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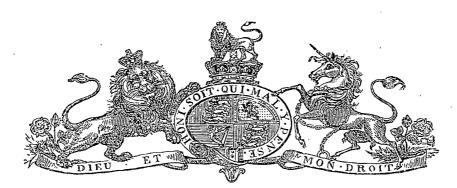
PARLIAMENT OF TASMANIA.

WEST COAST GAS AND OTHER WORKS BILL, 1891, (PRIVATE):

REPORT OF SELECT COMMITTEE, WITH MINUTES OF PROCEEDINGS, EVIDENCE, &c.

Brought up by Mr. Rooke, October 8, 1891, and ordered by the Legislative Council to be printed.

(No. 136.)



SELECT COMMITTEE appointed, on the 13th August, to report upon the West Coast Gas and other Works Bill, 1891, (Private).

MEMBERS OF THE COMMITTEE.

MR. COOTE. MR. DOUGLAS. MR. GIBSON. MR. LAMB. MR. LORD. MR. M'CALL. MR. ROOKE (Mover.)

DAYS OF MEETING.

Wednesday, August 19; Thursday, August 20; Friday, August 21; Thursday, August 27; Thursday, September 3; Thursday, September 10; Wednesday, September 30; Wednesday, October 7.

WITNESSES EXAMINED.

Mr. John Coates, Mr. Henry Tutall Rowley, Mr. Robert Henry.

MINUTES OF PROCEEDINGS.

WEDNESDAY, AUGUST 19, 1891.

The Committee met at 2.30 P.M.

Present.-Messrs. Douglas, Gibson, Lord, M'Call, and Rooke.

Mr. Rooke was voted to the Chair.

The Order of the Council appointing the Committee was read.

A copy of the Bill and the Petition praying for leave to introduce it, were laid on the Table.

The Chairman explained that Mr. John Coates was unable to attend, as the s.s. *Flinders*, by which he was a passenger from Melbourne, had not arrived in Launceston until after the express had left yesterday for Hobart. It was decided therefore that the Committee adjourn until 2.30 p.m. to-morrow.

The Committee adjourned at 2:45.

THURSDAY, AUGUST 20, 1891.

The Committee met at 2.50.

Present.-Messrs. Coote, Lamb, Lord, and Rooke (Chairman).

Mr. Mugliston was introduced as Counsel, and addressed the Committee in support of the Bill.

Mr. John Coates was called in and examined.

The Committee adjourned at 4.5.

FRIDAY, AUGUST 21, 1891.

The Committee met at 2.30 P.M.

Present-Messrs. Coote, Lamb, Lord, and Rooke (Chairman).

Mr. Henry Tutall Rowley was called in and examined.

The Committee adjourned until August 27 at 2.30 P.M.

THURSDAY, AUGUST 27, 1891.

The Committee met at 2-15 P.M.

Present-Messrs. Lamb, M'Call, and Rooke (Chairman).

Mr. H. B. Mugliston, Counsel for the Promoters, said Messrs. Douglas and Gibson had expressed a desire to be present, but were unavoidably delayed.

The Chairman said it would be well to adjourn the meeting sine die in order to allow of the attendance of the absent Members of the Committee.

At 2.35 P.M. the Committee adjourned sine die.

THURSDAY, SEPTEMBER 3, 1891.

The Committee met at 2.30 P.M.

Present-Messrs. Coote, Douglas, Gibson, M'Call, and Rooke (Chairman).

Mr. Mugliston was introduced, and addressed the Committee further in support of the Bill.

Mr. Mugliston having retired;

Preamble read and agreed to.

THURSDAY, SEPTEMBER 10, 1891.

The Committee met at 2.15 p.m.

Present-Messrs. Douglas, Gibson, Lord, M'Call, and Rooke (Chairman).

Mr. Mugliston was introduced and interrogated by the Members of the Committee on the provisions of the Bill. The Committee adjourned sine die.

WEDNESDAY, SEPTEMBER 30, 1891.

The Committee met at 11 A.M.

Present-Messrs. Coote, Douglas, Gibson, Lamb, M'Call, and Rooke (Chairman). Mr. Robert Henry, Superintendent of Telegraphs, was introduced and examined. Mr. Henry withdrew.

The Committee adjourned sine die.

WEDNESDAY, OCTOBER 7, 1891.

The Committee met at 11.30.

Present-Messrs. Coote, Douglas, Gibson, Lamb, M'Call, and Rooke (Chairman). The Committee proceeded to consider the Bill,

Clause 1.

Amendments made :-

Amendments made :--Page 2, line 7, after "towns," by striking out "and." Same line, after "places," by inserting "or in." Page 2, line 10, after "at," by inserting "or in." Page 2, line 10, after "at," by inserting "or in." Page 2, line 11, after "towns," by striking out "and." Same line, after "places," by inserting "or localities." Page 2, line 23, after "place," by inserting "or locality." Page 2, line 24, by striking out "other places in the Counties of Montagu and Franklin '-All places which are included within a radius of twenty miles from the Telegraph Offices at Strahan and Zechan and at Mount Dundas respectively : Provided, that it shall be lawful for the Governor, by Proclamation in the Hobart Gazette, to order that the meaning of the expression last aforesaid may for the purposes of this Act be extended to include any such other place or places in the Counties of Montagu and Franklin, or either of them, as in such Proclamation may be mamed and defined," and inserting "Strahan, Zeehan, and Dundas, and all places within a radius of three miles from the Post Office at Mount Dundas and such towns respectively ;" Page 2, line 36, before "towns," by striking out "and other." Same line, after "towns," by striking out "and other." Same line, after "places," by striking out "and other." Same line, after "places," by striking out "and other."

Same line, after "places," by striking out "in the Counties of Montagu and Frankin," and localities aforesaid."
Page 2, line 38, by striking out "Electricity—Electricity, electric current, or any like agency."
Page 2, line 42, before "post," by striking out "insulator," and inserting "insulation."
Page 2, line 45, after "electricity," by striking out "or electric current."
Page 2, line 46, after "buildings," by inserting "plant."
Same line, after "engines," by inserting "dynamoes."
Clause, as amended, agreed to.

Clause 2

Amendments made :-

Amendments made :--Page 3, line 11, after "streets," by striking out "within the limits of the Towns of Strahan and Zeehan, and other places in the Counties of Montagu and Franklin," and inserting "in or at Strahan, Zeehan, and Dundas, and the localities adjacent thereto." Page 3, line 26, after "tunnel," by striking out "within the said towns and other places in the Counties of Montagu and Franklin, and inserting "in or at the towns, places, or localities aforesaid." Page 3, line 32, after "tramway," by striking out "whether public or private." Page 3, line 33, after "Promoter," by inserting "in the case of any railway or tramway belonging to the Colouv."

Colony

Saune line, after "of the," by striking out" Commissioner of Crown," and inserting "Minister of." Page 3, line 34, after "Tasmania," by inserting "and in the case of any private railway or tramway, then the consent of the Manager for the time being of such railway or Tramway."

Clause, as amended, agreed to.

Clause 3 agreed to.

Clause 4.

Amendment made-Page 3, line 48, after "feet," by striking out "unless the cost of gas coal of good quality, delivered at the works, shall exceed Twenty-five Shillings per ton, and in such case the price of gas may be increased (with the approval of the Governor in Council) at the rate of One Shilling per thousand cubic feet for every Five Shillings or part of Five Shillings by which the cost of such coal shall be increased."

Clause, as amended, agreed to.

Clauses 5 to 12 agreed to.

Clause 13.

Amendments made --

Page 5, line 35, after " of the," by striking out " said towns and other places," and inserting " towns, places,

Page 5, line 35, after "of the," by striking out "said towns and other places," and inserting "towns, places, and localities." Page 6, line 9, after "within," by striking out "Eight," and inserting "Twelve." Page 6, line 15, after "give," by striking out "Seven," and inserting "Ten." Page 6, line 18, after "tunnel," by striking out "within the said towns of Strahan and Zeehan, and other places in the Counties of Montagu and Franklin," and inserting "in or at the towns, places, or localities aforesaid." Page 6, line 23, after "tramway," by striking out "whether public or private." Same line, after "Promoter," by inserting "in the case of any railway or tramway belonging to the Colony." Page 6, line 24, after "of the," by striking out "Commissioner of Crown," and inserting "Minister of." Page 6, line 25, after "Tasmania," by inserting "and in the case of any private railway or tramway, then the consent of the Manager for the time being of such railway or tramway." Clause, as amended, agreed to.

Clause 14.

Amendments made :-

Clauses 15 to 19 agreed to.

Clause 20.

Amendments made :-

Page 7, line 19, after "volts," by inserting "from the secondary terminals of the transformer." Page 7, line 21, after "volts," by inserting "from such terminals."

Clause, as amended, agreed to.

Clause 21 agreed to.

Clauses 22 to 25 disagreed to. Clauses 26 to 33 agreed to.

Clause 34.

Amendment made :

Page 11, line 27, after 27 Victoria, No. 8, by adding " but shall not upon conviction be liable to be imprisoned for any longer term than Twelve months." Clause, as amended, agreed to.

Clauses 35 to 39 agreed to.

Clause 40.

Amendment made :-

Amendment made :---Page 12, line 46, after "Act," by adding "Provided that, in the event of the Council not exercising its right of purchase in respect of any such works after the expiration of Fifteen years, it shall be lawful for the Council, within Two months after the expiration of a further period of Three years, to purchase the same upon giving such notice as aforesaid, and at a price to be calculated upon the profits of the Promoter during such last-mentioned period of Three years in manner aforesaid. And so within Two months after the expiration of every subsequent period of Three years it shall be lawful for the Council, upon giving such notice and paying a price to be deter-mined in like manner, to purchase any such works of the Promoter within the district of and not theretofore acquired by the Council."

Clause, as amended, agreed to.

Clause 41.

Amendment made :-

Amendment made :--Page 13, line 13, after "Act," by adding "Provided that, in the event of the Council not exercising its right of purchase in respect of any such works after the expiration of Fifteen years, it shall be lawful for the Council, within Two months after the expiration of a further period of Three years, to purchase the same upon giving such notice as aforesaid, and at a price to be calculated upon the profits of the Promoter during such last-mentioned period of Three years in manner aforesaid. And so within Two months after the expiration of every subsequent period of Three years it shall be lawful for the Council, upon giving such notice and paying a price to be deter-mined in like manner to purchase any such works of the Promoter within the district of and not theretofore acquired by the Council." Clause, as amended, agreed to

Clause, as amended, agreed to.

Clause 42.

Amendments made :-

Clause 42. Amendments made :---Page 13, line 14, after " the," by striking out " period within which such option of purchase is to be exercised by. the Council shall have expired," and inserting " expiration of Five years from the passing of this Act." Page 13, line 16, after " maintain," by striking out " within " and inserting " in or at." Page 13, line 17, after " Strahan," by striking out " and Zeehan and other places in the Counties of Montagu and Franklin," and inserting " Zeehan and Dundas and the localities adjacent thereto respectively, or any of them." Page 13, line 20, after " extend," by striking out " to any person desiring to construct such works at or for Zeehan, if the Promoter shall not have commenced the construction of any such works at or for the supply of the said town within Eighteen months from the passing of this Act, or at or for Strahan if the Promoter shall not have commenced the construction of any such works at or for the supply of the said Town of Strahan within Three years from the passing hereof, or at or for other places in the Counties of Montagu and Franklin if the Promoter shall not have commenced the construction of any such works at or for the supply of the said rown of Strahan if the towns, places, or localities aforesaid, if the Promoter shall not have construct such works at or for the supply of such town, place, or locality within the period mentioned in Section **G** of this Act." Page 13, line 31, before " at," by striking out " or electrical works." Same line, after " place," by striking out " or electricity." Page 13, line 32, after " gas," by striking out " or electricity." Page 13, line 34, after " of," by striking out " the respective periods before mentioned," and inserting " such period." Page 13, line 34, after " of," by striking out " the respective periods before mentioned," and inserting " such period."

Page 13, line 34, after "ot," by striking out "the respective periods before mentioned," and inserting "such period."

Page 13, line 36, after "gas works," by striking out "or electrical works." Same line, after "at," by inserting "or for the supply of." Page 13, line 37, after "Towns," by striking out "or either of them, or at other places in the Counties of Montagu and Franklin," and inserting "places and localities." Page 13, line 38, after "gas works," by striking out "or electrical works." Page 13, line 40, after "towns," by striking out "or electrical works." Page 13, line 40, after "towns," by striking out "or electrical works." Page 13, line 40, after "towns," by striking out "or." Same line, after "places," by inserting "or localities." Page 13, line 42, after "gas works," by striking out "or electrical works." Clause, as amended, agreed to.

Clauses 43 to 45 agreed to.

New Chuse **A** (Price of electricity) brought up and read 1°:— "**A** The price for electricity supplied by the Promoter for lighting purposes shall at no time exceed, in the case of electricity supplied to incandescent lamps, the sum of One Shilling and Sixpence per unit, and in the case of electricity supplied to arc lamps, the sum of Thirty-five Pounds for each lamp per annum. Where incandescent lamps are used, the unit of electricity shall give a light equal to One hundred cubic feet of gas, and the illuminating power thereof shall be ascertained by the use of an electric photometer; and where arc lamps are used, each lamp for which payment may be made at the rate aforesaid shall give a light equal to Two thousand candles, and the illuminating power thereof shall be ascertained in like manner." Read second time, and made part of the Bill, to follow Clause 14. Now Clause B (Ruemeter to have registered office) hought up and read 1°:—

New Clause B (Promoter to have registered office) brought up and read 1° :— "**B**—(1.) Before commencing to construct any work authorised by this Act, the Promoter shall register with the Registrar under the Companies Act, 1869, and shall publish in the Hobart *Gazette* the name and place of abode or business of the person who for the time being carries on the business of the Promoter in Tasmania, and also the situation of the office in Tasmania of the Promoter, and shall in like manner, upon any change of such person, or in the situation of the office in Tasmania of the Promoter, and shall in like manner, upon any change of such person, or in the situation of such office, register and publish the same. And such person shall be deemed to be the Agent, and

(2.) The name of the Promoter, and that such office is his registered office under this Act, shall appear and be stated in a conspicuous manner on the outside of such registered office.

stated in a conspicuous manner on the outside of such registered office.
(3.) Any Bill in Equity, writ, summons, notice, order, or other document relating to the works authorised by this Act, or to any matter herein mentioned, or to the privileges or liabilities of the Promoter hereunder, may be served upon the Promoter by delivering the same to his agent, or by leaving the same at his registered office, or by sending the same in a prepaid and registered letter addressed to the Promoter at such office.
(4.) If the Promoter shall at any time transfer or assign his rights, privileges, and authorities under this Act, or any of them, to a Company incorporated and registered in Tasmania under "The Companies Act, 1869," the preceding provisions of this Section shall not extend or apply to such Company.
(5.) For any breach of the provisions of this Section the Promoter shall forfeit and pay a penalty not exceeding Twenty Pounds.

Read 2°, and made part of the Bill, to follow Clause 36.

New Clause C (Time within which gas works to be constructed) brought up and read 1°:— "C The Promoter shall, within Six months from the passing of this Act, commence in a *bonâ fide* manner to construct such gas works at or for the supply of Zeehan and the locality adjacent thereto, and shall have the same complete and ready for use within Eighteen months from the passing of this Act, or within such further time, not exceeding Six months, as the Governor in Council may think fit to allow; and in like manner shall construct such works at or for the supply of Strahan and Dundas respectively, and the localities adjacent thereto, within a like period or extended period in each case." Read 2° und made part of the Bill to follow: Clause 42

Read 2°, and made part of the Bill, to follow Clause 42.

Schedules (1) and (2) agreed to.

Preamble.

Title.

Amendment made after "them," by striking out "within the Towns of Strahan, Zeehan, and other places in the Counties of Montagu and Franklin," and inserting "at Strahan, Zechan, and Dundas, in Tasmania."

Title, as amended, agreed to.

Draft Report brought up, considered, and agreed to.

The Committee adjourned sine die.

REPORT.

Your Committee, having taken evidence and heard Counsel 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.

Your Committee having agreed that the Preamble should stand part of the Bill, then entered into consideration of the several Clauses.

Your Committee recommend a large number of Amendments, and, for the convenience of the Council, beg to submit an amended Bill, which is attached to this Report.

Your Committee have the honor to present the Bill, as amended, for the favourable consideration of your Honorable Council.

Committee Room, Legislative Council, October 7, 1891.

H. I. ROOKE, Chairman.

EVIDENCE.

THURSDAY, August 20, 1891.

THE CHAIRMAN: We have met here for the second time in connection with this Bill, and to-

THE CHAIRMAN: We have met here for the second time in connection with this Bill, and to day we wish to hear Mr. Mugliston give us an explanation of what is proposed under its provisions. I will now ask Mr. Mugliston to explain the principles of the Bill. MR. MUGLISTON: Mr. Chairman and Members of the Committee,—This is a Bill promoted by John Coates, carrying on business in Melbourne and elsewhere in Australia, for the purpose of constructing certain gas and electric works in and about Strahan and Zeehan. I put it in this general way, because I wish to ask the permission of the Committee to amend the Bill by certain very important, and I think, necessary alterations. The alterations I wish to make in the Bill will come before you in printed form, so that I need only make a passing reference to them. The Preamble of the Bill is the part I have to direct your especial attention to, as I propose to materially amend it. It now reads :—" Whereas it is expedient that the Towns of Strahan and Zeehan and other places in the Counties of Montagu and Franklin, in Tasmania, should be supplied with gas and electricity, or with either of them, for lighting and heating, and for motive powers, and other purposes : And whereas John Coates, carrying on business at Melbourne and elsewhere in Australia for the manufacture and supply of gas and electricity, desires to establish, carry out, and maintain works for the purpose of supplying the said towns and other places aforesaid with gas and electricity, or either of them, for the purposes of crassing via the supply of electricity, and is from Clause 13 to Clause 21; and the Third Part which is in the Bill is on page 8, and is the part which contains the general provisions, applicable not only to that which supplies gas and electricity, works which the Bill proposes conditionally upon the consent of Parliament being obtained. Now, Sir, before I go fully into the matter I would simply ask your permission to amend the Preamble as follows:—First of all, the heading now reads—' A Bill t Dundas, together with the localities adjacent thereto, should be supplied with gas and electricity, or with either of them, for lighting and heating, and for motive powers, and other purposes : And whereas John Coates, carrying on business at Melbourne and elsewhere in Australia for the manufacture and supply of gas and electricity, desires to establish, carry on, and maintain works for the purpose of supplying the said Towns and other places aforesaid with gas and electricity, or either of them, for the purposes aforesaid, and for other purposes incidental thereto." My object is this,—that, looking at this preamble as it reads, it seems to embrace practically the whole Counties of Montagu and Franklin, his object being simply to have the power of supplying gas or electricity to Strahan and Zeehan and Dundas, and, of course, those places immediately adjacent thereto.

THE CHAIRMAN: What do you mean by the term "adjacent thereto"?

MR. MUGLISTON : This is the reason : the word "adjacent" is used because it means that which adjoins these three places; we will put a limit after. These are new townships, and we do not know exactly where location may in the future take place. Then, I also wish to make certain alterations by erasures in the location may in the future take place. Then, I also wish to make certain alterations by ensures in the interpretation clause, so as to give effect to the amendments in the preamble, and also to do away with one or two interpretations that we think are not desirable. For instance, "electricity" is defined to be "electricity." That may just as well, I think, fairly be left out. I will not now refer to some other trifling amendments which I propose to make in other clauses, as you will have them printed, but will now deal with one of the most material portions of the Bill, so far as gas is concerned. I would simply draw your simpler in the first thick for your consideration is very similar. attention, in the first instance, to the fact that this Bill now submitted for your consideration is very similar to a Bill that has become law in New South Wales—the Katoomba Bill—and which had to pass through the ordeal of a Select Committee.

THE CHAIRMAN: Did it pass through both Houses? MR. MUGLISTON: Yes, it has now become the law of New South Wales, and it is upon similar principles to that Bill that the present one has been drafted. You will see in dealing with the clause which relates to the supply of gas that the promoter has endeavoured to be as fair as possible for him to be to the people to whom he would have to supply the gas, having regard of course to his own interest, because practically I may say that though there are twelve clauses in this part, yet there are virtually some nine clauses which deal with the protection of the people, and only about two-and-a half which deal with the promoter himself. They are restriction clauses which limit the power of the promoter in such a way as to make it manifest to me, and I have no doubt to you also, gentlemen, that it is his desire to deal fairly to make it manifest to me, and I have no doubt to you also, gentlemen, that it is his desire to deal fairly with the people and receive a fair remuneration in respect to any concessions he is asking for at your hands.

[Coates' Bill.]

I have no hesitation in saying it is his desire to study the interests of the people. It would be absurd to me to say that he did not desire to have something out of this for himself; he is not taking this matter up as a public benefactor,—he is doing it in his own interest and also the interests of the general public,—and therefore those various clauses have been inserted. They are restriction clauses as against himself. They might have been left out of the Bill altogether, but the promoter had them inserted to show that he had no desire to do other than all-round justice both to himself and the public. If you will turn to the first part of this Bill, which provides for authority to erect works and break up streets, &c., you will find that there are two provisions put in. The first proviso is "that the promoters shall, unless in case of accident or emergency, give forty-eight hours' notice in writing to the Council Clerk before opening or breaking up as aforesaid any streets, service drains, or tunnel within the sait downs and other places in the Counties of Montagu and Franklin, and, in cases of accident or emergency, as soon as possible after the beginning of the work or the necessity for the same has arisen." That shows you that Mr. Coates is desirous of having no power on himself, because it would have been just as easy for him tog to the Committee and get the necessary power to do such. He does not do that. He says, "I don't wish for that power," I prefer my powers to be limited and restricted, and therefore I would ask for the necessary authority to carry out the work." And having done that, he shows that has no desire to do anything without firsh having authority. Before Mr. Coates, therefore, can break up these streets or roads he has to give forty-eight hours' notice to the Council Clerk ; but not content with putting that restriction upon himself, he goes a step further, and in the second proviso says :—" And provided that, for carrying out any of the coparation of the Promoter, it shall be deemed ne

MR. COOTE : You are mentioning the maximum charged by the Hobart Gas Company?

MR. MUGLISTON: Of course, I am mentioning the maximum charged by the Hobart Gas Company. They reduce the amount from 10s. to 7s. 6d. per 1000 cubic feet, but that is only for the sake of getting money in. The Hobart Company is initialed by law to charge 10 per cent. per the cubic foot, and we are only seeking to charge 5 per cent. over and above that, which I think very reasonable indeed. Then again, there is one part which says the price may be increased by the consent of the Governor in Council; but this, practically, is *terra incognita*. At the present time, so far as the gas-works are concerned, it would be impossible for Mr. Coates to say what sum it would be expedient to charge. He has put it down at 15s; but, in case the price of coal when delivered at Strahan is exceeded, he has, for his own protection, asked for the right to charge a certain increased amount in the event of coal being more than 25s. per ton, but only in the event of the Governor in Council sanctioning such increased charge. Not only have we put it in that way, but, of course, it must be patent to some of you gentlemen that all gas companies are uncertain of what their cost shall be, owing to labour conflicts and other matters. I need only refer to the matter in which the Gas Company were affected by the recent strikes at Newcastle to show you that it is necessary to make some provision. We are bound to carry on our works, and cannot possibly close them up. I may say, whilst dealing with the question of price, that Mr. Coates has had a very large experience in gas-works in the various colonies of Australasia, and he has had concessions from the different Governments; and in all cases is which he has got those concessions he has not required to make full use of them. He has had the right to charge from 19s. down to about 12s. 6d. or 13s. I am speaking from memory now; but, as Mr. Coates is here, he will give you the particulars of the various concessions he has obtained; and, as a matter of fact, Mr. Coates is the gentleman who sta

MR. COATES: $7\frac{1}{2}$; they pay 15s. per the cubic foot.

MR. MUGLISTON: There you see the charge is $7\frac{1}{2}$ per cent. only. The charge for 1000 cubic feet is 15s., or exactly the same as is now proposed in this Bill.

THE CHAIRMAN : They only pay 7s. 6d.

MR. MUGLISTON: They pay $7\frac{1}{2}$, but they charge 15s., so that we are actually not asking more than the Latrobe price, or more than the Latrobe people are now paying with the consent of the House of Assembly and the Legislative Council. In the case of the Latrobe Bill, the Council and Assembly did not think it unreasonable to allow 15s., and therefore I say that the charge is fair and reasonable, and I have not the least hesitation in advising that the Council and Assembly will do the same in regard to this Bill when it is introduced; still dealing with Clause 4 of this Bill, it seems to me that Mr. Coates is practically doing himself an injustice, although he is acting as any conscientious man would act. He is doing himself an injustice, inasmuch as he is applying one of the most stringent tests possible as to the quality of the gas, for he has inserted in 4th Clause of the Bill the following :—" And the gas supply shall be absolutely free from sulphuretted hydrogen, and shall be of such minimum quality as to produce from an Argand burner having 15 holes and a 7-inch chimney consuming 5 cubic feet of gas per hour a light equal in intensity to the light produced by 15 sperm candles of ten in the pound, burning 120 grains per hour." This is a very severe test indeed, Sir.

Mr. COOTE : Is there any provision for testing it?

Mr. MUGLISTON: Yes. There is the schedule dealing with that when I told Mr. Coates that the Hobart Gas Company only has to, and very often does, provide light equal to an oil lamp, and asked him to allow such provision only to be placed in his Bill. He said he preferred something better. Mr. Coates said "if you give me the concession I ask for, I am willing to take the greatest test applied to lights." He says "I do not want anything from you except what is fair and just, and I am perfectly willing to have this very stringent test inserted in this Clause." Then passing to Clause Five, which deals with the provisions for testing, I need not trouble you by going into that at any length; but I would simply say, if you turn to the end of the Bill you will find a schedule dealing with the regulations testing the apparatus and the rules as to the mode of testing gas, and you will find there that the test for sulphuretted hydrogen is the most severe test that can possibly be taken. I was going to bring down a book to show you that the test which is here provided for is a most stringent one, and yet this is the test Mr. Coates is willing to submit himself to concerning the purity of the gas he will supply, so that it seems to me that, so far as that goes, there cannot be the least objection to any clause so far. Clauses 6, 7, 8, 10, 11, and 12 are, every one of them, in the interests of the consumer. I would draw your attention to clause eight, which shows the *bona fides* of Mr. Coates throughout, because he says, "any gas examiner appointed by the Council and the other moiety by the promoter," so that Mr. Coates is willing to expend half the amount of the man's salary to see the article which he furnishes to the people is of the purity which he says in the Bill it will be. If I may be allowed to suggest, I would here ask you to allow me to pursue this course, which I think will simplify matters considerably: it is, that I may be allowed to stop my address here and take the evidence relating to that portion which pro

The CHAIRMAN: That would perhaps be the best course to adopt.

Mr. MUGLISTON: I have already said that the Clauses from Clause Five have been inserted in this Bill with a view to benefit the consumer as against the promoter. I will now call the promoter, who will fully explain his reasons for asking for the Bill, and the powers that he requests should be conferred upon him.

JOHN COATES called and examined.

1. By Mr. Mugliston.—Your name is John Coates? Yes.

2. You reside in Melbourne? I do.

3. You are a Member of the Institution of Civil Engineers, London? Yes, I was elected in 1875.

4. And you are the promoter of this? I am.

5. I believe you have had large experience in regard to gas works, particularly in these Colonies? I have had about six years' experience in the Colonies, and before that I was engaged in gas works in England, and on the Continent for about fifteen years. During the last six years I have been engaged in constructing gas works in every Colony of Australasia; and will now give you some of the names of places at which I constructed gas works.

6. You are now carrying on your business under the firm of John Coates & Company ? We are.

7. In Melbourne, Sydney, and London? Yes, I have erected gas works in Latrobe, as mentioned by you some few moments ago. In Palmerston, North New Zealand, one in each place; three in Queensland; three in New South Wales; two in South Australia, one now in course of construction; and fifteen in Victoria. I have also engineered and carried out the Melbourne and Sydney Hydraulic Powers schemes during the last few years, and am now constructing two complete modern gas works for the New South Wales Government. One is for lighting their carriages, and the other for lighting their Stations in Sydney.

8. You mean the railway carriages? Yes. In addition to this I have carried out, on behalf of my firm, important extensions at the works of the Metropolitan Gas Company, Melbourne; the Sydney Gas Company; and the Brisbane Gas Company.

9. Have you obtained any concessions in respect to any of the smaller towns you have mentioned? Yes, I have obtained concessions from the Town Councils in the different Colonies, all of whom appear to have different regulations in regard to the matter. The Government of Victoria give power to the Town and Shire Councils to grant concessions in gas matters. I have obtained concessions from the Town Councils of Wangaratta, Victoria, for 21 years, at a maximum price of 19s. I may mention, however, I have never charged that amount; but the price has been gradually reduced down to 14s. 2d., and as the consumption increases that figure will be reduced still further. I have also obtained a concession from the Benalla Town Council, Victoria, for 21 years, at a maximum of 17s. 6d., the difference of 1s. 6d. being on account of its being nearer to Melbourne by about 25 miles. Of course the distance of coal carriage always makes a difference. The price there has been reduced to 12s. 6d., as the consumption has increased after four years' working. At Palmerston, North, in New Zealand, I have obtained a concession for 28 years. That is the longest time I have received; but that includes the electric lighting as well; the gas maximum then was 17s. 6d., and that is now reduced to 15s., and will shortly be down to 14s. 2d. I have received several other concessions based on similar terms. 11. By the Chairman.-Why start at such a high price as 19s.?

Mr. Mugliston.-We don't-we only ask 15s. In other colonies he has received as much as 19s.

Witness.—At Latrobe I find we have paid $7\frac{1}{2}$ per cent. with gas at 15s. per thousand cubic feet; and Broken Hill is now charging 15s., a similar price as that asked for here, although the consumption at Broken Hill is likely to exceed Zeehan for some time yet.

12. Do you base your calculations on what you know of Broken Hill? Yes, very much so. I base my calculations on an estimate on the population during the next three years at about 25,000 people, who should then, I think, be resident within our districts on the West Coast. Of course, that is not meaning they will all consume gas, but I know from experience the proportion of consumers we will get out of that number.

13. What do you estimate the cost of construction of the works—I mean the whole works? At the three places, including the electric light we shall have to supply for lighting the mines, I estimate the cost from $\pounds 25,000$ to $\pounds 30,000$.

14. You speak about lighting the mines : may I ask you whether it is your intention to embrace the mines outside the townships,—I mean the localities adjacent thereto? Yes, I wish the words "and adjacent thereto" added to the Bill, because we may be asked to supply the mines with electric light a mile or two from the townships, and will consequently have to run a line of wires that distance from the towns. If it were not for this fact, we should not want the words "adjacent thereto" inserted in the Bill,—merely the word "suburb" or "district."

15. It is because of the electric light being supplied to the mines? Yes, exactly. That is the reason. It would be a great advantage to me to have a little latitude, but I do not wish to go many miles beyond the lines. The Chairman.—I know.

16. Would you be willing for the Committee to fix a limit from a certain point? Yes.

17. Of course you are speaking now with regard to gas ? Yes.

18. Another reason is that the situation of the town is not yet determined? Yes.

By the Chairman.-Dundas is not yet determined, but virtually Zeehan is.

Witness.—I might mention in reference to the price of gas that a small town near Melbourne (Oakleigh) which is ten miles distant is only 12s. 6d. per thousand cubic feet. I mention that because there we can get coals five shillings less per ton than we will be able to do at Zeehan. The same price is charged at Dandenong, fifteen miles distant, and the consumption I think will be very much the same; so that you see the proposal for charging 15s. at Zeehan is very fair and reasonable.

19. Do you know of your own knowledge or have you heard that, so far as the township of Zeehan is concerned, it has not yet been fixed? I cannot say positively, but I understand that there is some difficulty about Dundas. There is no doubt that the people at Zeehan are very anxious to have gas; and in a short time after I get these concessions granted me I will be able to supply them with it.

20. You also require the right to take up Crown lands for the purpose of constructing your gasworks? Yes.

21. You are also willing to pay a price agreed upon for that land under the Lands Clauses Act? Just so.

22. And for that purpose you have incorporated certain land clauses with this Bill? Yes.

23. In this joint provisions are made for obtaining powers to go on to private lands? Yes; it is very much on similar lines to the Melbourne Metropolitan Bill.

24. By the Chairman.-You will put that Bill in as evidence? Yes.

25. You say that it is similar in effect to the Metropolitan Bill of Melbourne? Yes, so far as I can remember.

26. I see in this Bill there is a test involved as to the number of candles; I understand it is usually 15, but very frequently only 14? Yes, very often 14, but the latest is 15.

27. By Mr. Coote.—Are there any penalties contained in the Bill for not supplying gas?

Mr. Mugliston.—Yes, the penalties are very heavy; he loses his rights, because it says "the Council shall do so and so."

Mr. Coote.-If he finds it below the mark he gives them notice?

Mr. Mugliston.—Yes; I will read you the clause of the Bill which deals with the appointment of a gas examiner. It is Clause 6, and is as follows:—"The Council may from time to time appoint a competent and impartial person to be gas examiner for the district to test the gas at the testing places, who shall test the illuminating power and purity of the gas supplied on every or any day, and the promoter may be represented at the testing if he shall think fit, but shall not be entitled to interfere in the testing." I might also read to you Clause 7, which states that "the gas examiner shall, on the day immediately following that on which the testing was made by him, deliver to the Council a report of such testing, and shall deliver a copy thereof to the promoter, and such report shall be receivable in evidence." Then it deals with the legal standard of the gas supplied by the promoters, it being provided that, in Clause 12, "all gas supplied by the promoter shall, except in case of accident, be supplied at such pressure as to balance from midnight to sunset a column of water not less than six-tenths of an inch in length, and to balance from sunset to midnight a column of water not less than one inch in length."

28. By Mr. Coote.-You do not want to make them as strict as in London? I should not mind, under similar conditions.

Mr. Mugliston: Going on to the general provisions, the Bill contains those which refer to the question of trespass and also to the power of the Council to take over the gas-works, and I will first read the Clause to you. It is Clause 40, Sale of Gas-works to Council.—"It shall be lawful for the Council within two months after the expiration of ten years from the date of gas being first supplied by the pro-moter for and used in the district over which the authority of the Council extends, by notice in writing, to require the promoter to sell, and thereupon the Promoter shall sell to the Council the gas-works of the promoter within such district as then in use; and all lands, buildings, works, material, and plant of the promoter suitable to and used by the promoter for the purpose of the said gas-works, at a price which, having regard to the average net annual profits of the said works for the last three years of such period of ten years, shall be a capital sum upon which such average net profits would represent an income of Seven Pounds per centum per annum, and in case of difference arising between the Council and the promoter as to the amount of such profits and capital sum, or valuation, or any other matter connected with such compulsory sale, the same shall be referred to arbitration in accordance with the provisions of the Lands Clauses Act." Here we are actually working for ten years, and the Parliament of Tasmania has decided that 21 years should be the term.

29. By Mr. Mugliston.-How many retorts will you require to start with? I think we shall want for Zeehan three benches of retorts, meaning fifteen retorts; probably two benches to open with.

30. The life of a retort is about twelve months, I think? Yes; they average sometimes twelve months, and at other times with more even heats they last eighteen months and even longer ; but I think we usually have to renew them when they are from twelve to eighteen months old, and in constant use.

31. I believe they get a chemical deposit on the walls? Yes.

32. There is a great deal of wear and tear in a gas-works? A great deal.

33. So that you practically have to renew the retorts, roughly speaking, every eighteen months? Yes. 34. That would apply also to retorts worked by you at Zeehan and Dundas? Yes.

35. I may tell you, Mr. Coates, that the Parliament of Tasmania think, in the event of their wanting to purchase, that the price ought to be calculated on the cost of construction. Would it be impossible, with regard to gas-works, to act that way? Your plant, so to speak, is destroyed every eighteen months? That has been the difficulty according to the Metropolitan Gas Act of Victoria. An average of the last three years' operations will be taken.

36. The plan you have adopted is that of the Metropolitan? Yes, nearly so. One of the reasons for doing that is because we have to estimate the cost of destruction and also the cost of replacing.

37. You would have some difficulty in doing that-for instance, you would have to carry forward the interest? Yes, exactly; we could not exactly estimate the cost of renewals.

38. Well, that is the reason you have put the saving clause in? Yes.

39. By the Chairman.—Would it not be possible to pay 20 per cent. on the cost of construction? I might say that gas-works are totally different to a railway. As the population increases so do our works increase, so that you may say the cost of construction increases at the end of every three years.

40. As a matter of fact, then, the work of constructing is never completed—you will wear out your retorts about every year and a half? Yes.

41. I think, Mr. Coates, that you would prefer that I should ask the questions relating to electricity of Mr. Rowley? Yes, I was going to ask the permission of the Committee if that course should be followed. I do not call myself a professional in electric matters, and Mr. Rowley will be able to answer any questions on that subject. I consider him one of the best electricians in Melbourne.

The Chairman: That, of course, will be a different matter. Mr. Mugliston: Yes, quite so; but, seeing Mr. Coates is the petitioner, I thought it right to ask him the question that followed, in order that the Committee might judge for themselves as to the necessity of questioning him upon this.

42. This is your Bill, Mr. Coates. Have you any objection to having certain clauses inserted whereby you will be bound to have an office in Tasmania? No.

43. That is to say, in case you formed a company foreign to Tasmania, you would not object to provisions being inserted in the Bill requiring you to have an office in Tasmania, though your head office might not be here? No, I shall have no objections provided you allow me to have it on the works at Zeehan.

44. I may say, my object in asking you this is, that, supposing an action was brought against your Company, instead of being obliged to serve a foreign writ upon you, we can serve it by leaving it at your office in this colony. You would have no objection to that provision being inserted? None whatever.

45. You would have no objection to my drafting a clause to give effect to that? No, certainly not.

46. And anything that you think is fair and right you are willing to put in this Bill? I should like to have it on a fair basis for both parties.

47. You have had other similar and various concessions to these in various Colonies, and never found any difficulties arising in the carrying out of them? No, we have always agreed.

48. And, as you have said, whenever you found the price of production of gas reduced so you have also decreased the cost to meet consumers? Yes, and I may say in relation to these concessions which I have received, that I have usually reduced the price without having been requested to do so.

49. By the Chairman.-You have done it voluntarily? Yes, always voluntarily, because as the price was decreased we got more consumers, therefore it is always to our advantage to do this.

50. By Mr. Mugliston.-Then, as to these tests set out in Clauses 4 and 5, they are very stringent.

51. By the Chairman.—In the event of this Bill passing through Parliament, how long do you consider it will take to complete your works—say for Zeehan? I think I shall be able to finish the works in from 12 to 18 months.

52. Finish them? Yes.

The Chairman: Is there any clause in this Bill as to when the works shall be begun? Mr. Mugliston: Yes, there is at the beginning. The Chairman: And anything about the completion?

Mr. Mugliston: No.

53. The Chairman (to witness) .-- Would you be satisfied if the Committee inserted a clause fixing a maximum time? A time for beginning was mentioned by me, because several times-well on three or fourwe have lost ships, and very nearly lost valuable concessions. I lost nine months once owing to a ship going down. When we once begin the works we complete as soon as possible. I would rather you should reduce the time of beginning than do as you suggest.

54. By Mr. Coote.—Do not you make a calculation against wrecks? I think in an ordinary way 18 months is a fair time,—that is I allow time for a ship to get out here, for plant to be prepared, and so forth.

55. Would you object—say, for instance, if it was not finished in a certain time—to a clause by which the Governor in Council could give you an extension of the time to which you were limited under the clause,—say, an extension of three or six months? That would meet my case.

56. By Mr. Mugliston.—Would you object to a clause somewhat similar to this (reads clause from "The Zeehan Water Act," limiting time in which work shall be completed)? I did not think of that.

57. By the Chairman.—Something of that sort ought to be inserted. I mentioned it because the time of completion must be reasonably limited. You will see that yourself? I should not object to that.

58. The completion of your works depends to some extent on the completion of the Strahan-Zeehan Railway? Yes, it entirely depends upon that.

59. If that line was in working order it would materially affect you. Yes, most certainly.

60. By Mr. Mugliston.—As a matter of fact, Mr. Coates, if this Bill becomes law, you would, for your own interest, commence working at once? Yes, I should order the plant at once, so as to get on with the work as soon as possible.

61. In fact, you are not applying for the concession as a speculation to sell it to others? No, my firm will carry out the works themselves.

62. Your own firm would commence working at once? Yes; I may mention that in four cases I have provided the capital for the works immediately I obtained the concessions.

63. And you would prefer that Mr. Rowley should give the evidence in relation to electricity? Yes. The Committee, at 3.45 P.M., adjourned until 2.30 P.M. the following day.

FRIDAY, AUGUST 21, 1891.

THE Committee met at 2.30 P.M.

Mr. Mugliston: In consequence of what fell from the Committee the other day, authorising me to make certain amendments in the Bill which at the time I desired to make, I may say that there are certain amendments which are secondary, so to speak, but I have not taken the trouble to make them yet. They will, however, be submitted to you before you bring up your report on the Bill. I think Mr. Rowley wishes to make the time for the sale of the works fifteen years after the date of gas being first supplied, instead of ten years as provided in the Bill. Mr. Rowley: Fifteen years would be more satisfactory.

The Chairman: I think we can admit that amendment. *Mr. Mugliston*: Well, then, I now propose to deal with the question of electricity, and will call Mr. Rowley to give the Committee an explanation of what he proposes in this direction. Mr. Rowley has had a large experience in electric lighting, and will be able to give valuable evidence on this point.

HENRY TUTALL ROWLEY, called and examined.

64. By Mr. Mugliston.-Your name is Henry Tutall Rowley? It is.

65. You are a Member of the Institute of Engineers, consulting electrical engineer, &c? Yes.

66. I think you have been connected with electric lighting for some years past? Yes.

67. Will you give me the names of some of the places in which you have carried out electrical works? In Victoria I had charge of the railway department for seven or eight years. I was chief engineer and superintendent of the Union Electric Company for nearly two years, and had control of electrical plant in Sydney and Victoria. I was consulting engineer for one of the largest electrical firms in the world. I was also consulting engineer for New South Wales.

68. Also for Lampton? Yes.

69. You are also consulting engineer for works being carried out for Shire Councils, I believe? Yes. Those works are being carried out with a view to lighting up some of the towns.

70. There are something like 250,000 lamps in the Alcock Company? Yes, there are that number at the very least. I may say that I was engaged in placing nearly the whole of the electric lighting in Melbourne.

71. Is it usual to construct gas and electric works together? Yes, it is a great advantage. Throughout the world now gas companies have full control of the electric light.

72. I think the gas companies assist the electrical works? Yes, they have the advantage of getting their heat for the generation of steam.

73. It is the waste heat from the gas retorts that assists you? Yes.

74. Now with regard to the centres. How would you fix your centres? We are proposing now by this scheme to light the surroundings about Mount Dundas, Zeehan, and Strahan, and also the immediate vicinities, and we would have one centre station not more than ten or fifteen miles away from the furthest point to which we would take the light. The usual system in electric lighting is to radiate from a given centre; that is to say, if you had the water power at Mount Wellington you would have your central point in Hobart, so that if the electrical works were in Zeehan the light would radiate to the mines in and about that place.

75. Do I take it that the electric light would serve as an important factor in lighting up the mine? Yes.

76. With regard to the power, would you require water power? No. If water power was immediately available it would be the cheapest. It is the cheapest of all known powers, but my experience of Zeehan— I have been over the field there and know it well—is that its position for water is not suitable. If the water power was in Zeehan it would be easy to radiate for a few miles, but in this case it would be at the extreme point of the compass, far away from it.

77. For instance, now you are speaking of the power being distributed from a centre, would it be necessary to establish more than one centre? Yes; it would be better than attempting to send it on a distance of twelve or thirteen miles. There is a great loss in sending it further: the cost increases with the distance. It would not be profitable to send the power to a great distance : for instance, if we had a centre at Durdos, the light would reduce the centre. centre at Dundas, the light would radiate round that centre.

78. The preamble of the Bill says it is expedient to construct electrical works in the towns of Strahan, Zeehan, Dundas, "and localities adjacent thereto." What is the reason the words "adjacent thereto" are inserted? Because of the centres. You see, it would be better to have a lighting station at Dundas in preference to sending it on, so as to include all the mines in the immediate vicinity.

79. What would you take to be a fair radius? Not exceeding 10 or 15 miles from each centre.

80. By the Chairman.—Would it not be better to fix a distance from, say Dundas, Zeehan, and Strahan—from each of those places? Yes; I think seven miles from each place would be sufficient.

81. Dundas is only seven miles away, therefore you could radiate seven miles?

82. Would you require to make Dundas a centre? It would be unwise to make it a terminal station unless you make it an absolute station, or auxiliary station.

83. By Mr. Mugliston.—In your opinion, it would be desirable, instead of having one centre, to have e centres : one at Zeehan, one at Dundas, and one at Strahan? Yes. three centres : one at Zeehan, one at Dundas, and one at Strahan?

84. And within a radius of seven miles from each centre ? Yes.

85. Not exceeding seven miles from each one of those points would satisfy you? Yes.

86. By the Chairman.--You think seven miles sufficient? Yes.

87. By Mr. Mugliston .--- You are quite satisfied with seven miles? Yes; but, for certainty, I would I feel satisfied we would require a second station at Dundas. prefer ten.

88. Then you would like the Committee to make it ten miles from each of the three central points? Yes.

89. Ten miles from each point would embrace the term in the preamble "and adjacent thereto"? Yes. 90. Would you kindly explain to the Committee what you mean by units and the various technical terms as applied to electricity? Yes. Electricity is the most stupendous force in nature.

91. Would you effect the measurements of the supply of electric light by water? Yes.

92. Then you fix that by the unit? Yes.

93. How much would be a fair charge to make per unit? I think 1s. 6d.

94. A thousand cubic feet of gas would equal a unit of electricity? Yes.

The Chairman: Is the cost included in the Bill? Mr. Mugliston: No. I propose to insert a clause giving it.

95. By Mr. Mugliston.-I should like you to fix the maximum price per unit? I should say 1s. 6d. would be a fair charge per unit; that is equal to 1000 cubic feet of gas.

96. Do you make any different charge for supplying the incandescent lighting as compared with the arc lamp? Yes. The price varies from $\pounds 20$ to $\pounds 30$ per annum for supplying light equal to 2000 candle-power.

97. Is that the maximum? In this locality there is a great deal to be considered; therefore, I think, £35 should be the maximum.

98. When you speak of the price do you mean to say that you put it down at 1s. 6d. per unit for a supply equal to 1000 cubic feet of gas, and $\pounds 35$ as the maximum for an arc light? Yes.

99. That is a reasonable charge? Yes; that is the method adopted all over the world.

100. By Mr. Coote.—Any ordinary arc lamp of about 2000 candle-power would represent one horsepower? Yes, or nearly a unit.

101. By Mr. Mugliston.—As to the storage of power, would that be a profitable way of working electricity? I do not think so.

102. Is the underground scheme mentioned, some years back known as James's scheme? Yes.

103. Having regard to the locality, would that be a profitable scheme? I do not think so at Zeehan. It is too wet.

104. It could only be successful, then, in dry places? Yes. It has been tried in Melbourne, and, up to the present, has not proved a decided success, although it may do so with some modification.

105. In your opinion do you think the promoter should be bound to accept any defined scheme? I think the scheme to be adopted should be left entirely with the promoter. Electricity is advancing with such strides that in the next year or so there will be great improvements. It might be well, therefore, to accept some of these improvements in the interests alike of the promoter and the people. Considering the advances being made, I think the promoter should be left untrammelled as to what scheme he shall adopt.

106. You have a copy of the Bill in your hand. Will you turn to page 6, in line 9, and tell the Committeee whether you think eight days too short a time in which to compel the promoter to remove anything that is considered a nuisance? I think eight days is not a sufficient time, because there is sometimes trouble in localising the field, replacing the cable, &c. There are many things in the shape of accidents which might occur to prevent the promoter carrying out the work, so that if twelve days were allowed it would be much better than eight. I should like to see twelve days inserted in the Clause instead of eight. In the same Clause, in line 15, seven days' notice is required to be given. This also is, I think, a little short, and would prefer to see it ten days.

107. The promoters themselves would use every means of preventing accidents? Yes, they would take every possible care.

108. You would then extend eight to twelve and seven to ten because it would give a little more time to the promoters, though in their own interest they would make the time as short as possible? Yes.

109. Now, if you notice, we have not got included in Clauses 13 or 14 the word "tramway." On the question of electricity, do you think it desirable to insert the word "tramway"? I think, seeing that Zeehan is wonderfully adapted for electrical tramways, that it would be advisable. If a central station for motive power is to be fixed at Zeehan, and the population increases at Zeehan and Dundas at the rate it is hoped it will do, electric tramways would be found of incalculable convenience between Dundas and Zeehan.

110. You have no power under the Bill to make tramways? No; we do not want the power to construct them, but we would like the power to work them. The electrical method of tramways is certainly coming into use, and it is only a matter of time before it will be generally accepted. The wire system is very good, but very expensive. By electrical tramways you have a clean, easy, reliable motive power which is the best. You may increase your speed and go back in case of accidents. I regard them as better than the cable system in point of safety.

111. By the Chairman.—You want power conferred upon you to "contract to run" not to "construct" a tramway? Quite so; not to "construct" a tramway.

112. By Mr. Mugliston.—Did I understand you to say Zeehan was particularly adapted for running electric tramways? Yes.

113. I expect you can get the necessary speed and so on? Yes.

114. In Clause 20 the potential of current is dealt with. I think you want to add something to that? Yes, but in Clause 14 there is one very important word omitted, and it is the word "transformer." I would like that word inserted after the word "accumulator." in the thirty-second line.

would like that word inserted after the word "accumulator," in the thirty-second line.
 Mr. Mugliston: I may point out that the reason this word was not inserted is because the Bill is based upon an old Bill, and the word "transformer" has been added to the science of electricity of late years. It is, I think, a word that is absolutely necessary.

115. By Mr. Mugliston.—With regard to Clause 20, I believe you can suggest a material amendment in that? Yes, in the twenty-first line, after the word "volts," I should like you to insert the the words "from the secondary terminals of the transformers." This is simply a technical provision.

116. Before I go to the technical provisions of this Bill, is there anything you would like to suggest to the Committee with regard to the question of light? I think electric light is the best that can be used in mining centres. It is extensively utilised at Broken Hill and other places.

117. By the Chairman - This Bill is for gas and electric works? Yes.

118. I suppose gas would be the main thing for the town? If we thought it better than the electric light, then we would use it; but that is a matter for after consideration.

119. Do you mean to apply this Bill in connection with the lighting and working of the mines? Yes.

120. For working? Yes, for working tramways and machinery in connection with the mines.

121. You think, from your own knowledge, that it this Bill is passed it would materially add to the development of the district, by the application of electricity to mining? I think so, because there are many mines requiring a small amount of motive power, which we will supply from a dynamo or central source.

122. You are connected with Mr. Coates in this matter? Yes.

123. And, in the event of this Bill being passed, you are prepared to go and carry out this work yourselves? Yes.

124. By Mr. Mugliston.-As I understand it, your idea is that the gas shall be used for domestic purposes, and also lighting in the towns, and the electric light for the mines and machinery, &c.? Yes.

125. By Mr. Coote.—In regard to the tramways, is there any provision in the Bill for erecting poles? Yes, you will find it in Clause 13.

126. You know, of course, Mr. Rowley, that you would not erect telephone wires on your poles? It is preferable not to use them; but there is no real objection to them, so long as you take precautions.

127. What is your experience of the underground system? My experience in Victoria is that it is somewhat mixed,—that is to say, we have had failures as well as successes.

128. Would it be advisable to go underground at Zeehan? No, I do not think so at present.

129. Why? Because it is so very wet.

130. There would be no objection to providing an underground system in this Bill, I presume? The first cost would be very expensive, although it would last a great number of years. No.

131. What do you think of James's system? I do not think it as good as many others.

132. If the Committee could prove that it is would you have any objection to it? No, I would have no objection to any sound method, providing it was proved sound.

133. By Mr. Mugliston.-You are perfectly willing to adopt any scheme which may, in your opinion, be profitable and sound, but you object to be trammelled in any shape or form by having any particular scheme inserted? Yes, we would not like to have any particular scheme forced upon us.

134. Mr. Coote.—Do you object to James's scheme being introduced into this Bill? Mr. Mugliston: I, acting on behalf of my client, do object. We simply come forward and ask to have the right to establish electricity at Dundas, Strahan, and Zeehan, but we do distinctly refuse to be bound over to any scheme in particular. We are willing to carry out certain works in the interests of the public, and if you force any particular scheme upon us it might prove injurious. We consider we should be left to decide the best scheme to adopt.

135. Will you turn to Clause 22 in your Bill, line 14. You notice on line 14 there is a blank space left? Yes.

136. I want you in regard to electricity to say what is a fair depth to fix ?

The Chairman: I see it is left blank. Mr. Coote: What for?

137. Mr. Mugliston.-We had no evidence then when the Bill was drawn, and I knew we should have this expert over from Melbourne, therefore I purposely left it blank. Now, Mr. Rowley, what do you think is a fair depth? Forty or fifty feet.

138. Shall we say 50 feet? Yes.

139. By the Chairman.—Your lines do not interfere with minerals at all. Might it not come into collision with anyone who has got a lode? Mr. Coote: Yes, it might do that.

140. The Chairman.-That will have to be discussed in Committee. Supposing your working is down 50 feet ? We ought not need to go below that.

Mr. Mugliston: I think you might take it that Mr. Coates is desirous of having the time extended from 10 years to 15 years.

The Chairman: I will make a note of that. Of course we cannot alter the clauses. We cannot bring in another Bill. This is the Bill.

Mr. Mugliston: Of course; but what I propose to do is this: I have now closed my evidence, sub-ject to the right of recalling should I consider it necessary to give additional evidence on any point. I would suggest that I be allowed to get the Bill prepared and brought in for the Committee to consider, and then they can say this is the Bill in the form in which we suggest Parliament should pass it. I should like to say Mr. Coates is desirous that some time should be fixed in which, should the Government not resume possession of the works in the time mentioned in the Clause, the proprietors would have the right to continue possession of the works; that is to say, if in 10 or 15 years the Government did not take possession, we should have it for three or four years more, because if we knew the Government would not take it we would be prepared to incur necessary additional expenditure in the works for carrying on the business for our extended period, whereas if we did not know what the Government would do, and have no such extension of time, we would not care to incur any additional expenditure.

The Chairman : What is there in the Bill?

Mr. Mugliston : There is nothing.

Mr. Coote: That is a very good suggestion.

Mr. Coates : I should like to remove an impression there seems to be abroad among the inhabitants of Zeehan to the effect that we propose to levy a rate in relation to these gas works. Of course that is an idle rumour, as we build the works at our own expense and risk, and if they don't take the gas we cannot oblige them to.

The Chairman: Of course that is understood. Mr. Mugliston: Might I ask in relation to Mr. Coates, who has left Melbourne at very great prepience. whether you want to recall him? I do not think there is any necessary for so doing, as he Dill I may deem necessary. inconvenience, whether you want to recall him? has authorised me to make any alterations in the Bill I may deem necessary.

The Chairman: So far as I can see, Mr. Coates has given all the evidence he can, and there is no necessity for his remaining.

The Committee, at 3.35 p.m., a djourned till 2.15 p.m. on Thursday, August 27.

[Coates' Bill.]

THURSDAY, SEPTEMBER 3, 1891.

The Chairman: We have met here again to-day to consider the West Coast Gas and Electric Lighting Bill.

Mr. Mugliston: With regard to the question of gas-works, you may remember that, when we were taking the evidence of Mr. Coates, he promised to produce the Bill from which the present Bill was compiled, viz., the Katoomba Gas Bill. I have a copy of that measure, and I will leave it before the Committee for their consideration. At one of our previous meetings it was also arranged that I should put in the hands of the Committee certain amendments in the Bill which we propose to make, and which we intend asking the Committee to agree to. These amendments have been made, and I purpose having copies delivered to each member of the Committee, so that they may fully consider the matter before taking any responsibility in regard to it. In the evidence of Mr. Coates, he has suggested some amendments which he is desirous of having made. As you are aware, Sir, there was an amendment asked for in the preamble which I think is very desirable, and, although I am to a certain extent going over the ground which I went over before, I think it is desirable that I should very fully explain the matter. I do not know what the practice is here, and I have looked through the rules to find out, but I understand that it is usual for experts connected with the promoters of private undertakings to be present at the meetings of the Committee, in order to afford counsel any information he may desire in properly putting matters before you. I therefore think that the representative of the promoters of the Bill is entitled to be present, and I would ask that Mr. Hogg, who is one of Mr. Coates' partners, and who is outside, should be present.

The Chairman : It is a question of procedure.

Mr. Douglas: There is nothing provided for it in the rules.

The Chairman: Do you want him here.

Mr. Mugliston: I should like to have him here, as he would be of assistance to me, probably. I know the practice in England is to have the promoter or the representative of the promoter present.

The Chairman: There is no objection.

[Mr. Hogg was then introduced, and, after some discussion, he withdrew.]

Mr. Mugliston: You may remember that when the Bill was introduced I asked Mr. Coates in his evidence whether there was anything in the Bill which he wished to amend, and he replied that there were several amendments he desired to make, and one was in the nature of an amendment to the preamble. It was also arranged that I should have permission to draft the amendments Mr. Coates desired to have inserted in this Bill, and then submit them to this Committee. I have had these drafted on the Bill I now have in my hand, and I purpose, with your permission, later on to distribute them to you. The course I shall pursue in regard to them is that adopted in Committee of the New South Wales Parliament. I really think the best and easiest course to be adopted is that of the New South Wales Committee, which is that those words I wish to have erased should be struck out, and those I wish to have inserted should be inserted in black letters. By adopting this means the Committee of the Legislative Council, when the Bill comes before them, will be able to see at a glance what is proposed to remain, what is proposed to be struck out, and what is proposed to be inserted. The alterations being made in black letters will, of course, facilitate the work of the Committee.

The Chairman: We will have to take the Bill as it comes up to us, and, of course, as it was presented to us by the promoter. If Counsel has any suggestions to make to the Bill he must first place them before the Committee in such a form that the Committee can consider them, and, if they think fit, recommend the Legislative Council to adopt them. This is the Bill that came before us, and as such we cannot alter it. We can, however, suggest alterations if we so think fit, and doubtless our suggestions will be considered.

Mr. Mugliston: The promoter wants certain alterations in the Bill, and he intended to submit to the Committee those alterations in the shape of amendments. He can only suggest those alterations, and it is for the Committee to dispose of them. Where he wants words erased he will have them struck out by means of a black line being passed through them, and where he wants fresh words inserted they will be so inserted in black letters. Then, as I say, the question comes before the Committee as to whether they choose to acquiesce in the amendments which the promoter desires to make, and if they will act upon his suggestions as proposed, then it will be for them to submit to the Legislature the original Bill as prepared by the promoter, together with a recommendation that the amendments he proposed to make either be agreed to or negatived.

Mr. Douglas: Have you read the 346th rule as to the proceedings of the House?

Mr. Mugliston: Yes, Sir.

Mr. Douglas: Well, that very clearly points out what we have to do.

Mr. Mugliston: I have read it; and later on I was going to introduce the question, and refer to May on Parliamentary Practice.

Mr. Douglas: I will read you the 346th rule, which is as follows:--(Mr. Douglas here read the rule).

The Chairman: Yes, that is quite right. The present position of affairs is this, gentlemen. We have met here three times, and have taken the evidence of Mr. John Coates, the promoter of this Bill, and Mr. Rowley, an expert in electricity, and who is a partner of Mr. Coates; and now the question resolves itself into the simple one of "What shall we do?" The first thing, I take it, is to prove the preamble. I think we all wish to conform with the ordinary procedure; and to do that, I take it, we must first prove the preamble.

Mr. Mugliston: The first thing for the Committee to do is to say whether they will approve of the preamble; and, if that is intended, I will for the moment confine my remarks to the suggested alterations

the promoter desires to have made in the preamble. In May's Parliamentary Practice you have power in Committee to amend the preamble, provided it does not substantially introduce a new line altogether. It hold, therefore, that the Committee can propose alterations in the preamble, and, if they so desire, adopt them. The promoter has given notice that he desires to have the preamble altered to read thus:— "Whereas it is expedient that Strahan, Zeehan, and Dundas, together with localities adjacent thereto, should be supplied with gas and electricity, or with either of them, for lighting and heating, and for motive and other purposes." He is desirous of limiting his application as to the area in this preamble, to a narrower sphere, and I think it is manifest to the Committee that his desired amendment is one that ought to meet with approbation. What is it he proposes to have? Simply power to enable him to light Strahan, Zeehan, and Dundas by gas and electricity, and also to use them as motive powers. The amendment in the preamble of course will necessitate some altertation in the title of the Bill, which the promoter proposes to make read as follows :—"A Bill to enable John Coates to construct gas works and electric works, or either of them, at Strahan, Zeehan, and Dundas, in Tasmania. I may say, Sir, as you remember, it was practically at the suggestion of one of the Committee that it should be expressly set forth what were the powers Mr. Coates was desirous of obtaining, and it was also suggested by the Committee the words "localities adjacent thereto" should be defined, and that being so he had prepared a definition. I am not now dealing with the preamble. I may say I have inserted in the amended Bill certain words which define the words "localities adjacent thereto" to be localities within a radius of ten miles from Zeehan.

Mr. Douglas: What!

Mr. Mugliston: I have simply carried out what was suggested.

Mr. Douglas: That means 20 miles.

Mr. Mugliston : No.

Mr. Douglas: It may be over 20 miles.

Mr. Mugliston: These places overlap, and therefore if you take a centre point you will be certain to overlap. It is, of course, a question for the Committee to say what shall be the radius.

Mr. Douglas: There has always been a great dispute about the word radius. I should like to know what radius means.

Mr. Mugliston: Where a radius is given from three distinct points, ten miles from the centre of each must overlap.

Mr. Douglas: You put a radius on Zeehan to begin with, and then you put another round Dundas, and then another round Strahan. Will that be tantamount to including nearly the whole of the country between Strahan and Zeehan?

Mr. Mugliston : No, No.

The Chairman: In the original Bill it said in the preamble, Strahan, Zeehan, and other places in the counties of Montagu and Franklin, which virtually meant half the island. We came to that part, and we asked the promoter what he meant, and he said he would be satisfied to amend the preamble by making it read Strahan, Zeehan, and Dundas, together with localities adjacent thereto. We wanted to fix something very much more definite, and that is the reason the words "the counties of Montagu and Franklin" were struck out. Had we agreed to let those words remain in it would have been very absurd, because it meant really annexing the whole of that part of the colony.

Mr Mugliston: I might, perhaps, be permitted to read to you some of the evidence given by Mr. Rowley in regard to the question of dynamos.

Mr. Douglas: Are you satisfied that Mr. Rowley is a good man?

Mr. Mugliston: Yes; I think his evidence is reliable. However, I am told by my solicitor he is a good man. It is for the Committee to say whether his evidence is reliable. All we have to do is to place evidence before the Committee, and they judge of its value.

The Chairman : I may read part of his evidence to the Committee.

[Here the Chairman read the first part of Mr. Rowley's evidence.]

Mr. Mugliston: In regard to the evidence of Mr. Rowley, he was simply called as an expert to give us his opinion on the clauses in this Bill which deal with electricity. His evidence may not have any weight with the Committee, and it is for them, inasmuch as the general evidence is concerned, to judge of it. He comes before you as an expert in electricity, having a knowledge above the ordinary run of individuals which enables him to call himself an expert. He does not come before you advocating any particular scheme, but he points out the desirableness of some scheme for lighting the places I have mentioned being adopted.

Mr. Douglas: Well, let us get on to the Bill again. The first thing for you to do is to prove your preamble. The preamble says simply all this, and what you want to do now is to make it appear to the Committee that it is expedient that the towns of Strahan, Zeehan, Dundas, and other places in the Counties of Montagu and Franklin should be supplied with gas and electricity, and that Mr. John Coates, who carries on business in Melbourne, proposes to do all this.

The Chairman: I am of opinion, gentlemen, that all we have to do is to prove the preamble. As for going through the Bill clause by clause, that is another matter.

Mr. Mugliston: I was going to confine myself to the preamble, as, at present, there appears to me no necessity for my making reference to other matters. With regard to the preamble, the responsibility is thrown upon me of showing, first of all, it is desirous that Strahan, Zeehan, and Dundas should be supplied with gas and electricity. That, I think, is the first part of my case.

Mr. Douglas: Well, it should be expedient.

Mr. Mugliston: I think it must be granted, if we have any hope for the future of the West Coast Silver Fields, it will be expedient that the places I have mentioned should be supplied with gas.

Mr. Douglas: There can be no doubt about it.

Mr. Mugliston: That being so, I will ask the Committee to consider the preamble.

[Counsel here retired, and were again summoned, after a brief discussion.]

The Chairman: The Committee, Mr. Attorney, have agreed to the preamble.

Mr. Mugliston: Well, Sir, the preamble having been approved by the Committee, there are some alterations and amendments which Mr. Coates wishes to make in the Bill itself, whereby he limits, to a certain extent, the powers which he asks should be given to him. With regard to those amendments, the first is in the interpretation clause, where I would suggest to the Committee the addition of certain words. These amendments would only be consequential, limiting the sphere. I would also ask that certain words be inserted in different sections so as to enable the promoter to give effect to the powers which he will obtain under this Bill should it become law; and there was a blank, also, in one of the sections which I will ask to have filled in, as to the depth, a blank having been left in Part III., Clause 22. The English practice is to leave a blank, which is subsequently filled after the advice of experts is obtained. In line 14, on page 8 of the Bill, in Clause 22, we purpose inserting the words "not exceeding 50 feet." The reason why we put in 50 feet was this—and I take it that it will meet with the approbation of the Committee that with regard to sections —....

The Chairman: We cannot fill it up.

Mr. Mugliston: I suggest 50 feet; and our reason is this, that with regard to all mineral areas where it is proposed to have a township erected the surface is 50 feet, and we have taken that as a standard to apply to this matter. It will, however, be for the Committee to say whether they think 50 feet is desirable. There are certain other clauses which we think it is desirable should be amended, and we also sak, first of all, that a new Clause should be inserted on page 6, which will become Clause Fitteen. As you may remember, Sir, when the evidence was being given, some reference was made to this Clause, which perhaps it would be better to call Clause 15A. The objection then was that there was no provision made for the charge of supplying electricity, and therefore I have had a clause drafted in accordance with my promise to the Committee. It shows the price that we are desirous of charging, and is the same as that mentioned by Mr. Rowley in his evidence, namely, not exceeding 1s. 6d. The Clause which I wish to see inserted is : "The price for electricity supplied by the promoters for lighting purposes shall at no time exceed, in the case of electricity supplied to incandescent lamps the sum of 1s. 6d. per unit, and in the case of electricity supplied to are lamps the sum of 285 for each such lamp per annum. Where incandescent lamps are used the unit of electricity shall give a light equal to one thousand cubic feet of gas, and the illuminating power thereof shall be ascertained by the was of an electric photometer. And where are lamps are used, each lamp for which payment may be made at the rate aforesaid shall give a light equal to two thousand candles, and the illuminating power thereof shall be ascertained in like manner." That clause is so to speak, by this Bill, and consequently this clause has been drafted by me. That is the clause is so to speak, by this Bill, and consequence of a remark from the Charman, we decided to bind ourselvers, so to speak, by this Bill, and consequence of a remark from the C

Mr. Douglas: That comprises the whole of the land between Zeehan and Dundas.

The Chairman: Within a radius of ten miles.

Mr. Mugliston: Yes, it really came to this. We have three centres, Strahan, Zeehan, and Dundas Of course, I may say that was the way ten miles came to be inserted in this particular clause; but another reason why I wish to have the word ten inserted is this, that Mr. Rowley was asked whether he would be in a position to supply electricity for driving tramways, it having been shown first of all that the country was adapted for electrical tramways, and he replied, "Yes, we would. We would have to increase the power of our dynamos, but we would be in a position to provide the motive power." And therefore it is, having regard to the power of the dynamos both with regard to the electricity for lighting the mines, and also for the purpose of supplying the motive power for tramways, that I have taken upon myself to put in ten miles. Of course, it is a question for the Committee to determine whether they will agree to it. This is a matter the Promoter does not trouble his head about. He says, let him have the power of supplying the immediate localities and the three townships mentioned and he is satisfied, but if you wish to do a benefit to the mining community, he suggests that you let him go outside those places. He will benefit in one way, because he will have more consumers, but he will have to get increased engines. Inasmuch as this Bill is only asked for for a period of ten or fifteen years, but then it says that we shall have to construct our engines, &c. within a certain time. We are not asking for anything out of the way, inasmuch as the interest on the cost of construction would be going on before we could recoup ourselves—in fact, before we can make a profit out of our outlay. With regard to the other clauses, it was pointed out by myself to the Committee that it was very fair to the promoter that after the expiration of ten years the Government or the Municipal Council should have the right to come forward and say, "We will take over your works at a certain price, or we will leave it alone." There was that arbitrary power which would take the whole matter out of the hands of the promoter, and therefore I suggested to the Committee that a fair course to the promoter would be that he should receive some notice if it was the intention of the Government or the Municipal Council to take the works out of his hands. It would be optional with the fovernment or the Council to come down at the end of a defined period of, say, ten years, and say that they required those works, and that they would take them on a certain basis to be agreed upon. The promoter wished for something more definite on this point, and would ask the Committee to agree to an amendment in the Bill whereby if the Government or three years longer. The reason of that was that at the expiration of ten years the townships may have grown to such dimensions that it would be necessary to erect a larger number of retorts and so on for the purpose of supplying the various places. That is to say, the population at one time is 10,000, which would require 15 retorts for gas

Mr. Douglas: Can you produce any precedent in the English practice in regard to that?

Mr. Mugliston: I can produce a precedent in this way: unrestricted power is often conferred, and this is restricted power. In England all the gas companies are private affairs. In Tasmania the Government has the power to go down and buy the right granted to the concessionaires. In England there is no such thing. I would therefore ask you to agree to this amendment.

Mr. Douglas: What are the other clauses you wish to refer to?

Mr. Mugliston: I was now passing on to the general provisions in Clause 27, which deals with the radius of ten miles. That is the one I have just finished. It is what you have marked as 25A. Well, I now pass on to the various clauses in which I suggest alterations should be made. The power of the purchase by the Government of the works will now be Clause 43.

The Chairman : It is 42 here, but will now, I presume, be 43.

Mr. Mugliston: Yes; I propose to alter that Clause by making it fifteen years instead of ten, and adding the following:—" Provided that in the event of the Council not exercising its right of purchase in respect of any such works after the expiration of fifteen years, it shall be lawful for the Council, within two months after the expiration of a further period of three years, to purchase the same upon giving such notice as aforesaid, and at a price to be calculated upon the profits of the Promoter during such last-mentioned period of three years in manner aforesaid; and so, within two months after the expiration of every subsequent period of three years, it shall be lawful for the Council, upon giving such notice and paying a price to be determined in like manner, to purchase any such works of the Promoter within the district of and not theretofore acquired by the Council." I was going to say with regard to this particular clause, it has been asked why we do not have a clause inserted somewhat similar to those which have been inserted in other private railway Bills which have passed through the Legislature—namely, allowing 20 per cent. on the cost of construction after a certain period. It has been shown in evidence that this would be impossible, as, at the time we commence to construct these works only a certain number of retorts will be erected, but as the population increased and the requirements of the district became more numerous, more retorts would of necessity have to be erected, inasmuch as a retort will only hold a certain quantity of gas during the 24 hours, so if the demand increases in a greater ratio than the supply, it will be necessary for him to increase the number of retorts. It was also shown in evidence that the retorts have to be renewed according to the wear and tear on them. Owing to the deposits on the interior walls they will only last from 12 to 18 months. Assuming, therefore, that their life is an average of from ten to fifteen months, it might safely be asserted that the Promoter wo

Mr. Douglas: Is that not reckoned in his profit and expenditure?

Mr. Mugliston: No, for this reason,—he could not say what the actual amount of his outlay would be in building and rebuilding his retorts. How can he possibly charge for that if he does not know the expense he will be put to. If he had to put one, two, or three new gas retorts down it would necessitate a tremendous amount of calculation as to the exact outlay in respect of them. Then, there are certain other clauses that I wish to have inserted which are as against the concessionaire. It simply compels him, before he can receive these concessions, to have a registered office in Tasmania for the purpose of being sued and suing.

Mr. Douglas: We want some explanation on Clause 42, Mr. Attorney. Are you going to alter that?

Mr. Mugliston: Yes, very considerably.

Mr. Douglas: That is the most important clause of all.

Mr. Mugliston: With regard to Clause 42, I wish to materially alter that. First of all, in accordance with the suggested alterations in the preamble of the Bill, and then also in other ways. I have drafted an alteration, and, with your permission, I would like to read the clause as amended, which will now take the number of 45.

The Chairman : The Committee will be glad to hear any amendment you propose.

Mr. Douglas: Do you mean to contend for that before the House?—because, if you do, I might tell you that I am thoroughly opposed to it, and I will tell the promoter plainly that he is asking for a monopoly that has never been known to exist.

The Chairman: Yes, we are going on with it. We are going to hear what Mr. Mugliston has got to say about the matter, and then we can form our own opinion as to its being such a scheme as will commend itself to the serious consideration of the Legislature.

Mr. Douglas: I would call the attention of the promoter to this particular clause. So far as I am concerned, I will oppose it. It is most unfair that we should grant a monopoly to any person, and it is for that particular reason that I call the attention of the promoter and the Committee to this particular clause, as I should like an expression of opinion from others upon it.

Mr. Mugliston: If you had allowed me to go on reading this clause you would have seen that your objection was met. Up to the present moment I have asked for a monopoly, and I say that in this case it should exist.

Mr. Douglas: I, for one, would not grant you a monopoly. We have never before granted them, either in gas works or railways, and I shall therefore oppose it in this instance.

Mr. Douglas : Who asked you to do it?

Mr. Mugliston: We simply take the risk. I would simply make a farce of the whole thing if I said we did not expect to make something out of it. It is a speculation, and we are going to confer a benefit on the public and on ourselves. We are not going to be sacrificed as far as we are concerned.

Mr. Douglas: There is another company ready to come forward and do this. If they say they are willing to do this without a monopoly, what then?

Mr. Mugliston: That is another question. I simply say that it will be a long time before we can get anything out of it. Here we undertake to construct works which will be satisfactory to the public, and we only ask that we might be able to hold them for a certain time. By giving a monopoly you will only be carrying out an established principle. There is a monopoly in almost everything. For instance, if a man leases a farm for seven, fourteen, or twenty-one years, he holds a monopoly over that land.

Mr. Douglas: We have three gas companies in Tasmania,—one at Hobart, Launceston, and Latrobe. Have either of those companies a monopoly?

Mr. Coote: Mr. Coates built the Latrobe gasworks.

Mr. M'Call: There is no monopoly there.

Mr. Mugliston : There was a special Bill for it.

Mr. M'Call: Yes.

Mr. Mugliston: I would simply point out in asking for these concessions that the work will be We have carried out in the interests of the people, and absolutely in the interests of the colony generally. shown you in Mr. Coates's evidence that he was the man who carried out the Latrobe gasworks.

Mr. Douglas: Nothing of the sort. He was only the manager. The other people found the money. Is that all you have to say in regard to Clauses 45 and 46 as they will now appear in your amended Bill?

Mr. Mugliston: Yes. But I would like to read to you the following new clauses which we propose to insert. 'Clause 39, which is new, is as follows:—"1. Before commencing to construct any works authorised by this Act, the Promoter shall register with the Registrar under the Companies Act, 1869, and shall publish in the Hobart Gazette the name and place of abode or business of the person who for the time being carries on the business of the Promoter in Tasmania, and also the situation of the office in Tasmania of the Promoter, and shall in like manner upon any change of such person or in the situation of such office register and publish the same. And such person shall be deemed to be the agent, and such office is to be the registered office of the Promoter. 2. The name of the Promoter, and that such office is his registered office under this Act shall annear and he stated in a conspicuous manner on the outside of his registered office under this Act, shall appear and be stated in a conspicuous manner on the outside of such registered office. 3. Any Bill in Equity, writ, summons, notice, order, or other document relating to the works authorised by this Act, or in any matter herein mentioned, or to the privileges or liabilities of the the works authorised by this Act, or in any matter herein mentioned, or to the privileges or liabilities of the Promoters hereunder, may be served upon the Promoter by delivering the same to his agent, or by leaving the same at his registered office, or by sending the same in a prepaid and registered letter addressed to the Promoter at such office. 4. If the Promoter shall at any time transfer or assign his rights, privileges, and authorities under this Act, or any of them, to a Company incorporated and registered in Tasmania under "The Mining Companies Act, 1869," the preceding provisions of this Section shall not extend or apply to such Company. 5. For any breach of the provisions of this Section the Promoters shall forfeit and pay a penalty not exceeding £20." The following, Sir, will be an addition to Clause 44:--- "Provided that in the event of the Council not exercising its rights of purchase in respect to any such works after the expiration of Fifteen years, it shall be lawful for the Council, within two months after the expiration of a further period of three years, to purchase the same upon giving such notice as aforesaid, and at a price to be calculated upon the profit of the Promoter during such last-mentioned period of three years in the manner aforesaid ; and so, within two months after the expiration of every subsequent period of three years, it shall be lawful for the Council, upon giving such notice, and paying a price to be determined in like manner, to purchase any such works of the Promoter within the district of and not heretofore acquired by the Council." *The Chairman*: Is that all yon have to say. Mr. Attorney ?

The Chairman: Is that all you have to say, Mr. Attorney?

Mr. Mugliston: Yes, Sir. I can only hope that the Bill will be approved by the Committee, and reported favourably upon. With regard to the question of amendments, I would ask your authority to get them printed.

The Chairman.-Yes, you may have that authority.

Wednesday, September 30, 1891.

The Committee met at 3.30 P.M.

The Chairman : This Bill has been put off a good many times from various causes, but I think we might now come to some definite decision regarding it. Mr. Robert Henry has kindly come forward and offered to give any information in his power concerning the matter of electricity. There are some things we are in doubt about, and these, I think, Mr. Henry will be able to clear up.

ROBERT HENRY called and examined.

141. By the Chairman.-You are the Superintendent of Telegraphs? I am.

142. By Mr. Douglas.—I will read you the evidence of Henry Tutall Rawley, and will ask you whether you concur in that evidence. (Mr. Douglas here read the evidence.) Now, Mr. Henry, what is your opinion about there being three centres? I should say that there should be three centres from which to radiate, because it means a lot of expense to take a current from Zeehan or Dundas down to Strahan.

143. How much would be a fair charge to make per unit? I could hardly say. A thousand cubic feet of gas would equal one unit of electricity. I think by the Bill it is proposed to charge 1s. 6d. for a unit of electricity, and 15s. per thousand cubic feet of gas.

144. By the Chairman.-That is the maximum? It does not seem to me to be quite correct to charge 1s. $6\dot{d}$. for a unit of electricity and 15s. for a thousand feet of gas.

145. By Mr. Douglas.—Is that your idea, that a unit of electricity is equal to a thousand feet of gas? Yes, that is recognised.

146. Is £35 a fair charge for incandescent lighting? That is one of those things that I could not say without consideration. I think it is quite enough. You see, I am hardly prepared to answer questions like this, because it means going into figures.

147. If you were to go through the Bill and read the evidence we have taken, would you be prepared to give an opinion? Yes, of course I would. I should think that figure rather high.

148. What is a potential? It is a means of changing a current from a high to a low pressure, and giving at the same time more current. It is simply changing the character of the current, which is necessary when the current is being taken a long distance.

149. In Clause 20 the Promoter proposes to add the words, "from the secondary terminals of the transformer." What is the meaning of that? That allows him to use any current he likes.

150. By Mr. Coote.—That would be dangerous? Yes.

151. If he had to take the current any distance, it would be necessary, I presume, to give him the power? Yes, decidedly it would.

152. By Mr. Douglas.—I suppose that it is an acknowledged fact that it is not desirable to have any telephone wires where they are using the electric current? Decidedly.

153. He says it is preferable not to use them, but there is no real objection to them so long as you take precautions? There is a very decided objection to having them close to electric currents. I would look after that.

154. In Clause 22, line 14, the depth is dealt with: what does that refer to? It has reference to the mining provisions. It has nothing to do with electricity.

155. Will you take the evidence and the Bill with you, and be kind enough give us some information on the matter? I will. I have gone through the Bill generally, and it seems to me to be a fair one.

156. By the Chairman.—Fair so far as the public are concerned? Yes.

The Chairman.—In regard to the radius of seven to ten miles, I think three miles is quite enough, and five years enough for a monopoly. That is in regard to gas; and then concerning electric power, we propose to strike the monopoly out altogether. We can either do that in Committee or allow it to be done in the House.

Mr. Douglas.—The Promoter will accept that amendment?

The Chairman.-Yes.

[55 VICT.]

West Coast Gas, &c.

[As amended in Select Committee.]

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Enable John Coates to construct Gas Works A.D 1891. and Electric Works, or either of them, [within the Towns of Strahan, Zeehan, and other Places in the Counties of Montagu and 🔊 Franklin.] (at Strahan, Zeehan, and Dundas, in Tasmania.)

W HEREAS it is expedient that the Towns of Strahan Land Zeehan, PREAMBLE. and other places in the Counties of Montagu and Franklin, in Tasmania,] (Zeehan, and Dundas, together with the localities 3 adjacent thereto) should be supplied with Gas and Electricity, or with 5 either of them, for lighting and heating, and for motive power and other purposes:

And whereas John Coates, carrying on business [at Melbourne and elsewhere] in Australia for the manufacture and supply of Gas and

Electricity, desires to establish, carry out, and maintain works for the 10 purpose of supplying the said towns, [and other places aforesaid] (places, and localities) with Gas and Electricity, or either of them, for the purposes aforesaid, and for other purposes incidental thereto.

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 :-

[Private.]

* The words proposed to be struck out are enclosed in brackets []; those to be inserted, in parentheses ().

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A.D. 1891.

Interpretation.

1 In the interpretation of this Act the following words shall have the meanings assigned to them respectively, unless inconsistent with the context; that is to say—

> "Promoter"—The said John Coates and his executors, administrators, and assigns, owner or owners, for the time being, 5 of the gas works and electric works, or any of them, intended to be constructed at the towns [and] places (and localities) aforesaid under the authority of this Act:

"Council"—The Municipal Council, Town Board, or other local board or body having the control of the streets at (or in) 10 the towns [and] places (and localities) aforesaid, or, if there be none such, then the Commissioner of Crown Lands for the time being of the Colony of *Tasmania*:

"District "—The District, town, or other area over which the jurisdiction or control of any Council extends: 15

"Person"--Any body, whether corporate or individual: "Superintendent of Telegraphs"-The person appointed under

the Act 46 Victoria, Number 5, to superintend the electric telegraphs and telephones of Tasmania:

"Council Clerk "--The Clerk or Secretary of the Municipal 20 Council, Town Board, or other local board or body aforesaid, or, if none, then the Stipendiary Magistrate (if any) residing at or near to the town or other place (or locality) aforesaid :

[" Other places in the Counties of *Montagu* and *Franklin*"—All 25 places which are included within a radius of Twenty miles from the Telegraph Offices at *Strahan* and *Zeehan* and at Mount *Dundas* respectively: Provided, that it shall be lawful for the Governor, by Proclamation in the *Hobart Gazette*, to order that the meaning of the expression last 30 aforesaid may for the purposes of this Act be extended to include any such other place or places in the Counties of *Montagu* and *Franklin*, or either of them, as in such Proclamation may be named and defined :]

("Strahan, Zeehan, and Dundas, and the localities adjacent 35 thereto," or "the towns, places, and localities aforesaid "— The Towns of Strahan, Zeehan, and Dundas, and all places within a radius of Three miles from the Post Office of such towns respectively:)

"Street "—Any street, square, court, alley, highway, lane, footpath, 40 road, bridge, viaduct, railway, tramway, thoroughfare, or other public place in the [said] towns [and other] places [in the Counties of *Montagu* and *Franklin*:] (and localities aforesaid:)

["Electricity "-Electricity, electric current, or any like agency :]] 45 "Electric line "-A wire or wires, conductor, or other means used for the purpose of conveying, transmitting, or distributing electricity, with any casing, coating, covering, tube, pipe, [insulator,] (insulation) post, or standard enclosing, surrounding, or supporting the same or any part thereof, or 50 any apparatus connected therewith, for the purpose of conveying, transmitting, or distributing electricity [or electric current]:

"Works"—Any buildings, (plant,) machinery, engines, (dynamos,) works, matters, or things of whatever description required 55 to generate, make, or supply gas or electricity, and to carry into effect the objects of the Promoter under this Act.

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[55 VICT.]

West Coast Gas, &c.

PART I.

PROVISIONS RESPECTING THE SUPPLY OF GAS.

2 The Promoter is hereby authorised and empowered by himself, Authority to erect his servants, contractors, agents, and workmen, from time to time, to works and break make, erect, sink, lay, place, fit, maintain, and repair such retorts, &c. gasometers, gas meters, receivers, cisterns, engines, machines, cuts, 5 drains, sewers, watercourses, pipes, reservoirs, buildings, and works and devices of such construction and in such manner as the Promoter shall think fit, necessary, or proper for the purpose of carrying out the operations of the Promoter in respect of and incidental to the making and supplying of gas in conformity with this Act; and for all or any 10 such purposes, to open and break up the soil and pavement of the streets [within the limits of the Towns of Strahan and Zeehan and other places in the Counties of Montagu and Franklin] (in or at Strahan, Zeehan, and Dundas, and the localities adjacent thereto), or any of them, and to open and break up any sewers, drains, or tunnels 15 within or under such streets, and to erect posts, pillars, lamps, lampirons, and other apparatus in and upon the said streets, or against any

- wall or walls erected on or adjoining any of them, and to dig and sink trenches and drains, and to lay gas-mains and gas-pipes, and to put stop-cocks, syphons, plugs, or branches from such gas-mains and gas-
- 20 pipes in, under, across, or along such streets; and also to do the like in, under, across, or along any private roads, ways, lanes, passages, buildings, and places, and, from time to time, to cut, stop, remove, alter, repair, replace, and relay such gas-mains, gas-pipes, stop-cocks, syphons, plugs, branches, and other apparatus: Provided, that the Promoter shall,
- 25 unless in case of accident or emergency, give Forty-eight hours' notice in writing to the Council Clerk before opening or breaking up as aforesaid any street, sewer, drain, or tunnel [within the said towns and other places in the Counties of Montagu and Franklin] (in or at the towns, places, or localities aforesaid), and, in cases of accident or emergency,
- 30 so soon as is possible after the beginning of the work or the necessity for the same has arisen; And provided that, if in carrying out any of the operations of the Promoter it shall be deemed necessary by the Promoter to enter upon, under, across, or along any railway or tramway, [whether public or private,] it shall be sufficient for the Promoter
- 35 (in the case of any railway or tramway belonging to the Colony) to obtain the consent of the (Minister of) [Commissioner of Crown] Lands for the time being of the Colony of Tasmania, (and, in the same case of any private railway or tramway, then the consent of the Manager for the time being of such railway or tramway) anything 40 hereinbefore contained to the contrary notwithstanding.

3 It shall be lawful for the Promoter to contract with any person To make contracts for supplying with gas any such person, or any streets, ways, lanes, for the supply of passages, manufactories, mines, shops, warehouses, public or private gas and to carry houses, buildings, and places, and for such purpose from time to time to purpose, and to let 45 lay down, carry, fit up, connect, and furnish any gas-pipes, branch, or hire apparatus. burner, lamps, gas meter, gas engine, stove, or other apparatus from or in connection with any main gas-pipe, and to lay down any new gas main or gas-pipe which for such purposes may be required, and to let any such apparatus for hire for such sum as may be agreed upon, which 50 sum may be recovered in like manner as any rent or remuneration for the supply of gas is recoverable under this Act.

4 The price for the gas shall at no time exceed Fifteen Shillings per Price, purity, and Thousand cubic feet, [unless the cost of gas coal of good quality, delivered illuminating at the works, shall exceed Twenty-five Shillings per ton, and in such power of the gas. 55 case the price of gas may be increased (with the approval of the Governor in Council) at the rate of Ore Shilling per the Governor in Council) at the rate of One Shilling per thousand

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cubic feet for every Five Shillings or part of Five Shillings by which the cost of such coal shall be increased.] And the gas supplied shall be absolutely free from sulphuretted hydrogen, and shall be of such minimum quality as to produce from an Argand burner, having Fifteen holes and a Seven-inch chimney, consuming Five cubic feet of 5 gas per hour, a light equal in intensity to the light produced by Fifteen sperm candles of six in the pound burning One hundred and twenty grains per hour.

Provisions for testing.

5 The Promoter shall, within Twelve calendar months after receiving notice from the Council, put up at some testing-place to be provided by 10 the Council within the district suitable apparatus for the purposes following :

- I. For testing the illuminating power of the gas supplied.
- n. For testing the presence of sulphuretted hydrogen in the gas supplied. The said apparatus shall be in accordance with 15 the Schedule hereunto annexed, and shall at all times be kept and maintained in good repair and working order by the Promoter.

Provided always, that the Promoter shall only be required to erect and maintain one testing apparatus for each separate gas-works, notwith-20 standing the same may supply or be intended to supply more than one town, place, or district.

6 The Council may from time to time appoint a competent and

impartial person to be Gas Examiner for the district to test the gas at the testing-place, who shall test the illuminating power and purity of 25

Appointment of Gas Examiner.

Gas Examiner to

Gas Examiner, how paid.

Meters.

the gas supplied on any or every day; and the Promoter may be represented at the testing if he shall think fit, but shall not be entitled to interfere in the testing. 7 The Gas Examiner shall, on the day immediately following that on which the testing was made by him, deliver to the Council a report of 30 such testing, and shall deliver a copy thereof to the Promoter, and such

8 Any Gas Examiner appointed by the Council shall be paid a salary not exceeding Fifty Pounds per annum, which shall be paid, one moiety by the Council and the other moiety by the Promoter. 35

report shall be receivable in evidence.

9 No gas meter shall be used for ascertaining the quantity of gas sold by the Promoter unless the same shall have its measuring capacity at one revolution or complete action of the meter, and also the quantity per hour it is intended to measure, in cubic feet or multiples or decimal parts of a cubic foot, denominated or marked on the outside thereof in 40 legible letters or figures, and shall have been tested and stamped as correct by the English Warden of Standards or by the Inspector of Meters appointed from time to time by the Council or other the person or persons who may hereafter be appointed by any Act or Acts of the Parliament of Tasmania or in pursuance thereof in that behalf to test 45 and stamp gas meters.

Regulation of gasmeters.

10 No gas meter which shall have been fixed by the Promoter for use under the authority of this Act shall be allowed to remain in use after the expiration of Five years from the time of its being so fixed for use unless it shall have been tested and stamped as by this Act 50

report, &c.

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directed, and no meter once tested and stamped under the provisions A.D. 1891. of this Act shall be allowed to remain in use for more than Five years from the time when it shall have been last so stamped, unless and until it shall have been re-tested and re-stamped in manner aforesaid; 5 and whenever the Promoter shall knowingly allow any gas meter to

be used in contravention of this Section he shall be liable to a penalty not exceeding Forty Shillings for every such offence.

11 After the expiration of one year from the time when this Act Legal standard. comes into operation, the legal standard or unit of measure for the sale 10 of the Promoter's gas by meter shall be the cubic foot containing Sixty-two and three hundred and twenty-one thousandths (62.321) pounds avoirdupois weight of distilled or rain water weighed in air at the temperature of Sixty-two degrees Fahrenheit's thermometer, the barometer being at Thirty inches.

15 12 All gas supplied by the Promoter shall, except in case of Legal standard. accident, be supplied at such pressure as to balance from midnight to sunset a column of water not less than Six-tenths of an inch in height, and to balance from sunset to midnight a column of water not less than One inch in height.

PART II.

PROVISIONS RESPECTING THE SUPPLY OF ELECTRICITY.

- 13 The Promoter is hereby authorised and empowered by himself, Authority to lay 20 his servants, contractors, agents, and workmen, from time to time to down and erect make and erect such electric works, and to sink, lay, place, fit, maintain, lines, to break up and repair such electric lines, accumulators, (transformers,) storage roads, streets, &c. batteries, electric cables, mains, insulated wires, pipes, switches, con-
- 25 nection branches, electric meters, dynamos, engines, machines, cuts, drains, water-courses, pipes, buildings, and other devices; and to erect and place any electric line, cable, main, insulated wire, or other electric apparatus above ground, along, over, or across any street [in the towns of Strahan and Zeehan, and other places in the Counties of Montagu
- 30 and Franklin] (in or at Strahan, Zeehan, or Dundas, and the localities adjacent thereto); and to erect poles for the purpose of placing the same in such manner as the Promoter shall think fit, necessary, or proper for the purpose of carrying out the operations of the Promoter in respect of and incidental to the making, generating, and
- 35 supplying of electricity in conformity with this Act; and also, for all or any such purposes, to open and break up the soil and pavement of the streets of the [said towns and other places] (towns, places, and localities) aforesaid, and to open and break up any sewers, drains, or tunnels within or under such streets; and to erect posts, poles, pillars,
- 40 lamps, globes, or other apparatus in and upon the said streets, or against any wall or walls erected on the same or adjoining thereto; and to dig and sink trenches and drains, and to lay electric lines, cables, and mains, and to put electric lines, wires, switches, and connection branches from such electric lines, cables, and mains in, under, across, or along such
- 45 streets; and also to do the same in, under, across, or along any private roads, lanes, passages, buildings, and places, and from time to time to cut, remove, alter, repair, replace, and relay such electric lines, cables, mains, wires, switches, and connection branches, or other apparatus. Provided, that when any electric line, cable, main, insulated wire, or
- 50 other electric apparatus is placed above ground, the same shall be done with the consent in writing of the Council (if any) and of the Superintendent of Telegraphs, and not otherwise; but if the Superintendent of Telegraphs is of opinion that any telegraph or telephonic line is or may be injuriously affected by such electric line, cable, main, insulated 55 wire, or other apparatus, or if the Council or the Superintendent of Telegraphs is of opinion that such electric line, cable, main, insulated wire, or other apparatus is likely to become dangerous to the public

safety or a public nuisance, the Council or the Superintendent of Tele-

electric works and

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A.D. 1891.

graphs may, by notice in writing, require the Promoter to remove such electric line, cable, main, insulated wire, or other apparatus, or any portion thereof; and if the Promoter does not within [Eight] (Twelve) S days from the service on him of such written notice remove the same, the Council or the Superintendent of Telegraphs may remove the same, 5 and recover the expense of such removal from the Promoter in a summary manner: And provided, that the Promoter shall, except in the case of accident or of any event by which in the opinion of the Promoter an accident is likely to occur, give [Seven] (Ten) days' notice in writing to the Council Clerk (if any) and to the Superin-10 (S) tendent of Telegraphs prior to the opening and breaking up as aforesaid of any street, road, pavement, sewer, drain, or tunnel within the said towns of Strahan and Zeehan, and other places in the Counties of Montagu and Franklin] (in or at the towns, places, or localities aforesaid): And provided, that if in carrying out any of the opera-15 tions in this Section authorised to be carried out, it shall be deemed 1 Contraction of the second se necessary by the Promoter to enter upon, under, across, or along any railway or tramway, [whether public or private,] it shall be sufficient for the Promoter (in the case of any railway or tramway belonging to the Colony) to obtain the consent of the [Commissioner of Crown] 20 S. (Minister of) Lands for the time being of the Colony of Tasmania, (and, in the case of any private railway or tramway, then the consent of the Manager for the time being of such railway or tramway) anything hereinbefore contained to the contrary notwithstanding.

14 It shall be lawful for the Promoter to contract with any person 25 for supplying with electricity any such person, or (for supplying with or working by electricity) any streets, ways, lanes, passages, manufactories, mines, (tramways,) shops, warehouses, public or private houses, buildings, and places, and for such purpose from time to time to lay down, carry, fit up, connect, and furnish any electric accumulator, 30 (transformer,) storage battery, electric motor, electric line, cable, insulated wire, pipe, switch, connection branch, carbon-burner, lamp, meter, or other apparatus from or in connection with any electric line, main, lead, or cable, and to lay down any new electric line, main, lead, or cable which for such purposes may be required, and to let any such 35 apparatus for hire for such sum as may be agreed upon, which sum may be recovered in like manner as any rent or remuneration for the supply of electricity.

(A The price for electricity supplied by the Promoter for lighting purposes shall at no time exceed, in the case of electricity 40 supplied to incandescent lamps, the sum of One Shilling and Sixpence per unit, and in the case of electricity supplied to arc lamps, the sum of Thirty-five Pounds for each such lamp per annum. Where incandescent lamps are used, the unit of electricity shall give a light equal to One hundred cubic feet of gas, and the illuminating power 45 thereof shall be ascertained by the use of an electric photometer; and where arc lamps are used, each lamp for which payment may be made at the rate aforesaid shall give a light equal to Two thousand candles, and the illuminating power thereof shall be ascertained in like manner.)

15 The Promoter shall before supplying any person with electricity 50 put up and erect suitable apparatus at some testing-place for the purpose of testing the normal strength and electro-motive force of the electricity supplied by him, the said apparatus and the position of the said testing place to be approved by the Superintendent of Telegraphs.

16 The Council may from time to time appoint a competent and 55 impartial person, to be approved of in writing by the Superintendent of Telegraphs, to be Electrical Examiner for the District, who shall test the normal strength of the current of electricity supplied by the Promoter, and who shall examine any electric line, accumulator, storage battery, electric cable, insulated wire, pipe, switch, connection branch, 60 or other electric apparatus within the District; and the Promoter may be represented at such testing or examination, but shall not be entitled

To make contracts for the supply of electricity and to carry out works for that purpose.

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(Price of electricity.)

Provision for testing.

Appointment of Electrical Examiner.

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West Coast Gas, &c.

17 The Electrical Examiner shall, within Four days of the day on A.D. 1891. which the testing or examination was made by him, deliver to the Electrical Council a report of such testing and of such examination, and shall Examiner to deliver copies thereof to the Superintendent of Telegraphs and to the report. 5 Promoter, and such report shall be receivable in evidence.

18 Any Electrical Examiner appointed by the Council shall be paid Electrical at the rate of Two Guineas for every day on which he is so engaged, Examiner, how one moiety to be paid by the Council and the other moiety by the paid. Promoter.

19 No electric main or conductor shall be used for the supply of Electric con-10 electricity, and no electric photometer shall be used for ascertaining the ductors, photoilluminating power of electric light, and no electric meter shall be used meters, and for ascertaining the quantity of electricity supplied by the Promoter, unless the said main, conductor, photometer, and meter respectively

15 shall be of a pattern approved in writing by the Superintendent of Telegraphs.

20 No continuous electric current shall be supplied by the Pro- Potential of moter to any electric line, main, or cable having an electro-motive current. force of more than. Two hundred volts (from the secondary terminals

having an electro-motive force of more than One hundred volts (from such terminals).

Provided, that if in the opinion of the Promoter it is deemed necessary for the purpose of carrying into effect the provisions of 25 this Act to employ a higher tension of electricity than the said Two hundred volts in the case of a continuous current, or the said One hundred volts in the case of an alternating current, a written notice of the same, containing a statement of the extent of the proposed increase of electro-motive force, shall be served on the Superintendent of

- 30 Telegraphs, who may, within Fourteen days from the receipt of such notice, give to the Promoter notice in writing of the necessary precautions to be taken and things to be done by the said Promoter in order to secure the safety of the public, which said precautions (if any) shall be taken, and the terms of such last-mentioned notice (if any shall be
- 35 given within the time named), shall in all respects be complied with by the Promoter before he shall supply a continuous electric current of higher electro-motive force than Two hundred volts, or an alternating electric current of higher electro-motive force than One hundred volts. For every breach of any of the provisions of this Section the
- 40 Promoter shall be liable to a penalty not exceeding Two hundred and fifty Pounds and not less than One hundred Pounds, to be recovered in a summary manner before any Two Justices of the Peace; and every agent or workman of the Promoter who shall knowingly and wilfully authorise or permit such a breach shall be liable to the like 45 penalty, to be recovered in the manner hereinbefore provided.

21 It shall not be lawful for the Promoter to prescribe any special No form of lamp form of lamp or burner to be used by any person, or in any way to or burner to be control or interfere with the manner in which electricity supplied by the Promoter is used : Provided, that no person shall be at liberty to

50 use any form of lamp or burner, or to use the electricity supplied by the Promoter for any purpose, or to deal with it in any manner, so as to unduly and improperly interfere with the supply of electricity supplied to any other person by the Promoter.

prescribed.

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[55 VICT.]

A.D. 1891.

PART III.

GENERAL PROVISIONS. [22 It shall be lawful for the Governor in Council to grant to the

any other town that may hereafter be proclaimed in the [Counties]

by this Act, or any of them, and also to grant to the Promoter in fee simple so much of the Waste Lands of the Crown, or of any land reserved as a mineral area or open to be leased by the Crown for mining purposes, as shall reasonably be required by the Promoter for any of the pur-10 poses before mentioned, and, in case of any land already leased for mining purposes, to resume the same and to determine the existing lease or leases thereof for the purpose of granting the surface of the same or any part thereof to a depth not exceeding (Fifty) feet to the

[Crown Lands may be acquired.] Promoter in fee simple such allotment or allotments belonging to the Crown in the Towns of Strahan and Zeehan, or either of them, or in

> (County) of Montagu [or Franklin,] as shall reasonably be required 5 by the Promoter for a site or sites for the erection of the works authorised

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Price of such lands.] S

Other lands may be acquired. R

Lands Clauses 影類

[25 The Lands Clauses Act shall, except as hereby varied, be incor-35 Act incorporated. porated with this Act; but there shall not be incorporated with this Act Sections Eight and Nine of The Lands Clauses Act. In the construction of this Act and the said incorporated Act this Act shall be deemed to be the Special Act; and the said *John Coates*, his executors, administrators, and assigns, owner or owners for the time being of the 40 Gas Works and Electric Works, or any of them, intended to be constructed at the towns and places aforesaid under the authority of this Act, shall be deemed to be "the Promoters of the undertaking."]

Private lands not to be trespassed on.

26 Subject to the preceding provisions of this Act, nothing herein contained shall be deemed to authorise the Promoter, his servants, con-45

caused to or with existing or future buildings or works of the Promoter.] [23 The price to be paid by the Promoter for any land so required by him shall be determined as follows:—In the case of any town allotment such price as may be agreed upon between the Promoter and 25 the Commissioner of Crown Lands for the time being, or, in default of agreement, may be determined by arbitration between the Promoter and the Commissioner pursuant to the provisions of the Lands Clauses Act, and, in the case of any other of the before-mentioned lands, such price (not exceeding £20 per acre) as the Commissioner may determine.] 30 [24. In addition to any land that may be acquired by the Promoter

under the preceding provisions of this Act, the Promoter may purchase,

acquire, and take such other land as may, in his opinion, be necessary

for the purposes of this Act.]

Promoter aforesaid : Provided, that no land shall be resumed as herein-15 before provided if the same shall actually be required for mining operations (then carried on or designed), and that out of every such grant as aforesaid there shall be reserved to the Crown or its lessees the

right to all minerals beneath the surface of the land granted, and to mine for the same so that no injury or interference be thereby done or 20 [55 VICT.]

West Coast Gas, &c.

tractors, agents, or workmen, to enter into or upon any private lands, A.D. 1891. tenements, or places, or thereon to carry out any of the operations of the Promoter, without the previous consent in writing of the occupier thereof, except that the Promoter may at any reasonable time, by him-

- 5 self, his servants, agents, or workmen, enter upon any land or place wherein any pipe or apparatus has already been lawfully laid down or placed in pursuance of this Act, and repair or alter the existing pipe or apparatus, or lay down or place any new pipe or apparatus instead thereof.
- 27 If any owner or occupier of any building, tenement, or place, Procedure when 10 or any person acting for him, shall refuse reasonable access in pursuance access to private of the provisions of this Act to the contractors, agents, workmen, or property refused. servants of the Promoter for the purpose of removing any gas pipe, gas meter, electric line, electric meter, works, or other apparatus for the
- 15 supply of gas or electricity placed or introduced into any such building, tenement, or place by the Promoter, or shall prevent or obstruct such removal, then the said owner, occupier, or person acting for him, shall immediately pay to the Promoter the value of such gas pipe, gas meter, electric line, electric meter, works, or other apparatus for the supply of
- 20 gas or electricity, and in default of his so doing within Three days after demand thereof made at the same building, tenement, or place, or the residence or last-known residence of such owner, occupier, or person, it shall be lawful for the Promoter to proceed for the recovery of such value as hereinafter provided. And if any person shall place or
- 25 lay any gas pipe to communicate with any main gas pipe, gas meter, or other gas apparatus already laid, placed, or erected by the Promoter, or shall place, lay, connect, or erect any electric cable, insulated wire, electric line, switch, connection branch, carbon, electric burner, or lamp to communicate with any main electric cable, main electric line, electric
- 30 accumulator, motor, storage battery, electric meter, or other electric apparatus already laid, placed, or erected by the Promoter, or shall keep the gas supplied by the Promoter burning for a longer time than he has contracted with the Promoter to pay for, or shall supply any person with any gas or electricity supplied to him by the Promoter
- 35 without the Promoter's consent in writing first obtained, or if any person shall wantonly or maliciously hinder or interrupt any of the contractors, workmen, agents, or servants of the Promoter in legally doing or performing any of the acts aforesaid, or in exercising any of the powers and authorities by this Act given, or if any person shall wilfully
- 40 or negligently or accidentally do or cause to be done any injury or damage to any of the buildings, machinery, pipes, burners, lamps, gas meters, electric meters, electric cables, insulated wires, lines, or other apparatus, whether for the generation and supply of gas or of electricity, of the Promoter, or remove the same, or cause a waste or improper use
- 45 of gas or electricity supplied by the Promoter, then and in every such case the person so offending shall, upon conviction, forfeit and pay for every such offence any sum not exceeding Ten Pounds, in addition to the amount of damage done, to be ascertained and determined by the Magistrate or Justices by or before whom any person so offending shall 50 be convicted; or, in addition to the penalty, the Promoter may, at his
- own option, sue for such value or for the damages sustained by him by reason of such detention, obstruction, hindrance, interruption, communication, waste, improper use, or other offence aforesaid.

28 No gas pipe, branch, engine, stove, lamp, gas meter, or other gas Apparatus not 55 apparatus, and no electric accumulator, storage battery, electric motor, liable to distress, [Private.]

execution, &c.

West Coast Gas, &c.

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A,D. 1891.

Materials of streets, &c. broken to be replaced.

Barriers and lights to be kept up.

Nuisances.

Council may appoint Inspector of meters. electric cable, insulated wire, pole, electric line, pipe, switch, connection branch, carbon burner, lamp, electric meter, or electric apparatus of the Promoter being placed under, upon, or above any building, tenement, or place, shall be subject to distress for rent, or shall be taken in execution under any process or proceeding in any Court of law or 5 equity or under any proceedings in bankruptcy or insolvency, save so far as any process or proceedings against the Promoter are concerned.

29 When and so often as the Promoter, his servants, contractors, agents, or workmen, shall have opened, broken up, or removed the soil or pavement of any street as aforesaid, or shall have opened or broken 10 up any sewers, drains, or tunnels within or under any such streets, or shall have erected any poles for the purpose of placing any electric line above ground, the Promoter shall make all reasonable dispatch in performance of the work to be done, and shall on completion of such work forthwith carry away all rubbish and waste or surplus material, and 15 shall render such street and every such sewer, drain, and tunnel within or under the same as nearly as possible in the same condition as it was in previously to the disturbance thereof; and during the continuance of such work, and until such reinstatement, the Promoter shall set up sufficient barriers, and shall keep lights burning at night in order to 20 prevent accidents; and also when and so often as any gas, pitch, waste tar, waste liquid, acid, or other things shall escape or flow from any pipe, receivers, electric generator, machine, or drain, being part of or incidental to the works to be constructed under this Act, so as to contaminate the air or any stream, spring, or other water, watercourse, 25 or body of water, natural or artificial, which is or may be used or required for the supply of water to any towns or other places, and to render the same unhealthy or offensive or unfit for use, it shall be lawful for any person injured thereby to give notice thereof in writing to the Promoter, who shall immediately take speedy and effectual 30 measures to prevent and remedy the same; and if the Promoter shall make default in any of the matters so required by him to be performed for the period of Fourteen days next after such notice in writing being received, it shall be lawful for such person to perform and do the same, and to proceed for the recovery from the Promoter of the costs, charges, 35 and expenses of and attending the same in manner hereinafter provided.

30 An Inspector of gas meters and, subject to the approval in writing of the Superintendent of Telegraphs, an Inspector of Electric Meters, may from time to time be appointed by the Council for the District, and the said Inspector, whether of gas or of electric meters, 40 shall at all times when authorised by the Council, on the application and at the expense of any consumer of gas or of electricity supplied by the Promoter, be entitled to inspect and test the meters erected within the District by the Promoter in the premises of the person making such request after giving Forty-eight hours' notice of such intended inspection 45 to the Promoter; and before such inspection the person requiring the same shall deposit in the hands of the Inspector all money due or appearing to be due by such person to the Promoter on any account delivered, and in case such deposit shall be in excess of the sum found to be due to the Promoter such excess shall be returned to the 50 consumer.

Forging stamps.

31 If any person shall forge or counterfeit, or cause or procure to be forged or counterfeited, or knowingly act or assist in the forging or

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counterfeiting, of any stamp which may hereafter be used for the A.D. 1891. stamping of any gas or electric meter under this Act, every person so offending shall for every such offence be liable to a penalty not exceeding Fifty Pounds or less than Ten Pounds; and if any person shall 5 knowingly sell, utter, or dispose of, let, lend, or expose for sale any gas

or electric meter with such forged stamp thereon, every person so offending shall for every such offence be liable to a penalty not exceeding Ten Pounds, or less than Forty Shillings; and all gas or electric meters having forged or counterfeit stamps thereon shall be forfeited and 10 destroyed.

32 In all cases where any damage may be done by the Promoter, Damage by his servants, agents, contractors, or workmen, in the course of erecting, Promoter to be laying down, removing, or repairing any works, gas pipes, electric made good. lines, or other apparatus for the supply of gas or electricity, the 15 said damage shall be made good at the expense of the Promoter; and

- in case the Promoter shall delay within a reasonable time to make good such damage, the owner or occupier of the premises may make good the same, and recover the expenses thereof from the Promoter in manner hereinafter provided.
- 33 Any person who unlawfully and maliciously cuts or injures any Injuring works electric line, gas pipe, or works with intent to cut off any supply of with intent. 20electricity or gas shall be guilty of a misdemeanour punishable under the Act for the Prevention of Malicious Injuries to Property, 27 Victoria, No. 7, Section 37.
- 34 Any person who maliciously or fraudulently abstracts or causes Stealing gas or 25to be wasted or diverted, any gas or electricity supplied by the Promoter electricity. shall be guilty of simple larcency within the meaning of the Act, 27 Victoria, No. 8. (but shall not upon conviction be liable to be imprisoned for any longer term than Twelve months.)
- 30 35 It shall be lawful for the Promoter to cut off and take away the Power to cut off supply of gas or electricity from the building, tenement, or other place gas or electricity of every person or body making default in payment of charges for the of defaulters. supply of gas or electricity after 'Twenty-four hours' notice to the occupier, and thenceforth to discontinue the supply of gas or electricity
- 35 contracted for with the Promoter by such person or body, and to enter, by himself, his agents or workmen, into such building, tenement, or place between the hours of Nine in the forenoon and Four in the afternoon, and to remove and carry away any pipe, burners, lamp, meter, electric line, or other apparatus for the supply of gas or electricity the
- 40 property of the Promoter, and the Promoter shall have the like powers with regard to cutting off, taking away, and discontinuing the supply of gas or electricity in the case of the building, tenement, or place of any person who shall have been lawfully convicted, as hereinbefore provided, of any fraudulent injury to any meter or apparatus for the
- 45 supply of gas or electricity on such premises, or of fraudulent use of the gas or electricity of the Promoter. And in case any person or body Remedy for who shall contract with the Promoter, or agree to take or shall take or recovery of rents use the gas or the electricity of the Promoter in any building, tenement, of gas or or place, or otherwise, shall refuse or neglect to pay the sum or sums of electricity.
- 50 money then due under his or their contract for the same to the Promoter, according to the terms and stipulations thereof, it shall be lawful for the Promoter, without prejudice to any other remedy, to proceed for the recovery of the same in manner hereinafter provided.

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Right of officer to enter premises. **36** The Clerk, Engineer, or any other officer of the Promoter, may at all reasonable times enter into any building, tenement, or place, whether public or private, lighted with gas or electricity supplied by the Promoter, in order to inspect the pipes, burners, lamps, stoves, meters, electric lines, motors, or other apparatus for the supply of gas or 5 electricity of or connected with the works of the Promoter, to regulate the supply of gas or electricity, or to ascertain the quantity of gas or electricity consumed or supplied; and if any person shall hinder any such officer as aforesaid from so entering or making such inspection as aforesaid at any reasonable time, such person shall for every such offence 10 forfeit and pay to the Promoter a sum of money not exceeding Five Pounds, to be awarded to and recovered by the Promoter in manner hereinafter provided.

(Promoter to have registered office.) (B-(1.) Before commencing to construct any works authorised by this Act, the Promoter shall register with the Registrar under the 15 Companies Act, 1869, and shall publish in the Hobart *Gazette* the name and place of abode or business of the person who for the time being carries on the business of the Promoter in *Tasmania*, and also the situation of the office in *Tasmania* of the Promoter, and shall in like manner, upon any change of such person, or in the situation of such 20 office, register and publish the same. And such person shall be deemed to be the Agent, and such office to be the registered office of the Promoter.

(2.) The name of the Promoter, and that such office is his registered office under this Act, shall appear and be stated in a conspicuous 25 manner on the outside of such registered office.

(3.) Any Bill in Equity, writ, summons, notice, order, or other document relating to the works authorised by this Act, or to any matter herein mentioned, or to the privileges or liabilities of the Promoter hereunder, may be served upon the Promoter by delivering 30 the same to his agent, or by leaving the same at his registered office, or by sending the same in a prepaid and registered letter addressed to the Promoter at such office.

(4.) If the Promoter shall at any time transfer or assign his rights, privileges, and authorities under this Act, or any of them, to a Com-35 pany incorporated and registered in *Tasmania* under "The Companies Act, 1869," the preceding provisions of this Section shall not extend or apply to such Company.

(5.) For any breach of the provisions of this Section the Promoter shall forfeit and pay a penalty not exceeding Twenty Pounds.) 44

37 Where no other mode is provided in this Act, all claims, penalties, forfeitures, expenses, and sums of money under this Act may (but without prejudice to any other remedy, or to the right of any person to proceed in any Court of competent jurisdiction) be ascertained, determined, recovered, and enforced by and before any Police or Stipendiary 45 Magistrate, or by and before any Two or more Justices of the Peace, in the mode prescribed by the *The Magistrates Summary Procedure Act*.

38 Any person who may think himself aggrieved by the order or determination of any Magistrate or Justices in pursuance of this Act may appeal against the same in the mode prescribed by *The Appeals* 50 *Regulation Act.*

General penalty.

Right of appeal.

Recovery of

penalties and

other moneys.

39 If it shall be proved to the satisfaction of a Police or Stipendiary Magistrate, or any Two Justices of the Peace in Petty Sessions

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assembled, that the Promoter or any of his officers has been guilty of A.D. 1891. any default under this Act, he shall be liable for each and every such default to a penalty not exceeding Five Pounds, to be recovered in a summary way.

40 It shall be lawful for the Council, within Two months after the Sale of Gasworks 5 expiration of Ten years from the date of gas being first supplied to Council. by the Promoter for and used in the district over which the authority of the Council extends, by notice in writing, to require the Promoter to sell; and thereupon the Promoter shall sell to the Council the

- 10 Gasworks of the Promoter within such district as then in use; and all lands, buildings, works, material, and plant of the Promoter suitable to and used by the Promoter for the purpose of the said Gasworks, at a price which, having regard to the average net annual profits of the said works for the last Three years of such period of Ten years,
- 15 shall be a capital sum upon which such average net profits would represent an income of Seven Pounds per centum per annum. And in case of difference arising between the Council and the Promoter as to the amount of such profits and capital sum or valuation, or any other matter connected with such compulsory sale, the same shall be
- 20 referred to arbitration, in accordance with the provisions of The Lands Clauses Act. (Provided that, in the event of the Council not exercising its right of purchase in respect of any such works after the expiration of Fifteen years, it shall be lawful for the Council, within Two months after the expiration of a further period of Three 25 years, to purchase the same upon giving such notice as aforesaid, and at a price to be calculated upon the profits of the Promoter during such last-mentioned period of Three years in manner aforesaid. And so within Two months after the expiration of every subsequent period of Three years, it shall be lawful for the Council, upon giving such 30 notice and paying a price to be determined in like manner, to purchase any such works of the Promoter within the district of and not theretofore acquired by the Council.)

41 It shall be lawful for the Council, within Two months after the Sale of Electric expiration of Ten years from the date of electricity being first Works to Council. 35 supplied by the Promoter for, and used in, the District over which the authority of the Council extends, by notice in writing, to require the Promoter to sell; and thereupon the Promoter shall sell to the Council the Electrical Works of the Promoter within such District as then in use, and all lands, buildings, works, material, and plant of the Pro-40 moter suitable to and used by the Promoter for the purpose of the said Electrical Works, at a price which, having regard to the average net annual profits of the said works for the last Three years of such period of Ten years, shall be a capital sum upon such average net profits, would represent an income of Seven Pounds per centum per annum. 45 And in case of difference arising between the Council and the Promoter as to the amount of such profits and capital sum or valuation, or any other matter connected with such compulsory sale, the same shall be referred to arbitration, in accordance with the provisions of The Lands Clauses Act: (Provided that, in the event of the Council the expiration of Fifteen years, it shall be lawful for the Council, within Two months after the expiration of a further period of

Three years, to purchase the same upon giving such notice as aforesaid and at a price to be calculated upon the profits of the Promoter during

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Rights of Promoter until

sale.

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such last-mentioned period of Three years in manner aforesaid. And so within Two months after the expiration of every subsequent period of Three years, it shall be lawful for the Council, upon giving such notice and paying a price to be determined in like manner, to purchase any such works of the Promoter within the district of and not hereto-5 fore acquired by the Council.)

42 Until the (expiration of Five years from the passing of this Act), [period within which such option of purchase is to be exercised by the Council shall have expired], it shall not be lawful for any S person (other than the Promoter) to construct or maintain [within] 10 (in or at) or for the supply of the Towns of Strahan [and Zechan S and other places in the Counties of Montagu and Franklin7 (Zeehan, and Dundas, and the localities adjacent thereto respectively, or any of them) any such gas works [or electrical works] as the Promoter is authorised by this Act to construct and maintain : [Pro-15 vided, that this restriction shall not extend to any person desiring to construct such works at or for Zeehan if the Promoter shall not have commenced the construction of any such works at or for the supply of the said town within Eighteen months from the passing of this Act, or at or for Strahan if the Promoter shall 20 not have commenced the construction of any such works at or for the supply of the said Town of *Strahan* within Three years from the passing hereof, or at or for other places in the Counties of *Montagu* and Franklin if the Promoter shall not have commenced the construction of any such works at or for the supply of the same respectively 25 within the like period :] (Provided that this restriction shall not extend or apply to any person desiring to construct such works at or for any of the towns, places, or localities aforesaid, if the Promoter shall not have constructed any such works at or for the supply of such town, place, or locality within the period mentioned in Section 45 of 30 this Act,) or to any person desiring to construct gas works [or electrical works] at or for any town [or] place (or locality) which the Promoter shall not have supplied in a reasonably efficient manner with gas [or electricity] after the expiration of [the respective periods before men-S tioned:] (such period:) Provided further that, if after the expiration of 35 [the respective periods before mentioned,] (such period,) the Promoter 1 Contraction of the second se shall have constructed and shall maintain in such manner gas works [or electrical works] at (or for the supply of) the said towns, [or either 1 Contraction of them, or at other places in the Counties of Montagu and Franklin,] S (places, and localities,) or any of them, where gas works [or electrical 40 works] may not theretofore have been constructed or maintained to the satisfaction of the Council, then, with regard to such towns [or] places, (or localities,) the above restriction shall apply and be in force, and no person other than the Promoter shall construct or maintain gas works [or electrical works] at or for the supply thereof until the expiration 45 of the period within which the option of purchase of the works of the Promoter is to be exercised by the Council : Provided further that, if there shall be any difference or dispute between the Council and the Promoter as to whether such works have been maintained in a reasonably efficient manner, the same shall be referred to arbitration as hereinbefore 50 provided.

S (Time within which gas works to be constructed.)

(C) The Promoter shall, within Six months from the passing of this Act, commence in a *bonâ fide* manner to construct such gas works at or for the supply of Zechan and the locality adjacent thereto, and shall have the same complete and ready for use, within Eighteen months from the

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passing of this Act, or within such further time, not exceeding Six A.D. 1891. months, as the Governor in Council may think fit to allow; and in like manner shall construct such works at or for the supply of Strahan and Dundas respectively, and the localities adjacent thereto, within a 5 like period or extended period in each case.)

43 Nothing in this Act contained shall affect the privileges con-Saving for ferred upon the Superintendent of Telegraphs by "The Telephone Act, privilege of Superintendent to Telegraphs by "The Telephone Act, Superintendent 1882," or authorise or enable the Promoter to transmit any telegram of Telegraphs. or telephone message, or to perform any of the incidental services of 10 receiving, collecting, or delivering telegrams, or give to the Promoter any power, authority, or facility in connection with the transmission of

telegrams or telephone messages, or the performance of any of the incidental services of receiving, collecting, or delivering telegrams.

44 Nothing in this Act contained shall prevent the said gas works Works may be 15 or electric works being brought under the provisions of any public brought under Act which may be passed by the Parliament of Tasmania applying generally to companies or persons engaged in the manufacture or generating of gas or electricity, or in the sale or supply of these, nor entitle the Promoter to compensation from the Public Revenue by reason 20 of the provisions of such general Act being made applicable to and binding on the Promoter.

45 This Act may be cited for all purposes as "The West Coast Gas Short title. and other Works Act, 1891."

SCHEDULE.

PART I.

REGULATIONS IN RESPECT OF TESTING APPARATUS.

(a) The apparatus for testing the illuminating power of gas shall consist of a known and approved form of photometer, together with a proper meter, minute clock, governor, pressure-gauge, and balance. The burner to be used for testing the gas shall be an Argand burner, having fifteen holes and a seven-inch chimney. The candles used for testing the gas shall be sperm candles of six to the pound, and two candles shall be used together.

(b) For testing the presence in the gas of sulphuretted hydrogen, a glass vessel containing a strip of bibulous paper moistened with a solution of acetate of lead containing sixty grains of crystallized acetate of lead dissolved in one fluid ounce of water.

general Act.

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PART II.

RULES AS TO MODE OF TESTING GAS.

(a) Mode of testing for illuminating power :—The gas in the photometer is to be lighted at least fifteen minutes before the testing begins, and it is to be kept continually burning from the beginning to the end of the tests. Each testing shall include ten observations of the photometer, made at intervals

of a minute.

The consumption of gas is to be carefully adjusted to five cubic feet per hour.

The candles are to be lighted at least ten minutes before beginning each testing, so as to arrive at the normal rate of burning, which is shown when the wick is slightly so as to arrive at the normal rate of burning, which is shown when the wick is slightly bent and the tip glowing. The standard rate of consumption for the candles shall be one hundred and twenty grains per hour. Before and after making each set of ten observations of the photometer the Gas Examiner shall weigh the candles, and if combustion shall have been more or less per candle than one hundred and twenty grains per hour, he shall make and record the calculations requisite to neutralise the effects of this difference. The average of each ten sets of observations is to be taken on properties the illumination proves of the trating as representing the illuminating power of that testing.

(b) For sulphuretted Hydrogen.—The gas shall be passed through a glass vessel containing a strip of bibulous paper, moistened with the solution of acetate of lead, for a period of three minutes, or such longer period as may be prescribed, and if any discoloration of the test-paper is found to have taken place, this is held to be conclusive as to the presence of sulphuretted hydrogen in the gas.