of Park-street, and we have a frontage on Park-street; so that we have that Park-street roadway as a general means of access.

3291. *By Mr. Guesdon.*—What do you do with your garbage and rubbish from your back yards, Mr. Grant? It is carted out to a tip.

3292. A tip beyond the boundary of the Glebe. Are you particular as to whether you dump it on the next municipality or confine it strictly to your own? That I cannot tell you. Of course there is not much of it in any case.

3293. And you accept no responsibility for it as long as you get rid of it? No.

3294. And your sanitary pans—do you know where they are taken to? I think they are taken to Glenorchy, out to Derwent Park, or somewhere there.

3295. There must be a certain amount of drainage, I presume, going from the Glebe into the channels of Hobart? There must be.

3296. And of course you contribute nothing as a Town Board, towards maintaining these drains in order as long as they are outside your boundary? There are no drains used by us. Our drains all drain into the Park-street Rivulet, and our drainage does not go beyond that.

3297. And you contribute nothing to the upkeep of the Park-street rivulet? No; there is always sufficient matter passing down the rivulet to clear itself over the distance we use it. But I have always allowed that we were willing to contribute.

3298. *By the Vice-Chairman.*—Has the Hobart Corporation never asked you to contribute? No, never.

3299. *By Mr. Guesdon.*—Do you think that, as part of the district which is interested generally in the water supply of Hobart, you should be represented on any body that controls the water supply of Hobart and the suburbs? I certainly think that, as there is taxation, there ought to be representation. Of course, the one member we have on the Metropolitan Drainage Board is really rather out of proportion to our number at Glebe Town.

3300. But the Metropolitan Drainage Board has nothing to do with the water supply? Oh, I do not know that I could claim for the Glebe any part in the control of the water supply. It is merely the question of the purchase of an article, and we get good value for our money.

3301. Supposing the water supply was unjustly administered and overburdened with debt, and the price charged you was exorbitant? Well, our population is so small that it would scarcely give us a right to representation.

3302. But you believe in the principle of "no taxation without representation"? Yes.

3303. *By Mr. Hamilton.*—You rate yourselves pretty fully up there, Mr. Grant? Yes, generally; quite so.

3304. Nearly as heavily as in the City? No, not now the police rate is off.

3305. And taking all the drainage into consideration, any levy that could be made on you in connection with the Park-street Rivulet would be very small—it is your natural outlet? Yes; that is why we have a natural right to drain into it; it could not be stopped.

3306. And the preference you express to standing aloof from the Greater Hobart scheme, as far as your Town Board matters are concerned, apart from water and drainage, is because you are peculiarly advantageously situated. Your aspect is good, and you have already incurred all the expenditure that you require; that is to say, you have been a model Town Board, and your work has been done thoroughly and well? Yes.

3307. And therefore your relation to other Town Boards would make the circumstances very different? Oh yes. We did a good deal of work up there absolutely out of our own pockets, without any contribution from public money. We contributed towards the footpaths and other matters. Now we have finished that; we do not want to borrow money for any works; and we have sufficient funds in hand always if any ratepayer wants to have some little repairs done; we can do it without prejudicing anybody. You see we have not a large district; it is all comprised within a very circumscribed space.

3308. You feel that you have done your work so thoroughly and well, that your circumscribed space is an advantage? Yes.

3309. *By the Vice-Chairman.*—What are your rates at present? One shilling in the pound at present: ninepence for the roads, and threepence for lighting, &c. But we made a mistake this year; the rate ought to be 1s. 1d. on the capital value.

3310. *By Mr. Hamilton.*—You have been rated very heavily in earlier days? Yes; we had a 2s. rate at one time, I remember.

The witness withdrew.

#### A. H. CATO, called and examined.

Mr. Cato was sworn.

3311. *By the Chairman.*—Your name, Mr. Cato? Arthur Hilmer Cato.

3312. What offices do you hold under the Mount Stuart Town Board, at the present time? I am Chairman of the Board, at the present time.

3313. We are inquiring into the advisability of bringing Hobart and all the surrounding local bodies under one jurisdiction, with a view of saving the duplication of duties and other needless expense to the people—what is your own opinion as to that, so far as your own Board is concerned? That is, to draw Mount Stuart into Hobart, so to speak.

3314. Yes, with the other local bodies about the City? Would that mean that you would go right up to the top of Knocklofty and take over the whole of our district, or that you would only take over a portion of it?

3315. The whole of the district now controlled by your Board—what do you think? Well, I don't know, really. If I may speak for my own personal feeling and the feeling of the people generally up there, they would rather remain as they are.

3316. On what grounds? I am not quite prepared to say on what grounds, except that they feel that they would like to continue to manage their own affairs. Another thing, they would anticipate a larger rating at once, if they were brought into the City.

3317. What is your present rate? I do not think we have ever rated ourselves above a shilling in the pound.

3318. How do you dispose of your storm-water and refuse at the present time—do they go into the Metropolitan area? Oh, yes.

3319. Can you tell us exactly the details as to that? Well, we are so adjoining the City that we have made asphalt or cement gutters in certain portions of our district, and they just connect with the cobble gutters of the Corporation at the present time.

3320. Have you had any difficulty or dispute with the Corporation of Hobart regarding the disposal of this storm-water or refuse? Yes, we have had a little trouble over such matters.

3321. In what way? Well, of course, you understand that, situated on the slope of the hill, as we are, there is an imaginary line where we come into the City boundary. We have made asphalt gutters, and they connect with the cobblestone gutters of Hobart at that point.

3322. So that the City deals with your sewage? Yes.

3323. And Hobart has paid for that? Well, we have but very little sewage; but now we have made these gutters correspondence has passed between us and the City Council over the matter, and it is proposed that we put in a deep pipe. Of course, we can do that at our boundary, and then run into the creek. The City Council have offered to pay one-third of the cost of that.

3324. Did you accept that offer? No, it has not been accepted at once.

3325. Have you had any difficulty or dispute with the City Council about the boundaries of roads or footpaths? We have had a little trouble at Arthur-street; but you could hardly call it trouble, I think. We go up to the fence on the western side of the street, and the City takes in the whole of the footpath. We pointed out to the Council, on one occasion, that it would be much better if we came right to the middle of the road. As it is, we take the rates on the western side; but we have no control of the footpaths. They say that if we repair the paths we can take the whole; and we have repaired them to a certain extent.

3326. Now, as to the water supply. Is it satisfactory—is your supply constant and adequate in the summer? Yes, as far as I can say. The supply goes nearly up to the highest point of the district that is built on; and last summer, to my knowledge, the supply was very good. I have not the water laid on myself, but I am speaking, as far as I know, of those who have it laid on.

3327. Have you any meters controlled by the Town Board laid on in your district? Not controlled by the Town Board. The City Council have meters on, but we have none under our own control.

3328. Are there meters put on by the Corporation of Hobart in the district controlled by your Town Board, or is the supply by rating alone? I think it is by rating alone.

3329. *By Mr. Guesdon.*—What is the character of the sewage you discharge into—where is it, did you say? Into Queen-street.

3330. What is Queen-street—is it a drain you discharge into? Yes, it is really the Park-street Rivulet. It takes its rise in my garden; but it is dry during the most part of the year.

3331. And you take the whole of your drainage down into this place, don't you? No. You see, we extend right over to the top of Goulburn-street, on Mr. Bidencope's side.

3332. What are the channels through which you get rid of your drainage—you say Park-street is one? Well, before it gets into the Park-street Rivulet it goes through the City in some place.

3333. The City has to provide the drainage? It has been provided by the City for many years.

3334. And you have to use the City drains to get into the Park-street Rivulet? Yes.

3335. What other drains have you? Well, we are such a rural district still, that we have no drains, except a few pipes here and there.

3336. Where does your drainage go to—what is the drain that relieves the Goulburn-street end—a City drain again? Yes; there is a creek coming down near Mr. Bidencope's, and I think that the drainage goes into that creek.

3337. And if the City did not provide these channels for you to carry your drainage to the sea you would practically become a public nuisance to Hobart? Well, these channels are provided, and have been provided for many years.

3338. Oh, yes; but if you are living next door to a man for whose premises drainage has been provided for many years, and you have no drainage, you have no right to settle your sewage on him, and no right to use his drains at all, except with his permission, now, have you? Oh, I know that.

3339. And you do not contribute to the cost of the drains necessary to carry your drainage beyond the City boundary? We have not done so, but we are quite prepared to meet the City Council by paying half the amount that will convey the drainage to the Queen-street channel.

3340. Well, you see, that is but practically bringing it down on your neighbour's property. Don't you think you should pay a part of the cost of conveying your drainage to the sea? Yes; I am quite prepared to say that; I know that our drainage must go through the City of Hobart.

3341. And you regard that as an equitable suggestion? I am quite aware of that.

3342. What is the character of your drainage—are there any water-closets, or is it mere house slops? I do not think there are any water-closets. I believe Mr. Charles Davies has a water-closet, but I am informed that it is seldom used.

3343. How do you dispose of your rubbish or house-garbage? Well, most of the residents have a plot of garden, and I think it is all consumed there.

3344. That includes sanitary pans and everything? Yes, in the rural parts.

3345. *By the Vice-Chairman.*—What are the officers of your Board, Mr. Cato? Well, we have a paid Secretary, Mr. Strathern.

3346. On what salary? Twenty-five pounds a year.

3347. Yes? For that he has to do a good deal of work.

3348. What officers has he under him? We had a roadman for some time, but we came to the conclusion that we could get the work done cheaper by contract, and all our work of that kind has been done by contract for some years past now, except for the employment of an occasional man to clean out the drains, and so forth.

3349. What length of made roads have you in Mount Stuart? Mr. Strathern might be able to give you that information.

3350. Can you give me no idea? Well, there are several miles of roads; but they are not made, as roads are made in the City.

3351. How far do you suppose it is from the Hobart Railway Station to the nearest point of your boundary? I should think it would be about two miles, or say a mile and a half.

3352. At what point of your boundary would that be? That would be at the corner of Elphinstone and Mount Stuart Roads, or, perhaps, you might to say at Dr. Benjafield's front gate. We have three big properties in our district on the main road—Mr. Simmons's, Dr Benjafield's, and Mr. C. E. Davies's.

3353. Now, if a man were going to cart a load of stuff from Mount Stuart to the railway station he would cart it over a considerably less distance on Mount Stuart roads, within the Mount Stuart district, than on Hobart roads, in the City? Yes; unless he came from the very back portion of our district.

3354. And your population is much thicker on the fringe of the district, around the City than it is in the back part of the district? Yes.

3355. Of course, your Board is equally interested with the citizens of Hobart in the maintenance of a generally satisfactory state of sanitary and other conditions throughout the whole of the metropolitan area of Hobart and its suburbs? Well, I think, that, as a Board, we have been strong supporters of the Metropolitan Drainage business.

3356. You are interested also in many of the functions of the Hobart City Council. They are spending money, for instance, on the reception of the Duke of York. Your Town Board does not contribute to the expense of that, I suppose? No.

3357. None of the Town Boards contribute? No.

3358. You are interested also in the proper maintenance of the Slaughter-yards; and your Town Board does not contribute to that? No.

3359. You are interested in the keeping clean of these small creeks that are such a nuisance in Hobart—even in the Hobart Rivulet—are you not? Yes.

3360. I would like to know just what your rates are at present? As near as I can remember, we collect about £150 a year.

3361. But what is the rate in the pound? One shilling in the pound. We have not put on a special lighting rate. We have only just recently had one or two gas lamps put on in the district. We will have to discuss the question of lighting. We are paying the Gas Company for those lamps now on.

3362. How long have you been a Town Board? About ten years.

3363. How was your district governed before? We were under the Augusta Road Trust.

3364. *By Mr. Hamilton.*—You are, practically, still a rural district—you are in your primitive condition? Yes.

3365. And now that you have expressed a preference to be left alone in the management of your own concerns, rather than to be taken into the Greater Hobart area, I suppose you have been driven to that feeling by the recollection of the way in which you were utterly neglected before you were formed into a Town Board? Yes. While we were connected with the Augusta Road Trust we had roads, but it was something unusual to see a man come and look at our roads at all. We had no representation on the Trust for many years; so at last we moved in the matter, and were made into a Town Board, and the district has gone on improving ever since.

3366. And the drainage that you have been questioned about—you are quite alive to your responsibilities, and the necessity of your contributing your quota? Oh, yes.

3367. I think we have had in evidence here that you are largely indebted to the Hobart Corporation for your share of works that have already been constructed? That was for work done altogether in the City; but largely, almost exclusively, for our benefit. We owe them £100 now, which will probably be paid off next January. Of course, we had terms with them for the payment of the amount.

3368. You are working very harmoniously, then, are you not? Oh, yes; as a Board we work very harmoniously together.

3369. And your constituents are very well satisfied? Yes.

3370. Mr. Strathern, your Secretary, holds a similar position at New Town, does he not? Yes, and at Moonah.

The witness withdrew.

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CHARLES BALL, *called and examined.*

Mr. Ball was sworn.

3371. *By the Chairman.*—Your name? Charles Ball.

3372. What position do you occupy in regard to the Moonah Town Board? I am Chairman of the Moonah Town Board.

3373. That is, outside New Town? Quite so.

3374. We have met, as you probably know, to inquire into the advisability of bringing the adjoining suburbs of Hobart under one body of control, with the City itself? I did not know that.



3375. Well, as a matter of fact, that is so. We are to consider the advisability of bringing all these suburbs, with the City, into one comprehensive body, under one administration, with a view of saving duplication of offices. Do you, as far as you are concerned, think it would be well for Moonah to join with us in that scheme? Before I can answer you that I must be clear as to whether I am to keep things in mind as representing Moonah, or whether I am to speak generally. If I am to speak as representing Moonah, I should say I would sooner be as we are.

3376. On what grounds? Because we are a united body out there. We have had several works kept before us for several years. We have grown up with the place. We have set before us certain work to do. We are united in that work, and we are really a happy family; and to break that condition of things up would not suit us. There would probably be other influences at work, and there would not be that interest taken in our affairs that is taken by ourselves now. We might have a representative in a large body; but you can readily comprehend, Mr. Chairman, that we should practically be extinct. Therefore, speaking for Moonah in this matter, I must say that where you get a body of men as one, there the work will be more likely to be accomplished, and more satisfactorily than if you merely happen to form a small portion of a large body. I speak feelingly, because we were a portion of Glenorchy till about eighteen months back. At that time, under that condition, Moonah suffered very materially in all ways. We were merged in the larger body. That larger body had, of course, bigger representation than we could get for Moonah; and the result was that we were twenty or thirty years behind what we ought to have been. Some of us thought the matter over; then we fought hard, and ultimately we succeeded in being separated from Glenorchy, and made ourselves into a Town Board. We had previously been a Road Trust; but when this Act of Mr. Piesse's came in, and we were likely to be sponged out, we got made into a little Town Board; and we have no reason, up to the present moment, to regret the step. That is plainly to be seen when you go back to the time when I went out there, twenty years ago. It was practically a wilderness then. We had not a road nor a gutter; we had scarcely a street. Now, there are very few houses you cannot get to dryshod. We are making our roads, and we have money to spend for ourselves. And we have good results. These are the reasons, put shortly, why I should be against coming into a large body, speaking only of Moonah. Of course, with regard to the water, we were allied to Hobart, until we got a special supply for ourselves. Now, we are in a unique position as far as water is concerned. I cannot speak too strongly about the way in which the Hobart water was being administered when we had it; anyhow, we kicked and kicked until we got free from it. Now, we have a special Act, whereby we are placed in a position that is unique in Tasmania. We have got ninety-nine years' purchase of the water we use, and we don't care whether the taxes outside us are raised or not. Under the Hobart system of supply, the suburbs were simply squeezed like an orange. A penny rate was put on, and again put on, until at last we were paying up to a one-and-sixpenny rate. Obviously, the idea was simply to get revenue; and they cared very little how they got it. Of course, the water system of the Hobart Corporation, as I say and maintain, is practically in the hands of two or three men. There is just the Waterworks Committee of the City Council, and the Director of Waterworks. His one object—their one object, I mean—is to get revenue; they may get it by fair means or foul, but they must get it. The Director of Waterworks has his ideas, and these two or three men go into his room from time to time, and are impressed by him. It may be a mere fad on his part—it may be right or wrong—but he impresses these two or three men of the Waterworks Committee, and has his way. Practically, they run the whole show, as far as water is concerned. He says, "We must raise this," or, "We must put on this tax"—this, that, or the other—and these men agree with him. He has all the things fixed up in his own mind; and they say, "That's all right, Mr. Director of Waterworks; you are running this show." Then the committee passes it; and they have, practically, a majority in the City Council. The regulations have really worked so as to inflict gross hardship in many cases, but you can't do anything. We approached them from time to time, but we could get no redress, practically. Then we turned our attention to whether we could get a trust; and, unhesitatingly, I say now, that I am thoroughly at one with a lot of other people, so far as water is concerned—if you have it administered by a trust, wholly and solely, away from all municipal matters, it is better. The reasons, I think, are obvious. We therefore turned to Glenorchy, and they were only too glad to receive us, and gave us the water. That was the reason of the Act we got from Parliament. Let me just simply say here, that I had something to do with drawing that water Act, as Mr. Hamilton knows. At the inception of the thing we discussed the point of whether we should give it over to the Council out there. We said, "No." So it has always been a trust, and it has worked very much better than if it had been under control of a council. Of course, it stands to reason that in a council there are so many wires to be pulled, in one way and another. Besides, on a water trust, the money you get is ear-marked. There is not the temptation to take it and divert it to other purposes, as has been done in Hobart. You take out a commission, and you get your commissioners there; their whole and sole mind is on the water matter. They are not bothered about anything else; they know the whole run of it. The money that comes in is ear-marked and put away for its proper purpose; and they are able, to my mind, to devote much more intelligent supervision to the thing, where they have only the one matter to deal with and where they are responsible for it, than can be devoted to water by the members of the Hobart Corporation, who are here to-day and gone to-morrow. That is one reason why, at Moonah, we gladly accepted the proposition to take the water from Glenorchy; and we are

under a contract with them to supply us at not more than 1s. 4d. in the pound, though they are paying 2s. themselves. They have to give us water free for flushing our town, and for some other purposes: water for three animals, for instance. In many cases the rates we are paying have practically been reduced to about one-fourth of what the Corporation were squeezing out of us.

3377. *By Mr. Guesdon.*—Which Corporation? The Hobart Corporation.

3378. *By the Chairman.*—Is not that water supply you refer to intermittent and unsatisfactory in the summer? I have never found it so. I may say that there is another matter I have thought over a good deal. Our supply up there at Hunter's Rivulet is going to waste at a great rate. With the expenditure of a few thousand pounds the present reservoir they have at Glenorchy could, I am quite sure, be raised so as to conserve sufficient water to supply the whole of New Town, very nearly to the top of Swan's Hill. Of course, the Hobart Corporation have almost connected with Glenorchy. Half an hour's work at that end and you could turn on the water to Hobart. If I had been living in New Town I should have tried to rend the shackles that keep the place tied to the Hobart Corporation; because the way the water has been administered has been anything but favourable to New Town.

3379. Now, leaving the water for a moment, and coming to the wider question of bringing these various local bodies into unification—what do you think of that? Well, leaving out Moonah, there can be no question that a large affair, as regards the financial point of view and the matter of expense, must be worked much more economically than several smaller ones. I take it that that is so, in the nature of things.

3380. You see, we have nine different bodies administering the affairs of 32,000 people. We have, on the one hand, the Hobart Corporation, with its Mayor, Town Clerk, Engineer, and Staff; and, on the other, you have those Town Boards—New Town, Glebe, Queenborough, Mount Stuart, and so on—with a population averaging about 600 each: all separate bodies, with their separate staffs. You think, as I understand, that, on the general question, it would be advisable to bring these bodies under one control—anyhow, you hold that opinion more particularly with regard to the matters of water supply and drainage? Well, there again you have got to consider the contour of the land, as it were. The question of drainage has given us cause for serious consideration at Moonah; and the state of our finances will not allow us to enter into any large scheme. I take it, that would apply in the same way in regard to your idea of the extension of administration.

3381. But you pay 1s. 4d. in the Pound now? Only for the water. Our taxes are about as small as they possibly can be. When you come to us, you have come to people who are very favoured. You see, we only pay one shilling in the Pound for the Town Board, and 1s. 4d. for water. Well, water, I take it, stands on a different footing to other things you are rated for, because you get a *quid pro quo*; it is just as if you put down your money and bought a pound of tea. I take it, that you pay for that in quite a different way than when you put down money for municipal expenditure.

3382. Still, a large landholder in Moonah told me last summer that his water was cut off every other day, and that was highly unsatisfactory to him—do you know anything about that? Perhaps I could give you an explanation of that. There was a complaint there during, I think, our first summer—because, you know, our contract was only about eighteen months old. Well, as I was saying, the first summer that we had that water from Glenorchy was a very dry summer throughout, and they were taking the water for some of the gardens or orchards out there and making us a bit short. We had a meeting and drew the attention of the Glenorchy Council to that fact, and it was remedied immediately. Therefore, it is hardly fair to speak as though that was an ordinary thing. The thing was remedied at once, and I have had no reason to complain from that hour to this.

3383. Then, as far as Moonah is concerned you are averse from the idea of bringing it into closer connection with the City? I am strongly of that opinion. That would be our universal feeling out there.

3384. And supposing we had a scheme for bringing in a permanent supply of water from the River Styx in such vast quantities as would leave a large amount available for purposes of irrigation—would that be of much advantage to you? Not so much; because we are a limited area, and we are looking forward, in the very near future, to closer settlement. I have taken a little trouble to be a little verbose on the question of water, in order to show that we are very well satisfied as we are.

3385. *By the Vice-Chairman.*—Where does your Moonah drainage run to, Mr. Ball? Principally, Mr. Nicholls, into Prince of Wales Bay. There is a little watershed along there of which the drainage would run into New Town Bay; but the principal portion finds its way into Prince of Wales Bay.

3386. What are your rates at present? One shilling for roads, which gives us something like £300 a year.

3387. That is a general rate? Yes; I am speaking under correction now.

3388. Is that your only local rate? Yes, with the exception of water. And then, of course, anybody who has an orchard there would have incidental rates for that.

3389. What are the officers of your Board? A Collector, who gets a commission of 5 per cent. on the amounts collected; a Secretary, who gets £20 a year; and a Treasurer, to whom we gave £5 for this year.

3390. Who does your sanitary inspecting? The man who gets £20 a year.
3391. Is he a medical officer? No.
3392. There are some dairies in Moonah, I think? There are one or two.
3393. Is there any inspection of the milk they bring into town? By us, do you mean—systematically?
3394. Yes? No.
3395. Is there any inspection of the state in which the carts return, as to what they may bring in in the carts, and so on? No; perhaps I ought to tell you that we have only just got our by-laws passed.
3396. How long have you been a Town Board? Eighteen months.
3397. Where is your meat killed? None is killed in Moonah.
3398. Killed in Hobart, I suppose? Well, some of it comes from Glenorchy, but the bulk comes from away outside. We have not a butcher's shop in Moonah. The meat comes from New Town, and also from Hobart. Hobart must supply a good deal.
3399. Is there any local inspection of meat? Oh, no; we could not have that, and we would not have it.
3400. It is found necessary in the City—is it not necessary with you? I do not think so; there is a vast difference. We have only 104 families out there.
3401. What protection have you against diseased meat being sold in Moonah? None at all.
3402. Well, of course you would have the advantage of Mr. Rheuben's inspection at this end? Oh, yes. I might ask you what guarantee you have in Hobart that your beefsteak to-morrow morning is not bad?
3403. Oh, there is none but local inspection, of course. How far is the boundary of Moonah from Walch's corner? Just under three miles.
3404. What is the population of Moonah? Seven hundred and thirty-two? [No reply.]
3405. The place consists largely of orchards and small farms, and so on, does it not? Well, yes; I suppose there would be a lot of them. Dr. Benjafield takes a big slice, and then there is Derwent Park on one side; so that there is not much left to Moonah.
3406. Who is responsible for the maintenance of the main road out there? The Government, really; but we are doing very good work there now under an arrangement we have made. We used to pay thirty odd pounds annually, and we asked the Government to let us spend the amount ourselves under their system, taking the Government subsidy as well.
3407. What is your sanitary system—any water-closets? Yes, I have one myself.
3408. Which goes into the bay, I suppose? No; which goes into a cesspool in my own place, which I empty myself.
3409. *By Mr. Guesdon.*—I suppose you will admit, Mr. Ball, that there are certain general subjects which must be of general vital interest to Hobart and each of its suburbs—such as the prevention of disease in Hobart and its suburbs—things, in short, in which we are all equally interested? Quite so.
3410. For instance, if you do not have a proper sanitary system, and diphtheria or typhoid gets abroad in the place, that must affect the influx of visitors, and so do an injury to all business people in Hobart and the suburbs? Oh, quite so.
3411. Do not you think a question of that sort is one that should be dealt with by a general body of control, rather than be left to each individual suburb to work its own will upon? I think, Mr. Guesdon, that that is a question that might fairly be generally dealt with, if you could dissociate it from the other matter. I quite agree with you. I should like to join in a scheme of general inspection.
3412. You believe in the principle of federation? That all depends on the terms.
3413. But you believe in the principle? Yes; I am glad you emphasise "principle."
3414. And if a scheme were propounded by which a large proportion of the control of matters such as water supply, drainage, proper sanitary inspection, and so forth, were relegated to one central board of control, on which all these outside districts had proper representation, and if a certain amount of necessary local control was left in the hands of the various outside bodies—do you think that that would be an advisable way of forming Greater Hobart? Dealing with the principle, as I say, I have to admit it. Speaking not with reference to Moonah at all, but speaking generally, of course that goes without saying.
3415. For instance, you made an admission here to-day that your dairies are not properly inspected, and that your milk-carts are not properly inspected—is that so? That is quite true.
3416. Well, don't you see, it might be necessary for Hobart to say, "We refuse to have any milk from Moonah." You see that? Yes, that is quite so. I ought to say, Mr. Chairman, that it is useless magnifying these things. We have only two dairies in Moonah. These are the only ones I have known for many years that bring milk in. That must be borne in mind.
3417. But still, there is no inspection? No systematic inspection. Of course, we are hardly getting into working order yet. You are dealing with the youngest Town Board in Tasmania, and the smallest in area. Therefore, in considering these questions, that must be borne in mind in dealing with the matter. For the reasons I have given you, we are very well satisfied with the way in which things have gone on. We get our money, and we are improving our little district; whilst, otherwise, our money would simply go to swell the rates of a larger area.

3418. You were never a portion of the City of Hobart, I think—only as regards the water, I mean? That is so; and we were put in the Metropolitan Drainage area in the earlier part of the operation of that Act. Then, when the thing was on, we asked to be cut off from it, and they agreed.

3419. Well, you never had any representative on the municipality that administered the water supply? No; and, as far as we were concerned, I took care that we should not be on the Glenorchy Board. It would be very bad for us to have representation there.

3420. Because you can buy your water cheaper, without incurring any liability? Exactly; I should strongly vote against representation, for that reason.

3421. Do you think that is a fair position to allow any district to get into—that the district shall incur all the liability and provide an absolute necessity to another district, which incurs no liability at all—is that equitable? Well, it would depend; in this case it is very equitable. Here Glenorchy started a scheme. They had a commodity going to waste, and it was worth money. All the money they get from Moonah is all the more surplus to them.

3422. What is the limit of the amount they can charge you for your water? One shilling and fourpence.

3423. And the limit under their own Act is—? Two shillings.

3424. Does that seem an equitable thing to you? Under the circumstances, yes. They have a surplus commodity to dispose of, and we take it. The result was, that they did not fulfil their contract twelve months ago. But when we spoke of it they saw it in five minutes, and remedied it.

3425. But that does not deal with the equities of the case. Does it seem an equitable thing that an Act of Parliament should restrict a neighbouring municipality, which has incurred all the liability and expense of impounding water to supply its district, in that way—that the Act of Parliament should allow one district to be taxed for a commodity up to 2s., whilst a neighbouring district, without any liability at all, is only taxed for the same commodity up to 1s. 4d.? Perfectly equitable: we came to their relief. We could get our water from the Hobart Corporation for 1s. 6d. Glenorchy simply counted the cost, and said, "We will pay 2s. ourselves."

3426. Now, you are putting it from the point of view of competition, are you not? Oh, no, I am only discussing the equities. From year to year they had to get their water, and did get it, from other sources. Then they got their supply. It was worth 2s. to them, and they were well satisfied to have got a special Act to tax them up to 2s. But the people in the next district were not in the same position; why, then, should they pay 2s.? When these first people had supplied their own wants, and had a lot of water going to waste, and when the people next door came in and said, "We are prepared to make a contract with you for the water we want, and give you 1s. 4d.," where do the equities come in against that?

3427. Do not you think you are supplying a rather strong argument in favour of the compulsory amalgamation of these districts; you see, you show that there are two districts that have gone in for all the liability—? What two districts?

3428. The district of Hobart and the district of Glenorchy. And you say, "We will have nothing to do with either of you. You have money going to waste, and we will stand by and let you cut each other's throats." See? Oh, no; your deductions are wrong, because your premises are false. We were bound to take the water from one district or the other; and we did take it from the Corporation for a time. Then it was an arrangement between the three parties, Hobart, Glenorchy, and ourselves. We were allowed to cut off from Hobart, and the Hobart Corporation refused remuneration or compensation from Glenorchy.

3429. Then it was competition? How could there be when there was mutuality in the thing.

3430. Mutuality between whom? Why, the whole of the three parties.

3431. Still it was obviously a matter of competition. You wanted to get your water from a more reliable source, and you wanted to get it cheaper; so you took advantage of there being practically two companies in the field to try and work out the best arrangement for yourselves, is that so? Oh, no. We were already in with the Corporation of Hobart, and if the Corporation had said, "We will not let you go," we could not have gone to Glenorchy. We had to go to Parliament to get the sanction to go to Glenorchy.

3432. Why did you go to Glenorchy—because you thought that you would get a better supply of water, and get it cheaper? Yes; we preferred to go to Glenorchy, being Glenorchy people before our Town Board was made. We preferred to give our money to them. But we would not have gone there unless we could get the water cheaper—get a good contract. We felt that they would treat us far better and in a more comradely way than the Hobart Corporation would do.

3433. In fact, you went to the cheapest and best market? To the cheapest and best market; quite so.

3434. And you take advantage of the competition of the two bodies in order to make a bargain for yourselves? No, there is no competition—where there is mutuality there cannot be competition.

3435. *By Mr. Hamilton.*—Mr. Ball, you openly expressed a desire to be left as you are because you remembered your past suffering from neglect? Quite so; that is so.

3436. And you feel this: that in your little Town Board area, each of you being personally so closely interested and concerned, you can spend your money more economically and advan-

tageously and more to your own liking than you could if you formed part of a larger area? That is so: we know it.

3437. Though, in the same breath you admit that, eliminating Moonah, you would be inclined to support a proposal for amalgamation in certain cases? Oh yes; in the matter of inspection.

3438. *By the Vice-Chairman.*—I suppose you cannot afford a medical officer? Oh no. But supposing a general man was appointed at £300 or £400 a year, it would be better for us to pay a share of his salary proportionate to our requirements.

The witness withdrew.

TUESDAY, JULY 9, 1901.

J. G. DAVIES, *called and examined.*

Mr. Davies was sworn.

3439. *By the Chairman.*—Your name is John George Davies? Yes.

3440. You are Mayor of Hobart, Mr. Davies? Yes.

3441. And a late Royal Commissioner in the matter of this inquiry into the municipal government of Hobart? Yes.

3442. The only question I want to ask you, I think, is one relative to your opinion on one point: that is as to whether in the event of a system of underground drainage being established here, you think it would be well to unite the water supply with the system of underground drainage under the control of one body, so as to have one administration and no divided responsibility? In dealing with that question, I have always been most decidedly of opinion that it is to the interests of taxpayers that there should be one control.

3443. You are aware, I presume, as to Melbourne, Sydney, and Adelaide, that the similar bodies there, separate at one time, are now united in each case into one control under one administration—the sewage, that is, and the administration of the water supply? Yes, I am aware of that; but you are also aware, Mr. Chairman, that the municipal bodies in Sydney and Melbourne never had control of the water supplies.

3444. Not in Melbourne? No; the Central Government, I think, you will find, had control originally. Things are different as far as this City is concerned. If it is a matter of water and drainage only, I most distinctly say that one body is quite sufficient to manage them both; of course, I have other ideas about the whole question.

3445. And you think that, in the event of the citizens deciding, when the poll is taken, to go in for this system, that it should be transferred to the Metropolitan Board of Drainage, or somebody else who would take charge of both the departments of sewage and water? Unless my ideas of a Greater Hobart are carried out, most assuredly.

3446. Then what is your idea of the Greater Hobart proposals? My idea always has been that the principle that has been in existence here for many years, viz., of having in the City, and the districts surrounding the City, so many different Boards—is a mistake, particularly as they are all so closely identified with one another in their circumstances; that, for more than one reason. First of all, I feel convinced that if we had one body, say, a Municipal Council, representing the whole of the City and the suburbs, with representation according to the value of the property and the number of inhabitants in each ward, we might have the work both of the City and suburbs done much better than at present, and much more economically. But so far as Hobart is concerned, now, there is another thing to be remembered. Take the Glebe, Wellington Hamlet, and Mount Stuart: the whole of the drainage, as far as these Town Boards are concerned, empties into the City, and there is constant friction between the Corporation and these bodies as to who should be responsible for the conveying of this drainage outside their boundaries, and as to what extent they are prepared to take their proper share of responsibility, so as to carry their drainage safely into the City, and through the City to some certain depôt from which there is no possibility of any danger accruing. But the conveying of that drainage in that way must entail a lot of expense; a great deal more expense than these small bodies can possibly be expected to provide for, considering their small ratable power. I am fully convinced in my own mind, sir, that it would be in the interests of the suburbs if they were joined in to the City. Of course, as to such joint administration, they might say, and doubtless they will say, that it will cost them more than their own control of their affairs costs them at the present time. Well, personally, I very much question whether the cost of maintaining the different Town Boards would be very much greater under the Greater Hobart scheme than is the cost of maintaining them at the present time. But, apart from all that, there would be this great advantage to be considered, that things might be very much better done; and if the new system did cost them a little more, the great benefits that would accrue by the change would fully compensate them for any risks they might be running in going in for the scheme. That is my opinion; and that is what made me, Mr. Chairman, express my views that while agreeing, as I always have done, that the water and the sewerage should be under one control, I very much question, in my own mind, whether there would be any necessity for a Metropolitan Drainage Board at all if we had the Greater Hobart. Obviously, there would be a considerable

saving if we only had the Greater Hobart, which would contain and control the lot—the water, the sewerage, and everything connected with municipal matters and concerns. You will see at once that the one clerical staff in that case could do the whole of the work; whereas, if you have the Municipal Council and the Metropolitan Board working separately, it would not materially decrease the cost of administration. With the Greater Hobart alone, that cost would be materially decreased; I am certain of that, from my own experience. Otherwise, as I say, you could not possibly decrease the cost of management, as it at present exists, to any material extent.

3447. Do I understand you to say that the Corporation, as at present constituted, would be the fittest body to carry out the whole of the work? I do not say as it is at present constituted. When I talk of Greater Hobart, of course I go a little beyond that. I will speak as to that directly, and tell you how I think the authorities should be comprised. You see, the only extra expense under the greater scheme—and you, perhaps, from your experience, may be able to express an opinion as to that which would be more valuable than my own—the only extra expense necessary would not be very great. From my general ideas, and my knowledge of the management of municipal affairs, I think that the only extra expense that would be required, if the whole of the water and sewerage and other municipal matters of Hobart and the suburbs were knocked into one and administered by one body, would be, possibly, the expense of the appointment of another engineer, at a salary, perhaps, of £500 or £600 per year. Apart from that, the general staff would not be affected to any considerable extent, whereas, if you have dual control, the Municipal Council must keep up their present staff—of that I am certain—and the Water and Drainage Board would have to have another staff altogether, with all the necessary offices and (so to speak) concomitants, and you would run into a couple of thousand a year before you knew where you were. Having said that much, I suppose you would naturally like to know how I think this new Greater Hobart Municipal Council should be constituted. Well, I believe very much in going on the English line—the London County Council line, I mean. And also, coming nearer home, to what we know more about, I must say that, to my mind, the City of Melbourne is, *par excellence*, the best City in the Southern Hemisphere in the way in which it carries out its affairs. Of course, in our case, the method might perhaps be altered in one or two matters of detail. In Melbourne they have so many aldermen representing the City; and they also have so many councillors representing different sections of the City. I think we should adopt a similar system; that is the view I have always held, and the view I have expressed before municipal conferences over and over again. To my mind, if that system was carried out here, it would tend to bring about a very great improvement in the City, and it would tend to bring out better men than we have in municipal life at present. I will explain what I mean. We will say, for argument's sake, that a really good man may live at South Hobart, who would be able to give up certain time if he were elected for that part of the City, and that at the same time he would not be obliged to fight for a seat to represent the City as a whole. A great many good men, at present well suited for this kind of thing, shrink from coming out, in consequence of the badgering that now accompanies a public man's life in Hobart. If the scheme I recommend were carried out, the aldermen would represent the City as a whole, and the councillors would represent the sections or wards. Of course, that could be carried out in this way: supposing that you decided to have a Municipal Council, to be composed of six aldermen and six councillors; the six aldermen could be elected by the whole of the City, for a certain number of years—say seven, or perhaps six would be better—and one alderman would retire at the end of his term, and be eligible for re-election by the Councillors. I believe that is the Melbourne way of electing them. As they retire, they are eligible for re-election, having been elected once by the City, the councillors would have the power of re-electing them as aldermen. When a vacancy arose, then it would be competent for any councillor to become a candidate for the position of alderman. If, on the other hand, a vacancy should arise among the councillors, another councillor would be elected for the particular ward which the other man formerly represented. Of course, I may be wrong in some details; perhaps you might think it well to put one or two, or even three or four, more men on the Council. I think twelve would be enough; some people might think fourteen, or even sixteen. New Town might have one, Sandy Bay one, and so on; and these councillors would retire every two or three years, as the case might be. I am quite sure that by adopting this system, you would get a very much better class of men to come forward than at present—men very much more suitable for the positions than some men who are now in the Municipal Council of Hobart. Not that I say that the aldermen do not do their best now, because they are all good men in their way; but still, I think you would get men who would be more suitable for the positions—if I am to be candid—than some of the men who have occupied positions in the Municipal Council for some time past.

3448. Now, will you assist the Commission, Mr. Davies, by giving them your opinion as to the limits of Greater Hobart, as you would suggest them—would you go beyond New Town and Glenorchy? Oh, no.

3449. Will you state what local governing bodies you think might fairly be included? Well, of course, I include all that portion that would be affected by the drainage—the whole of the Glebe, the portion of New Town that would be affected by the drainage scheme, a portion of the Wellington Hamlet, Mount Stuart, and Sandy Bay.

3450. You would exclude, I suppose, Beltana and Bellerive? Oh, yes. You see they have nothing in common with this side, as they are not affected by our water, or anything.

3451. You exclude Glenorchy, also, I presume? Oh, yes. I think it is no use trying to do too much. I do not say that in time circumstances might justify you in extending your boundaries; but I am quite sure that if you take into your scheme for a Greater Hobart your metropolitan drainage boundary, you will cover everything that is necessary, at any rate, to commence with. You will see my reasons for that suggestion; you could have one body working the whole lot without difficulty; whereas, if you combined the water and drainage and kept the Municipal Council separate, as at present, you would not only have the two bodies in the City, but you would also have the Town Boards, with their separate bodies, and each with a representative on the Metropolitan Water and Drainage Board, besides. You will have two lots of people in control whichever way you move. The rating altogether in the suburbs, at present, is something like 1s. in the pound for Town Board purposes. The rating on the City is sixteen pence for municipal rating; and in the suburbs, I think, some are rated at one shilling, and some have an extra penny for lighting, &c. I think that it is important that you should understand the true position. You see, as far as Hobart is concerned, that we started this year with a credit balance of £3355, and last year we had a credit balance of something like £3000. When the ways and means were made out, and the Accountant submitted them to me, I thought the matter over as to whether it would not be advisable, perhaps, to take into consideration the wisdom or otherwise of reducing the municipal rate. I knew the great need that existed in some parts of the City for certain works in connection with some of the streets, and I thought it would perhaps be as well to leave the rate alone, because the difficulty when once you take a rate off, is to put it on again when need arises. This year I think the Government are coming out fairly well. We have £1500 voted for outlying streets. We have £750 from a special vote which Parliament decided to give us on the same lines on which it treated Road Trusts and Town Boards, that is, according to amount of rates we raise. I found that when it came to distribution of this special vote, instead of getting £750 on that basis of revenue raised, we received £880. We had these amounts, together with £5599 at our disposal, after making provision for salaries and other general expenditure, plus £2000 that was also provided as a repayment for money borrowed years ago to get over certain financial difficulties. This amount has been repaid back into an account originally borrowed for City improvements, but is available, and can be expended on City works. Well, those sums, plus the amount of Government subsidy for outlying streets, and the amount of £880 that I have already mentioned, brought the amount at our disposal up to £9880. We have that amount at our disposal for the benefit of the City—City improvements and new works, and the general work of the City for 1901; and we have also a balance of £1250 to be utilised under the head of contingencies; so that altogether, one way and the other, we had £11,130 at our disposal this year for the City. Therefore, as I said just now, I might have proposed, if I had been anxious for popularity, to reduce the rates by twopence, which would have been, in round figures, £1500; so that we would still have had nearly £10,000 to spend. That is, after all, for a small City like this, a very fair amount of money to expend annually, and, if it is spent to advantage, should, in my humble judgment, be quite sufficient to keep the City in such a good state of repair as would please the most fastidious. My reason in mentioning these things more particularly now, is that you may see that, presuming that the Parliament of the country continues to follow on the same lines as are now being adopted, you may fairly take into consideration, in dealing with this large and important question, the desirability of recommending favourably the proposal to bring the suburbs into closer connection with the City. It is easy to show, I think, that, after all, with ordinary economy, a large reduction of expenditure must follow if we have one body to manage the whole of the matters we are discussing. Clearly, the burdens of the taxpayers concerned would be reduced by the carrying out of the Greater Hobart scheme.

3452. Can you tell this Commission whether there have been disputes with the Glebe and Mount Stuart Town Boards as to the boundaries of footpaths and roads, and as to the disposal of their drainage? Disputes?

3453. I will put it in this way. In other words, do the local bodies of Mount Stuart and the Glebe contribute to the removal of the sewage they pour into the City of Hobart? No.

3454. They do nothing whatever? They do not contribute a penny. That has long been a disputed point as far as the Glebe is concerned. We have to keep the Park-street Rivulet in order; and I have often tried to see whether we could by any means legally insist upon their paying their share of that expense. I have no doubt that they ought to do so, in consequence of the fact that their drainage empties into that rivulet.

3455. Then the citizens of Hobart within the municipal boundaries have to pay for the removal of this outside sewage—the cost of removing the sewage that enters the City from these outside wards is virtually paid by the ratepayers of the City without practically any contribution at all from the Boards that are responsible for the nuisance? Well, I think there has been some expenditure going on with regard to Mount Stuart within the past two or three months for work, to which the Mount Stuart Town Board has contributed something.

3456. Has any demand been made upon these local bodies? Well, some efforts have been made in the past; in fact, we have even refused to allow them to drain into the City.

3457. But they do drain into the City, nevertheless? Well, the natural fall in the land does it; that is the fact of the whole matter. So that we have simply been obliged, in consideration of the health of the City, to do certain work from time to time for our own protection's sake.



3458. And you think that steps should be taken to remedy that injustice to the citizens of Hobart proper? I do not hesitate in saying that the only way in which you could do it would be by establishing a system of underground drainage, to which they would pay their share.

3459. And by incorporating it under one body? 'Yes, decidedly. By so doing, in my judgment, expense would be saved, and the work be more effectively done. I do not believe, myself, in the existence of a lot of small bodies round about a City like this. I believe in them being represented on one general body. At the same time, I recognise the fact that when they each have their own parish vestry, so to speak, they become rather important in their own ideas.

3460. Now, to come to another subject altogether: we have it in evidence from the City Engineer that it is proposed later on to construct on the plateau of Mt. Wellington three new impounding reservoirs, which the Engineer estimates will, when completed, hold 17 days' extra supply—can you tell us anything about that? I would like to tell you, Mr. Chairman, that that proposal has never been considered by the City Council. It was simply embodied in a report of Mr. Milles, which has never been considered up to the present time. I do not think it is any good my going into a question which has only been casually mentioned, and as to which, so far, nothing at all has been done. I couldn't really tell you anything at all about Mr. Milles' views on the matter. I have, myself, only had an opportunity of knowing them from what I have gathered in casual conversation, and my knowledge is not sufficient to express an opinion on them.

3461. Of course, you know that if we extend our storage capacity under the present scheme, either by providing additional reservoirs at the foot of the mountain, or on its slopes, or on the plateau, it must mean the exclusion of visitors and tourists from the watershed—you have reports as to that, I think, from your Health Officer and others? Yes; but it need only necessitate the exclusion of visitors from one side of the mountain.

3462. The side that is most frequented by visitors and tourists? Oh, no, not the side most frequented; because the side most frequented is the Springs side, where the smallest quantity of water comes from.

3463. But is it not a matter of fact, that right from the intake of the North-West Bay River away round to the Springs, the whole place is now open to visitors? That is so up to the present. Well, I might also, perhaps, tell you of something else which I know is in contemplation; in fact, I am in hopes of seeing it published in the course of a few days. I must explain that the only report that has ever been submitted to me, to my knowledge, has been by Dr. Sprott on the one hand, as to the necessity of taking this particular precaution, and by the Director of Waterworks on the other hand, as to the means of getting rid of the possibility which may exist of contaminating the water supply. Well, the difficulties, as they concern the present water supply on the north-west part of the mountain, could be got over in such a way as not to affect tourists going on the mountain from the Springs side, where all that troubling is, if we could remove the pipes that at present are being taken up along the route between St. Crispin's Well and Watchorn's Hill, and utilise them for the purpose of doing away with and replacing the present troubling on the other side of the mountain. I am now given to understand that these pipes will carry all the water that is obtained from that portion of the mountain on the Springs side; and the Waterworks Committee contemplate—in fact, I was present at the meeting the other day when it was decided—bringing up a report at once, recommending the utilising for that purpose of these pipes, which it is thought will be sufficient to close in the water on that frequented portion of the mountain, and thus prevent all possibility of contamination. By this means we should do away with the trouble that has been disturbing the minds of some—although it has not disturbed my mind much, I must confess—the trouble as to the possibility of injuring the water by allowing tourists to go over that portion of the watershed. From the other part of the mountain this side of the North-West Bay River, the tourists must be excluded, or you must do away with the present water supply altogether. But on the Springs side, the water can be taken down these pipes, of which we have, I believe, sufficient, and so be protected against pollution.

3464. Is not the whole of that watershed, from the plateau of the mountain away to the North-West Bay River, defiled every summer? No.

3465. Where does the North-West Bay River take its rise? At the Wellington Falls.

3466. And where does the water come from to go over the Falls? Well, not from anywhere where the tourists go. Of course, I do not say that one or two may not go there; I am speaking of the general body of the tourists.

3467. Well, when the Commissioners were on the mountain some months ago, I may tell you, we traced that river for some miles, and found that it took its rise at the Pinnacle—what do you think as to that? The general run of tourists who go there in the summer months keep to the Springs side. If we get over that trouble as to the open troubling, that side could still be used for tourists.

3468. Have you seen Mr. Rahbek's report on that subject? I am not quite sure.

3469. Then you do not think that, seeing that in the future Hobart may be expected to grow much more quickly in population than it has in the past, it is necessary to make other provision for water—you think it is as well, in fact, to go on building more storage reservoirs on the mountain instead of going further afield for the water? Of course, my opinion is that with another storage reservoir, which could be obtained very easily, in a very favourable situation, we will have enough water with our present 12-inch pipe. It would certainly be very nice if we could get one or two



springs between North-West Bay River and St. Crispin's Well which would give us, perhaps, an extra 300,000 gallons a day.

3470. You have had a large experience both as a member of the Waterworks Committee and as Mayor? Yes.

3471. And has your experience with regard to constructing dams on disturbed geological country been sufficiently encouraging to lead you to go on in that line of adventure? Well, you know, I had nothing at all to do with the building of the reservoirs.

3472. I will put it to you in another way. I suppose that you are aware that the whole of Mt. Wellington—the whole country thereabouts—that is, the whole of the ground covered by the mountain and its spurs, has been subject to immense geological disturbance, and is full of twists and faults. You have the Tertiary sandstone cropping up through the Palæozoic, and you even have mudstone, in fact, intruding through very old rocks with granite and bluestone. That sort of country, as engineers believe and know, is not the most suitable country to build dams on. For such works you want impervious strata and settled country. Now, do you really think, from your experience, that it is advisable to go on with new works on the line of the works now in existence? Well, I do not think that as to the upper reservoir we have anything to show that there is any doubt as to the suitability of the site.

3473. But what about the lower dam? I know nothing at all about it.

3474. *By the Vice-Chairman.*—You are assuming, are you not, Mr. Davies, that the supply you are now obtaining from the North-West Bay River, will be permanently given to Hobart? No, I am not.

3475. You think sufficient water could be got for the supply of the City and suburbs if that North-West Bay River supply was given up at the end of two years? I presume that if further conservation were obtained on the mountain, equal to that which is obtained from the other reservoirs, we would have enough water, presuming that we get these two or three other sources of supply between St. Crispin's Well and the North-West Bay River. In that case, we would have enough water for the City for the next five-and-twenty years, in my opinion.

3476. That is assuming that there was no great increase of population? Oh, yes; I am allowing for population.

3477. How much increase of population would you allow for in twenty-five years? I should allow the population to double itself within twenty-five years; taking it to be 35,000 now, I would allow for 75,000 then.

3478. It is about 30,000 now within the water area, is it not? Then make it 60,000 in twenty-five years.

3479. With regard to Greater Hobart. You know that Bellerive and Beltana look forward to getting their water some day from Hobart? Well, I have heard that for a great many years.

3480. Do you know that they are suspending any works over there until they see if they can get it from Hobart? I do not think there is any prospect of that, unless we get the water from very far away.

3481. But why no prospect? Because I think that Hobart and the suburbs can get enough from their present sources for their own needs, but not for outside supply; unless, that is, they get the control of the North-West Bay River altogether. Of course, that is an open question. I very much question whether Hobart won't have quite enough to do to manage its own affairs, without attempting to cater for places outside. Naturally, it would be very expensive work to supply water to Bellerive or Beltana from this side of the river. Their supply must come from the other side.

3482. You have not seen Mr. Rahbek's report on the mountain, have you? I think I remember something about it now. I am rather inclined to think I have seen it.

3483. You will remember a plan at the end of it? Didn't it condemn altogether the idea of allowing tourists there?

3484. Yes. There was a plan. Do you remember that? I did not go into it very carefully; I just glanced through it.

3485. He showed on that plan a portion of the mountain that he thinks ought to be closed in by a barbed-wire fence. That plan was put before Gadd, the Ranger on the mountain, and he gave evidence—what everyone that visits the mountain knows—that the whole of the portion of the mountain now most used by tourists would be shut up by Mr. Rahbek's proposal. We also have it in evidence that the present road to the Springs—the carriage-drive—has been stopped short of the Springs, on account of the danger that would arise to the water supply if it were finished. Did you know these facts? Well, I would not like to be very positive about it. I think I remember something about it.

3486. I suppose you agree with me that Mount Wellington might be made a very valuable asset, not only to Hobart, but to Tasmania as a whole, if it were developed properly? Yes. But while I admit all that, I think that the water consideration is the greater one. I think that the lives and safety of the people, and the purity of a water supply, provided at a reasonable price, is more important than anything you will ever do in the shape of getting tourists to come here during about three months of the year. While I am a great advocate for tourists, I think the first consideration in a matter of this sort is the consideration of our own people. I think the water supply should be a good supply. I think that a wholesome water supply to the City and suburbs is of greater importance to us than anything you could do by getting tourists to come here. You see, there are so many other places where tourists could go for the benefit of their health outside

our watershed ; but, anyway, the benefits accruing through tourists are small in comparison to the benefit that must be derived from getting a good supply of water for the City.

3487. Shortly, then, if you thought that the use of the mountain by tourists would interfere with the water supply, you would shut them out from the mountain? Most decidedly, if I thought it was a question of the water supply or the tourists. I do not want to be misunderstood; I don't want you to think that I wish to prevent tourists coming here; I mean that, as between the two things, I should decide in favour of getting a good water supply preferably to getting tourists to come to the place.

3488. Of course, if the place were shut, we should also deprive our own people of the use of the mountain? Oh, well, to a certain extent. My own opinion is that we are making too much fuss over this matter.

3489. Don't you think that one must be guided by the opinion of professional men? I admit all that.

3490. There is a difficulty with the Wellington Hamlet Board at the present moment about drainage, is there not? I think that has been settled.

3491. There is another difficulty with the Mount Stuart Board, is there not? Yes; that is settled too. Of course, it is settled in favour of the Mount Stuart Board; but while we are pledged, as you all know we are, in the interests of the health and safety of the people who live in that part of the City, we must be prepared for that.

3492. And the Glebe drains into the Park-street Rivulet, does it not? Yes.

3493. Do you happen to know how many water-closets there are in the Glebe? I couldn't tell you; it is outside our boundary; we cannot interfere.

3494. You are aware, of course, that there would probably be strong opposition from the minor bodies over a Greater Hobart proposal? That you would naturally expect.

3495. They claim that they make their roads and their lighting, where they do light, more cheaply than these things are done in Hobart. Would you propose to leave them the power of doing their own road-making and lighting? Oh, no. If it is to be a body of control, it must control everything. They would have representation on any such big body, and I am quite sure that, with a good guiding hand in the shape of a professional man, say, an engineer, their own work would be much better done under a Greater Hobart system than it is at present. I believe, as far as New Town is concerned, at any rate, that one of your Commission, like myself, knows that very decided improvements could be effected in the part we live in. Anyhow, I always find that, if there is an election coming on out there, we get our gutters cleaned out, and so on. I have drawn special attention to that fact more than once.

3496. We have discovered that there are dairies on the outskirts of the City which are never inspected by the local authorities. Do you know anything about that? In the districts—how do you mean?

3497. Well, I should say, in the suburbs. Do you know that they are never inspected by the local boards under which they live? Well, that would all cease in a Greater Hobart. At present, you see, our Health Officer's jurisdiction does not extend outside the City boundary. We inspect everything that comes into the City; anyhow, instructions are given to that effect, and I think it is done.

3498. You do not know what happens outside? We could not possibly do it. I tried in vain to get the residents of New Town to give our officer an honorarium to be their general inspector, but they wouldn't look at it. I think that Queenborough has entered into some arrangement with him. What you refer to would be one of the cases in point which, if we had the Greater Hobart, would come under the general jurisdiction.

3499. We have found, too, that some of the suburban bodies have no jurisdiction whatever—do you know whether they have any at all? No, it is all go-as-you-please, which is most objectionable. I know that when I first entered the Municipal Council of Hobart, Dr. Giblin had just been appointed Health Officer. The old system that had been in vogue—the system of cesspools—was still in existence; and I think the Act had just passed providing that twelve months from that date they were all to be closed up. Under the new system, to my surprise, they agreed to allow each person to do what he liked, dealing with his own pans exactly as he chose; and disposing of its contents as he pleased. Some of them put the stuff into the back gardens, and some into other places; it was a go-as-you-please altogether. Now, it is a matter of impossibility to work a pan system unless you make it compulsory. I thought the matter over, and I went to Melbourne and looked around. I decided, in my own mind, that the system that was in vogue in St. Kilda, known as the Hesse's Patent System, was the best; and I succeeded, on my return, in inducing the Municipal Council here to buy the patent for Tasmania. We had power to levy the necessary rate, and we did it. We started the duplicate pan system, and from that time onward, as far as a system of this sort can be made effective, I think this system has been effectively worked in Hobart.

3500. *By the Chairman.*—What was the nature of the patent you bought? The patent consisted in the cover for the pan itself. It has worked well for years.

3501. *By the Vice-Chairman.*—Do you know of any outbreaks of disease which have commenced in the suburbs—was not there an epidemic of diphtheria which was traced to one of these suburban dairies? Oh, yes, there was; many years ago. It originated down in Bonnet Farm. I think that was diphtheria, and it was traced to the filth of the dairies there. I do not know of any other.

3502. Would the cost of administration of Greater Hobart be much more than the present cost of administering the affairs of Hobart alone? It should not be any more costly.

3503. You think that the same officers could do the work? Oh, there is not the slightest doubt of it; if you consider for one moment, you will see that. The same staff could carry out the clerical work; it is only a matter of making out a few hundred more forms and demands, and that sort of thing; and, anyhow, I have introduced the system of making demands twice a year. I am sure that such extra work as there would be could be very easily carried out. You see, as to the existing circumstances, I have gone into the thing pretty carefully, and I have found that it is a matter of impossibility to materially reduce the staff. At certain times in the year they have as much as they can possibly do; at other times the work is light. Taking it all round, if you had the Greater Hobart, you would have no material extra cost: nothing of any consequence.

3504. What is your opinion on this point—it struck me that, where a suburban body does employ a man to do the work, it must be impossible for that body to employ a man who could do the work as efficiently as it could be done if a large department was doing the work of a large body? Oh, yes. In the case of such a body, you set a man to do a certain piece of work, and he takes a week over it; whereas, if you had a sufficient staff to do it, it could be done in a day. Not only that; there is another matter to consider. Take New Town as an instance: we have, I think, three men there and an overseer; the overseer, I suppose, gets 50s. a week, and he really never takes his coat off. Well, you know from past experience yourself Mr. Chairman, that a good overseer never does take his coat off; he does not need to; but, then, that is when he has forty or fifty men under him. Where it comes to three men and one overseer, you are paying too much for supervision; and it stands to reason, that being the case, that it would be much better in the interests of everybody if we formed a Greater Hobart, and so brought these various small bodies under one responsible control.

3505. That, I suppose, would apply all round? Well, as far as the clerical work is concerned, there is always a certain amount to be done.

3506. But, as to the overseeing of the clerical work? Well, of course, if you have three different bodies, you must have three different heads. If you have one body, the one head can do the management of the lot; it is only a matter of degree. And yet, if you have the three different bodies, you cannot do without the three different heads; you must have a responsible man in charge. It is far better to have a good man who has sufficient knowledge and ability to conduct things on a large scale, and to pay him a good salary, than to have three indifferent men.

3507. That would apply also to sanitation? To everything.

3508. How many years' experience have you had of municipal life in Hobart? Well, virtually, I have only been away two or three years since 1884.

3509. And you have been Mayor of the City how many times? This is my sixth year.

3510. Various questions have cropped up, have they not, with regard to the roads which divide the suburbs from the City, and the footpaths also? Well, as a matter of fact, we have not a plan. There is not a proper plan of the City in existence at the present time.

3511. You do not know your boundaries, do you? Well, unfortunately, we have had many changes in the Public Works staff from time to time. Attempts have been made to have proper plans prepared, setting forth the whole of the boundaries and the different footpaths, and showing all the drainage, and all that kind of thing; but the plans have never been kept up as they ought to have been, and the consequence is that it places a new man in a somewhat unenviable position from time to time when he has to find out and discover, as difficulties arise, where the actual difficulty is. Of course, that has been a standing misfortune we have had to contend with during the last few years; the trouble of the new man never having complete plans. I am in hopes that we will have proper plans, and everything completed in that way, under the Metropolitan Drainage Board, before very long.

3512. Assuming, now, that the Corporation had the governing of the water supply for Hobart only—the City area, that is—do you think that they could then have afforded to employ the new Turncock to look after the plumbing of the City, and so to improve the water-supply and sanitation generally? The new Turncock—I do not understand.

3513. The present man, I mean. You are making an effort, I understand, to improve the plumbing, and so forth, which had not previously been satisfactory. Is that so? That is not the reason why this man was appointed. The real reason was that the men we had there previously had arrived at a stage when it was desirable to make a change. They had served their day and generation, and it was thought advisable, looking ahead to the probabilities as to drainage and so forth, to appoint another man to do the work. We thought it would be much better if we could obtain a man with modern ideas, so that he would not only be useful to us, but he might be useful also to the Technical School, by conducting a plumbing class there, which would be a means of teaching the young fellows in the trade how to do their work properly.

3514. What I want is this: his salary is charged against "Waterworks"? Of course; he only does water work.

3515. Now, if you had only had charge of the water supply of Hobart itself, and had collected no rates from anywhere outside, do you think you could have undertaken to employ that man to do the work he is doing? You could not have done without him, anyhow. You must have a plumber in the Corporation, and the salary of £175 a year that he gets is nothing very wonderful for the

work and responsibility attached to his office. You see, he has to look after the whole of the reticulation of the City.

3516. And the suburbs also? Well, after all is said and done, they are not much. In my opinion, there is another matter you might very well consider. I dare say you noticed that in Launceston the Council has very wisely taken the plumbing of the City into its own hands?

3517. Not the whole of it, you know; there is still a lot of work done by private plumbers—is there not? Anyhow, I hold that it was much better for the interests of the whole of the ratepayers of this City that the body which supplies the article should be responsible for the reticulation and services. Like the Gas Company, the Corporation should see to it that the receptacle through which their commodity is supplied is kept in repair. I hold that view for this reason: we have two instances before us now, the case of *Heathorn's Hotel* and “The Imperial.” In these cases the water accounts during the last nine months have jumped up from £7 to £12 a quarter to between £30 and £40 a quarter. Well, they have let this thing go on, and then they have drawn our attention to the fact that there must be something wrong—a leakage somewhere, or something of that sort. Well, we have tested the meters and found them all right. We cannot find any clue between the meter and the pipes to show that there is anything wrong as far as we are concerned. We have had the water turned off right through the buildings, in order that we might test whether there is any leakage in that way. But, in the end, we are quite convinced in our mind that these people are asked to pay for water that they have consumed, but which has not been consumed in the ordinary way; and we have strong reason to believe, as they have tanks on their roofs, and other such things, that they have not taken the ordinary precaution to see whether the waste-pipes have been correct and in good condition, and so it has happened that this water has been running to waste. Instead of having proper ball-taps, the water has been running away through the waste-pipes into the drains, and so into the rivulet. We had recently reason to notice that there has been a tremendous lot of clean water coming down through the pipes attached to these and other buildings. How much better it would have been if we had had the whole of the management of these services under our own control, so that we could have seen that everything was kept in repair. I know that Mr. Heathorn pays Mr. Maher a certain amount to inspect his pipes regularly. Now, if we were forced to carry out that part of the business, how much better it would be for the consumers of the water, and how much more secure they would be against the possibility of having to pay for the large amount of water which they have consumed, but which could not have been consumed in the ordinary and legitimate way. Another reason I should like to give for my suggestion is this: that if we do the whole of the work, we should know that it was done properly. We have competent men to do the work, and it would be very much better in our own interest and in the public interests that the work should be done in a proper manner. I am quite sure that what I suggest would be very much more satisfactory to the people concerned than is the present state of affairs. I would strongly impress upon you, sir, and upon the Committee generally, the necessity of favourably considering in your Report some proposal of the sort I have suggested.

3518. Of course, you know that that is not done in the other States. The Metropolitan Drainage Board of Works in Victoria has a staff of skilled plumbers, and you can either go to them to get your work done, or you can go to a plumber certified and passed by the Board—I suppose you know that? Yes; we do that here now. But I hold that all our work, so far as the receptacles our water passes through are concerned, would be much better done if it were entirely under our own control—much better, I mean, in the interests of the people themselves. I do not mean to say that we are going to make a business out of it.

3519. *By Mr. Propsting.*—Do you know what is the quantity of water consumed per head per day in the City? No, I do not; I know what it is estimated at.

3520. What is it estimated at? It is estimated that we use up to 60 gallons per head per day; but I am not convinced upon that question. Of course, I must depend upon professional advice on all such matters.

3521. Is there any means of testing the amount of water you release for consumption in the City? Yes.

3522. What means? I think there are two meters fixed up at the head of the water supply.

3523. Is there any water coming into the City direct without passing through those meters? Yes; I think there is, in one place. I think there is the water—a small quantity—that comes through that 6-in. pipe in Macquarie-street, up by the Brewery there; but it is a very small supply.

3524. Do you consider that the Corporation is paid for more than half the water which is liberated to the City? I could not answer that question. I could not tell you that, because it is a matter of impossibility, unless you have meters all over the place, to say what amount of water the consumers are paying for.

3525. But you know the amount of your revenue? Well, of course that is based upon the ratable value of property; and that is really no criterion to go upon. It is a pernicious system altogether, and one that you cannot justify, as far as water is concerned.

3526. What system would you substitute? I think there is only one system. If you ask a man to pay for what he consumes, you must ascertain what he consumes by fixing a meter to his premises.

3527. Why has that not been done? Well, it is only a matter of finance.

3528. What is the expense necessary? Well, to start with, you see, it will cost over £20,000 for meters.

3529. But don't you get a rent for each meter supplied? Yes.

3530. Would there, then, under such circumstances, be any risk whatever of loss to the Corporation? No particular loss, beyond the cost of borrowing the money in the first instance.

3531. What rent do you charge for meters? It varies according to the size of the meters.

3532. Well, what rate of interest does it represent on the original cost of the meters? I think it is about 10 per cent.

3533. And what could you borrow this money at? Oh, well, I suppose,  $3\frac{1}{2}$  or 4 per cent. We borrow at  $3\frac{1}{2}$  now.

3534. *By Mr. Hamilton.*—But that 10 per cent. that you charge is only to cover the life of the meter, which, from what I think, is ten years? That is so. Of course, I might say, Mr. Chairman, that this is my individual opinion about meters; I have never been able to get the Council to go to that extent. I do not mean to say that I would meter the whole of the City; because I have always held that there is a certain class of people amongst the poorer sections of the community that it would not be advisable to meter and charge for the water actually consumed.

3535. *By Mr. Propsting.*—Has any proposal for the installation of meters—the general installation—ever been discussed by the Corporation? It has, on more than one occasion, been talked of; but I think we have virtually agreed to go in for a step-by-step policy, so to speak.

3536. And on what principle have meters been supplied, up to the present? Well, as far as I am able to judge, I think that they generally put a meter on the pipes of those people that they think are not very careful about the use of their water—more particularly, people that have gardens.

3537. Well, take fountains, for instance, in gardens—are persons using fountains supplied by meter? I think so; but I do not know of any fountains.

3538. But you make a charge for a fountain, do you not? Yes, I think we charge so much for each fountain.

3539. How much? I am not quite sure. I think it is £3 a year. I know that there is a fixed charge for fountains and syphons, and all that kind of thing.

3540. Do you know whether it is possible by using a fountain for which £3 a year was paid, to easily consume £20 worth of water in a year? No, I do not. Twenty pounds' worth is a tremendous lot of water.

3541. I think that is the amount stated by Mr. Milles and Mr. Waters, as what could be used. What do you think? Well, I have no doubt that the fountain in the Square might use that amount, if it were kept going all the time; but it is not used, as a matter of fact, more than two or three months of the year. I do not think any fountain would use anything like that quantity of water. That is my opinion; but I do not know of half a dozen fountains in the whole of the place.

3542. What is the condition of the water-pipes generally throughout the City? Well, as reported to me, several miles of mains want renewing. Some of them have been down from 25 to 40 years. Mr. Milles has told me over and over again that we want at least ten miles of new pipes in the City, almost at once; that is, in order to give a full and copious supply to people in some parts of the City.

3543. Is there any provision made for renewals of these older pipes, or of any pipes? No. For many years I have tried to have a penny rate set apart as a renewal fund; but I have never been able to induce the Council to do that. I think that they purpose to utilise the balance of the twopenny rate that was imposed last year to meet the expenditure incurred in consequence of the break at the new reservoir, for that purpose. I think that, after meeting all the cost of that work, there will be a balance of £700 or £800; and they talk of making that the nucleus of a renewal fund. I have strongly advised the Council of the urgent necessity of having such a fund, because it is impossible to renew the pipes otherwise; they will not be allowed to borrow money for renewals. Unless they provide a renewal fund, they will get into serious trouble before long.

3544. Have you any means of checking the amount of water consumed in the different sections or districts of the City? No.

3545. Do you think that it would be advisable to get such a check? Well, I do not think it would do any harm.

3546. For instance, have you any means of checking the amount of water now consumed by any one of the suburbs? We know exactly the amount of water consumed in the suburbs.

3547. How do you know? Because we have a meter fixed at New Town and Sandy Bay.

3548. With what object? To see the amount of water consumed in the year.

3549. For what object do you want that knowledge? Well, I had the meters fixed because it was said that the suburbs were paying too much for the water they were consuming, and, when we came to look at it, we found that they consumed more in proportion to the amount they paid than is consumed by the ratepayers in the City.

3550. When were these meters put on to the suburbs? Oh, years ago.

3551. When was the extra rate put on to the suburbs? The extra rate was on before these meters were fixed. It was only when the people in the suburbs commenced to complain that they were paying too much for the water supplied to them that we decided to put on the meters.

3552. Will you tell me this—how can you form any comparison of the amount of water consumed between the City and suburbs if you have no check on the aggregate quantity consumed in the City? Very easily. You only have to take the quantity of water that goes through the first

meter at the reservoir, and then the quantity consumed in the suburbs, and then subtract the one from the other.

3553. But you have no meter fixed to check the whole quantity coming into the City, have you? Yes, we have.

3554. But did I not understand you to say that some of the water came in direct from the mountain? Oh, only a very small quantity, and that only in very exceptional cases. There is little or no water taken from that Cascades reservoir now, because we have reason to know that it is not advisable to use it. As a matter of fact, we only use that water when we are driven to extremes.

3555. I might call your attention to Question 761: Mr. Milles is asked, "Cannot you tell the quantity of water released from your reservoirs annually?" He replies, "No; we have not got meters on any of our large mains at present; of course, the only method of getting at a consumption is by having a recording meter": well, if that is so, Mr. Davies, how can you possibly make any comparison such as you made just now, between the consumption of the City and the consumption of the suburbs? The comparison made is upon the average of water that comes through the mains. We estimate so many gallons per day; then we take the quantity of water.

3556. But have you really any means at all of estimating that? Mr. Milles has estimated it and gauged it, and he places this information before me. He does it every day, I think.

3557. Well, will you look at what he says in reply to Question 760: He is asked, "Will you tell us, Mr. Milles, what is the quantity of water consumed in the City annually?": In reply to that, he says, "I could not tell you by actual measurement. I have only gauged the consumption for special purposes in the summer-time. The winter consumption has only been taken once or twice": what would you say to that? Well, it is the summer consumption we are dealing with, principally; we do not bother ourselves about the winter consumption, for the simplest of all reasons. The winter consumption does not trouble us, because, in the winter, we have a great deal more water than we can possibly consume. Of course, I want you to understand that my remarks refer more particularly to that part of the year when it is necessary that we should be very careful about the water. In the winter months, as I say, we are not particular, because the water that is not consumed goes to waste.

3558. Have you any means of precisely ascertaining the quantity of water wasted through defective reticulation? No, not that I know of.

3559. Some of the water collected by the Corporation for consumption in the City and suburbs flows from the neighbourhood of the Springs, does it not? Yes.

3560. Did I understand you to say just now that you were going to give up that portion of the water supply? No; it is in contemplation to do away with the troughing that is there, and pipe it. We have the pipes.

3561. And would these pipes extend down to the Bower Creek? They would extend all along where the present troughing is; I cannot exactly tell you how far that is. The Chairman of the Waterworks Committee could tell you more about these things.

3562. Well, my question is really directed particularly to the protection of the water from defilement, by persons visiting the mountain. Is this scheme, that is under consideration, as you say, by the Corporation, likely to be thoroughly effectual in that respect? As far as that portion of the mountain about the Springs is concerned, I understand from the Director of Waterworks that the water will be thoroughly protected from any pollution. Of course, he has not brought up his report yet.

3563. Have you any information as to the number of persons who do visit the mountain, the number of traps that drive along the Springs road, and so on? Nothing more than I have seen in print. I have seen references to it in the evidence.

3564. You have no reason to doubt that evidence, have you? Oh, no; not the slightest.

3565. Do I understand that, under your scheme with respect to a Greater Hobart, you would deprive the suburbs of all power of local government? Well, if they had representatives on the Municipal Council, why the necessity of having any local government?

3566. How would you propose to deal with their debts, then? You could consolidate them; their liabilities are very small. If we took them in, we should take them for better, for worse; I am a true Federationist in that matter.

3567. And I understand that you would include under that scheme the area that is covered by the present drainage scheme? Most decidedly; for the reason already stated; because, if it were thought advisable to make one body to carry out the whole system, a great saving would be effected.

3568. Has any proposal been discussed in the Council to improve the creeks that are now used as open sewers in the City? Oh, that has been a subject that has been informally dealt with from time to time for years; but this drainage scheme that has been in abeyance for so many years has really prevented anything of a definite character from being done; and the matter has been hung up, in consequence.

3569. In your scheme for a Greater Hobart, could you suggest any means by which drainage could be dealt with—how, for instance, would you treat these creeks? Oh, I would not have any hesitation as to how they ought to be treated: they should not be used at all for anything but surface-water. I should do away with anything of an objectionable character. The idea of declaring the Hobart Rivulet a public sewer is, in my mind, most abominable, and the thing ought never to have been done.

3570. At the present time bedroom and other slops run out from the houses into the cobblestone gutters, I think? It cannot possibly be otherwise, under the present system.

3571. What system would you propose to substitute? Oh, an underground drainage system, of course. I have always been an advocate for an underground drainage. I would not propose that such a scheme should include storm-water, you know, because that is beyond our means. But the other system would answer for our purposes. We are blest with everything that is required to carry off the storm-waters without any great expense, and therefore the necessity of dealing with storm-water by a drainage scheme does not arise with us as it would arise in a flatter country.

3572. Is the method of inspection of houses and yards, as now performed by the officers of the Corporation, satisfactory to the Corporation? The method in vogue at the present time, as far as inspection is concerned, is better than anything that can possibly be done, by the Corporation alone, if we went to an expenditure of £300 to £400 a year more. I have arranged with the Commissioner of Police that the City shall be divided into four sections, and the inspection carried out by the constables. We have weekly reports of inspection in all these sections supplied to us, relating in detail to the inspection of all the backyards in all the different places.

3573. Do the policemen go into the yards and view them? Yes.

3574. How frequently? Every week we have a report. These reports are submitted to us, and my responsible officer, Mr. Brain, goes through the reports, and where there are any very glaring cases, he sends notices to the people concerned. The next time the policeman goes round to the locality in question, if these defects are not remedied, an information is at once laid against the persons concerned, under the Health Act. You know that I have got very great respect for the heads of our Health Department, and I always consider them to the best of my ability; but, all the same, they are prone to be too extravagant in their ideas about inspection. They want inspecting for this, and inspecting for that, and they overlook the fact that our means are not very large, and that we can, with a little care and management, carry out a great deal of inspection. As a matter of fact, we do carry out a great deal of inspection, at a cost that is well within our means. I admit at once that, if we were a very wealthy municipality, and had not very heavy burdens placed upon us, certain improvements might be effected; but the amount of inspection carried out at the present time is very large, and it is carried out at a minimum of cost. Of course, there is one matter that I would like to mention, Mr. Chairman, in connection with that. You see, the reports, as far as inspection is concerned, are, and must be, considerably ahead of the work of my official, Mr. Brain. He has to go and inspect a lot of these premises for various reasons, and he is kept employed morning, noon, and night, drawing up plans and showing people what must be done in order to improve the various premises from a drainage point of view. His work is heavy, and, as I say, the ordinary inspection gets considerably ahead of him. That is a difficulty; and the only general difficulty that I am in now, is as to whether I shall have to incur the expenditure—which would mean about another halfpenny rate on the people—necessary to have another professional man working in connection with Mr. Brain, in order that, together, they may combat the work as it comes in. Now, that is the real position of affairs; but, as far as the inspection itself is concerned, we have nothing to complain of. It is the carrying out of the work in connection with this inspection, after it is done, that my staff is not at present strong enough to deal with. Of course, the Council, in their judgment, prefer to work things on cheap lines. For myself, I often think that that is a very expensive way of doing things in the end; but I am doing the best I can with the staff at my disposal to keep pace with the inspection, which is very much ahead of us. In fact, Mr. Brain told me only the other day that, although he works morning, noon, and night, he cannot keep the work down. He has to go and ascertain the circumstances, and find out all the necessary information with respect to drainage, and, on top of that, he has to draw all the plans.

3575. The Corporation removes the garbage and refuse from the central part of the City only, does it not? That is all; but we will also remove it from other parts if we are asked to do so.

3576. Would you propose that this removal of garbage should be made a general service, and that a rate should be imposed to cover the cost? Well, it is just like all these things—the only way to do them is to do them by compulsion.

3577. If such a system were adopted, do you not think it would be cheaper to the citizens themselves? Personally, I do, if you could only get them to think so. It would be much better, and cost a great deal less, to have the work done by us, and charge a rate, than that private individuals should pay a shilling a week or month for the removal of their rubbish, as they do now. Only, of course, if you adopt such a course, it must be remembered that you are going to impose a special rate, in some cases, on people in the City who have no backyards or household premises at all.

3578. But would not the adoption of such a scheme be a protection to the health of all? If it were undertaken, in that light, it would, perhaps, be a wise thing.

3579. Would you object to charge any suburb for the water it consumed, and allow that suburb to distribute the water, collect the rates, and generally administer the water supply in that suburb? I think it would be a very good idea myself if they liked to take on themselves the responsibility of looking after the whole thing. They can take over the whole of the water supply, as far as I am



concerned, if they will guarantee to look after the reticulation and collect all the rates. That would be a very good idea.

3580. Has such a proposal ever been discussed in the Council? I do not think so. I think the question of the suburbs buying the water has been talked of, but not the matter of the responsibilities that that would involve. You see, you would have to go a good deal further than the mere matter of the buying of the water; you would have to have a guarantee that the buyers would take the whole of the responsibility to see that the pipes in their respective districts were kept in repair.

3581. Well, that responsibility is yours now. All that you get paid for is the water, is it not? Well, if they want to start on these lines, they had better take the whole responsibility. Let them take over the whole of the supply and services all through their district, and we will simply supply the water at a price. I should jump at such a proposal.

3582. Have you read Mr. Steward's evidence? Yes.

3583. Would you like to make any remarks about it? Yes, because he has made some extraordinary statements. I am sorry that he is not here. I read Mr. Steward's evidence carefully. Of course, he was only in the Council about two months during the time that I was Mayor. My brother, you will remember, went to England, and I accordingly resigned from the Council, and did not return to it till the following year. But I find that Mr. Steward takes credit to himself for certain reforms that were introduced before ever he came into the Council. I believe myself that before he came a scheme was in existence whereby certain alterations should be made in the Rates Office, under which scheme the whole of the work of that office would be more directly under the control of the Accountant than it is at the present time.

3584. *By the Chairman.*—Has that scheme been carried out? No. I knew that Mr. Steward had a certain reputation; in fact, I was mainly instrumental in getting him his position in the Corporation. I knew that he was a very good administrative man, and also possessed of good powers of organisation, and I talked this matter over with him. I showed him, I remember, the plan of what was proposed, and I told him what, to my mind, ought to be done. He said "Well, I will go into the question." He did go into the question; but, unfortunately, he did not go into the question while I was in office. He said that he did bring a scheme before the committee when I was out of office. Whatever these other schemes he talks of were, I do not know; I never heard of them. The scheme I have spoken of was the only one I ever knew anything about; and that one, as I tell you, had been started long before ever he came into the Council. It is true that his scheme was a little different from the original one; but the idea was not a new one. At present, I have a scheme before the Finance Committee, a scheme, I may say, which has been before the Finance Committee for the last twelve months, but which has been hung up in consequence of the fact that it would cost something like £200 to carry it out. The scheme is this: that the present room, known as the Committee Room, to the right from the Library entrance—the room that is used as the Council Room during half the year—should be devoted to the Rates Office. Then, the present room occupied by the Accountant would remain in his possession; but I have recommended that a door should be placed in the Committee room, connecting with the Accountant's room, so that he could always be in close connection with the Rates Department. My reason for suggesting this alteration is not because, as Mr. Steward says—and I am very much surprised to see that he has said such a thing—the Accountant is not in a position to supervise the work. I am, as I say, surprised at that statement; because if anyone likes to go into the Rates Office in the morning, he would find the Accountant in that office from two to three hours, going through the whole of the work that has been done the previous day, and at the same time keeping his eyes about him to see how the work of the office is being performed. But my great objection to allowing the Rates Department to remain in the present room is, that for a certain portion of the day the Accountant is too far away from that office, and it is far better that the Rates Office should be removed into the locality I have already indicated, so that the Accountant could have this particular department, for which he is responsible, under his eye the whole day. So much for that portion of the evidence. Another portion of Mr. Steward's statement is to the effect that the Municipal Office was a go-as-you-please establishment: that every head of a department used to think he could do as he liked and run his own particular show, and that the Town Clerk did not really know what was going on. Well, in 1885, the very first year that I was Mayor, when I came into the Council, I found that we had no regulations in existence at all for the proper government of the establishment; so I sent round and got the regulations of the Municipalities in force in the capital cities in Australia; and I think, so far as my memory serves me, that that was the year we had the regulations issued and published governing the work of the offices, the same as is done in Government Departments: regulations as to the hours of labour, the work done, and everything that possibly could be laid down in the way of regulation in a well-regulated Government establishment. I notice that Mr. Steward says he found these regulations stowed away, but I have found them stuck under his nose ever since I have been there. I know that they were there when Mr. Smith was Town Clerk, and when Mr. Birch followed him. To my knowledge they have been stuck up in that office for fifteen years. How Mr. Steward came to say he found them stowed away, I do not know. He may have found copies of them; but they were posted up in the office all the same; and if you go there yourselves now, you will find them posted by the side of the Town Clerk's desk, where they have been posted, as far as I know, ever since the time when they were first passed—Oh, no; let me be precise; I think they had to be taken down when the rooms were re-papered, but they were put back again immediately, and virtually they have been there ever since they were passed. As a matter of fact,



it is only within these last two or three months—say, the last two months—that I have found that any attempt has been made during the whole of the time since they were passed to break through these regulations, and that was in the action of Alderman Bennison in going about to the different departments and getting information himself, instead of getting it in the regular way through the Town Clerk. When I found that this had been attempted with the object of doing me a personal injury, I gave explicit instructions that if any alderman wanted information from any department, he must get it in the proper way; that I held the Town Clerk responsible for the departments, and if any information was required by anybody, it should be obtained by asking the Town Clerk for it; and I said that I would not have the different departments interfered with in this irregular manner. These regulations have, however, been in existence for 15 years at least; and I was much surprised, therefore, to notice these remarks made by Mr. Steward. At any rate, during the whole of the time he was with me as Town Clerk he never had a single occasion ever to say one word to me as to whether any correspondence had been sent to any other officials without going through his hands. Why it should have happened after I left is a marvel to me; but I can positively state that no such thing ever existed in that office since the time that I have been there. The Town Clerk has always been recognised, and rightly so, as the head of the staff, and all correspondence has to pass through his hands, and so be forwarded to the different departments. As to Mr. Steward saying that he had no records to work on, I may say that the only alteration that was introduced by Mr. Steward in the way of records was that, instead of doing as we had done in the past from time immemorial, he introduced a new system of keeping the records. Before he came the letter-books were kept, but, instead of referring to an index, he went in for the “flimsy” system, and the “flimsy” was attached to the letter to which it was a reply. That was the only difference he introduced as to that, and the only alteration that was ever effected during his time. As a matter of fact, we have reverted to the old system again, because it is a positive nuisance to have to go to a storeroom down below to find where these things are when we want to make a reference. We have the letter-books again now, properly indexed, and when we want to refer to anything we just have to turn them up. I could not help feeling surprised that Mr. Steward should have expressed himself in the way he did. As far as I know, he had not the slightest justification for what he has said. Of course, I have heard that he and Milles, the City Surveyor, used to cross swords occasionally, Milles saying that he would not be interfered with, and so on. Such differences may arise from one man trying to override the other; but, all the same, I do not think there is any justification for Mr. Steward’s statement. There is one other matter I would like to mention, and I think it is only fair that I should mention it, because there is a certain amount of correspondence which comes out there in evidence with reference to it: I refer to this *Chicago* water matter. Now, there was a mistake there, and I am quite sure that the Premier would not make an intentional misstatement. When I went up to the Premier in reference to this water, in the first instance, on receiving an application, I asked him particularly whether we were justified in supplying the *Chicago* with water free. I told him that I had supplied this ship in the past, and told the people on board that if I found that it was essential on their return that they should pay for the water, I should expect them to pay for it. I was very desirous, as I mentioned to the Premier, that we should do nothing to cause any unpleasantness between the Captain of the *Chicago* and the Corporation, and if this ship could come under the clause of the Act which authorises us to supply water free to Her Majesty’s shipping, then, I said, it was our duty to do it. Mr. Lewis said, “I do not know whether they do come under that Act; if their charter is only to convey troops, they do not come under it.” I then said that I would be very much obliged if he would let me know what our position was. He then distinctly told me, in the presence of Alderman Kerr, that he would write to the authorities in Sydney—I forget who it was—on the point, and that he would let me know the result. Well, now, in the Premier’s statement, given there in evidence, the Town Clerk is blamed for not having written to this person in Sydney, whereas I asked the Premier the question if he would undertake to obtain the information, and he stated that he would do so. From the evidence, it looks as if the Town Clerk had neglected his duty in not writing to the Premier to ask him to get the necessary information; but as the Premier offered to do it himself, there seems to be a mistake somewhere. The Premier offered to do it, and that is why I did not speak to the Town Clerk and request him to do it forthwith. As to the question of the water itself, the trouble would all have been saved if this information had been obtained. When the matter was brought under my notice, I immediately gave instructions to let the water be supplied, and adjust the matter afterwards. There was a great deal of fuss and nonsense made about it, for which there was no necessity whatever. Had Mr. Steward spoken to me about it in the first instance it would have been all right. Directly I knew of it, I said, “I will give instructions that the water be supplied, and if there is any doubt or difficulty, it can be adjusted afterwards.” As to the loss of time and the delay of the ship, that was all bunkum.

3585. *By Mr. Propsting.*—Evidence has been given with respect to the hire of certain vehicles engaged to bring men down to vote from Corporation works; perhaps you would like to make some remarks as to that? I should be very glad; I should like to have that matter put perfectly straight before the Commission.

The witness withdrew.

WEDNESDAY, JULY 10, 1901.

J. G. DAVIES, *further examined.*

*Witness.*—Before you commence business, Mr. Chairman, there is one little matter in the evidence I gave yesterday that I would like to put myself right in. Mr. Propsting asked me a question, and in reply I said that there were meters fixed up at the Waterworks. It is true that the meters are there, but I was not aware that they were not working; therefore, the consumption of water has been taken by gauging it from time to time, and not by meters. I knew the meters were there, and I presumed that they were on the pipes; but Mr. Milles tells me that the meter-house will not be completed for some short time to come. I just make this little correction here because I do not want to say anything to mislead the Commission.

3586. *By the Chairman.*—As a matter of fact, I knew that they took their calculations from the level of the reservoir but I did not want to trouble you by correcting you, at the time. Is that all? Well, I thought I had better make it quite sure, so that there might be no appearance of anything misleading. As I say, I was not aware that the meters had not been attached. They will not do that until they have completely fixed up their meter-house and have the complete system at work.

3587. *By Mr. Propsting.*—Well, Mr. Mayor, you were just saying last night that you wished to make some remarks on a matter that has been brought before the Council as to bringing men down from Corporation works to vote? Yes, I shall be very glad to give you all the facts as to that, as far as I am concerned. I am also prepared to answer any questions as to the matter. Mr. Chairman, it has been the usual custom in the Municipal Council, at any rate, ever since I have been in the Council, that at every annual Municipal Election the whole of the employees of the Corporation should have an opportunity of voting; and they have been allowed, in some cases, where their work has been a little distance away, a couple of hours—or in some of the cases, one hour's time, in order that they might be able to get home, give themselves a brush up, and still be enabled to get down in time to record their votes. A few days prior to the last Municipal Election I went up officially with the Waterworks Committee, to inspect the work that we had in hand in connection with the extension of the water supply from St. Crispin's Well to the North West Bay River, and also the works in connection with the enlargement of the pipe between St. Crispin's well and the intake at the Bower; and just before we were coming away an alderman of the works committee said, "don't forget to make the usual arrangement to let the men get away to vote." Mr. Milles was standing close by, and I said "Oh well, we will see what Milles has to say on the matter"; and I immediately called him and told him that we wanted to carry out the usual practice of giving the men time to vote at the forthcoming Municipal election. He immediately turned round to me and said, "I don't see that we can possibly do it, as far as these men are concerned"—referring, of course, to the men engaged on the Waterworks up there. He said, "It will mean the loss of half a day for the men at St. Crispin's, and a quarter of a day as far as the men at the reservoir are concerned." He said, "It is not only the loss of the men's time you have to consider, but it will be also a great loss to us in having to knock off the carts and horses that are engaged, as the men will expect to be paid for their full day's work." And furthermore, he said, "I am very anxious to get on with the work as quickly as possible, because I do not know but that there might at any time be a shortage of water." I don't know, Mr. Chairman, that I could very well fly in the face of my professional adviser, under the circumstances; but I said, "I don't see how we can make fish of one and flesh of the other, as far as the men are concerned; but we will see if arrangements can be made whereby these men can work up to the last moment, and still have an opportunity of recording their votes, if they so desire. I think that we might send for them." "Oh," he said, I have not the slightest objection, if you do that. I think it is a very nice way out of the difficulty." I did not bother any more about it, but when I came down to Hobart, I simply said to the Town Clerk, "Send up, at the last moment, a big brake, or two, if necessary, to the men at the Waterworks, to bring them down to vote." Well, conveyances did go up, and the men came down and voted. Of course, I don't know how they voted; that didn't trouble me. I was in no way interested in the election. If I had been, I might have hesitated about letting them come, although I was only doing what had always been the practice heretofore. These brakes were obtained from Mr. Ikin, and had I followed the common course that we adopt nearly every time when we go to the Waterworks ourselves, I should have simply told the Town Clerk to pay them straight away in the ordinary way, out of petty cash. But I did not think anything of it at the time, any more than that I was doing what was best in the interests of the Council; and, preferring to let matters go through their proper channel, I did not bother my head about it. The account from Ikin came in in the usual way, and was presented to the Municipal Council. It was presented to the Municipal Council first of all. The account altogether was, I think, for some £10, which included these two items of £2 and £1 10s. It was ordered to be referred to the Finance Committee in the usual way, and then, if they found it was a correct charge, to be paid. When the matter was brought before the Finance Committee, the account having meantime gone through the Accountant's hands, he had put on the margin W.H. against the £2, and W.W. against the £1 10s. As I said just now, these two items were included in an account for £10. It is the custom for one alderman to read

the accounts, and for another alderman to sign the cheques in rotation. On this particular occasion it was Alderman Bennison's day to read the accounts, and Alderman Kerr's to sign the cheques. When he came to this particular account, Alderman Bennison said, "What is the meaning of W.H. and W.W.?" And the Town Clerk said, "Oh, W.H. means bringing the men down from Watchorn's Hill at the last election, and W.W. bringing them down from the Waterworks." Bennison immediately said, "Oh, we have nothing at all to do with this. What do you think about it, Kerr?" I don't think Kerr was the man who ought to have been appealed to at all, but the Mayor; but he did not appeal to me in any way. He said, "We can't pass this account in this way," or something to that effect; so without further ado the Accountant just put his pen through these two items, and I said to the Town Clerk, "Oh well, leave it to me; I'll attend to that." He put his pen right through the two items, and the account was passed for payment without them, in order to prevent the man being kept waiting for the whole of his money. I might state, Mr. Chairman, that on more than one occasion previously Alderman Bennison had refused to sign cheques when it was his day to sign them. Cheques are signed by the Mayor and aldermen and the Town Clerk; the aldermen take it in turns, but the Mayor always signs. Alderman Bennison has refused on more than one occasion to sign the cheques, although the accounts have been certified to as correct by the heads of the department, and have gone through the proper Committee and been certified to by the Chairman. He has refused on the grounds that the expenditure had been incurred prior to his becoming an alderman. Of course, I look upon that refusal as placing somewhat grave doubts upon the men who held the positions before he came into the Council, if he was not satisfied on their certificates to accept an account as correct. Bearing this in mind, I made up my mind that as far as this question was concerned the Council should decide it straight away. This took place some time towards the end of December, I think the 17th or 18th of December. Then, as you are aware, we went to Sydney to the Commonwealth celebrations there. I made up my mind to bring the matter before the Council at the first meeting when we came back in January. I was saved the necessity of doing that. Alderman Bennison went straight to Alderman Gould and told him what had taken place, and Alderman Gould asked a question which I think you have had before you: whether it was true that conveyances had been obtained to bring men down to vote at the last annual Municipal Election, and if it was so, by what authority it was done. I think I have my reply here. I said, in reply, that for many years it had been customary to allow the whole of the employees of the Corporation to vote at our annual election; but it was found that to extend this privilege to those working at the Waterworks, it would entail a loss of labour to the Corporation of at least a quarter of a day, and as every hour was then thought of the utmost importance to expedite the work in hand, I had given instructions that a conveyance should be sent to Watchorn's Hill at about 5 p.m. on the day of election to convey them to town in time to record their votes, and thus save the loss of time.

3588. *By the Chairman.*—What time? 5 p.m. They could not get down the nine miles in an hour. I think they lost about half an hour, as a matter of fact. Anyhow, I said, "About 5 p.m." The only remark that I heard made at the conclusion of my statement fell from Alderman Gould, who said, "This must not occur again." Well, sir, I should like to draw your attention to the fact that at that meeting Alderman Bennison and Alderman Kerr were both present, and they were both members of the Finance Committee; and the conclusion that I arrived at—which conclusion is found to be correct, because both Alderman Kerr and the majority of aldermen present, have said that statement was considered satisfactory—was that, by not expressing any other opinion they acquiesced in what I had done. Nothing was said except Alderman Gould's remarks, that it must not occur again. Such a matter, I hope, will never occur again, because the circumstances will not arise. The circumstances were extraordinary that necessitated these men being kept especially close to their work. I hope that in the history of the municipal affairs that necessity will never arise again. But the Municipal Council, I may say, were almost unanimously of opinion that what I had done was the correct thing to do. Some few days afterwards—the Town Clerk being away on public duties, I believe—the Accountant brought me an account of Mr. Ikin's, dated 1st February, for £3 10s., and asked me whether he was to pay it. I replied, "Certainly. You had better charge the £2 to the Loans Account at Watchorn's Hill, and the £1 10s. to Reservoir Account." Well, there the matter ended, as far as I was concerned. The responsible officer of the Corporation, the Accountant, having received instructions from me to charge it, I knew nothing more about it until, by the merest of accidents, I heard of it at the meeting of the Council on the 30th of the same month. After the Council meeting was over, I was sitting in the Mayor's room with Alderman Paton on my right. We were chatting away, and he incidentally remarked that the £3 10s. had been charged on the Waterworks Pay Sheet, under the head of "Cartage—W. Ikin." To which I replied, "Surely not. It ought to have been, 'Conveyance of Employees to vote.'" On the following morning, I sent to Mr. Milles and asked for an explanation of why the matter had been put on the Cartage Sheet in that way, and I received the following memo. :—

"Referring to your inquiry of to-day, I have the honour to state that in February last I received an account of W. H. Ikin's from the Accountant, who instructed me to place the items on the Pay Sheets, and the account was endorsed by him to that effect. This instruction was duly carried out, and although the items appear under the marginal note of Cartage, it was not intended to be considered as such, as it will be seen that the cartage items are so many days at so much per day, whereas this item is given in a lump sum. No doubt, perhaps it would have been more correct to have entered it otherwise, but at the same time, I consider the Wages Sheets are only for wages and cartage items."

Immediately on receipt of this, I wrote a memo. to the Town Clerk, as follows :—

"For the first time to-day it has come under my notice, in an official reply received from Mr. Milles in answer to a query of mine, that the £3 10s. which I gave instructions to be paid for conveying men from Watchorn's Hill and Waterworks to enable them to record their votes at the last general Municipal Election, had been charged, not as I ordered it, against the Waterworks Loan and Reservoir Repair Accounts, but appeared as cartage on these sheets. Please correct this error, and make it clear that the charge in question was for conveyances to enable men to record their votes in lieu of loss of time, as stated in my reply to Alderman Gould's question in February last."

3589. Your memorandum to the Town Clerk was dated 1st June, was it not? I do not know. It does not say on the note I have here.

3590. Is that the document [document produced]? Yes, that is my memo. I wrote that within five minutes of the time when I heard of it. On 15th June I received the following memo. from Mr. Milles :—

"The question of Mr. Ikin's account for bringing in ratepayers to the election in December last having again been brought under my notice, I have the honour to make the following additional remarks thereto, in conjunction with those of May 31 last. You will remember during the visit of the then Waterworks Committee and yourself to the reservoir that I brought under your notice what a large cost to the Corporation it would be to follow the long-standing custom of allowing the employees several hours off in order to go to the election, as many men and horses were at work at the reservoir and on the mountain. It was, therefore, arranged to let them go at a later hour, and that vehicles should be sent up to bring the men into town in order to record their votes before the Poll closed. I find the Council have saved by the arrangement, not less than £6. Although these items for the conveyances were questioned later on by Alderman Gould, I did not understand that the accounts were not to be paid, and no instructions were received by this office to that effect. On the contrary, it was after Mr. Alderman Gould's question, and your explanation at the Council meeting, that we received the instruction to charge the amounts on the weekly sheets, and although they were placed under the other items of cartage, it was purely an oversight that they did not appear otherwise. I may add that, as I have heard it stated that these amounts were surreptitiously inserted by this Department, I can only give it an emphatic denial, as for no other than the above reasons were they entered on the sheets."

In the statement I made on this question to the Council, I said—

"I will, as briefly as the gravity of the occasion will permit, state what has been done, in the most extraordinary way, by a section of this Council, not only to damn my reputation as a public man, but what, in my mind, is still worse, by implication, to impute collusion between the officials and myself. On Friday, 31st ultimo, I was informed that, at a meeting of the Public Works Committee, a question was asked whether the £3 10s. had been paid for conveyance of men to vote. The Town Clerk said he was doubtful, but found, on inquiry, that such had been the case. Aldermen Bennison and Gould then went into the Accountant's office, and requested to see the pay-sheets in question, which were immediately forthcoming. Having perused them, and finding the amount already referred to charged under other items headed "Cartage," but in a lump sum, £3 10s., (W. Ikin), they called in Alderman Benjamin into their counsel, and in their united wisdom it was agreed that Alderman Bennison should wait upon the Auditor-General and inform him of the Mayor's attempt to smuggle the amount in question in the waterworks pay-sheets as cartage, for the purpose of misleading the auditors. Was this an honourable course to adopt? I think not. Any man who had the slightest knowledge of the proper order of things would first have gone to the Mayor and asked him what explanation he had to make in connection with this matter, which, if not satisfactory, the Council was the proper place to deal with it, so that the ratepayers might judge, on hearing both sides of the question, where the mistake arose, if there were any mistake at all."

However, I will not go further into that aspect of the case now. I proceeded :

"Within half an hour of learning of Alderman Bennison's visit to the Auditor-General, the Town Clerk brought me a memo. from the Audit Department, asking for an explanation of Ikin's account. Without losing an instant I waited upon the Auditor-General, and after denouncing the conduct of the aldermen in question in no unmeasured terms, gave him the whole of the facts of the case. In the course of my interview I asked whether Alderman Bennison had informed him that he was one of the leading spirits when I brought it before the aldermen to allow the employees at the waterworks the time to record their votes at the Commonwealth State election, to which, as I expected, he replied, 'certainly not.' It would be as well at this stage to explain why I asked the question. Having been asked to grant permission for the employees at the waterworks the time to vote at the late Commonwealth State election, I replied before deciding, in the light of recent events, that I would bring the request under the notice of the aldermen. After the meeting of the 25th March, the aldermen having adjourned to the Mayor's room, at the request of Mr. Milles, who was then present, I brought this matter before them. Alderman Gould, without any hesitation, said the men should be allowed the time to vote, and he was immediately followed by Alderman Bennison, who expressed himself in similar terms, also stating it would only be about 30s. loss labour. I could not help remarking, 'Surely, Alderman Bennison, with your expressed views about saving the ratepayers' money, you at any rate would not be a party to this?' To which he replied, 'It is all right, we do not have a Commonwealth election every day.' When the accounts were submitted to the Finance Committee in the usual way, did this alderman take any exception to the account paying the men in full for the day's labour, without deducting the loss of time? Of course not. What was a virtue in his case was a wrong on the part of the Mayor. In the Mayor's case every publicity was given, as the facts already stated will show, while in the other case, if it is wrong to allow the time, then the Audit Department was deceived by paying men in full for work which they never performed."

I also said—

"Exception has been taken to my authorising the payment of this £3 10s. without referring it back to the Finance Committee to again deal with. Surely it cannot be contended that the Council is subordinate to any committee. When Alderman Bennison, who so often boasted of his backbone, informed Alderman Gould of what had taken place with reference to holding over this £3 10s., why did he not have the courage to bring the whole matter before the Council. I should have thought much more of him if he had done so, instead of deputing it to another. Did any member of the Council outside Alderman Gould, at the conclusion of my statement, express the slightest dissent at my action? If the members of the Finance Committee thought I was wrong, surely, in the light of day, it was their place, after eliminating the items from the account, to do so. The conclusion I came to at the time, by their silence, was that the explanation was satisfactory, as it was on account of this instructions were given to pay the account. However, the aldermen have the opportunity to-day of expressing their opinions as to whether they considered my explanation sufficient to justify my arriving at the conclusion, viz., not only was the charge a proper one, but the payment justified by the silence of the Council."

That, Mr. Chairman, is the whole of the case as far as I am concerned, without dealing with the personal part of it.

3591. Well, Mr. Mayor, am I correct in understanding that this charge was first submitted to the Finance Committee and objected to? Well, not quite so.

3592. Was it submitted to the Finance Committee? It went to the Finance Committee.

3593. And who composed the Finance Committee? Alderman Bennison, Alderman Kerr, and myself.

3594. Were you all present? Yes, we were all present.

3595. What was done with the items? Alderman Bennison, as I have already stated, said, "Oh, we have nothing to do with this," and Alderman Kerr did not take any exception—in fact, I do not think he took any notice at all. Bennison immediately said, "We will strike these items out," and I turned to the Town Clerk and said, "Leave that to me." And, as I have already stated, I intended to bring the matter before the Council, and let the Council deal with this particular question. But the necessity for my doing so did not arise, because Bennison had gone quietly to Gould and told him what had taken place, and that caused this particular question to be brought before the Council, and so enabled me to give the information, which I was not asked for in the Finance Committee, to the whole Council.

3596. And was it subsequent to that that the items were submitted again and passed? Subsequent?

3597. Yes? The items were never submitted to the Finance Committee afterwards.

3598. But was it subsequent to your explanation that the items were again submitted to any committee? They never were submitted to any committee again.

3599. Did these sheets upon which they appeared go before any committee? Well, it strikes me that they must have come before the Waterworks Committee.

3600. That is what I want to be clear about—did they come before another committee in another form? Oh, yes, they must have done. I am very glad you asked me that question, because I can throw some light upon that. The Waterworks Committee have four sheets to deal with. There is the Waterworks sheet—the ordinary labour account; the Waterworks sheet containing expenditure on the special works on the Mountain; the Waterworks Cartage sheet—and it is perhaps rather important—for the special work at the reservoir; and the Waterworks Cartage sheet for the special works at Watchorn's Hill. These two items—and mind, to my knowledge I have not seen these accounts—they may have passed through my hands, for all I know to the contrary. I sent for them directly I heard of this; but I have never seen them so far, because they are in the hands of the Auditor-General.

3601. What aldermen compose the Waterworks Committee?

3602. The Waterworks Committee is composed of Alderman Kerr—one of the Finance Committee, who is Chairman—Aldermen Brownell, Paton, and Snowden.

3603. So that the items would not come before you again, as you are not a member of that committee? Well, the only way they would come before us again would be in the ordinary way, on signing the cheques. The whole of these accounts are submitted to the Waterworks Committee in the first instance, as the proper accounts are submitted to every other department. They are then gone into, and passed; and when they bear the certificate of the Director of Waterworks plus the certificate of the Chairman of Committee, the only thing that is ever done by the Finance Committee is, on the one side to check the cheque book, to see whether the amount is correct, which one alderman does; and on the other hand to read out the amount to see that it tallies with the cheque book, which another alderman does. The accounts are then handed over to me, and I generally go through them to see if the details tally with the general run of the expenses under the different heads. If I find that there is an increase—anything out of the way, that is, £10, £15, or £20—I generally ask what is the reason of the increase in the particular department for this particular week. If I cannot get the explanation at the time, of course I obtain the explanation through the Accountant, from the Committee, in order to satisfy myself that it is for some special work that has been done which has entailed a little extra expense. As far as the Public Works are concerned I go a step further. I have a statement placed before me regularly every week, showing the amount of expenditure that has been incurred from the beginning of the year up to the end of that week by this particular department; on the other side I have the amount of money voted for the department for the whole year; so that I can keep a wholesome check on the Committee in the way of expenditure. It occasionally happens that I have had to pull up the Public Works Committee. Say that I find that £140 has been expended on a work for which £150 is voted, I naturally ask how much more work has to be done. Perhaps, after the City Surveyor has been sent for, he says it will take £30 or £40 more, and I say, then, "unless you bring up a special report at the next meeting, I will decline to sign further cheques, because the extra money has not been authorised." That is the way we keep a wholesome check on expenditure. Otherwise, the Finance Committee does nothing else beyond what I have stated as to that kind of thing. As there appears to be some doubt in the mind of one member of this Commission that there is something irregular in the accounts, I would like, Mr. Chairman, while upon this subject, to say most emphatically that, as far as I am concerned, I never gave instructions to the Accountant to put these amounts on the pay-sheets. All the same, the pay-sheets were the proper place to put them. You have had a very large experience yourself, and you will at once see how essential it was—how plain it is—that the pay-sheet must be the proper place. Because, after all, what was it? Instead of giving the men the time, for which they would have signed on the pay-sheet for labour which they had not performed, in this particular case they signed for their labour, surely, therefore, the convey-

ances which brought them down, in order to save the loss of that time which they would otherwise have signed for on these pay-sheets, was the proper place to put this amount on. I have never been able to see, as a business man, where the accountant has done otherwise than right in putting these amounts on the pay-sheets; and as to this talk of manipulating the accounts, I think that such a suggestion is an absurdity. The different pay-sheets are for different purposes; and surely, if the account shows £3 10s.—£2 for one work and £1 10s. for another—it is right to put the amounts under their respective headings. One was for Water-works and one for Watchorn's Hill and the mere fact of putting them separately, £2 and £1 10s., shows that the proper thing was done, in my judgment, although others hold differently. Of course, there ought to have been a special note to draw attention to the fact that the money was spent for the conveyance of the men in lieu of giving them the time to come down to record their vote. There is no doubt, in my judgment, that that would have been the best thing to have done; but the mere fact that when I found it out I had it corrected, at the very time when it was thoroughly new to me, shows that there was no manipulating about it. The instruction that I gave was what I would give in every instance in connection with a similar account. Of course, the Auditor-General and I have had some little correspondence on this question, and I have taken exception to his action in the matter. He has distinctly told me—

3604. *By the Chairman.*—I think the information before us is very full. I do not think there is any need to say any more, do you? There is one question I would like to refer to because it opens up a very big question that will have to be dealt with in future, I do not want to proceed beyond that. But perhaps, on second consideration, I will say nothing more about the matter, as it will have to be dealt with later on, and opens up an important question as to the position of the Auditor. The only principle involved, in my humble judgment, is whether the Municipal Council have a right to allow their men time to come and record their votes on the occasion of Municipal and other elections. If the Auditor-General says that he cannot interfere with that, or with any matter so far as that is concerned, then I fail to see how he can interfere as long as we act with that object, and it can be shown that in the action we take we are saving the ratepayers' money. He says we can do it in one place and not in another; but I fail to see the difference. I do not want to deal with the personal aspect of the matter; I have had quite enough of that. There is one other matter I would like to refer to. I am sorry Mr. Guesdon is not here; because I would like to say that, in certain portions of the evidence, Mr. Guesdon has stated that he had spoken to me with reference to some settlement in the front of the theatre. The thing is petty, and I don't think it ought to have come before the Commission myself. It is quite true that Mr. Guesdon did speak to me, and I said I'd attend to it. The very next day, I took the trouble myself to go and visit the theatre and satisfy myself as to this settlement; and then I ascertained from the official in charge that this settlement had been there two years and had been looked to, and there was really nothing in it at all, so far as any danger was concerned. I was told that they had attended to it, and it would not be likely that anything would occur again. Also, some statements were made as to the action of the Local Board of Health, in giving a licence to the theatre. Why the theatre was picked out I hardly know, but that was the particular building that formed the subject of Commissioners' questions. I might state, as a matter of fact, that when that theatre was altered, some years back, the Local Board of Health simply examined it, and it was the Central Board of Health only that could pass the work in question. If you look at the Health Act you will find—I think in the 7th section—that it is upon the Central Board of Health's certificate alone that the theatre could be opened, and any alterations must be passed by them. In this particular case the theatre went through very severe examination, and was passed; and I can say unmistakably that, for safety, and the possibility of preventing danger to the occupants in case of fire, I don't think there are half a dozen theatres in the whole of the Commonwealth as good as the present Hobart theatre if any fire takes place. The whole of the fire-escapes in most of the theatres lead into the vestibule; in this theatre the escapes are all into the street. As far as the escapes being in good order is concerned, I think the best plan to adopt, if there is any doubt about that, is to obtain evidence from the man who is in charge; and you will find from him that everything is in first-class order, and the greatest care is taken by the proprietors of the theatre to see that everything is kept up to the proper standard, in case any accident should arise. The Local Board of Health appear to have the onus thrown upon them. I don't believe myself, that Mr. Milles has ever been in the theatre; and it is only fair and just to those connected with the theatre to say that everything is in first-class order. Since this matter was talked of, they have taken trouble, and they gave instructions to have the whole place in front pulled down. That place has really no connection with the theatre itself, and the expenditure was undertaken more especially to satisfy the feelings of a few who imagined that there was something terribly wrong. After the whole expenditure was made, it was proved that there was really no necessity for anything being done at all. It was a settlement that affected nobody; but it was an eyesore, I admit.

3605. *By Mr. Hamilton.*—You were saying that the provision for exit in case of fire or accident is all that can be desired? Yes.

3606. Does that refer to the exit from the gallery? Most certainly.

3607. Are you sure? I am positive. I took the trouble myself to make inquiries from the man in charge there—Frahm. I would not speak about it to my brother, who is interested. I went to Frahm, and said, "What about the exit from the gallery?" He said, "The staircase is in

splendid order." I said, "How is the exit?" He said, "Everything is perfect; I only wish nine-tenths of the theatres in Australia were as good."

3608. You say it is entirely under the control of the Central Board of Health? Yes. You cannot make any alterations in the theatre unless they are certified by the Central Board of Health. The Local Board of Health has little or no power. I might state, too, that the Town Clerk in his evidence said that the licensing of such buildings was referred to the police. The Town Clerk is perfectly right. If anyone applies for a licence for a building intended for purposes of public amusement, we always apply to the police, in order to see whether the applicant himself is a man they would be prepared to recommend should have a licence; and, secondly, we apply to the police with the object of getting an opinion from them as to whether they think a certain class of place for which a licence is asked should be allowed in any certain locality. So that, after all, it is essential that the police authorities should be consulted, and the Town Clerk is perfectly right when he says that the matter is referred to the police. Of course, the reference is not as to the building—that is absurd—but as to the desirability of the occupant, or the desirability of having such a place as it is sought to license at all. I know from my own experience that I have on more than one occasion found it very desirable to bring in the aid of the police officials in advising me as to whether we should grant a licence or not in certain cases. Acting under their advice in one or two parts of the City in the past six or seven years we have decided not to grant a request made to us to allow the opening of a hall for concerts or general entertainments. In most of such cases the applicant has not been a man altogether approved of; and also the desirability of allowing places of this sort—which might develop into places not desirable to have in the City at all—has been very questionable. If these places had been licensed we might have brought about the old style of affairs that we should be sorry to see in existence again, and in order, as I say, to refuse to license them, we have found it essential to call in the aid of the police.

3609. *By the Chairman.*—Now, Mr. Davies, as far as I can recollect, you gave this Commission to understand that by the construction of a certain impounding reservoir, not far from the existing one, you could ensure a sufficient water supply for the City for the next twenty-five years? I think so.

3610. First of all, however, do you know the cobblestone gutters of Upper Davey-street and Upper Macquarie-street? Yes.

3611. Do you know that in summer there is an intolerable stench arising from these particular gutters? I do.

3612. And do you know that in consequence of the scarcity of water these gutters are only flushed very occasionally? I do not think there is any necessity to flush them at all. I take it that these gutters will not be utilised in the future for the purpose they are now used for, but only for carrying surface water. I am in hopes that we will be able to carry out our underground drainage system.

3613. That is so, no doubt; but do you know the made gutters of Launceston? I know that they have them in some places.

3614. In the principal streets? I know that they have them in the centre of the City.

3615. And are you aware that although they have a good system of underground drainage these gutters are flushed continually night and day? I know that as far as a portion of Brisbane-street is concerned ———

3616. Well, I may tell you that we got the evidence the other day—did you know that? I know that there is some flushing in Brisbane-street, from Charles-street to George-street; that is all the flushing I have seen up there.

3617. We have it in evidence that these gutters are flushed, without exception, daily, every day in the year; and that the main gutters are flushed continuously night and day. Now, do you think it would be advisable to have a supply here sufficient to cleanse the interstices of our cobble gutters—which are much more likely to contain filth than the made gutters of Launceston—regularly? I think the sooner the cobble gutters are done away with the better. I am strongly of opinion that, no matter what flushing you do, you will never be able to keep those cobble-stone gutters as gutters ought to be kept. I think myself—I have always thought—that the sooner we set to work and get rid of the whole of them the better.

3618. That is another question. Do you think that it is in the interests of this City—that it is desirable from a sanitary point of view—that we should have sufficient water to cleanse these gutters, cobble-stone or otherwise, daily, as in Launceston? I think we should have sufficient water to keep these gutters clean.

3619. And do you think that this contemplated additional reservoir would be of such service that you would have water enough to do that with the forty miles of cobble gutters in Hobart? No, not the cobble gutters; but with proper underground drainage, and with proper gutters, I think so, most decidedly.

3620. Can you tell the Commission if water is supplied free to any industrial institution: such as laundries carried out under the direction of various religious bodies in Hobart? No.

3621. You are quite certain of that? I am positive.

3622. A proposal has been made to supply water free to sectarian dignities, or institutions, in Hobart? Yes, attempts have been made; but they have not succeeded.

3623. Is water supplied free to any religious bodies engaged in teaching or in other charitable pursuits? No. Water is not supplied free to anybody, except where it is so provided by law:



that is, in cases where we cannot levy any rate. We are very particular about that, because this is a matter we have a big fight about at the present time.

3624. Are you acquainted with the proprietors of the theatre? Yes.

3625. Do you think you could obtain permission from these proprietors for the Commission to visit the theatre? I am sure that if you write to the proprietor he will be only too pleased.

3626. Who is the proprietor? The managing proprietor is Mr. Charles Davies. I am quite sure he will be only too delighted to let you have the full run of the place.

3627. *By Mr. Propsting.*—Were any negotiations ever entered into between the Tramway Company and the Corporation for the purchase of the trams? Well, I think I might as well give you a short history of that business. You have some correspondence down here already, I think. Sir Edward Braddon received a letter from the Secretary of the Tramway Company in England, which letter he forwarded to me, and asked me what I thought of the proposals; in fact, he asked me to reply to the letter. It asked whether the Corporation were in a position to enter into negotiations for the purchase of this line. I replied, after one or two informal meetings of the Council, that I thought that the Council would be prepared to favourably consider a proposal for the purchase of the line, if we could agree as to terms. I then stated that I had forwarded a report to the Manager of the Company, which he promised to send to England, setting forth the disgraceful state in which the line was, and pointing out that it would cost something like £30,000 to put the line in order.

3628. *By the Chairman.*—To renew it, in short? Well, virtually. And I pointed out that in any proposal they would like to make to me they would have to take into consideration the cost of putting the line in proper repair. I got a reply stating, if my memory serves me right, that they were prepared to take £100,000 for the tramway, and they would expend out of that £100,000 the £30,000 required to put the line in order. I wrote back to them, and thanked them for the offer, but stated that the price asked was considerably beyond my idea of the value of the property. I think that is about the whole purport of the correspondence.

3629. *By Mr. Propsting.*—Has the tramline improved and got beyond that disgraceful condition to which you referred? Well, I think myself, that the management have done their level best with the means at their disposal; but to say that the tram is what it ought to be is, of course absurd. I think they make the most of the small amount of money they can get over and above the amount expended in providing for the working expenses and the preferential debenture holders. I think they spent between £2000 and £3000 a year, one way and another, in keeping the thing in repair. I am quite convinced of this: that it doesn't matter what they do, they will never be able to make the tramway what it ought to be until they commence to make it afresh. That is my opinion. I am firmly convinced of this: that if the Municipal Council of Hobart could get this tramway at a fair price, and get the extra power necessary—say that, altogether, it would not cost them more than £100,000—they would be able to light the whole of the City with electricity without a farthing of cost to the citizens. That is, as far as street-lighting is concerned. Of course, we would not think of doing anything else. The tramway would pay not only its own working expenses, but sufficient interest to keep the whole of the lighting of the City free. I am quite sure that that will come, and if the Council has the pluck to carry it out, the tramways will be a very valuable asset.

3630. *By the Chairman.*—Well, now, Mr. Davies, we have it in evidence from the City Engineer that the local authority has full power under the Act to maintain the line at a proper standard—do you know that? Yes.

3631. And we have also evidence that that power has not been exercised—is that so? That is quite true.

3632. Can you account to us for the Council not putting that power into force? Well, as far as I am concerned, I have always done my level best to insist upon everything being kept up as close as possible to what is provided by the Act.

3633. And you are a paramount partner in the Corporation—the local body I mean? Well, I am, and I am not. I have spoken to the manager of the tramways a dozen times, and asked him when I was going to get a reply. I told him that I should be forced into writing to him in strong language. Of course he simply said, “Well, I can't help it.” He is not his own master; he has a Board here. He is very anxious to do all that is possible. He said, “I know it ought to be done, and I am doing my best to get it done with the means at my disposal.” Well, I wrote to him, some little time back, a second letter—I do not know whether you have it—and I referred this letter on to the Public Works Committee. The only thing I have heard in reference to that matter, is that the Committee have simply, after considering his reply, and finding that the Council are not themselves blameless, let the matter rest there. The only satisfaction I have got as the Mayor is that the Committee say, “He is doing his best”; and they don't seem to see that it is worth while bothering further.

3634. We have it in evidence from the City Engineer that the local authorities have full power to insist upon the maintenance of the line up to its original standard of construction—what do you think? Oh, that original standard was a very bad one, I am sorry to say.

3635. But it was better than the existing condition? I very much question it.

3636. Now, if the local authorities have power to insist upon this, why do not they insist at all hazards—are they doing their duty? Well, the local Board appears to me to be satisfied that the management, as far as this tramway is concerned, have done much since the last report was made, in



the way of keeping things up to the proper standard ; and they believe to go to the extreme would be unwise, in the face of the fact that the management are trying to do the best they can with the means at their disposal. That appears to me to be the view they take of it, anyhow. I admit that the question is a difficult one, and one so difficult, in fact, that I am afraid that if you were placed in the same position as I am you would find some difficulty in taking the arbitrary power you have under the Act, so long as the management are trying to do something to carry out what is necessary to keep the line in proper order.

3637. Then, do you think that the local authority is doing its duty in allowing this state of things, instead of putting on men and purchasing material to put the line in order—would that not bring on a crisis—it would be strictly within your powers, would it not? It opens up a big question. I admit you have a right to exercise powers, if you have them ; but we are simply human, and you cannot always get men to go to the full extent of their power, when a desire is shown by the other people concerned to do something in the right direction. I admit at once that if I could get yourself and men like you with me, we would set to work to get the thing straight.

3638. In other words, then, the local authority is not doing its duty? I would not say that.

3639. They are opportunists? I would not say that. I will say that they are inclined to take a liberal view of things.

3640. *By Mr. Propsting.*—Mr. Milles has reported to the Corporation on the unsatisfactory condition of the tram-track, has he not? Well, he did, a long time ago. But wait: I am wrong; he has reported again recently, at my instigation. I instructed him within the last few months, as I think I have already stated in my evidence, in consequence of our not receiving any reply from the Tramway Company to give me another Report on the Tramways, in order to satisfy me whether they had carried out in any way the repairs that the City Surveyor previously stated were essential to put the line in good order.

3641. Then, practically, his report has been burked, has it not? Oh, no; I do not say that.

3642. But there has been no outcome of it? Oh, yes; I think a statement has been forwarded in reply. This report by Milles was sent on by me to the Tramway Company, and a reply has been received from them, which reply, together with his report, has been considered by the Public Works Committee.

3643. And has nothing been done to put the line in proper repair? As I told you just now, at present I am unable to give you any further particulars, because I do not know what the Public Works Committee have decided to do in the matter. Nothing has been reported to me on the subject; but the matter has not been lost sight of, as far as I am concerned, as I think I have shown by getting the special report I just now referred to.

3644. Is the report you referred to this one, dated 7th August, 1899? No.

3645. Has there been one since then? Oh, yes; this year.

3646. Well, I suppose we can get that? Oh, yes, together with the reply.

3647. This report we have is dated 7th August, 1899. This was put before us by the Town Clerk. That, you say, is not the report you refer to? Oh, no; that is the report I complained of not receiving a reply to. There has been another report within the last few months, to which I have a reply. I shall be very pleased to have that forwarded to the Commission, if it is the desire of the Commission, together with the manager's reply to the same, which at the present time is under consideration, if it has not already been considered, by the Public Works Committee, to whom I forwarded it, with instructions to give it the earliest possible consideration. I have been speaking under the impression that you had the whole of the reports before you.

3648. However, this is clear: that the local body has full power to oblige the company to put the line into proper order? Yes.

3649. And, to use your own words, the track is in a disgraceful condition? It was when I wrote about it.

3650. Is it any better now? I think it is a great deal better than it was. It is not what it ought to be.

3651. The words of your inspector are, "It is certainly in a miserable condition"? Yes; but he only showed that by giving an instance of one rail being too high. Before I go I would like to draw attention to the fact that at the present time we are supplying the whole of the Government establishments in this City and the suburbs—including the railways—with water, for which we receive, I think it is, £625 a year.

3652. *By the Chairman.*—Is that payment on the ratable value of the property? No, it is just an arbitrary amount. It is true, I admit, that when the Imperial Government handed over to the Government of the Colony what was known as the Cascade Brewery supply—the supply that is from the Cascade Brewery side of the mountain—and when later on the Municipal Council received the reservoir and everything it contained from the Tasmanian Government, it was made a condition that they should supply the Government properties existing at that time with water. Well, as a matter of fact, the whole of the water obtainable from that source does not exceed 200,000 gallons a day, and the Corporation of Hobart have had to go to an expenditure of £170,000 to obtain water from another source, or other sources, outside the original one. It is only fair that as the Government of the Colony never paid one shilling to the cost of the original reservoir or anything connected with the water supply, they should at any rate pay something like a just amount towards the value of the water they consume. It has been estimated that the water consumed by

the Government, if paid for on the same ratio as that supplied to large private consumers, would cost them £2000 a year.

3653. That is to say, you are getting £1400 short of what you should get for that supply? Yes. I have brought this matter under the notice of the Government during the last few months, and have urged them, at any rate, to meet us half-way, and to give us £1000 a year—an increase of £375—that is, on what we now receive.

3654. What is the arrangement at Launceston; do you know? The Government gives them a lump sum; I forget exactly what it is. Of course, I succeeded in passing this £500 through Parliament, after a big fight, some seven or eight years ago. Prior to that time they had given us nothing. But there is one particular phase of the question I want to draw special attention to, and that is that prior to the purchase of the Main Line Railway by the Government, we were receiving something like £500 a year from that company for water, and that income ceased as soon as the railways became Government property. Therefore, in all justice and fairness to the people, I think the taxpayers have a right to some further consideration. I had a great fight within this last four years with the Government, when they insisted that all buildings occupied by officials in the Police Department should, because they were rented by the Government, be free of water rates. I could not stand that; I was determined to fight it to the bitter end, and the Government finally gave way.

3655. *By the Chairman.*—Does the Corporation of Launceston supply water free to the Railway Department? No.

3656. Then they charge at that end, and not at this? Well, we have something from the Railways. I think it is £125, or something like that.

3657. I understood you to say just now that you altogether lost the sum of £500 that you previously received from the Main Line Railway. That is not so, then? No. We receive £500 from the Government for general purposes, and £125 for the Railway.

3658. *By Mr. Propsting.*—By the way, is any portion of your watershed private land. I am not quite sure.

3659. *By Mr. Hamilton.*—There is 4000 acres of Cascade Brewery property there? Oh, you mean altogether?

3660. *By Mr. Propsting.*—Is any portion of your watershed in the hands of private persons? Well, it is very questionable whether the water on the Cascade property does belong to them. I think we had better not open that question.

3661. But I mean, is any of your catchment area private or alienated land? Oh, I believe not—none of the catchment area.

3662. Is none of it Dobson's? No.

3663. Not Sir Lambert's estate? I do not think so. I think his estate is all outside our area. Of course, I can easily ascertain. As a matter of fact, we have been quietly purchasing from time to time within the last four years, such little pieces of land as there has been some little doubt about in order to protect ourselves in that respect. I might say, Mr. Chairman, on one other matter, that I have written to the Defence Department, the Post and Telegraph Department, and the Customs, and stated that now that they are under the Commonwealth, I expect them to pay for whatever water they may require for state purposes; that, as they form no part of any arrangement made with the State Government, since the whole of their establishments have gone over to the Commonwealth, I think the Commonwealth has a perfect right to pay for any water consumed in these establishments. I have not received any reply to these letters up to the present time. Our agreement was with the State, and we have a perfect right to make any special arrangement we can with the Commonwealth Government in reference to any buildings that may belong to them.

The witness withdrew.

THURSDAY, JULY 11, 1901.

R. M. JOHNSTON, *recalled and further examined.*

3664. *By the Chairman.*—I suppose you know the plateau on Mount Wellington very well? Yes.

3665. And you are acquainted with its geological character? Yes.

3666. Has that mountain been subject within the past to geological disturbances? Very greatly—at a remote period.

3667. What is the nature of the country? Its cap, about two thousand feet in thickness, is composed of what is called diabasic greenstone. This is an igneous rock, and, in the opinion of geologists, it was erupted towards the close of the Mesozoic period. The lower stratified rocks belong to two distinct ages, the lowest of all being Permo-Carboniferous rock composed of beds of various kinds of rock—limestones, shales, mudstones, and sandstones, highly metamorphosed in places, and richly fossiliferous. These beds are succeeded by sandstones and shales belonging to the Mesozoic period. This is the period to which our principal coal measures throughout Tasmania belong, such as at New Town, Fingal, and Sandfly.

3668. I want to ask you before you go any further, if it is a fact or not that all these strata have been distorted and dislocated? I am coming to that. At or since the close of the Mesozoic period the effect of secular changes, and the eruption of diabasic rock throughout the Colony have greatly distorted and upheaved this country, or have caused subsidences. For example, take Mount Wellington. The rocks that are now in position at sea-level—limestone rocks—near Porter's Hill, have been raised by two or three step-faults to a height of 2500 feet on the face of Mount Wellington. This indicates at least a total uplift of about the same number of feet. This uplift is characteristic of nearly all our mountains in the midlands, and in the eastern part of Tasmania. The whole of the region of the Mount Wellington plateau is almost similar in character, whether we travel towards the crest by way of New Town, Sorell Creek, the Lachlan, the Plenty, or the Styx. Whichever way you take you get the varying geological formations nearly in the same successive order; and thus, whatever influence the chemical characters of such rocks have upon the streams flowing over them, it must be the same as regards the various affluents referred to.

3669. The reason why we have summoned you here to-day is this: assuming that your definition of the geological strata of Mount Wellington is correct, and taking into consideration these facts you have stated as to its disturbance, would you choose country of that sort for building a reservoir upon, a purpose for which impervious strata is required, and settled country? [No reply.]

3670. *By the Vice-Chairman.*—May I explain before you answer? What we are aiming at is this: it is proposed to construct an impounding reservoir on the top of the mountain—is that disturbed country or otherwise? There might be a fault there or there might not—more likely not. I would prefer to build a reservoir in the diabasic solid rather than in any other portion of the mountain.

3671. *By the Chairman.*—Well, assuming that your statement is correct, and that the whole area of Mount Wellington has passed through great geological disturbances, do you consider it suitable for construction of dams, which must be placed on impervious strata? Well, as a matter of fact, no part of the earth's surface has been free from disturbances at one time or other.

3672. Then, do you think those two dams have been constructed properly at Proctor's Road? They have not been constructed on the top of the mountain, but in a bad place.

3673. On geological faults? On geological faults, certainly.

3674. Then, do you think it would be wise to construct another reservoir within a mile of the existing ones? It would require a knowledge of the locality, to say whether there is a geological fault at that point or not. The other two are constructed on what is obviously in the lines of geological faults.

The witness withdrew.

FRIDAY, JULY 19, 1901.

F. G. KNIGHT, *recalled, and further examined.*

3675. *By the Vice-Chairman.*—You will remember, Mr. Knight, that when you last gave evidence before us, we asked you to consider the question of the formation of a Greater Hobart, telling you that we would call you again and examine you upon that question? Yes.

3676. We would like now, first of all, to take your opinion on the general question, and your reasons for forming the opinion; can you give us that? My personal opinion?

3677. Yes, your personal opinion, formed from your experience as a member of the New Town Town Board? Well, I certainly mentioned the matter to my Board, and they were entirely and unanimously opposed to it.

3678. Upon what grounds—we would like you to state them fully, will you? Our grounds are, that our town is now in very good order, sanitary, and otherwise. The streets and paths are in good order, and, apart from all that, we do not wish to be in any way saddled with the debts of the Hobart Corporation; in fact, we think that Hobart has quite enough to do to look after itself, without interfering with the suburbs. I may say that I have spoken to a great number of the ratepayers, and they hold the same opinion.

3679. You have referred most strongly to streets and lighting—what about water? With regard to the formation of a trust, do you mean?

3680. Yes, the formation of a trust, or some similar body? I think I said last time I was here that we had no complaint to make with regard to the water supply during this last summer. I think the water has been pretty free all along; but, no doubt, that was due to the favourable weather we had.

3681. How do the New Town electors regard the fact that they pay higher rates than are paid in the City? That is in regard to the water rates, you mean?

3682. Yes. Well, their excuse is that the higher charges are made on account of the length of main, and, consequently, the extra cost incurred in laying the mains.

3683. Can you tell me if there is any discontent on that account? There has been; there is now.

3684. Are you in a position to say whether the New Town ratepayers desire representation on the body administering the water supply? Yes.

3685. You mean that they do desire it? Yes, they would desire it if they could get it. If there was a Water Trust formed we should certainly wish to be represented on it.

3686. Are there any dairies in New Town? Yes, there are a few.

3687. How many? Well, I could not exactly say from memory.

3688. Say as nearly as you can, will you? I should say there would be six or seven dairies in New Town, to my knowledge.

3689. What is your system of inspection of dairies? Our Health Inspector makes the usual inspections.

3690. What do the usual inspections amount to? I think it is a quarterly inspection. He is supposed to go through the whole town twice a year and visit all premises.

3691. And do you think that he does visit all dairies quarterly? Yes, I think so.

3692. And what is the nature of the inspection performed by him? Oh, he just sees that everything is clean, and so on.

3693. Is there inspection of the carts when they bring milk into the City or sell it in New Town? No, not to my knowledge.

3694. Is there any inspection of the carts when they return, in order to see what they bring back in the carts? No.

3695. How many butchers' shops are there in New Town? Five.

3696. Do you know whether any of them do any of their own killing? They kill sheep.

3697. Pigs? Pigs.

3698. Not bullocks, I presume? Oh, no.

3699. What inspection of these butchers' shops is there? The Health Committee inspect them as a rule.

3700. How often? Well, they may inspect them three times a year, and then the Inspector does the other part. I know that when I was one of the Health Committee we invariably inspected the butchers' premises.

3701. Have you any fruit shops in New Town? The fruit is sold at the general stores.

3702. Do you know what becomes of the decayed fruit and refuse? No; I could not say.

3703. There are no fish shops, I think? No.

3704. Are there any bakers? Two.

3705. What inspection is there of them? Just the usual; the Inspector visits all these different places, and also all noxious trades, and so on.

3706. This is done systematically by an Inspector? Yes.

3707. He would go to them, I suppose, about once a quarter? Yes.

3708. I forget whether you have already told us what system you have for the removal of house garbage and rubbish? Well, it is a system, but it is not a very good one, I think. Everyone that likes to put their rubbish out can have it carted away on application; but, as a rule, people in New Town have sufficient land to enable them to bury their rubbish; it is not like a densely populated town.

3709. What do they pay for the removal? That is a matter arranged between the Inspector and man that removes the stuff.

3710. You have already told us, I think, that there is no compulsory system of removal of nightsoil in New Town? Well, at the present time, we are about to inaugurate a system. It will be in working order, I think, before the end of the year.

3711. What is the proposed system? Pan.

3712. Compulsory? Compulsory, yes.

3713. By the Board or by a Contractor? By the Board.

3714. What kind of pans are you getting—the same as the Hobart Corporation have? Not exactly; they are a little higher.

3715. Is there to be a change of pan with each removal? Yes.

3716. The pans are not to be emptied into a cart? No; they are to be closed and changed.

3717. *By Mr. Propsting.*—Duplicate pans? Yes. Our farm will be at Derwent Park.

3718. *By the Vice-Chairman.*—Which portion of Derwent Park? In the marl-pit at the back of the Haystack Yard.

3719. That is on the Government Farm? Yes.

3720. You told us that your drainage ran into the New Town Bay, I think? Yes.

3721. Where is the actual point of discharge? In the bay.

3722. At what point in the bay? Under the first culvert on the Risdon road?

3723. How far is that up from the head of the bay, where the road goes round it? Well, I may say that it really runs into the New Town Creek, the freshwater creek, and then away into the bay under the road. I suppose the culvert would be thirty feet, and then the stuff has a clear course into the bay. It previously drained on to the mud-flats; but we have now obviated that nuisance by building a wall, and it gets away into the bay.

3724. The whole of New Town Bay is very shallow, is it not? Yes, it is.

3725. What becomes of the nightsoil, and so on, that goes into the bay? There is no nightsoil.

3726. Are there any water-closets in New Town? There were, but I think they are all abolished.

3727. I suppose you would agree with the proposal that one body should have charge of water and drainage, if a water trust is created, or if a central body is created, to take charge of water, inasmuch as water and drainage are so closely connected? Do you mean connecting with the Metropolitan Drainage Board?

3728. Either that or whatever the body may be; We are not in the area of the Metropolitan Drainage Board now. I think we can manage our own affairs as regards drainage.

3729. *By Mr. Propsting.*—Can you tell us approximately, Mr. Knight, how many premises there are out there for your inspector to visit? I suppose something like five hundred.

3730. And he inspects these places twice a year? He is supposed to.

3731. What other duties has he? He is the overseer for the roads work, and so on.

3732. You have no professional man in your Health Department, have you? No.

3733. And no arrangement with Dr. Sprott, or anyone else? No, we did not think it desirable to have a professional man. We have a man that knows every drain, and can locate it at any time. If there is any stoppage anywhere he finds it out, whereas, we did not think a medical officer would be able to undertake such a task.

3734. Are all your principal drains formed? Yes.

3735. And your surface gutters? And the surface gutters, too, I think, with the exception of two. With the exception of two, all wet gutters are formed, asphalted, and properly made; they have a smooth invert, and everything gets away.

3736. Is that gutter at the back of the Post Office, at the bottom of the hill, one of the exceptions? That is one.

3737. Does that require forming? Yes, it requires asphaltting; that is ordered to be done.

3738. Can you tell us what proportion of houses is now served by the man who moves the pans? I think it is not 200—about 185, as far as I remember.

3739. Is it a duplicate system at present? No; that is the trouble.

3740. The pans are simply emptied into the cart, and put back in the same condition? Yes.

3741. Where is the nightsoil taken to? Well, I believe it goes to Derwent Park.

3742. Does not the Board know where it goes to? No, we do not know.

3743. Why not? Well, we do not wish to know, as long as there is an open space to take it to. Of course, we will know when we get this system going.

3744. But should you not know now? Well, it went on for years, and we never had any complaint, and we did not trouble; we did not want to know where the man took it.

3745. Who do you expect to complain? I do not know; but we should find out, I suppose, if there were any nuisances arising from it. Of course, they took the night-soil out to Solomon's estate at one time. I know it went there for years, and was put on an orchard.

3746. Is it not the duty of the Inspector, Mr. Knight, to find out where such stuff is deposited, and whether there is any cause for complaint? Yes, I should think it would be.

3747. Has it ever been brought under the notice of the Board that the nightsoil has been deposited where it was likely to be a menace to health? Not directly to the Board—it has not.

3748. Well, has it ever been publicly stated in the hearing of the Board? Yes.

3749. Had the Inspector complained to the Board up to that time? The Inspector did not know of it. Of course, I should like to point out that all this trouble will soon be done away with when we get this system going. We have already made a start.

3750. You say there are butchers' shops at New Town where sheep and pigs are killed on the premises? Yes.

3751. Is that permissible? So long as it is not within two miles of Hobart.

3752. Your Board does not seek to prevent it, then? No.

3753. What are the names of the butchers who slaughter on their premises? Well, there is Brown, late Cooper. Of course, I cannot really say whether he does slaughter there; I know Cooper did.

3754. How far is that from Hobart? That is only a little over a mile.

3755. Is that permissible? No, not according to the Hobart Act.

3756. Whose duty is it to see that the Act is enforced in such a case? You see, we did not wish to be too particular where a place is kept scrupulously clean.

3757. What I want to discover is this: is it the duty of the Hobart Inspector or your Inspector to see that this Act is enforced? I think it lies with the Hobart Inspector.

3758. And where does the drainage from that shop go to? Oh, it is collected up. It runs into a cistern, and is collected up and carted away.

3759. Is slaughtering done on any other premises? Jeffrey's.

3760. Where does the drainage go from that establishment? He collects it in the same manner, and carts it away.

3761. Does that include the washings of the slaughterhouse? That I could not say, Mr. Propsting.

3762. When you were a member of the Health Committee, did you not ascertain? Not that particular point.

3763. Do you know whether or not it runs down into the creek behind his place? It may do. I know there is a drain through the paddock into the creek.

3764. Is there any provision for flushing that drain? No.

3765. The creek, I mean? No.

3766. Is it a formed drain? It is formed to the wall in Pedder-street.

3767. But not thence to the outlet? Not down to the bay.

3768. It is unformed there? Yes, unformed.

3769. There is another butcher's shop just past that, is there not? Yes, Harris's.

3770. Does he slaughter on the premises? Yes.

3771. Does he drain also into this drain or creek? No; he collects the slaughtering offal outside.

3772. Does that include the washings from the slaughteryard? That I could not tell you.

3773. Have there been any cases of diphtheria or scarlet fever in that neighbourhood? There have been several cases of typhoid fever.

3774. Do you know the North Hobart Recreation Ground? Yes.

3775. Do you know where the cows are depastured there? Pretty well all over, I think.

3776. Do you know whether any drainage runs into that ground? I could not say. I fancy that the drainage from the Blind Institution runs into there.

3777. I believe that these cows are driven into Hobart to be milked, are they not? I do not know.

3778. Assuming that they are—whose duty would it be to inspect the condition of that grazing ground—is it in New Town? I don't think it is, is it—not all of it?

*Mr. Hamilton*: I was thinking that certainly part of it is in Hobart, if not the whole of it.

*Witness*: Now I think of it, it is in New Town.

3779. *By Mr. Propsting*.—Whose duty would it be to inspect that ground then? It would be our Inspector's duty.

3780. Would it be his duty to communicate with the Hobart Inspector if cows were driven from there into Hobart to be milked? Would that make any difference?

3781. Well, assuming that there was reason to complain, would it be his duty to communicate with the Hobart Inspector? Yes; I should think so.

3782. You say you collect refuse when the people request the Board's man to do so. Have you any idea how many people have their refuse collected? I have not, Mr. Propsting.

3783. Not many, are there? I don't think so. There would only be a few business premises on the main road.

3784. Do you think there are a dozen? I question whether there would be.

3785. Have you gone into the question of the cost of initiating the pan system that you propose? Yes.

3786. What will it be? To initiate it?—about three hundred pounds.

3787. What does that represent? That represents about four hundred to five hundred pans, the necessary carts, the building of a shed, and also the construction of a trough for washing purposes.

3788. I understand you to say that the night-soil will be removed to a quarry at Derwent Park? To a marl pit, yes.

3789. Would it be left there in bulk for use by the people of the farm? It would be mixed with the refuse from the stables, and carted on the land as occasion required.

3790. What method do you propose to adopt for cleansing the pans under your new system? Washing, disinfecting, and tarring about once a month.

3791. Do you know what is charged at present for the service rendered to those householders whose pans are collected? Sixpence per week per pan.

3792. Under the system you now propose, will you permit persons to bury the contents of the pans on their premises? When we have inaugurated our system—Oh, no. Well, anyone with over half an acre of land, if the land is suitable, would be allowed to do so, but not otherwise.

3793. And do you propose to make the rate a general one, or to confine it only to those persons who are served? Of course, the matter has not been definitely fixed up, and I do not know whether I should answer the question or not. But no doubt there would be a collection, and also a slight increase in the rates.

3794. I suppose you think that such a service will be beneficial to the health of the whole district? Yes.

3795. And therefore that everybody will be benefited more or less? Yes.

3796. *By the Vice-Chairman*.—Will you just give me a sketch of the organisation of the Town Board of New Town—for example, you are the chairman? Yes.

3797. I presume there is a secretary responsible to you? Yes.

3798. Are all the officers under the secretary? All the officers?

3799. Yes. The secretary is your permanent head? Yes.

3800. Are all the others under him, or are they under other jurisdiction? We have only one other official, and he is separate.

3801. Who is that? The inspector.

3802. Who has the inspector under him? No one; only his men of the staff

3803. Labourers? Yes.

3804. And are these the whole of your employees? That is all.

The witness withdrew.

TUESDAY, JULY 23, 1901.

R. S. MILLES, *recalled and further examined.*

3805. *By the Chairman.*—Have you made any estimate, Mr. Milles, of the length of cobblestone gutters in the City, and the cost of putting them into decent order? Yes, Mr. Chairman. I made the first detailed report on the matter in February, 1896; and since then I have taken out the lengths of the different gutters we have, and of the different descriptions, and I find that we have, as nearly as anything, about twenty-five miles of wet cobble gutters, about a mile and a half of tarred metal gutters, a mile and three-quarters of freestone gutters, about three miles of wooden gutters, and about a quarter of a mile of cement gutters. These are all wet.

3806. Well, now, what would be the cost, approximately, of putting these gutters into good order, by a sufficiently deep coating of asphalt and small metal? I don't think you would be able to put cement on top of these present gutters. You would have to take these present gutters out, and put in complete new gutters.

3807. I am not referring to cement just now; I am referring to tar-asphalting—treating the gutters as they have done in some places at Launceston—what would that cost? Well, most of their gutters at Launceston are in cement. If we used tar and metal it would take, for ten miles of the worst of the gutters, about £6500.

3808. Would that be effective? No, not in certain cases, owing to the difficulty of getting the foundation dry in the first instance. We have found from experience that, unless you can get the ground absolutely dry for the tar-metal to take hold of, and after that, to allow it a week or ten days, or, in some cases, a fortnight, to set, without any fresh drainage coming on it, it does not make an effective gutter. If, under these conditions, you can get the place dry, and keep this water off for a time, we find that such gutters stand very well; not otherwise.

3809. *By Mr. Guesdon.*—It would cost £650 a mile, then, to tar-asphalt these gutters? Well, getting on that way.

3810. *By the Chairman.*—Now, with regard to the alternative course of taking out the cobble gutters where they are not on a proper foundation, and replacing them with cement throughout—what would the cost of that work aggregate in the total? I suppose about £1000 per mile.

3811. And that would be much more effective? Yes. Of course, in these estimates I am including, to a great extent, the cost also of putting in the new kerb, which is absolutely necessary, and doing up the edge of the roadway alongside of the gutter. We find it is very difficult to take out and put in a new one, unless we renew the kerb.

3812. What material would the kerb be made of—sandstone? Well, that is the best material we have at present.

3813. Well, now, with regard to the Hobart theatre, Mr. Milles—you inspected that place, I believe, in the company of the Commissioners? Yes.

3814. What is your opinion of the facilities for egress from that theatre in the case of an alarm through fire—beginning, say at the pit and going up to the gallery? Well, there are only two points that I think there is any doubt about: that is the front entrance to the pit which converges with the stairs from the dress circle, and the gallery. I think these are the weak points in the place.

3815. You think that the egress from the dress circle is sufficiently wide—those two doors, I mean, at the head of the stairs? Well, there is one drawback about it, and that is that the dress circle all goes to one point of exit, which is, to my mind, not satisfactory. If you can divide your audience into two parts, and get them out at two different points, it is a great deal easier to get them out.

3816. In fact there is only one mode of egress from the dress circle? Yes, that is all; and I may say that the front door also is none too wide—I mean the outer door, the main door of all.

3817. In other words the main or outer exit is narrower than either of the inner exits from the dress circle or the pit? Well, I think it is about the same, so far as I remember.

3818. *By Mr. Guesdon.*—On that point, Mr. Milles, let me ask you this: supposing that the pit had no means of exit through the dress circle entrance, would you think the means of escape adequate? Well, I don't think they are—not so adequate as would be necessary if you were designing a new building for use as a theatre. If plans for a new theatre came in to me I should certainly recommend that more exits should be provided.

3819. I think you misunderstand me a little; I am leaving the pit alone for the moment. Supposing the pit egress does not come into the same channel of escape as the dress circle, and taking the circle alone, would you consider the means of escape from the circle adequate? I should certainly recommend more in case of designs for any new building.

3820. And do you think that letting the pit people escape into the same channel as the people from the dress circle has complicated matters? I think it is rather a weak point, certainly.

3821. And do you think that the pit, without that dress circle exit, is provided with adequate means—you see, I want you to look at the building from all points. You have expressed your opinion that the means of escape from one portion of the house—the dress circle—are defective—well, say that you shut the door in the pit communicating with the dress circle entrance, what about the other channel of escape from the pit—are the means of escape adequate without that door leading into the dress circle entrance? Well, I think that you could get the crowd out of that

portion of the house pretty well, so long as there was no accident caused by persons falling at the steps. That is another drawback in the place; in several instances there is a step at the exit instead of a ramp. I take it that if there was a crush to get out of the pit, and one or two persons fell at the step, it would cause a block; there is no doubt of it.

3822. Well, that brings us to the question I am asking you. On broad lines, do you consider that the means of escape are adequate? Well, taking it generally, I could not recommend the adoption of plans on the same design as the present theatre as to exits. I should recommend wider and more efficient exits.

3823. From the pit, the dress circle, and the gallery? Yes. I would not feel justified in passing plans for a new building on the lines of the present one.

3824. And if you were consulted with regard to the issuing of a licence you would go against it? Yes; for a new building.

3825. But if you were consulted as to the issue of a licence for an existing building of that character, would you say that the means of escape provided in that theatre were adequate? Not as it stands at present.

3826. You would require better provision? Yes, certainly. With regard to those steps at the exits, there is great liability to accident. If the door is on a different level from the outside and a big crush of people is getting out, the people don't know where the step is, and in nine cases out of ten they would fall down.

3827. Do you think the means of escape from that theatre are adequate for the people on the stage? Well, of course, they have several points at which they can get away from the stage, and in case of fire I think they would be able to get away. I don't think there would be any likelihood of accident on the stage.

3828. Would you regard the sanitary provisions as adequate? Well, they are not as convenient as they might be, certainly.

3829. And the dressing-rooms, &c.? Well, I am hardly able to speak on that matter; that is a matter affecting the management, I take it; there is nothing very up-to-date about their style.

3830. Well, of course, you know, Mr. Milles, that we asked you and Mr. Brain to go down and look at the theatre with us in order that we might have the benefit of your opinion. If there is anything that you would like to state on the side of the questions that we have asked you we would be glad to have it? No; I do not think there is anything beyond what I have stated.

3831. I want to take you on to another matter now, Mr. Milles: you have here, in your Statement of Accounts, a Loans Working Account under 53 Vict. No. 30—£20,000—Improvements of Streets—that is in your Statement of Accounts for 1901—you have a credit on that of £7931 17s. 1d.—what is that money voted for—it says “Improvement of Streets,” you see? Are you speaking of the present year?

3832. I am speaking of the present year. What is it for? There are three funds we are working under at present. Two in the form of a subsidy granted by Parliament; I forget the Act under which it was voted. That is £880 for the improvement of the streets this year, also one of £1500. Also, we are working on some two thousand pounds, being a portion of an unexpended balance. I think that is also for the improvement of outlying streets.

3833. Let me show you this account. [Document produced.] You see, here is £20,000 for improvement of streets. Well, now, you have a credit balance under that of £7931 odd. Do you see? Yes.

3834. That is on the 18th January, 1901? Well, this year we are only working on about £2000. I don't know what credit we have got.

3835. I don't want you to misunderstand me. I don't put the question to you so much on a matter of accounts. This is a statement of accounts here, showing a balance of £7931. What I want to bring you to is this: do you think it would be advisable to spend £3000 of that balance on the work of putting your cobblestone gutters into the condition in which they should be? You see, you have the money, and you have it on Loans Working Account for “Improvement of streets?” Well, of course, a good deal would depend on the question of whether the system of underground drainage is to be carried out or not. If there was any prospect of that in the near future, we know that most of these gutters would then be dry, and there would not be the necessity then to put them into a smooth state that there is at present, when they are carrying the drainage. And I am rather doubtful whether that money could be expended on that work, anyhow; because I know the Government are very particular in all these items. Where returns are made against this loan money, they insist that it shall be for actual improvement of streets.

3836. How do you regard “improvement of streets?” I think you will find that there is another word used under the Act. I think the word “construction” comes in? I think there has been a difference of opinion between us and the Auditor-General as to what we can do with such money. We now have to return a list of all the proposed works under this Act to the Government before we can undertake the work. The Government have to pass the works as to whether they are suitable ones to be done under the Acts or not.

3837. Well, speaking entirely now, as a professional man, would you regard improvement of the channelling in the streets as “improvement of streets?” Yes, as an improvement, certainly, if “improvement” is the only word used under the Act.



3838. That is the word used in your accounts here, you see? Oh, the work you refer to is an improvement, certainly; but it is really somewhat more of a renewal than an improvement.

3839. Well, Mr. Milles, if you had a free hand to administer, you would apply some portion of this credit balance to the improvement of the cobblestone gutters? Oh, certainly I would. I have advocated the doing away of all the cobblestone gutters for years past, but there have been several difficulties in the way.

3840. Still, you have got the balance here? Well, I am not able to say that.

3841. But your account states it? Yes, if we have the funds, I should certainly recommend that a part of the sum should be expended on the improvement of some of our worst gutters. But as to what class of gutter you put down, a good deal would depend on the locality. I would not recommend tar-metal in certain cases. Of course, that is only a question of detail.

3842. Before you go, Mr. Milles, I would like to ask you one other question—is there no return made of the assets of the Corporation—that is, as to the quantity of stock of various matters that you have in hand? It has only been done once, when I first came into office.

3843. It has never been done since? No; not that I know of. I had instructions from Mr. Smith to take stock, and I did so. I valued everything, and took an inventory of everything: I have a copy of that by me now. I do not think it has ever been done since; it has not to my knowledge, anyhow.

3844. Is there any return made as to the number of miles of municipal sewers and drains? As they exist, do you mean.

3845. Yes. It has been done on one occasion, some couple of years ago; I forget what report it was in, but we have no correct plan of the existing drainage of Hobart, that I know of.

3846. Do you think it advisable that you should have? It would be very desirable, but we have never had an opportunity to get it, up to the present.

3847. Have you any return of your system of reticulation, showing the number of miles of pipes that you have? Yes, we have a fairly good plan of that, although it is not on a very good map. We have all the information, and I have advocated lately that as soon as the plan is completed of the Metropolitan drainage area we should re-transfer everything on to that on a larger scale-plan.

3848. Do you show in your returns the renewals that have been made good? Oh, yes; we keep a regular day-book in our department of every bit of work done. That means that every man that goes out puts down where he goes, and what it is for, and every piece of material used. We have done that for years past.

3849. Is any statement of that made to the public? Yes; every year I make a report. In my annual report you will find all the details of the working of the department, all put under different headings. That has been given for several years past.

3850. That is as far as the water goes? Yes, the reticulation.

3851. Do you know anything at all about the work at the theatre, in reference to dealing with that settlement? I know that a short time ago the contractor, Mr. Valentine, came to the office, and got a permit for the work; he removed all that superincumbent top away from the main wall behind the portico, which was tending to increase the settlement, but from Mr. Valentine I learned that that settlement had been there almost from the very first time of the original alterations; and his opinion was that it had never moved since. Of course, it was necessary to take off that weight, and it has since made everything very good.

3852. *By the Chairman.*—I want to ask you one question on your report. In your report for the 7th of August, 1899—the report made to the Mayor on the condition of the trams—you said: “On inspection, I find, in several places, the space between the rails is 25 to 50 per cent. wider than that originally agreed upon, and, by reason of the light nature of the rails, and insufficient foundation, the running-rail has sunk much below its guard-rail.” I presume you mean the place between the guard-rail and the running-rail? Yes.

3853. *By the Vice-Chairman.*—Where is the agreement? I do not know where the original agreement is, but I have always understood that it was not to be more than  $1\frac{1}{2}$  inch space by the tram.

3854. And in some cases now, it is two inches? It is getting on to two inches in places, on the curves.

3855. And do you think that is a menace to vehicular traffic? It is a very great danger.

3856. And that space on the curves, I suppose, will go on increasing? It is bound to, unless they renew the rails. You will see that at all the curves. They are a little better now, I am told, than when I made my last report. They have made some improvements.

3857. That is since the opening of this Commission? Yes; since the last report they have put in a considerable amount of work, both in labour and material.

3858. Within what dates? Well, within the last few weeks they have ordered 200 cubic yards of tar-metal.

3859. *By the Chairman.*—Is that since you were examined here? It is within the last few weeks; since my last report. And they have also eliminated a considerable number of bad rails, especially where I pointed out the necessity of doing so.

3860. Then, I suppose, you think the citizens of Hobart are indebted to this Commission for that much, at any rate? There is no doubt that it has had an effect, Mr. Chairman.

The witness withdrew.

MR. W. BRAIN, *recalled and further examined.*

3861. *By Mr. Guesdon.*—You viewed the Theatre and the Temperance Hall with us, Mr. Brain, the other day in your professional capacity? Yes.

3862. Will you be good enough to tell the Commission what you think as to the adequacy of the means of escape from the various parts of that theatre, specifying the pit, the stalls, the dress-circle, and the gallery? The stalls, in my opinion, offer ample means of escape. As to the pit—well, one difficulty is that the dress-circle and the back escape from the pit converge at the front door. But I think that could be overcome by throwing one of the stalls exits into more easy access from the pit.

3863. As at present, you think it is unsatisfactory? I do not know that it is altogether unsatisfactory. If it were a new building going up I should recommend that these things should be altered if they were sent in on that design. But I believe that the whole building could be emptied fairly quickly now. As I am speaking of these things, I do not mean that they are dangerous even at the present, but that they could be improved upon.

3864. Would you insist upon these improvements, as a Public Health Official, if a new building were being put up? If a new building were being put up, yes.

3865. What about the gallery? There is one bad step at the exit at the right-hand corner of the gallery. That is the only thing I could see up there that needs improvement.

3866. *By the Chairman.*—You think that step will prove a stumbling-block? Yes, in case of a rush.

3867. *By Mr. Guesdon.*—Are you satisfied with the means of escape from the stage? Yes; I think the stage would be all right.

3868. And are you satisfied with the sanitary arrangements? Yes; I think they are sufficient for the accommodation of the ordinary companies that play there.

3869. Now, the Temperance Hall—have you anything to say about that? The means of escape are good and sufficient. I think some sanitary accommodation for gentlemen should be provided. There has apparently been a water-closet there for men, but it has been taken away.

3870. Do not you think you ought to insist upon that provision being made good? Yes; I intend to make such a recommendation.

3871. We have this statement before us: “The Health Department has charge of the whole of the sanitary service of the city. There is evidence that the whole duty of sanitary inspection cannot, however, be satisfactorily carried out by the two subordinate inspectors employed in this Department; and an arrangement has been made with the Commissioner of Police whereby the constables on duty in various parts of the city make a regular visitation of premises, the result of which is conveyed in a weekly report to the Town Clerk.” I have a memo. here, “Ask Mr. Brain.” Is that correct. [No reply.]

3872. *By the Vice-Chairman.*—As a matter of fact is there such a weekly report? Yes, we have been having it for twelve months or fourteen months, I think, up till about six weeks ago, since when those particular policemen told off for that duty have been assisting with the registration of dogs. I understand the arrangement is only temporary, until the registration of dogs is completed. They have been assisting to collect the dog tax in the particular localities in which they are situated.

3873. *By Mr. Guesdon.*—Well, your evidence goes further than that. You say there is need for a more rigid inspection of premises and backyards: the weekly reports deal with that? Yes.

3874. And what has that to do with the registration of dogs? Those policemen who have been doing the inspection have been taken off that to assist with the registration of dogs.

3875. *By the Chairman.*—Then, there has been no inspection for the last six weeks? Not by the police.

3876. *By Mr. Guesdon.*—Then this system of police inspection is practically no system at all—you have no recognised and regular staff to make this inspection? Well, it went on uninterrupted for fourteen months, but it is dropped in the meantime while this dog business is on.

3877. Then you cannot rely on it invariably as a proper system of inspection? This is the first break that there has been since it was inaugurated.

The witness withdrew.

MONDAY, AUGUST 5, 1901.

W. F. WARD, *called and examined.*

Mr. Ward was sworn.

3878. *By the Chairman.*—Your name? William Fowlie Ward.

3879. You hold a position in the Government service, I think, Mr. Ward? Yes.

3880. What is your office? Government Analyst.

3881. You supplied us some time since with analyses of water from the River Styx and the Russell's Falls River, I think? Yes.

3882. Have you any recent analyses of the water in either of the reservoirs now supplying Hobart from the mountain? Well, I had not analysed it this year, but I made a partial analysis to-day, of water taken from the tap at the laboratory.

3883. Have you got that with you? Yes, I have the figures of the partial analysis I made to-day—just the quantity of chlorine and the total solids.

3884. Is that a sufficiently accurate analysis to print in our report? Yes, for comparative purposes. I have noted the figures here. [Document produced.] I have a number of other figures of other analyses, extending back to 1884.

3885. Perhaps you will tell the Commission, shortly, how the analyses of the water now consumed in Hobart compare with the analyses of the water from the Styx and Russell's Falls rivers, that is, as regards purity and general fitness for domestic purposes? Well, I think that, taken all round, it is fully as good for domestic purposes as either the water of the Styx or of the Russell's Falls; it is a softer water, really. For manufacturing purposes, I should say that it is, probably, better.

3886. Of course, we are more concerned just now with the value of the water for domestic purposes. You think, then, that there is not any great difference between the waters of these three sources? No; I should say that they are all eminently fitted for domestic purposes—all three.

3887. How does the free ammonia in the water of even two rivers on the upper waters of the Derwent compare with the amount of free ammonia in the water now drawn from Mount Wellington? I have not the Styx figures by me just now.

3888. Well, the Styx figures show, according to your analysis now before us, 0.01 parts of free ammonia per million? Well, then, it is about the same.

3889. Then the chlorine in chlorides in these two rivers—the Styx and the Russell's Falls—is 0.8 parts per million. How does that compare with the water from the mountain? Well, the water from the tap to-day gives me 0.55, which is less.

3890. And how about the total solid matter? The water from the tap gives me five grains to the gallon; it is about eight in the other case.

3891. Then, speaking generally, you would say that the waters from all these three sources are somewhat on the same level as regards their purity for domestic purposes? Well, I think that if you could get the water from the mountain pure, just as it comes from the mountain, it is the best of the three.

3892. Well, I come to another point. You know, I suppose, from your reading in the public prints and reports, that if this present watershed is to be kept pure, Mount Wellington must be shut up to the travelling public, and to tourists, and to habitations? Oh, to habitations, certainly, I think. I do not think I should go so far as to shut it to holiday-makers.

3893. But, still, we have it in evidence from experts—Dr. Sprott, for instance, and Mr. Rabbek, an eminent engineering authority—that it is of the utmost importance that, if we are to continue drawing our supply from the mountain, it must be closed to tourist traffic—and, certainly, to habitations and hotels—as watersheds are closed elsewhere in the Australian States. What do you say to that Mr. Ward? It should be closed to hotels and habitations; and I should certainly be opposed to a sanatorium, above all things; that would take up there just the class of people that we would want to keep away from the watershed.

3894. And you would not allow an hotel? No; but, as I say, a sanatorium would be worse, because people recovering from various diseases would go to a sanatorium.

3895. Do you think it would be advisable for the people of Hobart, with a view of our increasing population, to go to a source which would be absolutely free from all risk of contamination from habitations, particularly now that we are on the eve of an underground drainage scheme? That is a rather wide question. I think, myself, that the risk on the mountain is exceedingly slight. I think that the risk of serious contamination of the water on the mountain is really very slight indeed. The water has a very fair chance of purifying itself on the way down. It is thoroughly aerated as it approaches the reservoirs, and it has a very considerable chance of purification by settlement in the reservoirs.

3896. Then in that case you do not agree with the evidence of Dr. Sprott. I will read this to you: "I have always considered that it is a very great risk, and I think that it creates a feeling of unrest in the minds of many. The citizens should have a perfect sense of security as to the purity of their water-supply, and they should not be left in a position to think, 'I may be taking in some infected material with the water, such as typhoid excreta.' At present that feeling is not unreasonable. People leave town in apparent health, that is to say, they feel out of sorts, and do not know what is the matter with them. It is frequently typhoid in its early stage; and so they go up to these higher altitudes in search of fresh air. If such people go up the mountain, as I have

reason to believe they do, what follows? Excreta, laden with typhoid germs, is deposited on the watershed; a shower of rain follows, and the germs find their way into the reservoir. Under such conditions there is nothing to prevent people getting typhoid through the water supply; and I do not think the public should pay for water and have that feeling of unrest among them when they drink it. You ought certainly to do one of two things; you must either close your mountain against tourist traffic, and so have a pure and copious supply, or you must remove your water-supply elsewhere, and open the mountain for purposes of public resort." You don't agree with that? Well, it is a big thing. You have to consider; suppose you go somewhere else; how are you going to bring your water in? If you bring it in wholly in pipes, it is a very expensive affair; if you bring it in in an open cut the risk is just the same.

3897. That is entirely another matter; we are not considering that just now. Dr. Sprott, you see, is reporting on the present supply? Well, I think the danger is infinitesimal. Of course, it is impossible to guard against some risks. Then Mr. Rahbek, who is a Member of the Danish Association of Civil Engineers, made a report to the Government in 1900, and he furnished with his report a plan of the mountain, and showed on that plan the portions of the mountain which he considered should be closed from the public by a barbed-wire fence. You see, he also thought the danger a grave one. You, I understand, do not agree with that? No, I do not consider the question a grave one. I do not say there is absolutely no risk, but I think the risk is so very small that it does not matter.

3898. *By Mr. Propsting.*—What do you mean, Mr. Ward, when you say, as I understood you, "If you could get your water pure from the mountain, it would be the best of the kind?" I mean, if you could guard absolutely against anything getting into the water on its way down. I think, for instance, that there is, perhaps, a little risk of dirty water getting in from the creek at the upper end of the new reservoir. On that creek there happens to be a cottage; there is a cottage on the course of the creek, just above the head of the second reservoir.

3899. *By the Vice-Chairman.*—And some huts? Oh, the huts are further up—yes.

3900. *By Mr. Propsting.*—Do I understand, then, that the removal of those buildings on that creek would, to your mind, render the water supply pure? I think that, compared with most water supplies, it is a decidedly pure supply now. I think it compares favourably with most of the water supplies in purity.

3901. Have you any information as to the number of people who visit the mountain during the summer months, and wander about on the watershed? No; I know the number is very considerable, because I live on the Huon Road, and I see so many people pass in the direction of the mountain.

3902. Do you think the presence on the watershed of, say, three hundred people in one day, would affect the purity of the supply? Well, I may say that I hardly know sufficient of the intakes to say that. I have not sufficient knowledge of the actual gathering grounds to give an opinion on that point.

3903. Well, we understand that directly from the watershed the water is collected in open drains or cuts, and, of course, you know what must naturally happen when a number of people are picnicking on the watershed—do you think, under such circumstances, the water is likely to become defiled? Oh, there is some risk, certainly—some chance, at any rate, of defilement.

3904. But you do not attribute much importance to it? No, I don't—not looking at it from all sides.

3905. What do you say is the quantity of free ammonia in the water from the mountain? Well, I am not quite sure, but I remember the highest I have ever had is 0.05, and that was water taken from a tap after very heavy rain. The water was distinctly foul and muddy. As a rule, I should say it is 0.01 and under.

3906. *By the Vice-Chairman.*—Are you aware that the drainage from the upper end of the carriage-drive flows into the water-supply? The upper end of the carriage-drive—?

3907. The carriage-drive to the Springs? No, I did not know that.

3908. Assuming that it is so, does that alter your opinion as regards the probability of the water supply being fouled, particularly as, I may tell you, the upper end of the road includes the place where the traps stand? I do not think that by the time the water got down to town the fouling would be serious; but it should, of course, be stopped at once.

3909. Have you any complete analysis of Hobart water here? I have three analyses taken of tap water, after heavy rain, in 1889, and I have one as far back as 1884 of water taken from a tap "after heavy rain following on drought." Then I have to-day's partial figures, and an analysis of a particularly pure sample taken from the *Marquis of Hastings* reservoir, and another sample taken from the new reservoir—the upper one—in 1889.

3910. Can you leave us these? Oh, yes. It all forms part of my annual report for the year 1889.

3911. Just one other question. You found nothing objectionable, then, in the analysis of the Styx River? No. I think—I have not a copy of my report with me—but I think I say that one of these samples of water was slightly discoloured by vegetable matter.

3912. Yes, that turns out to be the water from the Russell's Falls River. Anything else? Well, there is decidedly more lime in these two waters than in the Hobart water; but I do not know whether the woollen manufacturers would like it as well. I do not think it would be enough to interfere seriously with them.

3913. *By Mr. Hamilton.*—You say the Styx water, Mr. Ward, has a larger percentage of lime than the Hobart water? Yes.

3914. And, speaking from the professional point of view, is it not the absence of that lime that is the only deficiency in our Mount Wellington water? I do not call it a deficiency for any purposes.

3915. For bone-making? Oh, no; bone-making does not depend on the lime in the water.

3916. Is not it a large contributor? I do not think so. You see, what you want for bone is phosphate of lime, and you must have the phosphoric acid, which you get, not from water, but from your other food. You get phosphate of lime from your food; the lime in the water is a matter of complete indifference so long as you get plenty of lime in the food you eat. But if you find phosphoric acid in the water, you say at once, "That is sewage contaminated." You want two ingredients for bone, and one of them you need to specially avoid in your water.

3917. You say, Mr. Ward, that the danger of contamination would be infinitesimal to the water on the mountain—the danger, that is, from making the mountain a resort of tourists? I think so.

3918. *By the Chairman.*—Our real object to-night, Mr. Ward, in asking you to come before the Commission, is this: to say whether, in your opinion as an expert, the supply of water obtainable from either of those streams—the Styx and the Russell's Falls—on the upper Derwent is innocuous, and fit for domestic consumption? I should say that either is quite fit.

3919. *By Mr. Guesdon.*—One more question. Do you know what distance it is considered necessary for water to run in order to clear itself, after being contaminated with any impurity? No, I do not.

3920. If contaminated water is running in an open stream, what is the general principle laid down as to the time it would take in running its course to clear itself, and the distance it would cover? It would depend to some extent on circumstances; but I should not like to state any particular distance.

3921. Would you regard it as an extreme distance if I told you that the Hunter River Storage Board keep up a close inspection for twenty miles above its intake—would you consider that excessive? No, certainly not.

3922. And would you consider that here, with this present supply, there is twenty miles of distance for the water to clear itself of any impurity it might collect on its way from the intake? Well, the farthest is St. Crispin's Well—that must be nearly twenty miles from town; so that if you take the extreme distance, that gives you approaching twenty miles to the end of the reticulation.

3923. *By the Vice-Chairman.*—Well, you know St. Crispin's Well is only twelve miles from the General Post Office? [No reply.]

3924. *By the Chairman.*—And, of course, there is no sunlight to purify water that comes through iron pipes? The probability is, then, that where you get no sunlight, you will get no contamination either.

3925. But you see, the watershed, before the water is inclosed in the pipes, is open to tourists? Oh, yes; and you get water coming in on the road from St. Crispin's Well to the Bower, too. I may say that I have a filter at my house; but if I want to drink water at the Laboratory, I draw it from the tap, so that, at any rate, I have the courage of my opinions.

The witness withdrew.

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## APPENDIX A.

## HOBART WATER SUPPLY.

THE following is the full text of the report laid before the City Council on Monday, 8th May :—

*Office of Director of Waterworks,  
4th May, 1893.*

TO THE CHAIRMAN OF THE WATERWORKS COMMITTEE—

SIR,—Acting under instructions received from your Committee on 29th March, I have the honour to report that I placed myself in communication with Mr. C. W. James, civil engineer, asking him if he was agreeable to assist in bringing up a joint report dealing with the subject of additional water storage on the Sandy Bay Rivulet.

That gentleman having signified his willingness to act, we thereupon commenced our combined investigations, with the following result.

We held a series of long sittings, and have deeply discussed the whole surroundings of the subject, and have also personally inspected the various works and localities which we thought necessary before bringing up our report.

Appended also are the opinions offered by Mr. Thomas Stephens, M.A., who volunteered an expression of his views on the geological aspect of the case.

I remain,

Sir,

Yours obediently,

R. S. MILLES, *Director of Waterworks.*

## JOINT REPORT.

We have the honour to report as follows :—

In commencing our duties we deemed it desirable to lay down the general headings under which we would consider the subject.

They are :—

- 1st. The anticipated requirements of water supply for Hobart and immediate suburbs.
- 2nd. The practicability of the re-construction of the Old Storage Reservoir on its present site, and the desirableness, or otherwise, of doing so.
- 3rd. An alternative proposal for the construction of a new reservoir below the old site.
- 4th. All works in connection therewith.
- 5th. Estimates of the various works.
- 6th. The consideration of the two recent reports on the above, by the Director of the Waterworks.
- 7th. To bring up a recommendation on the whole subject.

## 1. THE ANTICIPATED REQUIREMENTS OF WATER SUPPLY FOR HOBART AND ITS IMMEDIATE SUBURBS.

In order to avoid an unnecessary lengthy report under this heading, we consider the following tabulated information will clearly explain the present position of the available water supply, and also the method by which the probable future requirements have been arrived at :—

(a) The population of Hobart and its immediate suburbs, as per census of 1891, is reckoned at.....	30,566 persons
(b) The number of persons at present being supplied direct from mains is estimated as being .....	27,000 persons
(We assume that the balance of population, mostly suburban, obtain a supply from other sources.)	
(c) The consumption of water during the last summer (not exceptionally dry) for one day, as per measurement .....	1,700,000 gallons
(d) Making an average consumption per head per day (see foot-note, page 4), say .....	65 gallons
(e) The daily supply coming from the Mountain during last summer, as measured, which was supplemented by a draught upon the new storage reservoir, per day of .....	1,200,000 gallons
	500,000 gallons
	1,700,000 gallons
(f) Probable increase of population during the next 15 years is estimated from statistics .....	10,000 persons
Making a total to be provided for in the future of, say.....	40,000 persons
(g) An estimated population of 40,000 persons, at an average daily consumption of 65 gallons, will equal a total daily consumption of.....	2,600,000 gallons
(h) From past experience it is well to assume that a dry season might continue for .....	90 days

(i) The total consumption, therefore, for 90 days, $90 \times 2,600,000$ .....	234 millions
Of which	
(k) The total supply, estimated at coming daily from the Mountain for that period, $90 \times 1,200,000$ .....	108 millions
Giving a balance—	
(l) To be taken during the same period from storage of.....	126 millions
(m) The present New Storage Reservoir contains, say, of consumable water.....	65 millions
Leaving—	
(n) Additional storage to be provided for of.....	61 millions
(o) In the event, however, of the Metropolitan Drainage Scheme being carried into effect, it is desirable to make a further provision for additional storage, say $2\frac{1}{2}$ gallons per head— $40,000 \times 2\frac{1}{2} \times 90$ .....	9 millions
(p) Showing a further estimated storage necessary for the future supply of 40,000 persons, of .....	70 millions

Note.—The rate of consumption, viz.:—65 gallons per head per day—is a large one for this climate, but, as the population has for years past been consuming water at or near this rate, it will be difficult to diminish it without fresh legislation. It must be remembered that it includes water supplied to shipping, street watering, public buildings, manufactories, machinery, irrigation, etc., which, if deducted, would bring down the actual average personal consumption, fully 50 per cent.

Again:—

(q) As the extension of reticulation is now being actively carried on, it may be assumed that, within a very few years, the whole of the present population will be drawing water from the Corporation mains, say, 31,000 persons at 65 gallons, equal to about. ....	2,000,000 gallons per day.
(r) For 90 days of dry season this would equal.....	180,000 000
(s) Of which the Mountain will supply again, as above, say.....	108,000,000
(t) Leaving to be drawn from Storage, which is more than the present New Storage Reservoir holds, say, by 10 millions of gallons of consumable water.....	72,000,000

Storage for this latter quantity of 10 millions of gallons is therefore needed for immediate requirements, or what may be considered as such. This, at the least, must be obtained.

We have in this Report dealt with the more extensive view of providing for the anticipated future requirements some years hence, which we naturally presume is the course proposed to be adopted by the Council.

It should therefore be decided whether storage is to be provided only for immediate wants, or for the future anticipated requirements.

## 2. THE PRACTICABILITY OF THE RE-CONSTRUCTION OF THE OLD STORAGE RESERVOIR.

One of the first things to be observed in considering this subject is the capacity of the Reservoir, if re-constructed, which would be about 45 millions of gallons at the outside. This, consequently, is less by 25 millions than the quantity already stated to be necessary for future requirements. This fact should be kept in mind. It means that either other storage must be provided for, or the risk taken of a short supply during a dry season if the Old Reservoir is retained.

It would be well to give a brief history of the works connected with the old dam, but we find the subject is of so complicated a nature that we consider it is inadvisable to enter upon it now, further than to say that but for the acknowledged original defects in construction, the restoration of the work would now be found much easier and less costly.

It must be evident that any alterations will, of necessity, be subservient, more or less, to the original design. Unless the whole of the old work be swept away, the site may be considered absolutely determined, as also the general principles involved in its original construction.

There appear to be only two ways of dealing with the difficulty. They are either to re-construct the dam, so that the reservoir will hold its original capacity, or to abandon it altogether and construct a new reservoir elsewhere.

We have fully considered the advisableness or otherwise of reducing the height of the old dam on the score of economy, and treating the reservoir as one for ordinary service purposes. This would imply, if carried into effect, that another storage reservoir must be built elsewhere for the future requirements, and we do not recommend it. We find that the re-construction of the embankment to its original height now involves a very considerable amount of work that probably was not anticipated at the outset. Owing to the slips and earth fractures that have taken place since the excavations were commenced, there is reason to suppose that it will be necessary now to cut back the remaining earthworks to a very large extent to ensure safe operations.

There is no substantial proof that the south-east end of the dam, next to the storm channel, is watertight or otherwise. It will, probably, be found sufficiently good, but there remains some speculation as to what work might have to be done in order to make that part of the embankment secure.

As far as we can learn, the Old Reservoir was never filled up to its maximum height more than three or four times, and the longest period of its remaining full is stated not to have exceeded four months; therefore, in our opinion, not sufficiently long enough to prove its imperviousness at the south-east end. The level of the water had to be reduced one-half, owing to defects in other parts of the dam, and remained so for many years up to the commencement of operations last year.

These operations were advanced to such an extent that certain lines have been laid down upon which further work of restoration must be adhered to, if carried out.

They are—

- 1st. The extension of the main puddle-wall into solid country at the N.W. end of embankment, for which the excavation has been partly taken out.

2nd. The lines and position of the outlet-works, for which the greater part is taken out.

3rd. The masonry storm-channel, now nearly completed.

4th. The general disposal of excavated and removed material which was intended to be replaced.

There is some difference of opinion between ourselves as to what is the most suitable design for the outlet works under the peculiar circumstances. Mr. Milles is still of opinion that a masonry or concrete culvert should be constructed from the old tower through the embankment to take the outlet pipes. This would have the advantage of securing access to the pipes right up to their junction with the tower, and also allow of repairs and renewals at any time. In addition to this, the water, if required, could be drawn off very quickly from the reservoir by using the full discharge of the culvert.

Mr. James considers that on the grounds of economy and, in this particular instance the margin of danger being remote, that it is sufficient to lay down a cast-iron pipe on the same foundation as the tunnel, and enclosed in cement concrete, thus carrying out, though in a more substantial form, the original intentions of the first engineer.

We have gone carefully into the probable cost of the whole work, as suggested in this and previous reports, and we find that, in Mr. Milles' original proposals, by substituting less costly materials for the culverts, and reducing the dimensions of same, a sum of £1500 will probably be saved. We are, therefore, of opinion that, in order to make a substantial and permanent work of this embankment, it is well to anticipate an expenditure of from £15,500 to £18,000, according to the amount of work which it is found necessary to be done.

Should Mr. James' suggestion be adopted, a further saving would be made.

It is, perhaps, advisable here to again remind you that there is a considerable amount of uncertainty in works of this description.

As unforeseen circumstances may at any time arise which may materially affect the cost of construction either favourably or otherwise, a percentage has been allowed in the estimate for adverse contingencies.

In reviewing the whole subject of reconstruction of the Old Storage Reservoir, the following main points should be noted:—

- (a) The insufficient capacity of the reservoir for the future requirements.
- (b) The unfavourable location of the site of the embankment geologically.
- (c) The uncertainty of the extent to which the embankment will have to be rebuilt.
- (d) The possibly large cost of work which, if it be completed, will not fully provide for future requirements.
- (e) The re-construction of this reservoir will prohibit the construction of a reservoir of any magnitude lower down the valley.

The above circumstances are therefore such that they preclude us from strongly recommending the carrying out of this work, though we are confident in stating that it can be safely accomplished, the Council on its part to be satisfied with the limited storage, and be prepared to expend money to the amount above stated, if absolutely required.

### 3. AN ALTERNATIVE PROPOSAL FOR THE CONSTRUCTION OF A NEW RESERVOIR BELOW THE OLD SITE.

The designs and estimates for a proposed new reservoir below the old one were laid before you in last October by the present Director of Waterworks, and up to the present time nothing definite has been decided upon in the matter. We, therefore, now propose to again go into the question, and, if possible, bring under your notice any additional facts which may be worth consideration.

*Site.*—From information obtained from the two trial shafts and surface appearances the site selected for the proposed new dam seems to be in sound country, and one in which a good foundation may be expected. It is necessary, however, that further tests be made on the foundations on the line of dam before it is decided to carry out this work, and we recommend that arrangements be made accordingly for this purpose, say, by opening out a trench which can be re-filled again if the work be abandoned. This precaution is absolutely necessary on account of two different kinds of rock being encountered whilst sinking the trial shaft; the rock in the creek not being the same as that on the hill-sides. Their point of junction needs further examination in order to clear up any doubt.

When remembering how unfavourable this valley is for reservoir construction generally, the site for this reservoir offers some advantages, as the bed of the creek above the dam has an average fall of 1 foot 10 inches per chain, being less than the fall elsewhere. There is also a considerable flat on one side, thereby giving a basin of considerable dimensions.

If a new dam at the proposed lower site be decided upon, it will hold the requisite balance of 70 millions of gallons, and as stone suitable for a masonry dam is abundant on or close to the spot, there is an advantage gained by constructing it of that material.

The cost, however, is considerable. It involves the demolition of the permanent storm outfall channel lately attached to the Old Reservoir, the taking up and re-laying of valves and pipe mains, and clearing away and trimming down of portion of the old embankment. Property must be purchased, road diverted, and the storm channel extended another 25 chains.

It is a question for the Council to decide whether the expense of this new work should be incurred at once, as the full 70 millions of gallons of extra storage water may not be required for several years to come.

If such reservoir be constructed it will act both as a storage and service reservoir, and will require two outlet pipes, one to connect directly with the main supply pipes leading to the *Marquis of Hastings* Service Reservoir in the City, the other to afford a daily and constant supply to Sandy Bay, Battery Point, and the wharves, for which a new main is already partly laid. Consequently, this lower reservoir must be kept filled from the upper one; at least this would be the probable arrangement.



The level of the proposed new lower reservoir, when full, would be  $15\frac{3}{4}$  feet less than the old storage, and though of sufficient altitude to supplement the present supply to the *Marquis of Hastings* Service Reservoir, it will not discharge the same quantity of water per diem unless the pipes are enlarged.

Again, if a masonry dam on the lower site is decided upon, the cost can be extended over a lengthy period, according to the demands for supply. It might be built up to two-thirds of its proposed height for the present, leaving the completion to be carried out later on, when required. The only direct object in this course would be the saving in first capital outlay. It must be remembered at the same time that the greatest cost of this work is in the construction of the lower parts of the dam, consequently, the proportional cost per thousand of gallons stored would be greatly augmented, and would remain so until the whole dam was completed.

The part erection of the masonry dam would not affect the storm-channel and other works, which must be executed in any case, as, if the dam were completed to its full height, they remain constant.

By reducing the crest of the dam 20 feet below its finally intended height, a probable saving of £6000 in present capital outlay may be expected. We, however, do not urge this course to be adopted.

*Cost.*—The former estimate submitted has been revised, and we are of opinion that the masonry dam and reservoir cannot be re-constructed for less than the amount stated, viz., £31,000, even at the present low rates of labour.

An earth embankment, similar to that at the New Storage Reservoir, could be constructed at less cost than the masonry one, as above suggested; but on the other hand, it will not possess all the advantages of the latter. The inner slope will occupy a large amount of deep water-space, which the masonry dam allows. The outlet works will be more expensive, though the cost of foundations will remain about the same.

The holding capacity will be less, owing to its being inadvisable to carry it to the same height as the masonry dam.

If circumstances are favourable, the original estimate for this work is approximately correct, viz., £27,000. The capacity is estimated at 56 millions of gallons.

However, in making the earthen dam, much of the material in the old embankment will be again utilised, and the objectionable appearance caused by the remains of the old embankment would be overcome.

In any case, whether a masonry dam or an earth embankment be constructed on the lower site, the expenditure already incurred in repairing the Old Reservoir will be lost, excepting the value of stone material in the storm-channel, &c., estimated at £1000.

The earthen dam, however, will have a further advantage, as the puddle and other materials already existing in the old embankment can be again used. The capacity can also be increased by excavating inside the area of the reservoir for the earthworks in the dam, say by 6 millions of gallons, making a possible total capacity of 62 millions.

As the present New Reservoir can act in a similar capacity to any reservoir constructed lower down the valley, an opportunity occurs for remarking that it might be possible to retain any surplus storage water nearer, if not on the mountain itself, supposing that circumstances are favourable both as to site and economy.

Before any decision is arrived at with regard to the construction of a new reservoir in the valley it will be worth while to ascertain if more water cannot be obtained from the sources of supply on the mountain.

An examination of the sites suggested by former engineers as suitable for impounding reservoirs at the head of the Plains Rivulet (St. Crispin's) should be made.

The advantages of storage on the high plateau of Mount Wellington are not slight. Water might be retained there perfectly pure, unpolluted, and constant in supply. A series of small impounding reservoirs would possibly meet all requirements. As the rainfall is stated to be two and one-half times that in Hobart the frequent renewal of fresh water is obvious.

The accession of further supply by means of tapping the still untouched streams beyond St. Crispin's, and also conducting waters from the streams at the back of Wellington Falls, and leading the water by open conduits or light wrought-iron piping to the Springs, are matters which should not be lost sight of, as the expense of so doing may be much less than the cost of building a reservoir with equal results.

If the requisite additional water can be delivered at Fork Creek or at the Bower, it would appear to be a desirable scheme to carry out, and would overcome, in a great measure, the present insufficiency of storage.

If, therefore, it should be decided not to proceed with the re-construction of the Old Storage Reservoir, we recommend that further investigations be made as to the practicability or otherwise of the last suggestions.

It appears too late now to open up the question of constructing storage reservoirs in Kangaroo Bottom Valley, as formerly proposed, owing to the enhanced value of land on the suggested sites; but we consider that the previous suggestions should not be lost sight of, and we strongly recommend them to your notice.

#### RESERVOIR ON KNOCKLOFTY HILLS.

We examined three sites for suggested high-level service reservoirs. The first, overlooking the Cascade Road, at an elevation of 680 feet above sea-level; but we have nothing to recommend concerning it. The second, on a large flat saddle at the head of Salvator Rosa Glen, 730 feet above sea-level.

There is every facility for the construction of a reservoir of considerable dimensions here, and its elevation precluded the possibility of utilising it, except under considerable cost.

The third site is one suggested for years past near the Poet's Road, at an elevation of about 520 feet above sea-level. This was intended to be filled by the supply mains from the high-level pipehead well at the Gentle Annie Falls, its object being to afford a better supply to residences on the elevated land in the neighbourhood of Lansdowne Crescent. We still think it would be advisable to keep this proposal prominently under notice when considering the future requirements of this district.

## V

Whilst having the subject of future storage under consideration, we thought it desirable to inspect several localities which have been in former times suggested as suitable sites for reservoirs.

These are—

- 1st. A high-level storage reservoir on the Ridgeway Road, at an altitude of 800 feet above sea-level. A reservoir could be constructed on this site, the capacity being estimated at 40,000,000 gallons. As far as we were enabled to form an opinion on this site, we believe that no particular advantages would be gained, and we are not in a position to recommend further notice being taken of it for the present.
- 2nd. New Town Rivulet and Kangaroo Bottom. Sites for reservoirs here were selected many years ago, and it is to be regretted that the Corporation forfeited the rights which they at one time possessed to the waters of this stream. We cannot, however, impress too strongly the desirableness of the Council again directing their attention to utilising some of the waters from this source. It would be of the greatest advantage in improving the supply to North Hobart and New Town if a pipe-line were laid from a point up the rivulet at a sufficient elevation to fill a compensating reservoir constructed on Swan's Hill. This reservoir would be used for the purpose of increasing the pressure in the mains, which hitherto has been very low in those districts.

The consideration of the subject under the general headings Nos. 4, 5, and 6 having already been dealt with in various parts of this Report, we do not consider it necessary to make any further remarks on the same.

In conclusion, we recommend—

- (a) That steps be at once taken to investigate the subject of obtaining an additional daily supply from the Mountain.
- (b) That at the same time additional information be obtained as to the foundation of proposed new dam below the Old Storage Reservoir.
- (c) Should the result of the investigations under heading (a) prove satisfactory, that the necessary work of obtaining additional supply from the Mountain be taken in hand at once. (This virtually means that the re-construction of the Old Storage Reservoir be left in abeyance.)
- (d) If the results of the above should not prove satisfactory, and the foundations of proposed new dam turn out good, that a reservoir be constructed on the proposed lower site, with a masonry dam, as suggested, and according to such height as may be deemed advisable. (With regard to design, Mr. James somewhat favours the construction of an earthen dam in lieu of masonry, chiefly on account of first cost.)
- (e) That the new 10-inch main now laid as far as upper end of King-street, Sandy Bay, be extended on and connected temporarily with the New Storage Reservoir, so as to give additional assistance to the existing reticulation system.
- (f) Finally, with regard to the Old Storage Reservoir, as we have before stated, we cannot strongly recommend its reconstruction, but should the Council decide that the work be undertaken, we are of opinion that the dam can be made a sound and permanent structure, with the results previously mentioned as regards capacity and costs.

We have the honour to be,

Sirs,

Your obedient Servants,

R. S. MILLES, Assoc. M. Inst. C.E.,  
*Director of Waterworks.*

C. W. S. JAMES, *Consulting Engineer.*

## APPENDIX B.

### HOBART WATER SUPPLY.

To the Chairman of the Waterworks Committee.

SIR,

In accordance with instructions, I proceeded on the 1st instant to the valley of the Russell's Falls River, to examine that district as a source of water supply for Hobart and suburbs, and I have now the honour to submit the following report thereon :—

In the course of my flying survey, I examined the following sources of water supply :—

No. 1.—Russell's Falls River.

No. 2.—June River and Mount Humboldt Creek (tributaries of Russell's Falls River).

No. 3.—River Styx.

No. 4.—River Plenty.

At the time of my visit it was found to be a very favourable opportunity for gauging the several waters, as there had previously been continued fine weather, and but very little rainfall, with the result that the rivers were at an exceptionally low run, and, therefore, gave a very fair approximation of what the probable minimum supply would be in summer time.

In considering the scheme of additional water supply, I have kept in view the proposal of supplying not only Hobart and the adjoining suburbs, but also all other districts which could reasonably be embraced under the scheme.

It has therefore been assumed that five million gallons per day will be required in addition to the present estimated supply of 1,800,000 gallons per day. This would consequently meet the requirements for many years to come, and also allow for a considerable amount of irrigation to be undertaken.

In all the calculations it has been considered that it would be necessary to bring the supply into Hobart so as to be discharged into a service reservoir, situated at an altitude of not less than 400 feet above sea-level. The accompanying locality plan has been prepared to illustrate this report.

#### *Russell's Falls River.*

This river has a fall of about 44 feet per mile. Owing, therefore, to the difficulty in obtaining the required altitude of 700 feet, it has been found necessary to go up as far as the town reserve at Tyenna, some 15 miles from Glenora by road. The main river at this point gave twenty (20) million gallons per day, which is just four times the amount required. Above this point the river flows through a number of selections situated in somewhat flat country, from which it carries a large amount of solid matter in suspension, and, in order to avoid this, I believe it would be found necessary to go some three or four miles further up the river; this would be in steeper country, and less liable to contamination.

#### *Junee River.*

This stream is a tributary of the Russell's Falls River, and takes its rise in Mount Field West. The quantity of water flowing down was six million gallons per day. This water is most exceptionally clear for a mountain stream, and, probably, runs over limestone rock. There is a large swampy flat at its junction with the main river, and it would be advisable to go up some distance above this, in order to obtain the water free from vegetable matter. This would so increase the distance that it practically condemns it as unsuitable.

#### *Mount Humboldt Creek.*

This stream is said to originate from a small lake on Mount Humboldt. It joins the main river a little above the Town Reserve. The gauging of this stream gave eight million gallons per day of such water as appears in every way suitable for domestic purposes, and as it runs over rocky country it is but slightly darkened in colour in flood-time. There are no selections of land taken up above the point where it would be tapped, and therefore could be kept free from pollution.

I consider that Mount Humboldt Creek would be the most suitable source of water supply from the whole of this watershed of the Russell's Falls River, and would be found more preferable in many ways than the main river itself.

The necessary works for this proposed scheme would be, roughly, as follows:—

A covered channel of masonry, or other lasting material, starting from the intake at an altitude of about 750 feet above sea-level, and graded with a fall of about five feet per mile. It would cross over the Russell's Falls River, and follow down the valley of same on the south side to a point near the main road bridge which spans this river. It would then take a southerly direction up the valley of the River Styx, crossing same (by syphon), and continuing down the valley on the eastern side for about three miles, when it would take an easterly direction, crossing Dry Creek, from whence it would contour round and go up the Plenty River Valley, crossing same (by syphon) it would come back on the eastern slope of that valley in a northerly direction, and then continue on to Lloyd's Hill, where it would join the head of the main-pipe line opposite to the 25-mile-post on the main road, at an elevation of about 550 feet above sea-level. The pipe-line would then follow the main road to Hobart, with branches running off where required, as, for instance, to North Bridgewater; and from Cornelian Bay Point across the River Derwent to Beltana, and on to Bellerive, and running into a small distributing reservoir suitably located.

The outlet of the main-pipe would be brought into the present service reservoirs on Hill-street, at an altitude of about 300 feet, and, when it was found necessary, it could be extended to a higher service reservoir, which could be constructed at an altitude of 400 feet above sea-level.

The chief items under this scheme would be, approximately:—

32 miles covered channel.

25 „ 30 in. to 24 in. diameter wrought-iron pipe-mains.

13 „ 12 in. to 3 in. diameter wrought and cast iron distributing-mains.

Intake-weir, small reservoir, &c.

The estimated cost of this scheme is, roughly, £230,000, in which is included a sum of £20,000 for small works and contingencies.

In connection with this scheme, several alternative proposals for shortening the route have been considered, but, so far, the results are not satisfactory, as, in the absence of proper surveys, nothing can be determined with accuracy.

#### *River Styx.*

After the examination of the Russell's Falls scheme, I traversed the Styx River for a distance of some 15 miles up from Glenora. Although I did not obtain quite a sufficient altitude at the farthest point which was reached, I believe it is perfectly practicable to obtain the probable required elevation of 700 feet which is necessary for the intake, and this within a reasonable distance. I understand that the whole of the land in this watershed above the point alluded to is Crown land, and, therefore, the water would be safe from being polluted. The gauging of the river shows that there are 25 million gallons of water flowing down per day, which is exclusive of the water drawn out for irrigation purposes. Therefore, it appears, there would be no danger of interfering with any existing water-rights. At the time of my visits the water seemed to be in every way adapted for a domestic supply, and from reliable information received it seems that there is only a slight discolouring observable during flood-time, and which only lasts a few days.

The proposed method of bringing in this supply is similar to that from the Russell's Falls River, by means of covered channel to the 25-mile point near main road, and thence by pipe-main. The route would be much the same as previously described.

## vii

This scheme would include the construction of—

- 20 miles of covered channel.
- 25 „ 30in. to 24in. diameter wrought-iron pipe-mains.
- 13 „ 12in. to 3in. diameter wrought and cast iron distributing-mains.
- Intake-weir, small reservoir, &c.

The estimated cost of these works is £205,000, included in which is a sum of £18,000 for small works and contingencies. Like the previous scheme there appears, at present, no way of shortening the route to advantage.

*River Plenty.*

I examined this supply up to about seven miles from its mouth, where the gauging of the water gave five million gallons per day. As it would be necessary to go many miles farther up this valley in order to obtain the required altitude, and also in view of the smallness of the stream, I do not recommend the consideration of this supply.

I am of opinion, therefore, that the question of obtaining a permanent water supply from this district, lies between the Mount Humboldt Creek and the River Styx; of the two schemes, I believe that the latter will be found to be the most suitable and less costly, both as to first cost and maintenance.

As to the expediency of the scheme, there is no doubt that the existing works are insufficient to meet the fast-increasing demand for water, and that provision will soon have to be made for an additional supply. If a storage reservoir be constructed below the existing one it would be possible to meet the requirements for some few years to come, but even then it is doubtful if there could be made any further extensions into the suburbs. It must be remembered that there is a considerable population within the existing area of supply yet to be provided for. Provision will also have to be made for additional consumption when the water-closet system comes into general use under the Metropolitan Drainage Scheme.

This water-supply scheme is of such magnitude that it would, in all probability, be beyond the present powers of the Hobart Corporation to carry out such a work alone.

In order that this long-talked-of scheme may be definitely settled, and remembering what a benefit such a scheme would be, not only to Hobart, but also to the surrounding districts (which latter are now mostly dependent upon house-roof water), I believe the most satisfactory plan is to hold a conference on the subject, and I would therefore suggest that representatives from the outside districts confer with the Council upon the whole question.

If, in the meantime, it is found necessary, further surveys could be made with a view to complete information and estimates.

The purity of the water, which is a most important question, has not yet been dealt with technically, and this and many other matters would be considered at the conference.

Should either of the abovementioned schemes be considered favourable, I would recommend that steps be at once taken to have the necessary lands reserved for the purposes of the supply.

I have the honour to be,  
Sir,

Yours obediently,

R. S. MILLES, *Assoc., M.I.C.E.*,

*Director of Waterworks.*

*March, 1893.*

**NOTE.**—After a visit to the proposed source by some members of the Waterworks Committee, a motion was tabled at a meeting of the City Council in February, 1898, asking them to vote the sum of £300 for the purpose of obtaining a permanent survey of the proposed scheme from the River Styx, which, after long discussion, was lost.

## APPENDIX C.

*Government Laboratories,  
Hobart, 12th March, 1901.*

DEAR SIR,

The samples of water received from you on the 9th instant, and stated to be from the Styx and Russell's Falls rivers, have been examined, with results following:—

	Parts per million.	
	(1.)	(2.)
Free Ammonia .....	0.01	0.01
Albumenoid Ammonia .....	0.03	0.02
Nitrogen, in Nitrates.....	—	0.008
	Grains per gallon.	
	(1.)	(2.)
Chlorine, in Chlorides .....	0.8	0.8
Total Solid Matter .....	8.6	9.6
Total Mineral Matter .....	7.4	8.2

No. 1 is the sample sent in the blue bottle; No. 2 that sent in the white bottle. The mineral matter in each is mainly Carbonate of Lime. Both samples of water are clear, with a very faint yellow tint, No. 2 being slightly the darker of the two.

Yours faithfully,

W. F. WARD, *Government Analyst.*  
per A. M. Elliott.

To J. K. REID, *Esq., Secretary Royal Commission*  
*on Municipal Government, &c.*

NOTE.—The sample of water in the blue bottle (No. 1) was from the River Styx; that in the white bottle (No. 2) from the Russell's Falls River.

J. K. REID, *Secretary.*

## APPENDIX D.

*Office of Director of Waterworks, February, 1901.*

THE RIGHT WORSHIPFUL THE MAYOR OF HOBART.

I HAVE the honour to submit the following Report on the recent survey and examination made on Mount Wellington, in connection with the water supply, during April and May last. I may state, that I have not been able to complete the full report before this, owing to the special works which have since had to be taken in hand in connection with the repairs to the upper reservoir, and increasing the supply by extending the present works beyond St. Crispin to the North West Bay River; in fact, it is only at considerable personal strain that I have, even now, been able to finish it, as my time has been more than fully occupied on these, and other works.

The weather, during the first few weeks of the survey, fortunately, was fine, therefore, a good opportunity was obtained for examining the country when in a dry state, and I was enabled to make a comparison when the snow and rain fell later on.

A great portion of the country traversed is of a very rough and rugged nature, difficult of access, and offering many impediments to surveying operations, notwithstanding which, a great deal of detail information has now been obtained as to the present sources of supply, as well as in connection with others outside the existing water reserve.

The whole of the survey has been connected to the trigonometrical station at the summit of the mountain, and care exercised in all the work, so that a reliable map should be the result.

The actual surveying operations embraced the following, outside of the ordinary exploration work:—Fifteen miles of traverse, including 260 chained lines, varying from 1 to 45 chains in length, having all the vertical, as well as horizontal, angles taken; 135 acres of flat country cross-sectioned with the level, and containing about seven miles of measured lines; about 400 acres of other flat country were also examined, as to general levels, with the clinometer; the geological features of the country were also examined.

It may, perhaps, be well to again state that the actual catchment area of the present water supply west of the "Springs" is only about 1650 acres, this being an important matter when dealing with the question under consideration. It is advisable the same should not be lost sight of, as the whole question of supply depends upon the rainfall. I have obtained a considerable amount of information relative to the rainfall in Hobart since 1840, and also the rainfall at several of the surrounding districts during the last few years. In perusing the report of the engineer, Mr. J. N. Gale, presented to the Municipal Council on 5th November, 1861, I find some interesting information on the subject. He says:—

"It is at once apparent, from the features of the country, that the source of supply for all the various springs can only be the rain falling on the top and sides of the mountain, and that the cause of the streams being so constant must be owing to the innumerable fissures and crevices, and also in some degree to the partial absorption of water by the basalt.

"The following statement is an approximate estimate of the quantity of water which flowed down the undermentioned streams on the 29th February, 1860:—

	Gallons per day.
Sandy Bay Rivulet.....	12,960
Longhill Creek .....	8640
Brown's River.....	36,000
Springs .....	86,400
Fork Creek .....	50,400
Long Creek and Fern Tree Creek .....	79,200
New Town Rivulet.....	57,600

"Assuming the whole of the spring water flowing down these rivulets was available in the driest seasons, there would only be sufficient for the supply of little more than 13,000 persons, allowing 25 gallons per head per day, leaving about 7000 to be supplied from other sources.

"The storage reservoir, containing 40 millions of gallons, is calculated to meet any deficiency that may occur during the driest summer, and, making due allowance for evaporation, will yield a supply for two months, independent of the spring water.

"In a former communication I stated that it was unnecessary to enter upon the question of the quality of the water, the geological character of the drainage area being such that no art could improve the quality of the water flowing from it, all the various springs being pleasant to the taste, and possessing a brilliancy that cannot be surpassed.

"The necessity for storing water is made apparent, on comparing the rainfall of the summer of 1859-60 with that of previous years. We find from the meteorological tables, that during the last 20 years there have occurred eight summers which had less rain. The rainfall for three months of the summer of 1842-43 was only 77-100ths of an inch, the rainfall for six months of this season being 2.85 inches, and the total fall for twelve months was only 13.43 inches.

"The rainfall for the three summer months of this year having been only one-fifth of the fall for the corresponding months of 1859-60, it follows that the flow from the various springs must have been considerably less than the quantities above given, and, indeed, it is most probable that the greater number were almost dried up. It is a singular fact to record as occurring at our antipodes that during the summer of 1843 almost all the springs, from the Pentland Hills, in Scotland, were dried up, although these streams had hitherto been considered among the most constant, former experience having shown them to be little affected by dry seasons.

"As a further proof that it was judicious not to rely exclusively upon the springs for the supply during the summer months, I am glad to have it in my power to cite an extract from a report of Mr. Bateman's, sent to Mr. McNaughtan, who had forwarded a tracing of the plan of the intended works. This plan shows three reservoirs on the Sandy Bay Rivulet, and two reservoirs on the New Town Rivulet. Mr. Bateman remarks, in reference to these five reservoirs:— 'Unless the volume of spring water in dry weather is considerable, the storage provided by those reservoirs is too little, but it may do for a commencement, to be subsequently increased as the demands of the town require.'

"In order to compare the rainfall on the mountain with that falling in the City, two rain gauges were placed near the summit. The result of the observations shows that the rainfall over the plateau of the mountain may be taken as about two-and-a-half times more than the town.

"We may therefore assume that the rainfall over the drainage ground throughout the year will not be less than double the corresponding fall in Hobart. If we take the driest season that has occurred during the last 20 years, we find that the whole fall from December, 1842, to November, 1843, was only 12·98 inches registered in town. Assuming, as above, that the average fall will be doubled, we find that for this period there were 26 inches of rainfall over the drainage ground.

"The upper part of Mount Wellington being comparatively hollow, the rain percolates immediately into the innumerable fissures and crevices, so that the loss from evaporation will be very slight, and from the geological conditions and precipitous nature of its sides, we may fairly assume that three-fourths, or 19½ inches, of the above rainfall would have been available for storage.

"The capacity of the reservoir being 40 million gallons, it follows that 19½ inches available rainfall would suffice to fill it fifteen times, or, in other words, an available rainfall of 1 1-3 inches over this drainage area would fill the reservoir.

"It will be observed that no account is taken of the drainage area of the Sandy Bay Rivulet, as it is not intended that this stream should form any portion of the supply.

"The conduit, when running full, will furnish about 5½ million gallons per day, which, if continued for a week, would fill the storage reservoir."

It is interesting to note the small rainfall given by Mr. Gale for the summer of 1842-3, and by comparing the same with the records which I have been able to procure, it will be found that the rainfall for four months, viz., from end of November to the beginning of April, was only 79-100 of an inch, which is even less than given by Mr. Gale, and the total rainfall for the whole year of 1843 being only 13-43 inches, which gives an average of only a little more than one inch per month. Again, on comparing the rainfall for the five years, 1841 to 1845, with those of the same period between 1871 to 1875, it will be found that between the former years the rainfall was below one inch per month during 25 different months, as against only seven months of the latter period; the average annual rainfall between 1841-5 was only 18·78 in. as against 25·36 inches per annum for 1871-5, the mean of 35 years, viz., from 1841 to 1875 being 24 inches. The mean of the last few years, viz., 1895 to 1899 inclusive, has fallen again down to 20·52 inches. The average rainfall at the Springs, Mount Wellington, for the last 10 years was 54·07 inches per annum, which is more than twice that of Hobart, but by comparing the quantity of rain which falls during the summer months only at the Springs with that on the surrounding lowlands, it is found that there is not quite so much difference as that previously mentioned, that is, it bears a nearer relation to the rainfall of the lowlands in summer time, and increases at a higher ratio during winter. From careful observations, and examination of the records of rainfall, I am of opinion that it is not safe to assume the summer rainfall on the present catchment area in a dry season is more than 1½ inches per month, especially when it is remembered that a large portion of this catchment is on the south and south-east slopes of the mountain, and protected from the prevailing weather.

Taking, therefore, 1½ inches of rainfall per summer month as the basis of calculation, the average theoretical flow of water per diem will be about 1100 gallons per acre. Allowing for percolation, evaporation, &c., not more than 70 per cent. of this quantity can be reckoned upon as actually collected into the watercourses, therefore the available supply will be only 777 gallons per diem, or for the whole area 1650 acres of the water-shed, about 1½ million gallons. Several gaugings of recent years in summer time have given a result of 900,000 to 1,200,000 gallons, which is a very near approximation.

The question, therefore, of either making additional reservoir storage or the right to take the water from some of the streams beyond St. Crispin's Well is fully apparent. I will now deal with the first of these questions.

In considering this question of what conservation works on the plateau it is possible to construct, and how much water is available, it is well to again look carefully into the subject of the rainfall thereon. On comparing the records of the rainfall at the various meteorological stations around Mount Wellington, I find that the average mean annual rainfall of these stations may be taken at about 20 inches for the low cycle years, and from these records other data has been obtained, from which the following table has been made:

Year.	Mean Monthly Rainfall.	Respective Monthly Ratios.	Average Low Cycle Rainfall of surrounding districts.	Equivalent flow of water per square mile in cubic feet.	Equivalent collectable supply per square mile in gallons.
January .....	1·66	·70	1·17	2,718,144	13,590,720*
February .....	...	·35	·58	1,347,456	6,737,280*
March .....	...	·75	1·25	2,904,000	14,520,000*
April .....	...	·80	1·35	3,089,856	15,449,280*
May .....	...	1·05	1·75	4,065,600	20,328,000*
June .....	...	1·30	2·17	5,041,344	25,206,720*
July .....	...	1·45	2·42	5,622,144	28,110,720*
August .....	...	1·00	1·67	3,876,744	19,398,720*
September .....	...	1·10	1·83	4,251,456	21,257,280*
October .....	...	1·25	2·08	4,832,256	24,161,280*
November .....	...	1·45	2·42	5,622,144	28,110,720*
December .....	...	·80	1·33	3,089,856	15,449,280*
Totals per annum....	...	...	20·00	46,464,000	23,232,000

\* A reduction of 26 per cent is allowed for evaporation, &c.

Now, although the average monthly rainfall of these stations is 12.3 inches, it will be seen, on reference to the table, that the average summer or dry-weather fall is only a little more than one inch per month, and, from the records of rainfall at the Springs, and what has been previously stated, it is not safe to reckon upon more than  $1\frac{1}{2}$  inches on the present watershed per month during such summer-time.

The plateau of the mountain being at a considerable higher altitude than the average of the present watershed, it is natural to expect that the rainfall will, therefore, be more. Mr. Gale states that, from experiments, he found it was  $2\frac{1}{2}$  times as much as in Hobart, and, from the records at the Springs during the last few years, and from my own observations on the Mountain, this is fully borne out. For purposes of estimation, the low cycle rainfall on the plateau during summer months can be taken at 2 inches per month. The catchment area on the plateau, including the flats at the head of the North-West Bay River, is, approximately,  $1\frac{1}{2}$  square miles, or, say, 1000 acres. With a rainfall of 2 inches per month, the theoretical flow will be equal to 1488 gallons per diem per acre, and, allowing for evaporation, &c., the available quantity will be about 1000 gallons per diem per acre of collectable supply, which, for 1000 acres, will give 1,000,000 gallons.

It may be safely taken that the low cycle yearly rainfall on the plateau is not less than 40 in., or twice that of the surrounding districts, given in the above table; therefore, the total yearly theoretical flow, for the 1000 acres of watershed, will be 907 million gallons, of which about 80 per cent. could be collected, giving an actual available annual supply of 726 million gallons. This shows, at a low computation, the great capabilities of the mountain for water-supply purposes, if only conservation works can be constructed to impound the water.

When considering this subject, it must be remembered that the 1000 acres of catchment area referred to above is on the plateau of the mountain, and must not be mistaken for the whole watershed of the North-West Bay River, above the proposed intake of the extension works beyond St. Crispin's, and which latter area is over 3000 acres.

The site near the trigonometrical station is one which has often been suggested, but, after several trials, it was found impracticable, as there is not sufficient catchment area by which to supply it with water. Two sites exist on the water-reserve portion of the plateau, one to the west of the "Gap," on a plain of pear shape, some 28 chains long by 18 chains at its widest part; the ground is watertight in many portions, and it has a considerable catchment area, with running water on it, more or less during all the year. Reservoirs might be constructed on this plain, but not of large dimensions.

The second site is on the divide, about half a mile to the north-west of the "Gap," and about half a mile south-west of the "Rocking Stone," and offers considerable advantages for a storage reservoir, though, perhaps, of a somewhat limited area. Several shafts have been sunk on this site, and, in all cases, the country proved tight, being of a clayey nature, and very impervious. The water from a large drainage area could be brought into it, and several springs show just around the site. A reservoir could be constructed on this site to hold about 15 million gallons, at a cost of about £17,000, and the water from same could be brought into the present head-works.

During my examination of the plateau I was much impressed with the large flats extending to a distance of about  $1\frac{1}{2}$  miles to the south-west of the Trigonometrical station, and covering some 350 acres in extent. These flats form portion of the sources of the North West Bay River, and probably offer the greatest opportunities for conservation of water on the mountain. Two small streams run through these flats, the average fall of which varies from  $2\frac{1}{2}$  feet to 4 feet per chain, with a cross-fall of about the same. The land, which in places is marshy, is of a retentive nature. An embankment made to hold 40 feet depth of water in the deepest part would conserve, approximately, about 20 million gallons, and several embankments could be constructed on these flats. The approximate cost of such an embankment should be about £12,000. The position of this site being far away from the route of the ordinary tourist, the large catchment area, and the purity of the water, make it a desirable locality for storage, and one which is deserving of careful consideration. It should also be noted that if conservation works were constructed on these flats the water from the same could be conveyed down the channel of the river to a point some 400 feet below the Wellington Falls, from whence it could be conducted to St. Crispin's Well by means of a new main from that point, the distance being about  $2\frac{1}{4}$  miles. Under such a scheme the riparian owners of the river would not be interfered with; in fact, it might possibly be found that water could be likewise conserved for these owners, at a cost that would not be great.

The last site examined was that on Snake Plains, at an elevation of about 2400 feet above sea-level. Although small reservoirs could be constructed on these plains, I do not think there are sufficient advantages to recommend the consideration of the site at the present time, though the locality should not be lost sight of in the future.

During my examination of the mountain, it was often found very difficult to trace the route of several streamlets, as in some cases the water, after travelling for a considerable distance, disappeared out of sight, and was not seen again. This was especially so in the neighbourhood of the "Gap." Most of the upper portion of the mountain is formed of boulders and loose stones, and it is only at about the 2400-foot level that the main springs and streamlets appear again, being at that altitude intercepted by an impervious floor of crystalline or argillaceous schist rock, of many feet in thickness, and running into the mountain with a slight dip inwards. This floor of rock can be traced for miles from the "Springs" round the mountain and past St. Crispin's Well, and it is from off this floor that the several streams forming the Plains Rivulet take their origin. I am of opinion that this bed of rocks extends into the mountain for a considerable distance, and if so it is highly probable that a large quantity of subterranean water exists on this rock, which would account to a great extent for the fairly uniform flow of the St. Crispin's well and adjacent streams. It might be found advisable to have an adit or two driven in on this line of rock in order to test the question, as the whole formation of the country above being hard greenstone it would be very costly to sink down on to it from the upper levels. This rock being favourable for driving, the work would not be expensive, and might lead to good results.

As several of the small streams forming the "springs" watercourse likewise have their origin from the same stratum, in all probability the head waters of the Hobart Rivulet, in the "Organ Pipe" basin,

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originate from the same source, though nothing can be seen, owing to the large quantity of boulders covering the outcrop.

I cannot close this report without referring (as I have done on previous occasions) to the necessity of laying down a pipe main along the "Springs" watercourse, and, likewise, of continuing the same down to the "Bower," by which means not only would a large portion of the water from this part of the mountain be saved in summer time, but it would keep it free from contamination, as, it must be remembered, a large number of visitors to the "Springs" travel along this watercourse.

I have the honour to be,  
Sir,

Your obedient Servant,

R. S. MILLES, *Director of Waterworks.*

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## APPENDIX E.

### ROYAL COMMISSION ON MUNICIPAL GOVERNMENT OF HOBART AND SUBURBS.

House of Assembly, Hobart, 19th April, 1901.

SIR,

At a Meeting of the Commission held this day attention was drawn to the fact that your Report to the Mayor on the subject of the Hobart Tramways had not been received, and I was directed to write and request you to forward the same to the Chairman without further delay.

I have, &c.,

J. K. REID, Secretary.

R. S. MILLES, Esq., Town Hall.

Office of Director of Waterworks,  
Town Hall, 22nd April, 1901.

Memo. for J. K. Reid, Esq., Secretary Royal Commission.

SIR,

In reply to yours of the 19th instant, *re* Report on Hobart Tramways, I beg to inform you that I have applied to His Worship the Mayor for permission to forward a copy of this Report to the Royal Commission, and he cannot sanction the same, as it forms part of some correspondence. I enclose copy of my instructions from the Town Clerk on the subject.

Please find corrected proof of further evidence.

I have, &c.,

R. S. MILLES.

SIR,

19th April.

Your note to the Mayor, of yesterday, came before him, and he has instructed me to inform you that the report in question forms part of a correspondence, and is a matter which is not yet completed; therefore he cannot sanction the same being produced as required; but immediately on completion of the matter the whole correspondence, reports, &c., will be at the disposal of the Commission.

Yours obediently,

The City Surveyor, Town Hall, Hobart.

J. W. C. HAMILTON, Town Clerk.

### ROYAL COMMISSION ON MUNICIPAL GOVERNMENT OF HOBART AND SUBURBS.

You are hereby summoned to appear and give evidence before the Royal Commission on the Municipal Government of Hobart and Suburbs in the Committee Room, House of Assembly, on Thursday, the 25th day of April, 1901, at 3 o'clock in the afternoon, and then and there to produce the Report on the Hobart Tramways, referred to in your letter of the 19th instant, to the City Surveyor; and take notice that if you neglect or refuse to produce the same at the time and place specified, you are liable to a penalty not exceeding Twenty Pounds.

Given under my hand this 24th day of April, 1901.

R. C. PATTERSON, Chairman.

The Town Clerk, Hobart.



## APPENDIX F.

Notes forwarded by Mr. Wm. Corin, City Electrical Engineer, Launceston, to Royal Commission on Municipal Government, with revised proof of evidence.

NOTE.—Reference numbers correspond to Roman figures in text.

I. "The Corporation would have been in pocket" by an amount which, broadly speaking, represents the difference during those years of working previous to this balancing point being reached between the interest on extra capital required for water-power plant and the coal bill with steam plant, the former not varying much, and the latter varying greatly with the output.

II. The total annual costs, which consist largely of interest increasing in something like the same proportion. The gross cost per unit, including interest charges, would thus be, roughly,  $\frac{2}{3} \times \frac{1}{3} = \frac{2}{9}$  of present cost.

III. "With coal we should have practically the same cost," i.e., allowing that the plant were fully loaded, and working under most economical conditions, the gross cost per unit, including interest charges, would not greatly differ whether the plant were of the capacity of our present one or three times the size.

IV. To make my meaning quite clear, and to further explain the above notes, I add the following working the same idea out in greater detail :—

## COMPARISON OF COAL AND WATER-POWER.

WATER.			
Actual figures at Launceston, 1900. (See my Annual Report, copy attached.)		Probable figures for Water-power, three times the output. Capital expenditure increased by one-fourth.	
	Pence per Unit.		Pence per Unit.
Oil, &.....	·023		·02
Wages.....	·318		·15
Repairs, &c. ....	·432		·41
Management, &c. ....	·377		·17
Total Costs.....	<u>1·150</u>		<u>·75</u>
Interest and Sinking Fund on £100,000—£4441 for 696,700 units.....	1·53		·64
Gross cost, including interest.....	2·68		1·39
			A saving of 1·29 pence per unit.
COAL.			
Probable figures. Expenditure £60,000, output £696,700 Unit.		Expenditure nearly trebled, output trebled.	
	Pence per Unit.		Pence per Unit.
Coal .....	·50		·48
Oil, &c.....	·05		·04
Wages .....	·40		·25
Repairs, &c.....	·52		·50
Management .....	·38		·17
Total Costs .....	<u>1·85</u>		<u>1·44</u>
Interest and Sinking Fund on £60,000 calculated at same rate as above for same output .....	·92		·90
	<u>2·77</u>		<u>2·34</u>
			A saving of only 0·33 pence per Unit.

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V. "Installation. Whether rightly or wrongly, I was under the impression that the Chairman referred to the private wiring of houses. Table V. of my Annual Report shows the basis on which private work is carried out, fittings and motors rented, &c. Each of these minor investments stands on its own footing and pays for itself.

VI. "That pays decidedly." It pays, for after providing the plant, labour, &c., for an all-day service, each extra unit costs us, certainly, not more than the following figures :—Oil, &c., .02; wages, .10; repairs, .15; management, .15. Total, .42. Thus, as our average price obtained per unit was 1.72*d.* last year (see Table IV. of Annual Report), we make a profit of 1.3*d.* per unit supplied for power.

VII. The correct figure for the transmission line is 23 miles to the outskirts of Buffalo. In Buffalo the cables are underground.

VIII. "Not if that is the total amount of power." I should like to modify this somewhat hastily expressed opinion. Although not relatively large compared with some plants, since it could be produced and sold at a profit, it would be of material advantage to the City of Hobart to be able to supply even only 440 H.P. at a low figure to manufacturers.

WM. CORIN.  
18-7-01

## APPENDIX G.

STATEMENT showing the Debt of the Hobart Municipality at date 31st May, 1901, together with the necessary annual contribution to a Sinking Fund to redeem the Debt—Principal and Interest.

DEBT—Less Amount to credit of Sinking Fund.	Necessary Annual Contribution to Sinking Fund, invested at 3½ per cent. per annum for 40 years to redeem the Debt—Principal and Interest.			
	On account of Interest.		Sinking Fund. On account of Principal.	
	Actual Amount.	Rate per cent.	Actual Amount.	Rate per cent.
£ s. d. 227,486 7 1	£ s. d. 7962 0 5	3½	£ s. d. 2690 10 11	1-18,273

R. M. JOHNSTON, *Government Statistician.*

## APPENDIX H.

Town Hall, 14th June, 1901.

Amount of Waterworks Debentures to date, £177,700.

£100,000, due May, 1930, at 5%  
 30,000, " " 1940, at 4%  
 30,000, " April, 1902, at 5%  
 10,000, " October, 1910, at 3 to 3½%  
 7700, " " 1915, at 3½%

# APPENDIX I.

## HUNTER DISTRICT WATER SUPPLY AND SEWERAGE BOARD.

### ACCOUNTANT'S BRANCH.

RETURN showing amount of Revenue struck, collected, and outstanding for year ending 30th June, 1900.

(No. 5.)

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Head of Revenue.	Arrears from previous years.			Amount struck for the year ending 30th June, 1900.	Total receivable.	Collected.			Amount outstanding a 30th June, 1900.
	Amount outstanding at 30 June, 1899.	Charges since cancelled.	Net arrears.			Total collected.	Less over-payments.	Net collections.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Water Rates.....	9407 13 7	644 13 4	8763 0 3	20,437 11 3	29,200 11 6	24,379 2 11	40 8 11	24,338 14 0	4861 17 6
Special Fees—									
Gardens and sundry water supply .....	5 3 6	1 16 0	3 7 6	57 6 3	60 13 9	58 8 9	...	58 8 9	2 5 0
Live Stock .....	5 15 0	3 0 0	2 15 0	182 0 0	184 15 0	182 15 0	...	182 15 0	2 0 0
Builders' supply .....	...	...	...	81 8 10	81 8 10	81 8 10	...	81 8 10	...
Meters—									
Meters only .....	376 1 9	1 7 7	374 14 2	1383 12 0	1758 6 2	1373 18 10	...	1373 18 10	384 7 4
Meters in excess .....	1616 0 2	4 11 0	1611 9 2	2925 8 8	4536 17 10	2938 1 11	1 14 11	2936 7 0	1600 10 10
Shipping .....	19 8 5	...	19 8 5	891 1 7	910 10 0	884 0 6	...	884 0 6	26 9 6
Meter Hire—Rent of Meters .....	35 1 0	0 4 6	34 16 6	270 14 8	305 11 2	269 14 8	0 13 6	269 1 2	36 10 0
Other charges—									
Drilling Fees .....	...	...	...	68 8 0	68 8 0	68 8 0	...	68 8 0	...
Re-connecting Fees.....	...	...	...	2 17 6	2 17 6	2 17 6	...	2 17 6	...
Plumbers' Licences.....	...	...	...	17 0 0	17 0 0	17 0 0	...	17 0 0	...
Delivery Charges.....	...	...	...	4 14 4	4 14 4	4 14 4	...	4 14 4	...
Sale of By-laws .....	...	...	...	0 0 6	0 0 6	0 0 6	...	0 0 6	...
Interest on Deferred Payment Instalments .....	...	...	...	34 9 11	34 9 11	34 9 11	...	34 9 11	...
	£11,465 3 5	655 12 5	10,809 11 0	26,356 13 6	37,166 4 6	30,295 1 8	42 17 4	30,252 4 4	6914 0 2
Rents received .....	...	...	...	249 5 4	249 5 4	249 5 4	...	249 5 4	...
Other receipts .....	...	...	...	150 14 11	150 14 11	150 14 11	...	150 14 11	...
	£11,465 3 5	655 12 5	10,809 11 0	26,756 13 9	37,566 4 9	30,695 1 11	42 17 4	30,652 4 7	6914 0 2

Board's Offices, Newcastle, 29th September, 1900.

ALFRED E. FRY, Secretary and Accountant.



## APPENDIX K.

## OPINION.

*Re* notice of the Central Board of Health to the Local Board of Health of the City of Hobart, to enforce By-law No. 11.

THE sixteenth section of "The Public Health Act, 1885," authorises the Central Board of Health, upon complaint being made to it that a Local Board of Health has made default in enforcing any of the provisions of that Act which it is the duty of the Local Board to enforce, to make an order limiting a time for the performance of its duty by the Local Board in the matter of the complaint, and the same section provides that if the Local Board shall not perform such duty within the time limited by such order, the performance may be enforced by Writ of *Mandamus*, or the Central Board may appoint some person to perform the duty, and may recover the expenses of such performance from the Local Board as therein directed.

By-Law No. 11 of the Local Board of Health of the City of Hobart, appears to have been duly made in accordance with the provisions of "The Public Health Act, 1885," and to have been confirmed by the Central Board of Health, and every By-Law so made and confirmed is enforceable by the Central Board during the time it continues in force, as if it were a part of the Act. In the present case, complaint has been made to the Central Board that the Local Board has not enforced the provisions of the By-law in regard to certain water-closets which discharge nightsoil into the Park Rivulet, and I understand that the question upon which I am asked to advise is, whether the proprietors of those water-closets come within the language of the By-law, in so far as it forbids any person to deposit night-soil, or other offensive matter, in any place, so as to be a nuisance to any person or injurious to health.

The existence of a nuisance and of injury to health, are questions of fact, and if they are established in connection with the water-closets, I am of opinion that the proprietors of them come within the language of the By-law, because night soil discharged into any place by a pipe or drain attached to a water-closet, is as much deposited there within the meaning of the By-law, as if it were carried there in pans or other receptacles, and then discharged there. The distance from which the offensive matter is brought, and the method of bringing it to the place where it finally rests, are immaterial. The fact that it is allowed to lodge in any place, and to remain there, constitutes a deposit within the meaning of the word as used in the By-law, and I am, therefore, of opinion that it is competent for the Central Board to make the order in question, and to enforce it in the manner directed by "The Public Health Act, 1885."

(Sd.) A. INGLIS CLARK.

*Attorney-General's Chambers, Franklin Square, 5th August, 1895.*

## APPENDIX L.

## OPINION.

*EX PARTE* "The Local Board of Health of the City of Hobart and the Park Rivulet, and other Creeks in the City of Hobart."

I CANNOT find that any provision has been made for proclaiming any creek or open channel in the City of Hobart a public sewer in its natural condition, but Section 139 of "The Police Act, 1865," empowers the Municipal Council of any Town to cause as many public sewers and drains as the Council may think necessary to be made in any street in the Town, and, further, empowers the Council to adopt any sewer or drain which may be in the Town, and to cause any such sewer or drain to be enlarged, repaired, cleansed, or altered, as the Council may deem proper; and Section 140 of the same Act empowers the Council and its officers and workmen, after the expiration of fourteen days' notice signed by the Mayor, to enter upon any private land for the purpose of making or altering or continuing any such sewer or drain.

I am, therefore, of opinion that the Council may adopt the Park Rivulet, or any other creek or channel in the City as a public sewer, and may, after the expiration of the required notice, enter upon any land for the purpose of converting such rivulet or channel into a public sewer, and constructing the necessary works therein to fit it to be used for that purpose.

A. INGLIS CLARK.

*Attorney-General's Chambers, Franklin Square, Hobart,  
28th October, 1896.*

## APPENDIX M.

*EX PARTE* THE LOCAL BOARD OF HEALTH OF THE CITY OF HOBART.

*Re Murray street Watercourse or Rivulet, Park Rivulet, and other Rivulets or Watercourses in the City of Hobart.*

## OPINION.

I HAVE been asked to advise whether certain rivulets or watercourses in Hobart (other than the Hobart Rivulet) are "Public Sewers," within the meaning of By-law No 7, of the Hobart Local Board of Health—That By-law empowers the Local Board to require the discontinuance of the use of any water closet "which is not connected with the River Derwent, or the Hobart Rivulet, or other Public Sewer by a properly built and covered drain."

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So much of the Hobart Rivulet as is situate within the boundaries of the City of Hobart was made a Sewer by Act of Parliament, and vested in the Corporation. (The Hobart Corporation Act, 1893, Sects., 165 and 170.)

Section 239 of "The Police Act, 1865," authorises the Municipal Council to adopt any common sewer or drain which may be within the Town, and also to cause any such sewer or drain to be enlarged, repaired, cleansed, or altered, as the Council may deem proper.

I understand that for many years past the Municipal Council has allowed numbers of water-closets to be erected by the citizens, and to drain into the rivulets or watercourses in question. I am instructed that, since 1888, these rivulets or watercourses have been regularly cleared out and cleansed, not by the Local Board of Health, but by the Public Works Department, which is immediately under the Municipal Council.

"The Police Act, 1865," does not contain any definition of the term "Sewer." In "The Public Health Act, 1885," "Sewer" means and includes sewers and drains of every description, except drains for the drainage of one building only, or premises within the same curtilage, and communicating with a sewer into which the drainage of two or more buildings or premises occupied by different persons is conveyed. In No. 13 of the By-laws of the Local Board of Health, the Park-street Rivulet is treated as an "open sewer," and the existence of other open sewers is assumed. That By-law forbids the casting of any filth, &c., into or on the banks of "the Hobart Rivulet, Park-street rivulets, or any other open Sewers." The fact that the regular clearing and cleansing of these watercourses was not begun till after the passing of the Public Health Act, 1885, does not, in my opinion, affect the question. Section 239 of "The Police Act, 1865," is not expressly or impliedly repealed by the Public Health Act. It is as competent for the Municipal Council to adopt a common sewer now, as it was before the passing of the last-mentioned Act. The English Public Health Act vests all sewers in the sanitary authority of the district in which the sewers are situate. That provision was omitted from the Tasmanian Act. There is no provision in "The Police Act, 1865," as to the process necessary to constitute "adoption" of a common sewer.

In view of all the facts before me, I think, although the question is not free from doubt, that the rivulets, or watercourses in question are Public Sewers within the meaning of the 7th By-law of the Local Board of Health, and that, accordingly, where any water-closet attached to a house within the City, is connected with any of the above-mentioned rivulets or watercourses by a properly built and covered drain, the Local Board cannot compel the owner or occupier or agent of such house to discontinue the use of such water-closet, under the provisions of the said By-law.

JOHN M'INTYRE.

Hobart 30th August, 1898.

## APPENDIX N.

## RIVULETS.

The Officer of Health (Dr. Sprott) tabled a report on the rivulets, and on the motion of Alderman Seabrook, it was referred to the Health Committee. It was as follows:—

GENTLEMEN,—In connection with my report on the water-closets discharging into the various creeks within the City, I would take this opportunity of pointing out to the Board the desirability of having the rights of ownership to these creeks defined. At present the ownership seems a divided one. Many of the property-owners on the banks of the creeks dispute the Board's right to interfere in any way with the creek, either for the purpose of cleaning or altering the creek, while others say they have nothing to do with the creek, and if there be any nuisance, the Board of Health ought to remove it. Now, I am of opinion, if the Board is going to keep these rivulets and creeks in proper repair, &c., the Board should have full control of them, and property-owners should not be allowed to cover up or alter, in such way as they think fit, that part of the creek running through or adjoining their properties.

In many parts of the Park Rivulet, and the Melville and Goulburn street creeks, it is impossible to have them cleaned or freed from obstructions, owing to their being covered in, and as there is no ventilation provided at these covered-in parts, there is constantly an escape of foul air at the ends of these culverts.

It would be well to have these creeks, while they act as sewers, declared the property of the Board. Further, as Glebe Town Local Board discharges all the sewage from that town into Park Rivulet, they might reasonably be asked to contribute a share of the cost of keeping the rivulet clean and in repair. Wellington Rivulet should also be looked after by the combined efforts of the Queenborough and our Local Board of Health.

## APPENDIX O.

## WATER CLOSETS.

THE Officer of Health tabled the following report on the water-closets, which was ordered for consideration at next meeting:—

GENTLEMEN,—In compliance with the following resolution of the Board, "That the Health Officer report upon the water-closets at present in use in the City and suburbs, with a view of ascertaining what closets should be dispensed with in the best interests of sanitation," I have the honour to report as follows:—Within the City there are 858 water-closets discharging their contents into the various rivulets and creeks. Five hundred and thirty-one of these discharge directly into the Hobart Rivulet by properly constructed sewers, 194 into the River Derwent at various points, 62 into the Park-street Rivulet, 37 into the Melville or Elizabeth-street Creek, 3 into a branch of last-named creek, 3 into the Goulburn-street Creek, 7 into the Wellington Rivulet, and 21 are used for irrigation purposes.

It may be taken for granted that those discharging directly into the Hobart Rivulet cannot be interfered with, neither would it be advisable to interfere with those that empty into properly-constructed sewers, and ultimately discharge their contents either into the Hobart Rivulet or the River Derwent.

We have still 112 water-closets discharging into the various rivulets and creeks to deal with. The question as to whether sewage should be discharged into unformed creeks or water-courses is one that has received a large share of attention from sanitary authorities, and it is universally agreed that the practice of getting rid of sewage in this way is, from a public health point of view, a dangerous one. It may be difficult to prove injury to health, nevertheless we must regard polluted streams as a nuisance and menace to the health of the people. So long ago as 1868, a Commission was appointed in England to report as to the pollution of rivers; this Commission was followed by the passing of the Rivers Pollution Prevention Act of 1876. Since then several measures have become law in the Old Country with the view of preventing the pollution of the Rivers Mersey, Irwell, and others. In 1893 an Act came into force which gives sanitary authorities power to prevent any effluent being discharged into rivers or water-courses unless it was clear and innocuous. Our own "Rivers Pollution Prevention Act," 45 Viet., No. 17 of 1881, forbids the pollution of any "stream" which was not at the time of the passing of this Act used as a sewer, and emptying directly into the sea, by any solid or liquid sewage matter, or any poisonous, noxious, or polluting liquid proceeding from any factory or manufacturing process. All this goes to show that the pollution of streams and water-courses has been looked upon as an evil requiring much consideration and legislation to prevent it.

Of course, when I speak of sewage as a polluting agent, I do not mean only water-closet sewage, but also the liquid sewage from house-slops, waste waters of factories, &c. It was pointed out by the Rivers Pollution Commissioners, and since then by scientific chemists, that the sewage from water-closet towns is practically of the same composition as that from towns where privies are used, and it is generally admitted that the liquid sewage is of as polluting a character as that of the sewage containing the solid excreta. We know the elements and products of disassociation of human excrement are identical with those from other organic substances in ordinary household sewage, but in the excrement of unhealthy persons disease germs may be found. This is notably the fact in connection with typhoid fever, and must be guarded against. Apart from these disease germs, we have had abundance of putrefactive germs in waters where there is a high degree of pollution from organic substances with very little oxygen. This is exactly what happens in the Elizabeth-street Creek, Park-street Rivulet, and Goulburn-street Creek. These creeks are, in many places, covered in, so that it is impossible for any fresh air to get in to combine with the organic substances to form inorganic and harmless compounds, while the slowness of the current and the small body of water in these creeks during the summer months tend further to prevent this purification. If, then, we would have the creeks clean and sweet, it is necessary to remove all obstructions, prevent deposit, and have a constant supply of fresh air, so that organic compounds may be broken up into harmless products. This the Local Board has been doing for some time past, and though the creeks are at the present time in fairly good order, they must always be a nuisance and a menace to the health of the people so long as they are the recipients of the liquid, household, and industrial sewage.

Not until we get properly-constructed underground sewers need we expect to find our creeks and rivulets pure and sweet, as they were by nature intended to be. But, in order to lessen the pollution and reduce the nuisance as far as possible, although it will not abate the whole of the evil, I would suggest that the water-closets discharging into Park and Wellington Rivulets, Goulburn and Melville street creeks, be cut off.

## APPENDIX P.

### NOTES BY DR. J. A. HARDY, ON THE SUBJECT OF DESTRUCTORS.

The question of collection and removal of town waste or refuse relates to the following:—

- (a.) The removal of excreta from pails, pans, &c.
- (b.) The collection and removal of house, street, and trade refuse.

This is dealt with in Hobart partly by the water-closet system, which, I trust, will before long become universal. This is, at present, only partially dealt with by the Municipality, and the method adopted is, in my opinion, not a satisfactory one. The house refuse is only collected from the central portion of the City, the remainder having to be removed at the expense of the individual ratepayers, in cases where it is removed at all. The refuse so removed is shot at the tip at Lower Macquarie-street, or other similar places in the City. There it is allowed to fester and rot, and become a source of danger to the community. The expense of collecting from the small area now treated is, I am informed, £900 a year: to this should be added the expense that people outside that area are compelled to incur in addition to their rates.

This tip method of dealing with refuse, which was at one time almost universal, is rapidly being superseded, not only in England, but throughout the Continents of Europe and America, and even in India and South Africa, by the use of Destructors. It must be palpable to everyone that the destruction of refuse by fire is immeasurably superior from the point of view of health to the tip system. So superior is it, that even were the expense considerably greater, yet it would be to the advantage of any community to adopt it; and this argument would especially apply to Hobart, to which, as a watering place, its healthiness, and its reputation for healthiness, is one of its most valuable assets. Should it then appear that the cost of the introduction and use of destructors would entail a slightly heavier burden on the ratepayers, yet, on the score of health, I am of opinion that that cost would be more than repaid by the improved health of the community. But I am of opinion that the cost would not be greater, but less; that destructors properly worked would not only pay for themselves the cost of their own working, but also supply something towards the cost of the collection of the refuse.

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The cost of destructors may be divided under three heads—

- 1st. The original cost of the plant.
- 2nd. The cost of working.
- 3rd. The cost of collection of the refuse.

As to the original cost, comparing with towns of the same size in England, and taking into consideration the different conditions, a four-celled destructor would be ample. The cost of a twelve-celled destructor in South Melbourne was £7468. Four-celled destructors have been erected in England at a cost of from £2000 to £4000. A six-celled destructor at Southampton, including engine-house, inclined roadway, chimney, shaft, boiler-house, and ironwork complete, was £3723. It would seem to be an outside estimate to say £5000 to £6000 here. The interest on this, which is the amount which would come on the rates, is from 150 to £180 a year.

The cost of working the 6-celled destructor at Southampton is £221 a year: reckoning the higher rate of wages that would have to be paid here, it would be about £300 a year. Against this must be placed the return from the produce of heat and power, and the sale of material produced, which will be dealt with later on.

The cost of collection of the refuse is a question which only the Corporation can answer. It would, no doubt, be considerably higher than it is at present, if the whole of the refuse was collected by the Corporation, but then those ratepayers who now have to pay for it out of their private purses would have it done for them by the Municipality, as it ought to be.

Against the cost must be placed the return that may be obtained from a destructor; this consists of—

- 1st. The heat, which may be utilised in various ways.
- 2nd. The clinker and other products of combustion.

The heat may be employed to generate power, which may serve either to work electric plant for lighting Municipal or other offices, or to drive mills and other manufacturing plant; or, in the event of its being necessary to use ejectors in connection with the drainage, to supply the power for these, as is done in Southampton. It would be needful to carefully consider the particular conditions of our City when deciding in which direction the power generated should be employed. But there can be no doubt that this power would be a valuable asset of distinct market value, and that the return from it would go a considerable way to cover the cost of working.

The clinkers are used in many places for road-making, and, when ground, for mortar and cement. Four parts of clinker to one of Portland cement makes, according to the report of the Southampton surveyor, excellent paving-stone. This asset might, or might not, be of value here.

It would be premature to discuss here the kind of destructor to be employed, but it may be mentioned that it would be essential, before any decision was arrived at by the authorities, to have a careful analysis made of the kind of refuse that would have to be destroyed.

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## APPENDIX Q.

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TELEGRAM from J. K. Reid, Esq., Secretary Royal Commission Municipal Government of Hobart, to A. B. Moncrieff, Esq., C.E., Engineer-in-Chief, Adelaide, South Australia.

WHAT is the life of a water meter, and what rent do you charge the public for its use per annum?  
18.7.1901.

TELEGRAM from Alex. B. Moncrieff, Esq., Engineer-in-Chief, to J. K. Reid, Esq., Secretary Royal Commission, House of Assembly, Hobart.

ELEVEN thousand water meters in city supply cost annually two and six each maintenance and repairs, their life being thus prolonged indefinitely; no charge made for one meter each assessment, but if second meter required six shillings per meter per annum charged as rent; reading meters and keeping meter records costs under one and ten pence each per annum.

18.7.1901.

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## APPENDIX R.

*House of Assembly, 7th August, 1901.*

SIR,

By direction of the Commission, I have the honour to request that you will be so good as to furnish



the Commission with the Population of Hobart, New Town, Glenorchy, Moonah, Queenborough, Glebe Town, Mount Stuart, Bellerive, and Beltana, as shown by the last Census.

R. M. JOHNSTON, *Esq.*,  
Government Statistician.

I have, &c.,

J. K. REID, *Secretary*.

City of Hobart.....	24,654
New Town .....	2914
Glenorchy .....	578
Moonah .....	732
Queenborough .....	1821
Glebe.....	694
Mount Stuart .....	523
Bellerive .....	653
Beltana .....	251
<b>TOTAL.....</b>	<b>32,220</b>

INFORMATION required is supplied as above.

F. M. HUDSPETH,  
*for Superintendent.*

9th August, 1901.

### APPENDIX S.

*RETURN showing the amount payable by Meter, and the minimum or Water Rate by Assessment, for the year 1900.*

Name.	Locality.	Amount by Meter.	Minimum or Rate.	Excess by Meter over Rate.
		£ s. d.	£ s. d.	£ s. d.
N. Arnold .....	Patrick-street	9 5 0	6 4 8	3 0 4
D. Allport .....	Elboden Place	1 9 0	5 1 8	—
Curzon Allport (now W. Dickenson) .....	Bridge-street	7 6 0	3 1 8	4 4 4
F. Bond .....	Montpelier Road	2 18 0	6 0 0	—
Mrs. Butler .....	"Westella," Elizabeth-st.	14 10 0	11 1 0	3 9 0
C. J. Atkins .....	Audley Road	3 10 0	3 13 4	—
Chas. Butler .....	Hampden Road	9 7 0	6 18 4	2 8 8
C. W. Butler .....	Ashfield-street	6 14 0	4 11 8	2 2 4
J. Bailly .....	Campbell-street	3 1 0	4 12 8	—
Dr. Benjafield .....	New Town Road	10 8 0	6 16 8	3 11 4
J. Bowman .....	New Town	7 14 0	6 16 8	0 17 4
Mrs. Clements .....	Pressland House, Melville-street	19 17 0	11 9 0	8 8 0
G. E. Moore .....	Holbrook Place	6 2 0	7 16 8	—
Mrs. Giblin .....	Ditto	7 18 0	7 7 8	0 10 4
H. Hadley .....	Orient Hotel, Murray-street	38 15 0	23 8 4	15 6 8
Hobart Club .....	Collins-street	7 13 0	6 18 4	0 14 8
T. Heathorn .....	Liverpool-street	34 18 0	16 11 0	*18 7 0
Ditto .....	Sandy Bay	5 14 0	6 11 0	—
D. Harvey .....	Davey-street	4 13 0	4 12 8	0 0 4
R. Hart .....	Metropolitan Hotel, Murray-street	17 5 0	12 8 4	4 16 8
J. F. Mather .....	Federal-street	7 9 0	6 0 0	1 9 0
C. J. Maxwell .....	Holbrook Place	4 7 0	5 15 4	—
E. Maxwell .....	Ditto	2 2 0	4 17 0	—
F. W. Medhurst .....	Sandy Bay	9 8 0	3 16 8	5 11 4
Mrs. Marsh (now A.E. Broadribb) .....	New Town	20 8 0	6 16 8	13 11 4
M. Mason .....	Elphinstone Road	1 11 0	3 5 0	—
L. H. M'Leod .....	Wentworth-street	4 8 0	4 6 8	0 1 4
H. Nicholls .....	Sandy Bay	7 11 0	3 8 8	4 2 4
C. Pretzman .....	Queen-st. E., Sandy Bay	2 9 0	3 1 8	—
R. C. Patterson .....	Holbrook Place	14 2 0	6 9 4	7 12 8
F. W. Piesse .....	Swanston-st., New Town	8 2 0	5 13 8	2 8 4
W. W. Perkins .....	Sandy Bay Road	3 12 0	4 11 8	—
H. L. Roberts .....	Montpelier Road	7 11 0	7 7 8	0 3 4
B. Shaw .....	Macquarie street	4 14 0	4 3 4	0 10 8
Tasmanian Club .....	Ditto	17 12 0	13 2 0	4 10 0
C. B. Target .....	Holbrook Place	5 3 0	4 6 8	0 16 4
Howard Wright .....	Ditto	4 0 0	5 11 0	—
Moses Ward .....	Ditto	13 2 0	7 7 8	5 14 4
Wilson Williams .....	Sandy Bay Road	3 0 0	3 6 8	—
A. G. Webster .....	Holbrook Place	3 13 0	6 4 8	—
J. W. Whyte .....	Risdon Road	5 19 0	7 6 8	—
C. E. Webster .....	King-street E., Sandy Bay	4 19 0	4 1 8	0 17 4
"The Imperial" .....	Collins-street	124 6 0	18 16 8*	105 9 4
Russell Young .....	Elizabeth-street	17 3 0	6 0 0	11 3 0
		£515 8 0	£297 18 4	£231 17 8

APPENDIX T.

HUNTER DISTRICT WATER SUPPLY AND SEWERAGE BOARD.

STATEMENT of the extent of Reticulation Water Mains laid during the eight years ended 30 June, 1900.

								miles. yards.	
Existing mains at 30 June, 1892	...	...	...	...	...	...	...	105	1442
Laid during year ended 30 June, 1893	...	...	...	...	...	...	...	0	204
" " 30 " 1894	...	...	...	...	...	...	...	3	1313½
" " 30 " 1895	...	...	...	...	...	...	...	10	200
" " 30 " 1896	...	...	...	...	...	...	...	8	931
" " 30 " 1897	...	...	...	...	...	...	...	6	517½
" " 30 " 1898	...	...	...	...	...	...	...	3	368
" " 30 " 1899	...	...	...	...	...	...	...	4	724½
" " 30 " 1900	...	...	...	...	...	...	...	2	61
Total	...	...	...	...	...	...	...	144	482

PARTICULARS OF RETICULATION.

Size.	3-in.		4-in.		6-in.		7-in.		8-in.	
	mls.	yds.	mls.	yds.	mls.	yds.	mls.	yds.	mls.	yds.
Laid prior to Board's control.....	51	1159½	26	1211½	19	746½	0	1722½	4	1118½
Laid by Board.....	22	1581½	9	1415½	3	881½	...	...	...	...
TOTAL .....	74	981	36	867	22	1628½	0	1722½	4	1118½

Size.	9-in.		10-in.		12-in.		15-in.			
	mls.	yds.	mls.	yds.	mls.	yds.	mls.	yds.	mls.	yds.
Laid prior to Board's control.....	0	783	1	845½	0	686½	0	211		
Laid by Board.....	...	...	2	439½	...	...	...	...		
TOTAL .....	0	783	3	1285½	0	686½	0	211		

APPENDIX U.

Hobart, 9th August, 1901.

DEAR SIR,

REFERRING to proof of my evidence returned herewith, I desire to emphasise strongly that I am as much opposed as anyone possibly can be to the fouling of a water supply, but my answer on the whole subject regarded *probabilities* rather than *possibilities*, the latter in every case being practically limitless. Regarding question 3908, which assumed certain fouling, I assumed also that at most a very small part only of the road drainage would (for a time only) be allowed to mix with the supply, and that this would be enormously diluted, and purified by aëration and settlement before distribution. I should wish also to discriminate between closing the mountain (3892-3896.—“Mount Wellington must be shut up”), and closing (3897.—“portions of the mountain”). I have not seen Mr. Rahbek’s plan. I do not know definitely whether the water from the Cascades Reservoir is used, regularly or intermittently, as part of the City supply ; but I may say that, so long ago as 1885, I incurred some odium by strictures on the line of supply to this reservoir ; and, supposing all other faults then pointed out to have ceased to exist, there still remains the question of the large amount of road dust which must be blown into the water on a windy day, with risks probably greater than any at present incurred on the mountain, always supposing that the water is still supplied.

I trust that you will allow this fuller explanation to accompany my evidence.

Yours faithfully,

W. F. WARD, G. A.

The Chairman  
Royal Commission on Municipal Government of Hobart and Suburbs.