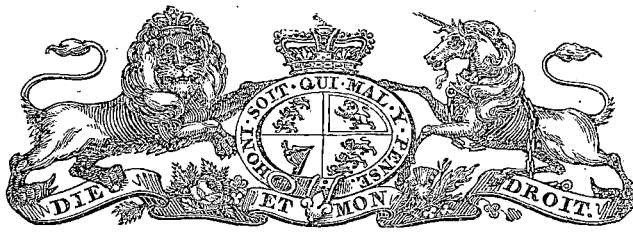


(No. 80.)



1896.

SESSION II.

PARLIAMENT OF TASMANIA.

THE GREAT WESTERN RAILWAY AND ELECTRIC
ORE REDUCTION COMPANY'S BILL, 1896,
(PRIVATE) :

REPORT OF SELECT COMMITTEE, WITH MINUTES OF
PROCEEDINGS, EVIDENCE, AND APPENDICES.

Brought up by Mr. Urquhart, October 9, 1896, and ordered by the House of
Assembly to be printed.

Cost of printing—£58 10s.



SELECT COMMITTEE appointed, on the 29th day of September, 1896, to consider and report upon "*The Great Western Railway and Electric Ore Reduction Company's Bill, 1896,*" (*Private*).

MEMBERS OF THE COMMITTEE.

MR. BARRETT.
MR. NICHOLAS BROWN.
MR. LEWIS.
MR. MULCAHY.

MR. MINISTER OF LANDS AND WORKS.
MR. LEATHAM.
MR. URQUHART. (*Mover.*)

DAYS OF MEETING.

Wednesday, September 30; Thursday, October 1; Friday, October 2; Monday, October 5; Tuesday, October 6; Wednesday, October 7; Thursday, October 8; Friday, October 9.

WITNESSES EXAMINED.

Mr. Charles Myles Officer, jun.; Mr. J. W. Brown, Surveyor; Mr. George A. Thomson, Prospector; Mr. A. C. Parker, Manager Hobart Tramway Company; Mr. R. M. Johnston, Government Statistician; Mr. W. H. Palmer, C.E.; Mr. E. A. Counsel, Surveyor-General; Mr. F. Back, General Manager Tasmanian Government Railways; Mr. George C. Meredith; Mr. Robert Henry, late Superintendent of Telegraphs; Mr. Russell Allport, Electrical Engineer; Mr. R. S. Milles, C.E., Director of Waterworks, Hobart.

R E P O R T.

Your Committee having taken evidence in support of the allegations contained in the Preamble of the Bill, have the honor to report that the said Preamble has been proved to their satisfaction, subject to certain Amendments which the Committee recommend.

Your Committee having agreed that the Preamble as amended should stand part of the Bill, then entered into consideration of the several Clauses, and have the honor to recommend certain further amendments and additions.

Your Committee have now the honor of submitting the Bill, with the Amendments and additions, to the favourable consideration of your Honorable House.

D. C. URQUHART, *Chairman.*

Committee Room, 9th October, 1896.

MINUTES OF PROCEEDINGS.

No. 1.

WEDNESDAY, SEPTEMBER 30, 1896.

The Committee met at 11 o'clock.

Present—Mr. Minister of Lands and Works, Mr. Nicholas Brown, Mr. Lewis, Mr. Barrett, Mr. Mulcahy, and Mr. Urquhart.

Mr. Urquhart was appointed Chairman.

The Clerk read the Order of the House appointing the Committee.

The Chairman laid upon the Table the Petition praying for leave to bring in the Bill. (Appendix A.)

Resolved, That Mr. Charles Myles Officer, Jun., be admitted during the examination of witnesses.

Resolved, That the Petitioners be heard by Counsel.

Accordingly, Mr. Russell Young appeared and addressed the Committee in support of the Bill.

Mr. Charles Myles Officer, Jun., was called and examined.

Mr. Officer withdrew.

At 1 o'clock the Committee adjourned.

The Committee met at half-past 2 o'clock.

Members present—Mr. Urquhart (Chairman), Mr. Minister of Lands and Works, and Mr. Mulcahy.

Mr. John W. Brown, Surveyor, was called in and examined.

Mr. Brown withdrew.

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

No. 2.

THURSDAY, OCTOBER 1, 1896.

The Committee met at 11 o'clock.

Members present—Mr. Minister of Lands and Works, Mr. Lewis, Mr. Mulcahy, Mr. Barrett, Mr. Leatham, and Mr. Urquhart (Chairman).

Mr. George Adam Thompson was called in and examined.

Mr. Thompson withdrew.

Mr. A. C. Parker was called in and examined.

Mr. Parker withdrew.

Mr. R. M. Johnston was called in and examined.

Mr. Johnston withdrew.

Resolved, That Mr. A. Montgomery, Government Geologist, be summoned to attend and give evidence.

The Committee adjourned at 1 o'clock.

The Committee met at half-past 2 o'clock.

Mr. W. H. Palmer was called in and examined.

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

No. 3.

FRIDAY, OCTOBER 2, 1896.

The Committee met at 11 o'clock.

Members present—Mr. Urquhart (Chairman), Mr. Lewis, Mr. Mulcahy, Mr. Leatham.

The Minutes of last Meeting were read and confirmed.

The Clerk submitted telegram from Mr. A. Montgomery, in reply to summons sent him by telegram, intimating that it would be very inconvenient for him to attend, and that he knew nothing of consequence as to the railway.

Resolved, That the telegram be taken into consideration after the examination of Mr. Palmer.

Mr. W. H. Palmer was recalled and further examined.

Mr. Palmer withdrew.

Mr. E. A. Counsel, Surveyor-General, was called in and examined.

Mr. Counsel withdrew.

Counsel handed in letter from the Secretary of the Hobart Stock Exchange stating that his Committee, at a special meeting, favoured the construction of railway communication from Hobart to the West Coast, provided that the provisions of the Bill are not inimical to either public or private interests.

Ordered, That Mr. Back, General Manager of Railways, be summoned to give evidence at 2:30, and Mr. George Meredith at 3 o'clock this afternoon.

V

Ordered, That the Clerk wire Mr. Montgomery stating that the Committee, though very desirous of having his opinion, do not insist upon his attendance at his personal inconvenience, and asking him for any information he could furnish with regard to the application of electricity for the separation of ores.

The Committee adjourned at 1 o'clock.

The Committee met at half-past 2 o'clock.

Mr. Frederick Back, General Manager of Railways, was called in and examined.

Mr. Back withdrew.

Mr. G. C. Meredith was called in and examined.

Mr. Meredith withdrew.

The Committee adjourned till Monday next, the 5th instant, at 11 o'clock.

No. 4.

MONDAY, OCTOBER 5, 1896.

The Committee met at 11 o'clock.

Members present—Mr. Urquhart (Chairman), Mr. Nicholas Brown, Mr. Lewis, Mr. Mulcahy, and Mr. Leatham. The Minutes of last Meeting were read and confirmed.

Ordered, That Mr. Robert Henry, late Superintendent of Telegraphs, be summoned to give evidence.

Ordered, That Mr. Russell Allport be summoned to give evidence at 11:30 this morning.

Ordered, That Mr. Back, General Manager of Railways, be recalled to give further evidence at 2:30 this afternoon.

The Clerk handed in Report by Mr. A. Montgomery, M.A., Geological Surveyor, in accordance with the wishes of the Committee expressed at the last Meeting.

Ordered, That the said Report be attached to the evidence. (Appendix B.)

Mr. Robert Henry was called in and examined.

Mr. Henry withdrew.

Mr. Russell Allport was called in and examined.

Mr. Allport withdrew.

The Committee adjourned till half-past two o'clock.

The Committee met again.

Mr. Frederick Back, General Manager of Railways, was recalled, and further examined.

Mr. Back withdrew.

Mr. Robert Henry was recalled, and further examined.

Mr. Henry withdrew.

Mr. R. S. Milles, C.E., Director of Waterworks, Hobart, was called and examined.

Mr. Milles withdrew.

Counsel handed in (1) letter from M. E. C. Mace, Manager of the Silver Queen Mining Company, (Appendix C.), (2) Extracts from the *Scientific American* of 28th May, 11th, 18th, and 25th July, 1896, (Appendix D.), and (3) Evidence of Mr. Montagu Rhys Jones, given before the Select Committee on the "The Australasian Rights Purchase Bill, 1891," (Appendix E.).

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

No. 5.

TUESDAY, OCTOBER 6, 1896.

The Committee met at 11 o'clock.

Members present—Mr. Urquhart (Chairman), Mr. Lewis, Mr. Mulcahy, and Mr. Nicholas Brown.

The Clerk handed in further letter of Mr. Montgomery, dated 3rd instant, offering certain suggestions which had occurred to him after sending his first letter.

Mr. C. M. Officer, jun., was re-called and further examined.

Mr. Officer withdrew.

The Committee adjourned *sine die*.

No. 6.

WEDNESDAY, OCTOBER 7, 1896.

The Committee met at 11 o'clock.

Members present—Mr. Urquhart (Chairman), Mr. Minister of Lands and Works, Mr. Lewis, Mr. Nicholas Brown, Mr. Mulcahy, Mr. Barrett, and Mr. Leatham.

The Minutes of last meeting were read and confirmed.

The Committee entered into consideration of the Bill.

Resolved, That Mr. Officer be recalled.

Accordingly, Mr. Officer appeared and was further examined.

Mr. Officer withdrew.

The Committee proceeded to further consider the Bill.

Preamble—

Amendment made (Mr. Mulcahy), page 2, line 1, after "point," by striking out "in or near Zeehan, or Dundas, or Queenstown, or Gormanston, on the West Coast," and inserting "within the Western Mining Division."

Amendment proposed (Mr. Lewis), page 2, line 5, after "motive power," by inserting "for the purposes of the railway and ore-reduction works authorised by this Act."

Question—That the words proposed to be inserted be so inserted—put, and negatived.

And the Question being put, That the Preamble, as amended, be agreed to ;

An Amendment was proposed, by substituting the following :—

"The Committee have not found the Preamble proved to their satisfaction, the proposals contained in the Bill being too crude and vague, the powers asked for being too extensive, and the general route of the railway not being fixed.

The Committee submit that Parliament should this Session provide a sufficient fund for a Parliamentary survey of a railway between Glenora and the West Coast, the cost of such survey to be repaid by any syndicate or Company who may hereafter be granted the right to construct such line." (Mr. Lewis.)

And the Question being put—That the Preamble, as amended, be agreed to ;

Committee divided.

AYES.

Mr. Minister of Lands.

Mr. Nicholas Brown.

Mr. Mulcahy.

Mr. Leatham.

NOES.

Mr. Lewis.

Mr. Barrett.

So it was resolved in the Affirmative.

Clauses 1 to 3 postponed.

Clause 4—

Amendments made—

Page 5, line 11, after "years," by inserting "from the date of this Act."

Page 5, line 14, after "point," by striking out "in or near Glenora."

Page 5, line 15, after "railway," by striking out "or some other point on that railway," and inserting "to be approved by the Minister."

Page 5, line 16, after "point," by striking out "in or near Zeehan, or Dundas, or Queenstown, or Gormanston," and inserting "within the Western Mining Division, to be approved by the Minister."

Clause, as amended, agreed to.

Clause 5—

Amendments made—

Page 6, line 11, after "Promoters," by striking out "are," and inserting "is."

Same line, after "not," by striking out "all."

Page 6, line 15, after "Act," by inserting "and such construction continued to the satisfaction of the Governor in Council."

Page 6, line 19, after "Act," by striking out "or within such further time as the Governor in Council may see fit to allow."

Page 6, line 29, after "railway" by adding (f) "if the Promoters do not, after the said railway is completed and opened for traffic, run at least two trains daily upon the said line throughout its entire length, viz., one train from each terminus to the other terminus; such trains to be of such capacity and to start at such hours as the Governor in Council may from time to time determine, and the minimum speed at which such trains shall travel shall be Fifteen miles an hour including all stoppages and detentions."

Clause, as amended, agreed to.

The Committee adjourned.

The Committee met at 8-30 P.M.

Clauses 6 and 7 agreed to.

Clause 8—

Amendment made, page 6, line 46, after "termini," by inserting "within the boundaries of any land granted to the Promoters under Part XIII. of this Act."

Clause, as amended, agreed to.

Clause 9—

Amendment made, page 7, line 13, after "railway," by striking out "or any such branch railway, or other works authorised by this Act; and all the costs, expenses, and charges of so purchasing, acquiring, taking, leasing, selling, or exchanging such other land, and the cost of all buildings or other works constructed on the same, shall be included in the cost of construction work mentioned in Section ."

Clause, as amended, agreed to.

Clause 10 agreed to.

Clause 11—

Amendment made—

Page 7, line 33, after "railway," by striking out "or other works;" page 7, line 35, after "railway," by striking out "or other works."

Clause, as amended, agreed to.

Clause 12—

Amendment made, page 7, line 39, after "speed," by inserting "and to the satisfaction of the Local Authority."

Clause, as amended, agreed to.

Clause 13—

Amendment made, page 8, line 3, after "street," by striking out "outside the limits of any town in the said Divisions."

Clause, as amended, agreed to.

Clause 14—

Amendment made, page 8, line 18, after "railway," by striking out "or other works authorised by this Act."

Clause, as amended, agreed to.

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Clause 15—

Amendments made—

Page 8, line 31, after "by the," by striking out "Governor in Council, in or near Glenora," and inserting "Minister"; page 8, line 32, after "Derwent Valley Railway," by striking out "or some other point on that railway."

Page 8, line 33, after "by the," by striking out "Governor in Council, at Zeehan, or Dundas, or Queens-town, or Gormanston," and inserting "Minister, within the Western Mining Division."

Clause, as amended, agreed to.

Clause 16 agreed to.

Clauses 17 and 18 agreed to.

Clause 19—

Amendment made, page 9, line 26, after "may," by inserting "at the cost of the Promoters."

Clause, as amended, agreed to.

Clauses 20 to 23 agreed to.

Clause 24—

Amendments made, page 10, line 42, after "dangerous," by striking out "to." Same line, after "or" by striking out "extraordinarily."

Page 10, line 45, after "road," by inserting "to the satisfaction of the Local Authority."

Clause, as amended, agreed to.

Clause 25—

Amendments made :—

Page 11, line 44, after "by the," by striking out "Trustees or Surveyors of such road," and inserting "Local Authority."

Page 11, line 51, after "by the," by striking out "Company," and inserting "Promoters."

Clause, as amended, agreed to.

Clause 26—

Amendment made, page 12, line 2, after "as the," by striking out "Minister," and inserting "Governor in Council."

Clause, as amended, agreed to.

Clause 27—

Amendments made—

Page 12, line 9, after "may," by inserting "at the cost of the Promoters."

Page 12, line 25, after "aforesaid," by adding "and in default of the Promoters carrying out such repairs as aforesaid, they shall be liable to a penalty of not less than Five Pounds nor more than Twenty Pounds for every day which shall elapse before such repairs shall be effected."

Clause, as amended, agreed to.

Clause 28—

Amendment made, page 12, line 45, after "which," by striking out "Governor in Council," and inserting "he."

Clause, as amended, agreed to.

Clauses 29 to 34 agreed to.

Clause 35—

Amendment made, page 14, line 12, after "railway," by striking out "or other works authorised by this Act."

Clause, as amended, agreed to.

Clause 36—

Amendments made—

Page 14, line 27, after "waters," by striking out "such."

Page 14, line 30, after "works," by striking out "as the Promoters may think proper."

Page 14, line 35, after "railway," by striking out "as the Promoters may think proper."

Page 14, line 43, after "construct," by striking out "such."

Page 14, line 44, after "stations," by striking out "wharfs."

Page 15, line 1, after "conveniences," by striking out "as the Promoters may think proper."

Page 15, line 10, after "hereinafter," by inserting "provided."

Same line, after "herewith," by striking out "provided."

Clause, as amended, agreed to.

Clauses 37 and 38 agreed to.

Clause 39.

Amendments made :—

Page 16, line 2, after "Twenty," by striking out "one" and inserting "five."

Same line, after "date of," by striking out "the primary lease, or at any time after any renewal of the primary lease," and inserting "this Act."

Page 16, line 8, after "thereto," by striking out "and the whole land, machinery, and works belonging to the Promoters (save and except any land granted under this Act as hereinafter provided), and."

Clause, as amended, agreed to.

Clause 40.

Amendments made :—

Page 16, line 21, after "shall," by striking out "be," and inserting "not exceed."

Page 16, line 22, after "equal to," by striking out "Five years' profits," and inserting "Twenty Pounds per centum."

Page 16, line 25, after "railway," by striking out "and the other works authorised by this Act."

Clause, as amended, agreed to.

Clauses 41 to 43 agreed to.

Clause 44—

Amendments made—

Page 17, line 6, after "shall," by inserting "from time to time during such construction and."

Page 17, line 13, after "construction of the" by striking out "tramway" and inserting "railway."

Clause, as amended, agreed to.

Clauses 45 and 46 agreed to.

The Committee adjourned till half-past 10 o'clock to-morrow

THURSDAY, OCTOBER 8, 1896.

The Committee met at half-past 10 o'clock.

Members present—Mr. Urquhart (Chairman), Mr. Minister of Lands and Works, Mr. Mulcahy, and Mr. Lewis.

The Minutes of the last Meeting were read and confirmed.

Clause 47—

Amendments made—

Page 17, line 25, after "employ," by inserting "electric motors."

Page 17, line 35, after "carriage," by inserting "motor."

Clause, as amended, agreed to.

Clause 48—

Amendments made—

Page 18, line 3, after "exceed," by striking out "Five," and inserting "Four."

Page 18, line 4, after "and," by striking out "Four," and inserting "Three."

Page 18, line 8, after "mile," by striking out "Provided that Members of the Parliament of Tasmania and their wives who shall hold for the time being a free pass upon the railways belonging to the Government of Tasmania shall be entitled to travel free on the said line."

Clause, as amended, agreed to.

Clause 49—

Amendments made—

Page 18, line 16, after "case," by striking out "will," and inserting "shall."

Same line, after "shilling," by striking out "and sixpence."

Clause, as amended, agreed to.

Clause 50 agreed to.

Clause 51—

Amendments made—

Page 18, line 27, after "description," by striking out "or in respect of sale, hire, or supply of electricity, motive power, or in respect of any rights, powers, privileges, and authorities conferred by this Act."

Page 18, line 30, after "any" by inserting "two."

Same line, after "Justice" by inserting "s."

Page 18, line 38, after "payable," by adding "Provided, that live stock and perishable goods may be sold forthwith."

Clause, as amended, agreed to.

Clauses 52 and 53 agreed to.

Clause 54—

Amendment made, page 19, line 11, after "vitriol," by striking out "gunpowder" and inserting "explosives."

Clause, as amended, agreed to.

Clause 55 agreed to.

Clause 56—

Amendments made—

Page 19, line 57, after "railway" by striking out "or other works."

Page 19, line 40, after "way" by striking out "or other works."

Clause, as amended, agreed to.

Clauses 57 and 58 agreed to.

Clause 59—

Amendment made, page 20, line 19, after "Fifty" by striking out "seven" and inserting "six."

Clause 60—

Amendments made—

Page 20, line 30, after "by the" by striking out "Company" and inserting "Promoters."

Page 20, line 33, after "to the" by striking out "Company" and inserting "Promoters."

Clause, as amended, agreed to.

Clauses 61 to 77 agreed to.

Clause 78—

Amendment made, page 24, line 33, after "action," by striking out "in" and inserting "before a Judge of."

Clause, as amended, agreed to.

Clauses 79 to 82 postponed.

Clauses 83 to 86 agreed to.

Clause 87—

Amendment made by inserting in line 19 after word "sections" 41, 42, and 43.

Clause, as amended, agreed to.

Clause 88 agreed to.

The Committee adjourned.

The Committee met at 9.45 p.m.

Members present—Mr. Urquhart (Chairman), Mr. Minister of Lands and Works, Mr. Nicholas Brown, Mr. Lewis, and Mr. Mulcahy.

The Committee deliberated and adjourned at 11 o'clock.

FRIDAY, OCTOBER 9, 1896.

The Committee met at 11 o'clock.

Members present—Mr. Urquhart (Chairman), Mr. Minister of Lands and Works, Mr. Lewis, Mr. Mulcahy, Mr. Leatham, and Mr. Nicholas Brown.

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The Minutes of the last meeting were read and confirmed.

Postponed Clause 79 disagreed to.

New Clause brought up (Mr. Lewis), and read the First time.

79. Upon the deposit of the plans, specifications, and sections of the said Railway with the Minister as hereinbefore provided, and within Two years after the passing of this Act, the Promoters shall acquire the right to mark off, in the manner hereinafter prescribed, any unoccupied Crown Lands in Seven alternate blocks of land, each containing Sixty thousand acres, more or less, on both sides of the line of Railway along its length, between an imaginary line drawn North and South through the trigonometrical station upon Mount Field West and the line forming the eastern boundary of the Western Mining Division. Each of such blocks of land shall have a frontage of Five miles along the Railway line and the eastern and western boundaries thereof shall run due north and south and the back lines due east and west. The selection of the most Eastern of such blocks shall be subject to the approval of the Minister. The Promoters shall also upon such deposit, and within such time as aforesaid, acquire the right to mark off a further block of Eighty thousand acres more or less of unoccupied Crown Lands in one square block to be selected in the country west of the said line drawn through the trigonometrical station on Mount Field West and south of the southern boundaries of the blocks selected as aforesaid to the south of the Railway line and south of the southern boundary of the Western Mining Division. Provided that none of such blocks shall include any land within Five miles of the ocean or any navigable harbour or river.

Read the Second time and made part of the Bill (to follow Clause 78).

Postponed Clause 80.

Amendment made (Mr. Lewis), page 25, line 8, after "river," by adding "There shall be reserved in any grant made under this part of this Act an esplanade of One hundred feet in width along the banks of every river, and an esplanade of one half of a mile round the margin of every lake within such grant, and also the right for the Minister at any time to resume without compensation such land not exceeding one chain in width as he may at any time require for the construction of roads, mining easements or other public purposes."

Clause, as amended, agreed to.

Postponed Clause 81.

Amendments made:—

Page 25, line 11, after "to," by striking out "mark off or."

Page 25, line 15, after "shall," by striking out "mark off or."

Clause, as amended, agreed to.

Postponed Clause 82.

Amendments made:—

Page 25, line 21, after "land," by inserting "including all minerals and metals therein."

Page 25, line 33, after "of the," by striking out "net," and inserting "gross."

Page 25, line 34, after "thereof," by inserting "on the ground."

Page 25, line 37, after "Governor," by inserting "in Council."

Clause, as amended, agreed to.

Clauses 83 to 93 agreed to.

Clause 94 disagreed to.

Clauses 95 and 96 agreed to.

At 1 o'clock the Committee adjourned.

The Committee met at 2:30 o'clock.

Members present—Mr. Urquhart (Chairman), Mr. Mulcahy, Mr. Lewis, Mr. Minister of Lands, and Mr. Leatham.

Clause 97—

Amendments made—

Page 30, line 3, after "any," by inserting "Six."

Same line, after "river," by adding "s."

Page 30, line 4, after "railway," by inserting "at such points upon such rivers as may be approved by the Minister."

Page 30, line 5, after "horse-power," by striking out "at any point or points on the course of such river not exceeding four-fifths of the quantity or volume of water flowing into such river."

Page 30, line 13, after "river," by adding "s."

Page 30, line 15, after "appropriation of," by striking out "so much of."

Same line, after "the," by striking out "said."

Same line, after "river," by adding "s."

Page 30, line 18, after "from," by striking out "any such," and inserting "the said."

Same line, after "river," by adding "s."

Page 30, line 20, after "any," by inserting "of the said."

Same line, after "river," by adding "s."

Page 30, line 21, after "to the," by striking out "said," and inserting "same."

Same line, after "river," by inserting "whence it was so diverted or taken."

Page 30, line 23, after "provided," by inserting "such water to be returned in as pure, unpolluted, and clear a state and condition as the same was in when so taken as aforesaid."

"Provided further, that the power taken from any river shall not exceed 50 per cent. of the available quantity or volume flowing therein."

"Provided further, that it shall not be lawful for the Promoters to take any water under the provisions of this Section from any river situate within the Western Mining Division, nor from the Russell Falls River, nor from any tributary of the River Derwent flowing into the River Derwent south of the Russell Falls River."

Motion made (Mr. Mulcahy), that the following proviso be added to the Clause:—

"Provided further, that the Promoters shall pay to the Minister for all water taken and diverted under the provisions of this Section, and used by them for purposes other than for working the said railway and any ore-reduction works erected by the Promoters a sum of One Pound per sluice-head per annum, and all moneys so received by the Minister shall be paid into the Consolidated Revenue Fund."

Amendment proposed (Mr. Lewis), by substituting the following proviso for that proposed by Mr. Mulcahy :—
 " Provided further that the Promoters shall pay to the Minister for all water taken, diverted, and used by them under this Section, a sum of One Pound per brake horse-power per annum; and all moneys so received by the Minister shall be paid into the Consolidated Revenue Fund."

Question—That the words proposed to be struck out, stand part of the Clause—being put;
 Committee divided.

AYES.
 Mr. Minister of Lands.
 Mr. Mulcahy.
 Mr. Brown.
 Mr. Leatham.

NOES.
 Mr. Lewis.

So it was resolved in the Affirmative.
 Clause, as amended, agreed to.

Clause 98—

Amendments made—

Page 30, line 24, after "for the," by striking out "said."

Page 30, line 28, after "Act," by striking out "or any other purpose whatsoever, or to any person or persons who may require the same for any purpose whatsoever."

Clause, as amended, agreed to.

Clause 99.

Amendment made, page 31, line 1, after "of the," by striking out "waterworks," and inserting "works authorised by this Act."

Clause, as amended, agreed to.

Clause 100—

Amendments made—

Page 31, line 24, after "take," by striking out "temporary."

Page 31, line 28, after "lands," by striking out "the value of any crop or dressing that may be thereon, as well as."

Page 31, line 29, after "any," by striking out "other."

Same line, after "damage," by striking out "of a temporary nature."

Clause, as amended, agreed to.

Clauses 101 to 104 agreed to.

Clause 105—

Amendments made—

Page 32, line 20, after "Promoters," by striking out "at the Registered Office in Tasmania."

Same line, after "served," by striking out "upon the Secretary or Manager or Agent for the time being thereof," and inserting "as hereinafter provided."

Clause, as amended, agreed to.

Clause 106 agreed to.

Clause 107 disagreed to.

Clause 108 agreed to.

Clause 109 disagreed to.

Clause 110—

Amendments made—

Page 33, line 2, after "electricity," by striking out "or any other power."

Page 33, line 3, after "contained," by adding "Provided that before the Promoters contract to supply any motive or electric power or electricity within the boundaries of any city or town, they shall first obtain the sanction of the Local Authority affected."

Clause, as amended, agreed to.

Clause 111—

Amendments made—

Page 33, line 5, after "power," by inserting "or."

Same line, after "electricity," by striking out "or any other power."

Clause, as amended, agreed to.

Clauses 112 to 116 agreed to.

Clause 117—

Amendments made—

Page 34, line 3, after "shall," by inserting "be liable to."

Same line, after "exceeding," by striking out "Ten," and inserting "Five."

Page 34, line 4, after "exceeding," by striking out "Five," and inserting "Two."

Clause, as amended, agreed to.

Clause 118 agreed to.

Clause 119—

Amendments made—

Page 34, line 16, after "shall," by inserting "be liable to."

Page 34, line 17, after "exceeding," by striking out "Ten," and inserting "Five."

Clause, as amended, agreed to.

Clause 120—

Amendments made—

Page 34, line 20, after "shall," by inserting "be liable."

Same line, after "exceeding," by striking out "Ten," and inserting "Five."

Clause, as amended, agreed to.

Clause 121 agreed to.

Clause 122—

Amendment made, page 34, line 39, after "in the," by striking out "town in the said Divisions," and adding "district affected."

Clause, as amended, agreed to.

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Clause 123—

Amendment made, page 34, line 41, after "property," by striking out "within the said Divisions."

Clause, as amended, agreed to.

Clauses 124 to 128 agreed to.

Clause 129—

Amendments made—

Page 36, line 1, after "exceeding," by striking out "Ten," and inserting "Five."

Page 36, line 2, before "Pounds," by striking out "Five," and inserting "Two."

Clause, as amended, agreed to.

Clause 130.

Amendment made, page 36, line 9, after "shall be," by striking out "deemed guilty of a felony, and liable to imprisonment with or without hard labour, for any term not exceeding two years," and adding "for every such offence liable to a penalty not exceeding Fifty Pounds, or to be imprisoned for any time not exceeding Six months, and shall pay for any damage that may be done."

Clause, as amended, agreed to.

Clauses 131 and 132 agreed to.

Clauses 133 to 137 disagreed to.

Clause 138.

Amendment made, page 38, line 37, after "lease," by inserting "or to any law in force for the time being in Tasmania."

Clause, as amended, agreed to.

Clauses 139 to 144 agreed to.

Clause 145 disagreed to.

Clauses 146 to 149 agreed to.

Clause 150 disagreed to.

Clauses 151 to 153 agreed to.

Clause 154.

Amendment made, page 41, line 7, after "Promoters," by adding "Provided that no person shall be liable to imprisonment for non-compliance with any order for payment of any money or charges due to the Promoters."

Clause, as amended, agreed to.

Postponed Clause 1—

Amendment made, page 2, line 38, after "Part XX," by striking out "offences and penalties," and inserting "protection of public telegraphic and telephonic lines."

Postponed Clause 2 agreed to.

Postponed Clause 3—

Amendments made—

Page 3, line 9, after "of," by striking out "water, water-power."

Page 3, line 21, after "mean," by inserting "so much of."

Same line, after "the," by inserting "Northern."

Same line, after "Southern," by inserting "Mining Division as lies to the south of the Forty-second degree of latitude, and the."

Page 3, line 26, after "1881," by inserting "and the 'Western Mining Division' shall mean the Western Mining Division as defined by the said Proclamation."

Page 3, line 37, after "description," by striking out "'Governor' shall mean the Governor for the time being of the Colony of Tasmania, with the advice of the Executive Council."

Page 4, line 15, after "simple," by striking out "or by lease for a longer term than ninety-nine years to any person," and inserting "or contracted to be sold by the Crown to any person."

Page 4, line 24, after "buildings," by striking out "river shall mean and include rivers, lakes, dams, ponds, lagoons, streams, water-courses, estuaries, canals, or waterways within Thirty miles of any point along the proposed line of railway, as shown by the plans to be deposited with the Minister, as in this Act provided."

Page 4, line 47, after "Act," by striking out "town means any settlement, camp, or collection of houses, whether proclaimed as a town or not, and situate in the said divisions."

Page 5, line 4, after "works," by striking out "wharves."

Page 5, line 6, after "purpose," by striking out "and water-works."

Clause, as amended, agreed to.

Clause 5 reconsidered.

Amendment made by adding, after sub-section "f," "g. If the Promoters do not expend a sum of not less than £500 in each of the first five years after the issue of the grants of land, under Part XIII. of this Act, upon each block."

Clause, as further amended, agreed to.

Clauses 155 to 157 agreed to.

Clauses 158 and 159 disagreed to.

New Clauses B to M brought up, (Mr. Mulcahy), and read the First time:—

B The Promoters shall not, in the exercise of any of the powers conferred by this Act, lay down any electric line or do any other work for the supply of electricity whereby any telegraphic or telephonic line belonging to or under the control of the Government is or may be injuriously affected.

C The Promoters shall not proceed to erect or lay down any wire, conductor, communicator, distributor, electric line, or other electric apparatus without the approval of the Postmaster-General having been previously obtained as hereinafter provided; and if the said Postmaster-General is at any time of opinion that any telegraphic or telephone wire is or may be injuriously affected by such wire, conductor, communicator, distributor, electric line or other apparatus, or that the same is likely to become dangerous to the public safety or a public nuisance, the said Postmaster-General may, by notice in writing, require the Promoters to remove such wire, conductor, communicator, distributor, electric line, or other apparatus or any portion thereof; and if the Promoters do not within Ten days after service on them of such written notice remove the same, the said Postmaster-General may remove the same, and recover the expense of such removal from the Promoters in a summary manner.

D One month before commencing the execution of any works under the authority of this Act (not being the repairs, renewals, or amendments of existing works of which the character and position are not altered), the Promoters shall serve a notice upon the Postmaster-General describing the proposed works, together with a plan of the

works showing the mode and position in which such works are intended to be executed, and shall, upon being required to do so by the Postmaster-General, give him any such further information in relation thereto as he may desire.

E The Postmaster-General may in his discretion approve of any such works or plan, subject to such amendments or conditions as may seem fit, or may disapprove of the same, and may give notice of such approval or disapproval to the Promoters.

F If the Postmaster-General fail to give any such notice of approval or disapproval to the Promoters within One month after the service of the notice upon him he shall be deemed to have approved such works and plan.

G Notwithstanding anything in this Act contained, the Promoters shall not be entitled to execute any such works as above specified, except so far as the same may be of a description and in accordance with a plan which has been approved or is deemed to have been approved by the Postmaster-General as above-mentioned; but where any such works, description, and plan are so approved or to be deemed to be approved, the Promoters may cause such works to be executed in accordance with such description and plan, subject in all respects to the provisions of this Act.

H If the Promoters make default in complying with any of the requirements or restrictions of this Act, they shall make full compensation to the Postmaster-General for any loss or damage which he may incur by reason thereof.

I The Postmaster-General may require the Promoters to erect their wires, conductors, communicators, distributors, electric lines, or other apparatus in accordance with the rules and regulations applying to electric light and power wires as issued by the London Board of Trade, or such modification thereof as may be approved and sanctioned by the Governor in Council.

J In the event of any contravention of or wilful non-compliance by the Promoters or their agents with any of the provisions of this Part of this Act, the Promoters shall be liable on conviction to a penalty not exceeding Ten Pounds for every day during which such contravention or non-compliance continues, or, if the telegraphic communication is wilfully interrupted, not exceeding Fifty Pounds for every day on which such interruption continues.

K Nothing in this part of this Act shall subject the Promoters or their agents to a penalty if they satisfy the Court having cognizance of the case that an immediate execution of the work was required to avoid an accident, or otherwise was a work of emergency, and that they forthwith served on the postmaster or officer in charge of the post or telegraph office nearest to the place where the work was done a notice of the execution thereof, stating the reason for executing the same without previous notice.

L For the purposes of this Act, a telegraphic or telephonic line belonging to or under the control of the Government shall be deemed to be injuriously affected by work if telegraphic or telephonic communication by means of such line is, whether through induction or otherwise, in any manner affected by such work or by any use made of such work.

M If at any time the Promoters are dissatisfied with anything done by the Postmaster-General under the alleged authority of this Act, the Promoters may appeal to a Judge of the Supreme Court, who shall determine whether the particular power claimed by the Postmaster-General is conferred upon him by this Act, and whether the manner in which the same has been exercised is reasonable and proper for the purpose for which it is conferred, and such Judge may make such order as he shall deem necessary to secure a proper exercise of such power.

Read the Second time and made part of the Bill, (to follow Clause 132).

New Clause N (Minister may reserve lands), brought up (Mr. Lewis), and read the First time:—

N It shall be lawful for the Minister to withdraw from selection, under "The Crown Lands Act, 1890," and from the operation of "The Mining Act, 1893," for a period of Twelve months from the passing of this Act, so much land, as to the Minister may seem fit, as lies south of the Forty-second degree of latitude and north of the Forty-third, and west of an imaginary line drawn north and south through the trigonometrical station on Mount Field West, and east of the eastern boundary of the Western Mining Division, continued southerly to the Forty-third degree of latitude.

Read the second time, and made part of the Bill, (to follow Clause 157).

New Clause O, brought up (Mr. Mulcahy), and read the First time:—

O The Promoters shall, within Two months after the passing of this Act, deposit with the Treasurer of the Colony the sum of Two thousand five hundred Pounds, which shall from time to time be returned without interest to the Promoters in sums of £500 each as soon as the Minister may report that such an amount shall have been expended by the Promoters in making a survey of the railway authorised under this Act.

The Promoters shall, within Six months after the passing of this Act, place at interest on fixed deposit a further sum of Ten thousand Pounds, in the name of the Treasurer of the Colony, in some bank in Hobart to be approved by the said Treasurer, and shall deliver to the Treasurer the deposit receipt for such sum.

The Promoters shall be entitled to the interest on such deposit of Ten thousand Pounds during the period it remains in the name of the Treasurer in such bank as aforesaid by half-yearly payments.

The Treasurer shall transfer or deliver the said deposit receipt to the Promoters as soon as the Minister shall report to him that the said railway has been constructed in accordance with the provisions of this Act, and shall do any act reasonably required to enable the Promoters to obtain payment of the said deposit.

If the said railway shall not be so constructed within Five years to the satisfaction of the Minister, the said sum of Ten thousand Pounds and all interest accruing thereon shall be absolutely forfeited to Her Majesty and shall become part of the Consolidated Revenue Fund of the Colony."

Read the Second time, and made part of the Bill (to follow new Clause N).

Draft Report submitted by the Chairman, and read by the Clerk as follows:—

Your Committee having taken evidence in support of the allegations contained in the Preamble of the Bill, have the honor to report that the said Preamble has been proved to their satisfaction, subject to certain Amendments which the Committee recommend.

Your Committee having agreed that the Preamble, as amended, should stand part of the Bill, then entered into consideration of the several Clauses, and have the honor to recommend certain further Amendments and additions.

Your Committee have now the honor of submitting the Bill, with the amendments and additions, to the favourable consideration of your Honorable House.

Amendment proposed (Mr. Lewis), by striking out the word "favourable" in paragraph 3.

Question—That the word proposed to be struck out stand part of the Report—put and agreed to.

Draft Report, as read, agreed to.

The Committee adjourned *sine die*.

APPENDIX A.

To the Honorable the Speaker and Members of the House of Assembly of Tasmania, in Parliament assembled.

The Petition of Sir William John Clarke, Baronet, Charles Myles, Officer the Elder, Norman Armytage, The Honorable Agar Wynne, William Hordern, David Brown, Charles Myles Officer the Younger, all of Melbourne, in the Colony of Victoria,

SHEWETH :

1. That within three months previous to the presentation of this Petition, notice of the intention of your Petitioners to apply for a Private Bill was published, as follows; that is to say :—

In the *Hobart Gazette* on Tuesday, the first day of September, 1896; in the *Tasmanian News*, being a public newspaper published in Hobart, on Wednesday, the second day of September, 1896; in the *Mercury* newspaper, being a public newspaper published in Hobart, on Tuesday, the first day of September, 1896; in the *Zeehan and Dundas Herald*, being a public newspaper published at Zeehan, in Tasmania, on Thursday, the third day of September, 1896: which said Notice contained a true statement of the general objects of the Bill as hereinafter set forth.

2. That the general objects of the said Bill are—

To enable the Promoters to construct a Railway from some point in or near Glenora on the Derwent Valley Railway, or some other point on that Railway, to some point in or near Zeehan, Dundas, Queenstown, or Gormanston, or one or more of them, on the West Coast of Tasmania, and also such extensions and branches and deviations of and to such Railway, upon such terms and conditions, and with such privileges and concessions, as may be authorised and granted by the Parliament of Tasmania.

To construct, maintain, and repair the said Railway, and all such extensions, branches, and deviations, together with all proper rails, crossings, bridges, culverts, junctions, sidings, stations, buildings, telegraphs, and other works and conveniences connected therewith, or convenient for the purposes thereof, upon any Crown Lands or lands reserved as Mining Areas or leased for mining purposes, or private property, or other lands.

To work the said Railway, and all such extensions, branches, and deviations, by steam-power, or by the use of electricity, or by horse-power, or in any other manner.

To purchase, take, lease, or otherwise acquire any land, timber, stone, or other material for the purposes of the said Railway, and all such extensions, branches, and deviations as aforesaid, and the works and appurtenances thereof, and to provide for the incorporation of "The Lands Clauses Act," (21 Victoria, No. 11), or so much thereof as may be necessary, with the said Bill, and otherwise for the purchase, taking, or acquisition of any such land, timber, stone, or material.

To construct and work the said Railway and the said extensions, branches, and deviations over public roads and streets.

To demand and take tolls and charges for the carriage of passengers and goods upon such Railway and the said extensions, branches, and deviations.

To provide for the due working and management of the said Railway and the said extensions, branches, deviations, and works, and to make By-laws and Rules in relation thereto and to the traffic and business thereof, and to provide for the infliction of penalties upon persons infringing the provisions of the said Bill, By-laws, or Rules.

To borrow money for the purposes of the said undertaking, upon security of the assets of the said undertaking or any portion thereof, or otherwise.

To give and obtain running powers over other Railways and Tramways.

To sell or lease the said Railway and the said extensions, branches, and deviations, and the lands and works connected therewith, or any of them, or any part thereof, as shall be deemed expedient.

To take water from Lake Augusta or any other source or sources of supply which may be available and capable of being used in connection with or for the purpose of supplying the towns, inhabitants, mines, and buildings in the Southern, Western, and North-Western Mining Divisions of the Colony of Tasmania, and the said Railway, with electrical and motive power, or water for motive power, or any other purpose whatsoever.

To divert the course of any rivers, streams, or water-courses, returning the water to the original bed and course of the said river, stream, or water-course in as pure, unpolluted, and clean state and condition as the same was in when so taken and diverted from the original bed or course of the said river, stream, or water-course, and to take and use the waters of any lake or other source of water supply whatsoever.

To use the said water so taken as aforesaid to work any machinery that may be erected by the Promoters or any person or persons, company, corporation, association, or

- syndicate, for the purpose of generating, transmitting, or producing motive-power, electricity, or any other power, or for the working of any machinery whatsoever that may be erected by the Promoters.
- To use the said water for any purpose whatsoever provided that the same is not polluted, contaminated, or soiled in any way.
- To construct, maintain, repair, and work any machinery or mechanical contrivance for the purposes aforesaid.
- To provide for the construction of any waterworks, dams, drains, deviations, races, flumes, sluiceheads, and other necessary works or machinery to carry out the purposes aforesaid, or any of them.
- To provide for the assessment of all lands, buildings, or other property within the said Southern, Western, and North-Western Mining District.
- To sell, supply, hire, or rent to any person or persons, company, corporation, association, or syndicate motive-power, water-power, electricity, or any other power.
- To demand and take tolls, and levy rates and charges, for the use, supply, sale, hire, or rental of any motive-power, water-power, electricity, or any rights, privileges, and powers whatsoever.
- To make and construct mains, drains, and conduit pipes, and run wires on poles or otherwise in, under, along, or across, through, over, or upon any street, path, right-of-way, or other passage the property of any person, company, corporation, association, syndicate, or municipal or other body, upon paying and giving them the proper compensation for the privileges aforesaid.
- To give, let, hire, or sell powers, rights, and privileges to any company, corporation, association, syndicate, or to any person or persons whatsoever, upon any terms whatsoever.
- To provide for the due working, protection, and management of the said machinery, works, deviation, races, flumes, sluices, and the making of by-laws and rules in connection or relation thereto, or for the infliction of penalties on persons infringing the provisions of the said Bill.
- To provide for the sale, exchange, lease, or disposition of the said machinery, works, flumes, races, sluices, and lands, or any other asset or assets belonging to the Promoters or belonging to any company, corporation, association, person, or persons, or any assignee thereof, either to any Government, company, corporation, association, or any person or persons whatsoever, and for any consideration whatsoever, at such time and upon such terms as may be determined upon in the said Bill.
- The said Bill will also contain all clauses usual in Bills of a like nature, or deemed proper for enabling the said Promoters to carry out the said works and undertakings, or any of them.

Your Petitioners therefore humbly pray for leave to introduce the said Bill.

And your Petitioners will ever pray, &c.

Dated this fourth day of September, one thousand eight hundred and ninety-six.

C. M. OFFICER, JUN.

APPENDIX B.

Lefroy, 2nd October, 1896.

DEAR SIR,

In accordance with your telegram of to-day I have pleasure in sending you such few items of information as I have that might be of service to the Select Committee of the House of Assembly sitting upon the Great Western Railway Bill.

Not having seen a copy of the Bill, my knowledge of its provisions is of the most casual sort. If I understand correctly, the proposal is that the Promoters of the Bill ask for a concession of large areas of land along the route of the proposed railway, and for very considerable rights as to making use of the streams in its vicinity as sources of electrical energy, in return for which they agree to construct the railway.

Personally, I do not know the country to be traversed by the railway, further than Hamilton at the eastern end, and Mount Lyell and Mount Dundas at the western end. I have, however, received a good deal of information as to the country from several prospectors and others who have gone through it, and from various published reports and maps, especially those of Messrs. Gould's and J. R. Scott's explorations.

Coal has been proved to exist in seams of workable thickness and useful quality at Langloh, near Hamilton, on the route of the railway. There is also coal at Coal Hill, near Lake St. Clair, but I know nothing either as to the quantity or quality of it. The coal measures exist all along the western edge of the great central greenstone plateau of Central Tasmania, and also around the upper

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portions of the Eldon Range. In these measures cannel coal of excellent quality has been found at Barn Bluff, and there is reason to hope that workable deposits may be found elsewhere in them. Between Lake St. Clair and the West Coast Range the country is mostly composed of rocks of Archæan and Silurian age, which are very likely to prove mineral-bearing. The region between the West Coast Range and the West Coast itself is well known to be rich in metals.

The country to be traversed, according to my information, is very rugged, and great difficulty and expense will be incurred in making surveys to pick out a practicable railway route. It seems hardly probable that a line can be got which will not be highly expensive of construction unless the Abt or some other central-rail steep-grade system is adopted.

The railway, if put through, will open up a large area of likely mineral country, which is quite inaccessible for all practical purposes at present, and any sacrifice of possible mineral country that may have to be made by the Colony to ensure the making of the line is simply a gift of land which has no value at all until it is made accessible by a railway.

In order to protect prospectors and enable them to take up mineral lands without interference with the areas to be granted to the railway syndicate, the latter should be required by their Act to mark off the blocks to be taken by them within a limited time after their surveys for the railway have been completed. The Act should also, in my opinion, require the line to be at least approximately located right through, and the blocks of land to be taken to be pegged off within a reasonable time after its becoming law, even if great concessions are made in the matter of complete construction. Unless this is done there will be a danger of conflict between the interests of *bonâ fide* prospectors and of the Railway Company, the former being afraid to set to work unless they know that they can secure any discoveries they may make without being at once surrounded by one of the Company's blocks.

The same consideration applies to the water rights to be granted to the Syndicate: they should have to select and mark them off within a limited time, and should not be allowed to monopolise all the available supplies.

With regard to the application of electricity in Mining and Metallurgy, it is becoming every day more and more apparent that these are rapidly increasing in number and importance, and that cheaply available sources of energy, such as water power, will become of increasingly greater value. Almost every sort of mining machinery is even now being adapted to being driven by electricity,—winding, pumping, traction, milling, and lighting installations being already common. Electro-metallurgy, especially the deposition of metals by electrolysis of solutions, is making vast strides, and bids fair in many cases to displace the established smelting methods, especially in localities difficult of access. The control of large water-powers asked for by the Syndicate is therefore a concession which will ultimately prove of very great value.

In my opinion it is good policy for the country to make sacrifices of portions of the now valueless public estate in order to secure population both on the alienated and unalienated lands, and to increase the value of the remaining portions, and it is only necessary to take precautions which will prevent the concessions from becoming injurious monopolies.

I have, &c.

A. MONTGOMERY, M.A., *Geological Surveyor.*

J. K. REID, Esq., *Clerk of the House of Assembly, Hobart.*

APPENDIX C.

77, Collins-street, Hobart, October 5, 1896.

DEAR SIR,

I HAVE much pleasure in giving you the extract from our Mine Manager's letter *re* firewood, of which I spoke to you on Saturday, September 30:—"I have carefully examined the timber in the direction you indicated, and find the whole of the sound timber has been removed; it would not pay us to lay a tram to this bed. We are running a wooden tram line through the best timber beds on the Company's property, and the supply even then is limited; about two-thirds of the trees are rotten, have merely a shell of 3 or 4 inches of sound timber, and useless for steam purposes. This question of firewood is becoming a serious one, and will need consideration as to whether coal will not be cheaper to use very shortly.

I may say also that my Board is earnestly considering this question.

I am, &c.

ED. C. MACE, *Manager.*

H. W. PALMER, Esq., *Orient Hotel.*

APPENDIX D.

Extract from "Scientific American" of 28th May, 1896.

Work has been commenced on the electric road between Baltimore and Washington. The grading of the road bed on both ends of the line is now being carried out. It is proposed to run cars on this road at a high rate of speed and the tracks are to be built of the heaviest steel rails. The power plant for the road has been contracted for with the Westinghouse Electric Company, there being two power stations, one being located at about ten miles from Baltimore terminal, and the other about ten miles from the Washington terminal. The initial power equipment contracted for is equal to about 6000 horse-power.

Extract from "Scientific American," of 11th July, 1896.

Electric lines in Europe increased in number from 70 to 111 during 1895, their length from 700 to 902 kilometers (560 miles), and the power from 18,150 to 25,095 kilowatts. Germany leads with 406 kilometers, followed by France with 132, and England with 107, and Switzerland fourth, with 47. The only countries still free from electric traction are Bulgaria, Greece, and Denmark.

Extracts from the "Scientific American" of 18th and 25th July, 1896.

Contracts have been closed to furnish motors for the car equipment of the Columbia and Maryland Railway Company, the boulevard road, which is to connect Baltimore and Washington. Ten equipments of two 30 horse-power motors each, twenty motors in all, are for the cars which will run between Baltimore and Catonsville. For the through cars the contracts call for eight sets of four 100 horse-power motors, or thirty-two in all. These are to be put on a car, and are to be guaranteed to maintain a continuous speed of sixty miles an hour on a level track.

The through cars will be 43 feet long, and will be run in trains with a total weight of forty tons, to be drawn by the four motors. With the attainment of high speed comes the problem of getting a trolley which will stick to the trolley-wire. One plan of overhead construction now being considered for the road is to have the trolley-wire suspended by "hangers" at intervals of 20 feet from a suspension-wire running parallel with it. The suspension-wire would be far enough above the trolley-wire to keep the cross-wires from the poles out of reach of the trolley-pole, should it slip off and fly up in the air while the car is travelling at a high rate of speed. Another plan, and the one likely to be adopted, is for a similar construction to that used in the belt tunnel, Baltimore. This is a sort of trough, through which runs a metal shoe that takes up the current and transmits it to the car motors through a flexible connecting cable. The advantages of this are freedom from danger of the trolley leaving the source of supply of the electric current, and the fact that the connections are protected from the elements and incur no danger of becoming coated with ice in winter storms, as the case with the ordinary trolley-wire.

The electric railway motor has found its way into almost every quarter of the civilised world, but nowhere to such an extent as in this country; in fact, the development of electricity in every line has been carried much further here than in any other part of the world.

One direction in which electric motors have made great headway, and about which the general public knows little or nothing, is in mining, especially coal mining. Coal cutting machines, operated by compressed air, have been used for many years; these are now being equipped very generally with electric motors. Mining pumps, hoisting machines, and ventilating plants are operated electrically. In addition to these may be mentioned mine locomotives, of which a large number are in use. The extent to which electricity is used in mining may be judged when it is said that it is estimated that the capital invested in such apparatus aggregates over one hundred million dollars.

The Siemen's locomotive of 1879, under guidance of the motor-man, is here figured one of the 100-ton locomotives now in use in the belt line tunnel of the Baltimore and Ohio Road at Baltimore is shown; these locomotives are more powerful than the largest steam locomotives.

APPENDIX E.

WEDNESDAY, OCTOBER 28, 1891.

MONTAGUE RHYS JONES, *called and examined.*

319. *By Mr. Byron Miller.*—What is your name? Montague Rhys Jones.
 320. What are you? I am a civil engineer and railway contractor.
 321. Have you had many years' experience? I suppose about 17 years.
 322. Have you made a careful study of electricity as a motive power? I have.
 323. I suppose we may take it that it is now really the power of the day? There is not the slightest doubt about it. Take the electric railways, for instance. The Richmond Union passenger line in America is 12 miles long, and works successfully over sharp curves and heavy gradients.
 324. Is electricity now being used largely as a motive power in tramways? Yes.
 325. In various parts of the world? Yes, especially in America.
 326. Is it found more advantageous to use electricity than steam or any other motive-power? Decidedly; it is more economical in use, and the construction is cheaper in every way.
 327. Is there not a branch of electric traction called telpherage? Yes.
 328. What is telpherage? It is a suspension-system. There are roads supported by poles at a distance, perhaps, of 200 feet apart, and is made on the "make and break" principle. At every, say 120 feet there is a main conductor. When the skip passes and the first wheel touches the "make," the circuit is closed and the electricity flows back.
 329. Will you define the meaning of the term without going into details? It is, in brief, a system of overhead cars or skips.
 330. By means of that are you enabled to transmit goods a considerable way? Yes. The skips generally weigh about a ton or a ton and a half when loaded.

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331. Will you explain the uses of this system? There are three of these systems in use in England, and two of them are used for mining purposes, conveying ore, &c. from mines to railway stations. One is used in connection with cement works at Glynd, for bringing cement to the railway station.

332. Is it economical? Decidedly so. It costs from $\frac{1}{2}d.$ per ton per mile.

333. What would be its advantage in a district in which roads were impracticable, or could only be made at great expense? Its advantages would be very many indeed. It would act as a scavenger for the whole district, and would be a valuable feeder to any main line constructed.

334. Would it obviate the necessity for roads? Yes, it would do away with roads altogether, as there would be no necessity for them.

335. It would be a means of transmission independent of roads.

336. At what distance from the distributing centre could the system be used? The Glynd line in England is $1\frac{1}{2}$ miles long, but it would be possible to extend the system for 50 or 100 miles. You could have sub-feeders and dynamos at different points on the circuit so that the main conductor could take its supply. It is only a question of power drawn from a central station.

337. Would it not obviate the necessity for heavy machinery as well as the necessity for roads? Decidedly it would.

338. Can electric power be applied to all kinds of mining machinery? Yes, it is used for drilling, lifting, lighting, haulage, and all kinds of work. You can put electric plant where you cannot put steam machinery—at any height or depth that you please.

339. Is electric machinery lighter than steam machinery? Yes, it is very compact.

340. Is it more economical than steam machinery? Yes, decidedly so. The Frankfort Offenbach electric tramway, the most expensive electric line in Germany, is worked at a cost of $4\frac{1}{2}d.$ per car mile.

341. What would be the advantages of electricity to mines beyond those you have already stated? Economical reasons would be the chief ones; transit would be much cheaper, owing to the more compact nature of electric machinery.

342. Would the lightage of mines be more thorough? Yes.

343. How about safety, as compared with the ordinary lighting of mines, and their ordinary working by steam machinery? Electricity would be much safer in every way.

344. Do you know of your own knowledge, or through your reading, of the immense amount of work that is done through the agency of electricity? Yes, and I will read some statistics brought up to 1890. There are 150 towns in the United States in which electric trams are in operation, having 1670 miles of track and 2650 passenger cars. The power created equals 70,000 horse-power, and 2,000,000 passengers per annum are carried. This year it is anticipated that 3000 motors will be in use, carrying 300,000,000 passengers, and returning £3,000,000 in fares. The question of electric traction has thus passed the experimental stage.

345. Have you been on the Zeehan field? I have.

346. And you know what sort of a field it is? I do.

347. To such a field as that, what would be the advantage of electric motors? I have answered that question before; but I will say that I am sure they would be found most economical. The power must be distributed from a central station. The economical results would be very extraordinary, I am sure.

348. Would it facilitate the development of the field? Yes.

349. Would it hasten it? Yes.

350. Would it hasten it by years, considering the delays that have to be undergone in getting steam machinery in? There is one difficulty in the way, as, to begin with, you would have to go to America for the machinery, which would cause a certain amount of delay. There are a great many workshops in America constructing electric machinery. Once the machinery is here, it would no doubt hasten the development of the field.

351. But there is a great difficulty in constructing roads and getting in steam machinery? Yes, one balances the other.

352. Would the balance as to time be in favour of electricity? I think so. It would be better to get the electric machinery here.

353. Would the telpherage system compete with the existing tramways? On the contrary, it would do them a great deal of good. It would be unearned increment to them. It would be absurd for the people owning the other lines to oppose telpherage.

354. Do you think it would be a great advantage to the public that this Company should obtain this Bill? I cannot answer that question.

355. Do you think it would be a great advantage to the public that electricity should be introduced as a motive power for all purposes connected with mining? The people of the West Coast will be extremely fortunate if they obtain it.

356. I presume it will be extremely convenient to obtain water from the rivers and streams to generate electricity, instead of having to use heat? Yes; it is a very praiseworthy thing to utilise natural advantages.

357. Supposing this particular Company were connected with large electrical machinery manufacturers, would that accelerate the development of the field? Yes, they would get their orders out quicker. I have experienced the same thing myself, in engineering an electric line in Sydney.

358. *By Mr. Mugliston.*—You are only referring to general principles in electricity? Yes.

359. You know nothing about the provisions of the Bill? No, nor about the hydraulic conditions of the place.

360. And when you say it is desirable, you simply apply principles recognised in the scientific world? Yes.

361. And not to this particular Bill? No.

362. And you don't know in what way the Promoter is applying for the water? I have read the Bill, of course.

363. Do you consider that the Government would be entitled to give the Promoters of this Bill absolute control of all water, even ponds and lakes? I told you before that I know nothing about the hydraulic conditions of the place, and I cannot answer the question. It would be a great piece of presumption on my part to do so.

364. Could not the tramway companies generate their own electricity? Yes.

365. And could not the railway lines in this part of the country generate their own electricity? Yes; but it would be necessary to put up overhead wires to do so.

366. Could not the tramways in connection with mines work their own electric machines? Decidedly they could; but you must bear in mind that it is always more economical to work from a central station. I take it that the object of this Company is to have a central station, from which all the power required can be sent.

367. How many centres of distribution would be necessary for a district like this? I cannot answer a question like that.

368. Would it not be much cheaper for the larger mines to develop their own electricity? No, certainly not. It would cost them a great deal more money to do it themselves than to buy it.

369. Not in a case like this, where there is no check put on a company? There are instruments for gauging electricity.

370. I mean in regard to price? I take it that if the mines or other customers found that they could generate electricity cheaper themselves they would do so.

371. Would it be right to grant a monopoly to a company without any restriction as to what they are to charge? I think, in the interests of the public, there ought to be a schedule of prices.

372. *By Mr. Byron Miller.*—That only applies where there is a monopoly? Yes.

373. Where everyone is entitled to compete it would be to the company's own interest to charge as little as possible, would it not? Yes; it would be worked on commercial lines.

374. And it would be cheaper to buy from a general supply than to have a special supply of your own? Decidedly so.

375. Are you aware that the Silver King and other companies are prepared to treat with this Company for the supply of electricity? No, I am not aware of that.

376. *By Mr. Gill.*—Have you read the preamble of the Bill? Yes.

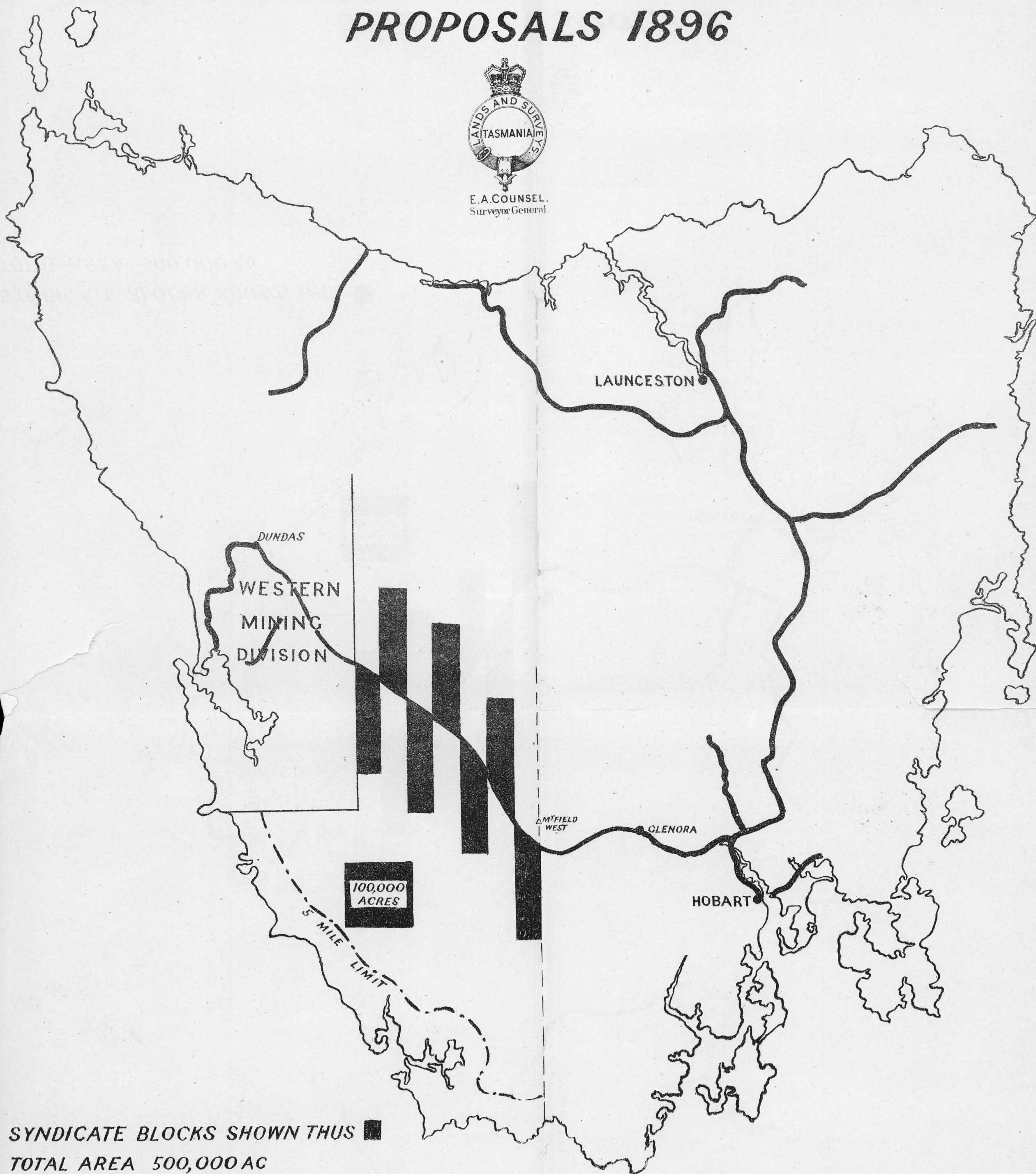
377. Is it possible to construct and maintain machinery and works and other appliances for generating, making, and transmitting electricity or any motive power? Yes, decidedly.

378. And is it possible to supply electricity to any "mine, company, co-partnership, person, or persons whatsoever, within the Western and North-western mining divisions of Tasmania"? Yes.

MAP ACCOMPANYING REPORT OF SELECT COMMITTEE ON GREAT WESTERN RAILWAY PROPOSALS 1896



E.A. COUNSEL.
Surveyor General

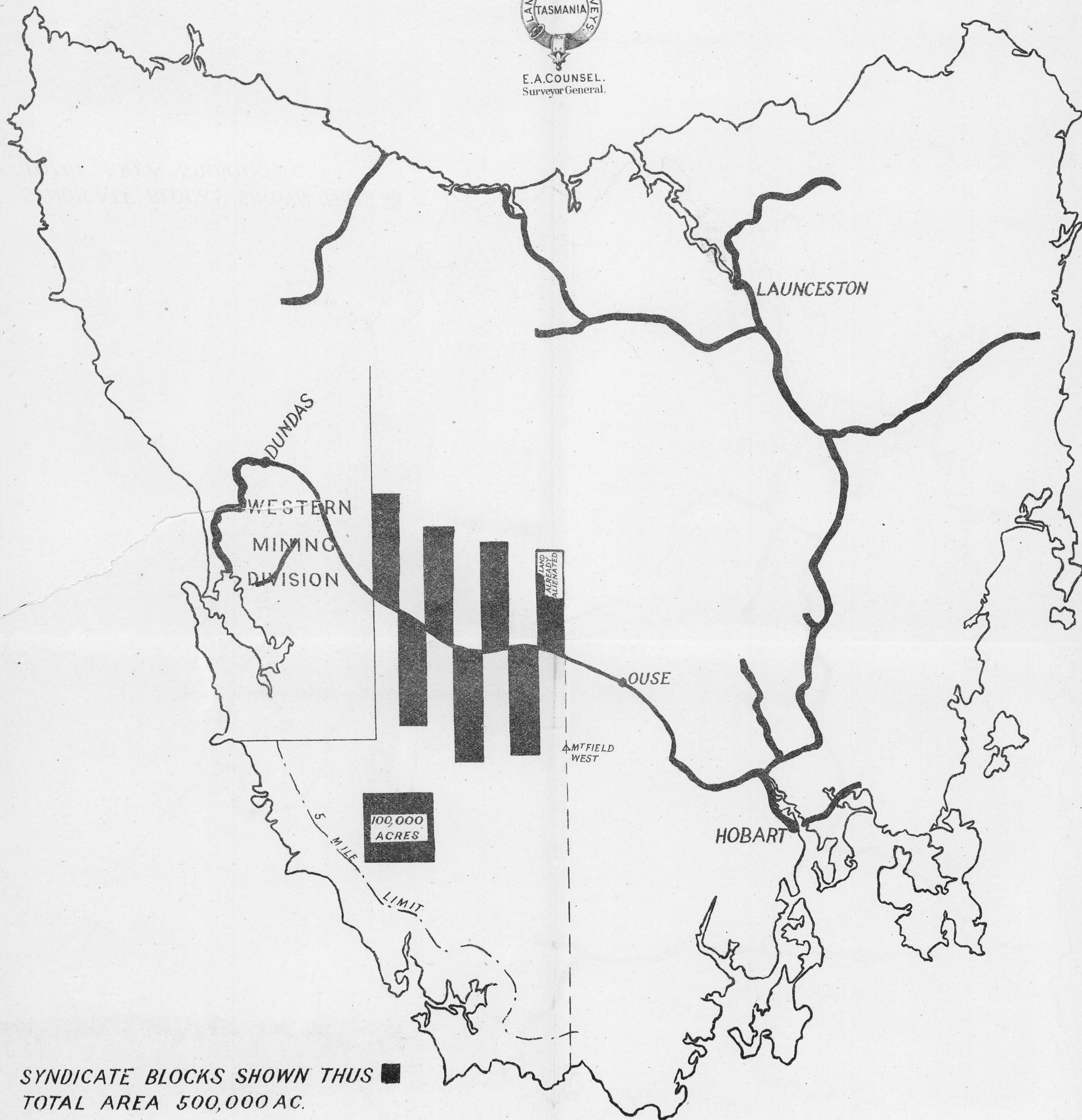


APPENDIX F.

MAP SHOWING ALTERNATIVE ROUTE VIA OUSE



E.A. COUNSEL.
Surveyor General.



EVIDENCE.

WEDNESDAY, SEPTEMBER 30, 1896.

MR. RUSSELL YOUNG appeared on behalf of the Promoters of the Bill, and opened the proceedings.

Mr. Chairman and Honorable Members of the Committee:— It is my duty to bring before you this morning the Bill which was read a first time in the House of Assembly last evening—The Great Western Railway and Electric Ore Reduction Company's Bill. The Bill has been in the hands of Honorable Members for a week, and I have very little doubt, as is usual with Members of the Legislature, that you have made yourselves acquainted with the proposed general objects of the measure, which, I may state shortly, to be the construction of through communication from Glenora, or from some other point on the Derwent Valley Railway, to the West Coast of Tasmania which on the part of those concerned may be considered most expedient. The necessity for opening up that part of the country and connecting it with Hobart has been the subject of considerable discussion in the southern part of the Island at least for a considerable time, the general consensus of opinion being that such communication would greatly improve the material interests not only of the southern part of the Island but of the colony throughout. It appears from many commercial circumstances which have come to light, that the commerce, trade, and business which ought entirely to find its way to Hobart has been filtering away from our country to Victoria. This may possibly be owing to the more energetic character of their people, but in any case it is a fact, and it certainly is a factor to be considered that Tasmania should try to retain to herself that which is certainly her own. Considerable agitation on this subject has taken place recently, and a league has been formed in Hobart with the object of trying to get Government to make a track or road to the West Coast. Fortunately for the League, the Hon. Minister of Lands and Works has promised to cut a track, if it is shown that it is possible, within the next twelve months. However, in the meantime a syndicate has been formed by men, many of whom are experienced in mining, men of financial ability and capitalists, who have been watching and enquiring as to the resources of Tasmania, and who have particularly directed their attention to the large and undoubted wealth contained in the mineral country constituting the West Coast of Tasmania. This syndicate has been making enquiries, and at last, having taken steps to assure themselves, have arrived at the conclusion, after due consideration, that an undertaking of the description evidenced by this Bill will prove remunerative. They see their way to make a railway through the country as proposed by this Bill. At the same time that they have arrived at this conclusion, they are alive to the fact that the ordinary traffic on the line alone would not pay anything like fair interest for the large outlay that will be required; therefore they have hit upon a supplementary idea in connection with the railway which will be of advantage, not only to themselves, but to the colony of Tasmania at large. Their intention is the construction of large ore reduction works at some point on the railway, perhaps at Glenora or some point like that, as near as possible to deep water as they can manage, which means of course our magnificent harbour, which is capable of floating vessels of the largest dimensions that come to our shores. They not only intend to reduce ore, but to become buyers of ore, and so will create an immediate market for the produce of the mines if they have ore for sale. In this way they conceive that they will obtain a fair profit to themselves, while they will make a trade which will be of immense advantage to the country. I need not elaborate on this proposal, because the Committee must see that it would be a great advantage to the people in creating a ready market for their ore. The Syndicate ask no direct return for spending over a million of money in the construction of the railway, but they ask for a grant of land in alternate blocks along each side of the line of railway—ten-mile blocks. That is all the Company seeks in return for the construction of the line. They also propose to hand over to the Colony 1 per cent. of the net profits of the ore which they may obtain from any of the blocks, should they prove mineral-bearing. Of course, if the blocks are granted, it does seem an immense area of Crown land, and amounts to 640,000 acres. That would be a grant of land in fee simple, the same as was granted in Western Australia, but their grants are in excess of what we ask, being at least one-half more. I am also informed that the land granted in Western Australia is all thoroughly good land, much of it now under cultivation, and having extensive beds of valuable timber. However, whatever grants the Company may get, the land is not at the present moment of much use or value: this tract of country is in fact at present a *terra incognita*, and it is a question even whether it is mineral land. It is said that some prospectors who have been through portions of the land have discovered gold in small quantities, also other minerals. As far back as 1860, the late Government Geologist, Mr. Gould, went through a small part of this country, and stated that gold had been found in small quantity, and, in regard to the land, he reported favourably of it as likely to be mineral-bearing; but beyond that nothing is known. The Company asks for this land, and intends to prospect it. A calculation had been made to see what would be the effect supposing the Company did get the land. Put it at 10s. per acre, which is the regulation price for Crown land of the second class—calculated as if the Company were to become the purchasers of the land at that price—in that case the Government would receive for the 640,000 acres £320,000.

Mr. Mulcahy.—Is that the outside area—is not the grant to be in proportion to a certain length of line?

Mr. Young.—Yes.

Mr. Mulcahy.—Well, that would only be calculating on a length of 100 miles.

Mr. Young.—Yes, but that is problematical. It is estimated at 100 miles, but it may even be shorter; we cannot say till the survey is made. That is the quantity of land as now estimated, and that would give about nine blocks of land along the line to the Company. The other alternate blocks would, of course,

remain the property of the Government. Well, estimate the distance at 100 miles, and assume that the land is granted to the Company, the alternate blocks being retained by the Government, and that the railway is put through it. We have had enquiries made, and we find that even with such advantage it is estimated that not more than $2\frac{1}{2}$ per cent. of the land would be selected under the ordinary regulations. That is not an estimate made in a rule-of-thumb manner, but it is obtained from a surveyor of well known standing, who will give evidence before you. We find that $2\frac{1}{2}$ per cent. of this land would be all that would be taken up if it were thrown open for selection, and if this be the case the Government will only be giving £8000 to the promoters, while they will retain the alternate blocks which will be of similar value, that is to say, that if only $2\frac{1}{2}$ per cent. of the land would be taken up that would give a return of £8000; and if that be the case, Government having the alternate blocks will be actually creating an asset, worth to the Colony £8000 in the value of the blocks held by them adjoining the railway. Of course this is only an estimate, but it is made by a surveyor of standing, who will be a witness before you, and whose evidence you will hear for yourselves. Then this Company asks for certain water rights. Well, these water rights have been quite misunderstood, and something misleading has got about concerning them which requires to be put right. The Company ask to be able to enter on an area of large extent from which to take water for the purpose of enabling them to get the quantity of water necessary to perform their operations, but the Company in no way intend, nor in any possible way can they, monopolise the water in the area reserved for them to select from. The moment the Company get a supply—and they require to get equal to 75,000 horse-power, which would be sufficient for their undertaking—immediately that supply is obtained, and they have got all they want, any other person can come in and take what is left, or use the water returned by them. There is no monopoly at all. After that anybody can come and take what they want. The Company wants 75,000 horse-power, and to give an idea of what 75,000 horse-power is, I may state that 5 rivers, each 30 feet wide and 3 feet deep, will give the whole of from the water supply required.

Mr. Mulcahy.—What about the fall?

Mr. Young.—I assume, of course, that the required fall is there, or they would not have the power.

Mr. Barrett.—And if you double the fall you will get double the quantity of water through the same section. Such facts are very deceiving to the public when stated that way, because they can't understand them.

Mr. Young.—Well, lawyer like, I am only opening my case, as my friend the Chairman will understand. I will not proceed any further now with the statement I was about to make. It will, perhaps, be better brought out when the evidence of the witnesses is before the Committee. As I stated, however, 5 rivers, 30 feet wide and 3 feet deep, will give the required quantity of water for 75,000 horse-power, or the same amount of water from five points on one river would be enough, that is, assuming that the fall is there. For the purposes of all requirements any of the following rivers would more than give the necessary supply. These facts have been investigated and can be proved. The rivers I refer to are the Dee, the Nive, Upper Derwent, Franklin, Collingwood, Denison, Russell's Falls, with lake on top of Mount Field.

It is evident, therefore, that the power required is there, and Honorable members of the Committee will be informed by the surveyors that the water-power of that district is simply illimitable, and anything this Company may do in getting their 75,000 horse-power would not in any way interfere with any person who liked to come in after to get water for any other purpose. Then, again, whenever we take the water it will all be returned into the same stream, so that any one, above or below, would be in a position to use the water.

Mr. Mulcahy.—Do you mean that having once obtained the water-power you require from a particular stream or streams that then all your rights over the rest of the water area should cease?

Mr. Young.—Yes. They want no more water-power than is required to work the scheme. When they get that they want no more.

Mr. Mulcahy.—Suppose a dry season comes and the water supply fails, the water would want to be conserved in some way?

Mr. Young.—Well, I take it that as practical men they would settle that question before settling on any particular river, and I would think that they would judiciously take a little more than was wanted to allow for probable deficiencies. However, that would be a proper question to ask Major Officer or any of the other witnesses when they are before you. The Company is asking no more than is given in other countries under similar circumstances, and the Colony will get all the advantage, in that it will give no more than the value of the line. Now, on the general question as to the extent of country along the line, it is quite unexplored, and we don't exactly know the area at this time. If we go according to the map produced we will find it is not such a large thing as some persons would believe. Throughout the Colony the advantage of direct communication with the West Coast is admitted, and I need not mention it. If this Company is allowed to perform its work it will be doing something for the country which cannot by any possibility be done by ourselves. If then, we cannot do an important work like this ourselves, we must come to the conclusion that if anybody comes to us from Victoria and offers to do what we can't do ourselves, excepting by great extra taxation, it would be a benefit. We must recollect that if this railway line were constructed by the Government it would be for the purposes of traffic only. Government would not enter into speculative enterprises like ore reduction. See what the existing Railways cost the colony now, and there is no doubt if this line were made by Government we would have to supplement the cost of the railway by extra taxation. Here a Company comes from a neighbouring colony and says, "We have facilities for raising money, we have the means of carrying out this work, and we will do it if you can't do it yourselves." Are we to stand by under such circumstances and say, "No, we will not receive assistance from a neighbour?" It is a question of degree. I mean this, if we can't do it ourselves, then I say we should be conserving the interests of the country by letting others do it, so long as we do not give away too much. If we can get this line through, while not dealing in a reckless manner, at the same time do it by conceding to the Company the means of carrying out their project, I think we should do what they require. By this means the mines will be opened out, and I have no doubt the West Coast will become the greatest mining centre in the Austral-

asian Colonies, if not in the Southern Hemisphere. If that be the case, let us bring this scheme to a head; let us make the most of the benefit that there is in the scheme, and not set it aside without due and grave consideration. Tasmania calls for capital, and she is offered capital, and offered it in reference to a scheme which nearly everybody in the colony would like to see carried out. I will say nothing further. I hope the report of the Committee will be such that the Houses of Parliament will pass this Bill, and that the scheme will be carried through. I thank you, gentlemen, for your attention, and shall now call evidence.

CHARLES MYLES OFFICER, JUN., *examined by Mr. Russell Young.*

1. What is your name? Charles Myles Officer, Jun.
 2. You have passed in Military Engineering, I believe? Yes.
 3. You know something of the West Coast of Tasmania? Well, I have been there once, but I have not examined it right through.

4. Have you received from any reliable sources any reports as to the country of the West Coast of Tasmania that you can rely on? Yes, I have full reports from reliable men.

5. And can you give us an idea of these reports? Yes, they generally allow that the line of railway would be difficult to construct in comparison with lines in the other Colonies, but there would be no difficulties that we can't get over.

6. I mean have you any reports as to the general character for wealth of that part of the Island? Our evidence on that point all tends to show that as far as minerals are concerned it certainly is the greatest field in the Australasian Colonies that has ever been discovered.

7. Have you read Mr. Gould's reports? Yes; but they simply say that traces of gold had been found, but nothing payable, but that the country would be worthy of further prospecting.

8. Do you consider, from what you have seen, that the probable traffic on the line would be sufficient to pay a Company for the construction of a railway? Certainly not. Any Company constructing a railway must make its own traffic. You must have other means of profit besides the railway.

9. You think your Company can manage it? Yes, by erecting large ore-reduction works,—large enough to treat from 1000 to 1500 tons of ore a day.

10. Then it is the proposition of the Company to erect large works? Yes.

11. To buy ore and practically become their own carriers? Yes.

12. Is it proposed that the ore-reduction works should be as near to deep water as you well can get? Yes, a good supply of coke is indispensable, and we must come near either to coal or to coke, and deep water is the only place where it can be obtained at reasonable rates.

13. Can you say that the construction of such a railway would add to the passenger traffic? Yes; I know that from the northern colonies alone there are thousands of persons who would visit Mount Lyell if they had not to face the trip in the small steamers.

14. Can you give any idea as to the number of hands the Company would be likely to employ? Yes, when in full work, directly and indirectly, about 4000 men.

15. How do you arrive at that? Well, I estimate that we shall want at the least 2000 for the railway and the ore-reduction works, the balance would be used at the other end to handle the ore and in getting it, also in prospecting. We should put a large number of men on prospecting and opening out new ground.

16. Do you know of any works in other colonies bringing ore from long distances to be treated? Yes, the works at Illawarra and Newcastle, New South Wales, bringing the ore 280 miles from Broken Hill, and it is handled four times. There is a break of gauge between Broken Hill and Adelaide, and the ore has to be handled four times, but it pays to do it.

17. Can you give us any idea of the increase of traffic, from your knowledge of other colonies?—what has happened in the case of Silverton, for instance? Yes; in New South Wales, if it were not for carrying ore the railway would not pay anything like what it does. It was made for carrying ore, that is from Silverton and Broken Hill. The South Australian Government carry it a considerable distance, and there is a break of gauge.

18. Does it go by sea to Newcastle? Yes, by rail to Port Pirie, and then by sea to Newcastle.

19. Can you say if ore-reduction works in the colonies are a loss, or are they making money? I don't know personally, but I am told they are making money.

20. Have the New South Wales Government determined to further extend their railways? Yes, they have decided to build a line from Broken Hill to Cobar, and then the ore will require to be taken to Sydney or Newcastle or Illawarra. They were going to build a line to Minindi, but that would only assist Victoria, and they want to keep the business in the colony.

21. Has the Government of New South Wales made promises to make concessions on ore traffic? Yes; the amount stated for freight is 12s. per ton.

22. For how many miles? Over 700 miles, I think.

23. Twelve shillings a ton? Yes. I state that simply from a statement I have heard made; I don't know it of my own knowledge. I saw it stated in the papers.

24. Why do they make a concession? Simply to keep the trade in New South Wales. I think there is a stipulation that they are to carry two million tons per annum.

25. In making that concession that would add to the cost of the railways to the people of the Colony? Yes; they make nothing out of carrying ore, but the revenue benefits in other ways.

26. I suppose it gives employment to a great many people? Yes.

27. Suppose now that the railway you propose were constructed, have you thought in any way of the probable effect it might have on the revenue of this Colony,—the addition that would be made to the revenue returns by the settlement and employment of people? Yes; the construction of the railway alone

would cost a million, or perhaps more. I believe it is a well known fact in political economy that out of an expenditure of a million on public works the direct return to the Government is about £240,000, because the people employed buy large quantities of goods which have to pay duty—I mean tobacco and other high duty-paying goods. That will be found on reference to any statistician; he will give you the average, and you will find the expenditure would be about £240,000.

28. Then you estimate that £240,000 would come to the revenue of the country out of this expenditure? Yes.

29. On the West Coast you are aware that the ores are of different grades, some are of a very refractory class and require different treatment? There are many classes of ores which could not be treated by small companies on the field, that is, not profitably; they are treated better in large quantities. They flux better, and you can treat the ore more cheaply. You will always find that in large ore-reduction works you can treat ores far more profitably, and you can treat ores of a class that can't be treated profitably at all by small companies.

30. That being so, then, as a matter of fact, small companies can't work at all, but if your proposed Company were in work they would be able to go on? Yes, because they would get a market for their ore at once with the large company. They could sell it as they take it out of the mine.

31. And the flux would be there for the ores? Well, ores of course are of different grades; there are dry ores and those containing much more lead, but in large works it is frequently found that by mixing the ores better results are obtained. At Broken Hill, for instance, it is quite common for one mine to buy ore from another mine simply to assist in smelting.

32. Supposing companies wanted to have their own machinery, are there any facilities for getting it to the mines at the present time? Not at the present time. If they use steam machinery they have to transport great weights and heavy boilers, whereas with electric-power they can have far lighter machinery at much less cost. The cost per horse-power would be about £25 per annum, whereas with steam-power it would be at least from £60 to £65 per annum; and with the rates for fuel in some cases it might be from £120 to £125 per annum.

33. Your Company, before entering into this project, made a thorough examination of the country as far as it could? Yes, we made a very thorough examination; we got all particulars as to the character and permanence of the field, the cost of the necessary machinery, the water-power available, and all other information that we possibly could.

34. Is it not a fact that this Company only wants 75,000 horse-power for the purposes of the undertaking? Yes; not more.

35. And when they get that then the rest of the water would be available for others, should they want it? Our Bill will prevent us from taking any more water under any conditions whatever.

36. And you return the water to the stream when you are done with it? Yes; and before we can take any water we have under the Bill to get the approval of the Minister of Lands, and we must show where we intend taking the water from, and must have his approval.

37. What is your opinion of the West Coast mines of Tasmania as compared with other mines you know of in the Australasian group? Well, the West Coast land is practically valueless unless you make it available to population by railways or other means of transit.

38. You misunderstand me—I mean, what in your opinion is the value of the West Coast as a mining field—its value to the Colony of Tasmania? I think it will certainly make Tasmania one of the most important colonies we have. I believe there is more mineral wealth there than in any field yet discovered.

39. And the water supply through the country—is it large or small, or what? There is far more water than could be used in the whole of the Australian colonies and Tasmania put together; there are many times more than could be used by all of them.

40. You know this yourself? Yes; I have made enquiry into the whole thing, and I say there is more water power between here and the West Coast than would work all the minerals in the Australian colonies.

41. Then, of course, it is utterly a mistake to say that you desire a monopoly? We don't ask for any monopoly, and could not get it. There are any amount of streams there, from the reports we have had; and, as far as that goes, others could come and get the same power which we want within a few hundred yards of us.

42. They could go either above or below your point? Yes, they can go there and use our flumes if they like. Water loses none of its power by being put through a Pelton wheel.

43. Now, in asking for grants of land, have you been guided by what has been done in other countries? Yes; but we look upon ore-buying and treatment as the chief thing. We are not asking for as much land as was granted to the syndicates in Queensland and Western Australia. We are asking for a fair thing.

44. I believe the Albany and Beverley Railway—the coast line in Western Australia—was built by a syndicate? Yes; and they got blocks of 19 miles square along the whole length of the line,—12,000 acres to the mile it came to.

45. And they had a guarantee besides? Yes, a guarantee of $2\frac{1}{2}$ per cent.

46. And you ask for no guarantee? No, we ask none.

47. The West Australian line was through easy country, comparatively? Yes, the country was almost level. It cost £2500 a mile to build, and on their land there are valuable timber forests, and much good agricultural land.

48. What did the railway cost per mile in West Australia? £2500.

49. And what is the estimate for the proposed line here? We intend to build a substantial railway, with heavy rails, on the 3 ft. 6 in. gauge, and we don't estimate to do it under £10,000 a mile.

50. Then, if the West Australian people got grants of nineteen miles square for building their railway, you think you are not asking too much? Not in a country like this.

51. They got more than you are asking for? Considerably so.

52. And they had a guarantee besides of $2\frac{1}{2}$ per cent. Their line cost £2500 a mile, and yours will cost £10,000 a mile. That being so, would you say this company is asking anything very large? No; I think our demands are very moderate in comparison with theirs.

53. You have no knowledge yourself of the character of the country through which the line would go? Only from reports, which show that through a portion of it we can get fairly good grades. There will be two places very difficult to cross, but in other places there will not be more than grades of 1 in 20, or something of that sort.

54. I believe there is one very difficult place? Yes, in the vicinity of Mount Field. The other place likely to present difficulty will be a place beyond the Rasselas Valley.

55. Your Company, I believe, never anticipated getting a profit out of the traffic on the railway? Not from the traffic,—at all events, not for many years to come.

56. Then the profit you look for is from the ore-reduction works, and from the buying and selling of ore? Yes, from trading on the line, in fact.

57. *By Mr. Mulcahy.*—What about the land? Well, we intend to prospect that thoroughly, and we shall get what we can out of it; but we can't take that as a certainty. It is quite problematical as to what may be got from it.

58. Your supplying of electric power to mining companies would be another element of profit. Yes, I anticipate that if the mining companies will take electrical power we shall be able to supply the mines cheaper than they can themselves.

59. Looking at that map (exhibited), does that show as fairly as it can be made accurately the land which the Company asks for? Yes, I think so. It was drawn in the Crown Lands Office. It is as accurate as it could be made with the information at command. The lines here (pointing to the map) may have a few more curves; but that will only move the blocks a little way further back. There are at least two blocks of land marked that we cannot expect to get. The land is not available, being near Zeehan; and we will have to go further back to get the equivalent. The plan merely shows the principle on which it is proposed to mark the blocks out.

60. *To Mr. N. J. Brown.*—Can you inform the Committee whether you could define with some degree of accuracy the rivers and water-courses which you propose to utilise, instead of, as in the Bill, taking what appears, to the public mind, to be enormous powers? No. Our difficulty is this, that until we get the surveys finished, and we have already spent a considerable sum of money for men going through, we can't tell accurately what water we shall require. There is a point where we expect to have to go up to one of the Lakes after leaving Glenora for the water to generate the electric power. If we can find it nearer we certainly shall not go miles farther away, as it would be too expensive for the line. We shall try to concentrate our power as near as possible, and not far away. The nearer we can get the great power required to the line the better for us. It is, in fact, only necessity that will send us away from the line. We only want to take from the various points on the rivers according to the supply of water. Perhaps five points would be enough for the whole line.

61. You are aware that in the interpretation clause the term "river" has a large meaning. Would it not be possible to find out what you want, and, without naming the rivers or water-courses, could you restrict the area more than you have restricted it in the interpretation clause. Could you not restrict the area from which you propose to take the water? Yes, you might make it 20 miles instead of 30, except in the case before referred to. If we can get the water nearer we would not go miles away. We might not have to go more than two or three miles away.

62. *To Mr. Pillinger.*—Could you not confine your demands for water to one place? Yes, we could do that provided we can get the necessary power. Our engineer will tell you as to that better than I can.

63. *To Mr. N. J. Brown.*—Then it will be possible to restrict the area, to confine the limit to a smaller distance than is mentioned in the Bill? Certainly, except in one instance. If possible we want no more than one place at the full distance, and we will take advantage of anything found nearer. Remember, please, that the Minister of Lands has the power to refuse. We have to submit plans to him, and he has the power to refuse us the right to any particular spot.

64. *By the Chairman.*—You want to take 75,000 brake horse-power, and when you get it I understand you are done, you want no more? No more.

65. *By Mr. N. J. Brown.*—There is no mention in the Bill of any clause having reference to a deposit? No. We don't expect to get out of that, of course; but we did not insert it. We are willing to make the usual deposit in a certain time, as provided in other Acts of a similar kind. In fact, we prefer to do this, because the money lies at interest until returned; but a number of gentlemen interested in the West Coast suggested that if we would be prepared to undertake the cutting of a track at a cost of £1500, that would be taken instead of a deposit. We said we would do that. We have to cut a track for our own purposes, and we might as well make it a wider and more permanent track. We said we would be prepared to do that if the House preferred it to our putting down a deposit. In that case we should spend £1500, and hand the track over to Government, getting nothing back. In the other way we should deposit the money, and afterwards get it with interest back when we complete the work.

66. What amount of cash deposit would you agree to put down? We had to put down in other Bills £5000. In another Bill lately passed that is the amount of the deposit.

67. Would you be prepared to deposit £5000 or more if Parliament agrees to the construction of the line, and that the work shall be commenced on a certain day, and the railway shall be completed before a certain date? Yes, Sir. We are aware that we should have to commence the line within twelve months, and the earlier we get to work the better for us.

68. And are you willing that the money should remain in the hands of the Colonial Treasurer until the opening of the line of railway for traffic? Yes.

69. *By Mr. Mulcahy.*—You are representing a syndicate? I am.

70. Is this a tentative proposal, or have they the money available? The whole of the money is not in Victoria; part of it is in England. The capital of the company will be £2,500,000. On the passing of the Bill the money will be available for the work.

71. Then you are not asking for these concessions that you may go to another place and offer it to a company and leave them to carry out the work? No; if we get this Bill we get the money at once. The whole thing is arranged.

72. Are you prepared to go on with the work without delay in the terms of the Bill? Yes; when we get the Bill we will start the surveys at once. We held the Bill back for a time that we might see the Mount Lyell smelters started, and that delayed us. Now our object in pushing the Bill through is to enable us to take advantage of the summer for getting the permanent survey made.

73. You are asking for 75,000 horse-power, and you want water-rights over an area of sixty miles,—that is thirty miles on each side along the whole length of the line? Yes; that is simply to enable us to take it from the best place or places and most conveniently.

74. Don't you think 75,000 horse-power is a great amount to take? We intend to use electricity for the railway and reduction works, and we think it best to take the full amount of power we shall require.

75. Would you not be willing to take less? I don't think we would. We estimate there are at least three millions of horse-power on the West Coast, and the water we use can be used again within a few yards of the works by anyone wanting it. It would hamper us to take less. We might not want that amount, but while we might not want that amount we feel it would not be safe to take less.

76. Why do you want such a large area for water-power? Well, we want to get it nearer if we can, but we may have to go a distance of 30 miles from the line to get the power we require. It would be an additional cost of wire and poles to bring it a long distance to the line.

77. Do you propose having generating stations all over the country, or would there be only one generating station? There might perhaps be five or six generating stations.

78. Would the syndicate be prepared to agree, instead of this enormous area, to take the water from certain points that might be named? Certainly; the only difficulty would be about naming the points until the survey is made.

79. If you were given time to name the points, then would you agree to it? We should be perfectly willing to do that.

80. In regard to the enormous area of land, you want to take up in the whole 1000 square miles? Yes.

81. But you ask for that over every branch line or over every deviation you may make? Yes, that is in the Bill, but we must have the approval of the Governor in Council.

82. But you might take it all over the country? Not with that quality of land, Sir. Making unnecessary deviations would mean extra haulage. As regards this land we don't value it at 2s. 6d. per acre.

83. Will your syndicate accept a smaller area of it? If we got a small guarantee we would accept a smaller area of land. A great part of it is poor, bad land, on which there is no chance of minerals, and it would never be useful for anything.

84. Will you agree to limit the area? We will agree to this, that on the main line we do not select over the equivalent for 100 miles. The *Mercury* says the line is 150 miles; we will agree to limit it to 100 miles; that represents 1000 square miles of land. If the line should prove to be an extra 50 miles long we won't get land for the balance.

85. You expect to make a profit on ore-reduction works? Yes, that is what we calculate will pay.

86. Then, if you are going for ore reduction works what do you want this enormous area of land for? We calculate on having a certain asset in the land; we shall have something to show for having spent the whole of the money. We expect to spend at least two millions sterling before we are done with it.

87. Ore-reduction is a profitable industry, and you do not attach so much importance to the railway? As for the railway alone, we could not think of building it unless we got a Government guarantee; no syndicate would think of building the railway for the traffic and land alone.

88. In regard to the deposit, you know that in the case of the Waratah and Zeehan Railway the Promoters had to deposit £5000; you know the length of that line is about forty-six miles? About that, I believe.

89. You know the distance of their line as compared with this is about one half? Yes.

90. Then, do you think it would be unreasonable to make the deposit on your line £10,000? We would be prepared to do it, but you must remember we have to spend a far larger sum of money in construction, and we get no better prospect in the thing.

91. In the case of the Waratah and Zeehan Railway, you are aware they only got 3200 acres leasehold, whilst you ask for a freehold of 640,000 acres? Yes, but of course they have a better prospect of carriage than we have—at least they consider it is so.

92. Would you be prepared to put up a deposit of £10,000? Yes, if necessary.

93. You say this is not a tentative proposal—you are going on with the work at once as soon as you get the Bill? Yes, when we get the Bill.

94. And you have a capital of £2,500,000; you would put up the deposit at once? In a reasonable time. We would have to get all our contracts and agreements signed, and then we have to register the company.

95. What time would that take you? Well, we could get information by cable. We shall have to register in London so as to give value to the shares afterwards. The head office will be in London, and we shall have branch offices in Melbourne and in Hobart; the principal work will be done in Hobart.

96. *By Mr. Lewis.*—Does the syndicate require all the concessions asked for in this Bill? Yes, the line, the water-rights, and the land were all arranged for in our calculations. We made our estimates as low as we possibly could, because we thought there would be more chance of getting the Bill through this session. I don't think we can very materially alter our proposals, but we might put them in more precise language.

97. Referring to the concessions asked for in this Bill, if the House modifies them would you go on? Of course not, if they were big modifications, but I think this, that any reasonable modifications would be accepted.

98. What would you be prepared to accept? It is hard to say that now. What we have asked for we consider a fair thing. If the House made some small modification, say in the land grant, or in the area for water, or anything of that kind involving a few pounds we would not complain, but if any material alterations in the proposals were made we would not undertake to go on.

99. Would you accept 320,000 acres of land instead of 640,000 acres? Certainly not.

100. There are several things in the Bill which, I think, require explanation: first, in the interpretation clause you refer to the southern, western, and north-western mining divisions of the Colony of Tasmania; are you aware that there is no such division as the southern division in the proclamation of Sir John Henry Lefroy, as described on page 3? No, I am not aware of it.

101. Are you aware that under the Bill you require these rights over every part of Tasmania excepting the North-eastern and Eastern Districts?—are you aware that you ask for these powers? We don't require them all.

102. Then why did you ask for them? There may be a few discrepancies in the Bill, such as the inclusion of the Southern division, but that is a mistake of the draughtsman.

103. In Clause 4 you ask the right to make and work this railway from "a point in or near Glenora on the Derwent Valley Railway, or some other point on that railway, to some point in or near Zeehan or Dundas, or Queenstown or Gormanston." Can't you define where you will take it to? In view of our operations in ore-buying, we want to run right through. It would be no use trying to buy ore if we can't get it away. We should prefer to build the line to the point where the ore is to be obtained.

104. Would you agree to have the terminus on the West Coast at Dundas? Yes, when we have the right to run to other places as well.

105. But there is already railway communication with these other places? Yes; but they might stop us altogether, by charging exorbitant rates of freight.

106. Would you agree, then, to make the terminus at some point on the Strahan-Zeehan Railway? Yes, we would agree to do that.

107. You have twelve months in which to begin the construction: within what time will you begin the survey? At once, as soon as we get the Bill.

108. Have you any objection to a clause to that purport being put in the Bill? No, none whatever.

109. To commence, say, in two months? No objection whatever.

110. Have you any objection to say in the Bill that at least £2000 shall be expended on the survey during the present summer? None whatever. I expect it will cost us a good deal more than that.

111. As to the renewal of the lease you propose to have from the Government, do you intend it to be a perpetual renewal until forfeiture or purchase? Government will have the right to buy from us in a certain time. We must retain the railway until the Government purchase.

112. Then that will be a perpetual renewal until the line is purchased by the Government? Yes, till the Government purchase on a valuation of the line, the amount not to exceed the cost of construction and five years' profit.

113. Would the Company have any objection to finding the expenses incurred by the Government in the payment of engineers and other officials to inspect the works, examine the plans, and look after the running of the railway? No objection, so long as it is in moderation. We do not want an army of Government inspectors interfering with our works.

114. Now the amount to be paid on the purchase by the Crown—I see it is to be an amount equal to the actual cost of construction work with an amount added equal to five years' profit on such cost of construction: does that mean five years' total profit? On the line being purchased, it is added to it. If at the time the Government think the line is not worth the cost of construction, then a valuation is to be made.

115. But what is the meaning of profit on cost of construction? If the line cost us a million and we return 2 per cent. on that, then the Government would have to buy the line for the sum of one million—unless the line had depreciated in value—and they would pay in addition 2 per cent. on that sum, being the profit that the railway had returned for five years.

116. That would be a million, with 10 per cent. added? Yes.

117. In the cost of construction do you include rolling-stock and equipment? I presume so.

118. Regarding rates and tolls, would you agree that these should be fixed by the Governor in Council? That is provided for in the Bill; we can't go above a certain limit. I think we would agree to that; there would be no difficulty about that.

119. Can you explain the charge of 1s. 6d. per unit for electrical power, or is that a fair rate? Yes, it is a fair limit; they can charge the same at Hillgrove, and there is no complaint.

120. How long do you require for the selection of your land grants? Well, we hope to get the survey through within six or seven months, we shall select immediately afterwards, or, probably, we may select as the survey goes on.

121. In the 158th Clause of the Bill you say, "Immediately on the commencement of any survey for the purposes of the construction of the railway it shall be lawful for the Minister to withdraw from selection all lands along the entire length of such line of railway as shown by such plans for a depth from such line of at least ten miles on each side thereof." For how long is this land to be withdrawn from selection and sale? Simply until we can get the survey through, and the land we require marked out.

122. Will twelve months be enough? Quite long enough; we hope to have it finished before that.

123. You propose paying a royalty of one per cent. on the net value of the minerals obtained on your blocks: what is the meaning you assign to these words? In the case of the Bischoff Mine if they had paid a royalty of one per cent. on the dividends they have paid, they would have paid to Government £15,000 by way of rent instead of between £500 and £600. If the mines throughout the country were developed at one per cent., royalty would certainly come to much more than the rent. We don't pay upon land that is no good for mining.

124. Then this one per cent. is on the profit after obtaining and reducing? Yes.

125. Are you aware that under "The Van Diemen's Land Company's Waratah-Zeehan Railway Act" the royalty is fixed at 2½ per cent. on the gross value of the ore on the ground? I was not aware of that; it is a very large amount and few companies could pay it. I might mention that in Victoria under "The Mining on Private Properties Act," it is one per cent. on the value of the ore raised.

126. Are you aware that in this colony all tributes are on the gross? I have been told so, Sir. I might mention that our objection to paying on the gross is that generally, when opening up a new mine, for a considerable time you are working at a loss, and for all that time we might be paying taxes on a loss.

127. Is it impossible to define the rivers from which you wish to take water? It is not impossible, but it will take five or six months. We have to take the levels of the rivers and the volume of the water and find out the summer supply.

128. Would you be content to take two-fifths of any supply of water flowing? That would want some consideration. I would rather our Engineer should give evidence on it.

129. Can you state how many sluice-heads—we are more used to the term sluice-heads here—you require, or can you give the Committee any information calculated on the basis of the sluice-head? That is a mere matter of calculation. I can work it out for you.

130. Would you be prepared to pay for the water at the same rates as miners have to do under the Mining Acts? In our calculations we provided that we should not have to pay, we have such a lot of other expenses in carrying electricity; we build the line of railway at a loss at once, and if we agreed to this concession we should have to pay for water we might not constantly use.

131. Where do you propose your ore-reduction works should be? Well, we thought about Glenora because of the good coal which could be utilised, but we might get the coal from Glenora or elsewhere and have the works at some convenient spot on the Derwent.

132. There is nothing in the Bill which compels you to have the works on the Derwent—you might go to Macquarie Harbour if you liked? Yes, but we won't go to Macquarie Harbour, because the Bar prevents big ships from going there; we can't go there because we could not get in sufficient supplies of coal or coke.

133. Would it not be cheaper for you to take the coke to some port on the North West Coast than to bring the ore to Hobart? No, I think not; we should get better freights here.

134. You take powers over Macquarie Harbour in the Bill, do you not? We do not require powers over Macquarie Harbour; we could get no water from there.

135. You can construct works at Macquarie Harbour if you like? We do not contemplate it.

136. Then why is it asked for in the Bill? I have not observed it particularly, but there is no objection to its being struck out.

137. If you put up a deposit—I mean a substantial deposit—when would you expect to have it returned? We should not be particular. When the line is completed we shall have to keep a substantial balance in the Colony in any case for ore-buying, and part of it may as well be a deposit.

138. *By Mr. Pillinger.*—I don't see any interpretation clause as to what "Crown lands" means in relation to Clause 79. The land about Zeehan, for instance, is retained as land under lease from the Government? No; but, I think, another clause provides that any land that is leased cannot be taken up by us.

139. Could you not include in the Bill a clause to the effect that your selection of land should be restricted to what we call the unexplored country. By the map I see you come into our occupied country. Would you take any blocks in the unexplored country? I have looked always to the chance of putting farmers on any land worth having.

140. I don't think we could allow you to come into any but the unexplored country (pointing to blocks marked on the plan at the Zeehan and Glenora ends of the railway).—Witness consulted the map, and said there would be no objection to that under fair conditions.

141. Would it be possible for you to leave in the hands of the Governor in Council a list of the five points from which you wish to take water? Yes, within the time I have mentioned, if we could get the 75,000 horse-power from the five points. It has to be subject to the approval of the Minister now.

142. Could you confine it to five points; possibly you could when further information is obtained? Yes, possibly; but the first thing is to get the levels taken and the calculations made. There is plenty of water; the thing is, getting the fall.

143. *To Mr. Lewis.*—You speak in Clause 79 of taking the land blocks on either side of the line of railway, but on the plan blocks are shown on each side of the line. What do you mean by the term on "either side"? Yes, the blocks will be taken on each side of the line alternately, just as shown on the plan; this is to give the Government an equal chance of advantage.

144. That is what I thought, and when I saw the *Mercury* plan I saw that you meant on each side, and that they were right in their idea that you meant both sides of the line? Yes, the blocks will be on both sides of the line, with a Government block between each.

145. *By the Chairman.*—Suppose the Government selected that instead of land grants they would give a small guarantee, would you be agreeable? Yes, very much so, because the one thing is a certainty, and the other is not.

146. You understood that the Colony was not in a position to pay any annual sum? Well, we thought that the Colony would prefer to give land which really was of no value to them, instead of paying £400,000, which is what they would have to pay at 2 per cent. for twenty years.

147. You would consider that for a 1½ per cent. guarantee for twenty years you could knock off more than half the land: what would you knock off all the land for? For about 2 per cent. guarantee we would knock off all the land.

The Committee adjourned until 2:30 P.M.

AFTERNOON SITTING.

CHARLES MYLES OFFICER, JUN., *recalled and examined.*

148. *By Mr. Mulcahy.*—Do you propose to work this railway by electric energy alone? Yes, by electricity alone.

149. Can you give us the names of any specialists who can give evidence as to the results of the working of that class of railway? Yes; our engineer, Mr. Palmer, and the manager of your electric trams, Mr. Parker. We did think we could have got Professor Threlfal from Sydney, and we hoped to have the evidence of Mr. Lee Murray. As regards electric railways they are being worked in several cities of America; a railway is also being constructed over the Rockies, where it is believed that electricity is safer

and more reliable than steam. If we get this Bill, in heavy grades we shall put down a third rail so as to increase the safety of the line.

150. *By Mr. Pillinger.*—On the Abt system? No, we will use a special break by which the train can be absolutely stopped.

151. Have you any knowledge of what the grades will be? Well, electric railways run up grades of 1 in 12, and in California they have 1 in 8 grades. We don't think we shall have any over 1 in 12, then only for a short distance. Most of the grades will not be more than from 1 in 30 to 1 in 40, while the curves have to be the same as for steam power. The curves could be sharper for electricity, as all the stock is lighter, and there is less chance of breaking away. We shall not make sharper curves than we can help, as we want to save wear and tear.

152. Are these curves specified in the Bill? Yes, five chains, but I don't think we shall want five-chain curves.

153. *By Mr. Mulcahy.*—Has your syndicate gone into the matter of the reduction of ores? Yes.

154. Have you any expert evidence at all as to the cost of the method of ore-reduction by electricity? You mean as to the cost at which we shall be able to treat the ore?

155. Yes, or reduce? That is merely a matter of the extent of the works. The works we intend to put up will be capable of reducing 1500 tons of ore a day at least; they will be larger than the Mount Lyell works.

156. Where will you get your ore from? From the mines all over the field. If we have to buy mines, we will get the ore.

JOHN WILLIAM BROWN, *called and examined.*

157. *By Mr. Vivian Butler.*—Your name is John William Brown? Yes.

158. And you are an authorised surveyor under the Survey Department of Tasmania? Yes.

159. You have been employed in Tasmania, how long? Over 38 years, and all the time at my profession.

160. You know, generally, the direction of the proposed line of railway? Yes, I can safely say so. If I may be allowed, I may state I was in the district with the late district surveyor of Fingal in the year 1861. We were camped on the banks of the Florentine, and effected a survey there for a man named Wing at a place called Brickwater Creek. That was the furthest out selection at that time. I afterwards went to the Great Bend of the Gordon over Mount Misery.

161. Can you show us the creek on that map? No, the creek is not shown on this small scale plan.

162. You know the proposed railway is to go from Glenora to the Great Bend of the Gordon? Yes.

163. Then the country that it runs through, what condition will it be in? Well, it is practically unexplored. No man knows much about it.

164. It is inaccessible at the present time? Yes, it is very rough country, and there is no alteration from the time I was there in 1861. The section I surveyed was that furthest out, and it was abandoned a few years afterwards.

165. Have you any information as to the mineral wealth of the country? Yes, there is a large amount of limestone country extending from the Derwent to the Great Bend of the Gordon and down the Gordon. There may be minerals.

166. There would not be likely to be mineral traffic to warrant a railway being built through it? Certainly not.

167. If this proposed railway were built do you think that the traffic likely to be obtained would pay the running expenses of the railway? Oh, no; it could not do so.

168. What is your opinion with reference to the asset value of that country to the Government at the present time? I consider the whole of the country right through to Linda, and taking it right through on a line with the junction of the Collingwood and the Franklin rivers, is of a practically worthless character. Nothing but a railway with something to carry would improve the value of the country. As an asset it is of no value to the country, being practically worthless. There is nothing in it to warrant the construction of a railway from Glenora until you get into the West Coast mineral belt.

169. But a railway going through it would improve it, and it might be of great value to the colony? If the suggested scheme is carried out it will be of incalculable benefit to the colony, but it is very problematical if it will pay.

170. In what way would it prove of value to the country? Well, principally as a traffic carrier of the ores from the mineral fields beyond the country I speak of, also by the establishment of reduction works for ores at some suitable point, which is, I understand, the principal reason for the Company asking these concessions.

171. You know the proposed terms for the land grants. They ask for lots alternately on both sides of the line? Yes.

172. Do you consider that an excessive concession to ask for? I don't think it an excessive concession, because I believe the land to be valueless.

173. Take it this way: what is the price of the waste lands of this country per acre? The waste-lands of Tasmania, such as those referred to, would be sold at ten shillings per acre, as second or third class land.

174. The amount of land the Company would be getting would amount to 640,000 acres? Yes.

175. And, at ten shillings an acre, that would amount to £320,000? Yes.

176. That is, supposing all the land was taken up. Now, assuming the land is not granted to the Company, what percentage of that land would be likely to be selected or taken up under the most favourable circumstances? I have thought that question out, and I think about $2\frac{1}{2}$ per cent. of it. We have the evidence of the surveyors explaining that there are about 20,000 acres of fairly good land in the Russell's Falls Valley, and about 12,000 acres in the direction of Mount Field or in that district, and that would be about $2\frac{1}{2}$ per cent. of the whole area.

177. Well, 640,000 acres at 10s. would come to £320,000, and at $2\frac{1}{2}$ per cent. that would be £16,000; but I understand the Government, under this proposal, take half of the land, so that would be only $2\frac{1}{2}$ per cent. on 320,000 acres?

178. Then they only give the Company £8000? Yes, that would be £8000.

179. And the Government would make an asset of £8000 in the same way? Yes, that is so. Inferior lands under the influence of rapid means of communication or the development of industry become valuable. Take the land in the vicinity of Lefroy, that was almost valueless, but all the land became very valuable after the discovery of the gold, by reason of the fact that the settlers had a market for their products on the spot. Soon after the land was selected people could buy all their requirements on the township almost as cheap as they could in Launceston. Development of this kind always enhances the value of land, and the same thing would no doubt happen here.

180. The Government will, in the event of this Bill passing, own all the land behind the blocks to be marked out on each side of the line. Would all that land become increased in value within a radius of 10 miles from the line? Yes. This proposal would open up all the lands of the upper Derwent and in the vicinity of the different Lakes; the result would be contingent on the making of a market in the vicinity. No doubt it would enhance the value of the land.

181. You have been through there; now what do you think of the water capabilities of the district? Oh, during a recent trip I was 12 weeks on the journey and was camped on a number of the streams, and had an opportunity of judging of their volume and velocity. It struck me that there was enormous water power running absolutely to waste—an enormous water power.

182. It is a fact that this Company ask for 75,000 horse-power of water along the length of their line—would you consider that, in proportion to the water power available that would be an excessive amount? I do not think so. It was the dry season when I crossed the Derwent on the Marlborough Bridge, where the Derwent runs out of Lake St. Clair. It is a magnificent stream of great velocity, nearly 100 feet wide and five feet deep, and much deeper in parts. There is a splendid volume of water. I was camped on the banks for three or four days in the month of March in the dry weather.

183. Have you made any calculation of the number of rivers it would take to give 75,000 horse-power? Yes, you can get that power at the commencement of the line at Russell's Falls.

184. Yes, but how many rivers and of what width and depth would it take to give that horse-power? It would take five rivers 30 feet wide three feet deep, and with a fall of 200 feet to give 75,000 brake horse-power.

185. Do you doubt if this power could be obtained? No, it could be picked up from time to time as required. You could utilise it along the line. The line would cross many of the streams obliquely, so that if it was not in the vicinity of a particular point, you could pick up this power from time to time. It would not take an induction for more than twenty or thirty miles, so that you would be able to do away with friction and loss in that way. They could pick up different powers at different places along the route.

186. If five rivers having the dimensions that you speak of from one point on each would give that amount of power, one river, where the water could be taken from five points, would give the same amount of water-power? Yes, many of the rivers would; but from some of the rivers at one point you could not get it. If the power was taken at 200 ft. you could not do it, but you could utilise the power of this river three or four times over.

187. You were about to mention some of the rivers that could do it? Yes, at the Russell's Falls there is a large body of water that could be supplemented from two or three lakes which are at an enormous elevation. If the source were diverted into any sort of pass or tubes an enormous force could be got. The Dee, the Nive, and the Ouse, together with the Derwent, the Franklin, and the Collingwood. These streams empty into Macquarie Harbour or into the Gordon lower down.

188. A high elevation, would that not give the most power? Yes; there is a lake on the King William range which would give great power. It is evidently the crater of an old volcano. Water could be got from that. The height is 1500 feet for that one source alone. It falls into the Franklin. There is another lake—and a lake practically is a river, when diverted—and it is 700 or 800 feet higher than that.

189. Then you would conclude that in asking for 75,000 horse-power we are asking what is moderate—we are not asking for a monopoly of it? Yes, I should say so. As a fact you can't take the water away: it must go back to its natural channel again: it can't be taken away in a bucket, but must come back to its natural channel after use.

190. You have a knowledge of the mines generally on the West Coast: is it necessary, for the profitable working of these mines, that each should have its own tramway to get ore out with? Yes, they must have a means of transit for the ore. The mines at North-Eastern Dundas would be impossible to work if it were not for the Government Tramway. It would cost £7 or £8 a ton to pack the ore out. I consider that in such a steep, hard country, roads could not be constructed, and, therefore, they must have tramways. I can't see how it would be possible to construct a road at all.

191. All the mines are requiring power? Yes; all are requiring, and all would be glad to take power.

192. Do you know, from your knowledge of electrical power, that it is the cheapest of all power when generated by water? No doubt about it. I have not had personal experience, but from what I have read there can be no question that the electric force or power must be about a quarter the cost of steam. I mean that steam-power would be four times as expensive as electric-power.

193. About how much would it save on the 100? I should say fully 50 per cent., but you would save a much greater amount than that under certain circumstances. For instance, firewood and fuel of all kinds is now becoming a very important question on the Coast. In many instances they particularise in their contracts for firewood that they should supply manuka, that is the only wood on the Coast that is considered valuable for firewood, and it is fast going out. They would not accept myrtle, eucryphia, or leatherwood. The firewood is becoming a most important question on the Coast, and the price has gone up 100 per cent. At Lyell it is £1 a load now for household purposes.

194. Now many of the mines found they could not go on? But for the facilities afforded by a line like this, you would find many of the low-grade ores would have to remain there. They could not be worked.

195. If this Bill were passed, is there anything to prevent companies from generating their own power from the water that is left? I think not. The power that would be granted on this side of the range would not interfere with water power on the other side of Dundas and the Pieman River.

196. Then, taking it altogether, there could be no cheaper mode of generating electrical power than by water? No, and it would be the greatest boon that could be inaugurated.

197. Have you ever known a case where a steam engine and boilers could not be delivered on the mines? In some cases it has been found quite impracticable. Look at the trouble they had at the Comet! If the Government had not made the road they could not have worked.

198. The country at the mines is such that heavy machinery cannot in some cases be delivered? No, it cannot. I saw an illustrated pamphlet recently of American Pelton wheels, which could be delivered in pieces no larger than a horse could carry on its back.

199. Then, the advantage which the Colony would derive would, in your opinion, justify the Government and Parliament in granting the concessions asked for by this Company? Yes, I think it would. To look on the Crown land, at the present time, as an asset is worthless. We want to see something done with it.

200. It is the intention of the Company to erect large ore-reduction works: what effect do you think such operations as that would have? That is the only means by which the Company could make the railway pay, by being large purchasers themselves, and going in for reduction works; these would take a large amount of labour, and being purchasers of ores of all classes, and bringing them to their own works for treatment, the Company would create a large amount of traffic, and this railway would pay.

201. By the lower grade ores being used as fluxes for the other descriptions of ores, would that affect the mines in any way? No doubt about it. There are thousands of tons of ores on the West Coast at the present time that would be put through the furnaces with the richer ores, and then produce splendid results.

202. And as to the owners of mines, would they benefit? Yes, no doubt about it.

203. Would it be a means of keeping these low grade mines going, or would they shut up? There can be no doubt it would keep present mines going, and also set others going that are not in work now.

204. And it would have the effect of creating a large employment for labour which is otherwise not used? Yes, the employment of labour would be enormous.

205. Do you think this Company could make such a railway as this they contemplate pay without the ore-reduction works or some other undertaking? Certainly not; it would be a mad idea.

206. With reference to passenger traffic, do you think it would have the effect, as compared with the water carriage we now have, of making traffic; would that not form an item in the traffic returns? No doubt about it. Between the Coast and Hobart alone nearly all the passenger traffic would go that way, 90 per cent. of it anyway.

207. Suppose the Company erect ore-reduction works of the character they speak of, to reduce, say 1500 tons a day, and suppose they were erected near to Hobart, would that not give an immense employment to labour? Yes, there would be an immense amount of employment for labour, both at the works and on the mines. It would take a large number of mines to supply the works with all the ore they would require.

208. *By Mr. Pillinger.*—Have you any knowledge of the district between Glenora and Mount Lyell? Yes, recently made survey.

209. Did you not survey it? From Bronté and Marlborough to Mount Lyell. I have been up the Gordon. That part of the country I do know, as far as the Franklin and down from the Great Bend some distance.

210. From the Mount Arrowsmith track, for instance, what would be the distance? It is sixty-one miles from Marlborough to Gormanston.

211. Yes, it is 110 miles, but have you no idea of the probable length of the line? I should think this line to Gormanston would be 120 miles. You must get away south to get west.

212. That would be 150 miles to Zeehan? Yes, I suppose it would.

213. You are acquainted with the nature of the country? Yes.

214. Where could selection take place without interfering with the present rights that have been obtained. Suppose the Company had the right to take up Crown lands, where could they take up country without interfering with existing rights? I suppose about Tianna, in the vicinity of Mount Humboldt. That is the only piece of Crown land that would be likely to be selected.

215. Where could a large area of land be selected without taking up land already occupied? I suppose they would come on to the Lake country about Navarre and the Upper Derwent. Then, on the question of alternate blocks, I see one of the first is in the vicinity of Tyenna (referring to the plan), then there is another on the west side of it.

216. Is not the land taken up as far as the Nive, for instance? What of the country west of that?

217. Is that not taken up? No. I thought, when I was there last, I saw a pretty large extent of land; that was taken up at one time, but had been abandoned.

218. Your can't say where you could take it? I think about Tyenna would be the first section, another block we could take, or a series of blocks, on the King William Range.

219. *By Mr. Mulcahy.*—Where is Lake Augusta? It is not shown on the small scale plan.

220. *By Mr. Pillinger.*—Speaking of the ore-reduction works—is it not a fact that fluxes in abundance are to be found in the neighbourhood of the mines at Mount Lyell? Yes, at Mount Lyell, but that is more a copper formation than argentiferous galena. They have discovered fluxes in the immediate vicinity of Mount Lyell.

221. Would it be a profitable transaction to bring ores to reduction works at or near Hobart when there are fluxes in the immediate vicinity of the mines? They would put up their works where they believe it would be most profitable.

222. Would it not be better to bring the bullion from Gormanston than to bring the whole of the rough ore down to Hobart? Circumstances would arrange that.

223. There are two descriptions of reduction-works, I believe? I understood the Company were to put their reduction-works on the Derwent, and that they would buy and treat ores of all kinds.

224. You see it does not look feasible to bring the ores away from the fluxes, when they could erect the works in the vicinity of the fluxes, as the Mount Lyell Company has done? I certainly think they do this in other places.

225. *By Mr. Mulcahy.*—You made an estimate that the amount of good land likely to be selected in this district would be equal to $2\frac{1}{2}$ per cent. of the whole valuation, or £8000. You refer now to agricultural land? Yes, to agricultural land.

226. If it were mineral land, then your calculation would be out of it? The estimate for that is based on the price which Government now puts on second class land.

227. But if it were mineral land your calculation would not hold good? Just so.

228. And if you spoke of mineral land you would put on that a different value? Yes, just so; but, as far as I know, there has never been any minerals discovered there that would warrant a rental of 5s. an acre. I believe some sections were taken up at Mount Field West some time back, but they only paid rent for one year.

229. But if this railway was made would it not develop a mineral country? Yes, I think so.

230. Then, to take it as purely agricultural land is not the right way to value it? I think so, at the present time.

231. We are told this is to be a line of 100 miles in length to connect two points; that it is desirable to connect Glenora, on the Derwent Valley Railway, with some point on the West Coast: what will be the length of the line? I can't say within nine or ten miles. There are difficulties to be met with and overcome. We can't tell the grades, for instance, till after survey, whether they will be 1 in 40 or whether we may have to accept grades of 1 in 15 or 1 in 10. Perhaps that would make a large difference.

232. Well, on the assumption that it could be constructed in 100 miles? It is 100 miles. It is over 120 miles to Mount Lyell. What may lengthen the line is the grades; and then the Humboldt Range is the difficulty, getting round it to the head of the Florentine. After that I look upon the whole country as fairly accessible for an ordinary railway from the valley of the Gordon on to Gormanston. I don't think there is any difficulty in that slip of country at all. I had a good opportunity of looking at that country in going through.

233. We are asked to give so much land for so many miles of railway? Yes. I understand that there will be nine blocks alternate on each side the line.

234. Yes, there is a block to be given for so many miles of railway. If the length of the line is 100 miles there will be 10 blocks; if 200 miles there will be 20 blocks, and so on. Now, what is your estimate of the distance? I can't say exactly. It might be desirable to make it longer in fact, for good reasons. We might be approaching a better mineral field.

CHARLES MYLES OFFICER, JUN., *re-called and examined.*

235. *By Mr. Pillinger.*—Fluxes having been discovered in the neighbourhood of Gormanston by which ores can be reduced, would you think it advisable to erect ore-reducing works there, instead of taking it on to Hobart? The chief objection to smelting up there is the high cost of fuel and coke. We have to carry it over the railway, and at Macquarie Harbour we can only get it in small quantities at a time, as the Bar prevents any but small vessels from coming in. We can get fluxes as near at this end of the line. We can get iron, silica, and lime in abundance, and we can open quarries near here.

236. The country about Gormanston is full of what you mention, and I understand by the new process you don't use so much coke now? Yes, not so much, but we shall want large quantities of coke.

237. Would the cost of coke, then, make a great difference in your ideas as to constructing the works on this side? No, not altogether. We think it would be desirable to have the works near to deep water, that is a great point.

238. What would your reduction works be erected for? For the reduction of all classes of ore.

239. Both from the Zeehan and from the Mount Lyell districts? Yes, there is a great benefit obtained by mixing other ores with dry ores.

240. There is a complete difference in the treatment of the Mount Lyell ores and the galena ores of Zeehan? Yes, there is a difference, but in our works we will be able to test all classes.

241. *By the Chairman.*—Different specific gravity? That depends on the composition of the material.

Committee adjourned until 11 o'clock next day.

THURSDAY, OCTOBER 1, 1896.

(*Mr. Vivian L. Butler appeared for the Promoters.*)

GEORGE ADAM THOMPSON, *called and examined.*

242. *By Mr. Butler.*—What is your name? George Adam Thompson.

243. And what is your profession? I am a prospector.

244. How long have you been a prospector? Over twenty-five years; but for ten or twelve years I have not been prospecting much, excepting on and off.

245. You live near Glenora at present? Yes, near to the Plenty.
246. Do you know the country between Glenora and the West Coast? Yes, I have been over it a good bit.
247. What kind of country is it? It is unexplored, rough, rugged country.
248. Have you been over that part lately? Do you mean from Tienna to the West Coast?
249. Yes? About two years ago I went there, and I was through the Mount Arrowsmith track lately.
250. Do you know the proposed line of railway? Yes, I have seen it.
251. Is that through an accessible country? No; at present it is very inaccessible.
252. If a railway were put through that country do you think it would open it up? That is the only way that I think it could be opened up.
253. What about mineral country between Glenora and the Eldon Bluff—has anything been discovered? No; nothing has been discovered.
254. On the other side there are minerals? Yes; there have been indications of minerals found, but nothing worth while.
255. Suppose this railway were put through, do you think the traffic from the mines on the West Coast would be enough to make it pay? I should not think so.
256. You know the land through which the railway will pass—what class of land is it, poor or rich? It is poor land. There is a little agricultural land in two places, the Florentine Valley and the Valley of the Russell's Falls—that is all I know of any agricultural land.
257. Do you think that land a valuable asset to the Government at the present time? No; I should think it would be valueless.
258. Would the railway make a difference in value? I should think so.
259. Do you think the Company would reap much advantage in putting the railway through as a railway? I should not think so.
260. On which side would any advantage be—would it be to the Company, or to the Government and the country? I should say it would be an advantage to the country.
261. You know the concessions asked for by the Company—blocks of land of ten miles square alternately on both sides of the line: do you consider that an excessive demand? I should not think so.
262. There is the land (referring to map), the railway would cost about One Million Pounds or more, do you think these blocks of land anything like an equivalent for the expenditure of a Million Pounds? I should not think so.
263. Are you competent to give an opinion? I should think so.
264. What is the price of waste land of this class now? About 10s. an acre.
265. Suppose the railway were an accomplished fact, how much land would be taken up by selectors, I mean agricultural land? Oh, possibly up to 20,000 acres. It is all reported on by Mr. Frodsham in his report on the Florentine country.
266. Then, suppose this land represented in the blocks was given to the Railway Company, would that enhance the value of the adjoining blocks belonging to the Government, I mean the adjoining alternate blocks which the Government would have? Oh yes, the railway would, of course.
267. Then the Government, by giving away the land they are asked to give, would be creating an asset of equivalent value to be held by the public? Yes, I think so.
268. Would the railway be likely to improve the value of the lands behind the blocks, I mean behind the ten miles; suppose you were to get No. 2, would the railway increase the value of the land to the south of it? Yes, I should think it would, in proportion to the distance.
269. When you went through that country what time of the year was it? In January.
270. That would be a fair time of the year? Yes.
271. Did you notice the rivers and the water supply? Oh, yes, there is a large supply of water.
272. This Company, you know, is asking for 75,000 horse-power to be taken from different rivers within 30 miles of the line of railway—you are not competent, perhaps, to speak of the fall or of the horse-power? No, I don't understand it.
273. Do you know the character of the rivers—the Dee, the Derwent, the Franklin, the Collingwood, the Gordon, and the Denison, or Russell's Falls River?—do you know all these rivers? Yes, I know them.
274. Are they large rivers? Well, the Dee is not such a large river.
275. Is there much fall in them? Yes, there is a large amount of fall in that.
276. How broad and how deep could you estimate their waters were when you were there? Well, I could not give an idea.
277. *By Mr. Mulcahy.*—You know a head of water—you know what it is? I could not say how many heads of water there may be, but I know that to take a head of water out of one of these large streams you would not notice it.
278. *By Mr. Butler.*—What is it you understand by a head? I mean a sluice 16 inches by 1 inch.
279. Could you tell us that in gallons? No, I could not tell it in gallons.
280. Besides these rivers named, are there many other streams, lakes, lagoons, and other water-courses in the district? Yes, there is the Lodden and the Jane Rivers.
281. What would you say generally of the water supply of the district through which this railway is to be made? I should say it was a very large supply.
282. Do you know the West Coast mines at all? Yes, I know them.
283. Do you know their working—would it be advantageous to the mines to have tramways running, worked by electricity, from the mines to a railway or other means of communication with markets for ore? Yes, a great advantage.
284. Have you any knowledge of electricity as a motive power? No, I have not.
285. On the West Coast, do you know if the timber question is becoming an anxious subject with mining managers? Not particularly, that I have heard of.
286. I mean the firewood question? No, not particularly.

287. Do you know the position and situation of any of the mines on the West Coast? Yes, I know the Mount Lyell Mine and the mines at Zeehan and Dundas.

288. In the case of some of these mines, could machinery, such as engines, boilers, and so forth, be cheaply taken up to their works? Oh no, before you could do that roads would have to be made.

289. Then it would be expensive to get machinery there? Yes, especially in some parts.

290. Though you are not an electrician, if this Company was in a position to supply motive power to many of the mines would it be an advantage? Yes, decidedly.

291. Now you have stated, I think, that in your opinion the traffic between Hobart and the West Coast would not be sufficient at the present time to pay a railway if it had only to look to the mines for that traffic? No, I think it would not.

292. Suppose the Company propose to erect large ore-reduction works at this end of the line, would that be a means of profit to them? I should think so.

293. I will go further. Do you think if such works were erected at this end of the line they would employ the surplus labour of the Colony? Yes, I think so.

294. Supposing a large amount of ore had to be brought to the works from the mines, in addition to the men employed at those works in reducing the ore, there would be a large number employed at the other end in getting the ore out, would there not? Yes, there would.

295. *By Mr. Pillinger.*—You have been a farmer, have you not? Yes.

296. What quantity of good agricultural land have you yourself seen in this district that you would have been inclined, as a farmer, to take up,—I mean about the Florentine Valley? I have not been through the Florentine Valley. I was at the head of the valley where the good land is; and I could see there was a large valley, from the ranges, but I have not passed right down. I have been in to the head of the agricultural land, but I have not been far down the valley. You know Mr. Frodsham went there, and made a report about it.

297. Then you could not make an estimate yourself? No, I could not.

298. Do you think, suppose this railway will pass the Rasselas Valley, that it is the best route? Yes. I have been over the proposed line, and I should think it would go there.

299. What rivers would be passed by it which could be made available for power? Well, there would be the Florentine, the Gordon, the Lodden, and on till you come to the Franklin, the Collingwood, and the King.

300. Have you seen the Gordon in the dry season? Yes.

301. Is it a large river? Yes, from 90 to 100 feet across.

302. You have seen all these rivers in the dry season? Yes.

303. What is the Franklin like? Well, the river, I suppose, is something over a chain across.

304. Is it always running in the dry season? Yes, there is a good body of water. There is a lot of water in what, I think, is named the Collingwood; the Franklin is not so good as that.

305. The Collingwood you say—what is that like? Oh, the Collingwood is a big stream; it is larger than the Franklin, with more water and a rapid river. Then passing that I think you come to the King River.

306. There are several small streams are there not—the Nelson, the Cardigan, and other rivers? Yes.

307. All permanent streams? Yes, all permanent streams.

308. Then, what about the King River? There is a great amount of water in the King.

309. That is a heavy river? Yes, it is a very large river.

310. Have you been successful at all in prospecting for minerals in that unexplored country? No, I have not; the country is all so inaccessible that we have really very little time for prospecting—you run out of provisions and have to go back for another supply. There is not more than a quarter of the time available for prospecting.

311. But you have found minerals in that country? Yes.

312. In many parts? Yes, in many parts we have found gold, and I have had traces of silver.

313. Is there any other information you would like to give which might be useful to the Committee? No, I know of nothing that would be of use to you.

314. *By Mr. Barrett.*—Can you tell us if the country through there is densely timbered? Not all of it. About Russell's Falls, the Florentine, and the King William Range it is pretty heavily timbered.

315. Would you say that they could get good splitting timber in certain places? Yes.

316. You could split palings and posts and rails and so forth—is there any amount of it there? Yes, in the neighbourhood of the Florentine and Russell's Falls Rivers. It is heavily timbered there.

317. It would not put the Company to any expense for timber; they could saw it near to the line and would not have far to carry it? Yes, they would have far to carry it, in some cases as much as twenty miles.

318. How far would they have to come to get timber for the smelters? That depends upon where they erect the smelters. Suppose they erect the smelters at Glenora they would have to go a long distance to bring timber.

319. But they want a water frontage, you know: how far would that be to get timber? About 15 or 16 miles.

320. At Zeehan, I believe, there is any amount of mining timber—it means simply that if wanted at certain points it must be carted? Yes, there is any amount of it.

321. Would it not be a good asset to the railway carrying timber for mining and building purposes? Yes, I should think it would.

322. What is the timber composed of—stringy bark and gum? Yes, stringy bark, gum, and pine.

323. Is there much pine there? Yes, there is a good deal on the Gordon and the King Rivers.

324. And at the Great Bend, is there not pine there? No pine at the Great Bend; there is some about the King William Range.

325. Has no prospecting been carried on whatever along this proposed line? Here is the map: have there been any holes sunk, or anything done—any prospecting at all? Very little.

326. Then you say there is an unknown country : you could not say whether it is good, bad, or indifferent ; moist or wet, it must be taken on the chance of its being either way—chance there is and chance there is not ? Yes, it is all chance.

327. *By Mr. Lewis.*—Can you show the hills and rivers that cross the proposed route ? Yes, this is the proposed route (refers to map), and the divide in the Florentine and Russell's Falls Valleys ; that is the first difficulty you come across. When you come to the Valley of Rasselas it is all open country till you come to the King William, then there is difficult country in there to contend with ; then from there when you get on to the Lodden the country is not bad to get over till you come on to the divide between the Franklin and the Lodden, then you have difficult country again.

328. Where is Mount Humboldt ? There is Humboldt (pointing to map). The greatest difficulties would be met with about Humboldt and the Lodden ; there are serious difficulties there, but then I don't think they are insurmountable.

329. Does the proposed route go anywhere near the Ouse ? No.

330. Would this railway be likely to be of any advantage to the people around Hamilton, the Ouse, or the Dee ? To do that it would have to go by Marlborough.

331. Would the route shown on the chart be of any use to the people of Hamilton and the Ouse ? No.

332. Can you at the present time take up Crown Land between Tyenna and Zeehan by paying 10s. an acre ? You can't select it at that price.

333. Could you select it at £1 an acre ? Yes, you could select it at £1 an acre.

334. The whole of that country is open to selection between Tyenna and Zeehan ? Yes, except about the Mount Lyell Mine ; when you come there you can't select.

335. And any person could now go and select and apply for land for £1 an acre ? Yes.

336. Is there any more land available between Tyenna and the King River ? Yes.

337. Does that mean going anywhere near the Eldon Bluff ? No, this does not.

338. Anywhere near Lake Augusta ? I have never been through there.

339. Can a strip of land twenty miles wide along this proposed route be withdrawn from selection and from mining and prospecting between Tyenna and Zeehan for an indefinite time, without interfering with the prospecting of that country ? No, because you could not prospect it at present. It would, of course, interfere with prospecting.

340. Would it interfere with prospectors who would be likely to go out in the best few summer months ? I don't think, with the present means of transit, that prospectors would be likely to go out. It is difficult to get companies to send men out, and it is too expensive for them to go out on their own account.

341. *By Mr. Mulcahy.*—How many times have you crossed from the east to the west side of the Island ? Six or seven times.

342. You know the Lake country and rivers, of course—do you know the river that goes to the Cataract at Launceston ? I know the lower end of it.

343. And I suppose you have an idea of your own as to the amount of water coming down there as compared with some of the other rivers ? Yes.

344. If I ask you is there as much water in the Gordon as in the Cataract River, what would you say ? There is five times as much.

345. Where are you speaking of ? I mean at the junction below the Great Bend at the gorge.

346. Is there much of a fall there ? Oh, yes, it is very rapid there ; it is a quick-running stream along the Rasselas Valley. It is sluggish, but lower down it runs rapidly.

347. And you say the volume of water would be five times as much as in the South Esk, running into Launceston ? Yes.

348. Do you know any other rivers you could compare with it ? Yes, the Collingwood is larger than that, and the King River much larger than that again.

349. Can you give us any idea as to how many rivers there are between Glenora and Mount Lyell with as much water flowing in them as flows in the South Esk at its entrance into Launceston ? Yes, there are four—the Gordon, the Florentine, the Collingwood, and the King.

350. Comparatively speaking, what quantity of water would there be in the Nive and the Dee ? The Nive is nearly as large as the South Esk, I should say quite as large.

351. Is that a rapid river ? Yes, it is a rapid river, but I have only seen it at one place ; I don't know about it higher up.

352. Have you seen much of the Lakes ? Yes, especially Lake Echo and Lake St. Clair.

353. Would it be possible to tap the Lakes so as to get a quantity of water from them ? I should think so.

354. I believe you profess to be able to find a much shorter route to the West Coast from Hobart than has been previously taken ? Yes.

355. Will that route correspond with the proposed railway line ? Yes, very nearly.

356. Is that route as practicable for making a railway ? Quite as practicable as the other—the Mount Arrowsmith route.

357. Do you know any other prospectors who know this country ? Yes.

358. Can you select any person who could give us an idea of the amount of water in the rivers you have been speaking of yourself ? Yes, I know a young chap who has been there, a chap named Marriott.

359. *By Mr. Butler.*—You were asked what ranges the proposed line would cross, or what ranges the railway would go into—would there be any difficulty about Mount Field ? Yes, that is the great difficulty—that is the Humboldt Divide.

ARTHUR CHARLES PARKER, *examined by Mr. Butler.*

360. Your name is Arthur Charles Parker? Yes.
361. And you are an electrician? Yes.
362. And electrical engineer? Yes.
363. How long have you been engaged in that class of work? About 15 years.
364. Have you read the Great Western Railway Company's Bill? Some of it.
365. Have you read those portions connected with electricity? Yes.
366. Now is a railway of the description proposed a feasible undertaking? Yes.
367. By water-power—I mean the electricity derived from water-power? Oh, yes.
368. Is it a fact that electricity as a motive power is coming more into use every day? Yes.
369. It is recognised as one of the cheap powers of the day? Yes.
370. Do you know of any railways in other parts of the world which are driven by electricity? Yes, I suppose all over the world; in every important country electric railways are now either working or are in course of construction. Under certain circumstances it is the best power.
371. Is there one in the Isle of Man? Yes.
372. Any grades? Yes, there are $3\frac{1}{2}$ miles of 1 in 12.
373. That is steep? Yes.
374. What is the greatest grade you have here? One in 16.
375. What is the Main Line Railway's highest grade? Oh, that is 1 in 40, but that is for locomotives.
376. Now, if this railway was in working order, do you think that the amount of water power asked for by the company, which is 75,000 brake horse-power, would be sufficient to deliver say 1500 tons of ore per diem; to run the railway, and deliver that quantity of ore? Just taking the figures, it seems explained; but before I could answer that question I would want to know what they are going to work.
377. Oh, I want a general answer? The horse-power is more than ample for the railway. You would have power and to spare under a properly arranged plan.
378. What does 75,000 horse-power mean,—is it a large amount? Yes.
379. Do you know what the amount of horse-power used for machinery in Victoria is? No.
380. Then, if this company propose to build ore-reduction works at this end of the line, can ore be reduced by electricity? Yes; it is a great factor now in ore reduction.
381. Do you know of any other place where ore reduction is being carried on by electricity? Yes, Siemens & Halske are erecting 5000 horse-power for the Illawarra Lakes Company. They have contracted for a plant there of from 4000 to 5000 horse-power.
382. Do you know the capital? No, I don't go in for the capital in it, I only know that that firm has got the order for an electric plant for ore reduction. There is another great scheme they are connected with in South Africa for ore reduction in the Transvaal; they transmit electricity for twenty miles. Another company is being formed to use the Zambesi River; that has to be transmitted to the Transvaal. It is feasible to transmit motive power as far as that. Of course, the machinery must be great to do the work, but it is possible to be done.
383. Now, as to the transmission of this power: is it a dangerous thing to meddle with, I mean as far as the public is concerned? The public can't meddle with it if it is properly constructed.
384. Is it much used in the City of London? Yes.
385. And with safety? Yes. I never heard of any accident.
386. You know of the Falls of Niagara Electric Works? Yes; I know they are putting up large works there.
387. Are they distributing works? I can't tell you. I know they are proposing to supply cities at almost any distance.
388. Is the electrical machinery power cheaper than steam machinery power? That all depends on circumstances.
389. Put it this way: suppose you want to use say 100 horse-power, in order to do it, the machinery being steam, how would that compare with an electric motor generating the same amount of power? The motor would have to develop the same transmitted current.
390. Yes—I don't mean as in a mine for winding and hauling? The motor would be cheaper than steam machinery.
391. Is it larger than ordinary steam machinery? No, it is more portable, and more easily handled.
392. Is electricity a good power for distributing? Yes.
393. Better than steam? Oh yes, you can't send steam very far for distribution.
394. I suppose in regard to a steam-engine the boiler is the heaviest article? Yes, I suppose it is, but some of the other parts are also heavy.
395. Would any part of an electrical motor which you have had come to half the weight of a steam boiler, suppose you wanted to take it from one place to another? No, but if you are going to build your boiler on the spot you can make it light enough to move.
396. But if you have got to take your boiler up ready built? Well, if you have, then it would be three times heavier than any large part of the motor.
397. And in an inaccessible country like this you can take electrical machinery where you can't take steam machinery? Well, you can take anything anywhere in these days.
398. But there would be a difference in the cost? Oh, yes, a difference in the cost, of course. The electrical machinery would be the cheaper.
399. You have glanced at the Bill, I mean the electrical portion of it—does the scheme seem a large one? Oh, yes.
400. And it will run into a large amount of money? Yes.
401. Could you give any idea of the amount? Not without the plans, I could not.
402. Would the rolling stock necessary to carry 1500 tons of ore per diem be a heavy item? Yes.

403. Could you give us any idea of the cost of the rolling stock? It would run into a very considerable sum of money and big figures, but you would want to set down the actual proposals to make a calculation.

404. You can use the electrical current as a brake, can you not? Certainly, you can use the electric current as a brake.

405. That would make the traffic safer than with steam, would it not? No, I would not say that it is safer than the brakes they have now, the automatic brakes and the air brakes, but it is equivalent to them.

406. Is there any information you can give the Committee about this Bill that it strikes you you could offer? No, I can't offer any suggestions. The proposal is in a young stage, and I should want to see the plans—the working plans.

407. Have you any idea of the magnitude of the works at Illawarra, or as to how many men are employed? No, I could not say.

408. But a large number of men would be employed? Undoubtedly.

409. Would 1500 tons of ore a day want a large number of men to get it? I can't say. I never had anything to do with that.

410. *By Mr. Pillinger.*—This proposed line of railway is supposed to be 100 miles in length. How many generating stations would be necessary to work it? You could have one generating station, or you could have as many as you like along the line, and then you would have distributing stations.

411. The generating station should be as near the power as possible, should it not? Well, as you would have distributing stations along the line, that would not matter much.

412. Could it not be worked more economically by having more generating stations than one? Yes, it would prevent leakage and keep the pressure up along the line. If you were going to have one generating station only, then you would have to transform down to make safe currents for working. The stations where this is done are called distributing stations.

413. How many generating stations would you recommend for a line running trains at 15 miles an hour with a load of 4 tons on each axle over a few grades of 1 in 15 as will have to be done by this electric railway? It is a hard job to say. One would have to calculate the number of trains running, and which parts of the line they would be at at the one time.

414. Could you say? I should not like to say.

415. But the more generating stations there are the more economically it could be worked? Yes, or the more distributing stations.

416. *By Mr. Lewis.*—Do you know of a section on the Canadian and Pacific Railway said to be worked by electric-power? No.

417. Have you been over that line? No.

418. If there was such a section would you have been likely to have heard or read of it in the course of your reading or study? I might have seen it and taken no notice of it.

419. With grades of 1 in 16 at what speed could you run an electric railway? That depends on the train and the amount of power.

420. For a line with 1 in 16 grades in a distance of 100 miles, would that average 15 miles an hour with four tons on an axle? Oh, yes. The whole plant of machinery would, of course, have to be put down in accordance with the work to be done, and with that horse-power I can't see what is to stop them from doing it. It would be big work to work out the machinery and plant wanted, but there is no difficulty that could not be overcome.

421. You mentioned some railways with grades of 1 in 12—do you know the speed they run at? With grades of 1 in 12 they go at 9 miles an hour.

422. Can an ordinary steam locomotive and carriages run over an electric railway? Well, if the grades are not too steep for them. Of course, the permanent way would have to be the same.

423. *By Mr. Mulcahy.*—You could not give an idea of the quantity of water required to generate 75,000 horse-power? No, I could not.

424. Will there be much lost in the transmission of energy if it has to go on a line of 100 miles in length? There would be if you had not feeders on.

425. But if you had several generating stations would there not be a great reduction in the cost of electricity? Yes.

426. Would it be cheaper to construct more generating stations? That I answer practically in the same way. Generating or distributing stations would not waste it.

427. Is the initial cost of generating stations much more or less than the initial cost of distributing stations? No, they are pretty well the same.

428. Do you want water-power for distributing? We do not—we use the electrical power.

429. You don't know anything about the nature of the country through which this line will pass? No.

430. Then as an expert you say, that assuming 75,000 horse-power available, all that railway work and the ore-reduction works can be carried out? No doubt about it.

431. And they can do an enormous amount of work? Oh, yes.

432. *By Mr. Pillinger.*—What horse-power are you using on the tramways? Well, we have a plant for 600 now, but we don't use more than 100 horse-power, on an average, every day.

433. *By the Chairman.*—If it was your intention to supply electricity to the mines, I suppose you would have one or half-a-dozen generating stations? Not necessarily; you could have it all from one generating station.

434. Which would you prefer? That depends on the nature of the work and that sort of thing.

435. *By Mr. Mulcahy.*—What is the difference between brake horse-power and ordinary horse-power? That is the nominal horse-power or theoretical horse-power, which is 33,000 lbs. lifted one foot in one minute of time. Brake horse-power is the power which you actually get from the machinery, or in the engine.

436. Is that the same—what would it lift? The same; it is the effective work which is got out of the machinery. The effective horse-power is generally double the nominal horse-power.

436A. Then brake horse-power is effective horse-power? Yes, the effective horse-power.

437. And if you put it at nominal horse-power it would be about half this? Yes.
438. In steam-engines is this similar? Yes, it is practically the same. In giving the electric horse-power you test it with a brake, and in this case you get more power than you find by your figures.
439. *By Mr. N. J. Brown.*—There is a provision in Clause 97 of the Bill, "Provided that nothing herein contained shall abrogate any existing rights vested in any person or persons to take, divert and appropriate any water from any such river:" from your knowledge of electrical works would there be any objection, from a Promoter's point of view, to add these words—"nor prevent any person from taking and using water from the same source, either above or below the intake used by the Promoters." The protection extended to the Company would not be interfered with in any way, but there is a great deal of misapprehension in the minds of the people as to the character of the water-power sought for, which it would be well to allay—would the insertion of such words interfere with the Company? I don't think so. I don't see why it should interfere with them in the least, not if they have to return the water to the stream, if it is returned to the same source.
440. It would not be detrimental to the interests of the Company? Oh, no.
441. That would leave the rivers or streams, or the general water supply, absolutely free to everyone so long as the Company, having received what they require, return it into the river or stream? Yes, I see no objection to that. You give the public the same privileges as the Promoters have.
442. Yes, after the Promoters are provided with what they want. You see no objection? No, I see no objection to that.

ROBERT MACKENZIE JOHNSTON, *called and examined.*

443. *By Mr. Butler.*—Your name is Robert Mackenzie Johnston? Yes.
444. Government Statistician of Tasmania? Yes.
445. You see the map alongside of you there? I do.
446. Do you know that certain persons are asking power from Parliament to build a railway from Glenora or some point on the Derwent Valley Railway to the West Coast? Yes.
447. Have you read the Bill? No, I have not. I only got it to-day.
448. Do you know the character of the country between Glenora and the West Coast, where it is shown on the map that land is to be taken? Yes, I know the general character from the observations of others, and also a good deal from observations made on my own part at different times.
449. What is the country like? It is much the same kind of country from East to West as you would find in travelling from Dundas to Heemskirk. The older rocks, in which the valuable metals so richly abound, form a broad strip from 50 to 60 miles wide, bordering the western and southern sea-board between Cape Grim in the north and Mount La Perouse in the south.
450. On the eastern or western side? The western.
451. Is that country of any use for agricultural purposes? There might be in certain valleys running north and south a limited amount of land, which would be, after the timber was cleared off, good for agriculture, but it would be very limited in extent.
452. Now, as to the mineral wealth there, is anything known about it, this side more particularly? On the southern side there is great promise of minerals being discovered, but little has been done. The country wants to be opened up before anyone could determine what it would be. You would be likely to find minerals in all the metalliferous zones of the older rocks, but prospectors cannot go out. All their supplies would soon be exhausted, and there are no tracks or depôts. It will never be done till there are depôts established for supplies as a base of operations. Till these are provided we never shall have any knowledge of what valuable minerals there are.
453. Then the country has not been explored? No.
454. And as to minerals, that is problematical? That is so.
455. What is the value of the land at present to Government for selection purposes? It is worth nothing till you open it up. It would be a loss to anyone at present to take up land there. It could not be from a commercial view that anyone would do so.
456. Either for minerals or for agriculture? For any purpose whatever.
457. Presuming that a railway was put through, would that enhance the value of the land? It would in that way. If there was anything of value there, it would greatly enhance its value.
458. Would the construction of such a railway be an advantage to the Colony in any way? It would be a great advantage to the Colony. Whether it would be an advantage to those who had to construct and work it would be another thing; but it would be a great advantage to the Colony.
459. The cost would be about a million pounds as a railway. Can you say what proportion of that would filter into the Treasury from the expenditure of so much money? There are two ways of looking at that. If the capital expenditure came in the nature of loans from abroad, it would have to come in the shape of articles paying duty through the Customs: it would not come in the shape of money. In that case about 25 per cent. of the imports would come to the Treasury in the shape of Customs duties in the course of the expenditure. We might fairly anticipate that the revenue would benefit to the extent of about one-fourth of the million. Another way of looking at it is this: if any kind of work or enterprise whatever causes a buoyancy in trade and industry, which the expenditure of a large amount of money in work would do, it would just cause the difference between a depressed year and a boom year; and that would make a difference of £100,000 more to the Customs revenue for that year.
460. In addition to the 25 per cent.? No, not in addition. The difference between a depressed year and a boom year, in which progress is made in trade and industry, represents a difference of £100,000 to the revenue of the Colony.
461. And do you think the construction of the railway would give us a boom year? The expenditure of a million of money would be a great thing, and during the course of the construction of the line it might cause something like a boom year.

462. It is the intention of this Company to erect ore-reduction works, which would employ another large amount of money and a large number of men—might that assist to bring up the revenue of the Colony? Certainly.

463. Suppose, for instance, we take as a basis of calculation the Mount Lyell smelters, and we find that 1000 men are employed at the ore-reduction works, would not the same number of men be required to mine for the ore? Yes, the money paid to that 1000 men would add to the revenue of the Colony.

464. Yes, in what proportion? Certainly, it would multiply the number of consumers. Those men with their families would mean about 3000 persons added to the community and that would mean £6000 a year in Customs revenue. That would probably mean £9000 in a boom year, but at all events in the first year it would be an addition of £6000 to the revenue if 1000 men were added to the population in any year whatever.

465. You have overlooked the force of my question. Supposing 1000 men were employed at the ore-reduction works in the Derwent Valley, would not a corresponding number of men be engaged at the other end of the line mining for the ore? I can't say; I have no experience of the number that would be engaged. You say there would be 2000, then about three times the number of persons would be introduced to the Colony. That would mean three times the number of individuals, or 9000 people, and that would mean from £18,000 to £27,000 a year additional customs revenue from articles of ordinary consumption.

466. Now there is the question as to the land grants, and the area the Company asks for is 640,000 acres. I believe for second-class Crown land now the upset price is 10s. an acre? Yes.

467. That would make the value of the land asked for £320,000. Do you think, to the best of your opinion, that in getting 640,000 acres the Company are receiving the equivalent of £320,000? The land without being opened out and explored is worth nothing: if any person improves that land by cultivating fields, or working in any other ready way by which industry may be established and people employed, I look at it in this way—that any person who does so deserves a bonus, rather than having to pay. Any person who opens that land up and makes it possible to cultivate it or for metals to be yielded from it is deserving of every consideration; of course the price is a very small matter to base any calculation upon, it is merely the primal value of the land calculated at 10s. an acre.

468. Now, assuming that the land was not granted to this Company, and assuming other terms were agreed on for the construction of the railway, how much of this land do you think would be selected? I have very little idea of the quantity that might be selected, but I should think that until the land was in some way opened up, none of it would be selected.

469. Well, the railway being put there, then it is your opinion that it would much enhance the value of the surrounding land? It is bound to do so.

470. Then this Company would be creating a valuable asset for the Government by putting the railway there? Yes, this or any other company.

471. Do you know anything of the water supply within a distance of thirty miles of that red line on the map? I only know in a general way; but as to the body of water, I never made any calculation.

472. Is it not large? Yes, very large; the rainfall is very great in that region.

473. Is it being made use of? Not at all; no person can use it at present.

474. This Company is asking for 75,000 horse-power: have you any knowledge of hydraulics or of horse-power? I have sufficient knowledge to answer your questions.

475. Well, is that a large amount of horse-power to take in that part of the country? No, nobody would take any portion of it away.

476. Now, the water goes back again into the stream: do you think 75,000 horse-power a large amount for them to take? It is a small power for them to be using, but which does not rob the country of anything. You would not expend the potential power of a river by using a small portion of it; that is by the utilisation of gravity. It is merely using a portion of the force of gravity now going to waste. To use that would be so trifling a thing, it would never be missed; the balance that would not be used for any other purpose would still have to run to waste.

477. Then do you think this Company should be encouraged to erect generating stations on this line, and so forth? If by such means you can open up the country it would certainly be a great advantage to the country.

478. Can you see any injury that such concessions would be likely to do to any persons wishing to go to this portion of the country? No, not more than any ordinary mill-wheel would do to any river. The water is simply used and returned.

479. The power is not taken away? No, the power is not taken away.

480. Can't you use the same power at some other point and transmit it? Yes, of course, at any point you can conserve it at. Power can be transmitted 400 miles or more; it would be immaterial to them where they take it from, but I should say they would make it convenient for the erection of the works.

481. Do you know the rivers running through this country—the Nive, the Upper Derwent, the Franklin, the Collingwood, the Gordon, the Denison or Russell's Falls River, and the Dee—do you know them? I have traversed them at various points.

482. What sort of rivers are they? From the same area of country the rivers towards the east have not the same amount of water as those from the west of Lake St. Clair. The eastern portion of the great plateau has a smaller rainfall; the greatest rainfall is towards the west.

483. Can you give us an idea as to how large these rivers are? The Gordon and Pieman, with their tributaries, have, in my opinion, a larger discharge than any of the eastern rivers.

484. You have read this Great Western Railway Bill, have you not? Yes, I have read some of it.

485. Do you think there is a sufficiency of water power to carry the electrical power needed and to spare? Yes.

486. What does the 75,000 horse-power mean—is it a large power? It is a large power, but certainly not incommensurate with the water I believe is available.

487. *By Mr. Butler.*—Do you know anything about the ore-reduction works this Company proposes to erect? No, I do not.

488. Do you know whether there is the necessary fluxes for the reduction of these ores? I believe they can be obtained. I am not an expert in this matter, but I believe they can be secured. From what I can hear, the water-power, sufficient for electrical purposes, is running to waste.

489. *By Mr. Mulcahy.*—You don't think that taking 75,000 horse-power from those rivers would be any injury to anyone? No, it is simply the application of power that would run to waste. Beyond that any person would be able to get any amount of power they would want.

490. It would be impossible to get any approximate return regarding the water-power available at the other side of the line? No. You could only rob any person by excluding that person from a large portion of the river. If you excluded anybody from using that water who had a right to use it that would be a great injury, but if the Company only want to avail themselves of the energy, then it could do no injury to anybody at all.

491. Do you think the concession should be confined and limited to certain points on these rivers rather than that they should have a large area over which they can take water? If they have the power to utilise these streams at any point they choose, that point being fixed, it would be fair, because the power to utilise the water would not interfere with the people at any other point.

492. Would you give the Company the right of first choice to the fall or power? Yes, at specific points. Of course at particular points of rivers such as falls, where there is every condition of power, it would be an advantage to them to utilise that particular spot.

493. You know the Russell's Falls? I do.

494. Do you think it would be desirable to part with the water-power on these falls to any syndicate? If there were any purpose to serve, that might be a consideration. If the use made of the power is to be one valuable to the country, it would be better that some person should be allowed to use it than that it should run to waste.

495. Don't you think that the Russell's Falls might be used by-and-by for the supply of this city with electric energy for lighting and with water? It is quite possible; I could not say.

496. *By Mr. N. J. Brown.*—Suppose it is the case that the Russell's Falls River may be looked on as likely to be available in the future for certain purposes, would the use of that water for those purposes be materially interfered with by allowing this Company to use the water for this purpose? If it were contemplated that the people of Hobart sought in the future to avail themselves of this place for a water supply, it would be a loss to Hobart for any person else to preclude them.

497. I don't say preclude, but to use the power and return the water to the stream for use, if required, by the people of Hobart or by anyone else? That would not affect the water supply of Hobart. I imagined that the city might want this particular power to generate electrical power, but I thought you meant to supply water to Hobart.

498. I meant both? In the one case it would not affect the water supply of Hobart, but if you want to use these particular falls for lighting purposes that would be an injury to Hobart.

499. *By the Chairman.*—Assuming, for argument's sake, that the company did utilise this power, would there be plenty of water elsewhere to generate electricity for lighting work for Hobart? I think so.

500. Then you only mean as to that particular point? Yes, I refer to that spot.

501. But there are plenty of other places where water-power could be obtained for electric lighting? Hundreds of other places, now you can transmit electric power so easily.

502. Are they as handy to Hobart as the Styx? In the Plenty; you could not be better supplied for that purpose than at the Plenty.

AFTERNOON SITTING.

WALTER HARCOURT PALMER, *called and examined.*

503. *By Mr. Butler.*—Your name is Walter Harcourt Palmer? Yes.

504. And your profession? I am a Civil Engineer and Authorised Surveyor.

505. You are in the employment of the company which is proposing to put a railway to the West Coast? Yes.

506. As their Engineer? Yes.

507. Has that Company got any amount of capital, or is it a small company—is it a syndicate? No, it is a company.

508. Have they any amount of capital to carry out the undertaking? Yes, the Company includes some of the richest men in Victoria and New South Wales.

509. Financially a substantial Company? Oh, yes.

510. Has this Company made any enquiries as to the feasibility and practicability of putting a railway through from Glenora to the West Coast? Yes, they have made every enquiry, and I have had notes of information handed to me by them extending over the last two years.

511. Have they spent any, and what amount of money in enquiries and in getting information? Yes, they must have spent a considerable amount of money.

512. Can't you say what amount? No, I cannot.

513. Would it be over £1000? Oh, yes. I should say considerably more than that.

514. Are there any reports from surveyors or others who have been employed upon the work? Yes.

515. Where are these reports? In the Melbourne Office.

516. What do they report? That it is a feasible scheme.

517. Are the natural characteristics of the country such as you cannot surmount? There are difficulties, of course, great difficulties, but they can all be surmounted.

518. Will it be an expensive line to construct? Yes, very expensive.

519. What cost is it stated at per mile? I should say about £10,000 a mile, or it may cost more. That seems a fair estimate, but we have not sufficient data to go on yet. It is difficult to suggest an amount

without the whole surveys. I would want to know the amount of earth and other stuff that has to be removed, the number of bridges that have to be constructed, the extent of the water-power works, and consequently the cost of the water-power works. It is a big job.

520. Have you any knowledge of the character of the country there? Yes, I walked through it.

521. What sort of country is it? Unless it is very much developed and improved it is valueless. At the present time it is quite valueless.

522. Do you know if any minerals have been discovered in the extent of the route? I don't know; I believe there was some mining done, but not successfully—nothing payable was found.

523. There are no mines at work at present? No, not till you get to Mount Lyell, when you get into the district where the payable mines are; but in that part of the country the waste land is all taken up under lease under the Mining Acts.

524. This Company proposes running their railway with electric power—have you any knowledge of other railways running with electric power in other parts of the world? Yes; I know of several.

525. Then this is not an experimental scheme? No, electricity is a practical power. The scheme is not experimental in any way.

526. When you passed through the country did you notice the water-supply? Yes.

527. What was it like? The water-supply is unlimited.

528. The Company asks for 75,000 horse-power? Yes.

529. What proportion would that bear to the amount of horse-power available in the district? There are 8 or 10 rivers which would each yield that amount of power. You would take it at several points in the rivers, and take it to a turbine; then you return it and pick it up again and pass it through again. There are quite 8 or 10 rivers that would each give that amount of power.

530. You have read the Bill—does the Company ask a monopoly? No. Of course we would divert it for as short a distance as possible; we then put it through a turbine or Pelton wheel, and then send it back to its natural source.

531. Can other people use the water above or below the Company's intake? Yes, certainly, above or below.

532. Do you know if this scheme is favourably received by the public in any way. Yes. I know that several petitions will be sent in in favour of it.

533. There are petitions in favour of it? Yes.

534. Do you know the rivers on this side of the route,—the Nive, the Franklin, the Collingwood, the Gordon, and others? Yes, I passed them.

535. What is the power that could be obtained from the Russell's Falls River?—is there much power in that river? No, not a great power, because we would have to go to a great deal of expense to get a supply from some of the lakes inland. We should have to bring water to the Russell's Falls to make a supply. In winter time there would be plenty of supply, but in summer it is small, owing to the small catchment area.

536. Have you any idea as to the rainfall on the West Coast? No, but I know it is great. I was told it was 12 feet last year. That is a very heavy rainfall.

537. The Company is asking for 75,000 horse-power, to be obtained within a distance of thirty miles of the railway, and it is then said, when they have taken this 75,000 horse-power, there will be no necessity for them receiving anything further? No, directly the water is taken and the power used we don't touch the water again.

538. Do you, or do you not, lock up an area on each side of the line for any time? No, we don't lock up anything at all. Take the Nive. We can get 200 feet fall in about half a mile; then we take that water, and, having used it, return it into its own bed again. We can't divert it from its natural bed. You may depend we will take the best and cheapest, and the nearest to the line. If we can get it within half a mile, or on the line, so much the better for us.

539. You see the blocks coloured brown on the map? Yes.

540. Do these represent approximately the land which the Company would get if the concessions are granted. I draw your attention to the last block on the left hand side, and the first on the right? Yes, they would get no land there at this south end at Glenora; we don't take land that is now taken up at Glenora, the only portion available would be a small piece on the top of a hill. We should have to go somewhere else for that block. At the west end it is all alienated or leased land, leased for mining purposes and alienated as far as the interpretation of this Bill is concerned.

541. Do you know of similar railways constructed in other Colonies on the land grant system? Yes, they gave 12,000 to the mile in Western Australia for the line I was engineering from Albany to Beverley,—12,000 acres of land for every mile of railway constructed. That would be equal to over nineteen miles square blocks alternate, nearly double the size of our blocks.

542. On both sides, or on one side of the line? Alternately, as this proposal does.

543. Did they get any other concessions from the Government? Yes, a Government guarantee of $2\frac{1}{2}$ per cent. I know the land because I had to survey it, and the guarantee was either 2 or $2\frac{1}{2}$ per cent.

544. Any other railway besides that you know of as constructed on this system? Yes, there is one at Perth it goes from Perth; towards the Murchison, but I don't know how far they have got yet.

545. What concessions does that Company get? The same land grant, and the Government guaranteed the interest: I believe they have been called on to pay it.

546. Were these Bills passed through Parliament in the different colonies? I should suppose so. I don't know how the concessions were granted, but I suppose by Acts of Parliament.

547. Now this Company asks to take the land according to the alternate blocks? Yes.

548. They don't ask to pick or choose? No, they start from one point and have to take every alternate block wherever they come.

549. Then it is a chance whether the land is good or bad, because they must take it as it comes, they can't pick and choose? No, the Government is just as likely as the Company to get good land.

550. A railway being built to the Coast, would that be an advantage to the community at large, and the Colony? I should say it must be.

551. In what way? Well, the connection of the West Coast with the capital city and with the best port must be an advantage to the West Coast, and to people at points along the line, because the creation of traffic means the expenditure of money.

552. You say the cost of the railway will be £10,000 a mile. Are there other works which the Bill provides for? Yes, ore-reduction works, and the supply of electricity to any person or persons who may require it.

553. Where will the ore-reduction works be erected? I expect at Glenora, or if land could be obtained near Hobart, say near the race-course, where we can bring the largest vessels in the world, and where we could have wharves. It would be a great advantage if we could have only one handling, and the ore-reduction works close to the port.

554. Would the site for the ore-reduction works have to be purchased from private persons? Yes, I expect so.

555. Are there several manufactories or other works situated in other colonies where they reduce ores by electricity? Yes. It is done at the Clyde Works, just out of Sydney, at the Newcastle Smelting Works, and they have recently erected large works at Illawarra.

556. And electricity can be successfully used in the reduction of ores? Oh yes, it has been used in France and Germany for several years. Ores are sent to Germany for reduction from this very district.

557. You would notice that the *Mercury* sneers at electricity for ore-reduction? No, I did not take it that way. They said they had never heard of "electric ore." They did not sneer at ore-reduction by electricity.

558. You based your calculations on the number of men employed at the works—Oh, could you explain the process by which electricity is used in ore-reduction? It is the Ashcroft process which is used in ore-reduction. I can't explain it, I would be a rich man if I could. It is a patented process, and of course they have their secrets. They pass currents of electricity through liquids in which the ore is immersed. It chemically acts upon certain metals and separates them from the other materials of which the ore consists.

559. In such a process electric power is necessary? Oh yes, the process would be a failure without electricity—that is the chief factor. The only thing we don't know is the exact voltage and the number of amperes, that is, the amount of electricity that is required to make it successful. That is their secret, and the process is patented, I believe, all over the world.

560. Are there more processes than one? There are more coming out which are supposed to be better, but I think they are only copies with slight improvements; that is what I think from what I have seen of them.

561. Do you know whether suitable fluxes are obtainable on the field for the reduction of the ores obtained there? Yes, in small quantities. You can flux any ores in small quantities. There is a flux company recently started in Melbourne to supply fluxes to the Mount Lyell Company and others. It was said the Mount Lyell Company would require fluxes.

562. The question was asked by the Minister of Lands whether the ore-reduction works should not be on the field, because several fluxes in abundance could be obtained on the field? No, you would not get them in large quantities on the field; I mean from 500 to 600 tons a day.

563. What class of works would this Company erect? What would be their magnitude, or how many tons of ore per diem would you erect works to treat? The maximum would be 3000 tons a day.

564. Is that a large plant? Yes, an enormous plant.

565. That ore would be carried by the Company's own railway, and partly by the Government railway, to the works at this end of the Colony, and the Government railway from Dundas to Zeehan would be supposed to feed it, carrying large quantities of ore from the mines of the future to the Company's line? Yes.

566. Can you tell us the advantage of having the ore-reduction works at this end of the Island in preference to getting the fluxes on the field? You can obtain all the fluxes for any process at this end of the line, whether here or at Glenora, and you would have, of course, the advantage in having it down here of being able to buy salt from the ship's board, instead of carrying it up country; we shall also have coal and coke and some other fluxes at a very different price than we should have to pay if they were carried to the field.

567. Would it be an advantage to have the works near a deep-water anchorage? Where it is safe, undoubtedly.

568. Now, as to your experiences of other places in which the electric current is used for the motive power of railways. Have you been in America? Yes.

569. What did you see there? I saw several railways in America in which the motive power was electricity; in fact, almost every second town you come to has its electric railway or tramway.

570. Do they use it in New Zealand at all for working the mines? Yes, and at Finter's mine Clippers' Creek, they use nothing else.

571. Have you seen it used in the mines in America, and the amount of water the mines put out? Yes, and in Colorado they utilise the waste water from the mines to help them down 1500 feet. They send it down the shaft by pipes to a Pelton wheel, and nearly all the work in the mines is done by the power of waste water.

572. Is electricity a cheap motive power compared with steam? Yes, when you can generate it by water power, and where you can get the constant use of it. It is not cheaper than steam if you only use it once a day. The first cost is heavy, but if you have perpetual use for it it is much cheaper than steam.

573. Is electricity a cheap light for mines? Yes, always.

574. Good for underground work? Yes, very good.

575. In your experience is there any likelihood of there being a demand for electric motive power if you can supply it? Oh, yes, a great demand.

576. You have had a good deal to do with these works? Yes, I put up the Hillgrove and Armidale Electric Works.

577. Are they a success? Yes, a great success.

578. Where do they get the power from? They get it from the Gara River.

579. How much of the water do they take from that river? They take the whole of it.

580. Are there any mines about there? Yes, a great many mines being worked by electricity.

581. There is a fall in the river? Yes, 500 feet.

581A. Is there any objection on the part of the river people to their water being used for water-power? No, they are very pleased with the works. The Company had to conserve the water there, and we are now supplying the land on each side with conserved water, which they otherwise would not have.

582. Does the Company find that the people about there take electric power? Yes, they will do so when the Company can supply it. They have to get more capital now to extend the plant and put up larger conservation works.

583. Is the electric motive power an advantage over steam for small companies? That depends. Of course the primary cost of electrical machinery is much smaller than the primary cost of steam machinery. Then a great advantage is that the parts are smaller and lighter, and you can carry them to almost inaccessible places, where you could not put steam machinery.

584. Is the life of electrical machinery longer than the life of steam machinery? Well, there is no limit, as far as we know, to the life of electrical machinery. Once get it mounted and there is nothing to wear except the bearings. They have all false bearings, so that they are easily renewed for hardly any cost.

585. As to the distance to which the electric current can be sent, do you know of any places where it is sent? Yes, Frankfort-on-Main, where it is sent 108 miles. The city of Rome is now supplied from the Falls of Tivoli, a distance of 28 miles, and Glasgow from the Falls of Clyde, a distance of 23 miles.

586. This 75,000 horse-power which the Company is asking for, will that be sufficient to run the railway and leave anything over to supply consumers? Yes, I think so.

587. It will? Yes.

588. How many tons per day do the Company propose carrying on the railway? An estimated minimum of 1500 tons.

589. And the estimated maximum? From 3500 to 3700 tons.

590. Will that be on one train? Oh no, there may be forty trains a day, but they will be small trains.

591. What is the estimated maximum per train? A train of six carriages—about 70 tons.

592. Now, in your experience of railway construction, do the Government railways compare favourably with companies' railways in other parts of the world? No, they do not. The construction is pretty good in Victoria and New South Wales, but the best-constructed railways and the best trains are the English lines, which are all owned by Companies. The trains and the construction may be quite good enough under Government management, but the best constructed lines are the English, which are all constructed by Companies. They are the most comfortable to travel in, too.

593. Now, as to the water-works necessary to obtain 75,000 horse-power. Would you make any dams or conservation works? Yes, we would conserve the water. If we don't we might run short of power; the water would be collected by dams, and the flow regulated by flood-gates.

594. What is the cost of fluming per mile—do you know if it is expensive? Yes, it is expensive.

595. I want to show the Committee it is to the advantage of the Company to take the water from the nearest point to the line, and then return it—is that the case? Yes, but I don't think the Company would in this case depend on fluming, we will most likely have concrete channels.

596. Is the fluming not suitable? Oh yes, but the volume of water will be so large that it would not do to depend on timber; we must either have concrete channels or iron pipes.

597. Would you use much timber on the railway? Yes.

598. Would Tasmanian timber be suitable? There is none better in the world.

599. I would ask you the number of men estimated to be employed in the ore-reduction works as compared with the number employed at Mount Lyell; what number of men would you employ? The reduction works would be, of course, a great many times larger than those at Mount Lyell.

600. Do you know how many men the Mount Lyell works employ? No—400 I think it is.

601. How many times larger would your ore-reduction works be? A very great many times larger.

602. Would you employ two or three times as many men? Oh, many more. The works would be larger than the Illawarra Works, and they have from 2000 to 3000 men. I should say we should have from 3000 to 4000 men employed at each end.

603. If from 3000 to 4000 men were employed at the reduction works, how many would have to be employed mining for ore? Taking the traffic into consideration, we should want the same number. There are more men at the Mount Lyell Smelting Works than at the other end, because it is a quarry, like the Mount Bischoff mine, and it takes only a few men to break down a large quantity of ore. That is quite different from other mines. In an ordinary mine there would be quite as many men or more engaged in mining as there would be at the ore-reduction works.

604. Of course it would mean the circulation of a large amount of money in the Colony for wages and otherwise? Yes, of course it would.

605. Now as to the charge for electric-power, the Bill provides that the Bill shall not exceed 1s. 6d. per unit—is that the usual price in other places made by companies of this description? I think it is a heavy charge; I think 1s. per unit is quite enough. One shilling is the price fixed at Hillgrove and it pays very well. I think 1s. a unit is fair and quite enough for mining purposes.

606. You know the provision is that it shall not exceed that amount? Yes.

607. And you ask for 1s. 6d. here? I did not see it, but I think 1s. is quite enough for them to charge.

608. I suppose you would be prepared to stand against the competition of other companies in supplying electricity. We would have to.

609. *By Mr. N. J. Brown.*—Do you see any objection to substitute for the large interpretation of "water power," in the interpretation clause, page 4 of the Bill, where the Company proposes as the definition of the word "river" that it shall mean and include rivers, lakes, dams, ponds, lagoons, streams, watercourses, channels, estuaries, canals, or waterways within thirty miles of any point along the proposed

line of railway and so on—would there be any objection to substitute something more definite? I think it might be put that the word "river" shall mean that the Company shall have power to take water power at any one point on any river within thirty miles of the line of railway, but put it that water shall be taken at one point only.

610. Yes; but what I wish is that you should name the rivers? I will show you why we can't, Mr. Brown, at least, at present. There is the Derwent, you see, from which it may be possible to generate the whole of the power we want; we may almost get it at once; we might get the whole of the power we want from that one river. At the Upper Derwent we may get all the power required from one station and distribute it from one station—we don't want to have a number of waterworks in different localities if one will do; it would be better to buy more copper wire and to put up more poles than to put up other waterworks. It is quite easy to distribute power now from any point for 100 miles. There is no occasion to have a number of waterworks if we can get the power from one river.

611. You would require small distributing stations, would you not? Yes, we would require to have transforming stations to transform the power from a high voltage—to transform it down to a useful power.

612. You don't see any probability at present of better defining what a river is? No, we want the power required from any point where it can be had. If we can find it at any one point we will use that one point. We don't want any more, if we can get all our power at that one. Of course, the 75,000 horse-power will be required ultimately; and as we don't know if we can get it all from one stream, we want the power to go further for it. Mr. Surveyor Brown has said, that where the Upper Derwent flows out of Lake St. Clair it is 30 feet wide and 7 feet deep, and running at the rate of six feet a second. That would represent a good deal more than 75,000 horse power. That is stated to be the summer supply coming out of Lake St. Clair. If it is there, and if we can get it, say, by the use of pipes, we would take it, and so get all our power from one point and one generating station. I should say that would save the Company thousands.

613. That one fall would probably give you more than ample power? Well, we have not measured the water, but if it is there we know that we can get it in one mile. If there is a fall of six feet per second we know that we can get all the power we want from that one point, but I assume there may be some mistake about the current. However, if we had to go five miles instead of one for power, we can't use the water, it must go somewhere else. What objection is there, that is the question.

614. *By the Chairman.*—Mr. Brown means, I think, to satisfy the public mind in asking for a more definite interpretation. They think you want to grab all the water? We are not going to take it, we could not use it if we did.

615. *By Mr. N. J. Brown.*—I want Mr. Palmer to understand the matter from the point of view of those who are not interested in the Bill. Their point of view is that the demands made by the Promoters are something enormous, and they object to the large powers sought in this clause, and they want to define more clearly the word "river." Can you, as Engineer of the Company, suggest any way by which you can make it more restricted? Yes, I can.

616. *By the Chairman.*—Think it over and bring your new definition down to-morrow. Would not that be best? You want me, as I understand, to name certain rivers from which we should take water from one point on each, and have two, three, or four generating stations as might be required and approved by the Minister,

617. Yes, we want you to make it something definite? I will do so.

618. *By Mr. Mulcahy.*—You spoke of the intention of the Company to erect very large ore-reduction works? What have you based your estimates on that you would have from 1500 tons of ore a day to treat, or 2000? The same estimate as that for the Newcastle Works; they say if they don't get 1500 tons a day it will not pay, the cost of putting up the works is so great.

619. Where do you expect to get the ore from? From Mount Reid and Tyndall, and all the Zeelan fields as well. There are enormous bodies of low grade ore at Mount Reid and Tyndall, enormous bodies of poor ore which must be treated.

620. Have you any evidence to support that; you say this ore exists, but would it pay for reduction? Well, the Company for which I am engineer have enquired and satisfied themselves on that point. Major Officer could be re-called on that point; he has satisfied himself by experts, and he has satisfied himself by his large experience of mining that there were large quantities of ore available. I am not a mining expert, but I know the Company has taken every possible means for obtaining information on that point.

621. Might it not be locally treated? It is not locally treated at Broken Hill. There it necessitates a journey of several hundred miles by train first, and then it has to be sent 1000 miles to Newcastle by boat.

622. But does it pay to do it? They have had to do it.

623. How many times have you been through this country? Only once.

624. You went over the Linda track? Yes, but I made excursions into other country from the Linda track to see where the divides were, and the general direction, and the height of the divides.

625. *By Mr. Butler.*—Have you been up the Gordon? Yes.

626. Have you explored the Denison River? Yes, but not far.

627. Now on the other side, have you been up to Lake Dora, on the Eldon Range? Yes, that is Mount Tyndall; I have been there several times.

628. You said that the Broken Hill ores are taken first to Adelaide by train, and then to Newcastle by water. Are they not carried by the Silverton trams? Partially, yes.

629. That is a private Company is it not? Yes.

630. How do they earn their profit? By the carriage of ores.

631. Is there not passenger traffic? Yes, it is great.

632. It is a principal item in the returns, is it not? Yes, that and the carriage of ores.

633. The Silverton Railway was constructed by a syndicate? Yes, by a Melbourne syndicate.

634. Is not the Government of New South Wales trying to get back the trade taken away by Adelaide from Broken Hill? Yes, the Government of New South Wales proposes to make a railway from Cobar

to Broken Hill, and then to carry the ore from Broken Hill to Newcastle at 12s. a ton, that means at no profit at all, so as to get the trade back from Adelaide.

635. Has the trade between Silverton and the Broken Hill mines largely helped to develop South Australia,—of course it has? Oh yes, very largely by the traffic. Examine the returns of South Australia to-day, and compare with what they were eight or nine years ago before the Broken Hill mines were in swing, and see the difference.

636. Broken Hill is in New South Wales? Yes.

637. The Government of New South Wales now begins to see the mistake it made in not building a railway to Broken Hill? I do not know. They certainly thought it too expensive a job at the time. It would have wanted a lot of money, and they did not know if they were in a position to do it. They are now going to do it,

638. You think it is a Government work? I do not know. I cannot see how the Government could make it pay at all. They could not go into ore-reduction works, and they could not trade as private companies can. They can only go for passengers and ordinary traffic.

639. Then you think that is too great an undertaking? Yes; I do not think Government should undertake speculative work, but of course that is merely a matter of opinion.

FRIDAY, OCTOBER 2, 1896.

WALTER HARCOURT PALMER, *recalled and examined.*

640. *By Mr. Lewis.*—Do you propose to take water from the River Nive? Yes.

641. Above or below Marlborough Bridge? That is on the Linda track. It will be below that. I could not be quite certain. The principal reason for going to the Nive is the facility which it affords for putting in flood-gates at the mouth of the lake. We want to make certain conservation works at the mouth of the lake.

642. What lake does it come out of? Lake Echo.—Oh, I was thinking of the Dee, not the Nive.—The Nive comes out of the Nineteen Lagoons. It is the Dee that comes out of Lake Echo.

643. What would you do at the Nineteen Lagoons; make a dam? No, there will be nothing done; we are in hopes of natural conservation. It is marshy swampy country, like tracts of sponge. If there is natural conservation we will not require to do anything.

644. How far would the works be from the route of the railway? We shall put them as near as we possibly can get to it.

645. Can you give an estimate within five miles or so as to the distance between the proposed works on the Nive and the proposed route of the railway? Well, the Dee river we would take at about—we will take them river by river—the Dee would be about from 30 to 32 miles; on the Nive I should say about from 17 to 18 miles; it will be less than 20 miles.

646. And you propose to take cables from these works to the railway over poles in a direct line? In a direct line, yes. Of course, I don't mean in an absolutely direct line, but as nearly direct as possible. If there were precipices or any obstacle of that sort, we should have to avoid them.

647. You stated, according to the newspaper reports, when you advocated these concessions being granted, that there are 35 miles of the Canadian Pacific Railway worked by electric power. Can you give us any information on this point? That is the case, but it is in the winter time only.

648. For how many months in the year? I could not tell you; I know it is in the winter only, but I could not tell you for how long.

649. Can you refer me to any work that is at all accessible which would give us some idea as to the working of this portion of that railway? No, I don't know of any such work; I think Mr. Montagu Rhys-Jones mentioned it in his evidence given before the Select Committee on the Australasian Rights Purchase Bill in 1891. I am not sure, but he mentioned several railways on which the work was done by electric power.

650. On the whole of the 35 miles worked by electric power would the rolling stock be interchangeable? Yes; it is of course run by electric motors put on to the ordinary train. You know that at a certain time of the year the line gets blocked with snow; during that time they find that with electricity they can get up full speed so much more quickly that it is a great advantage. With steam power they have to go back some distance so as to get speed to use the snow-ploughs in front of the engines. With electricity they have not to go so far back as with steam. With steam they have to go back about a mile or more to get up a full head of steam; with electricity they can get up full speed in a few hundred yards.

651. How is the electric power generated? I don't know at all, but it is almost sure to be by water-power. It is such a water district, you know. I could not say positively.

652. Can you give us any fuller information about this 35 miles on the Canadian-Pacific route? No, that is all I know about it.

653. Do you know the ruling grade, the steepest grade on this portion of the line? No. The only line I know is the Victoria Electric Tram in Canada. At one point that is 1 in 8 for a short distance. Then they have a third rail for a little distance, where they run on a grade of 1 in 5. That is with the Abt system. The ruling grade on this line is 1 in 12.

654. How many miles is it? I think I can give you an engineering report on it. I have it in my box. I think the line goes 30 miles an hour, but I am not sure of that. It is an enormous speed for the grade.

655. You don't know the length of the line? It is a long line. I should say 25 miles, at any rate. It is a long line.

656. You mentioned the Frankfort Electric Railway: what is the speed on that? That is a railway. I should say the speed was 25 miles an hour.

657. From Frankfort to where? To a little village. It takes about an hour to travel. It is out towards the Lauffen Falls.

658. Do you know when this line was opened for traffic? Yes, before last year, I think.

659. What is the steepest grade on that line? I can't say. I know it is a short grade, and I have been told about its being steep. Now that I come to think, that line was opened for traffic before the time I said. It was opened for traffic by the Lauffen Falls Power Company about 1890 or 1891, when the Frankfort-on-the-Main Exhibition was on.

659A. You don't know the grade? No, I do not, but it is very steep.

660. And the speed is what? I should say 20 miles an hour.

661. As to those ore-reduction works as proposed under your scheme, you have made no provision in the Bill that those shall be in the vicinity of Glenora or Hobart. Is there anything in the Bill to prevent your having them at Zeehan, or at Macquarie Harbour, or anywhere else? I don't know that there is, but it is quite a safe thing to say that the Company would not build this railway line unless they could find work for the line themselves, even if the only work should be to run ores from the mineral fields to deep water.

662. Do you propose to supply any Towns or Corporations with water? No, certainly not, we do not contemplate any water supply at all.

663. Are you prepared to pay any annual rent for the use of the water? No, I don't think the Company anticipated that they would have to pay any rent.

664. Had you anything to do with preparing the notice of your intention to bring in this Bill? No, I was in Melbourne at the time it was done.

665. You cannot, then, inform the Committee as to why no specific notice was given of the intention to apply for the ten square miles of land per mile of railway constructed—the grants of land? No, I do not know.

666. With reference to the Crown Lands that you propose should be granted to you, are you willing to except from your selections all the lands that are now leased? Of course, we can't touch leased land.

667. You say Crown Lands in the Bill? I don't understand it in that way; the intention of the Company is to ask only for lands that are unoccupied. It would be a nice game to take occupied land.

668. You don't mention that in the Bill? It says Crown lands, does it not?

669. Do you ask in this Bill for more than you hope to get? No, I think they should have asked for more. Every other Colony gives more; and the land in Tasmania is very inferior that this line will pass through to the Western Australian land.

670. Do you mean inferior in minerals? We have to pay for the minerals if they are there. There is a royalty. I talk of the land as land. It is inferior in every way to the West Australian land,—inferior in timber and for agricultural purposes; and when we come to the minerals, they have to be paid for by a royalty.

671. As to the royalty, you know that the Bill says one per cent. on the net profit; therefore, I would ask what is the net value? As I understand it, the value of the ore, after deducting the cost of raising. You deduct the cost of raising the ore, and the balance of value is the net.

671A. And also after deducting the cost of bringing it to market? I should say that would not matter. A fair thing is the net value of the ore at the mine. I am instructed that the Company want the net value after the cost of raising is deducted.

672. In your evidence given before the Select Committee on "The Australasian Rights Purchase Bill" the other day, you said, "The Parliamentary Standing Orders are so complex that if you don't ask for about ten times more than you want in your advertisement, you are not sure of much." Do you ask in this Bill for ten times more than you want? The answer quoted refers to what has to appear in the advertisement, not in the Bill; it was an unlimited amount that was intended by the advertisement. I should like to explain. I said before the Select Committee on "The Australasian Rights Purchase Bill" that the requirements of your Standing Orders in reference to advertisements of Private Bills were so broad, that if ten times more than we required was not asked for some Member of Parliament would be bound to find out that something which was asked for was not within the order of leave.

673. *By the Chairman.*—Not within the scope of the advertisement? Yes, that would be it, of course. The wisdom of that is shown by Mr. Lewis saying now that in the case of this Company the land is not asked for in the advertisement.

674. *By Mr. Lewis.*—If the Government should purchase the railway in the interests of the Colony, will they have to purchase the ore-reduction works and all the other works connected with it? I don't know. I think it would be unfair for the Government to purchase the railway and not the other works, or the other works and not the railway. The two might be so inextricably mixed together that they could not fairly be separated. The Government might purchase the railway, and afterwards charge what they liked for the carriage of ores, and so ruin the ore-reduction works.

675. *By Mr. Mulcahy.*—What do you understand by the term royalty? A payment to the Crown.

676. What do you usually understand from the term royalty where money is paid to the Crown? I do not understand. In Victoria it is now paid on the net value of ores raised; it used to be on the gross, but they found that anything on the gross destroyed the poorer mines. Suppose you had put a royalty of one per cent. on the Mount Biscoff mine you would have got about £20,000 instead of the rent you have received—a few hundreds.

677. One per cent. on what? On the net dividends. One per cent. would be a great deal more on the net value of the ore raised, because all the value of the plant would be taken in. You don't deduct the value of the plant in paying one per cent. on the net value of the ore raised, and the royalty would have come at least to £20,000. One per cent. on the Silver Queen yield would come to about £300 per annum.

678. Don't you see that as a minimum you would want to put one per cent. on the profit on the ores? Yes, you can put it that way.

679. You want all this land which at the least is worth a rental of 5s. per acre per annum, and to give only one per cent. on the net value of the ore? (*Answer*)—Why don't you let it? Has it not been open to selection for years and years? Why is it not taken up?

680. I don't want to enter into an argument; I want you to answer my question. I ask you, Mr. Palmer, are you not asking for the right to mine over 640,000 acres of land? I think that what we are asking for is the right to prospect.

681. And to mine over it? Yes.

682. You are asking for the fee simple? Yes.

683. Are you not asking for more than the fee simple? No.

684. Don't you know that the fee simple gives you only the land and not the minerals? I don't know that such is the case. We mine on our own private property in New South Wales without paying for it.

685. You know what I mean? No, I don't. If it is land in fee simple I should say you can mine on the land.

686. I want to see it made clear in the Bill, and desire to know what you really want? They want to pay a royalty on the net proceeds of the mineral lands, an amount of one per cent. on all the net proceeds.

687. Not on the profit? No, not on the profit. They will pay you one per cent. on the amount paid as the net proceeds. They will put up machinery; that is not profit. It is not the dividend we pay on. If we have to put £10,000 worth of machinery there, we have to pay for it, but we pay the Government one per cent. on the net value after deducting the cost of raising the ore. If they were to pay on the gross value of the ore they might be working at a loss, and still all the time the land belonging to the Government would be being raised in value. I am giving this explanation on behalf of the Promoters.

688. You are entering into another question altogether: be good enough to answer my question. I want to know what is meant by this one per cent.? I am trying to explain that if they paid on the gross value they would probably be working at a loss; they would be improving the Government estate and still would have to pay roundly for making it valuable.

689. The effect of your operations on adjoining land has nothing to do with it—what does one per cent. mean? The net value of the ore after deducting the cost of raising.

690. What is meant by the cost of raising? The cost of raising the ore pure and simple.

691. And you would keep an exact account of the cost of raising every ton of ore? Does not every mine manager do so. It is now very unusual for a mine not to know the cost of raising the ore.

692. Do you not intend to pay one per cent. royalty, and not pay one per cent. on the cost of raising—you want to pay one per cent. on the net value of the ore? Yes.

693. As I understand the term royalty, it is a sum paid on the gross value of the ore taken—it is understood so in all our tributing? Any rental paid to the Crown is in reality a royalty—that is only another name for rent.

694. Then it is not one per cent. on the ore raised, but one per cent. on the value of the ore raised minus the cost of raising it? Yes, that is it.

695. It may be practically nothing at all? Of course; but, on the other hand, we may spend thousands of pounds in developing the land and then find it is no good.

696. You know that other syndicates have agreed to pay 2½ per cent. on the gross value of the ore raised? Yes, I know, but they will take very good care not to raise any ore.

697. Do you know that the Waratah and Emu Bay Company does it? Yes, and I know that they will have to stop mining in consequence; it has a bad effect on mineral development.

698. You say you are not one of the Promoters of the Bill? No, not at present.

699. Only the Engineer? Yes, I am only the Engineer. Do you see what 2½ per cent. would mean on the gross. Do you not see it would mean a 2s. 6d. dividend on the Mount Lyell mine. Now, if you were to take a 2s. 6d. dividend from the Mount Lyell there would be no money left.

Mr. Mulcahy.—We know what that means quite well.

Witness.—It means the whole lot, except in an extremely rich mine, there is no doubt about that.

700. Your Company asks the right to mine over 640,000 acres of land without paying any rental; they are to pay no Land Tax, and they ask for immunity from the payment of Stamp Duty? Yes, I believe so.

701. *By Mr. Butler.*—I believe the Company agrees that the water supply shall be restricted to any six rivers to be named in the Bill? Yes.

702. That cuts it down. It will be any six rivers within a distance of thirty miles from the proposed line of railway. When you tap those six rivers anybody else can take what they want? Yes. We don't want the rivers reserved. Anybody who likes may go and take first pick now, and we will take second.

703. Are the Company agreeable to be restricted to 50 per cent. of the power of these rivers, so that anyone else may go and take the rest of the available power? Yes, I believe so.

704. *By Mr. N. J. Brown.*—From your knowledge of the character of the rivers, do you see any objection on the part of the Company to restrict the area in the 30 miles, except so far as the southern end of it is concerned, so that it would be bounded by a line ten or twelve miles east of Dundas, so as to leave the water power of that district for those who already have mines there. That would leave you quite unrestricted as to the south part of the line, but the chain of lakes, of which Lake Dora is one, would be left out, and other watercourses would be untouched by your claim? No, that would compel us to take water from the Derwent River and to pass others more suitable, and that would mean that the power would have to be sent for a long distance.

705. I understood you could send electric power a distance of 100 miles to the line quite easily? So you can, but it means expense; let me see, it would be fifty-five times a hundred, or £5500 for wire, and the same amount for posts, when it is unnecessary. There is more power in those rivers at the head of Dundas, I mean at the head of the Pieman, and from there to the Eldon range, rivers like the Murchison, the Canning, and others, more power than can possibly be used by anybody.

706. What objection could your Company have to being left to deal with the water-power in the rivers I have named in the same way as other persons now do under the Mining Acts—apply for so many sluice-heads? Oh, none. You mean, that in the area 10 miles east of Dundas, if they want the water for

power or any other purpose, they could apply for it under the Mining Acts like any other people. I see no objection to that. It would be a matter of £100 or £200 a year; not a great matter.

707. Then, you see no objection to that being provided for, speaking on behalf of the Company? No, it is just a way of getting a little more rent out of the Company; but there is no harm in the proposal if we can take the water up the same as other people. The Act would then have to be made to apply in this way,—that any water we take up for the purpose of generating electricity from it could be used for power purposes.

708. *By the Chairman.*—You could not take water under the Mining Acts excepting for mining purposes? No.

709. *By Mr. N. J. Brown.*—Do you wish to add anything more on that question? I was just looking at the map. I see that there is a long timber range there, and that there is an incalculable amount of power within ten miles east of Dundas.

710. Well, does that not make it easier for you to work out your scheme. Will you not be able to acquire it under the ordinary laws of the country? No, the ordinary laws of the country do not allow us to acquire it, or we should not be here.

711. You can understand what is required. On the south of the line we do not want any restriction, but the mining people are becoming alarmed, and they want certain restrictions imposed on your use of the water power for their protection? They can go and take it now if they like—they can take it next week. They can take first pick of the water and we will come second; or I will toss up as to who shall have first pick. Why there are a dozen times 75,000 horse power of water running to waste there.

712. You have not fully answered my question: would you like time to answer it? You know there is a considerable amount of alarm on the part of those who have developed the mines in the Districts of Zeehan and Dundas and Mount Lyell, and who object strongly to being deprived of their rights under the ordinary laws of the country? That is impossible then, and the Bill does not contemplate it. We cannot restrict anyone's rights, and have no desire to do so.

713. Yes, but you know there is reasonable alarm, and sometimes simply unreasonable alarm. It will allay all alarm if the Company could see its way to restrict their water-rights to a line ten miles east of Dundas, of which I have spoken. But take time for consideration. I have a few other questions to ask? I think we might do this, Mr. Brown. Let us call Dundas the centre, and say that we should not be allowed to take any water unless under the ordinary Acts beyond a certain radius, and then make the ordinary Acts applicable to this Act. You wish in your area to take in Lake Dora, the Tyndall Range, and all the rivers about there, but you don't need to take in the Eldon, the Nelson, the Collingwood, the Murchison, and other rivers? (Mr. Brown.—I could not say.) We would agree to allow Dundas to be made a centre, and not take any water within a radius of ten miles, the town of Dundas to be the centre.

714. You would be willing to be precluded from taking water in that range excepting under the ordinary Acts? Yes, and then this Act to be made to apply to the ordinary Acts.

715. As to the interchangeability of stock on the line of railway, do you remember what part of the Bill that is in? Yes, in Clauses 33 and 34, I think, under which the Minister may grant running powers over the Government lines.

716. Do you know of any instance in which cars or carriages propelled by electric-power are interchangeable with cars or carriages driven by steam-power, as proposed in the Bill? Is it in the Bill?—I don't think you will find it. If it is, it is a misinterpretation or mis-statement in the Bill.

717. I will put it in another way. Can cars or carriages driven by electric-power run over other lines? Can they be of such a character that they can be run continuously on the Government lines, that is, having been dragged a certain distance by electricity, can they be taken on by steam? Yes. They would be rather heavier as carriages, because every car is a motor car, having its own power in itself, the same as on the trams in Hobart. Of course, you would be pulling all that extra weight, instead of allowing it to pull itself.

718. Then what is the use of the Clause 34—"The Minister may from time to time require the Promoters to enter into an agreement whereby the engines, carriages, wagons, and other vehicles of the Government of Tasmania, and the passengers and goods conveyed thereby, may pass over and along the said railway upon payment by the Minister of such reasonable tolls and compensation for so doing as may be agreed upon?" That means that the Government cars can run over our line.

719. But your cars could not run on the Government lines? They would not be suitable.

720. *By Mr. Mulvahy.*—But you could not run the Government cars on a 1 in 12 grade? No, the grade would block them, but you must understand we are not going to try to get 1 in 12 grades. If we can get them 1 in 50 we shall be much better pleased.

721. Then it is not impossible, although it would be difficult, to get interchangeability in the ordinary sense of the term? I should think with grades such as we may have it would be very expensive, in fact, they could not go unless they rented a motor or motors from us, our motor could take their cars. If they had a load to deliver in Zeehan, they would hire a motor from us; or they could have their own motors ready; they are not expensive to keep. Two or three electric cars would be enough. Of course we anticipate that this Company will be allowed to put an electric line right down to the port of Hobart, and we should only have to pay the Government for the right to run over their portion of the line.

722. What is the steepest grade you propose to adopt? I don't think I should go much below 1 in 10; you can do it, but anything below 1 in 10 is an unsafe grade and requires a third rail. We would need to have that if we went below, and that is an extra expense. A tremendous lot of power has to be used on these high grades.

723. You speak of the Hillgrove and Armidale works, what is the horse-power available there? Well, the full amount of power is 3000 horse-power, and we are using 1000. I think they use about one third of what is available.

724. What is the number of sluice-heads of water, and the fall that produces that power there? Well, it is a 500 ft. fall, the sluice-heads are 2 ft. by 2 ft. 6 in., with a fall of 8 ft. in the mile—that is, the sluice-box is 2 ft. by 2 ft. 6 in., that is, the volume gives a fall of 2 feet per second; 5 ft. by 2 ft. per second is 10 ft. per second = 600 ft. per minute. The water delivered per sluice-head is 24 cubic feet of water, so

that would be 30 sluice-heads, with a fall of 500 ft.; that gives 1000 brake horse-power. I give you roughly what we are using, but would prefer to go into it and work it out. I think it must be rather more than 1000 horse-power, and it might go to 45 sluice-heads.

725. You have travelled through the country, and have some idea of the land the Company desires to take up under the provisions of this Bill if carried out. What is your opinion of the land? It is very inferior country; very bad country. Don't get into mineral country at all till you get near the Franklin River.

726. Is it not likely-looking country from the Franklin to the West Coast Range? No, it does not seem to be. I meant to say that the plan seems to show that we seem to start from Glenora in taking up the land. The blocks marked are only to show the way that it is to be taken up. It looks bad that we should want to take up the whole of Zeehan; but that means nothing. The blocks only show the principle on which the land will be taken up.

727. That plan is only drawn as an illustration, not to show that you get those particular blocks of land? The Government might take the brown or the white blocks (the witness indicated on the plan) according to the circumstances of the land.

728. With regard to that plan, can you explain how it comes to show that your Company could take part of Zeehan and part of the freehold land which has been selected for years on the Derwent? It is a plan indicating merely the blocks required, not the exact point of any block. We are quite willing to take the white blocks instead of the brown blocks.

729. *By the Chairman.*—Do you know the average amount of rental received by the Government from the whole of the mines during the last ten years on the West Coast? No, I don't.

730. Would you be surprised to learn that it does not exceed £53,000? No, I would not.

731. You ask for considerable concessions on paper? Yes, they are on paper.

732. And for these concessions you are going to construct a railway line? Yes.

733. Do you expect the line, as a railway, to pay? It cannot. You can get it at once if you ask Messrs. Reynolds & Co. as to the passenger traffic to Strahan, and the amount of goods carried. It is an utter improbability that it would pay unless the Company make the traffic.

734. What would be the loss for the next ten years? I do not know absolutely, but it would not pay for maintenance.

735. What would be the loss? The loss would be the interest on the maintenance of the line.

736. Then, it would not pay for the maintenance of the line? No, not at present. When the line is put through the traffic might no doubt increase. We could easily carry what it is to day.

737. What would be the benefit to Tasmania, suppose this was a national railway—an ordinary Government line—and what would be the loss to the revenue in working, and the loss of interest? £50,000 to £60,000 per year.

738. You say the railway would have to face the loss of £50,000 or £60,000 per year, and you ask for these concessions? Yes.

739. We take it, then, in giving these large blocks of lands of the Crown you give the people the benefit of a railway, with the loss of from £50,000 to £60,000 so far as the railway is concerned? Yes.

740. What would you estimate as the value of that land? I can't say from my own knowledge. From enquiries made from land surveyors I have seen I can't see that more than 2½ per cent. of it if taken up would ever be occupied for settlement; that would mean about 16,000 acres of what the Company are asking for; that would mean at the present selling price, £8000. The Government would sell it for that now, and give 21 years to pay it in. The concessions so far as the selling value is concerned represents the surface of the land. In reference to the other land, some of it may be of value for minerals, but it is within your knowledge, Mr. Chairman, that a great many good blocks of land with good payable shows on them are not being worked now in Zeehan District, because the holders can't get capital. If ever this land becomes valuable to the Company, it must be because the Company have spent a large amount of capital. We will not exclude the public from working the mines, but there are many good sections belonging to the public not working to-day. There is the old Central Zeehan, that yielded a large amount of ore which was sold at £9 per ton. The moment they got the water they had to abandon it.

741. It does not matter what is in the land, it would have to be land in any case? Some large Companies would have to be formed to explore and work it, and the Government could not do that. Some large Companies would have to be formed to do it.

EDWARD ALBERT COUNSEL, *called and examined.*

742. *By Mr. Butler.*—What is your name? Edward Albert Counsel.

743. You are Deputy Surveyor-General? I am Surveyor-General and Secretary for Lands.

744. You have seen the map (produced) with the line of railway proposed to be constructed to the West Coast? Yes.

745. Do you know the character of the country? It has not been much examined.

746. Can you give the Committee any information as to its character and value? Only a small percentage would ever be utilised for cultivation—probably 3 per cent. of the quantity asked for, I should think. The rest is known to be mineral-bearing country. There is coal and sandstone in the country west of Lake St. Clair. I have not much knowledge of the country excepting as far as reading is concerned. I have not been through the route that the line will take, but it is the same geological character of land all through. It is mineral bearing country.

747. Is it land which is of much value to the country at present? No, it is practically of no value as it stands. It would be of value to some extent if opened out as suggested.

748. Would a railway being put through open up the land? No doubt it would.

749. In the event of this Company obtaining the concessions asked for, would the other land still held by the Government be available for selection? Yes, they could then deal with other land.

750. Would it be improved in the same proportion as the land of the Company? Yes.

751. I presume the Crown land behind the blocks taken up by the Railway Company would increase in value too? Yes, to some extent, if not at too great a distance from the line.

752. Do you know the water supply of that part of the country? Generally, yes.

753. Is it good or bad? It is very good. An unlimited supply of water would be available, for instance, from Lake St. Clair. There would be thousands upon thousands of tons of water in that lake. Its depth is 550 feet in some places, and it covers nearly 9000 acres.

754. That is only one? Yes, but that is the principal supply.

755. About the nineteen lagoons: there are many more than nineteen lagoons, are there not? I do not consider them very important, as they are a long way off.

756. You mean as regards the water supply of the country? Yes.

757. 75,000 horse-power is asked for in this Bill—do you consider that an exorbitant amount of power to ask for? No, considering the magnitude of the proposal.

758. Does it mean half of the available water power? Nothing like it. If the amount asked for was far larger it could be taken without doing much damage to anybody.

759. Do you know these rivers—the Nive, the Upper Derwent, the Franklin, the Collingwood, the Gordon, the Dee, and the Russell's Falls? Well, I have not been across the Franklin. I know the rivers generally.

760. Are they large rivers? Fairly large. As regards the Russell's Falls, it should not be drawn upon. The Nive, the Derwent, and the Franklin are known from report to contain a large supply of water all the year round.

761. The rainfall on the West Coast of the Colony is great, is it not? Yes, it is about 12 feet.

762. Have you any idea, or do you know anything about electricity as a motive power? Very little, except that I know it is very cheap. I believe it is cheaper than any other power, if generated from water of course.

763. Now, I want to ask a general question. Suppose this railway put through to the West Coast, would it be for the advantage of the Colony at large, and in what way? Well, it would be a great benefit to bring the southern part of the Colony into direct communication with the West Coast, and because it would open up a large quantity of practically new country.

764. Is it a measure the country is in want of? Yes, it would be a good thing for the country, and would tend to lead to valuable discoveries.

765. The Company would spend a large amount of money in constructing the railway? Yes, it would be a costly scheme.

766. Do you know anything of the returns from the mines—could you give any opinion whether the returns from the mines would warrant the construction of a railway from Hobart to the West Coast—suppose the mineral traffic the only point the Company relied on, would it warrant such an expenditure as it would cost to make a railway through? No, I don't think so, at present.

767. If a railway were put through, I suppose the traffic would soon be much increased? Yes, no doubt it would.

768. Do you know anything about the traffic by seeing the railways down there, and with your knowledge of what they are doing? No, I don't know, but it would be absurd to think of the country supporting the railway at the present time.

769. *By Mr. Mulcahy.*—You don't think the country would suffer much by giving up this very large area of land to the Promoters of the Bill if they opened a railway? I don't think so, if well safeguarded.

770. Would you, as Secretary for Lands, recommend the giving up of this enormous area of land without the Company paying rent for it? Yes, excepting a per-centage or royalty on the ores raised from it. That is right. I understand they are willing to pay a per-centage on the ores.

771. What do you understand as the net value of the ores? What is won after paying the cost of raising. I think one per cent. is not nearly adequate. Two and a half per cent. would be a fair thing.

772. Would it not be fair to take it on the gross percentage instead of the net? I think it is immaterial; the natural assumption is that the ore would be raised to the best advantage. The percentage would be different.

773. Do you know about the water supply, or are you only giving your opinion as an amateur? Not exactly. As to Lake St. Clair, we have had soundings taken, and know that about three hundred thousand millions (300,000,000,000) of tons of water are contained in that lake.

774. Is there any information offered that would give an approximate idea of the horse-power available from Lake St. Clair or any other part of the colony? From what I have read in connection with this Bill I understand that 75,000 horse-power could be obtained from a stream 30 feet wide and 3 feet deep, but that would of course depend upon the pressure. I am satisfied about the quantity available. The supply of water is very great in the country to be traversed, and at high elevations.

775. Then 75,000 horse-power would be a small proportion of the power available? Very small.

776. You don't see any objection to the Promoters getting this land asked for if they pay something larger in the way of royalty: do you think they should use this enormous water-power without paying? Yes; nobody can be injured if the water is afterwards returned to the stream and it is not polluted. This is not specified in the Bill.

777. *By Mr. Lewis.*—How much land on the West Coast is withdrawn from selection under the Crown Lands Acts? Four million acres, I think.

778. Can you show the eastern boundary of the land withdrawn? It extends nearly to the eastern boundary of the Western Mining District. There are portions within that, withdrawn area, which are thrown open and are available for selection.

779. Is the rest of the land between Tyenna and that boundary all open for selection at £1 per acre? Some of the Florentine country is withdrawn, the boundary runs through that country.

780. Can selectors go and take up any portion of that land under the Crown Lands Acts at £1 an acre? Yes, they would be permitted to do so if it were found on application that it could be thrown open, but if not, it would be withdrawn. There is a part near the King River open for selection.

781. I am speaking of from Tyenna to the Western Mining Districts. Can anybody go and take up that land at £1 an acre? Yes, excepting as I have stated.

782. Can they select any portion of it at 10s. an acre? Yes, if thrown open, with few exceptions.

783. What rights to minerals would a purchaser have if he took this land at 10s. an acre? No rights to minerals, they are reserved to the Crown.

784. What rights to minerals would he have if he took it at £1 an acre? He would purchase only the surface of the land.

785. And so it would be incorrect to say that this land is available at the present time for selection at 10s. an acre for the fee simple, if the land included everything underneath it? It is available.

786. That is possible; but taking it up would give no right to the minerals? No.

787. *By the Chairman.*—You recognise the fact that this country, being unexplored, several mines equal to the Mount Lyell might be found on this land. Would you still recommend that the concessions asked for should be given the Company? I don't see anything against it.

788. The land, as land, is it of any value at all? Yes, it is, to the extent of 3 per cent. of its area.

789. Outside of that 3 per cent., say 20,000 acres, is the land worth anything? No, it is worthless.

790. What value would this land be to the Company except for minerals? Practically none.

791. What compensation would the Company get for the estimated loss of £50,000 or £60,000 in running the railway? They would have the lands subject to the percentage or royalty of $2\frac{1}{2}$ per cent. on the ores raised.

792. And if the mining for these minerals only left a profit of $2\frac{1}{2}$ per cent. the Government would take the lot, and the Company would get nothing? That is an extreme case; and if it happened it would not last long.

793. Many places have been worked out by such a system before? There is the increased traffic on the railways that should be taken into consideration; it would help to support the railway.

794. And when it does, the Government has the right to take the line over, has it not? Yes, for a valuable consideration to the Company.

795. But they may lose the interest on their outlay for twenty years, is that not so? Yes; at the same time letting a mine for one per cent. on the net value of the ore raised is practically nothing. Look at the Mount Bischoff mine for instance.

796. Well, had there been a royalty of $2\frac{1}{2}$ per cent. on the ore raised in the Bischoff, the Crown would have got £27,000; is that not so? Yes, about that during 25 years.

797. Now, assuming that this Company got a mine as valuable as the Bischoff, the Crown would get, owing to the Company's expenditure and enterprise, £27,000; is that so? Yes, in time it would.

798. Would not a loss of from £50,000 to £60,000 on the railway be an equivalent for any advantage they might get from the land—if this railway is to be worked at a loss of from £50,000 to £60,000 a year, ought not special inducements to be held out to them? There is a special inducement in the land and minerals.

799. Any other company now could take up this land at a rental of 5s. an acre and afterwards throw it up if they liked: why should this Company be placed in a worse position than others? There is no analogy between the cases; they as promoters want special privileges; the other case is one isolated case where a man takes his chance, and he would have to locate. There is a thousand miles of country asked for by this Company.

800. Yet, if the Company will agree to pay $2\frac{1}{2}$ per cent. on the value of the minerals, you think the Government should take it? Yes.

801. *By Mr. Lewis.*—Would the construction of this railway be of any advantage to the people living along the Ouse, the Dee, the Nive, or the Upper Derwent? Yes, it would be some advantage to them. There are not many people about Russell's Falls. There is no doubt it would if they were to take the Ouse or the other route.

802. Explain how the construction of the railway along the proposed route will benefit the people on the Ouse, the Dee, the Nive, or the Upper Derwent? Only by creating a better market for them and by opening up the country and carrying produce.

803. It would give them no facilities? No, except by bringing down stock from Hamilton to the railway, and that would benefit the whole district.

804. *By Mr. N. J. Brown.*—Could the people in the neighbourhood of the Ouse get to the railway? Yes. It would benefit the whole district to some extent.

805. *By Mr. Butler.*—Is it a fact that the best mineral country is on the top of the ranges? It is true that the best mineral country in the Colony is on the top of the ranges.

Committee adjourned till 2.30.

AFTERNOON SITTING.

FREDERICK BACK, *called and examined.*

806. Your name is Frederick Back? Yes.

807. And you are head of the Railway Department? That is so.

808. Have you read the Great Western Railway Company's Bill? No; I have not had time to look at it carefully, having only got it this morning. I have glanced over those portions referring to the construction of the railway.

809. Are those the usual Clauses inserted in Railway Acts? Yes, they are pretty similar.

810. You see the gauge, it is the same as ours, 3 ft. 6 in.? Yes.

811. The Minister, under Clauses 33 and 34, may grant running powers; they may be granted over the Government lines and also over the Company's lines? Yes.

812. Is that, in your opinion, workable? These are the usual clauses; as to their being workable depends on whether the railway is to be similar in character.

813. This is to be an electrical railway, of course subject to such conditions as the Minister agrees to? I do not see how you can exchange running powers without knowing how you are going to transmit your power.

814. The electric power would be generated by water, and it would then be transmitted by cables? Then you would not be able to take running powers over the Government Railways?

815. Are there not various modes of taking electricity, by storage and otherwise? Storage is not yet found to answer very well, but there is no reason why this clause should not be in the Bill, under such conditions as might be settled; but I think all these sort of things should be embodied in a contract and the details set forth. These are conditional things, and need not be in the Bill.

816. Now, under the head "Construction of the Railway," as to having bridges and so forth, are these the usual clauses? Yes, I think so.

817. Sufficient for this style of railway? Yes, I think so. The Minister has, of course, the power to alter anything of which he does not approve.

818. You see the map. Please look at the proposed route, as far as it is fixed at present, for the railway?—Have you any idea of that part of the country? No, I have never been there. I only know the two ends of it.

819. Is it possible to run a railway by electricity? Undoubtedly. It is the coming power.

820. Is it advantageous to open up new country by railways? From a colonial point of view, yes; from a commercial point of view, well, that is another matter.

821. From a Government standpoint, would it be advantageous to have a railway running from Hobart to the West Coast? I see no objection to it.

822. Would it be an advantage? Well, railways generally open up and develop districts. I can't say that I see any objection to it; but you see I must look at this thing from a railway point of view.

823. Commercially, and from a business standpoint, do you think the railway would pay by carrying mineral ores and from the present traffic? I don't think so, not for some time to come; it would depend on development; at the present time it would not pay.

824. Don't railways make traffic for themselves? Sometimes, not always.

825. *By Mr. Lewis.*—If the grades on this line were 1 in 16, could your engines, locomotives, and other rolling-stock use the line in any way? That would depend entirely upon what principle the line was constructed—as an adhesive line, no; with auxiliaries, yes.

826. What do you mean by auxiliaries? Engines on Fell's or Abt system, for instance.

827. Would you not require to have special locomotives? Yes, special locomotives; the other ordinary rolling-stock would do.

828. Have you any of the engines? No. It would be possible to get engines that would go up the grade you mention on an adhesive line, but they would not take any load. On the Mount Lyell works they work a 1 in 16 grade with a locomotive during construction, but it can only take one truck at a time.

829. Now as to electric railways. Do you know anything of the storage system—as to how far they take an electric motor with storage of electricity? I could have got you this information if I had had more than ten minutes' notice to attend. It has been found up to date that no storage system of electricity pays. It is all transmitted, and, indeed, there is everything in favour of transmission. We in Tasmania look upon the electrical railway as experimental; it is nothing of the kind. In the United States they have spent fifty millions of money on electrical trams.

830. What is the longest electric railway you know to have been laid? The longest electric system that I know of is in Montreal; they have 74 miles of single line electric railway there in 41½ miles of streets. By the returns of September, 1895, I see they carried 25,877,758 passengers, and the population served by the trams is 300,000 people.

831. That is with water appliances? Yes, that is so.

832. Do you know of a line 12 miles long? No, I don't know of it.

833. Do you know anything of a section of 35 miles on the Canadian-Pacific Railway worked in the winter time by electricity? It is quite possible they may have it. I will see what it says in Bradshaw's Railway Guide for 1894, which I have here. The Canadian-Pacific Railway has 7000 miles of line, with a great many branches. No. I have referred, and see nothing up to this date (1894) as to any electric railway.

834. We have been told there is a section on the Canadian Pacific line of thirty-five miles where, in the winter, they take off the locomotives and work by electricity—you know nothing about it? No, I do not know about it.

835. I should like to know something about this section if you can find it, and I should like to know something more about electric railways and tramways? Well, electric tramways become railways; they are much the same except as to the grades, which are from 1 in 10 to 1 in 8. In America they have over 10,000 miles of electric trams; they have £50,000,000 capital, and 1,500,000 horse-power to propel the electric cars, which is equal to 40,000 motors.

836. Are these railways? Well, they get up grades of 1 in 10 and 1 in 8,—they are street railways really.

837. Are these Montreal tramways all within a radius of 4 miles? No, some of them are more than that. You will get a good deal of information in the proceedings of the Institute of Civil Engineers, Vol. CXII. There are several long papers giving a good deal of information in the volume.

838. Of course all the plans would have to be examined and approved by some officer appointed by the Government, who would supervise the construction of the railway and other works—all would have to be made with the approval of the Government, and the railway would have to be maintained to the satisfaction of the Government? Yes.

839. In your opinion should the Colony pay the cost of that supervision? Certainly not.

840. What would be a fair amount to charge the Company for supervision during construction and afterwards? The proper supervision of any works of this class would require an engineer. I should take this clause you refer to and make it apply to construction and maintenance. I see one that speaks about audit.

841. All the plans for construction of the railway and any works whatever would have to be approved? Yes. Section 44 refers to audit, I see. I am not asked to say anything as to the concessions. You only ask me about the railway, I understand. In the first place it is a mistake to let the railway be made without a contract; we have ample precedents for that. The Act should give the Government power to enter into a contract. Do you know the history of the Midland Railway in New Zealand; it was very much like this, only that electricity does not enter into it. I think 1884 was the year, or earlier. The people on the east coast of the South Island of New Zealand were anxious to get their produce to the coal-mines, and to the gold-fields on the West Coast. There was a mountain range, Mount Cook, to be crossed, and the people clamoured for a railway. The Government could not see their way to construct it, as it would be too expensive, and a number of merchants and settlers on the East Coast formed themselves into a syndicate and put up from £3000 to £4000 and sent a delegate home, and they got concessions similar to these asked for in this Bill. They were to put the railway between the two points named, and were to expend two millions and a half of capital; they were to receive blocks of land adjacent to the railway equal in value to half the amount of the money to be spent, the land being granted on the certificates of an officer appointed by the Government. That railway was constructed, and the land was valued by the Surveyor-General at a minimum of 10s. an acre. This was all done by contract, but the promoters failed and could not carry out the agreement. They had obtained and sold the land, and then the Government stepped in and took the railway on the basis provided, which was arbitration. You can find all the particulars in the library here. I think in the first place this railway should be made under a contract with the Government, and that contract should first be submitted to their officers, to see that it was sufficient. That has not been the case here. You have the Waratah Line, which is not bound to anything, and you have the Western Railway running three different lines, with three different brakes and different couplings. It simply depends on the good humour of the Managers whether they can work the lines amicably or not. Now all these things are important. If you decide to give this or any other Company power to make a line, there should be a contract. Many little things can then be arranged for which could not be included in a Bill, but over which there would always be more or less trouble. Take the question as to what is construction—there was always trouble here as to what was maintenance and what was construction. These questions could not arise if there was a detailed contract for the construction of the line. The proper way is to appoint a Commissioner to look after all expenditure and certify to the vouchers as part of the payment for the railway; the total of the vouchers would then show what the cost of construction is. You would want a skilled man, and the cost would be at least £1000 a year; but it is the best plan, because then there can be no disputes.

842. *By Mr. Brown.*—That would be for the supervision of the accounts? Yes, and the work of inspection as well; these duties could go hand in hand.

843. And that would be a charge against the Company? Yes. I don't think the Company would object.

844. *By Mr. Lewis.*—Looking at Section 39, I notice that if the Government take over the railway they have also to take over all the works and buildings, and the whole land, machinery, and works belonging to the Promoters; and, if you look at the Interpretation Clause, you will find that the term "other works" includes a great many things. This Company proposes to insert ore-reduction and smelting works, wharves, and other things. Should it be desirable for Government to take over this railway, would it be right that they should have to take over the ore-reduction works and smelting works, wharves, tramways, power-supply works, and water-works, which this Company may construct from time to time? Well, that is hardly a question for a railway manager.

845. Would you, as a railway manager, like to take over such other works if you had to take over the railway? From a railway point of view, I would not agree to it. The Bill should be more definite. As it stands now, if the ore-reduction works were paying the Government would not have it, but if they were unsuccessful they would.

846. *By the Chairman.*—You may read it that way? I do. The Government might be compelled by force of circumstances to take the works if unsuccessful; but they would not be forced to do so if they were successful.

847. Would you put that interpretation on the clause? I think so.

848. *By Mr. Lewis.*—Would you recommend that the clause should stop at the word "railway"? That is rather a big question to answer. To my mind the whole of the Bill, as far as I have read it, is rather difficult of comprehension as far as the railway is concerned. If you think it advisable they should have authority to construct the railway, I should have a contract drawn; that will remove all obscurity, and make it clear. How far the Government might have to go in taking over the railway and works, I don't know. We in Tasmania have rather got into the habit of looking on ourselves as leading the way in these matters. We have not considered in dealing with these Bills that these land grant and guaranteed railways have now been going on for years and years. There are hundreds of them in the world, particularly in India. There are various means of providing for compensation, but you would bring all that into the contract. That would prevent trouble which might happen if you did not enter into a contract.

849. Could not the Government be allowed to purchase the railway without taking the ore-reduction works, smelting works, wharves, or other works of the Company? I think so. You should keep those "other works" as completely apart from the railway as possible. The committee might be anxious to ascertain the various means that have been taken in resuming possession of railway works where they have been brought into force in other countries. I think it would be wrong to say that we should be prepared to take over railways at the cost of construction at any future time. Our railways, so far, have cost from £8000 to £10,000 a mile. We might have to take over a worn-out railway, which, if we had to make it new, we could do it for 25 per cent. less. Why should the Government pay 25 per cent. more than they could put the line down anew for? If it comes to value, then the earnings of the line should be a first factor in the calculation.

850. *By Mr. Mulcahy.*—The value of the line is a first factor here, is it not? There is a provision here in the Bill as to compensation, if the value of the line were ascertained. It is the actual value of the work, with an amount added equal to five years' profits. It would be very fair if the Government bought the line at a sum ascertained on the basis of five years' profits.

851. Do you think the proposal fair on the basis of five years' profits and cost of construction? Not fair at all. I put it to you in this way: suppose you wanted to buy a business establishment here, such as Roberts and Company's, you would not agree to pay for it on the basis of the paid up capital; you would say, how much profit does this business give a year? You would then arrive at a basis of from 5 to 7 years' nett earnings, you would capitalise that and so get the value of the undertaking.

852. *By the Chairman.*—You are putting a transaction on voluntary premises, but this is compulsory, the Company are bound to sell. They may have been running the railway at a loss for twenty years; in the twenty-first year, through the increase of population and traffic brought about by their exertions, the line commences to pay, and then Government steps in and says we will take it over: don't you see the distinction? No; it is a commercial speculation in any case.

853. Would they have to take it over? They might be bound to take it over. Your railway syndicate gets so much land; say it gets so much land, and sells that land.

854. No, the syndicate does not get anything until the railway is completed and opened for traffic. Look at Section 82—"Upon the completion and opening of the said railway for traffic it shall be lawful for the Government to issue to the promoters a grant of each block of land duly marked off and applied for under the provisions of this Act?" I think the Committee might make themselves conversant with the business in reference to syndicate railways by taking as an example the Eastern Bengal Railway. This was a guaranteed line, and it was purchased. The purchase money was equal to the share capital calculated according to the mean market value during the three years next preceding the 30th July, 1883, which worked out a trifle over £150 per £100 stock.

855. If the shares were over 100 per cent., that would be in excess of the cost of construction. If the shares were bought at 50 per cent. premium then they would pay more for the purchase of the line than the cost of construction? Yes, they paid £150 on the £100 stock, and that was fair to both parties, because it was based on the actual value of the profits.

856. And this proposal is actually fair? Yes; if you eliminate the cost of construction, and bring the purchase about on a business basis, it would be better and fairer. Take it as in the case of the Eastern Bengal Line: the property had increased so much in value that on the £100 share the shareholders received £150.

857. Do you know a line in Burmah, with a capital of 2½ millions, where the Government guaranteed 7 per cent.? The Government have guaranteed up to 8½ per cent., but it all depends upon circumstances.

858. This is a railway in Burmah, a guaranteed railway—I do not know to which you refer.

859. All the railways in India are guaranteed, are they not? No, a great many of them are State railways, but where they are guaranteed the practice now is to treat them as a commercial concern, and, when it is necessary or desirable, to buy it out for what it is worth.

860. *By the Chairman.*—Some people say, why does the Government pay for the unearned increment?

861. Would a provision to submit the matter to arbitration meet your views? No.

862. That is, if the Government wish to take it over? Yes, you get it for what it will produce; that is the fair value of any undertaking. If the Government had to take a successful line they would only have it at its commercial value. I suggest that is the only fair principle.

863. And you suggest that the valuation should be based on the profits? Yes.

864. *By Mr. Mulcahy.*—To buy it on its commercial value with no arbitration? Yes, that would be fair.

865. *By the Chairman.*—Would you think 5 years' purchase a fair purchase value? That is one of the details I would not like to recommend on the spur of the moment. The details would be agreed to by the concessionaire and by the Government. It appears to me absurd to take over a worn-out line at the original cost of construction plus a profit.

866. Yet, in the case to which you refer the railway was taken over at a profit of £50 on the share? Yes; but that was an institution which was worth the amount based on the profits. The sum was equivalent to the £50 premium on the shares, and that was what they got for the line. No Government would be likely to take advantage of the company.

867. *By Mr. Mulcahy.*—Do you think it was a fair method that was adopted in the case of the Bengal Railway? I think that the principle suggested is a proper one. It is a business way of acquiring the railway.

868. What effect would the construction of this line have on the Government lines? I don't think it can do them any harm. The only thing is that the Bill is too vague to enable me to give an answer. If you say you are going to make a railway between two points I can answer you, but if you say you are merely going to make a railway from somewhere to somewhere and to make branches, I cannot give you an answer. If you say you are going to make a railway from Glenora to Zeehan there would be no harm at all, but if you are going to allow them to exploit the whole country, then it might do harm.

869. Have you seen the preliminary prospectus of the Waratah-Zeehan line, which contains a number of reports. It is described as a railway from Waratah to Lyell, with branches to Zeehan. Amongst other things, it says that 1000 tons of goods a day will be carried on the line. If such is brought about, would it not be likely to cut into our Tramway system? It might; but I think that the operations of all private lines should be governed by control made under Act of Parliament.

870. *By the Chairman.*—Suppose this Bill were altered to enable them to make this railway from Glenora to some point on the Zeehan-Strahan line, would that satisfy you? Probably; to a point to be agreed upon. I don't think there is any objection to their making the railway, but when it is evidently impossible to say where it will go I can't answer your question. It might cross every line of railway we have got.

871. *By Mr. Mulcahy.*—You think the right to make the railway should be limited to the trunk line itself, at least for the present time? I think so. I can't say distinctly, because my notice was so short,

I only had time to scribble a few notes, but as far as I can make out the right of land selection is limited to the blocks, but there is no limit to the length of the line.

872. *By the Chairman.*—That is to be done for the purposes of the Act—the line will be limited to 100 miles in length, will that be fair? Yes, but no blocks should be given, excepting by Act of Parliament.

873. If the line is 100 miles in length the Company will get the land for that distance; if it is more than 100 miles in length they will get nothing as far as the balance is concerned: does that meet your views? Yes, no land should be given except by the Act.

874. If the operations of the Company were limited to the trunk line, would that have a prejudicial effect on the Government railways? I don't think so. When we consider the large amount of traffic it will bring to the Derwent Valley line you will, I think, benefit the Government lines.

875. These provisions as to the interchangeability of stock would be of no benefit to the Government? It might, if we could run the same trucks and carriages.

876. But it would not be a benefit if the grades were up to 1 in 12? Using the same trucks, all we would require would be new locomotives, depending on the system in use. The ideas as to steep grades do not prevent you running the ordinary carriages if you have the grip-power in the locomotives, such as in the Abt system.

877. Then the railway stock would be good enough to go over the lines? That is merely a matter of detail. The Government would arrange with the Company to provide the power necessary in any case. It is impossible to give you a direct answer without further information.

878. You don't know of any difficulty as to applying electricity on this route? No, I don't think so. You could generate your electricity a hundred miles away, it would not matter, you would simply transmit your power.

879. *By Mr. Mulcahy.*—They could supply power from Launceston that distance? Yes. Electricity is now looked upon as the coming motive-power, and it will be. Perhaps we shall not live to see it, because railway and other companies are now provided with so many descriptions of motive-power that they can't afford to wipe them out; but, as they are called on to renew them, they will have electricity, especially where water can be obtained to generate it.

880. Could you give information as to the quantity of water-power necessary to generate 75,000 horse-power? No, I could not say without looking into the matter, and making calculations. I think you have a great amount of water-power available. I certainly recommend the Committee to consider the importance of having a contract—that contract would provide for a large number of little things that could not be included in the Act, and that should be fixed by the contract.

881. *By Mr. Butler.*—Is it meant by that, that you want a contract between the Company and the Government so that you may supervise the contractors to see that the railway shall be properly built? No, I think the whole railway and all connected with it should be built under a contract between the Government, and the Company.

882. Have you any precedent for that? I never heard of the construction of a railway line without a contract.

883. But this is not a guaranteed railway? Yes, it is the same thing. It is a land grant line.

884. The Company would have no objection to the Government making a contract, only they want to know what it is? It would of course be arranged between the parties.

885. *By the Chairman.*—Then you would make the Bill simply an enabling Bill, to enable the Government to enter into a contract? Partly, yes.

886. Then, Government could enter into a contract with any other company than the Promoters? That is a matter for Members of Parliament; they could authorise the Government to enter into a contract with A, B, or C.

887. *By Mr. Butler.*—You don't mean that the Government could enter into a contract with another company, and that they should be allowed to step in and take advantage of all that this Company has done? That is not for me to consider; I simply say that the construction of such lines should be a matter of contract always. They had a railway contract here once, and it was a very indifferent one. This Bill as it is is as fair in its provisions as any other Promoters' Bill. They have followed the usual custom, and are not asking for anything unfair; but from a railway point of view it is my duty to point out that we want something more than the mere Act. We want a contract, and this Bill should provide for a contract.

888. Rather than not have this Bill go through this Session we would have it redrafted so as to let the people have the benefit of the railway, but why not let it go through and draw a contract afterwards. Don't you see if the Bill has to be redrafted it probably means the loss of the Session altogether? I could not draw a contract in a morning.

889. Does that mean merely a contract, or should we have to alter the Act? No; a clause in the Act should make everything in it subservient to the provisions of the contract.

890. We desire to meet the wishes of Hon. Members as far as we can, but we don't want to lose the passage of the Act through Parliament for the purpose of having it redrafted. We thought it was fair, and on the usual lines, and that we had provided amply for supervision. We don't want now to run the risk of losing the Session. What could you recommend? I would be quite prepared, with the consent of the Minister, to give you every assistance in drafting a contract.

891. *By Mr. Mulcahy.*—In reference to Section 48, as to rates and tolls, have you read that? No, I have not.

892. That provides for a maximum charge of 5*d.* per mile for first-class passengers, and 4*d.* per mile for second-class, and for the carriage and conveyance of goods and merchandise the charge shall not exceed 9*d.* per ton per mile? Yes, I see it shall not exceed these rates.

893. Do you think that a reasonable maximum? I don't think they will get the traffic at those rates. What will the length of the line be?

894. It is supposed to be over 100 miles, is it not? I should think it would be nearer 200 miles.

895. Well, suppose it was from 120 to 130 miles, would it be too high? And then there would be the balance of the journey from Glenora to Hobart.

896. Yes, certainly, they would have to pay you running rates to Hobart; but taking into consideration the character of the line and the large expenditure of money, do you think that would be thought too much? The rates are not too much if you can get them, but I am satisfied you would never get those rates.

897. You think competition would settle that? I don't know; Mr. Norton-Smith seems to be the only person who can keep up his rates. He gets £3 a ton for goods and ores.

898. *By the Chairman.*—I believe that was originally a contract with the Bischoff Company? Yes, I believe so. That Company has no Act of Parliament; they are working without a charter of any kind, and can do as they like.

899. But their rates were a contract between the Bischoff Company and the Van Diemen's Land Company, and it was in consideration of that the Company built the railway? Yes, I have heard so.

900. *By Mr. Mulcahy.*—Do you know anything about the unit of power for electricity, and what should be a fair price? No; you had better ask an electrician about that. I could not venture an opinion.

901. Can you tell us what would be the cost per horse-power for locomotives in Tasmania? Yes, I can tell you exactly, but I have not got it in my head. If desired I can get that information.

GEORGE CAMPBELL MEREDITH, *called and examined.*

902. *By Mr. Butler.*—What is your name? George Campbell Meredith.

903. You are a prospector? Well, yes, I am anything you like.

904. You have had experience in prospecting? Yes, I fancy so.

905. You know the country between Glenora and Mount Dundas? Yes, I have been through it.

906. What is its character—what sort of land is it? Starting from Glenora, you run through a great many miles of magnificent land, the grandest land in Tasmania, as far as the private property is concerned.

907. Glance your eye over that map and see where the proposed line of railway is marked. What is your opinion of the value of the Crown lands along the line? At the present moment they are valueless, the majority of them; of course there are parts which might be valuable. When you cross the Derwent you get into valueless country.

908. Then you don't consider the land along the line worth much? No, I do not.

909. Would the construction of a railway through there improve the value of the land? Most decidedly.

910. Have you an acquaintance with the sources of water-power along the route of the line? I consider I have, if you mean the rivers and creeks.

911. Is there much water there? Any amount.

912. I don't know if you have read the Bill? No, I have not.

913. Well, this Company want to take 75,000 horse-power from the waters of the district—what proportion do you think that would bear to the amount of water there? It is not worth considering. 75,000 horse-power is not an item in the water-power there is there.

914. Not an item? No.

915. Do you consider the water-power there is unlimited? There is a limit to everything, that would be going too far. I think it would take some time to figure out all the water-power there.

916. Would 75,000 horse-power be missed when taken away,—would anybody feel the want of it? No, you can take 75,000 horse-power and leave another 100,000 horse-power at the back of it. You could get plenty of water if you want it from one particular creek; as far as getting the amount of power you want is concerned, it never would be missed.

917. I suppose there is some good land about in the Florentine Valley? As far as the Florentine Valley is concerned I have not an equally practical knowledge of it, but I know a great many practical men about Ellendale, and don't think there is a man who would not mortgage his property to the eyes to take up land in the Florentine if there was a road to it.

918. If this railway line were made would that open the land? It would through the Florentine.

919. And then the land would be selected? I feel convinced of it.

920. Then the construction of the railway would open up the land and lead to its selection from Government? The land through the Florentine, decidedly. According to Mr. Frodsham there are from 16,000 to 18,000 acres in one block, all good land.

921. You say if there was a road into this land the people would take it up? It would be taken up immediately.

922. And if a railway went through this land it would be as much taken up as if a road were constructed? It would be snapped up directly.

923. *By the Chairman.*—What opportunities have you had of acquiring information as to the West Coast generally? Twenty years ago I and my brother were the two first who ever went down to prospect on the Coast.

924. And you have been connected with it on and off ever since? Yes, for twenty years on the 26th of November, if we live.

925. During that time what opinion have you formed as to the rivers and streams? It is likely I know more about the head of the watersheds than any other man in Tasmania.

926. Can you name the principal streams on the West Coast? Yes.

927. Name them? The big rivers are the Arthur, the Pieman, the Gordon, and the Henty, and on the east side of the Divide is the River Derwent and the tributaries running into the Derwent.

928. Can you name the tributaries? Yes; the Nive runs east and west and runs into the Derwent at Marlborough Bridge, then there is the Plenty and the Franklin—No, that runs into the Gordon, and is not a tributary of the Derwent.

929. Look at that railway line as shown on the map and tell me what is the general character of the Crown land along the line? No man can tell you what the land is till he has travelled over it, but, generally, the whole of the land till you come to the West Coast is valueless, excepting where there are basaltic patches.

930. Is the general character of the land then, between the Ring River and Glenora, such as you would accept from the Government? No; it is not worth holding or fencing.

931. What is your opinion of the value of the land as connected with its mineral-bearing prospects—Is there a good show for minerals being discovered? Well, of course there is. We have found minerals there now that we used to walk over. We are really just finding out how little we do know of the mineral prospects.

932. Then you think there is a good prospect of minerals being discovered if the land is opened up? I do, decidedly.

933. Do you think the railway would be an advantage to the country? I do.

MONDAY, OCTOBER 5, 1896.

ROBERT HENRY, *called and examined.*

934. *By Mr. Butler.*—What is your name? Robert Henry.

935. You were formerly Superintendent of Telegraph, in Tasmania? I was.

936. And you know something about electricity? I am supposed to.

937. Have you read this Bill? I have not; I have only just had it placed before me.

938. Could you tell us what opportunities you have had of making yourself acquainted with the system of electricity? Simply from practical application of it, extending over a period of thirty-four years.

939. It is proposed to run a railway from Glenora to the West Coast by electricity, using water-power to generate it; it is proposed that 75,000 horse-power should be used: would that be a practicable scheme—could it be done? There would be no difficulty in doing it if you have the power available. There is no difficulty in making use of it. It is simply a question of expense.

940. Are you acquainted with the power to be obtained from the water in that district? No, I don't know it.

941. 75,000 horse-power is a large amount, is it not? It seems to me to be quite sufficient to do what the Promoters intend to do.

942. Besides the railway, they also propose to erect ore-reduction works to be worked by electricity. Is that a feasible scheme? Yes, a large plant is now being erected in New South Wales for that very purpose, by the first electrical engineering firm in the world, Siemens & Halske. That is at Illawarra.

943. Do you know the power required at those works? I do not.

944. It has been objected that a hundred miles is a large distance to send electricity to drive motors and so forth,—is it so? I don't know of any railway sending it that length, but I don't know of any difficulty in doing so if you have sufficient power, and put your stations at certain distances to distribute it.

945. Oh, it is intended to have distributing stations along the line; would that make the operation more easy? Decidedly, and less expensive.

946. There is a question about the charge for electricity. One shilling and sixpence per unit is put down as a minimum charge. Is that the rule in Parliamentary Bills? I don't know the rule in Parliamentary Bills, but I have seen it quoted at 8*d*. The unit is, taking it as compared with gas, ten units would about be equal to 1000 feet of gas; that gives you an idea of it.

947. The Promoters think of fixing the minimum at one shilling; would that be reasonable? I should say it was, under the circumstances, and taking this as a special installation.

948. Can you give us any particulars of any other electric trams and railways in other parts of the world than Hobart? Unfortunately, I cannot at the moment. The notice to attend reached me as I was coming down town, and I had no opportunity to get any particulars, but I could have furnished you had I received earlier notice.

949. *By the Chairman.*—Well, we will take your general evidence now, you could give us the information later on? Yes, I think so.

950. I see, quoting from the *Scientific American*, that the Columbia and Maryland Railway Company carries 20 motors, running at a speed of 60 miles an hour on a level track. Is that a high rate of speed? I should think so.

951. You know they are now using the Niagara Falls for generating electric power? I do.

952. Do you know the distances they mean to send it? No, I simply know as a fact that they are making use of it.

953. *By Mr. N. J. Brown.*—Can you give the Committee any information as to the difference between power for motive purposes and electric power under average circumstances in both cases? No, I do not think I could do that; it would require an expert on both sides.

954. The reason that suggested the question to me was your answer to another question. You said it was a question of expense as regarded the practicability of the proposed scheme, and I thought you would know the comparison of cost of the two powers? No; I referred to the question of expense in reference to carrying your power from one end or the other, or from various sections on the line. It makes a large difference if you have to carry power from one end, or from both ends, which would be, say, fifty miles each way. You require a large amount of power and a heavy carrying wire, that is, a wire that will carry the current easily. It becomes expensive in the construction of the line.

955. Take the electric power generated by steam at the Hobart Tramway Works, and that generated by water-power at Launceston—which is the more costly? Oh! I misunderstood your question—the difference between electricity generated by steam and water—there is a great difference.

956. We know there is a difference, but we want to know the amount? Well, that wants a knowledge of steam as well as water.

957. Do you know the difference in the cost of electric power generated by steam at the Hobart Tramway Company's works and electric power generated by water at the Cataract works, Launceston? There is a vast difference. I could give you the power generated here. I think they generate about 500 horse-power here, and they have 1600 horse-power available at Launceston—just four times as much.

958. It would be interesting if you could give us the cost of generating by steam plant and by water-power plant. Can you give it approximately? I am afraid I can't do so; if I can ascertain some way near it I will do so.

959. *By Mr. Mulcahy.*—What we really want from you is this: can you tell us, from your knowledge as a practical electrician, if it is feasible to run a railway by electricity? Perfectly feasible.

960. For long distances? Yes; so long as you have a good supply of power there is no reason why you should not run it any distance you please.

961. Would there be a good deal of power lost if you had only one generating station for 100 miles of line? Yes, there would be a large amount of power lost, unless you went to great expense for construction.

962. And if there were two or three generating stations, would that make a difference? Yes, that would make a great difference. You could connect the line with the works by means of generating or power stations at certain distances, to allow for a certain amount of waste; but, by dividing it in that way, there would be but a small percentage of loss.

963. Have you any idea as to what the loss would be on a line fifty miles in length, and for a line one hundred miles in length? I will reply later. You want to know what is a fair amount of loss under the two conditions?

964. Yes. You think a railway running by electric power, with a sufficient number of generating stations, would not cause a great loss of motive-power? No, I think not.

965. It is a question of having the generating stations distributed? The capacity of your line of cable,—that is the great factor.

966. There is no doubt about your running the railway for any distance? Not the slightest doubt. You can run over any distance.

967. *By Mr. Lewis.*—What is the longest electric railway you have seen run, or that you have come across in the course of your reading? About twenty miles.

968. Had that one generating station? I think it had actually; I can't say for certain. If I remember rightly, the generating station was in the centre of the line, which would give ten miles either way.

969. In a line of 120 miles in length, how many generating stations would you like to see constituted? I should like to see them about every ten miles.

970. Generating or distributing stations? One or the other. You would have your line in ten-mile sections.

971. Do you know what is the ruling grade on electric railways, on railways where they have electric locomotives, or motors I think they call them, and run with heavy loads? Well, I have read accounts of some of them of course, but I could not give you the exact particulars as to loads, but the grades are as steep as from 1 in 10 to 1 in 12.

972. Were these working on adhesive rails? Yes, ordinary adhesive rails.

973. What line was that? I can't tell you just now.

974. Could it run down a grade of 1 in 10 with a heavy motor and a long train of trucks, loaded say with ore, on adhesive rails? That is a question for an engineer to answer; but it must be understood that in running trains of trucks every truck would carry its own motor.

975. Do you think these electric railways will haul heavy loads up grades of 1 in 12 or 1 in 16 at a speed of 15 miles an hour? I should doubt it; it would require a considerable amount of power.

976. Does wet weather make any difference to these railways, or cause any loss of electricity? There would be no loss of electricity. Of course it would affect the rails and make them slippery.

977. It affects the adhesion? Just so; it would be the same on any railway.

978. *By Mr. Butler.*—Each truck being its own motor, would that make a difference in the ascent of steep grades with light loads? I should say it would.

979. As to that, would it make a difference in coming down the grades? Mr. Lewis asked you if a train could come down a grade of 1 in 10 at a speed of 15 miles an hour? No, that was as to going up.

980. I beg pardon. Well, would it be safe to come down with trucks like that, and every truck its own motor, and with a powerful brake, would it be safe then? Well, that would be a matter for an engineer. I could not express an opinion from an expert point of view, but it is of course much easier to control one car than a number.

981. Is it feasible to apply electricity to work the brakes on these cars? I believe it is.

982. There would be an element of safety in them? Yes.

Committee adjourned until 2-30.

RUSSELL ALLPORT *called and examined.*

983. *By Mr. Butler.*—What is your name? Russell Allport.

984. You are an electrical engineer? Yes.

985. Can you tell us what experience you have had? Yes. I served my time in London, at Ferrant's works, then I was on the Continent for some time, and then came to the Colonies.

986. You know of this proposal to connect the West Coast with Glenora by rail? Yes, I have heard of it.

987. And the motive power is to be electricity, generated by water-power? Yes.

988. The length of line is roughly 100 miles, with different generating stations, and with 75,000 brake horse-power in all. Would that be sufficient power to drive the railway? That is a question I would not like to answer; it is a big order without going into the question of grades and other considerations, knowing what the power is, the levels of the country, and whether there would be much loss of power in working.

989. Would they not want more generating stations than one? One generating station, but more than one distributing station.

990. Now, a grade of 1 in 12, or 1 in 10, would that be too steep? They can get over a grade of 1 in 12 with a rack or mountain climber. I have not been on any line with a grade of 1 in 12, and without the use of a rack.

991. Does the Isle of Man Electric Line not run on a 1 in 12 grade? I think not. About 1 in 17 I think it is. I could turn it up for you, and give you particulars of it.

992. Is not 75,000 horse-power a large amount of power? It is.

993. What horse-power is used in Australia for driving machinery? You mean altogether. I have no idea.

994. It has been stated at 60,000—would that be it? I can't say. In these Niagara Works they are proposing to take 240,000 horse-power from the stream for one station on one side of the river.

995. Would these works be of large magnitude? Oh yes, very large.

996. As regards the public, could the work be so confined that there would be no interference with public rights? I could not say. I believe the water-power of these rivers is so great that it will make no appreciable difference to the flow.

997. Could you tell the Committee any particulars of any railways that you know of driven by electricity? Yes; there is one from Florence to Tiesgon, on the top of a hill—that is a steep grade.

998. What is the grade? About 1 in 15.

999. Any others? Yes, there is one in Montreaux, the power being generated by turbines driven by water-power.

1000. Any in Switzerland? Yes, that is in Switzerland.

1001. Any in Germany? I can't think of any on the spur of the moment. Oh! there is one at Frankfort-on-the-Main, where they transform 300 horse-power obtained by turbines from the Necker Falls at Lauffen. That was only an experimental line, and the power was not used for driving tramways.

1002. But you can use it for anything if you have the power? You can; but you must transform it down to a safe power at a transforming station. That is expensive work, requiring expensive machinery, and the highest class of engineering skill,—men who understand the work of the station. At the works where I served my time we used to generate 10,000 volts; and we used to send it up to London, and then transform it down in stations there, so that it could be used with perfect safety. Tramways cannot be driven by the alternating electric current: so that you have not only to transform it down to a safe pressure, but you have to turn it into a direct current.

1003. And that is possible? Oh yes, it is merely a question of machinery.

1004. *By Mr. N. J. Brown.*—Can you tell us the difference of cost between 1000 horse-power electrical generated by steam, and the same horse-power generated by water. Take, for instance, the Hobart Tramway works, where the electricity is generated by steam, and the Cataract works at Launceston, where it is generated by water? We could not have done that here we should have had to bring the water so far.

1005. Well, take the two undertakings as existing now, one generated by steam the other by water—can you tell us the difference of cost? Well, the first cost if you had the water, and if you had not to dam it up, would be considerably in favour of water. The machinery would cost less than steam machinery. Turbines cost a good deal less than steam machinery of the same power. You must of course consider the distance you have to bring the water. The great advantage of electricity is that you can go to the water, and have not to bring the water to the power. You generate the power at the water, and send it along the cables to wherever you want it.

1006. Then, in your opinion as an electrician, water machinery is the cheaper? Yes, water is the cheaper.

1007. Can you tell us approximately the difference, giving the probable supply at 1000 horse-power, I mean in expense, as between steam and water? Well, you have no fuel to provide, and the lubrication and repairs would be less. The wear and tear is not so great as in steam.

1008. Then it would be cheaper to have water-power? Oh yes, much cheaper, if you can get the water-power.

1009. *By Mr. Mulcahy.*—What Mr. Brown wants to find out, if he can, is, would the cost of generating electricity by water-power be less than if it were generated by steam—would it be less? Oh, far less. You do away with fuel, and you do away with the firemen.

1010. Then, primarily, the cost of generating electrical energy is far less by water-power than by steam? Yes. You not only do away with the firing, but you do away with repairs to the boilers.

1011. Do you want a larger or a smaller staff? Oh, a smaller staff.

1012. Can a high pressure electrical current, by the aid of transmission stations, be sent to a considerable distance? The farther you want to go the more pressure you would want to drive on the current to its destination.

1013. Do you think it is feasible to drive electricity, say 120 miles, with one generating station and distributing stations? It would be possible to do it, but you would want distributing and transforming stations.

1014. It could be done? Oh, yes. You would put a generating station in the middle and distributing stations at each side of it.

1015. Would there not be a great waste of energy? No. At Frankfort-on-the-Main they got 65 or 75 per cent. of the energy that was generated in the turbines; they lost about 25 per cent. in 112 miles.

1016. Then, you have no doubt, from your own knowledge, there would be no difficulty in doing it? It would be quite practicable and possible to do it.

1017. If there was water-power available at several points along the line, would it be more economical than steam, as well as more practicable? I would not like to say, without knowing the conditions, that it would be more economical than steam. It might cost a great deal to get the power on to the line.

1018. But after the line is constructed? Oh, yes; after the line is constructed it would be more economical if it does not cost too much for construction. You see, you must fall the trees all along the line for a considerable width, or, if you do not, falling timber is liable to damage the line or the machinery very considerably.

1019. In case of these cables transmitting high electric power, would there be any great danger to human life? Yes, if anybody came into contact with a wire it would kill of course—with anything over 1000 volts it is certain death.

1020. *By Mr. Lewis.*—What is the longest electrical railway you know of in mileage? The only electoral railway I worked on was the City and South London line, running from Stockwell to King William-street.

1021. How long is that? About eight miles.

1022. In the course of your reading have you heard of any electrical railways with a great mileage? No, not with a great mileage.

1023. Have you known or read of a section of 35 miles on the Canadian-Pacific Railway, said to be run in the winter months with electrical instead of steam power? I can't call it to mind, but I could look it up for you from the *Electrical Review*.

1024. Of course the Canadian-Pacific Railway has been constructed for some time? Oh, yes.

1025. Is it likely that if 35 miles of that railway was being run by electrical power that you would have heard something about it? I would have probably have seen something about it, but I might not.

1026. What is the Frankfort-on-the-Main Railway like? It is only an electric tramway in Frankfort itself.

1027. With grades of 1 in 12, what would be a safe load to take up or down? I could not say on the spur of the moment.

1028. At about what speed would an electric motor with a fair load run up a grade of 1 in 12? Well, it ought to be able to go at seven miles an hour.

1029. Not faster? I should say not. You can of course have a motor of any power, but it means an increase in the weight of the car and of the motor. For instance, with these tramcars we have here we have on each two motors in series, and the current goes first through one and then the other. If they were parallel you would go up these hills at a much greater speed, but you would exert twice the energy to do it.

1030. What is the weight of a tramcar? About 8 or 9 tons, but the bulk of the weight is underneath.

1031. With regard to electrical brakes, are they always safe on steep grades of 1 in 12? It is always usual to carry a mechanical brake as well. Of course in coming down a grade the motor is turned into a brake. It is much the same as reversing an engine. It has been done so as to turn the motor under the car into a generator, and it is then doing the work of a generator and pumping the electricity into the line. These motors will run either as generators or motors. In a case of that sort, of course, if anything gives out the electrical brake is useless coming down a hill; it comes to a stop, so it is necessary to carry a mechanical brake as well.

1032. Then, when a line is presumed to be 120 miles, if there was only one generating station, how many distributing stations do you think there should be? In 120 miles you would want at least 10 or 11 distributing stations.

1033. Would these generating stations be self-acting, or would they require the attendance of an engineer? They would require an engineer at each station.

1034. How many hands would they want at each distributing station? Not less than two. Of course the current has to be received from the line or cable stations, and has to go through the moveable machinery, which must be looked after, to reduce it down in pressure, and to turn it into a continuous current.

1035. *By Mr. Butler.*—Have you heard, Mr. Allport, of the line from Niagara Falls to Buffalo—how long is that line? I don't know how long.

1036. How far is the City of Buffalo from Niagara? Fifty miles, I think.

1037. Do you know whether electricity is used in reducing ores? Yes.

1038. Successfully? Yes.

1039. Is it used successfully to reduce refractory ores? I think so; but I don't know very much about electrolysis.

1040. Is aluminium a hard metal? Yes. Of course electricity is used entirely for that now.

1041. Do you know anything of the electric railway in the City of Montreal? No; I have not been there.

1042. *By Mr. Mulcahy.*—You think it would be necessary to have 10 or 12 distributing stations on an electric line of railway of 120 miles in length—would not that involve a large amount of skill and highly skilled labour? Yes; you would require to have a skilled high-tension engineer.

1043. So far as wages are concerned that would be more than the cost of a steam locomotive? That is a question I could not answer offhand.

1044. *By the Chairman.*—You could get a station manager to work the line, could you not? Yes, if he understood it. It would only require his time for a few minutes to do that work.

1045. Do you know the quantity of coal and the quantity of electricity you would use in running 120 miles? I could not say.

1046. Nor the number of men required? Well, with steam you want with each engine a driver and fireman.

1047. If you were running 40 trains a day, how many men? You would want 80 men; with an electrical train you only want one driver.

1048. Is there any other information of general importance you could supply the Committee with? No. If I think of any point I will send it in writing.

The Committee adjourned till 2-30.

AFTERNOON SITTING.

FREDERICK BACK *recalled*.

1049. *By the Chairman*.—Have you been looking into this question since you were last here? Yes, as far as my time would allow.

1050. Is there any more information you can give the Committee? No, excepting that I am confirmed in my view of the importance of having a contract. I have referred to some of the leading features of the Bill, and I was asked if I could mention some of the items which should be included in a contract of the kind. I have brought with me a work which I suppose all the legal members of the Committee will know, viz., “Shelford’s Law of Railways.” It is a well-known work. (The witness quoted from this work as to the necessity for contracts, and of such contracts being under the common seal of the companies.)

1051. Is that not all provided for under our own Companies Act? I suppose it is. I am only quoting from this work to show the importance of it.

1052. *By Mr. Brown*.—I understand that, in your opinion, it is necessary that, outside the Act of Parliament altogether, there should be a contract? Yes, it is necessary; and the contract should be ratified by Parliament.

1053. *By the Chairman*.—The Companies Act regulates all that, and if you don’t do what the Act requires the contract is void, do you know that? That is no doubt right, but I think to avoid complications in the future a contract should be made.

1054. *By Mr. Brown*.—Is it not your contention that there are a number of questions of detail, very important in themselves, which it is impossible to embody in an Act of Parliament, but which should be embodied in a contract—is that not your contention? Yes, I think so.

1055. You are not concerning yourself with outside matters, but simply concerning yourself as to the construction and maintenance of the railway, and in regard to the preparation of the proposed arrangement you think it is desirable that a detailed contract should be entered into outside the Bill? Yes; that is my intention.

1056. You wish to show the Committee your reasons for this view? I simply referred to this work of Shelford’s as an authority, and to show that it was the law to have a contract under seal.

1057. I take it that you want a clause in the Bill, as was the case in connection with the Main Line Railway Acts, that it shall be lawful for the Governor in Council to enter into a contract for the construction of this railway? Exactly; that is what I mean. There are a number of things that it is necessary to make provision for, either in a contract or in the Bill. I contend that a contract would be the best. I think that the date of the commencement and completion of the line, with any deviations from the original plans and any provisions to make alterations, should be clearly defined. That should be stated in the contract.

1058. *By Mr. Mulcahy*.—What do you mean by deviations? The Preamble states that the line is to be constructed, say from Glenora to Zeehan; suppose it were decided to go through Hamilton and the Ouse—suppose the Company decided to go six miles the other way—it might be advisable for the Government to insist on the original plan and decide on the datum line being adhered to; then that should be provided for in the contract. Then it should be stated whether the work should be commenced at both ends at once, and also the minimum number of miles to be constructed in each year. There is nothing that I can see in the Bill to compel a certain distance to be made in each year. Then the motive power should be defined. They can, under the Bill, run by horse-power or donkey-power or any other power. Inferentially we learn that it is to be an electric railway, but there is nothing in the Bill which correctly defines it.

1059. There is the minimum speed defined? Yes. I don’t wish to say anything disrespectful of the promoters, but there is a little ambiguity about that question of speed: is it the minimum speed or the average speed?

Mr. Butler.—It is the average speed.

Witness.—I suggest that the class of rolling-stock should be described. It would be possible for this Company, assuming that the concessions granted got out of their hands in the general course of dealing with them, to transfer them to American adventurers, who might run open trucks for second-class carriages, or introduce an inferior class of accommodation. I think the character of the rolling-stock should be distinctly described.

1060. *By Mr. Butler*.—Is that usual in Acts like this? Yes, in contracts it is. The question of couplings and brakes should also be touched on in the contract, with a view to running in connection with other railways. We would find if brakes and couplings were different, it might be necessary for Government to have two kinds of brakes on the same carriages. This is not desirable. Then there is the section in regard to bridges (Section 25). It is all right as far as it goes, but I am putting it from a Government point of view, and there is something omitted. It says nothing about strains or what weight they are to carry. I would suggest that is a matter for the Government officers who assisted to draft the contract. It is the general rule to say that a bridge shall be of such and such a strain, and that it shall carry a certain load. As far as the Bill goes it is very fair and very good, but it does not go far enough.

1061. *By Mr. N. J. Brown*.—Would that objection not be covered by Section 26, which says:—“No part of the said railway shall be opened for the public traffic until the Engineer-in-Chief or such officer as the Minister may appoint has certified that such part of the said railway has been efficiently constructed, and all the rolling stock to be used thereon is in good and efficient condition and repair, and may be safely used for public traffic thereon?” Yes, but that would be an irritating manner of dealing with it. Suppose the officer condemned the bridge and said it must be pulled down? Better define what is required at once, or have approved designs. I think also something should be said as to the class of buildings to be erected for the accommodation of the public, and the number of trains to be run daily each way.

1062. *By Mr. Mulcahy*.—Could you not suggest any number? Well, I would like more time to think it out. I have only had time to rough out these suggestions in pencil. Then, as to the working of the line until the whole is completed, the contract should make provision for that. Suppose you had

forty or fifty miles completed at this end, it might be very desirable to keep up communication with the Ouse, for instance.

1063. *By Mr. Lewis.*—They seem to have adopted the Tyenna route; we have it from Counsel for the Promoters that the Tyenna route is the one decided upon? There is nothing in the Bill to show that, and there is no harm in making provision for working a portion of the line. The Bill now is different to what it was when introduced, as I am told a great many alterations have been made since it was printed. I should like some provision inserted for the working operations of the line. The grades, I think, should be very clearly defined; that is to say, the Governor in Council should not consent to the grades, if of unusual steepness, unless they were worked by the Abt or Fell or some such system. You must do something of that sort; it is most important for safety. The general rule adopted is that for grades of 1 in 18 or steeper, I think, you require the centre or rack rail. When the Abt system was first brought in they adopted the rack when the grades were 1 in 25. The practice now is to allow the adhesive rail up to 1 in 20 or 1 in 18. That is what modern authorities have fixed as a limit for adhesion.

1064. *By Mr. Butler.*—On the Hobart trams it is 1 in 16? The danger is not a failure in the hauling power, it is the danger of a break. In Mauritius there have been some terrible accidents from this cause. I notice there is no provision with reference to telegraphs. I think in the contract the usual details should be inserted to show how they could be used, and that the Government messages should have preference. It is alluded to in the Bill, but not in detail. Then provision should be made as to stopping at terminal and other stations, and providing proper station and sidings as Government may require. These are all necessary provisions which should be made in the contract. Then the contract should provide for running powers as between the Company and the Government. That should go a little further than the Bill does, and define how these are to be taken, how the amount to be paid for the hire and use of the rolling-stock shall be arrived at, also the cost of the transfer of goods from trucks which do not go right through. These things are sure to crop up in dispute. Of course, if the trucks are all to go through it would not be necessary. Then the contract should arrange the cost of haulage of railway material and stores for either party. Then, if the contract is an electrical one, provision should be made for telephone or telegraph troubles arising from induction or otherwise. Then, as I said before, I think there should be power for the Government to purchase the railway without having to buy auxiliary works, and the contract should define how the purchase of the railway should be arrived at, and on what basis. Section 27 of the Bill should also be elaborated on.

1065. *By the Chairman.*—As to the purchase, what basis would you recommend? I recommend that you should take it as a going concern, find out what the profit is for five years, I mean the average profit, and then that capitalised is the value.

1066. At what percentage would you calculate the profit, at 4 or 5 per cent? That is for the Government to decide, but they should take it over in that way, instead of buying the railway for what it cost with a percentage added, when in ten years' time we might build a new railway for half the money.

1067. Now, assuming that it cost a million to construct, and that in 21 years it was not worth half that amount, and that during all that time the Company did not make any profit but had been working at a loss of say 4 per cent, at 20 years' purchase you would want it for £2000? Yes, that is true, but if, on the contrary, the line had been making a profit of 4 per cent. the Company would be paid accordingly. The same thing was done on the East Indian Railway only the other day; when the Government had to buy, it was done on that basis. The profit arising from the undertaking had been so large that Government had to pay half as much again as the line cost, that is they paid 50 per cent. more. Of course in such a transaction no Government would adopt extreme measures and penalise the railway company.

1068. You mean that the Government should only buy it on an interest basis, but if at the close of the term there was no profit and the Company had all that time been paying 4 per cent. interest, you would get the line at 250 times less than it was worth. Put it this way:—While the Government might have the chance of getting the line at 250 times less than it was worth, they could never, under any circumstances be able to buy it at 250 times more than it was, because that would be £250,000,000? Very likely; but that could not possibly take place. Before you could buy it at so low a rate as you mention, the Company would be insolvent, and the line sold up. However, all that does not alter my view, that if you undertake to buy a business you buy it on the basis of the profit it will yield.

1069. Would you not take profitlessness into account, or consider the probable future? That would not be fair, we should have to buy it at so much more. Then you must remember you have taken the land grants.

1070. Take the case of the Main Line Railway, and assume that it cost a million, the Government would have bought it under the Act on your principle as a business transaction, that is at the rate of so much on the average earnings, and the Government could have said, We will give £20,000 for it—would that be fair? It is not an analogous case; but, suppose the volume of business was as large to-day as it was then, with the economies which we have since established, the line would be paying at least 3 per cent.

1071. Take the matter as it stands now, and assume that the line belonged to a private company, and that the Government were going to take it over under an Act of Parliament, according to your way of valuing it I find they would only have to pay only £20,000? Well, you can't take the Main Line Railway purchase into account in connection with this transaction. There was a cash guarantee. We had built the Fingal line, the Derwent Valley line, the Apsley line, and other lines, and the conditions are entirely different; but I should never propose to buy a line of railway or any undertaking except upon a business basis, that is at what it is worth now.

1072. You would not take into account the future? I do not think so. The Government if they wish to be liberal, could allow a higher rate of interest in their computation, but they should not give more than ordinary people would pay, that is, the business price of the thing. Suppose it were a piece of land adjoining your house?

1073. It might be that I should take it at a fancy price—Then that would be fixing your rate of interest at a higher rate than usual. However, I have given my opinion and I can't alter it. My opinion is that you should make a contract, and that all these things should be included in the contract. There are

sure to be some matters of detail which are not in the Act, and these should be included in the contract. As to keeping the railway in proper repair, Clause 27 is all right as far as it goes, but suppose the line is not worked or kept in proper repair?

Mr. Butler.—Then it would be forfeited.

Yes, but it would take twelve months before you take any effective steps of that kind. There should be a power for the Minister to keep it in proper working order and repair if necessary, and charge the amount to the Company. Suppose the line were worked in the hands of the Company and a portion of it was not paying very well—Suppose, say that fifty miles, from Zeehan to Mount Lyell, was paying well, and the other parts of the line were not paying at all, but making a loss, and a bridge or a large portion of that part of the line were washed away, the Company might not repair it for months to the great loss and inconvenience of the public; then I think Government should have the power to step in and make the repairs.

1074. *By Mr. Butler.*—Would that not mean inspection during all the time of working? Yes, but that is always the case. An inspector of the Government would always hold supervision over the line; he takes the place of the Board of Trade in England. The Government would require to have an inspecting engineer who would report upon the working of the line. The Board of Trade have inspectors over all the railways in England.

1075. Need there be an officer of the Government: could not the resident engineer do that work, without having a separate officer? No, it would be done by a Government engineer. In the case of the Main Line Railway they had to report on it, and did so.

1076. Was it done without any trouble? Oh! yes; it is the usual practice where there is no Board of Trade.

1077. *By the Chairman.*—Have you looked up any authorities as to the working of electric railways in America? No more than I have already mentioned. Here is something descriptive about the Canadian-Pacific Railway, but I can't find that there is any part of the line worked by electricity. It is a book in reference to the tours, and speaks of the passenger rates of booking, and as to the steamers running in connection with the railway.

1078. *By Mr. Lewis.*—I referred to a section of 35 miles where they say they leave the locomotive engine and then use electric motive power? I have looked up the authorities, but I cannot find it. I don't know anything about it.

1079. This was on the main line on the through train? Yes, it is remarkable that we should not be able to find out about it.

Mr. Palmer, by permission, said he had received his information from his partner, Mr. Edmonstone, he had that day telegraphed for particulars, and would no doubt have them over in a day or two.

1080. *By Mr. N. J. Brown.*—Don't we make a mistake as to tramways. I see that in America these lines are described as street railways, not tramways? Yes, they are called street railways.

1081. *By the Chairman.*—Is not the only difference between a railway and a tramway a difference in the flange? No, they are really synonymous terms; tramways do run with a different rail. The second rail in the Hobart trams is really a check-rail. They make a special rail for street tramways. We do get terms a little mixed up.

1082. *By Mr. Butler.*—Do you know of any electric railway in Victoria in Canada? No, I have never been in Canada.

1083. It is from Victoria to Vancouver? No; what is the length of it?

1084. About twenty-five miles, I believe? No, I do not know of it. There was an experimental line at Chicago at the time of the Exhibition. If the railway of which you speak belongs to an incorporated company, we can turn it up in the *Railway Annual*; all the known railways are there.

1085. No; this is an electric railway. Can you use electricity as a brake? The little I know of electricity is only through reading. I know electric brakes are used.

1086. *By Mr. Lewis.*—Will it pay to carry low-grade ores from the West Coast to Glenora or Hobart for treatment? If you mean would it pay to haul very low-grade ores such a long distance when there is water competition, I should say decidedly not. I don't suppose they would haul very low-grade ores which contain such a large amount of worthless material. I should think it would be put through a process of concentration which would reduce it to twenty-five per cent. or so on the field.

1087. Then it would not be brought in its crude form to Hobart? I should not think anybody would pay freight on 75 per cent. of worthless material when they can get rid of it on the field the other way.

1088. If it is proposed to erect smelting or ore-reduction works at Hobart by this Company should it not be specified in this Bill? Well, from a Government railway point of view, I should say yes, because we should get a large amount of traffic over the railways if ore were brought to Hobart. That is the only advantage I can see.

1089. Will the reduction of the ore near to Hobart and its carriage by this railway be likely to affect the profits of the Zeehan railways or the North-East Dundas Railway? That would be guided by the conditions under which the ore came to the railway. If it were ore that in the ordinary course would come to the Zeehan railways then, of course, it would affect the Government railways.

1090. You understand that the proposal is that this Company should have large ore-reduction works either at Glenora or at Hobart, or at some point between these two places? No, I did not understand that clearly.

1091. *By Mr. N. J. Brown.*—Would not the disadvantage you see in the case of the Zeehan and North-east Dundas Railway be somewhat compensated for by the increased ore traffic on the line between Hobart and Glenora—what you might lose on the Zeehan and Dundas lines, would you not make up by the increased traffic on the other lines? To some extent no doubt we should, but that would be governed by the rates you would be able to charge.

1092. *By the Chairman.*—You describe a large proportion of the low grade ore as worthless matter. Is it not a fact that they use a large amount of low grade ores in smelting the higher grade ores? Yes, they do where there is ironstone associated with them.

1093. When you were on the West Coast did you notice as they carried the ore out of the jiggers they left the ironstone behind. That ironstone would be suitable for a flux? Yes, if suitable for a flux it might be carried, but they would not want 75 per cent. of flux.

1094. *By the Chairman.*—At Broken Hill I believe they buy pure ironstone for flux? Yes.

1095. *By Mr. Lewis.*—If you were the Manager for the Company with a railway between Glenora and Zeehan, and also running ore-reduction works, with your knowledge of the West Coast mining fields and the ores would you have the works on the field or at Glenora? I should have them wherever I could get the cheapest freight.

1096. You mean for ore and coke? Yes, I mean freight for ore and coke.

1097. Would it be better to take the coal and coke to Zeehan or Glenora? Wherever you could get the cheapest freight.

1098. Would it be cheaper on the field or at Glenora? I should say decidedly on the field; if you are using electric power, where the amount of coke required is minimised, it would be much cheaper to have the works on the field. At Mount Lyell for every 1000 tons of crude ore they smelt they send out 50 tons of retorted matter. In that case you see they would only have to pay freight on fifty tons instead of on a thousand tons.

1099. *By the Chairman.*—That is copper,—what about galena ore? The principle is the same.

1100. No, the copper ore would yield about 5 per cent., and the galena from 50 to 60 per cent.—would that not be so? It might be with what you call clean ore.

1101. *By Mr. Lewis.*—I desire to put a few questions as to the grades and rates of speed. What load should be drawn up a 1 in 12 grade without any rack system—we should calculate it on the assumption that the Promoters are to run on the adhesive rail system—what load could be safely taken up or down on a 1 in 12 grade? No load could be safely taken up or down a grade of 1 in 12 on an adhesive line. An engine on a dry rail might haul up a load of about half its own weight, but it could not take any load down a grade of 1 in 12 on an adhesive rail with safety.

1102. What load could be safely taken down a 1 in 12 grade? Nothing at all on an adhesive line. Of course it is possible with a centre rail or rack. You might do it a hundred times, but on the hundred and first you would come to perdition. Mr. Palmer, as an engineer, knows that to work safely you would want a centre rail. It is amongst the things I have on my notes that this question of grades should be clearly defined.

1103. Is there any difference in running a street electric tram, such as we have in Hobart, and running an electric railway with trucks filled with heavy goods and articles? There is a vast difference between the cases. The tram motor with a weight of 5 or 6 tons might be run on a steeper grade on an adhesive line than a heavy railway train, especially for the short distances of one or two chains. With an ordinary train, if the grade is steeper than 1 in 20, you require an addition to your adhesive line either on the Fell or Abt or Rack system. With a Fell engine a load of from 60 to 70 tons can be taken up and down grades of 1 in 15 at four miles an hour. There is no danger in working the same system on a grade of 1 in 12.

1104. Would you mind turning to Section 16, which provides that this railway shall be constructed in a substantial manner, fit for the carriage of vehicles at a rate of speed of not less than fifteen miles an hour, with a load of not less than 4 tons on the axle of every vehicle. As a railway expert, how do you interpret that—would it mean that the whole railway was to average a speed of 15 miles an hour at every point? I construe that to mean that trains should be run at an average rate of 15 miles an hour. That is reasonable; you get on the 1 in 40 and you may be going 4 or 5 miles an hour, but on a flat you would go at thirty miles an hour.

1105. *By Mr. N. J. Brown.*—Then it would be better expressed by “an average rate of 15 miles an hour?” Yes, it would. I made a note of that, and that is where the contract comes in. The contract would be carefully constructed by the Crown Law Officers and the railway experts, and would have all these necessary provisions inserted.

1106. If the preamble of this Bill is approved, I am afraid there would be no time before the Session closes for dealing with a contract. This Bill must be the contract. We will have to take all your recommendations into consideration, and we will have to embody them in the Bill, making it the contract between the Colony and the Promoters? Why is there such a hurry in dealing with the matter?

1107. If the Parliament is to prorogue this week or next there would not be time to consider a contract? Parliament must meet again in March, and it appears to me that the time can be provided for. Why should not the Government have a survey made in the meantime? When the Government has that survey completed they could allow anyone who wishes to come forward and enter into a contract to construct the railway, the contractors paying for the cost of the survey. That would be the best arrangement, looking at it from a railway point of view. Perhaps two or three firms of capitalists might like to make it, and with the plethora of money now existing you might get it constructed on most advantageous terms. Suppose the Government was to go straight ahead and make the survey, you would be just as far forward when Parliament next meets as if you forced the Bill through this Session.

1108. *By Mr. Butler.*—Do you assume that the Government will do that? It is put to me by the Committee that they can't get the Bill and a contract through Parliament this Session. I say that if they can't, the Colony need not lose time in securing the advantage of a railway to the Coast. Nothing can be done until a survey is made, and that will take the Company as long a time as if the Government made it. If it is the wish of the people that there should be a railway, let the Government make a survey, and let the particulars of that be known in the colonies and in England through the Agent-General's Office, and let Government say they are willing to receive offers for its construction.

1109. Do you think that would be fair to this Company, after they have gone to such a large expense in connection with the proposal? I am merely looking at the matter from a commercial and from a railway point of view.

1110. *By Mr. Mulcahy.*—There seem to be two ways in which this railway might compete with the Government railways, either by taking ore to Strahan, or by bringing the ore to this part of the Colony? Do we know that they are going to Strahan?

1111. Yes ; we understand that, under the Bill, the Promoters want to make a railway from Glenora to some point on the Zeehan-Strahan railway? Then they might compete with us, unless their powers were very clearly defined in the contract. I was told that the railway was to start from Glenora and to go to some point on the Zeehan line—I presume it would not be allowed to come where it would compete against us.

1112. Well, what point would you suggest? I would not like to say till the survey is made ; it is very much a question to be decided after survey. Has any point been decided on?

1113. *By Mr. Butler.*—Yes ; the point decided on is at the end of the Mount Reid railway—is there any objection to that? Yes, you might compete against the Government Railways for the Mount Reid traffic.

1114. *By Mr. Lewis.*—Can you suggest the proper point on the West Coast for the terminus of this Railway where it will not unduly interfere with the traffic of the Government Railways or Tramways? That would not be fair to the Company until I know where they are coming into the district. I think, if I might be permitted to suggest, the lines on which the terminus should be fixed might be laid down subject to the approval of the Governor in Council. I may state that this Bill seems to have been very fairly drawn by the Promoters, as fairly as any Private Bill I have ever seen. These provisions to which I refer have evidently been overlooked.

1115. *By Mr. Butler.*—I should like to ask as to the cost of carrying low grade ores. You say that water carriage would compete with the railway, and with success : that could only mean as to ores anywhere near to Strahan? I don't think I expressed myself in that way. I said that in fixing a site for smelters I would probably be guided by the cost of freight. Putting aside considerations as to the facilities for water carriage, as the smelters are on the railway, one of the first considerations in selecting a site would be the cost of freights. Suppose I wished to erect smelters on the West Coast, that situation would be guided by the cost of freight.

1116. But you make your calculations on the loss in using coal ; this is an electric railway, worked by water power, which practically costs nothing ; would not that make a difference? Ah, but we have not arrived at that yet.

1117. As they will have 75,000 horse-power at the generating station, that can be used for trains, would that not be an item in the expense of freight? Yes, the cost of the motive power would be about 25 per cent. of the cost of working here at present. Suppose your total cost per train mile to be 3s., the cost of the locomotives would be less than 10d. Our cost last year (1895) for locomotives was 9·36d. per train mile, or barely a third of the total cost per train mile ; therefore, in taking the cost of freight into consideration, you must bear in mind that if you got your electric power for nothing there would be still the road, staff, repairs, and other items to be taken into account.

1118. Would it make a difference if you were hauling goods and no passengers—suppose your traffic were all goods and no passengers? If all goods were taken the cost of the motive power would be increased, owing to the extra weight of the train. The heavier the train, the more the cost per train mile for power.

1119. Would it be the same with electricity? I don't understand the question. If you can run a train cheaper, undoubtedly your cost per train mile would be reduced by the difference of cost of the two powers. If the locomotive power cost 9d. per train mile, and the electric power cost 3d., your power account would be reduced by 6d.

1120. Do you know that ore is sent by train from Broken Hill to Adelaide, and then to Newcastle for treatment at the smelting works there? Yes.

1121. That is a long distance? Yes.

1122. Is it profitable? To whom?—I know that some of the mining companies have not paid at all ; some have. The railway pays very well.

1123. You said the low grade ores would not be worth carrying with 75 per cent. of worthless material to the smelters? If you could avoid it, no ; but you must remember they have no water for the treatment of ores at Broken Hill—at least, that is the information I got when I was at Broken Hill ; there was no water there. I believe they are working some dry process now.

1124. You said the Government railways would take the ore from Mount Read? The line we are now making, yes.

1125. Would that line also take all the ore from Mount Tyndall and the Hercules? Tyndall is in another direction ; the Hercules is on the same line as Mount Read.

1126. But would Mount Tyndall be served by the Mount Read tramway? Yes, by a short extension ; and further, the Rosebery, would also be served by another short extension. We could get the ore from both of them by the Ring River Tramway.

1127. Then, you must have water-carriage after that? Yes. The Government has decided on a system of tramways in these districts. If other lines come in now and take the traffic, that system would not pay ; they would also take the traffic from the tramways now constructed.

1128. Would not the tramways now constructed become feeders to this railway? If they take the ore away from us we should lose the money for every ton we hoped to carry on to Zeehan. If we take it on our trams and put it on to their railway we should lose the freight also from Zeehan to Strahan.

1129. What is the distance in length of the Zeehan railway? 29½ miles.

1130. And what is the distance to Glenora? 36½ miles.

1131. Then if you got enough increase of traffic at this end that would compensate for it? It is entirely a question of route as to how far the railway would interfere. The trams were laid out and constructed by Government on a system that would pay. If we did not get the traffic it would not pay us.

1132. Suppose the ores go to Strahan on your railway, do those ores find their way to Hobart or to Melbourne? Nearly all to Hobart, for export.

1133. Then the ore goes out of the country for treatment? It always would go out of the Colony, would it not?

1134. Not if we had ore-reduction works here? Oh yes.

1135. *By Mr. N. J. Brown.*—Of course, we have been asking you these questions up to the present as a railway expert, without reference to anything else. Now, as a business man, and without

reference to railway matters, the question is this—Can you not, as a business man, see that, while it will not pay, from a railway point of view, to carry ores over certain distances by railway, it would be advantageous to a Company interested in the reduction of ores, and also to the community generally, who would benefit by the large amount of employment for labour necessary in the reduction of ores; and it would be to their advantage to have concurrently carried out the railway and the reduction works complete. I should like to have your opinion as a business man, though not an advantage from a railway point of view, as to merely carrying ores, whether it might not be an advantage to the community to have this scheme carried out, although the Company might be carrying ores at a loss on freight? I can only answer that question as best I can. In the abstract I should say yes, decidedly; but one has to look at the surroundings. I can understand that if this Company can get water-rights and other concessions which are equal in value to the interest on the cost of construction of the line, they may very well make the railway. Again, looking at it as a business man, we know at present of no mineral discoveries between Zeehan and Glenora—at least outside what is known as the Zeehan field. Before ore is treated there by large reduction works many years must elapse, even if the stuff is found, and that is a matter of speculation. The fair way of looking at the question is this: the Company is asking for very large rights; will these rights, if granted, give them a return equivalent to the cost of the railway plus the profit on the railway? Under such conditions I would answer your question in the affirmative.

1136. Then it amounts to this, it would pay the Company to carry out the enterprise, and it would be an advantage to the community at large, notwithstanding the point that the Government system of railways would suffer from competition? Yes, for the advantage might be greater than the loss. It is simply a question of pounds, shillings, and pence. The water rights and the land grants and so forth have all to be considered; they are all elements in the calculation. From a business point of view, I have no more to say. So long as you open up the land, it does not matter much whether it is done by Russian or Chinese capital. It is no use to us locked up as it is.

ROBERT HENRY, *recalled.*

1137. *By Mr. Butler.*—Can you tell the Committee any further particulars about lines of electrical railway? The only particulars I have been able to come across are as to the line from Niagara to Buffalo, which is 14½ miles. They have attained 40 miles an hour speed as a trial, and 30 miles has been done in regular traffic, but the average working speed is from 7 to 8 miles.

1138. And as to the grades? No grades are given in the account of it. I have spoken of the grades at Montreal as 1 in 10 and 1 in 8, overhead cables and ordinary rails being used. [Witness quoted from a descriptive account of this railway in the *Electrician*.]

1139. What is the weight of the cars? The cars are from 25 to 30 horse-power each—very similar to what we have here. It does not give the weight of the cars.

1140. That is an ordinary street tramway for the carriage of passenger traffic? Yes, a street tramway for passenger traffic. They have the same sort of traffic now running with trailers—that is, a car without a motor, drawn by a motor car.

1141. Are they alternating current-motors that are in use on these trains? I don't know that they are used for car-work, but there are alternating current-motors.

1142. Can these alternating current-motors be used for transmission as well as for stationary work? I could not say exactly.

1143. Do you know anything about the Triphase system? No.

1144. Have you not read of it? No.

1145. Nor the Multiphase system? No.

1146. You know that a great many of the alternating current machines require to have a synchronous system attached to excite the motor? Yes, I know they require to have special appliances to excite the motor.

1147. Do you know there are non-synchronous motors in the alternating system? No. I would not like to give an opinion, it is not a subject to which I have given much attention.

1148. Have you heard of the rotatory current system? No.

1149. You are aware of this fact, then, that by using a higher voltage you can reduce the size of the wire and carry the same amount of current? Yes; certainly.

1150. That is, if we choose to use a higher voltage we could use much smaller wires? Yes.

1151. You know that very high voltages are used, as high as 30,000 volts? Yes, I know they are used.

1152. Then we do not require thick wires or conductors and more expense for copper if we transmit the current at high tension, and then transform it down? If you want to transmit a certain amount of current you must use a certain sized wire to carry it, at a certain voltage. If you use a small wire you must have a high voltage.

1153. Then if I desired to transmit electricity from here to Zeehan I would not use a thick wire, but I would use a high voltage and a small wire? Yes, that could be done.

1154. You are aware that you can transform a continuous current of electricity up or down by means of motor generators? Yes, by transformers.

1155. By motor generators? Yes; that is what I mean.

1156. You know that we can run an enormous current of electricity into a motor which is also a generator, and pass it out of the machine at a much lower voltage? Yes. A comparison of the cost of steam in the case of the Hobart Tramways as against water in the case of the Launceston Electric Lighting is in favor of the latter by about 50 per cent.

1157. *By Mr. N. J. Brown.*—There was a statement made that the cost of water-power was 40 per cent. less than the cost of steam power for generating electricity. That is what I wanted to get at if I could—would that be so? Yes, that is about right.

1158. You have to take the interest into account on the first cost of the machinery, and then the cost of working? Yes. There would be a saving of about £120 a year in the interest on the Launceston works.

ROBERT SYDNEY MILLES, *called and examined.*

1159. *By Mr. Butler.*—What is your name? Robert Sydney Milles.

1160. You are a Civil Engineer and Director of the Water-works of this city? Yes.

1161. Do you know anything about the science of hydraulics? Yes; I have had a good deal to do with it.

1162. Now, as to the motive-power of electricity generated by water-power, can you tell us from your experience if it is a cheap method? Generally speaking, I consider it is a cheap method.

1163. Do you know of any railways or tramways worked by electrical power? Not from actual experience, except the local trams.

1164. From what you have read or heard? You mean as to general working: there are some in all parts of the world now, but I would not like to attempt to give any definite information without looking up the subject more.

1165. Do they work on steep grades with electric motors? Yes, I believe so.

1166. And is it safe? Yes, within certain limits.

1167. What grades should they go up? They should not go higher than 1 in 15 unless with special appliances. There are several conditions in working with electricity that you have to think of; the climate has a good deal to do with it, and whether it is a straight line or has a number of curves in it; also whether it is a short or a long distance: the length has a good deal to do with it.

1168. Is the addition of a third rail an element of safety? I don't know which system you are referring to.

1169. I mean the third or rack rail? That does increase the safety.

1170. Could goods be carried down a grade like that? They could be carried down certainly.

1171. With safety? Yes, within certain limits.

1172. Do you know much about electricity and the motor system? No, from actual experience I do not.

1173. Do you think the first cost of the necessary waterworks would be cheaper than the first cost of steam machinery for generating the electric power? Yes, that is if you have natural facilities for it,—I mean by the power of nature, of course.

1174. Are the working expenses less? Yes, under some conditions. I would like to explain what I mean. It would not be cheaper if you had to convey water a long distance, but if you have the natural facilities of supply and a good fall, you have the power at your very door.

1175. And is that power easily transmitted? Yes, by electricity.

1176. It is proposed to make a railway from some point on the Derwent Valley, near Glenora, to the West Coast. Is that a feasible undertaking with 75,000 horse-power available, say for 100 miles of railway? Yes.

1177. Does the distance make a difference in sending the electric current for railways or trams? Yes, in sending the current it does.

1178. If they had a number of distributing stations along the line would that make it more practicable? Yes.

1179. Do you think it is a scheme that could be carried out? I certainly think it is.

1180. *By Mr. Mulcahy.*—Do you know what a sluice-head of water is? Yes, I know the Government sluice-head.

1181. Yes, the quantity of water per sluice-head, is that locally fixed? It is slightly different from what it is in the other colonies.

1182. How many sluice-heads would it take to give one horse-power? That all depends on the pressure or fall.

1183. It is a question of the quantity of water. What is a sluice-head in regard to quantity? Well, it is seldom worked out on the question of power. It is seldom we take it otherwise than by the number of gallons.

1184. Have you got the size of a sluice-head? Yes, the sluice-head or unit here is 16 inches by 1 inch, with a depth of $5\frac{1}{2}$ inches pressure. That is our sluice-head of water, I can't at the moment say how many gallons it gives. The sluice-head is equal to $4\frac{1}{2}$ horse-power per 100 feet of fall.

1185. How many sluice-heads will it take to give 75,000 horse-power, with 100 feet of fall? It would be over 16,000 in 100 feet of fall.

1186. Over 16,000 sluice-heads, with 100 feet of fall, to give 75,000 horse-power? Yes.

1187. Is that a very large quantity of water, such as is flowing in a river like the Derwent, for instance, above New Norfolk? Yes. I can give you the gauges of some of the principal streams, which I took some time ago, if you like. Roughly speaking, there are plenty of places to get a fall without expense, such as Russell's Falls, for instance. My estimate of the water running over there in March, 1893, during the summer flow, is 20,000,000 gallons per day. 20 million gallons would give about 400 horse-power, roughly speaking, that is, with a fall of 100 feet almost direct. You can get, by going up a longer distance, a greater fall with the same quantity of water.

1188. You have the gauges of some other water-courses or rivers, have you not? Yes. The Styx has a flow of 25,000,000 gallons per day; the Juneë, 60,000 gallons per day; the Mount Humboldt Creek, 8,000,000 of gallons; and the Plenty, 5,000,000 of gallons per day.

1189. Did you gauge the Derwent? No, I did not gauge the Derwent. I could not get a good fall within a reasonable distance, so I did not do it.

1190. How much bigger is it than Russell's Falls? I have seen it at the Plenty Bridge very small once or twice, but I would not like to say exactly. I don't think it is more than about twice the size of Russell's Falls at that point. It might be two and a-half times as much.

1191. *By the Chairman.*—Suppose the fall was 200 feet? Then you can, practically speaking, double the supply. The whole principle of power is governed by the pressure; and the element of speed in a pipe is one of the things you want to get rid of. The more speed there is in a pipe the less power you get in the pipe itself.

1192. Then 500 feet fall will be a fifth? Yes, you get practically five times the power.

1193. Then 75,000 horse-power, with a fall of 500 feet, would be equal to 3000 sluice-heads of water? Yes.

1194. At the Russell's Falls would it be nearer to have your turbines at the Falls or to go down the river? You won't get very much more, the bottom of the Falls is 855 feet above sea level. We have to come down to the bridge, where the main road crosses the Falls River, which is above sea level about 300 feet, that is a drop of 550 feet in about eight miles. It is really simply a question of cost as to what works you put up. If you get up high and you come down, it is a question of cost to give you certain data.

1195. *By Mr. Mulcahy.*—Would it, from your knowledge of rivers, be an easy matter to get 500 feet fall within a reasonable distance? Yes, you would get it easily, I think, by putting a line of pipes. If they were well laid, and of proper diameter, you could get 500 feet in that way, and also the power.

1196. In $2\frac{1}{2}$ miles would you get that pressure; could you get it equal to a fall of 500 feet? Most of our rivers have that. You could easily get 200 feet in a mile in some.

1197. Would it be easy to get 500 feet in $2\frac{1}{2}$ miles? Yes, I think so.

The Committee adjourned until 11 o'clock to-morrow.

TUESDAY, OCTOBER 6, 1896.

CHARLES MYLES OFFICER, *was recalled and examined.*

1198. *By Mr. Mulcahy.*—I think, Major Officer, in the interests of the public, it would be advisable for you to give the Committee some information regarding the stability of the Promoters of this Great Western Electrical Bill? Yes.

1199. Are you prepared to do that? Yes.

1200. Can your Company put down a deposit? Financially, my Company is all right, and we will be prepared to put down a deposit, if asked to do so, in the usual time. I would like to point out to you that we have to make a transfer of our rights to the larger Company, and any payments we make now we cannot afterwards recover from the Company. I mean to say that until the Company is registered we cannot recover anything we now pay. The registration fee of a £2,500,000 company is a big item, and could not be incurred until we get the Bill through Parliament.

1201. I take it, then, that you are only a few from a greater number? Quite so.

1202. *By the Chairman.*—You are only seven out of a greater number? We are only seven. A larger Company, aided by us, will carry out the work.

1203. *By Mr. Mulcahy.*—Are you prepared to go on with the work immediately Parliament grants you these concessions asked for? Yes.

1204. And to pay a deposit? Yes. We are prepared to go on at once.

1205. I want to know whether you will be prepared to give your word that in the event of this Bill passing your Company will deposit, say within a month, £5000 in the hands of the Government, to be expended in reports and surveys?—Can you do that? Well, of course, they would be prepared to do that, but it would only be a matter of putting it into the hands of the Government to draw it out again as we required it. The reports and surveys will cost a lot of money, and we are prepared to go on with them. If you wished us to deposit £5000 on these conditions with the Government within, say a month, of the passing of the Bill we could do it, but, as I said before, it would only be putting it in to draw it out again as we required it.

1206. Well, may I ask you what you estimate the survey of the route would cost? That I cannot tell at present.

1207. You cannot tell? No. I really could not tell what the survey would actually cost, but we roughly estimate that not less than £3000 would be required, and a similar sum for sending experts to inspect all the latest electric lines and machinery.

1208. To send men away where? You must understand that we will have to send experts to the old country, America, and other parts to inspect and report upon the latest electrical motors and railways immediately. In fact, it will be necessary for us to obtain the best skilled men we can to inspect the latest improvements in electrical machinery.

1209. But about the survey? I have stated it will cost us at least £3000; probably more.

1210. Do you expect to survey the line for that amount? It will take all out that amount to do the work, in fact we anticipate more. It is quite possible that the survey alone will run us into £4000, or even £5000.

1211. Would you be prepared to deposit the estimated cost of surveys, say £5000, with the Government as soon as your Bill passed, or within a month after? Well you see, Mr. Mulcahy, until we register our Company we cannot legally do this. Our agreement is to pay all preliminary expenses before the registration of the Company. If you bound us down to paying this £5000 at once, it might have to come out of our own pockets, and we would be paying personally £5000 in addition to paying for our shares afterwards.

1212. *By the Chairman.*—You have evidently misunderstood what Mr. Mulcahy means. I take it that the Company would refund you the £5000, would they not? I cannot say. It is difficult to recover without agreement.

1213. What Mr. Mulcahy means is this: would you, immediately after the passing of this Bill, deposit with the Government £5000 as showing your *bona fides*? You see the difficulty would be this—we cannot register under two months at the soonest.

1214. *By Mr. Mulcahy.*—Well, supposing that the Parliament insisted upon that £5000 being deposited within two months, will that money be deposited—I mean will you be prepared to deposit £5000 within two months after the passing of the Bill if Parliament insists upon it? Would it suit you if we will deposit £2000 or £3000 in a few days after the passing of the Bill, and the remainder when we register?

1215. I was anticipating asking you to deposit £10,000, but it seems you cannot pay money over until you have registered your Company. Will you be prepared to deposit £2500 straight away, or within two months, and £7500 shortly afterwards? We would probably want six months to deposit the balance, as our Company has got to be registered in London also, and this will take time.

1216. *By the Chairman.*—Do you think you could deposit the balance in six months? Yes, certainly.

1217. *By Mr. Mulcahy.*—Would Parliament help you in the formation of your Company if you made the deposit at once? Well, we simply wish to register before incurring heavy expenses. As soon as we transfer our rights, we can proceed with registration. Until we register we are liable for all the money.

1218. How long will it take to make the track? That I cannot say. You see the country is comparatively unexplored. I think it must take some considerable time, though, to do it.

1219. Then, is two months the earliest time you could arrange to pay the deposit? Well, two months would leave a very small margin to come and go upon in which to ensure a repayment to ourselves from the Company.

1220. Did you not recently offer to construct a track at a cost of £1500? Yes, but that comes out of the £2500 that we are willing to deposit. I would like to point out to you that the amount of deposit now asked for by the Committee exceeds anything ever requested from other Syndicates or Companies seeking powers.

1221. But this is a larger Company than we have ever had before? Yes, and they have to take a bigger risk of loss. I might say that it means we will have to pay over £5000, or at least spend that sum before the registration of our Company.

1222. *By Mr. N. J. Brown.*—Would you be willing to have the survey certified to by a Government officer? Yes, undoubtedly.

1223. *By Mr. Mulcahy.*—I am speaking of what you are going to spend here? Well, we are expecting to have to spend £2500 at once. This amount we are willing to deposit immediately the survey is commenced, and the balance of £7500 a short time afterwards.

1224. *By Mr. Lewis.*—Is the Company underwritten? It is guaranteed on certain conditions.

1225. Will it be? On the condition that we get our Bill in anything like its present form. If there are any disputes they will be referred to arbitration. I would like to point out to the Committee, that if we do not get our Company registered within a reasonable time we can go on with the work ourselves, and this we intend to do.

1226. How long will it be before you can complete the survey? That I could not say exactly, because we do not know the exact route to be taken. Probably six or eight months for a rough survey.

1227. When will you start your survey? Immediately the Bill passes.

1228. And your railway? As soon as the survey is completed. We expect we will be able to start our line within eight months. Of course it will be necessary to have part of the permanent survey made before we commence construction.

1229. Will you be prepared to spend the £2500 before January next? Yes; that is if survey work to that extent can be got through in that time. Taking the whole of the expenses we must incur into consideration, we will certainly expend considerably over £5000 before January next.

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As amended by the Select Committee.

A

B I L L

TO

Authorise certain Persons to construct and maintain a Railway from some point on the *Derwent Valley* Railway to the West Coast of *Tasmania*; and also to construct and maintain Machinery, Works, and other Appliances for treating Ore, and for making, generating, and transmitting Electricity or any Motive Power, and supplying the same to the said Railway, and to any Mine, Company, Co-partnership, Person or Persons whatsoever within the Southern, Western, and North-Western Mining Divisions of *Tasmania*. A.D. 1896.

WHEREAS *Sir William John Clarke*, Baronet, *Charles Myles* PREAMBLE.
Officer the Elder, *Norman Armytage*, the Honorable *Agar Wynne*,
William Hordern, *David Brown*, and *Charles Myles* *Officer the*
 Younger, all of whom are hereinafter included and designated by the
 5 expression "the Promoters," are desirous of acquiring the right to
 construct, maintain, and work a Railway from a point in or near
Glenora, on the *Derwent Valley* Railway, or some other point on
 [Private.]

* * The words proposed to be struck out are enclosed in brackets []; those to be inserted, in parentheses ().

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that Railway, to a point [in or near *Zeehan*, or *Dundas*, or *Queens-town*, or *Gormanston*, on the West Coast] (within the Western Mining Division) of *Tasmania*; and to construct and maintain Machinery and Works and other appliances for treating Ore, and for generating, making, and transmitting Electricity or any Motive Power; 5 and to control and manage the said Works :

And whereas it would be for the benefit of the Colony of *Tasmania* that the said Promoters should be enabled to construct and maintain the said Railway, Machinery, and Works as aforesaid, and that the powers, authorities, and concessions hereinafter proposed to be conferred 10 on the said Promoters should be granted to them :

And whereas such objects cannot be obtained without the authority of Parliament :

Be it therefore enacted by His Excellency the Governor of *Tasmania*, by and with the advice and consent of the Legislative Council and 15 House of Assembly, in Parliament assembled, as follows :—

Division of Act.

1 This Act is divided into Twenty-two Parts, as follows :

Part	I.—Title and Interpretation.	
Part	II.—The Primary Lease.	
Part	III.—Leases for Branch Lines.	20
Part	IV.—Acquisition of Land.	
Part	V.—Construction of Railway.	
Part	VI.—Maintenance of Railway.	
Part	VII.—Power to enter adjoining Lands.	
Part	VIII.—Resumption of Primary Lease, and Purchase 25 of Railway.	
Part	IX.—Levy and Recovery of Tolls, Fares, &c.	
Part	X.—Prior Leases.	
Part	XI.—Accommodation Works.	
Part	XII.—Compensation.	30
Part	XIII.—Grant of Lands.	
Part	XIV.—Forfeiture of Primary Lease.	
Part	XV.—Power to assign or mortgage.	
Part	XVI.—Telegraphs and Telephones.	
Part	XVII.—Power to divert Water.	35
Part	XVIII.—Construction of Works.	
Part	XIX.—Supply of Electric Power.	
Part	XX.—[Offences and Penalties.] (Protection of Public Telegraphic and Telephonic Lines.)	
Part	XXI.—By-laws.	40
Part	XXII.—Miscellaneous.	



PART I.

TITLE AND INTERPRETATION.

Short title.

2 This Act may be cited for all purposes as “The Great Western Railway and Electric Ore Reduction Company Act.”

Interpretation.

3 In this Act, and in any By-law made under it, save where there is something in the context inconsistent therewith, the following words 45 and expressions shall have and include the following meanings attached thereto respectively :—

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- "Company" shall include every company, association, partnership or firm, whether corporate or unincorporate, and wheresoever and howsoever incorporated, associated, or formed :
- 5 "Conductor" shall mean and include cable, wire, or other apparatus for transmitting electrical power :
- 10 "Conduit" shall mean and include the canals, tunnels, aqueducts, cuttings, pipes, or wires by means of which the main supply of [water, water-power,] electricity, or other power is supplied to any town, person or persons, building or property :
- 15 "Crown Lands" or "Crown Land," as used in connection with or in reference to the primary lease hereinafter mentioned, shall mean any lands in the Colony which are or may become vested in the Crown, and have not been and are not dedicated to some public use, and includes all lands of the Crown which are or may be occupied for pastoral or mining or other purposes under any lease or licence issued or applied for in pursuance of any Act of Parliament of this Colony :
- 20 "Divisions" shall mean (so much of) the (Northern and) Southern (Mining Division as lies to the south of the Forty-second degree of latitude, and the) Western and North-Western Mining Divisions of the Colony of *Tasmania*, as defined by the Proclamation under the hand of *Sir John Henry Lefroy*, Governor of *Tasmania*, dated the Thirty-first day of *October*, and published in *The Hobart Gazette* of the First day of *November*, 1881 ; (and the "Westean Mining Division" shall mean the Western Mining Divisson as defined by the said Proclamation :)
- 25 "First Lessee" shall mean any person entitled to occupy any land previously leased under the authority of any Act of the Parliament of *Tasmania* :
- 30 "*Gazette*" shall mean *The Hobart Gazette* :
- 35 "Goods" shall mean and include merchandise, goods, minerals, chattels, live stock, and all other things of every description :
- 40 ["Governor" shall mean the Governor for the time being of the Colony of *Tasmania*, with the advice of the Executive Council :]
- 45 "Land previously leased" shall mean land comprised in any lease or licence issued in pursuance of any Act of Parliament of this Colony :
- 50 "Local authority" shall mean the Board of Health, Municipal Council, Road Trust, Town Board, or body of persons or person having the control or management of the street in respect of which such expression shall be used, if the same shall be used in respect of any particular street ; but if the same shall not be used in respect of any street, it shall mean the Municipal Council or body corporate having the local government of any city, town, or district in which any of the works hereby authorised may be situate, or, in default of any such local authority, the Commissioner of Crown Lands :
- 55 "Machinery" shall mean any appliance for carrying into effect any of the objects authorised by this Act :
- "Meter" shall mean any instrument, apparatus, or appliance for measuring and ascertaining the quantity of water, water-

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- power, motive power, or electricity used or supplied to any person :
- “ Minister ” shall mean the Minister of Lands and Works for the time being of the Colony of *Tasmania* :
- “ Motive power ” shall mean the power derived from water 5 passing through or acting upon machinery, or the electrical power derived therefrom :
- “ Owner ” shall mean the person for the time being in the actual receipt of or entitled to receive the rents and profits of any house, manufactory, or building, of whatsoever kind, or 10 any land :
- “ Person ” shall include corporation, company, association, syndicate, firm, partnership, and local authority :
- “ Private lands ” shall mean any land which shall have been granted by the Crown in fee simple [or by lease for a longer 15 term than Ninety-nine years to any person] (or contracted to be sold by the Crown to any person) :
- “ Promoters ” shall mean and include Sir *William John Clarke*, Baronet, *Charles Myles Officer* the Elder, *Norman Armytage*, The Honorable *Agar Wynne*, *William Hordern*, 20 *David Brown*, and *Charles Myles Officer* the Younger, and their assigns, and the survivor or survivors of them, or their assigns :
- “ Property ” shall mean lands or buildings, and land and buildings : 25
- [“ River ” shall mean and include rivers, lakes, dams, ponds, lagoons, streams, watercourses, channels, estuaries, canals, or waterways within thirty miles of any point along the proposed line of Railway as shown by the plans to be deposited with the Minister as in this Act provided :] 30
- “ Road or Street ” or “ Public Road or Street ” shall include any railway or tramway and public and common highway, main road, road, bridge, footway, square, court, alley, lane, thoroughfare or public way, place, or passage :
- “ The Commissioner ” shall mean any one of the Commissioners 35 of Mines for *Tasmania* :
- “ The Primary Lease ” shall mean the lease made under Section Four of this Act or any renewal thereof :
- “ The said Railway ” or “ the Railway ” shall mean the line of railway and any extensions, branches, and deviations there- 40 of, authorised to be constructed under the authority of this Act, and the permanent way thereof, together with all works, buildings, stations, and erections erected or built on or connected with the said railway, and all land upon which the same are respectively constructed, erected, or built, 45 and all lands, rights, and privileges used in connection therewith or vested in the Promoters for the purposes of this Act :
- [“ Town ” means any settlement, camp, or collection of houses, whether proclaimed as a Town or not, and situate within 50 the said divisions :]
- “ Works ” or “ Waterworks ” means and includes all reservoirs, wells, cisterns, tanks, aqueducts, watercourses, tunnels, shafts, feeders, drains, channels, machinery, engines, cuts, floodgates, sluices, dams, weirs, flumes, races, conduit pipes, 55 pipe-breaks, buildings, pen stocks, conduits, cables, poles for carrying cables and wires, and other works of what

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kind soever which are from time to time necessary or used for effecting the purposes of this Act : A.D. 1896.

“ Other Works ” or “ other Works authorised by this Act ” shall mean and include ore reduction and smelting works, [wharves,] subsidiary tramways, desiccation works, power supply works for electricity for any purpose, [and water-works].

PART II.

THE PRIMARY LEASE.

4 It shall be lawful for the Minister, with the consent of the Governor in Council, notwithstanding anything contained in “ The Mining Act, 1893,” or in any other Act, to grant to the “ Promoters,” for a term of Thirty years, (from the date of this Act) at a nominal rental, and in accordance with the provisions of this Act, a primary lease of any Crown Land not exceeding one chain in width, for the construction and maintenance and working of a railway from a point 15 [in or near *Glenora*] (to be approved by the Minister) on the *Derwent Valley* Railway, [or some other point on that railway,] to some point [in or near *Zeehan*, or *Dundas*, or *Queenstown*, or *Gormanston*,] (within the Western Mining Division to be approved by the Minister) and also such area of Crown Land for all stations, 20 sidings, crossings, side-cuttings, cuttings, embankments, spoil-banks, and ballast, and other conveniences in connection with the said railway as may be proper, and also such other areas for such other purposes as the Promoters may consider necessary for the carrying out of the object of this Act, subject to such covenants, terms, and conditions as 25 to the Governor in Council may seem fit.

Lease may be granted for purpose of constructing railway and other works.

5 The primary lease, in addition to providing for the construction and maintenance of the said railway in accordance with the stipulations and conditions hereinafter contained, and in accordance with such other conditions and stipulations not inconsistent with this Act as the Governor in Council may deem necessary for securing the efficient construction, maintenance, and working of the said railway, shall provide—

Conditions and stipulations of lease.

1. For the junction of the said railway with the *Derwent Valley* Railway, and the passage over or along the said railway of any motors, engines, carriages, waggons, or other vehicles of the *Derwent Valley* Railway, or for the haulage of such motors, engines, carriages, waggons, and vehicles respectively, and for the conveyance of goods and passengers over the said railway in any such carriages, waggons, or other vehicles as aforesaid, in accordance with the terms and conditions of any agreement that may from time to time be made between the Minister and the Promoters in that behalf :
- II. That the Promoters shall properly fence the said railway in all places in which they shall be required by adjoining proprietors, or by the Minister, to do so :
- III. That the Promoters shall carry on the said railway all mails which the Postmaster-General shall require them to carry thereon, for such reasonable compensation as may from time to time be agreed upon by them and the Postmaster-General :
- IV. For a renewal from time to time of the said lease for a further

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term not exceeding Twenty-one years, upon and subject to all the conditions herein prescribed, and all the provisions of this Act :

v. That in the event of any of the contingencies hereinafter mentioned the said lease shall be forfeited, viz. :— 5

(a) If any of the covenants or conditions contained in the said lease and to be performed or observed by the Promoters [are] (is) not [all] duly performed and observed :

(b) If the construction of the railway is not commenced 10 in a *bond fide* manner within Twelve months from the date of this Act (and such construction continued to the satisfaction of the Governor in Council :) :

(c) If the said railway is not completed, fully equipped, 15 and ready for traffic, to the satisfaction of the Governor in Council, within Five years from the date of this Act, [or within such further time as the Governor in Council may see fit to allow] :

(a) If the said railway is not at any time during the con- 20 tinuance of the said lease, without reasonable cause, properly and efficiently maintained and worked in accordance with the provisions of this Act :

(e) If the Promoters do not provide and maintain engines 25 and rolling stock sufficient for the conveyance of passengers and the tonnage which may be offered for carriage on the said railway.

((f) If the Promoters do not, after the said railway is completed and opened for traffic, run at least two 30 trains daily upon the said line throughout its entire length ; viz.—one daily train from each terminus to the other terminus, such trains to be of such capacity and start at such hours as the Governor in Council may from time to time 35 determine ; and the minimum average speed at which such train shall travel shall be Fifteen miles an hour, including all stoppages and detentions :) :

((g) If the Promoters do not expend a sum of not less 40 than Five hundred Pounds in each of the first Five years after the issue of the grants of land under Part XIII. of this Act upon each block :) :

Effect of lease.

6 The primary lease shall operate and take effect as a licence to the Promoters to do all things that may from time to time be necessary to 45 construct, maintain, and work the said railway and other works, but shall not confer any right or title to occupy or use any portion of the land therein comprised for any other purpose whatsoever, and shall not confer any right or title to any minerals.

Minister may renew lease.

7 It shall be lawful for the Minister, with the consent of the 50 Governor in Council, from time to time at or after the expiration of the primary lease to grant a renewal thereof to the Promoters for a further term not exceeding Twenty-one years, upon and subject to all the conditions herein prescribed and all the provisions of this Act, so far as the same may be applicable.

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LEASES FOR BRANCH LINES.

8—(1.) The Minister may from time to time, with the consent of the Governor in Council, grant to the Promoters for the unexpired residue of the term of the said lease, a lease of any piece of Crown land not exceeding One chain in width, for the construction thereon of such
 5 branch lines of railway from the said railway to such termini (within the boundaries of any land granted to the Promoters under Part XIII. of this Act) as may be determined upon by the Promoters and approved by the Governor in Council, and also such area of Crown land for all stations, sidings, crossings, sidecuttings, cuttings, embankments, and
 10 conveniences in connection with the said branch lines of railway as may be necessary or proper, and for all other purposes in connection with this Act.

Minister may grant lease for branch line of railway.

(2.) Any such lease as last aforesaid shall be subject to all the provisions of this Act so far as the same may be applicable, and shall con-
 15 tain such of the provisions and stipulations hereby required to be contained in the primary lease as the Governor in Council may think necessary or applicable to such branch lines or otherwise, and shall be renewable in like manner with the primary lease.

PART IV.**ACQUISITION OF LAND BY THE PROMOTERS.**

9 The Promoters may purchase, acquire, take on lease, sell or
 20 exchange such other land as may be necessary for the purposes of constructing the said railway [or any such branch railway, or other works authorised by this Act; and all the costs, expenses, and charges of so purchasing, acquiring, taking, leasing, selling, or exchanging such other land, and the cost of all buildings or other works constructed on
 25 the same, shall be included in the cost of construction work mentioned in Section]

Power to purchase land.

10 For the purpose of enabling the Promoters to purchase, acquire, and take other land as hereinbefore provided, or any material required for the construction of the said railway, *The Lands Clauses Act*
 30 shall, except as hereby varied, be incorporated with this Act; but there shall not be incorporated with this Act Sections Eight and Nine of the said *The Lands Clauses Act*.

The Lands Clauses Act incorporated. 21 Vict. No. 11.

In the construction of this Act and the said incorporated Act this Act shall be deemed to be the Special Act, and the Promoters shall be
 35 deemed to be the "Promoters of the undertaking."

11 The power hereinbefore conferred upon the said Promoters to purchase and take land under the provisions of *The Lands Clauses Act* shall not enable them to purchase, acquire, or take any public road or street, but the Governor in Council may, by the primary lease or at any
 40 time thereafter, grant to the Promoters the power to construct the said railway [or other works] across or under or over any specified public road or street, subject to such conditions as may be thought fit, and the Promoters shall thereupon have power to construct the said railway [or other works] across any such public road or street.

Power to cross roads and streets.

45 12 When the Promoters shall open or break up the road or pavement of any street or bridge, or any sewer, drain, or tunnel, they shall, with all convenient speed, (and to the satisfaction of the local authority) complete the work for which the same shall be broken up,

Reinstatement of streets, &c.

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and fill in the ground and reinstate and make good the road or pavement or the sewer, drain, or tunnel so opened or broken up, and carry away the rubbish occasioned thereby; and shall at all times, whilst any such road or pavement shall be so open or broken up, cause the same to be fenced and guarded, and shall cause light sufficient for the 5 warning of passengers to be set up and kept there for every night during which such road or pavement shall be continued open or broken up.

Streets, &c.
broken up, to be
reinstated without
delay.

13 No street [outside the limits of any town in the said Divisions] shall, except in the case of emergency aforesaid, be open or broken up 10 except under the superintendence of the persons, if any, having the control or management thereof, or of their officers, and according to such plan as is approved of by such person or their officer, or, in case of any difference respecting such plan, then according to such plan as may be determined by Two Justices: Provided, that if the persons having such 15 control or management as aforesaid and their officers fail to attend at the time fixed for the opening of any such street after having had such notice of the intention of the Promoters as aforesaid, or do not propose any plan for breaking up or opening the same, or refuse or neglect to superintend the operation, the Promoters may perform the work 20 specified in such notice without the superintendence of such persons or their officer.

Cost of arbitra-
tion, how to be
borne.

14 In any case where land or material is required for the purposes of such railway [or other works authorised by this Act,] if the Promoters or their assigns, before any steps are taken under *The Lands Clauses Act*, 25 tender to the person entitled to receive the same compensation for severance and otherwise for such land or material, then if such person refuses to accept the same and to convey the land so required, or to permit the same to be used or material taken, as the case may be, and a reference to arbitration takes place under *The Lands Clauses Act*, 30 and the arbitrators or umpire award a sum not exceeding the amount of compensation so tendered, all the costs of the reference, arbitration, and award shall be paid by such person, and such payment may be enforced by action in any Court of competent jurisdiction on a count for money paid at the request of such person. 35

PART V.

CONSTRUCTION OF THE RAILWAY.

Length, gauge,
grade, &c. of
railway.

15 The said railway shall be constructed and worked from a terminus to be approved by the [Governor in Council] (Minister) [in or near *Glenora*] on the *Derwent Valley* Railway [or some other point on that railway] to a terminus to be approved by the [Governor in Council] (Minister) [at *Zeehan*, or *Dundas*, or *Queenstown*, or 40 *Gormanston*,] (within the Western Mining Division) and shall have a gauge of Three feet Six inches, with curves of a radius of not less than Five chains, and steel rails of not less than Forty-three pounds to the yard.

Railway to be
constructed in
substantial
manner, &c.

16 The said railway shall be constructed in a substantial manner 45 fit for the carriage of vehicles at a rate of not less than Fifteen miles per hour with a load of not less than Four tons upon each axle of every vehicle, and shall be maintained and worked by the Promoters, in accordance with the provisions of this Act and subject thereto, to the satisfaction of the Governor in Council or such officer as the Governor 50 in Council may appoint.

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17 Before the said Promoters shall commence to construct the railway or other works they shall deposit with the Minister a copy of the working plan and sections of such railway [or other works,] showing the route of such railway, and the character of such other works, and
 5 the private and Crown lands and mineral leases to be traversed by the said railway or which shall be contiguous thereto when the same is constructed, and the proposed method of dealing with any roads, streets, or tramways affected; and the Minister may require such alterations as he thinks necessary to be made in such plan and section
 10 so deposited with him as aforesaid in order to bring the same into accordance with the provisions of this Act: Provided always, that the Promoters may submit the plans and sections above referred to from time to time for portions of the line instead of for the whole line and before commencing construction of such portion: Provided further, that
 15 all detailed plans of any of the works, together with specifications under which the same are to be executed, shall also be lodged with the Minister as the construction of the said railway proceeds. And the Promoters shall construct the railway in accordance with the plans, sections, and specifications so deposited with the Minister, and thereafter approved
 20 of by him, with such alterations therein as he may have approved or required to be made.

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Before commencing to construct railway, Promoters to deposit plans with the Minister.

18 The Promoters may from time to time during the construction of the said railway make such alterations in the plans, sections, and specifications thereof deposited with the Minister as aforesaid as the
 25 Minister may from time to time approve.

Promoters may make alterations in plans.

19 The Governor in Council may (at the cost of the Promoters) from time to time appoint one or more officers to inspect the said railway during the construction thereof, and it shall be lawful for every officer so appointed for the purpose aforesaid from time to
 30 time to enter upon the said railway during the construction thereof and to inspect the manner in which the same is being constructed, and the condition and state of repair thereof; and the Minister, upon the report of any such officer as aforesaid, may require the Promoters to make such additions or repairs to the said railway as
 35 may be necessary to make the said railway comply with the plans, sections, and specifications thereof approved of by the Minister or to ensure the safety of the said railway; and the Promoters shall, within such time as the Minister shall require, make all such additions or repairs to the said railway as the Minister shall so require as aforesaid.
 40 said.



Railway may be inspected during construction.

20 Where the said railway crosses any private or occupation road on a level the Promoters shall allow Twelve feet of the said railway for the same; and the Promoters may from time to time make and maintain other private level crossings or occupation roads when and at
 45 such places as the Promoters may think fit, and shall allow Twelve feet of the said railway for all such roads; and in all such cases the Promoters shall likewise erect and maintain good and sufficient field-gates, set and placed in the line of the fence on each side of the said railway, and all such field-gates shall also be opened and shut by the person and
 50 persons using and passing through the same as soon as he and the carriage, cattle, or other animals under his care have passed through the same.

Crossing of private roads.

[*Private.*]

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Penalty for
injuring any road
or street.

21 The said railway shall, so far as possible, be so made as not to unreasonably or unnecessarily impede, injure, prevent, or interrupt any ordinary or rightful traffic upon any public road or street, and so as not to increase the cost of making, maintaining, repairing, and upholding the same: Provided always, that if at any time complaint shall be made to a Justice of the Peace by or on behalf of the person in whom any such road or street is vested, or under whose control the same may be, that the provisions of this Section are being infringed by the Promoters, it shall be lawful for any Two Justices of the Peace in Petty Sessions assembled, at any time before the completion of the works complained of as in contravention of this Section, to make such order upon the Promoters for securing due compliance by them with the provisions hereof as such Justices may deem necessary. In default of compliance with such order, the Promoters shall be liable to pay to the person by or on whose behalf the complaint is made a penalty not exceeding the sum of Five Pounds for each such default, and also to pay to such person the cost, to be assessed and determined by any Two Justices in Petty Sessions assembled, of remedying every such impediment, injury, prevention, or interruption as in this Section mentioned; and all such penalties and costs shall be recoverable in the mode prescribed by *The Magistrates Summary Procedure Act*.

Promoters to
repair damages.

22 The Promoters shall from time to time make good, repair, and amend all damage which may be done by them to or upon any public road or street in, through, over, or along which the said railway is constructed; and in case of their refusal or neglect so to do after reasonable notice given, and upon such repairs or amendments being effected by or on behalf of the person in whom the said public road or street is vested, or under whose control the same may be, the cost of such repairs or amendments shall be assessed and determined, and may be recovered by or on behalf of such person, in like manner with the costs mentioned in the next preceding Section.

Roads to be
crossed on a level.

23 Whenever its course is over or along any public road or street, the railway shall be laid at or about the general level of such road or street; and the Promoters may, with the consent of the local authority having control of such road or street, alter and improve the levels of such road or street: Provided, that all expenses incurred in the re-formation of such road or street so altered and improved shall be borne by the Promoters unless otherwise agreed upon.

Before roads
interfered with
others to be
substituted.

24 If in the exercise of the powers hereby granted it be found necessary to crosscut through, raise, sink, or use any part of any road, whether carriage road or horse road, either public or private, so as to render it impassable for or dangerous [to,] or [extraordinarily] inconvenient to passengers or carriages, or to the persons entitled to the use thereof, the Promoters shall, before operations are commenced, cause a sufficient road (to the satisfaction of the local authority) to be made instead of the road to be interfered with, and shall at their own expense maintain such substituted road for a period of One year in a state as convenient for passengers and carriages as the road so interfered with, or as nearly so as may be.

Bridges how to
be constructed
over any road.

25 Every bridge to be erected for the purpose of carrying the railway over any road shall be built in conformity with the following regulations; namely:—

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The width of the arch shall be such as to have thereunder a clear space of not less than Thirty feet if the arch be over a main road, and of Twenty feet if over a cross or by road, and of Twelve feet if over a private road.

- 5 The clear height of the arch from the surface of the road shall be not less than Sixteen feet for a space of Twelve feet if the arch be over a main road, and Fifteen feet for a space of Ten feet if over a cross or by road, and in each of such cases the clear height of the spring of the arch shall not be less than Twelve feet; the clear height of the arch for a space of Nine feet shall
- 10 not be less than Fourteen feet over a private road.

- The descent to be made in the road in order to carry the same under the bridge shall not be more than One foot in Thirty feet if the bridge be over a main road, One foot in Twenty feet if over a cross or by road, and One foot in Sixteen feet if over a
- 15 private road not being a tramroad, or if the same be a tramroad or railroad the descent shall not be greater than the ruling gradient of such tramroad or railroad.

- And every bridge erected for carrying any road over the railroad shall
- 20 be built in conformity with the following regulations; that is to say:—

- There shall be a good and sufficient fence on each side of the bridge of not less height than Four feet, and on each side of the immediate approaches of such bridge of not less than Three feet. The road over the bridge shall have a clear space between the fences thereof of Thirty-five feet if the road be a main road, and Twenty-five feet if it be a cross or by road, and Twelve feet
- 25 if a private road. The ascent shall not be more than One foot in Thirty feet if the road be a main road, and One foot in Twenty feet if a cross or by road, and One foot in Sixteen feet if a
- 30 private road not being a tramroad or railroad, or if the same be a tramroad or railroad the ascent shall not be greater than the ruling gradient of such tramroad or railroad.

- Provided always, that in all cases where the average available width for the passing of carriages of any existing road within Fifty yards of the
- 35 point of crossing the same is less than the width hereinbefore prescribed for bridges over or under the railway, the width of the bridges need not be greater than such average available width of such roads, but so nevertheless that such bridges be not of less width in case of a main road or cross or by road than Twenty feet: Provided also, that if at
- 40 any time after the construction of the Railway the average available width of any such land shall be increased beyond the width of such bridge, or on either side thereof, the Promoters shall be bound at their own expense to increase the width of the said bridge to such extent as they may be reasonably required by the [Trustees or Surveyors of such road,]*

- 45 not exceeding the width of such road as so widened or the maximum width herein prescribed for a bridge in the like case over or under the railway: Provided also, that if the mean inclination of any road within Two hundred and fifty yards of the point of crossing the same, or the inclination of such portion of any road as may require to be altered,
- 50 or for which another road shall be substituted, shall be steeper than the inclination hereinbefore required to be preserved by the [Company,]* then they may carry any such road over or under the railway, or may construct or alter any such substituted road at an inclination not steeper than the said mean inclination of the road so to be crossed, or of the
- 55 road so requiring to be altered, or for which another road shall be substituted.




*(Local
authority)



*(Promoters)


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 Railway not to be used until Engineer certifies.

26 No part of the said railway shall be opened for public traffic until the Engineer-in-Chief or such officer as the [Minister] (Governor in Council) may appoint has certified that such part of the said railway has been efficiently constructed, and all the rolling stock to be used thereon is in good and efficient condition and repair, and may be safely used for public traffic thereon.

PART VI.


MAINTENANCE OF THE RAILWAY.

 Railway to be kept in proper repair.

27 After the said railway is completed the Promoters shall properly and efficiently maintain and work the said railway; and the Governor in Council may (at the cost of the Promoters) from time to time appoint one or more officers to inspect the said railway and to report upon the state and condition of repair thereof and the manner in which the same is being maintained and worked; and it shall be lawful for every officer so appointed for the purpose aforesaid from time to time to enter upon the said railway and to inspect the same and all the rolling stock thereof, and the manner in which the said railway is being worked; and the Minister may, upon the report of any such officer as aforesaid, require the Promoters to make such repairs to the said railway and such repairs or additions to the rolling stock thereof as may be necessary to ensure the safety of the said railway or of the passengers travelling thereon, or the efficient maintenance and working of the said railway in accordance with the provisions of this Act and the stipulations and conditions of the primary lease; and the Promoters shall, within such time as the Minister shall require, make all such repairs and additions to the said railway and the rolling stock thereof as the Minister shall so require as aforesaid, (and in default of the Promoters carrying out such repairs as aforesaid, they shall be liable to a penalty of not less than Five Pounds nor more than Twenty Pounds for every day which shall elapse before such repairs shall be effected.)

Gates to be erected where roads are crossed on a level.

28 Where the said railway crosses any public road or street on a level, the Promoters shall erect, and at all times maintain, good and sufficient gates across such road or street on each side of the said railway where the same shall communicate therewith, and shall employ proper persons to open and shut such gates; and such gates shall be kept constantly closed across such road or street on each side of the said railway where the same shall communicate therewith, and the Promoters shall employ proper persons to open and shut such gates, and such gates shall be kept constantly closed across such road or street on both sides of the said railway, except during the time when horses, cattle, carts, or carriages passing along the same shall have to cross the said railway; and such gates shall be of such dimensions and so constructed as when closed to fence in the said railway and prevent cattle or horses passing along the road from entering upon the said railway, and the persons entrusted with the care of such gates shall cause the same to be closed as soon as such horses, cattle, carts, or carriages shall have passed through the same, under a penalty of Forty Shillings for every default therein:

 Provided always, that it shall be lawful for the Minister, in any case in which [the Governor in Council] (he) may be satisfied that it will be more conducive to the public safety that the gates on any level crossing over any such road or street should be kept closed across the said railway,

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to order that such gates shall be kept so closed instead of across the road or street, and in such case such gates shall be kept constantly closed across the said railway, except when engines or carriages passing along the said railway shall have occasion to cross such road or street, 5 in the same manner and under the like penalty as above directed with respect to the gates being kept closed across the roads or streets. A.D. 1896.

29 Notwithstanding anything hereinbefore contained, it shall be lawful for the Promoters, with the consent of the Minister, to make and use cattle-guards instead of gates in any place where the railway crosses 10 any public street or road; and such cattle-guards shall be so made and maintained as to effectually prevent the straying of horses, cattle, sheep, or other animals from such street or road to the railway: Provided that any such street or road be not thereby decreased in width at the crossing, and that the railway be securely fenced at such points. Cattle-guards may be used in place of gates.

15 30 In every case in which the Promoters shall make and use cattle-guards instead of gates in any place where the railway crosses any public street or road, they shall erect a notice-board on each side of the said railway at every such crossing warning travellers as to passing trains, and whenever any train is approaching such crossing the engine-whistle shall be sounded: Provided that the rate of speed of a train 20 while passing any such crossing on any street in a Town shall in no case exceed Five miles per hour. Measure of precaution to be adopted.

31 The Promoters may from time to time for the purposes of this Act fell timber and use and carry away the same, and dig and use clay, 25 stone, and other material upon any Crown land comprised in the primary lease or in the vicinity of the railway or other works, and may fell all timber which in the opinion of the Promoters it may be necessary to remove for the safe working of the said railway or other works, notwithstanding anything contained in Section Six of this Act: Provided 30 that, in the case of any land previously leased, full compensation shall be made to all parties interested in such land for the damage done under this Section, and such compensation shall be settled by arbitration in the mode prescribed by *The Lands Clauses Act* in cases of disputed compensation. Materials from Crown lands. Compensation.

35 32 It shall be lawful for the Minister, with the consent of Parliament, from time to time to enter into an agreement with the Promoters whereby the Minister shall undertake either to maintain and work the said railway, or to maintain or work the same, and to provide all locomotives, carriages, wagons, and other rolling stock necessary for 40 that purpose, together with the requisite staff of officers and men as may be necessary, subject to such terms and conditions as may be mutually agreed upon by the Minister and the Promoters. Minister may agree to maintain and work railway.

33 It shall be lawful for the Minister with the consent of the Governor in Council, from time to time to grant to the Promoters, upon 45 such terms and conditions, and for such periods, as the Minister, with the consent of the Governor in Council, shall think fit, running powers over, along, and upon any railway belonging to the Government of *Tasmania*. Minister may grant running powers.

34 The Minister may from time to time require the Promoters to 50 enter into an agreement whereby the engines, carriages, wagons, and Promoters may grant running powers, &c.

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other vehicles of the Government of *Tasmania* and the passengers and goods conveyed thereby may pass over and along the said railway upon payment by the Minister of such reasonable tolls and compensation for so doing as may be agreed upon; and the Minister shall have such reasonable privileges in connection therewith, and be subject to the observance of such reasonable conditions and restrictions, as may be agreed upon.

In the event of any difference arising between the Minister and the Promoters under this Section, such dispute shall be referred to arbitration in the manner described in Part VIII. of this Act.

10

PART VII.

POWER TO ENTER UPON ADJOINING LANDS.

Materials from
private land.



35 The Promoters, for the purpose of constructing, repairing, and maintaining the said railway, [or other works authorised by this Act,] may, after Seven days' notice to the owner or occupier, enter upon any uncultivated land, and may fell, carry away, and use indigenous timber, except when the same is used for ornament or shelter to any dwelling house, and may also dig, quarry, carry away, and use clay, stone, or other material, and may place and deposit upon any such land any materials, waste, or spoil: Provided that full compensation for taking any of such materials, or for depositing any such materials, waste, or spoil as in this Section mentioned, shall be made to all parties interested for the damage thereby sustained.

Construction
of works.



36 Subject to the provisions of this Act, it shall be lawful for the Promoters, for the purpose of constructing, maintaining, and working the said railway, to execute any of the following works; that is to say—
 To enter upon any lands to survey and take the levels of the same: 25
 To make or construct upon, across, under, or over any lands, streets, roads, rivers, creeks, or other waters [such] temporary or permanent inclined planes, tunnels, embankments, aqueducts, bridges, roads, ways, culverts, drains, arches, cuttings, fences, and other works [as the Promoters may think proper]: 30
 To divert or alter, as well temporarily as permanently, the course of any streams of water, roads, streets, or ways, or raise or sink the level of any such roads, streets, or ways, in order the more conveniently to carry the same over or under or by the side of the railway, [as the Promoters may think proper]: 35
 To make drains or conduits into, through, or under any lands adjoining the said railway, for the purpose of conveying water from or to the said railway:
 To draw water from any stream or river in the vicinity of the railway for the supply of locomotives and other purposes at such elevation as may be necessary to secure a fall into any railway tank by natural gravitation: 40
 To erect and construct [such] houses, warehouses, goods-sheds, offices, and other buildings, yards, stations, [wharfs,] engines,

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machinery, and apparatus, and other works and conveniences, A.D. 1896.

[as the Promoters may think proper] :

To, from time to time, alter, repair, or discontinue the before-mentioned works, or any of them, and substitute others in their
5 stead :

To do all other acts necessary for making, maintaining, altering, or repairing and working the said railway :

Provided that in the exercise of the above-mentioned powers the Promoters shall do as little damage as can be, and shall make full compensation in manner (provided) hereinafter, and in any Act incorporated
10 herewith, [provided] to all parties interested for all damage by them sustained by reason of the exercise of such powers.

37 Before using any fenced or otherwise enclosed lands for any of the purposes aforesaid, the Promoters shall, if required so to do by the owner
15 or occupier thereof, separate the same by a sufficient fence from the lands adjoining thereto with such gates or cattle-guards as may be required by the said owner or occupier for the convenient occupation of such lands, and shall also erect across all private roads used by them as aforesaid such fences and gates or cattle-guards as may be necessary to prevent the
20 straying of cattle from or upon the lands traversed by such roads ; and in case of any difference between the owners or occupiers of such roads and lands and the Promoters as to the proper kind of fences and gates or cattle-guards to be erected, the Promoters shall erect such fences and gates or cattle-guards as any Two Justices shall deem necessary for the purposes
25 aforesaid, on application being made to them by either party : Provided that due notice of any such application shall be given to the other party, who shall have an opportunity of being present at the hearing thereof.

Promoters to separate the lands before using them.

38 In case of accidents or slips happening or being apprehended, to the cuttings, embankments, or other works of the said railway, it
30 shall be lawful for the Promoters and their workmen and servants to enter upon the land adjoining thereto at any time whatsoever for the purpose of repairing or preventing such accidents, and to do such works as may be necessary for the purpose ; but in every such case
35 the Promoters shall within Forty-eight hours after such entry make a report to the Minister specifying the nature of such accident, or apprehended accident, and of the works necessary to be done, and such powers shall cease and determine if the said Minister shall after considering the said report certify that their exercise is not necessary
40 for the public safety : Provided, that such works shall be as little injurious to the said adjoining lands as the nature of the accident or apprehended accident will admit of, and shall be executed with all possible despatch ; and full compensation shall be made to the owners and occupiers of such lands for the loss, injury, or inconvenience
45 sustained by them respectively by reason of such works, the amount of which compensation in case of any dispute about the same shall be settled in the same manner as cases of disputed compensation in other cases under this Act : Provided also, that no land shall be taken
50 permanently for any such works otherwise than is herein provided with respect to the lands originally taken for the purpose of making the said railway.

Power to enter upon adjoining lands to repair accidents, subject to certain restrictions.

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PART VIII.

RESUMPTION OF PRIMARY LEASE AND PURCHASE OF RAILWAY.

Minister may
resume land upon
notice.



39 It shall be lawful for the Minister, with the consent of Parliament, at any time after the expiration of Twenty-[one] (five) years from the date of [the primary lease] (this Act), [or at any time after any renewal of the primary lease,] to give the Promoters notice of the intention of the Crown to resume the land comprised in the primary 5 lease at the expiration of Six months after the date of such notice, and to take and acquire the permanent way, rolling stock, and equipment of the said railway, and all land and buildings belonging thereto [and the whole land, machinery and works belonging to the Promoters (save and except any land granted under this Act as hereinafter provided), 10 and] which have been acquired, made or erected under the authority of this Act, and to compensate the Promoters as hereinafter provided.

Until such resumption or any forfeiture of the primary lease shall have taken place, all the rights, powers, privileges, benefits, concessions, advantages, and liabilities conferred or imposed upon the Promoters by 15 this Act or by the primary lease shall, notwithstanding any such notice given by the Minister as aforesaid, continue in force in like manner and to the like effect as if such notice had not been given.

Compensation
upon resumption
of land comprised
in lease.



40 The amount of compensation to be paid to the Promoters upon the resumption by the Crown of the land comprised in the primary 20 lease shall [be] (not exceed) the actual cost of the construction work, with an amount added equal to [Five years' profits] (Twenty Pounds per centum) on such cost of construction, and the value of all equipment, rolling stock, appliances, goods, and chattels of the Promoters used or intended for use on or in connection with the said railway 25 [and other works authorised by this Act].

Provided that if at the time of such resumption the said railway shall not be in good and efficient repair and condition, and sufficient in all respects for the traffic and such other works shall not be in good and efficient repair and condition for the use thereof, then the sum 30 necessary to put the said railway and other works in such repair and condition as aforesaid shall be deducted from the sum that would otherwise be payable to the said lessees as such compensation, and in case of dispute shall be settled by arbitration as hereinafter provided.

If Governor and
lessees cannot
agree, may
proceed to
arbitration.

41 In the event of the Governor in Council and the Promoters not 35 agreeing upon the sum to be paid to the Promoters upon the resumption by the Crown of the land comprised in the said lease, the question shall be referred to the determination of Five arbitrators, Two of whom shall be appointed by the Governor in Council, and Two of whom shall be appointed by the Promoters, and the Fifth arbitrator shall be 40 appointed by the Four other arbitrators.

If Promoters
fail to appoint
arbitrators.

42 If the Promoters fail or refuse to appoint Two arbitrators for the purpose aforesaid within a period of Three months after having received notice in writing from the Minister so to do, it shall be lawful for the Governor in Council to appoint Two arbitrators to act with 45 the Two arbitrators appointed by the Governor in Council, and such Four arbitrators shall appoint a Fifth arbitrator, and the Five arbitrators so appointed shall determine the price or sum to be paid by the Crown upon the resumption of the land comprised in the said lease.

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- 43** If any vacancy shall occur among the arbitrators before they have fixed such price or sum as aforesaid, such vacancy shall be filled up by the appointment of another arbitrator by the same authority by which the arbitrator whose place has become vacant was appointed. A.D. 1896.
Vacancy in arbitrators.
- 44** For the purpose of ascertaining the actual cost of the construction work under this Act, the Promoters shall, (from time to time during such construction and) upon completion of the said railway, and thereafter from year to year, submit to the Auditor-General accounts and proper vouchers of all construction works; and upon computing the amount of compensation to be paid to the Promoters in the event of the land comprised in the primary lease and the works connected and used therewith being resumed, the amount of the accounts as passed by the Auditor General shall be deemed to be the actual cost of the construction of the [Tramway] (Railway). Accounts of cost of construction to be submitted to Auditor-General.
- 45** The accounts of the Promoters in and about the construction of the railway shall be subject to all the provisions of "The Audit Act, 1888," in the same manner in all respects as if such accounts had been specifically mentioned therein. Accounts of construction subject to 52 Vict. No. 43.
- 46** Upon the railway being completed and opened for traffic no new works of construction in connection with the railway shall be commenced or carried out without the consent of the Governor in Council, and in the event of such works being carried out without such consent such works shall not be deemed construction works for the purpose of computing the amount of compensation upon the resumption or forfeiture of the primary lease as aforesaid. New construction works to be approved by Governor in Council.


PART IX.

LEVY AND RECOVERY OF TOLLS AND FARES, &c.


- 47** It shall be lawful for the Promoters to use and employ (electric motors), locomotive engines or other moving power, and carriages and waggons to be drawn or propelled thereby, and to carry and convey upon the railway all such passengers, goods, and things of every kind, and live stock of every kind as shall be offered for that purpose, and to make and sue for such charges in respect thereof as hereinafter specified: Provided, that all such tolls be at all times charged equally to all persons and after the same rate in respect to all passengers, goods, things, cattle, and live stock as aforesaid of the like number or quantity, on carriages of the same description and conveyed or propelled by a like carriage, (motor), or engine passing only over the same portion of the line of railway under the same circumstances; and no reduction or advance in any such tolls shall be made either directly or indirectly in favour of or against any particular person travelling upon or using the railway. Authority to employ (electric motors), locomotive engines, carriages, and other locomotive powers, &c.
- 48** It shall be lawful for the Promoters from time to time to demand, take, collect, levy, and make such reasonable tolls, rates, fares, and charges for the carriage and conveyance of passengers, goods, merchandise, live stock, chattels, and other things of every description, over and along the said railway, as may from time to time be fixed by Rates and tolls.
- [Private.]

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 any By-law to be made as hereinafter mentioned ; but such tolls, rates, fares, and charges for the carriage and conveyance of passengers shall not at any time exceed [Five-pence] (Four-pence) per mile for First-class passengers, and [Four-pence] (Three-pence) per mile for Second-class passengers, and for the carriage and conveyance of goods and 5 merchandise not less than a ton in quantity shall not at any time exceed Nine-pence per ton per mile ; and for the carriage and conveyance of live stock shall not at any time exceed Three Shillings per ordinary truck per mile.

 [Provided that Members of the Parliament of *Tasmania* and their 10 wives who shall hold for the time being a free pass upon the railways belonging to the Government of *Tasmania*, shall be entitled to travel free on the said line.]



Promoters may make charges.

 49 The Promoters are hereby authorised to make such charges, rates, and tolls for the supply of electricity as may be agreed upon by 15 them and the persons to whom such electricity is supplied by the Promoters : Provided that in no case [will] (shall) the charge exceed One Shilling [and Sixpence] per unit.

Rates to be recoverable from occupier.

50 The rates, charges, and tolls for electricity, and all sums due to the Promoters under this Act, shall be paid by and be recoverable from 20 the occupier of the premises, or the person requiring, receiving, or using the supply of electricity.

Rates and tolls may be recovered.

 51 In case default is made in payment of any money due and payable under the authority of this Act in respect of the carriage or conveyance of any passenger or any goods, merchandise, live stock, 25 chattels, or other things of every description, or the demurrage or storage of any goods, merchandise, live stock, chattels, or other things of every description, [or in respect of sale, hire, or supply of electricity, motive power, or in respect of any rights, powers, privileges, and authorities conferred by this Act,] the same may be recovered by the Pro- 30 moters in a summary way before any (Two) Justice(s) of the Peace ; and it shall be lawful for the Promoters to detain the goods, merchandise, live stock, chattels, and other things of every description in respect of which such money is payable until the same shall have been fully paid and satisfied ; and also if such goods, merchandise, or other things have 35 been detained during a period of not less than Six months, to sell the same or so much thereof as may be necessary by public auction to be duly advertised, and to apply the proceeds in or towards satisfying the money so due and payable. (Provided, that live stock and perishable  goods may be sold forthwith). 40

Power to award costs.

52 In all proceedings whatever for the recovery of any rates or charges under this Act, and in all other proceedings before Justices in pursuance of this Act, it shall be lawful for the Justice or Justices in his or their discretion to award and order that the defendant shall pay such costs as to such Justice or Justices shall seem just and reasonable 45 in that behalf ; and in case where such Justice or Justices, instead of making an order as aforesaid, shall dismiss the information or complaint, it shall be lawful for him or them in his or their discretion to award and order to the defendant such costs as to such Justice or Justices shall seem just and reasonable ; and the sums so allowed for costs shall 50 in all cases be specified in the orders or order of dismissal as aforesaid, and the same shall be recoverable in the same manner and under the

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same warrants as any penalty or sum of money adjudged to be paid in **A.D. 1896.**
and by such order is to be recoverable; and in cases where there is no such
penalty or sum to be thereby recovered, then such costs shall be recover-
able by distress and sale of goods and chattels of the party.

- 5 **53** Nothing in this Act contained shall extend to charge or make Promoters not to
liable the Promoters further or in any other case than where according be liable to a
to the laws of this Colony stage-coach proprietors and common carriers greater extent
would be liable, nor shall extend in any degree to deprive the Promoters than common
of any protection or privilege which common carriers or stage-coach carriers.
10 proprietors may be entitled to, but, on the contrary, they shall at all
times be entitled to the benefit of every such protection and privilege.

- 54** No person shall be entitled to carry or to require to be carried, Penalty for
upon the railway, any aquafortis, oil of vitriol, [gunpowder,]* lucifer bringing
matches, or any goods which in the judgment of any person employed dangerous goods
15 on the railway may be of a dangerous nature; and if any person sends on the railway,
by the railway any such goods without distinctly marking their nature *(explosives)
on the outside of the package containing the same, or otherwise giving
notice in writing to the book-keeper or other person employed as afore-
said with whom the same are left at the time of so sending, he shall
20 forfeit a sum of not less than Two Pounds nor more than Twenty
Pounds for every such offence; and it shall be lawful for the person to
whom the same is tendered to refuse to take any parcel suspected to
contain goods of a dangerous nature, or he may require the same to be
opened to ascertain the fact.

PART X.

PRIOR LEASES.

- 25 **55** If the primary lease comprises any land previously leased, then Protection to
the primary lease shall not affect the rights of the first lessee, except so rights of first
far as may be necessary for carrying out the objects of the primary lessee.
lease, and the first lessee may accordingly exercise all powers conferred
upon him in respect of the land previously leased: Provided that he
30 shall not carry on any mining operations within One hundred feet of
the surface of any land comprised in the said lease, except with the
consent of the Governor in Council nor in such a way as to endanger
or inconvenience the works of the Promoters.

- Should any dispute arise between any persons under this Section the Settlement of
35 same shall be decided by the Commissioner, who shall have power to disputes.
decide what, if anything, shall be done or shall not be done by any
person, and what damages and costs, if any, shall be paid by any person.

- 56** Before entering upon any land previously leased for the purpose Notice of
of constructing any portion of the said railway [or other works] intention to make
40 authorised by this Act, the Promoters shall serve upon the first lessee railway.
a notice describing with all reasonable accuracy, by means of a plan or
otherwise, the proposed course, direction, or situation of the said rail-
way [or other works].

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The Promoters
may enter after
notice.

57 The Promoters may, for the purpose merely of surveying and taking levels, after giving not less than Twenty-four hours' nor more than Seven days' notice to the first lessee, enter upon any land of the first lessee which may be comprised in the said lease without the previous consent of any person. 5

How notice may
be served.

58 In any case in which a notice is required to be served on the first lessee under this Act, the same shall be deemed to be duly served if such notice is served upon the person in charge of or occupying the land in respect of which such notice is given, or, if there be no person in charge of or occupying such land, then such notice shall be deemed 10
duly served upon proof of the same having been posted in some conspicuous place on the said land.

Compensation to
first lessees.

59 Before any work shall be constructed under the authority of this Act through, over, or upon any land previously leased, the first lessees shall be paid by the Promoters such compensation (if any) as shall be determined by agreement between the first lessee and the Promoters; and if such compensation shall not be fixed by agreement within One month after the service of the notice mentioned in Section Fifty-[seven] (six), then such compensation (if any) shall be determined by the Commissioner. 15
20

Provided always, that compensation shall not be payable to any person in respect of any land applied for or occupied under any lease or licence, and being within One chain of the centre of any proposed line of railway under this Act which, either before or after the passing of this Act, shall have been or shall hereafter be surveyed for the purposes of such line of railway, if such application or occupation shall have been made or taken place during or after such survey. 25

Compensation
how estimated.

(Promoters)*

(Promoters)*

60 In estimating the compensation (if any) to be paid to the first lessee, regard shall be had only to the damage (if any) to be sustained by the first lessee by reason of the severing of the lands occupied by the 30
[Company] from the other lands of the first lessee, or otherwise injuriously affecting such other lands or buildings or mining works by the exercise of the powers given to the [Company] by the primary lease. The Commissioner shall not be bound to award any sum for damage unless in his opinion substantial damage shall have been sustained. 35

Commissioner
may exercise
power conferred
on Justices.

61 In case of non-payment of any sum of money awarded by the Commissioner under this Act within such period as the Commissioner shall at any time appoint, the Commissioner shall, for the purpose of enforcing payment of such sum, have and may exercise all the powers conferred upon a Justice of the Peace by *The Magistrates Summary 40
Procedure Act*.

Power to enforce
attendance of
witnesses.

62 The Commissioner shall have and may exercise, for the purpose of procuring and enforcing the attendance of persons and witnesses, and for hearing and determining any matter brought before him under this Act, all the powers conferred upon a Justice of the Peace by *The 45
Magistrates Summary Procedure Act*; and such Commissioner may award and order that one party shall pay to the other party such costs and expenses as to such Commissioner shall seem just and reasonable; and the amount thereof shall be recoverable in the same manner as costs ordered by a Justice of the Peace to be paid may be recovered 50
under the said Act.

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63 Either party to any proceeding before the Commissioner under this Act may at any time within Twenty days after the Commissioner has given his decision thereon appeal to the Supreme Court, or a Judge thereof, against the decision of the Commissioner, and such Court or Judge may make any Order as to the costs of such appeal, and by and to whom the same are to be paid.

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Appeal.

PART XI.

ACCOMMODATION WORKS.

64 The Promoters shall make, and at all times thereafter maintain, the following works for the accommodation of the owners and occupiers of lands adjoining the railway and other works authorised by this Act; that is to say:—

Gates, bridges, &c.

Such and so many convenient gates, cattle-guards, bridges, arches, culverts, and passages over, under, or by the sides of or leading to or from the railway as shall be necessary for the purpose of making good any interruptions caused by the Railway to the use of the lands through which the railway shall be made; and such works shall be made forthwith after the part of the railway passing over such lands shall have been laid out or formed, or during the formation thereof;

Also sufficient posts, rails, hedges, ditches, mounds, or other fences for separating the land taken for the use of the railway from the adjoining lands not taken, and protecting such lands from trespass, or the cattle of the owners or occupiers thereof from straying thereout by reason of the railway, together with all necessary gates made to open towards such adjoining lands and not towards the railway, and all necessary stiles; and in the case of any fenced or otherwise enclosed land such posts, rails, and other fences shall be made forthwith after the taking of any such lands, if the owners thereof shall so require, and the said other works as soon as conveniently may be;

Fences.

Also all necessary arches, tunnels, culverts, drains, or other passages, either over or under or by the sides of the railway, of such dimensions as will be sufficient at all times to convey the water as clearly from the lands lying near or affected by the railway as before the making of the railway, or as nearly so as may be; and such works shall be made from time to time as the railway works proceed:

Drains.

Also proper watering-places for cattle where by reason of the railway the cattle of any person occupying any lands lying near thereto shall be deprived of access to their former watering-places; and such watering-places shall be so made as to be at all times as sufficiently supplied with water as theretofore, and as if the railway had not been made, or as nearly so as may be; and the Promoters shall make all necessary water-courses and drains for the purpose of conveying water to the said watering-places:

Watering-places.

Provided always, that the Promoters shall not be required to make such accommodation works in such a manner as would prevent or obstruct

A.D. 1896. the working or using of the railway, nor to make any accommodation works with respect to which the owners and occupiers of the land shall have agreed to receive, and shall have been paid, compensation instead of the making them.

Differences as to accommodation works to be settled by Justices.

65 If any difference arise respecting the kind or number of any 5 such accommodation works, or the dimensions or sufficiency thereof, or respecting the maintaining thereof, the same shall be determined by Two Justices of the Peace; and such Justices shall also appoint the time within which such works shall be commenced and executed by the Promoters. 10

Execution of works by owners on default by the Promoters.

66 If for Twenty-eight days next after the time appointed by such Justices for the commencement of any such works the Promoters shall fail to commence such works, or having commenced shall fail to proceed diligently to execute the same in a sufficient manner, it shall be lawful for the party aggrieved by such failure himself to execute 15 such works or repairs, and the reasonable expenses thereof shall be repaid to the party by whom the same shall have been so executed; and if there be any dispute about such expenses, the same shall be settled by Two Justices; Provided always, that no such owner or occupier or other person shall obstruct or injure the railway; or any 20 of the works connected therewith, for a longer time, nor use them in any other manner, than is unavoidably necessary for the execution or repair of such accommodation works.

Power to owners of land to make additional accommodation works.

67 If any of the owners or occupiers of lands affected by such Railway shall consider the accommodation works made by the Promoters, 25 or directed by such Justices to be made by the Promoters, insufficient for the commodious use of their respective lands, it shall be lawful for any such owner or occupier at any time, at his own expense, to make such further works for that purpose as he shall think necessary, and as shall be agreed to by the Promoters, or in case of difference as shall be 30 authorised by Two Justices of the Peace.

Such works to be constructed under the Superintendence of the Promoters' Engineer.

68 If the Promoters so desire, all such last-mentioned accommodation works shall be constructed under the superintendence of their Engineer, and according to plans and specifications to be submitted to and approved by such Engineer. 35

Accommodation works not to be required after Two years.

69 The Promoters shall not be compelled to make any further of additional accommodation works for the use of owners and occupiers or land adjoining the railway after the expiration of the prescribed period, or if no period be prescribed, after Two years from the completion of the works and the opening of the railway for public use. 40

Owners to be allowed to cross until accommodation works are made.

70 Until the Promoters shall have made the bridges or other proper communications which, under the provisions herein contained, the Promoters are required to make between lands intersected by the railway, and no longer, the owners and occupiers of such lands, and any other persons whose right of way shall be affected by the want 45 of such communication, and their respective servants, may at all times freely pass and repass, with carriages, horses, and other animals, directly, but not otherwise, across the part of the railway made in or through their respective lands, solely for the purpose of occupying the same lands, or for the exercise of such right of way, and so as not to 50

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obstruct the passage along the railway, or to damage the same; nevertheless, if the owner or occupier of any such lands have in his arrangements with the Promoters received or agreed to receive compensation for or on account of any such communications, instead of the same being formed, such owner or occupier, or those claiming under him, shall not be entitled so to cross the railway. A.D. 1896.

71 If any person omit to shut and fasten any gate set up at either side of the railway for the accommodation of the owners or occupiers of the adjoining lands as soon as he and the carriage, cattle, or other animals under his care have passed through the same, he shall forfeit for every such offence any sum not exceeding Ten Pounds. Penalty on persons omitting to fasten gates.

PART XII.

COMPENSATION.

72 Whenever by this Act compensation is directed to be made by the Promoters to any persons whose interests are affected by the exercise of any of the powers hereby conferred, such compensation shall, except in cases hereinbefore specially provided for, be settled by arbitration in the mode prescribed by *The Lands Clauses Act* in cases of disputed compensation. Compensation how determined.

73 In estimating the amount of compensation for severance or otherwise to be paid to any person for or in respect of land or material taken or used for the purposes of the said railway or other works authorised under this Act, the arbitrators or umpire shall take into consideration the benefit that is likely to accrue to the person to whom such land or material belongs by reason of the construction of such railway and other works, and the arbitrators or umpire, in awarding compensation to be paid for or in respect of such land or material, shall make such deduction for such benefit as shall be deemed just; and in case it appears to the arbitrators or umpire that the benefit likely to accrue to the person through whose land such railway is about to be taken is equal to or greater than the loss he will sustain by reason of the taking or using of his land or material for such railway, the arbitrators or umpire shall award that no compensation is to be paid, and thereupon the same rights shall accrue as if compensation had been awarded and duly paid. In estimating compensation to be paid for land taken for railway, benefit to owner to be considered.

74 If either party is dissatisfied with the award of the arbitrators or the umpire appointed to determine the amount of compensation to be paid to any person whose interests are affected by the exercise of any of the powers conferred upon the Promoters by this Act, and the amount of compensation awarded by the arbitrators or umpire exceeds One hundred Pounds, the dissatisfied party may appeal as hereinafter provided from the award of the arbitrators or the umpire to a Judge of the Supreme Court, and the amount of the compensation in every such case shall thereupon be fixed by a Judge of the Supreme Court in the manner hereinafter provided. Dissatisfied party may appeal to a Judge of the Supreme Court.

75 If the dissatisfied party desires to appeal from the award of the arbitrators or umpire he shall, within Fourteen days after the delivery Procedure upon appeal.

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to him of such award or a copy thereof, give notice in writing to the other party of his intention to appeal, and shall, within One month after the service of such notice upon the opposite party, prosecute such appeal in accordance with the Rules made by the Judges for conducting appeals under "The Main Line Railway Amendment Act, No. 2," so far as such rules are applicable, and the amount of compensation to be paid in any such case shall be ascertained by a Judge of the Supreme Court in such manner as he deems advisable, and subject to such conditions as he sees fit to impose; and the Judge may also in his discretion make an Order as to the party by whom the costs of the appeal shall be borne: Provided, that a Judge of the Supreme Court may, upon what he shall deem sufficient cause, allow an appeal to be prosecuted after the expiration of the time hereinbefore allowed for that purpose; but no appeal shall be allowed after the expiration of Three months after the service of notice of intention to appeal.

15

Security for costs.

76 Upon the application of any respondent, the Court or a Judge sitting in Chambers may at any time order security for costs to be given by the appellant to such amount and in such manner as to the Court or a Judge shall seem fit and proper.

Award not to be made a Rule of Court until Judge determines matter in dispute.

77 Where the dissatisfied party gives such notice of appeal as afore-said, then the award given by the arbitrators or the umpire shall not be made a Rule of Court until a Judge of the Supreme Court, by an Order in writing under his hand, determines the matter in dispute, or the time hereinbefore allowed for prosecuting the appeal has expired.

Compensation for diverting water to be ascertained by action in the Supreme Court.

78 Where any claim for compensation involves damage alleged to have been sustained by reason of the taking, or diversion, or appropriation of any water, and the right of the claimant in or to such water is disputed by the Promoters, if the Promoters, within Fourteen days after the service of the notice of the claim, give notice to the claimant that his right in or to such water is disputed, then such claim shall not be determined by arbitration, but shall be determined by an action [in] (before a Judge of) the Supreme Court, to be brought by the claimant against the Promoters for damages, or upon an issue agreed to between the claimant and the Promoters.



PART XIII.

GRANTS OF LAND.

[Promoters to acquire right to mark off land for grants.]

[79 Upon the deposit of the plans, specifications, and sections of the said railway and other works with the Minister as hereinbefore provided, the Promoters shall acquire the right to mark off Crown lands on either side of the line of railway, or any branch, extension, or deviation thereof, along their entire length, alternate rectangular blocks of land each of which shall be Ten miles square or as nearly square as the irregularities of the railway line, which will form one boundary of such blocks, will permit. Provided that, if and whenever the said line of railway passes through land other than Crown land, then the Promoters shall be entitled to mark off equivalent areas thereto as near the line of Railway as possible, and at any point along the course thereof.]



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- (A)** Upon the deposit of the plans, specifications, and sections of the said railway with the Minister as hereinbefore provided, and within Two years after the passing of this Act, the Promoters shall acquire the right to mark off in the manner hereinafter prescribed any unoccupied Crown lands, in Seven alternate blocks of land, each containing Sixty thousand acres (more or less), on both sides of the line of railway along its length, between an imaginary line drawn north and south through the Trigonometrical Station upon Mount *Field West* and the line forming the eastern boundary of the Western Mining Division.
- Each of such blocks of land shall have a frontage of Five miles along the railway line, and the eastern and western boundaries thereof shall run due north and south, and the back lines due east and west. The selection of the most eastern of such blocks shall be subject to the approval of the Minister. The Promoters shall also, upon such deposit, and within such time as aforesaid, acquire the right to mark off a further block of Eighty thousand acres (more or less) of unoccupied Crown lands in one square block, to be selected in the country west of the said line drawn through the Trigonometrical Station on Mount *Field West*, and south of the southern boundaries of the blocks selected as aforesaid to the south of the railway line and south of the southern boundary of the Western Mining Division. Provided, that none of such blocks shall include any land within Five miles of the ocean or any navigable harbour or river.)
- 80** Nothing in this Act contained shall be held to empower the Promoters to mark off under the authority of this part of this Act any land reserved for a town or any portion of the esplanade reserved along the bank of any river. (There shall be reserved in any grant made under this part of this Act an Esplanade of One hundred feet in width along the banks of every river, and an Esplanade of One-half of a mile round the margin of every lake within such grant, and also the right for the Minister at any time to resume without compensation such land not exceeding One chain in width as he may at any time require for the construction of roads, mining easements, or other public purposes.)
- 81** After a block of land has been marked off by the Promoters under the authority of this part of this Act, it shall not be lawful for any other person to [mark off, or] enter upon, or to occupy or select, or apply for a lease of such block of land or any portion thereof under the provisions of any other Act relating to the disposal or occupation of Crown lands or otherwise, anything contained in "The Mining Act, 1893," notwithstanding; and any person who shall [mark off or] enter upon or occupy such block of land or any part thereof contrary to the provisions of this Act shall forfeit and pay to the Promoters a penalty not exceeding Twenty Pounds.
- 82** Upon the completion and opening of the said railway for traffic, it shall be lawful for the Governor to issue to the Promoters a grant of each block of land (including all minerals and metals therein) duly marked off and applied for under the provisions of this Act, upon the terms and conditions following; that is to say:—
- i. That the Promoters shall keep a correct and complete record of all minerals and gold obtained from every block of land granted to the Promoters under the provisions of this Act.
 - ii. That the Promoters shall furnish to the Minister twice at least in every year a full and correct return of all minerals
- [*Private.*]

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(Promoters to acquire right to mark off land for grants.)

Land reserved for towns or esplanade not available for selection by the Promoters.

Land marked off by the Promoters to be protected.

Upon completion of railway Minister may issue grants to the Promoters.

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and gold obtained from every block of land granted to the Promoters under the provisions of this Act.

- iii. That the Promoters shall pay to the Minister for the use of Her Majesty royalties upon all minerals obtained from every block of land granted to the Promoters under the provisions of this Act, at the rate of one per centum of the [net] (gross) value thereof. (on the ground)
- iv. That the said royalties shall be paid twice at least in every year.
- v. That the Governor (in Council) may from time to time appoint 10 such person or persons as he thinks fit with full power and authority to enter upon any block of land granted to the Promoters under the provisions of this Act, and to ascertain what use the Promoters are making of the said block of land, or any portion thereof, and what mining or other 15 operations are being conducted thereon.
- vi. That for the purpose of ascertaining whether any and what royalties are payable in respect of any minerals and gold obtained from any block of land granted to the Promoters under the provisions of this Act, or from any portion thereof, 20 the Governor (in Council) may from time to time appoint such person or persons as he thinks fit with full power to enter into any of the offices of the Promoters, and to examine and audit all books of account of the Promoters.

PART XIV.

FORFEITURE OF THE PRIMARY LEASE.

If Promoters guilty of breaches of lease or of Act, the Attorney-General may move Supreme Court to declare lease forfeited.

83 If the Promoters shall be guilty, without reasonable cause, of any 25 breach of any of the conditions, provisions, or stipulations of the primary lease, or of any of the provisions of this Act, and such breach shall continue after reasonable notice shall have been given by the Governor in Council to the Promoters to put an end to or remedy the same, the Attorney-General may, when and so often as any such breaches may 30 happen, apply to the Supreme Court for a Rule calling upon the Promoters to show cause, on a day to be mentioned in such Rule, why the primary lease should not be declared forfeited upon such grounds as may be set forth in such Rule; and such Rule may be served upon the Promoters or any other person having the management of the 35 affairs of the Promoters in *Tasmania*, either personally or by leaving the same at the last known place of business of the Promoters in *Tasmania*, and being so served or left as aforesaid, such Rule shall be deemed for all purposes to have been duly served on the Promoters, as the case may be.

40

Supreme Court may declare lease forfeited, or may order Promoters to pay a sum of money to Treasurer.

84 If on the hearing of such Rule the Court shall be satisfied, either by affidavit or otherwise, that the Promoters have been guilty, without reasonable cause, of any of the breaches of the conditions, provisions, or stipulations in the primary lease or of this Act set forth in the said Rule, and that any such breach has continued after such 45 reasonable notice as is mentioned in the immediately preceding Section

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has been given, the said Court may, and is hereby authorised and empowered, to order and declare such lease to be forfeited, and thereupon (except as hereinafter mentioned) such lease shall become absolutely null and void. A.D. 1896.

5 Provided, that the Court upon the hearing of any such Rule may, if it shall consider that the justice of the case would be met by so doing, instead of ordering the forfeiture of the said lease as aforesaid, order the Promoters to pay to the Treasurer such a sum of money as the said Court may consider reasonable by way of penalty for the
10 breach of any of the conditions, provisions, or stipulations of the primary lease or of this Act. And the said Court may also make such Order as to the costs of the proceedings as it may think fit; and any Order so to be made for the payment of any sum of money or costs as aforesaid may be enforced in the same manner as may for the time
15 being be provided for the enforcement of decrees and orders of the said Court in its Equitable Jurisdiction.

85 The said Court may from time to time adjourn the hearing of any such Rule to show cause as aforesaid, and may give to the Promoters such time as to the Court may seem reasonable for the purpose
20 of enabling the Promoters to file such affidavits as may be considered necessary in opposition to the ground set forth in the said Rule, and any affidavits that may have been filed in support thereof, and may also allow further time to the Attorney-General to file any affidavits in reply as to the Court may seem expedient; and the said Court may
25 also, if it shall see fit, direct the truth of the grounds set forth in the said Rule to be decided otherwise than by affidavit, and for that purpose may direct one or more issue or issues to be tried by a jury in the like manner as issues directed by the Court in its Equitable Jurisdiction are tried.

Court may adjourn the hearing, and may grant time to file affidavits;

and may order issues to be tried by a jury.

30 86 If the said Court shall order the primary lease to be forfeited as hereinbefore mentioned, it shall nevertheless be lawful for the Governor, with the advice of the Executive Council, on the Address of both Houses of Parliament, to waive such forfeiture upon the payment of such sum or sums of money, and upon such other terms and conditions as
35 by such address may be suggested; and upon payment of such sum or sums of money, and compliance by the Promoters with such other terms and conditions as aforesaid, the primary lease shall be of the like force and effect as if such Order of the Court had not been made.

If Court order lease to be forfeited, Governor in Council may waive same upon Address of Parliament.

40 87 The Minister may, with the consent of Parliament, upon such forfeiture as aforesaid make to the Promoters fair and reasonable compensation for all construction work of the Promoters under the authority of this Act or of the primary lease, and for the rolling stock, equipment, goods, and chattels of the Promoters used or intended for
45 use in connection with the said railway according to the value thereof at the time of such forfeiture, and such compensation shall in case of difference or dispute be determined in like manner as is provided in Sections Forty-one, Forty-two, and Forty-three. Provided that in no case shall such compensation exceed the amount actually paid by
50 the Promoters for such construction work, rolling stock, equipment, goods, and chattels, nor the value of the same at the time of such forfeiture.

Compensation to Promoters upon prohibition.

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Upon resumption,
&c. railway vested
in Minister.

88 Upon the resumption of the land comprised in the primary lease as hereinbefore provided, or upon the forfeiture of the said lease, the railway and other works constructed by the Promoters, and all the right, title, and interest of the Promoters, and of any person or persons claiming, by, through, or under the Promoters in and to the said railway and all works connected or used therewith, and all lands granted to or acquired by the Promoters under the authority of this Act, and all the rights, privileges, powers, and advantages whatsoever affecting or appurtenant to the said railway and other works which may be invested in, held, enjoyed, or possessed by or conferred on the Promoters shall, without the necessity of any transfer or connecting title other than this Act, be transferred to and become vested in the Minister freed and discharged from all claims and demands of any person whomsoever in all respects in the same manner as the Promoters or such other person or persons held, possessed, enjoyed, used, and exercised the same.

PART XV.

PROMOTERS MAY ASSIGN OR MORTGAGE, &c.

Promoters may
raise money by
mortgage.

89 Subject to the provisions of this Act, the Promoters may, from time to time, issue Debentures or give and execute mortgages or other charges upon the said railway or its equipment, or any branch line, or other works, or the tolls, rates, fares, and charges on any such railway or branch line or other works, for the purpose of securing the payment of any sum or sums of money borrowed or raised by the Promoters for the purposes of this Act, or of the said railway, or for securing the payment of any dividends or interest; and such Debentures, mortgages, or charges may be in such form, and contain such powers and provisions, as the Promoters may deem expedient.

Promoters may
let tolls, &c.

90 It shall be lawful for the Promoters from time to time, with the consent of the Governor in Council, to let the said railway and other works, and the said tolls, rates, fares, and charges, together with all or any equipment or rolling stock of the Promoters; and during the continuance of any such letting the person to whom the same shall be let, or the persons or person by him appointed, are hereby empowered to demand, levy, and take the said tolls, rates, fares, and charges, and to use the said equipment and rolling stock, and to manage the railway and works of the Promoters in like manner, and shall have the like remedies and rights, and be subject to the like liabilities in respect of the same, as the Promoters would have been empowered, or would have had, and would have been subject to, but for such letting.

Rights, powers,
&c., under this
Act may be
assigned, &c. to
incorporated
companies.

91 It shall be lawful for the Promoters, at any time after the passing hereof, to assign, transfer, convey, and release to any company duly incorporated for that purpose, or to any local authority, association, syndicate, partnership, person, or persons all or any of the rights, powers, authorities, privileges, liabilities, and obligations conferred and

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imposed upon them by this Act, together with all or any of the lands, tenements, and hereditaments, estates, chattels, and effects of every kind acquired by them under or in pursuance thereof, and purchased, occupied, or used in connection with the construction, maintenance, 5 and working of the works hereby authorised; and upon and after the completion of such assignment, transfer, conveyance, and release, the said company, local authority, association, syndicate, partnership, person, or persons, their officers, agents, and servants, may lawfully exercise and enjoy all the rights, powers, authorities, and privileges, and shall 10 be and continue to be subject to all liabilities, obligations, penalties, and forfeitures to which the Promoters or their officers, agents, or servants would have been entitled or subject had no such assignment, transfer, conveyance, and release been completed: Provided, however, that nothing herein contained shall prejudice or affect any rights accrued, 15 actions or proceedings taken against, or liabilities, obligations, penalties, or forfeitures incurred by the Promoters before the completion of the said assignment, transfer, conveyance, and release.

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92 Upon the completion of any such assignment, transfer, conveyance, or release as in the last preceding Section mentioned, this Act 20 shall be read so that whenever the word "Promoters" occurs it shall be omitted and the name of the Minister, company, local authority, association, syndicate, partnership, person or persons so purchasing or acquiring the said railway, land, machinery, and other works shall be read and taken to be inserted in its stead.

How Act to be
read on
completion of
assignment, &c.

25 93—(1.) If the Promoters should at any time transfer or assign to any Company formed or incorporated in any country or place beyond this Colony, and which is not registered in *Tasmania* under *The Companies Act*, 1869, the rights, powers, privileges, and concessions granted by the primary lease or by this Act, then such Company shall, before 30 commencing to construct the said railway, register with the Registrar of Companies under the said Act the name and place of abode or business of the person appointed by such Company to carry on the business of the Company in *Tasmania*, and also the situation of the Office of such Company; and the person so registered shall be deemed to be the 35 Agent of such Company, and such Office shall for all purposes be the Registered Office of such Company.

If lease trans-
ferred to foreign
Company such
Company to have
registered Office.

(2.) Upon such registration such Company may sue and be sued in its corporate name in *Tasmania*, and the liability of and proceedings against such Company shall be in the same manner as if such Company 40 had been duly registered in *Tasmania* under the provisions of *The Companies Act*, 1869.

(3.) Sections Forty-three, Forty-four, Forty-five, and Forty-six of *The Companies Act* 1869, shall be incorporated with this Act, and shall apply to any such Company aforesaid in the same manner and to the 54 like effect as if such Company had been duly registered under the said Act.

[94 Every deed or instrument in writing made under the provisions of Section ninety-one shall be exempt from the provisions of any law now or hereafter in force imposing Stamp Duty upon deeds or instru- 50 ments in writing conveying, transferring, or assigning any real or personal property in *Tasmania*.]

[Transfer exempt
from Stamp
Duty.]



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PART XVI.**PROMOTERS MAY ERECT TELEGRAPHS AND TELEPHONES.**Promoters may
construct
Telegraphs, &c.

95 The Promoters may construct, maintain, and work and use for their own profit along the route of the said railway, and along the route of any branch line of railway which the Promoters are by this Act authorised to construct, one or more lines of Electric Telegraph and Telephones, or any electrical works or machinery for the generation and transmission of electricity for motive power or for light; but Government messages shall have priority on such lines of Telegraph and Telephones, if required; and subject to the use of such lines of Telegraph and Telephones by the Promoters, and to the priority (if claimed), of Government messages, such lines of Telegraph and Tele- 10 phones shall be open for receiving and sending messages by all persons without preference or favour, and at the same rates as those charged for like messages on Government lines of Telegraph and Telephones: Provided that the Minister may, at any time, with the consent of the Governor in Council, prohibit the Promoters from using such lines of 15 Telegraph or Telephones for profit.

Government may
affix wires.

96 The Government may affix telegraphic and telephonic wires upon any posts erected by the Promoters along the route of the said railway or along the route of any branch line of railway which the Promoters are by this Act authorised to construct, and maintain and use 20 such wires for the purposes of telegraphic and telephonic communication.

PART XVII.**POWER TO DIVERT WATER.**Power to divert
water.

97 It shall be lawful for the Promoters, and they are hereby empowered and authorised, to take, divert, and appropriate, for any of the purposes of this Act, such quantity of the water from any (six) 25 river(s) along the proposed line of railway (at such points upon such rivers as may be approved by the Minister) as shall be sufficient to develop an aggregate quantity of Seventy-five thousand brake horse-power [at any point or points on the course of such river not exceeding four-fifths of the quantity or volume of water flowing in such river,] 30 subject to such regulations as the Governor in Council may from time to time prescribe for the purpose of securing a sufficient supply of water for the proper conduct of mining operations above or below the intake, and the Promoters may from time to time enter upon any such river(s), and upon the banks and beds thereof, and construct and erect 35

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on and in any portion of the banks or beds of any such river(s) any works, dams, weirs, flumes, or races for the purposes of such taking, diversion, and appropriation of [so much of] the [said] water of any such river(s). A.D. 1896.

- 5 Provided that nothing herein contained shall abrogate any existing rights vested in any person or persons to take, divert, and appropriate any water from [any such] (the said) river(s).

Provided further that, after the Promoters shall have so diverted or taken away water from any [such] (of the said) river(s) authorised by this Act, they shall return the said water to the [said] (same) river (whence it was so diverted or taken) at such point or points in the course thereof as shall be shown in the plans approved by the Minister as hereinbefore provided; (such water to be returned in as pure, unpolluted, and clear a state and condition as the same was in when so taken as aforesaid.)

(Provided further, that the power taken from any river shall not exceed Fifty per cent of the available quantity or volume flowing therein.

Provided further, that it shall not be lawful for the Promoters to take any water under the provisions of this Section from any river situate within the Western Mining Division, nor from the *Russell's Falls* River, nor from any tributary of the River *Derwent* flowing into the River *Derwent* south of the *Russell's Falls* River.

Provided further, that the Promoters shall pay to the Minister for all water taken and diverted under the provisions of this Section and used by them for purposes other than for working the said Railway and any ore-reduction works erected by the Promoters a sum of One Pound per sluice-head per annum, and all moneys so received by the Minister shall be paid into the Consolidated Revenue Fund.)

- 30 **98** It shall be lawful for the [said] Promoters to use all or any of the waters aforesaid for any of the purposes hereinafter specified—

Power to use water.

To work any machinery that may be erected by the Promoters for generating, making, transmitting, and supplying electricity to the railway or other works authorised by this Act, [or any other purpose whatsoever, or to any person or persons who may require the same for any purpose whatsoever.]

Purposes for which water may be taken.

- 99** It shall be lawful for the Promoters, and all persons by them authorised, after not less than Two nor more than Seven days' notice to the occupier or occupiers, to enter upon any lands, not being a garden, orchard, or plantation attached or belonging to a house, nor a park, planted walk, avenue, or ground ornamentally planted, and not being nearer to the house of the owner of any such lands than One hundred yards therefrom, and to occupy the said lands so long as may be necessary for the construction or repair of any works authorised by this Act, or of the accommodation works connected therewith hereinafter mentioned, and to use the same for any of the following purposes; that is to say:—

Power to take temporary possession of land.

For the purpose of constructing, building, or putting thereon any machinery:

50 For the purpose of taking earth or soil by side-cuttings therefrom:

For the purpose of depositing soil thereon:

For the purpose of obtaining materials therefrom for the con-

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struction or repair of the [waterworks] (works authorised by this Act) or such accommodation works as aforesaid: or
For the purpose of forming roads thereon to or from or by the side of the said works.

And, in exercise of such powers, it shall be lawful for the Promoters and all other persons employed therein to deposit, and also to manufacture and work upon such lands, materials of every kind used in constructing the said works, and also to take from any such lands any timber, and also to dig and take from or out thereof any clay, stone, gravel, sand, or other things that may be found therein useful or proper for constructing the said works or any such roads as aforesaid, and for the purposes aforesaid to erect thereon workshops, sheds, and other buildings of a temporary nature, or any steam engines or other machinery: Provided always, that nothing in this Act contained shall exempt the Promoters from an action for nuisance or other injury, if any, done in the exercise of the powers hereby conferred to the lands or habitations of any party other than the party whose lands shall be so taken or used for any of the purposes aforesaid: Provided also, that no stone or slate quarry, brickfield, or other like place which, at the time of the passing of this Act, shall be commonly worked or used for getting materials therefrom for the purpose of selling or disposing of the same, shall be taken or used by the Promoters, either wholly or in part, for any of the purposes hereinbefore mentioned.

Compensation to be made for [temporary] occupation.

100 In any of the cases aforesaid, where the Promoters shall take [temporary] possession of lands by virtue of the powers herein granted, it shall be incumbent on them, within One month after their entry upon such lands, upon being required to do so, to pay the occupier of the said lands [the value of any crop or dressing that may be thereon, as well as] full compensation for any [other] damage [of a temporary nature] which he may sustain by reason of the Promoters so taking possession of his lands.

PART XVIII.

CONSTRUCTION OF WORKS.

Construction of waterworks.

101 It shall be lawful for the Promoters from time time to make, construct, erect, lay down, maintain, alter, repair, or discontinue upon any land purchased by the Promoters under the provisions of this Act, or upon any land now or hereafter to be vested in the Promoters, such waterworks, machinery, steam-engines, water-wheels, and other works as the Promoters may think necessary for the purposes of this Act.

Promoters to give notice prior to entering.

102 Prior to the first entry upon any private land by the Promoters for the purposes of this Act, not less than Seven days' notice of the intention of the Promoters to enter shall be given by the Promoters to the owner and occupier, if any, but no notice shall be necessary previous to any subsequent entry by the Promoters upon such land for the purposes of this Act.

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103 In the exercise of the powers conferred by this Act, the Promoters shall do as little damage as possible or that can be consistent with a due regard to the works authorised under this Act, and, in all cases where it can be done, shall provide other watering-places, drains, and channels for the use of the adjoining lands in place of any such as are taken or interrupted by the Promoters.

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To do as little damage as possible.

104 The Promoters shall make compensation in manner hereinafter provided to all persons lawfully claiming any right to the use of any water taken or diverted or appropriated by the Promoters under the authority of this Act, or lawfully interested in any private land other than land purchased by the Promoters in or upon which any waterworks may hereafter be constructed, or which may be injuriously affected by the construction and maintenance of the waterworks under this Act or otherwise by the exercise or execution by the Promoters of the powers hereby conferred, for all damage sustained by reason of the exercise or execution as to such land or water of the powers vested in the Promoters by this Act.

Promoters to make compensation.

105 Any person claiming under this Act any compensation against the Promoters shall prefer his claim by notice in writing addressed to the Promoters [at the Registered Office in *Tasmania*.] and served [upon the Secretary or Manager or Agent for the time being thereof,] (as hereinafter provided) in which notice shall be specified the place of abode of the claimant, the particular act occasioning the damage for which compensation is claimed, the nature and amount of such damage, and the nature of the title or interest of such claimant in or to the water or land or other property or possession, or anything in respect of which the claim is preferred; and if any such person and the Promoters do not agree as to the amount of such compensation, the same and the application thereof shall, except in the cases herein-after mentioned, be determined by arbitration in the manner provided by *The Lands Clauses Act* in cases of disputed compensation.

Persons damaged to claim compensation.

106 If the Promoters, by notice in writing, require any person to make claim for compensation for any damage occasioned by the exercise of any of the powers conferred on the Promoters by this Act previously to the service of such notice, such person shall not be entitled to compensation for any damage sustained by reason of the exercise of any such powers previously to the service of such notice unless he prefers his claim in the manner aforesaid within Six months after service of such notice.

Persons not making claim barred.

107 Every such action shall be commenced within Three months after the service on the claimant of such notice as aforesaid that his right is disputed, and not afterwards.]

[Action to be commenced within Three months.]

108 Nothing in this Act contained shall prevent the owners and occupiers of land through or by which any such stream shall flow from using the waters thereof in such manner and to such extent as they might have done before the passing of this Act, unless they shall have received compensation in respect of their right of so using such water.

Reservation of existing rights.

109 The provisions of the Act of Council 8th *William* the 4th, No. 6, shall not apply to any waterworks and other works of the Promoters made, constituted, or acquired under the authority of this Act.]

[Act 8 Will. 4, No. 6, not to apply.]

[*Private.*]

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PART XIX.

SUPPLY OF ELECTRIC POWER.

Promoters may
supply, &c.

110 The Promoters may supply, let, hire, and sell to any person, mine, or building motive or electric power or electricity, [or any other power,] upon such terms and conditions as in this Act contained.

(Provided that before the Promoters contract to supply any motive or electric power or electricity within the boundaries of any city or town they shall first obtain the sanction of the Local Authority affected).

Testing.



111 The Promoters shall, before supplying any person, mine, or building with motive or electric power, (or) electricity, [or any other power,] put up and erect suitable apparatus at some testing-place for the purpose of testing the normal strength and electric power and motive force of the power supplied by them, and the Minister may from time to time appoint a person to test the strength and electric power of the motive force to be supplied by the Promoters.

Promoters may
let meters.

112 The Promoters may let for hire to any consumer of motive power or electricity supplied by measure, any meter or instrument for measuring the quantity of motive power or electricity supplied and consumed, and any conduits and apparatus for the conveyance, reception, and storage of the motive power or electricity, for such remuneration in money as may be agreed upon between the Promoters and the consumer, which shall be recoverable in the manner hereinafter mentioned.

Meters not
distrainable, &c.

113 Such meters, instruments, conduits, and apparatus shall not be subject to distress for rent of the premises where the same are used, or to be attached or taken in execution under any process of any Court of Law or Equity, or under or in pursuance of any adjudication, sequestration, or order in bankruptcy or other legal proceedings against or affecting the consumer of the electricity, or the occupier of the premises or other the person in whose possession the meters, conduits, instruments, and apparatus may be.

Meter to be
supplied and
maintained by
consumer.

114 Every person who shall have agreed with the Promoters for a supply of electricity by measure shall, at his own expense, unless he hire a meter from the Promoters, in which case such meter must be to the satisfaction of the consumer, provide a meter, and keep and maintain the same in good working condition to the satisfaction of such officer as may be appointed by the Promoters; and in the event of any repairs being required notice in writing shall be immediately given by such person to the Promoters, and a registration of the quantity used shall be taken before such repairs are effected.

Notice of
removal, &c.
of meter.

115 Every person requiring to remove or alter the position of any meter shall give Six days' notice in writing to that effect to the Promoters, and a registration of the quantity of electricity shall be taken before such removal or alteration is made.

Penalty for
neglect to
provide meter.

116 If any person who under the provisions hereinbefore contained ought to provide any meter neglect or refuse, after having been required by the Promoters so to do, to provide such meter, he shall, for every such day during which such neglect or refusal continues, forfeit a sum not exceeding Two Pounds.

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117 If any person who has provided any meter as aforesaid fail to give the notice hereinbefore required of any repairs required for such meter, he shall (be liable to) forfeit a sum not exceeding [Ten] (Five) Pounds, and a further sum not exceeding [Five] (Two) Pounds for 5 each day (if more than one) that such meter remains unrepaired.

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Penalty for neglecting to give notice of repairs of meters.

118 If any person refuse or delay to have such meter properly repaired and put in correct working order after having been required by any officer of the Promoters so to do, the Promoters may shut off the supply of electricity from the premises of such person, either by 10 cutting the conduits or service-pipe, or otherwise, until such meter shall have been properly repaired and certified by some officer of the Promoters to be in proper working order.

Electricity may be shut off if meter not in order.

119 If any plumber or other person fix or refix any meter upon any premises supplied with electric power by the Promoters without having 15 first obtained a certificate from the Promoters that the said meter has been examined and found in correct working order, he shall (be liable to) forfeit a sum not exceeding [Ten] (Five) Pounds.

Penalty for fixing uncertified meter.

120 If any person remove or alter the position of, or in any way interfere with, any meter without giving such notice as aforesaid, he 20 shall (be liable) for each such offence (to) forfeit a sum not exceeding [Ten] (Five) Pounds over and above the damage which he may be found liable to pay in any action at law at the suit of the Promoters.

For removing meter without notice.

121 The officers of the Promoters may enter any house, building, or lands to, through, or into which electricity is supplied by the Pro- 25 moters by measure in order to inspect the meters, instruments, conduits, and apparatus for the measuring, conveyance, reception, or storage of electricity, or for the purpose of ascertaining the quantity of electricity supplied or consumed, and may from time to time enter any house, building, or lands for the purpose of removing any meter, instrument, 30 conduit, or apparatus the property of the Promoters; and if any person hinders any such officer from entering or making such inspection, or effecting such removal, he shall for each such offence be liable to a penalty not exceeding Five Pounds; but, except with the consent of a Justice, this power of entry shall be exercised only between the hours 35 of Nine in the forenoon and Four in the afternoon.

Power to officers of Promoters to inspect meters.

122 After conduits or wires have been laid and erected and put up under the authority of this Act for the supply of electric power to any street or part thereof, the Promoters shall cause a notice thereof to be published in a newspaper circulating in the (diserict affected) [town 40 in the said Divisions].

Notice that conduits be laid.

123 Any owner or occupier of any dwelling-house or part of a dwelling-house, mine, building, or property [within the said Divisions] who shall wish to have electricity brought into his premises, and shall have paid or tendered to the Promoters the rate or charge in respect of 45 such electricity by this Act directed to be paid in advance, may, with the consent of the Promoters first had and obtained, open the ground between the conduits of the Promoters, or erect poles and put wires and conductors thereon between and to communicate with the conduits, poles, and wires of the Promoters, and carry and run electricity therein 50 and thereon, having first obtained the consent of the owners and occupiers of such ground.

Conduits laid by owner or occupiers.

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Notice to
Promoters of
laying pipes.

124 Such conduits shall be of a strength and material approved of by some officer of the Promoters; and every such owner or occupier shall, before he begins to lay such conduits, give to the Promoters Two days' notice of his intention to do so.

Communication
with pipes of
Promoters to be
made under the
superintendence
of surveyor.

125 Before any conduit or wire is made to communicate with the 5 conduit or wires of the Promoters, the person intending to lay such conduit, or put up such poles and wires, shall give Two days' notice to the Promoters of the day and hour when such conduit or wire is intended to be made to communicate with the conduits or wires of the Promoters; and every such conduit or wire shall be so made to 10 communicate under the superintendence and according to the directions of the surveyor, or other officer appointed for that purpose by the Promoters. The conductor, communicator, distributor, conduits, or wires put up to connect with the conduits or wires of the Promoters shall be supplied by the Promoters at cost price to any person requir- 15 ing the same, at his request and costs.

Service conduits
may be removed
after giving
notice.

126 Any person who shall have laid down any conduit, wire, or other works, or who shall have become the proprietor thereof, may remove the same after having first given Six days' notice in writing to the Promoters of his intention to do so, and of the time of such 20 proposed removal; and every such person shall make compensation to the Promoters for any injury or damage to their conduits, wires, or works which may be caused by such removal.

Power to break
up pavements.

127 Any such owner or occupier may open or break up so much of the street or pavement (if any) as shall be between the conduits of the 25 Promoters and his house, building, or premises, or of any sewer or drain therein, for any such purpose as aforesaid (doing as little damage as may be), and making compensation to the Local Authority for any such damage done in the execution of any such work.

Provided always that every such owner or occupier desiring to 30 break up the pavement of any street, or any sewer or drain therein, shall be subject to the same necessity of giving previous notice, and shall be subject to the same control, restrictions, and obligations in and during the time of breaking up the same, and also reinstating the same, and to the same penalties for any delay in regard thereto, as the Pro- 35 moters are subject to under the provisions of this Act.

Protection of the
motive power:
In case of any
breach of this
part of this Act
motive power
may be cut off.


128 If any person supplied with electricity by the Promoters wrong- fully does, or causes or permits to be done, anything in contravention of any of the provisions of this Act, or wrongfully fails to do anything which under any of those provisions ought to be done for the preven- 40 tion of the waste, misuse, or undue consumption of electricity, the Promoters may (without prejudice to any remedy against him in respect thereof) cut off any of the conduits or wires by or through which electricity is supplied to him or for his use, and may cease to supply him with electricity as long as the cause of injury remains or is not 45 remedied.


Penalty for waste
of motive power.

129 If any person supplied with electricity by the Promoters wilfully or negligently causes or suffers any conduit or other apparatus to be out of repair, or to be so used or contrived that the electricity supplied to him by the Promoters is or is likely to be wasted, misused, 50 or unduly consumed, he shall for every such offence be liable to a

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penalty not exceeding [Ten] (Five) Pounds, and a further sum not exceeding [Five] (Two) Pounds for each day (if more than one) that such offence continues.  A.D. 1896.

130 If any person shall wilfully or maliciously destroy, injure, 5 or damage, or attempt to destroy, injure, or damage any conduit pipe, wire, or apparatus, or any of the works constituted under the authority of this Act, or wilfully and maliciously do any act calculated to render any part or parts of the machinery or works of the Promoters or their assigns unworkable or defective, or whereby any electricity is 10 or may be lost, wasted, misused, destroyed, or interrupted in any way, he shall be [deemed guilty of a Felony, and liable to imprisonment, with or without hard labour, for any term not exceeding Two years] (for every such offence liable to a penalty not exceeding Fifty Pounds, or to be imprisoned for any term not exceeding Six months, and shall 15 pay for any damage that may be done) 

Penalty for
destroying works,
&c.

131 It shall not be lawful for the owner or occupier of any premises supplied with motive power or electricity by the Promoters, or any consumer of the motive power or electricity of the Promoters, or any other person, to affix, or cause or permit to be affixed, any conduit, 20 wire, or apparatus to a conduit or wire belonging to or used by such owner or occupier, consumer, or any other person, or to make any alteration in any such communication, or conduit, or wire, or in any apparatus connected therewith, without the consent in every such case of the Promoters. And if any person acts in any respect in contra- 25 vention of the provisions of this Section he shall for every such offence be liable to a penalty not exceeding Five Pounds, without prejudice to the right of the Promoters to recover damages from him in respect of any injury done to their property, and without prejudice to their right to recover from him the value of any motive power or 30 electricity wasted, misused, or unduly consumed.


No pipe to be
fixed to
consumer's pipe
without
permission of
Promoters.

132 The surveyor or other person appointed for that purpose by the Promoters may, between the hours of Nine o'clock in the forenoon and Four o'clock in the afternoon, enter into any house or premises supplied with motive power or electricity by the Promoters in order to examine 35 if there be any waste or misuse of such motive power, and if such surveyor or other person at any such time be refused admittance into such dwelling-house or premises for the purpose aforesaid, or be prevented from making such examination as aforesaid, the Promoters may turn off the motive power supplied by them from such house or 40 other premises.

Inspection of
premises supplied
with motive
power.

PART XX.

[OFFENCES AND PENALTIES.]

[133] If any person, not being supplied with motive power or electricity by the Promoters, wrongfully takes or uses any water from any reservoir, watercourse, conduit, or any water-power from any pipe or conduit belonging to the Promoters, or from any pipe or conduit 45 leading to or from any such reservoir, watercourse, conduit, or pipe, or from any cistern or other like place containing water or water-power belonging to the Promoters, or supplied by them for the use of any 

[Penalty for
unlawfully taking
water from
reservoirs.]

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customer of the motive power or electricity of the Promoters, he shall for every such offence be liable to a penalty not exceeding Twenty Pounds.]

[Penalty for throwing dirt therein.]

[134 If any person throw or convey, or cause or permit to be thrown or conveyed, any rubbish, dirt, filth, or other noisome thing into any of the waterworks belonging to the Promoters, or wash or cleanse therein any cloth, wool, leather, or skin of any animal or any clothes or other thing, or otherwise render the water therein offensive or unwholesome, he shall for every such offence forfeit a sum not exceeding Ten Pounds.]

[Penalty for letting tailings or foul water flow thereinto.]

[135 If any person cause the water of any sink, sewer, or drain steam-engine, boiler, or other filthy water or any tailings belonging to him or under his control to run or be brought into any of the waterworks belonging to the Promoters, or shall do any other act whereby the water of the Promoters shall be fouled, he shall for each such offence forfeit a sum not exceeding Ten Pounds, and a further sum of Twenty Shillings for each day (if more than one) that such offence continues.]

[Penalty for nuisance in Divisions.]

[136 Where any owner or occupier of any land within the Divisions or adjacent to any reservoir or source of supply does or permits to be done on his land any act, or permits to remain thereon any matter or thing which, in the opinion of the local authority is likely to injure the water supply, if notice to discontinue or remove the same be given to him in writing by the Promoters, and if he neglect or refuse to discontinue such act or to remove such matter or thing, he shall for each such offence forfeit a sum not exceeding Ten Pounds, and a further sum of Twenty Shillings for each day (if more than one) that such offence continues.]

[Damage to be made good in addition to penalty.]

[137 If through any act, neglect, or default on account whereof any person shall have incurred any penalty imposed by this Act, any damage to any conduit, main, pipe, wire, or other property of the Promoters used in connection therewith shall have been committed by such person, he shall be liable to make good such damage, as well as to pay such penalty; and the amount of such damages shall, in case of dispute, be determined by the Justices by whom the party incurring such penalty shall have been convicted; and on non-payment of such damages on demand the same shall be levied by distress, and such Justices, or one of them, shall issue the warrant accordingly.]

PROTECTION OF PUBLIC TELEGRAPHIC AND TELEPHONIC LINES.

(Promoters not to injure any Government line of telegraphic or telephonic communication.)

(B The Promoters shall not, in the exercise of any of the powers conferred by this Act, lay down any electric line or do any other work for the supply of electricity whereby any telegraphic or telephonic line belonging to or under the control of the Government is or may be injuriously affected.)

(Consent of Postmaster-General to be obtained.)

(C The Promoters shall not proceed to erect or lay down any wire, conductor, communicator, distributor, electric line, or other electric apparatus without the approval of the Postmaster-General having been previously obtained as hereinafter provided; and if the said Postmaster-General is at any time of opinion that any telegraphic or telephonic wire is or may be injuriously affected by such wire, con-

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ductor, communicator, distributor, electric line, or other apparatus, or that the same is likely to become dangerous to the public safety or a public nuisance, the said Postmaster-General may, by notice in writing, require the Promoters to remove such wire, conductor, communicator, distributor, electric line, or other apparatus or any portion thereof; and if the Promoters do not within Ten days after service on them of such written notice remove the same, the said Postmaster-General may remove the same, and recover the expense of such removal from the Promoters in a summary manner.)

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10 (D) One month before commencing the execution of any works under the authority of this Act (not being the repairs, renewals, or amendments of existing works of which the character and position are not altered), the Promoters shall serve a notice upon the Postmaster-General describing the proposed works, together with
15 a plan of the works showing the mode and position in which such works are intended to be executed, and shall, upon being required to do so by the Postmaster-General, give him any such further information in relation thereto as he may desire.)

(Notice to be given to Postmaster-General of intention to execute works.)

(E) The Postmaster-General may in his discretion approve of
20 any such works or plan, subject to such amendments or conditions as may seem fit, or may disapprove of the same, and may give notice of such approval or disapproval to the Promoters.)

(Postmaster-General may approve.)

(F) If the Postmaster-General fail to give any such notice of approval or disapproval to the Promoters within One month after
25 the service of the notice upon him, he shall be deemed to have approved such works and plan.)

(If Postmaster-General does not disapprove within One month works may be executed.)

(G) Notwithstanding anything in this Act contained, the Promoters shall not be entitled to execute any such works as above specified, except so far as the same may be of a description and in
30 accordance with a plan which has been approved or is deemed to have been approved by the Postmaster-General as above mentioned; but where any such works, description, and plan are so approved or to be deemed to be approved, the Promoters may cause such works to be executed in accordance with such description and plan, subject in all
35 respects to the provisions of this Act.)

(Works to be in accordance with plans.)

(H) If the Promoters make default in complying with any of the requirements or restrictions of this Act, they shall make full compensation to the Postmaster-General for any loss or damage which he may incur by reason thereof.)

(Promoters liable in damages.)

40 (I) The Postmaster-General may require the Promoters to erect their wires, conductors, communicators, distributors, electric lines, or other apparatus in accordance with the rules and regulations applying to electric light and power wires as issued by the *London* Board of Trade, or such modification thereof as may be approved and sanctioned
45 by the Governor in Council.)

(Wires, &c. to be erected in accordance with Rules of Board of Trade.)

(J) In the event of any contravention of or wilful non-compliance by the Promoters or their agents with any of the provisions of this Part of this Act, the Promoters shall be liable on conviction to a penalty not exceeding Ten Pounds for every day during which

(Penalty.)

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such contravention or non-compliance continues, or, if the telegraphic communication is wilfully interrupted, not exceeding Fifty Pounds for every day on which such interruption continues.)

(Penalty not to be incurred in certain cases.)



(K) Nothing in this part of this Act shall subject the Promoters or their agents to a penalty if they satisfy the Court having cognizance of the case that an immediate execution of the work was required to avoid an accident, or otherwise was a work of emergency, and that they forthwith served on the postmaster or officer in charge of the post or telegraph office nearest to the place where the work was done a notice of the execution thereof, stating the reason for executing the same without previous notice.)

(When line to be deemed to be injuriously affected.)



(L) For the purposes of this Act, a telegraphic or telephonic line belonging to or under the control of the Government shall be deemed to be injuriously affected by a work if telegraphic or telephonic communication by means of such line is, whether through induction or otherwise, in any manner affected by such work or by any use made of such work.)

(Promoters may appeal to Judge of the Supreme Court.)



(M) If at any time the Promoters are dissatisfied with anything done by the Postmaster-General under the alleged authority of this Act, the Promoters may appeal to a Judge of the Supreme Court, who shall determine whether the particular power claimed by the Postmaster-General is conferred upon him by this Act, and whether the manner in which the same has been exercised is reasonable and proper for the purpose for which it is conferred, and such Judge may make such Order as he shall deem necessary to secure a proper exercise of such power.)

PART XXI.

BY-LAWS.

Power to make By-laws.

138 It shall be lawful for the Promoters from time to time to make By-laws—

For regulating the affairs and the management of the said railway, and of any railway which may be purchased by the Promoters, or worked in connection therewith, and the buildings and works connected therewith :

For fixing the tolls, rates, fares, and charges for the carriage and conveyance of passengers, goods, merchandise, chattels, live stock, and other things of any description thereon : 35

For all purposes which are usually comprised in the By-laws of any railway company :

For regulating the form of contract to be entered into with the Promoters and any other person, and generally for carrying into effect the purposes of this Act : 40

As to supplying electricity :

For determining the time at which any charge for electricity shall be payable, and whether in advance or not :

For regulating the form, material, dimensions, construction, and arrangement of pipes, conductors, conduits, wires, and other works supplying electricity from the pipes, conduits, or wires 45

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- of the Promoters to adjacent premises, the time of executing and the notices to be given for such works, the superintendence thereof, the making good and replacing ground which may be displaced in the course of such works, and for
 5 inspecting all works or appliances at reasonable times, whether situate within any building or otherwise :
 For regulating the construction, disposition, custody, and inspection of meters :
 For preventing the waste or misuse of electricity supplied by the
 10 Promoters ;
 For preventing the use, directly or indirectly, of electricity supplied by the Promoters, by persons unauthorised by the Promoters :
 For preventing persons from wilfully breaking, injuring, or
 15 interfering with any conduit, lock, cock, valve, engine, or work belonging to the Promoters, and from doing any other wilful act whereby the electricity supplied by the Promoters may be wasted.

- And it shall be lawful for the Promoters to repeal, alter, or amend any
 20 such By-laws from time to time : Provided that such By-laws shall not be repugnant to the provisions of this Act or to the said lease (or to any law in force for the time being in *Tasmania*) ; and such By-laws shall be in writing under the hand of the Promoters, and, if affecting other persons than its own officers and servants, and
 25 not being By-laws fixing such tolls, rates, fares, and charges as aforesaid, shall be subject to the approval of the Governor in Council, and be published as hereinafter is provided.

- 139** The Promoters, by the By-laws so to be made, may, subject to the approval of the Governor in Council, impose such reasonable
 30 penalties as they may think fit, not exceeding Twenty Pounds, for each breach of such By-laws or any of them. By-laws may be enforced by penalties.

- 140** All such By-laws relating to other persons than the servants and officers employed upon the said railway, not being tables of the charges for the conveyance of passengers, goods, merchandise, chattels,
 35 live stock, and other things thereon, or for the supply of electricity, light, or motive power, shall be published in the *Gazette* ; and all such By-laws shall be printed in legible letters and exhibited in some conspicuous place in the principal office of the railway, and at every station on the said railway, and be open to inspection without fee
 40 or reward ; and in case any person wilfully obliterates any of the letters or figures thereon, or wilfully prevents the same being inspected at some reasonable time, he shall for every such offence be liable to a penalty not exceeding Five Pounds. By-laws to be published.

- 141** All By-laws made according to the provisions of this Act,
 45 when so published and put up, shall be binding upon and observed by all parties, and shall be sufficient warrant for all persons acting under the same. By-laws to be binding.

- 142** The production of a copy of the said By-laws purporting to have been made as aforesaid shall be accepted as proof thereof in all
 50 proceedings in any Court of Law or Equity in which the existence or validity of any such By-laws shall be in question ; and *prima facie* evidence of any such By-laws may be given in all Courts of Justice and in all legal proceedings whatsoever by the production of a copy of the *Gazette* purporting to contain any such By-laws. Proof of By-laws.

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By-laws to be
laid before
Parliament.

143 All By-laws made by the Promoters under this Act shall be laid before both Houses of Parliament within Fourteen days of the making thereof if Parliament is in Session, and if not, then within Fourteen days after the commencement of the next Session.

PART XXII.

MISCELLANEOUS.

Entry by agents.

144 Wherever by this Act authority is conferred on the Promoters 5 to enter upon any land for the purposes of this Act, or to do any act in or relating to the construction or maintenance of any work, the same authority shall extend to all persons acting by direction of the Promoters, and to all necessary agents, assistants, servants, workmen, means, and appliances whatsoever. 10

[Promoters may
purchase other
railways to form
part of railway
constructed under
this Act.]



145 If the Promoters shall at any time purchase any line or any portion of any line of railway, and convert the same into a portion of the railway which the Promoters are by this Act authorised to construct as aforesaid, the line or portion of line of railway so purchased and converted by the Promoters as aforesaid shall be deemed to have been 15 constructed by the Promoters under the authority of this Act, and to be a portion of the railway which the Promoters are by this Act authorised to construct, and shall be subject to all the provisions of this Act.]

This Act not to
prevent Minister
constructing
railway.

146 Nothing contained in this Act, or in any lease issued hereunder, 20 shall be deemed to prevent the Minister of Lands and Works from constructing any line of railway which Parliament may at any time hereafter authorise in the vicinity of or adjacent to the said line of railway.

Minister may
refuse to grant
Mining Easement
under
57 Vict. No. 24
within Ten miles
of railway.

147 Notwithstanding anything contained in "The Mining Act, 1893," or in any other Act, the Minister may refuse to grant to any 25 applicant any Mining Easement to construct and use any tramway in, through, or upon any Crown lands within a distance of Ten miles of any part of the said railway except upon such conditions as to the construction and working of such tramway as the Minister may think fit to impose; but this Section shall not apply to any application for a mining easement to construct and use any tramway which shall be 30 *bonâ fide* used only for the more convenient and advantageous working of any section of mineral land held or occupied by the applicant, and not in any way for carrying goods or passengers for hire, or for carrying metals or minerals from or to any land held or occupied by any person other than the applicant, or for carrying metals or minerals obtained 35 from any land held or occupied by any person other than the applicant.

Promoters to
have all powers
of this Act before
grant issued.

148 Until the primary lease shall be issued the Promoters shall have all the rights, powers, privileges, benefits, concessions, advantages, and liabilities conferred or imposed upon it by this Act so far as the same shall be necessary for the survey and construction of the said railway 40 or other works.

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Great Western Railway Company.

149 If any person shall wilfully interfere with or obstruct any person acting under the authority of the Promoters in setting out the line of any works undertaken under the authority of this Act, or move, injure, or damage any poles, stakes, marks or instruments used by the Promoters or their agents, servants, or workmen, for the purpose of surveying or marking out the line of the railway or otherwise in connection therewith; or if any person shall wilfully do or commit any damage, injury, or spoil, or any nuisance to or upon the said railway or other roads or ways, or to or upon any other works of or belonging to the Promoters, such person shall for every such offence forfeit and pay to the Promoters a sum not exceeding Twenty Pounds over and above the damages occasioned thereto.

A.D. 1896.

Penalty for damage to instruments, railway, &c.

[150] The Promoters shall not be liable to the payment of any Land Tax in respect of any block of land granted to the Promoters under the authority of Part XIII. of this Act, nor in respect of any land from which the Promoters shall raise or extract any minerals in respect of which royalties shall be payable under the provisions of this Act].

[Land exempt from Land Tax.]



151 The Promoters' duly appointed Attorney for *Tasmania* may, in the name and on behalf of the Promoters, perform and do all acts and things which the Promoters are by this Act authorised to perform or do, and for that purpose may execute and deliver and sign all deeds and documents necessary or incidental to the performance or doing of any such act or thing as aforesaid.

Promoters' Attorney may act for Promoters.

152 All notices by this Act required or directed to be given by or served on the Promoters may be given by or served on the Promoters' duly appointed Attorney in *Tasmania* or their solicitors.

Notices to be served on Attorney.

153 In the event of any dispute, question, or difference arising between the Promoters and the Minister, or any official to whom any powers are given by this Act, in regard to any of the powers hereby conferred upon the Minister or such official, or the manner in which any such power should be exercised, the same may be settled summarily by a Judge of the Supreme Court.

Settlement of certain disputes.

154 All offences against this Act or by any By-law made in pursuance of this Act shall be heard and determined, and all orders shall be made, and all penalties and sums of money imposed or made payable by this Act or any such By-law, shall be recovered in a summary way in the mode prescribed by *The Magistrates Summary Procedure Act*, and all penalties received by virtue of any such By-law shall be paid to the Promoters. (Provided that no person shall be liable to imprisonment for non-compliance with any order for payment of any money or charges due to the Promoters.)

Offences to be dealt with summarily. 19 Vict. No. 8



155 Where by this Act any fine or forfeiture is imposed, or expenses or compensation made payable, such fine, forfeiture, expenses, or compensation may be recovered as simple debts.

Recovery of fines, &c.


156 Any person who thinks himself aggrieved by any penalty imposed under the authority of this Act or any such By-law, which is recoverable in a summary manner, may, unless otherwise expressly provided, appeal against the same in the mode prescribed by *The Appeals Regulation Act*.

Appeal from penalties. 19 Vict. No. 10.


A.D. 1896.
Regulations.

157 The Judges of the Supreme Court may from time to time make, alter, and rescind Regulations for the following purposes:—


- I. For prescribing the form of any notice required by this Act, and the mode of service thereof, and the persons upon whom the same may be served : 5
- II. For prescribing the mode in which proceedings shall be taken before the Commissioner, and for regulating the practice and procedure before him, and for the fees to be paid thereon :
- III. For prescribing the mode in which appeals shall be brought before the Supreme Court or a Judge thereof : 10
- IV. For determining the person or persons whose receipt for compensation money, or whose signature to any agreement for compensation, shall be binding.


 **[158** Immediately upon the commencement of any survey for the purposes of the construction of the railway, it shall be lawful for the 15 Minister to withdraw from selection all lands along the entire length of such line of railway as shown by such plans for a depth from such line of at least Ten miles on each side thereof.]

(Minister may reserve lands.)

 **(N** It shall be lawful for the Minister to withdraw from selection under "The Crown Lands Act, 1890," and from the operation of 20 "The Mining Act, 1893," for a period of Twelve months from the passing of this Act, so much land as to the Minister may seem fit as lies south of the Forty-second degree of latitude and north of the Forty-third, and west of an imaginary line drawn north and south through the trigonometrical station on Mount *Field West*, and east of the eastern 25 boundary of the Western Mining Division continued southerly to the Forty-third degree of latitude.)

[Persons under Act entitled to notice of action.]

 **[159** No action shall lie against any person for anything done in pursuance of this Act unless notice in writing of such action and of the cause thereof is given to the defendant One month at least before the 30 commencement of the action, and such action is commenced within Three months after the cause of action has accrued; and in any such action the defendant may plead the general issue, and give this Act and the special matter in evidence; and no plaintiff shall recover in any such action if tender of sufficient amends has been made before 35 such action brought, or if a sufficient sum of money has been paid into Court by or on behalf of the defendant after such action brought, together with the costs incurred up to that time; and if a verdict passes for the defendant, or if the plaintiff becomes nonsuit or discontinues such action, or if upon demurrer or otherwise judgment is given 40 against the plaintiff, the defendant shall recover his full costs as between attorney and client and have the like remedy for recovering the same as any defendant has by law in other cases; and, though a verdict is given for the plaintiff in any such action, such plaintiff shall not have costs against the defendant unless the Judge before whom the case is tried 45 certifies his approbation of the action and the verdict obtained thereupon.]

 **(O** The Promoters shall, within Two months after the passing of this Act, deposit with the Treasurer of the Colony the sum of Two thousand five hundred Pounds, which shall from time to time be 50 returned without interest to the Promoters in sums of Five hundred

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Pounds each as soon as the Minister may report that such an amount shall have been expended by the Promoters in making a survey of the railway authorised under this Act. A.D. 1896.

The Promoters shall, within Six months after the passing of this Act, place at interest on fixed deposit a further sum of Ten thousand Pounds, in the name of the Treasurer of the Colony, in some bank in *Hobart* to be approved by the said Treasurer, and shall deliver to the Treasurer the deposit receipt for such sum.

The Promoters shall be entitled to the interest on such deposit of Ten thousand Pounds during the period it remains in the name of the Treasurer in such bank as aforesaid by half-yearly payment.

The Treasurer shall transfer or deliver the said deposit receipt to the Promoters as soon as the Minister shall report to him that the said railway has been constructed in accordance with the provisions of this Act, and shall do any act reasonably required to enable the Promoters to obtain payment of the said deposit.

If the said railway shall not be so constructed within Five years from the passing of this Act to the satisfaction of the Minister, the said sum of Ten thousand Pounds and all interest accruing thereon shall be absolutely forfeited to Her Majesty and shall become part of the Consolidated Fund of the Colony.)

[*Private.*]